TRI-CITY HEALTHCARE DISTRICT
AGENDA FOR A REGULAR MEETING
August 26, 2021 – 3:30 o'clock p.m.

In accordance with the current State of Emergency and the Governor's Executive Order N- 25-20, of March 4, 2020, and N-33-20 of March 19, 2020 a virtual platform and/or teleconferencing will be used by the Board members and appropriate staff members during this meeting. Members of the public will be able to participate by telephone, using the following dial in information:

Dial in #: (669-900-6833) To Listen and Address the Board when called upon:
Meeting ID: 882 9401 1412; Passcode: 686459

The Board may take action on any of the items listed below, unless the item is specifically labeled "Informational Only"

	Agenda Item	Time Allotted	Requestor
1	Call to Order	3 min.	Standard
2	Approval of agenda		
3	Roll Call / Pledge of Allegiance	3 min.	Standard
4	Public Comments – Announcement Members of the public may address the Board regarding any item listed on the Board Agenda at the time the item is being considered by the Board of Directors. Per Board Policy 19-018, members of the public may have three minutes, individually, to address the Board of Directors. NOTE: Members of the public may speak on any item not listed on the Board Agenda, which falls within the jurisdiction of the Board of Directors, immediately prior to Board Communications.	2 min.	Standard
5	Special Recognition – a) Honoring Leigh Anne Grass for her service on the TCHD Board of Directors 2016 – 2021	5 min.	Chair
6	July, 2021 Financial Statement Results		CFO
7	New Business – Board Vacancy Appointment Process – Information Only	15 min.	Chair/Board Counsel
8	Old Business - None	--	--
9	Chief of Staff a) Consideration of August 2021 Credentialing Actions and Reappointments Involving the Medical Staff as recommended by the Medical Executive	5 min.	COS

Note: Any writings or documents provided to a majority of the members of Tri-City Healthcare District regarding any item on this Agenda will be made available for public inspection in the Administration Department located at 4002 Vista Way, Oceanside, CA 92056 during normal business hours.

Note: If you have a disability, please notify us at 760-940-3348 at least 48 hours prior to the meeting so that we may provide reasonable accommodations.

	Agenda Item	Time Allotted	Requestor
	Committee on August 23, 2020.		
10	Consideration of Consent Calendar ***Requested items to be pulled require a second.*** (1) Consideration to approve an agreement with Dr. Ashish Kabra as Cardiovascular Health Institute – Quality Committee member for a term of 12 months, beginning July 1, 2021 through June 30, 2022, not to exceed two (2) hours per month at an hourly rate of $210, for an annual and term cost of $5,040. (2) Consideration to approve the renewal of an agreement with Drs. Kenneth Carr, Paul Sarkaria, David Spiegel, Ashish Kabra, Kathleen Paveglio, Karim El-Sherief, Mohammed Pashmforoush and Samani Pargol for the Cardiology Physician EKG and Echocardiology Panel Agreement for a term of 12 months, beginning July 1, 2021 through June 30, 2022, for an annual amount not to exceed $216,320 and a total amount not to exceed $216,320 for the term. (3) Consideration to approve an agreement with G. E. Healthcare Service for equipment Service and repairs for a term of 60 months, beginning August 24, 2021and ending August 31, 2026 for an annual cost of $748,375.92 and a total cost for the term of $3,741,879.60 (4) Consideration to approve an agreement with Siemens Medical Solutions USA, Inc. for service repairs for a term of 60 months, beginning July 16, 2021 and ending July 15, 2026 for the Magnetom Avanto MRI and October 23, 2021 – October 22, 2026 for all other equipment, for an annual cost of $246,136 and a total cost for the term of $1,230,680. (5) Consideration to approve an agreement with Sound Physicians of California III for Hospitalist Services for a term of 12 months, beginning September 1, 2021 and ending August 30, 2022, for a total term cost not to exceed $3,210,000. (6) Consideration to approve an agreement with South Physicians of California III for Co-Medical Directorship of Hospitalist Services for a term of 14 months, beginning July 1, 2021 and ending August 31, 2022, for a total term cost not to exceed $140,000. (7) **Administrative Committee** **A. Patient Care Services Policies & Procedures** 1. Elective Surgery Pre-Admission MRSA Screening Standardized Procedure 2. Family Centered Care – Pediatrics/Adolescents 3. Infusion Pump-Infusion System with Guardrails Procedure 4. Insulin Therapy Administration Procedure 5. Insulin, Use of Concentrated 6. Methicillin Resistant Staphylococcus Aureas (MRSA) Screening Standardized Procedure 7. Patient Controlled Analgesia((PCA) Procedure 8. Physicians Orders for Life Sustaining Treatment (POLST) (DELETE) 9. STEMI Transfer From Non-PCI Capable Facility 10. Therapeutic Use of Radiopharmaceuticals for Inpatients Procedure	10 min.	Standard

	Agenda Item	Time Allotted	Requestor
	11. Venipuncture for Specimen Collection Procedure **B. <u>Unit Specific – Cardiac Cath Lab</u>** 1. Arterial Sheath Removal Procedure 2. Electrocautery Machine Set-Up Procedure (DELETE) 3. Pronto Extraction Catheter Procedure (DELETE) 4. Scrub Person Setup Procedure **C. <u>Cardiology</u>** 1. Dobutamine Stress Echocardiogram **D. <u>Unit Specific – Emergency Department</u>** 1. Ketamine for Pain **E. <u>Unit Specific Emergency Operations Procedure (EOP) Manual formerly Disaster Manual</u>** 1. Drought Conditions **F. <u>Unit Specific – Engineering</u>** 1. 3000 Orientation of New Employee 2. 3001 In-service Education 3. 3002 Continuous Education 4. 3003 Staffing 5. 3005 Sick Call-In Procedure 6. 3006 Dress and Grooming (DELETE) 7. 3007 Performance Evaluation (DELETE) 8. 3008 Job Descriptions (DELETE) 9. 3009 On Call Personnel (DELETE) 10. 3010 Productivity (DELETE) 11. 3011 Utilities Management User Training (DELETE) 12. 3011.1 Utilities management Continuing Education (DELETE) 13. 3012 Customer Satisfaction Survey (DELETE) 14. 3013 Performance Improvement Plan 15. 3013.1 Engineering Performance Indicators 16. 4000 Tool Storage, Distribution and Inventory 17. 4001 Use of Personal Tools 18. 4002 Equipment Management Plan 19. 4004 General Instructions, Equipment (DELETE) 20. 5000 General Safety & Knowledge 21. 5001 Electrical Safety General 22. 5003 Electrical Safety Lockout Procedure (DELETE) 23. 5004 Hazardous Substance Communication Program (DELETE) 24. 5005 Asbestos Control Program 25. 5006 Clean Up of Mercury Spill (DELETE) 26. 5010 Safety Product Recall (DELETE) 27. 5011 Interim Life Safety Program 28. 5012 Confined Space Entry 29. 5014 Safe Use of Electrical Equipment (DELETE) 30. 5015 Safe Use of Electrical Equipment (DELETE) 31. 5016 Emergency Generator Training (DELETE) 32. 5017 HVAC System User Training Outline (DELETE) 33. 5018 Medical Gas Training Online (DELETE) 34. 5019 Training Outline for Use of Medical Gas Delivery System and Proper Use, Storage and Handling of Cylinder Gases (DELETE) 35. 5020 Training Outline for Use of Pumps and Motors (DELETE) 36. 5021 Steam Boiler Training Outline (DELETE)		

	Agenda Item	Time Allotted	Requestor
	37. 5022 Underground Storage Tanks 39. 5024 Mold Remediation Program 40. 7001 Building Maintenance Program (BMP) (DELETE) 41. 8000.1 Medical Center Power Outage (DELETE) 42. 8014 Fire Drill Procedures 43. 8020 Definitions of Utility Failure (DELETE) 44. 8021 Room Temperatures 45. 8024 Ordering Supplies 46. 2004.1 Breached Medical Gas Lines 2004.1 47. 8007 Code Green Policy 48. 1009 Contractors Hazard Communications Program (DELETE) 49. 1008 Contractors Working in the Facility 50. 1010 Daily Journal 51. Designing and Installing Utility Systems 52. 2005 Domestic Hot Water Temperature 53. Emergency Eyewash, Shower and Flushing Stations 54. Emergency Generator Test Loads 55. Emergency Power Systems 56. 1006 Engineering Hours of Service 57. 2008 Equipment Repair 58. 2017 Humidity Level Control 59. Initial Testing of New Utility Components 60. Inspection, Testing and Maintenance of Fire Alarm Detection and Automatic Extinguishing System 61. Maintenance And Inspection Electrical Distribution System and Emergency Generator 62. 2003 Maintenance and Inspection Medical Gas System 63. Maintenance And Inspection Medical Surgical Air and Vacuum System 64. Maintenance And Inspection of Boiler/Steam System 65. Maintenance Work Request System 66. 8023 Managing Facilities against Patient Census 67. Mapping the Distribution of Utility Systems Controls 68. 2007 New Equipment Inventory And Inspection 69. Operation of Fire and Smoke Dampers 70. 2009 Pre-Purchase Evaluations 71. Preventative Maintenance 72. 2011 Purchasing Procedure 73. Routine Hospital Rounds 74. 2006 Scheduled Equipment Maintenance 75. Scope of Service 76. Staff Meetings 77. Statement of Accountability and Responsibility 78. 2013 System Failure Report 79. 7002 Utility Systems Risk Assessment 80. Utility Systems Risk Assessment Form 81. 2010 Work Order Requests **G. <u>Unit Specific – Medical Staff</u>** 1. 8710-512 Adverse Incident or Occurrence for Post-Graduate Staff 2. 8710-528 Credentialing Requirements for Fluoroscopy Supervisor and Operator Permit 3. 8710-556 Credentialing Standards for Transoral Esophagogastric Fundoplication (TIF) 4. 8710-601 Cultural and Linguistic Proficiency 5. 8710-509 Ongoing Practice Evaluation: OPPE and FPPE		

	Agenda Item	Time Allotted	Requestor
	6. 8710-538 TB Screening of LIPs and Allied Health Professionals **H. <u>Unit Specific – NICU</u>** 1. Sedation/ Analgesia Used During Therapeutic or Diagnostic Procedures for the NICU Patient **I. <u>Unit Specific – Nuclear Medicine Radioactive Materials License Procedures</u>** 1. Therapeutic Use Of Radiopharmaceuticals for Inpatients (DELETE) **J. <u>Unit Specific – Pulmonary</u>** 1. Respiratory Medication Administration **K. <u>Unit Specific – Pulmonary Rehab</u>** 1. Contraindication to Pulmonary Rehab Exercise 2. Exercise Prescription 3. Home Exercise Program 4. Maintenance and Repair of Exercise Equipment 5. Scope of Services 6. Staffing Policy 7. Strength Training **L. <u>Unit Specific - Surgical Services</u>** 1. Anesthesia Type, Location and Monitoring Policy 2. Surgery Blood in Ice Chests Procedure **M. <u>Unit Specific – Women & Newborn Services</u>** 1. Amniocentesis 2. Balloon Cervical Ripening Catheter 3. Emergency Stat Cesarean Section Notification Process 4. Fetal Heart Rate (FHR) Surveillance/ Monitoring 5. Trial of Labor after Cesarean (TOLAC) Vaginal Birth after (8) Minutes – Approval of: a) June 24, 2021, Regular Meeting b) July 26, 2021, Special Meeting (9) Meetings and Conferences – None (10) Dues and Memberships - None (11) Reports (a) Dashboard – Included (b) Lease Report – (July, 2020) (c) Reimbursement Disclosure Report – (July, 2021)		
11	Discussion of Items Pulled from Consent Agenda	10 min.	Standard
12	Comments by Members of the Public NOTE: Per Board Policy 19-018, members of the public may have three (3) minutes, individually and 15 minutes per subject, to address the Board on any item not on the agenda.	5-10 minutes	Standard
13	Comments by Chief Executive Officer	5 min.	Standard
14	Board Communications (three minutes per Board member)	18 min.	Standard

	Agenda Item	Time Allotted	Requestor
15	Report from Chairperson	3 min.	Standard
16	Total Time Budgeted for Open Session	1 hour	
17	Adjournment		

LAW OFFICES OF
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JEFFREY G. SCOTT

Of Counsel
JAMES R. DODSON

DATE: August 26, 2021

TO: Board of Directors
Steven L. Dietlin, CEO
Susan Bond, General Counsel

FROM: Jeffery G. Scott, Board Counsel

RE: **Board Member Vacancy in Zone 5**

Government Code section 1780 provides the method for filling a vacancy of Healthcare District Board members. Director Grass's resignation is effective August 31, 2021. The District Board will have up to 60 days (until Friday October 29, 2021) to appoint or call a special election to fill the vacant seat.

In accordance with Health & Safety Code §32100.1, the new appointee will be required to be a resident from Director Grass's Zone 5 area. If the District Board does not fill the vacancy or does not call for an election within 60 days, the San Diego County Board of Supervisors has the authority to fill the vacancy within the subsequent 30 days, (until November 26, 2021) or direct the District Board to call a special election to fill the vacancy. The San Diego County Registrar of Voters has not yet set special election dates for 2022. It has been my experience that County Boards of Supervisors typically direct that the local agency Board call a special election to fill the unexpired term. The newly appointed or elected Board member from Zone 5 will serve until the next District election on November 8, 2022.

The Government Code requires that the District post a Notice of Vacancy in three conspicuous places within the District for at least 15 days prior to the meeting in which the applicants are interviewed. Attached is a draft Notice of Vacancy. The District may also want to post the notice on the District's website and advertise the notice in a local newspaper. Staff can coordinate with the Board President, to schedule a convenient date and time for a special meeting which would be held after September 15, 2021. The interview process and vote of the Board will be done in open session at that special meeting.

NOTICE OF APPOINTMENT

ON THE BOARD OF DIRECTORS OF THE TRI-CITY HEALTHCARE DISTRICT

NOTICE IS HEREBY GIVEN that the Board of Directors of the Tri-City Healthcare District (District) will be considering **the appointment of a new board member to represent Zone 5 of the District.**

The Board of Directors will consider the appointment of the new director at a special meeting of the board scheduled for ___:00 p.m. on _____2021.

Persons interested in being appointed must submit an application by letter to Tri-City Healthcare District, 4002 Vista Way Oceanside, California 92056. Attention: Teri Donnellan, Executive Assistant, no later than 5:00 p.m. on _____, 2021.

Applicants must state their qualifications and reasons for wanting to serve on the board.

All applicants must be registered voters residing within the boundaries of Zone 5 which encompasses areas of Carlsbad, Oceanside and Vista, starting at the coast and moving eastward along the Highway 78 corridor. Please contact the San Diego County Registrar of Voters for more details of the actual boundary location.

Applicants must file a Fair Political Practices Act Disclosure Statement in accordance with the provisions of that Act and implementing regulations of the Fair Political Practices Commission. The Disclosure Statement must be filed at the District office prior to the appointment.

In accordance with Government Code section 1780(d)(1), this notice shall be posted in at least three conspicuous places within the District. In addition, this notice will be posted on the District website and published in a local newspaper.

Persons desiring additional information should contact Teri Donnellan, Executive Assistant, at (760) 940-3348.

DATED: _____, 2021

_____

ROCKY CHAVEZ, Board President
Tri-City Healthcare District

Tri-City Medical Center
MEDICAL STAFF

TRI-CITY MEDICAL CENTER
MEDICAL STAFF INITIAL CREDENTIALS REPORT
August 11, 2021

Attachment A

INITIAL APPOINTMENTS (Effective Dates: 8/27/2021 – 7/31/2023)

Any items of concern will be "red" flagged in this report. Verification of licensure, specific training, patient care experience, interpersonal and communication skills, professionalism, current competence relating to medical knowledge, has been verified and evaluated on all applicants recommended for initial appointment to the medical staff. Based upon this information, the following physicians have met the basic requirements of staff and are therefore recommended for appointment effective 8/27/2021 through 7/31/2023:

- **AMMAR, Michael MD/Ophthalmology (Retina Consultants San Diego)**
- **CHO, Ellen MD/Anesthesiology (ASMG)**
- **COFFLER, Eliane MD/Internal Medicine (Sound Physicians)**
- **DE la CRUZ, Carla MD/Anesthesiology (ASMG)**
- **FLINN, Anna DO/OB/GYN (Kaiser)**
- **HARIPOTEPORNKUL, Nora MD/OB/GYN (Kaiser)**
- **PANSARA, Megha MD/Ophthalmology (Rady Children's)**
- **QADEER, Ali MD/Orthopedic Surgery FELLOW – Assist ONLY (San Diego Sports Medicine)**
- **TUMATI, Vanya MD/Anesthesiology (ASMG)**
- **VAGHA, Sahil DO/Internal Medicine (Sound Physicians)**

Tri-City Medical Center
MEDICAL STAFF

TRI-CITY MEDICAL CENTER
CREDENTIALS COMMITTEE REPORT – Part 2 of 3

VOLUNTARY RELINQUISHMENT OF PRIVILEGES (Effective 8/27/2021)

The following practitioners requested the following change to their privileges.

- **Adib, Tannaz MD** — **OB/GYN**

Tri-City Medical Center
MEDICAL STAFF

TRI-CITY MEDICAL CENTER
CREDENTIALS COMMITTEE REPORT – Part 3 of 3
August 11, 2021

PROCTORING RECOMMENDATIONS

- Moll, Angela, MD — Anesthesiology
- BUI, Hanh, MD — Cardiology
- TRAN, Nam Phuong, MD — Anesthesiology

TCHD BOARD OF DIRECTORS
DATE OF MEETING: AUGUST 26, 2021
Physician Agreement for Cardiovascular Health Institute – Operations Committee

Type of Agreement		Medical Directors		Panel	X	Other: CVHI Quality Committee
Status of Agreement	X	New Agreement		Renewal – New Rates		Renewal – Same Rates

Vendor's Name: Dr. Ashish Kabra

Area of Service: Cardiovascular Health Institute – Quality Committee

Term of Agreement: 12 months, Beginning, July 1, 2021 – Ending, June 30, 2022

Maximum Totals:

Rate/Hour	Hours Per Month	Hours per Year	Monthly Cost	Annual Cost	Total Term Cost
$210	2	24	$420	$5,040	$5,040

Description of Services/Supplies:

- Physician shall serve as an Operations Committee Member and shall be responsible for the services as outlined in the previously approved Co-Management Agreement for the Institute

Document Submitted to Legal for Review:	X	Yes		No
Approved by Chief Compliance Officer:	X	Yes		No
Is Agreement a Regulatory Requirement:		Yes	X	No
Budgeted Item:	X	Yes		No

Person responsible for oversight of agreement: Eva England, Cardiovascular Service Line Director / Steve Dietlin, Chief Executive Officer

Motion:
I move that the TCHD Board of Directors approve the agreement with Dr. Ashish Kabra as Cardiovascular Health Institute – Quality Committee members for a term of 12 months, beginning July 1, 2021 – Ending, June 30, 2022, not to exceed 2 hours per month at an hourly rate of $210 for an annual and term cost of $5,040.

TCHD BOARD OF DIRECTORS
DATE OF MEETING: August 26, 2021
PHYSICIAN EKG/ECHOCARDIOGRAM PANEL AGREEMENT RENEWAL for COVERAGE

Type of Agreement		Medical Directors	X	Panel		Other:
Status of Agreement		New Agreement		Renewal – New Rates	X	Renewal – Same Rates

Physician's Name: Drs. Kenneth Carr, Paul Sarkaria, David Spiegel, Ashish Kabra, Kathleen Pavelgio, Karim El-Sherief, Mohmmad Pashmforoush, Samani Pargol, Anitha Rajamanickam

Area of Service: Cardiology

Term of Agreement: 12 months, Beginning, July 1, 2021 – Ending, June 30, 2022

Maximum Totals: Within Hourly and/or Annualized Fair Market Value: YES (within 25%)

Weekly Cost Not to Exceed	Annual Cost Not to Exceed	Total Term Cost Not to Exceed
$4,160	$216,320	$216,320

Position Responsibilities:

- Panel Physician shall interpret echocardiographic studies of unassigned patients for which the attending physician does not specify an interpreting cardiologist.
- Electrocardiograms are to be interpreted twice daily on weekdays (Monday-Friday) and at least once per day on weekends (Saturday, Sunday or holidays).
- The final report for all echocardiograms is to be dictated within 24 hours of the performance of the study.
- For exercise of pharmacological stress test, if the scheduled panel physician cannot be available within 15 minutes of the scheduled start time to personally supervise the test, it is that panel physician's responsibility to assure that another cardiologist will do so. The final report shall be dictated on the day of the study.

Document Submitted to Legal for Review:	X	Yes		No
Approved by Chief Compliance Officer:	X	Yes		No
Is Agreement a Regulatory Requirement:	X	Yes		No
Budgeted Item:	X	Yes		No

Person responsible for oversight of agreement: Eva England, Cardiovascular Service Line Administrator Steve Dietlin, Chief Executive Officer

Motion:

I move that Finance Operations and Planning Committee recommend that TCHD Board of Directors approve the renewal of Drs. Kenneth Carr, Paul Sarkaria, David Spiegel, Ashish Kabra, Kathleen Pavelgio, Karim El-Sherief, Mohmmad Pashmforoush and Samani Pargol for the Cardiology Physician EKG and Echocardiology Panel Agreement for a term of 12 months starting July 1, 2021 ending on June 30, 2022, for an annual and term amount not to exceed $216,320.

TCHD BOARD OF DIRECTORS
DATE OF MEETING: August 26, 2021
G.E. HEALTHCARE SERVICE PROPOSAL

Type of Agreement		Medical Directors		Panel		Other:
Status of Agreement		New Agreement	X	Renewal – New Rates		Renewal – Same Rates

Vendor's Name: G.E. Healthcare Service

Area of Service: Cardiac Cath Lab, CT, MRI

Term of Agreement: 60 months, Beginning, August 24, 2021 – Ending, August 23, 2026

Maximum Totals:

Monthly Cost	Annual Cost	Total Term Cost
$62,364.66	$748,375.92	$3,741,879.60

Description of Services/Supplies:

- Service Contract on 2 CT scanners
- Service Contract on UPS
- Service Contract on 2 Cardiac Cath lab
- Service Contract 3T MRI 12 months post installation
- Cost increase of $774,660.00 due to NEW 3T MRI
- Prior rates were $2,901,000 for 5 years (2016 Contract); difference of $840,879.33

Document Submitted to Legal for Review:	X	Yes		No
Approved by Chief Compliance Officer:	N/A	Yes		No
Is Agreement a Regulatory Requirement:		Yes	X	No
Budgeted Item:	X	Yes		No

Person responsible for oversight of agreement: Eva England, Cardiovascular Service Line Administrator / Steve Dietlin, Chief Executive Officer

Motion:
I move that the TCHD Board of Directors authorize the agreement with G.E. Healthcare Service for equipment service and repairs for a term of 60 months, beginning, August 24 2021 and ending August 23, 2026 for an annual cost of $748,375.92, and a total cost for the term of $3,741,879.60.

TCHD BOARD OF DIRECTORS
DATE OF MEETING: August 26, 2021
SIEMEN'S SERVICE CONTRACT PROPOSAL

Type of Agreement		Medical Directors		Panel		Other:
Status of Agreement		New Agreement	X	Renewal – New Rates		Renewal – Same Rates

Vendor's Name: Siemens Medical Solutions USA, Inc.

Area of Service: Avanto MRI Unit, UPS, Arti IR Suite

Term of Agreement: 60 months
Beginning, July 16, 2021 – Ending, July 15, 2026 (Magnetom Avanto MRI)
Beginning, October 23, 2021 – Ending, October 22, 2026 (all other equipment)

Maximum Totals:

Monthly Cost	Annual Cost	Total Term Cost
$20,511.33	$246,136	$1,230,680

Description of Services/Supplies:

- Service Contract on the Avanto MRI unit
- Service Contract on UPS
- Service Contract on Artis IR suite
- Previous Term Rate $ 2,632,511

Document Submitted to Legal for Review:	X	Yes		No
Approved by Chief Compliance Officer:	N/A	Yes		No
Is Agreement a Regulatory Requirement:		Yes	X	No
Budgeted Item:	X	Yes		No

Person responsible for oversight of agreement: Eva England, Cardiovascular Service Line Administrator / Steve Dietlin, Chief Executive Officer

Motion:
I move that the TCHD Board of Directors authorize the agreement with Siemens Medical Solutions USA, Inc. for service repairs for a term of 60 months, beginning, July 16, 2021 and ending July 15, 2026 for the Magnetom Avanto MRI and October 23, 2021 – October 22, 2026 for all other equipment, for an annual cost of $246,136, and a total cost for the term of $1,230,680.

TCHD BOARD OF DIRECTORS
DATE OF MEETING: August 26, 2021
Hospitalist Medicine Physicians of California, Inc., dba Sound Physicians of California III

Type of Agreement		Medical Directors		Panel		Other:
Status of Agreement		New Agreement – Assignment		Renewal – New Rates	X	Renewal – Same Rates

Vendor's Name: Hospitalist Medicine Physicians of California, Inc., dba Sound Physicians of California III

Area of Service: Unassigned Patients Hospitalist Agreement

Term of Agreement: 12 months, Beginning, September 1, 2021 – Ending, August 31, 2022

Maximum Totals:

Monthly Cost	Annual Cost	Education Expense(TCHD) Annually	Total 12 Month NTE Term Cost
$266,667/month	Not to exceed $3,200,000	$10,000	$3,210,000

Description of Services/Supplies:

- Extends current agreement for Hospitalist services with Sound Physicians of California III at Fair Market Value with no change in rates. Annual cost includes monthly stipend for unassigned hospital patient coverage, Educational expenses, and achieving Quality/Performance Metrics.

Document Submitted to Legal for Review:	X	Yes		No
Approved by Chief Compliance Officer:	X	Yes		No
Is Agreement a Regulatory Requirement:		Yes	X	No
Budgeted Item:	X	Yes		No

Person responsible for oversight of agreement: Gene Ma, M.D., Chief Medical Officer

Motion:
I move that TCHD Board of Directors authorize the agreement with Sound Physicians of California III for Hospitalist Services for a term of 12 months, beginning September 1, 2021, and ending August 30, 2022, for a total term cost not to exceed $3,210,000.

TCHD BOARD OF DIRECTORS
DATE OF MEETING: August 26, 2021
Hospitalist Medicine Physicians of California, Inc., dba Sound Physicians of California III

Type of Agreement		Medical Directors		Panel		Other:
Status of Agreement		New Agreement – Assignment		Renewal – New Rates	X	Renewal – Same Rates

Vendor's Name: Hospitalist Medicine Physicians of California, Inc., dba Sound Physicians of California III

Area of Service: Hospitalists Co-Medical Directorship

Term of Agreement: 14 months, Beginning, July 1, 2021 – Ending, August 31, 2022

Maximum Totals:

Monthly Cost	Annual Cost (NTE)	Total 14 Month NTE Term Cost
NTE $10,000/month shared	$120,000	Co-Medical Directors not to exceed $140,000

Description of Services/Supplies:

- Extends current agreement for Co-Directorship of the Hospitalist Program with Sound Physicians of California III at Fair Market Value with no change in rates.

Document Submitted to Legal for Review:	X	Yes		No
Approved by Chief Compliance Officer:	X	Yes		No
Is Agreement a Regulatory Requirement:		Yes	X	No
Budgeted Item:	X	Yes		No

Person responsible for oversight of agreement: Gene Ma, M.D., Chief Medical Officer

Motion:
I move that TCHD Board of Directors authorize the agreement with Sound Physicians of California III for Co-Medical Directorship of Hospitalist Services for a term of 14 months, beginning July 1, 2021, and ending August 31, 2022, for a total term cost not to exceed $140,000.

ADMINISTRATION CONSENT AGENDA
August 4th, 2021

CONTACT: Candice Parras, CPCS

Policies and Procedures	Reason	Recommendations
Code Green Policy 8007	3 year review, practice change	Forward to BOD for Approval
Contractors Hazard Communications Program 1009	DELETE	Forward to BOD for Approval
Contractors Working in the Facility 1008	3 year review, practice change	Forward to BOD for Approval
Daily Journal 1010	3 year review, practice change	Forward to BOD for Approval
Designing and Installing Utility Systems	3 year review	Forward to BOD for Approval
Domestic Hot Water Temperature 2005	3 year review	Forward to BOD for Approval
Emergency Eyewash, Shower and Flushing Stations	NEW	Forward to BOD for Approval
Emergency Generator Test Loads	3 year review, practice change	Forward to BOD for Approval
Emergency Power Systems	3 year review	Forward to BOD for Approval
Engineering Hours of Service 1006	3 year review, practice change	Forward to BOD for Approval
Equipment Repair 2008	3 year review, practice change	Forward to BOD for Approval
Humidity Level Control 2017	3 year review, practice change	Forward to BOD for Approval
Initial Testing of New Utility Components	3 year review	Forward to BOD for Approval
Inspection Testing And Maintenance of Fire Alarm Detection and Automatic Extinguishing System	3 year review	Forward to BOD for Approval
Maintenance And Inspection Electrical Distribution System and Emergency Generator	3 year review	Forward to BOD for Approval
Maintenance And Inspection Medical Gas System 2003	3 year review, practice change	Forward to BOD for Approval
Maintenance And Inspection Medical Surgical Air and Vacuum System	3 year review	Forward to BOD for Approval
Maintenance And Inspection of Boiler/Steam System	3 year review, practice change	Forward to BOD for Approval
Maintenance Work Request System	3 year review, practice change	Forward to BOD for Approval
Managing Facilities against Patient Census 8023	3 year review, practice change	Forward to BOD for Approval
Mapping the Distribution of Utility Systems Controls	3 year review, practice change	Forward to BOD for Approval
New Equipment Inventory And Inspection 2007	3 year review	Forward to BOD for Approval
Operation of Fire and Smoke Dampers	3 year review, practice change	Forward to BOD for Approval
Pre-Purchase Evaluations 2009	3 year review	Forward to BOD for Approval
Preventative Maintenance	3 year review, practice change	Forward to BOD for Approval
Purchasing Procedure 2011	3 year review	Forward to BOD for Approval
Routine Hospital Rounds	3 year review, practice change	Forward to BOD for Approval
Scheduled Equipment Maintenance 2006	DELETE	Forward to BOD for Approval
Scope of Service	3 year review, practice change	Forward to BOD for Approval
Staff Meetings	3 year review, practice change	Forward to BOD for Approval
Statement of Accountability and Responsibility	3 year review	Forward to BOD for Approval
System Failure Report 2013	3 year review, practice change	Forward to BOD for Approval
Utility Systems Risk Assessment 7002	3 year review, practice change	Forward to BOD for Approval
Utility Systems Risk Assessment Form	3 year review, practice change	Forward to BOD for Approval
Work Order Requests 2010	3 year review, practice change	Forward to BOD for Approval

ADMINISTRATION CONSENT AGENDA
August 4th, 2021

CONTACT: Candice Parras, CPCS

Policies and Procedures	Reason	Recommendations
Medical Staff		
Adverse Incident or Occurrence for Post-Graduate Staff 8710-512	3 year review	Forward to BOD for Approval
Credentialing Requirements for Fluoroscopy Supervisor and Operator Permit 8710-528	3 year review	Forward to BOD for Approval
Credentialing Standards for Transoral Esophagogastric Fundoplication (TIF) 8710-556	3 year review	Forward to BOD for Approval
Cultural and Linguistic Proficiency 8710 - 601	1 year review	Forward to BOD for Approval
Ongoing Practice Evaluation: OPPE and FPPE 8710-509	Practice change	Forward to BOD for Approval
TB Screening of LIPs and Allied Health Professionals - 8710-538 Policy	3 year review	Forward to BOD for Approval
NICU		
Sedation/ Analgesia Used During Therapeutic or Diagnostic Procedures for the NICU Patient	2 year review, practice change	Forward to BOD for Approval
Nuclear Medicine Radioactive Materials License Procedures		
Therapeutic Use Of Radiopharmaceuticals for Inpatients	DELETE	Forward to BOD for Approval
Pulmonary		
Respiratory Medication Administration	3 year review, practice change	Forward to BOD for Approval
Pulmonary Rehab		
Contraindication to Pulmonary Rehab Exercise	3 year review	Forward to BOD for Approval
Exercise Prescription	3 year review, practice change	Forward to BOD for Approval
Home Exercise Program	3 year review	Forward to BOD for Approval
Maintenance and Repair of Exercise Equipment	3 year review	Forward to BOD for Approval
Scope of Services	3 year review	Forward to BOD for Approval
Staffing Policy	3 year review	Forward to BOD for Approval
Strength Training	3 year review	Forward to BOD for Approval
Surgical Services		
Anesthesia Type, Location and Monitoring Policy	3 year review, practice change	Forward to BOD for Approval
Surgery Blood in Ice Chests Procedure	3 year review	Forward to BOD for Approval
Women & Newborn Services		
Amniocentesis	3 year review, practice change	Forward to BOD for Approval
Balloon Cervical Ripening Catheter	3 year review, practice change	Forward to BOD for Approval

ADMINISTRATION CONSENT AGENDA
August 4th, 2021

CONTACT: Candice Parras, CPCS

Policies and Procedures	Reason	Recommendations
Emergency Stat Cesarean Section Notification Process	3 year review, practice change	Forward to BOD for Approval
Fetal Heart Rate (FHR) Surveillance/ Monitoring	3 year review, practice change	Forward to BOD for Approval
Trial of Labor after Cesarean (TOLAC) Vaginal Birth after Cesarean Birth (VBAC)	3 year review, practice change	Forward to BOD for Approval

Tri-City Medical Center
Oceanside, California

PATIENT CARE SERVICES

STANDARDIZED PROCEDURE: ~~ELECTIVE SURGERY PRE-OPERATIVE EDUCATIONADMISSION MRSA SCREENING~~MRSA SCREENING OF ELECTIVE SURGERY PATIENTS IN PRE-OPERATIVE EDUCATION

I. **POLICY:**

A. To prevent and control the spread of Methicillin Resistant Staphylococcus Aureus (MRSA), an Infection Control MRSA Screening Protocol has been established. Antimicrobial resistant pathogens, such as MRSA, have become a common hospital and community problem. Identified antibiotic resistance is one of the key microbial threats to health in the United States, and decreasing the inappropriate use of anti-microbial **agents** is a primary solution to address this threat. The initiation of a screening and surveillance program is one of the Center for Disease Control and Prevention (CDC's) top priorities to eradicate MRSA.

B. Tri-City ~~Medical Center~~**Healthcare District** (~~TCMC~~**TCHD**) has developed a MRSA protocol based on evidence-based practice to prevent anti-microbial resistance in the community as well as the health care setting based on CDC guidelines, recommendations, and other scientific research. It is the goal of ~~Tri-City Medical Center~~**TCHD** to:

1. Perform active surveillance testing by screening all patients scheduled for the following elective procedures at their pre-operative education appointment:
   a. Total hip arthroplasty
   b. Total knee arthroplasty
   c. Total shoulder arthroplasty (primary and reverse)
   d. Instrumented ~~cervical~~ spine procedures

~~Instrumented lumbar spine procedures~~

~~**Perform active surveillance testing by screening patients scheduled for an elective procedure with a planned inpatient admission:**~~

~~e. **Who state a history of MRSA during pre-operative education without documentation of clearance/resolution**~~

~~**Have been discharged from a general acute care hospital within 30 days**~~

~~f. **Is receiving dialysis**~~

2. Educate the applicable patients and their families about MRSA and its precautions.
3. ~~Implement Contact Precautions per isolation protocol for patients who are colonized or infected.~~**See Infection Control Policy: Management of Patients with Multi-Drug Resistant Organism (MDRO) and/or C. Difficile Infection for additional information.**

II. **PURPOSE:**

A. To ensure that patients who are known or suspected to be at risk for infection, or ~~**state a history of MRSA without documented clearance/resolution, or,**~~ have demonstrated colonization with MRSA are appropriately managed based on approved protocol to reduce post-operative surgical site infections (SSIs).

B. To decrease the incidence of post-operative ~~surgical site infections (~~SSIs~~)~~ **by identifying patients colonized with MRSA and decolonizing the patient prior to surgery**.

III. **DEFINITION(S):**

A. Carrier - a person who is colonized with MRSA. The organism may be present in the nares (nose), sputum, urine, an open wound, the stool, or on the skin, without clinical manifestations

Patient Care Services Content Expert	Clinical Policies & Procedures Committee	Nurse Executive Committee	Operating Room Committee	Pharmacy & Therapeutics Committee	Inter-disciplinary Committee	Medical Executive Committee	Administration	Professional Affairs Committee	Board of Directors
12/13, 08/17	0/14, 04/16, 03/18, 11/18, 03/20	01/14, 04/16, 03/18, 04/20	11/16, 09/17, 07/18, 04/20	01/14, 02/17, 07/20	05/14, 04/17, 01/21	05/14, 04/17, 07/21	08/21	05/17 , n/a	05/14, 05/17

of the disease. A carrier may transmit the organism to another person through direct contact, usually via contact with the hands.

B. Colonization - Presence of MRSA on tissue without the presence of symptoms or clinical manifestations of illness or infection. A carrier is colonized with MRSA.

C. Decolonization - Elimination of MRSA carrier state through the use of infection control measures and/or antibiotics. This decreases the risk of transmission to high-risk individuals (immune-compromised or otherwise highly susceptible persons) or to others in an outbreak situation.

D. Eradication - Elimination of infections and/or colonization of MRSA in a facility through implementation of infection control and hygiene measures and/or antibiotics.

E. Infection - Invasion and multiplication of MRSA in tissue with the manifestation of clinical symptoms of infection such as white blood cell counts, fever, lesions, furuncles, drainage from a break in skin integrity, and erythema. Infection warrants treatment.

F. Invasive Disease - Clinical manifestation of symptoms caused by MRSA such as furuncles, cellulitis, pneumonia, carbuncles, septicemia, osteomyelitis or vascular line infection.

G. ~~Methicillin-Resistant Staphylococcus aureus (~~MRSA~~)~~ - A gram-positive bacteria that grows in cluster formation, like grapes; growth of MRSA is not inhibited by methicillin or oxacillin, and many other antibiotics.

H. Screen - A nasal swab collected ~~on or before admission to the hospital or operating room~~ **at the pre-operative education appointment** to determine whether a patient is colonized with MRSA.

I. Culture - A specimen that can be collected from various sites on a patient's body (i.e.: nose, perineum, groin, wound, sputum, anus, etc.), though usually from the nose/nostrils to determine the presence of MRSA organisms.

J. ~~Surgical Site Infection (~~SSI~~)~~ - infection of superficial surgical incision involving skin or subcutaneous tissue, deep incision involving fascia and/or muscular layers, and organs. ~~TCMC~~ **TCHD** follows the most current version of the CDC/National Healthcare Safety Network (NHSN) definitions of infection.

K. Surveillance - Monitoring of patient data to determine incidence and prevalence of infections and distribution in a facility.

IV. PROCEDURE:

A. To the extent possible, patients ~~scheduled for the following elective procedures~~**included in the criteria** shall be screened via nasal swab ~~at minimum ten (10) days prior to date of surgery with the intention of maximizing preventative practices such as decolonization of MRSA~~**during the pre-operative education appointment**.

1. Total hip arthroplasty
2. Total knee arthroplasty
3. Total shoulder arthroplasty (Primary and Reverse)
4. Instrumented ~~cervical~~ spine procedures

~~Instrumented lumbar spine procedures~~

B. ~~To the extent possible, patients who meet the following criteria that are scheduled for an elective procedures shall be screened via nasal swab prior to date of surgery with the intention of maximizing preventative practices such as decolonization of MRSA.~~

~~5.~~ **~~Stated history of MRSA without documented clearance/resolution~~**
~~Have been discharged from a general acute care hospital within 30 days~~

~~6.~~ **~~Is receiving dialysis~~**

~~B.~~**C.** The Registered Nurse (RN) conducting the patient's pre-operative **education** appointment shall obtain nares culture and enter the order for nasal swab **in the electronic health record**~~via Computerized Provider Order Entry~~.

1. Patients who are screened for MRSA shall receive education on MRSA decolonization in the event the culture is positive (see ~~Patient Information on~~ MRSA Screening and Decolonization **Patient Education**).

~~C.~~**D. An RN in pre-op education shall** ~~The results of the nasal swab will be~~ communicated ~~to~~ **positive results to** the patient's provider.

1. The ~~provider/provider's~~**physician's/Allied Health Professional's (AHP)** office will notify the patient of positive results and provide necessary prescriptions and additional patient education.

V. PROCEDURE FOR NARES CULTURES:

A. Swab both nares with attention to swabbing the anterior portion of the nares.
   1. Use one **(1)** culturette swab for both nares.
B. Swab nose using same swab to both nostrils being careful not to touch outside of nose.
C. Insert swab ½ – 1 inch into nares gently rotating swab in a clockwise then counter clockwise **two (2) – five (5)** times pressing gently into the nasal septum.
D. Return swab into transport medium being careful not to touch sides of container.
E. Label the culture in accordance with Patient Care Services Procedure~~,~~**:** Specimen-Handling and include "rule out MRSA," ~~this allows~~**to alert** the lab to screen for only this organism.

VI. SURVEILLANCE OF SURGICAL SITE INFECTIONS:

A. Surgical site infection surveillance is done as required by the California Department of Public Health (CDPH) using the most recent C**enter for D**isease C**ontrol and Prevention (CDC)/ National Healthcare Safety Network (**NHSN**)** protocols. Data is entered into the CDC/NHSN database and is published annually by CDPH. Data reports can be provided by Infection Prevention and Control to departments or committees upon request.

VII. REQUIREMENTS FOR CLINICANS INITIATING STANDARDIZED PROCEDURE:

A. Current unencumbered California RN
B. Initial Evaluation: Orientation
~~A.~~C. Ongoing Evaluation~~Initial training and~~**:** ~~a~~**A**nnual**ly** ~~validation through Skills Lab~~**.**

VIII. DEVELOPMENT AND APPROVAL OF THE STANDARDIZED PROCEDURE:

A. This procedure has been developed by Surgical Services~~,~~ with approval from the ~~Senior Director of~~ Nursing **Leadership**~~, the Department of Orthopedics, the Department of Anesthesia,~~ and the Operating Room (OR) Committee.

IX. CLINICIANS AUTHORIZED TO PERFORM THIS STANDARDZIED PROCEDURE:

A. **Unencumbered** RN's in the ~~Pre-Operative Admission Area (Pre op Hold) and~~ Pre-Operative Education ~~(Pre op Teach)~~ Department~~s~~**.**

X. RELATED DOCUMENT(S):

A. Infection Control Policy: Management of Patients with Multi-Drug Resistant Organism (MDRO) and/or C. Difficile Infection for additional information.
B. ~~Patient Information on~~ MRSA **Fact Sheet** Screening and **Treatment**~~Decolonization~~
~~A.~~C. Patient Care Services: Specimen-Handling Procedure

XI. REFERENCE(S):

A. Anderson,P.A., Savage, J.W., Vaccaro, A.R., Radcliff, K., Arnold, P.M., Lawrence, B.D., Shamji, M.F. (2017) Prevention of Surgical Site Infection in Spine Surgery. Neurosurgery. 2017 Mar 1;80(3S):S114-S123.

~~A.~~**B.** Bebko, S.P., Green, D.M., Awad, S.S. (2015) Effect of a Preoperative Decontamination Protocol on Surgical Site Infections in Patients Undergoing Elective Orthopedic Surgery with Hardware Implantation. *JAMA Surg, 150(5)*, 390-395 doi:10.1001/jamasurg.2014.3480 http://jamanetwork.com/journals/jamasurgery/fullarticle/2173311

~~B. Chicago Journals (2008). Strategies to Prevent Surgical Site Infections in Acute Care Hospitals. *Infection Control and Hospital Epidemiology, 29(1)* S51-S61 http://chfs.ky.gov/nr/rdonlyres/ff8bdcc5-441a-4067-9666-8a39588df232/0/sheassicompendium2008.pdf~~

Tri-City Medical Center

MRSA Fact Sheet

Screening and Treatment

What is MRSA?

MRSA stands for Methicillin-resistant Staphylococcus aureus. MRSA is a germ that does not go away with standard "first-line" antibiotics. These germs stay in your body, usually the nostrils, and can be there without causing infection.

Who should be screened for MRSA?

All patients having scheduled surgery with placement of a permanent implantable device should be screened.

How do you know if you are a MRSA carrier?

By obtaining nostril cultures at least 7-10 days before your surgery, we can determine if treatment is appropriate for you. If you test positive, your physician will provide you with a prescription for a medication called Bactroban (Mupirocin) nasal ointment.

What does a positive result mean?

Presence of this bacteria does not necessarily mean that you have an infection or that it is going to cause you harm. However, sometimes treatment is appropriate as a precautionary measure to help prevent infection post-operatively.

What is the treatment process?

There are some simple things that can be done to decrease the number of germs present:

- 2% Chlorhexidine showers daily for 5-7 consecutive days prior to hospital admission.
- Bactroban 2% nasal ointment (Mupirocin) twice a day for 5-7 consecutive days.
- Clean your sheets, clothing and home
- Clean your sheets twice or more during the 5-7 days leading up to surgery.
- Wear clean, washed clothing daily for 5 days.
- Wash eating utensils well after each use.

Skin cells that are carrying MRSA are continuously shed and may collect in clothing, bed linens, and eating utensils, so it is important to keep these items clean.

Family and friends

MRSA is not a risk for healthy people. There are no restrictions on normal social contact or activities, and you are not at risk to other members of your family or friends. If there are any activities that you are concerned about, such as your work or a visit to a hospital or care home, please contact your surgeon for advice.

Continued on the back

Tri-City Medical Center

MRSA Fact Sheet

Instructions for Wash & Ointment

Instructions for Chlorhexidine Gluconate (CHG) wash

- Shower with CHG soap for 5-7 days before your surgery, the night before your surgery, and again the morning of your surgery.

1. Wash your hair as usual with your normal shampoo.
2. After wetting your body, step away from the water, pour half the bottle of CHG soap onto a wet wash cloth and apply soap to body, only from the neck down.
3. **DO NOT use the CHG soap on face, hair, or genitals to avoid irritation to those areas.**
4. **IMPORTANT: Leave CHG soap on for a minimum of 5 minutes. Rinse well.**
5. Dry with a fresh, clean, dry towel.
6. Put on fresh, clean clothes.

- Do not shave anywhere on your body, other than face, for two days before surgery to avoid skin irritation.
- Do not use lotion, powder, perfume or aftershave after your showers.
- Repeat this process the morning of your surgery.

Note: if you are allergic to Chlorhexidine, you may shower with an over-the-counter antibacterial soap that does not irritate your skin.

Instructions for application of intra-nasal ointment (Mupirocin 2%)

- Wash your hands before and after applying the ointment.
- Put a pea-sized amount on a cotton swab and apply to the inside of your nostril.

- DO NOT reuse the cotton tip after it has been inserted in your nostril Use the "clean" end of the cotton swab or use a new swab in the other nostril.
- After application, press the nostrils together and release repeatedly for 1 minute to distribute the ointment throughout the nose.
- Wash your hands.
- Do not use any medicines inside the nose (such as nasal sprays) during the 5-7 days you are using the ointment.
- This must be repeated 2 times a day, for 5-7 days.

If you have any questions,

please contact your surgeon.

~~**MRSA Screening and Decolonization Patient Education**~~

Tri-City Medical Center ADVANCED HEALTH CARE FOR YOU

MRSA Screening and Decolonization
Orthopaedic and Spine Institute

What is MRSA?

- MRSA stands for Methiciliin-resistant *Staphylococcus aureus* (MRSA). MRSA is a germ that does not go away with standard, "first-line" antibiotics. The germs colonize (stay in your body, usually nostrils) and can be present without causing infection.

Who should be screened for MRSA?

- All patients having scheduled surgery with placement of a permanent implantable device should be screened.

How do you know if you are a MRSA carrier?

- By doing cultures of your nostrils at least 7-10 days before your surgery we can determine if decolonization is appropriate for you. If have a positive result, your physician will provide with you a prescription for a medication called Mupirocin.

What does a positive result mean to me?

- Presence of this bacteria does not necessarily mean that you have an infection, or that it is going to cause you harm. However, sometimes decolonization is appropriate as a precautionary measure to help prevent infection post-operatively.

What is the decolonizat
There are some simple th

DELETE

- *2% chlorhexidine* to wash with 2% chlorhexidine (Hibiclens) solution ~~daily for 5 days prior to hospital admission.~~
- Bactroban 2% nasal ointment (Mupirocin) twice a day for 5-7 consecutive days.
- *Clean your sheets, clothing, and home*- Wear clean washed clothing daily for 5 days. Wash sheets twice or more during the 5-7 days leading up to surgery. Wash eating utensils well after each use. Skin cells that are carrying MRSA are continuously shed and may collect in clothing, bed linen, and eating utensils, so it is important to keep these things clean.

Instructions for CHG (chlorhexidine gluconate) wash

- Shower with CHG (chlorhexidine) soap for 5 days before your surgery, the night before your surgery, and again the morning of your surgery.
- Wash your hair as usual with your normal shampoo.
- After wetting your body, step away from the water, pour half the bottle of CHG soap onto a wet wash cloth and apply soap to body, only from the neck down.
- **DO NOT use the CHG soap on face, hair or genitals to avoid irritation to those areas.**
- **Important: Leave the CHG soap on for a minimum of 5 minutes.** Rinse well.
- Dry with a fresh, clean, dry towel.
- Repeat this process the morning of your surgery.
- Put on fresh, clean clothes.
- Do not shave anywhere on your body, other than face, for two days before surgery to avoid skin irritation.
- Do not use lotion, powder, perfume or aftershave after your showers.

Note: If you are allergic to chlorhexidine, you may shower with an over the counter antibacterial soap that does not irritate your skin.

Tri-City Medical Center ADVANCED HEALTH CARE FOR YOU

Instructions for application of intranasal ointment (mupirocin 2%)

- Wash your hands before and after applying the ointment.
- Put a pea sized amount on a cotton applicator and apply to the inside of your nostril. Repeat for the other nostril.
- **Do not** reuse the cotton tip after it has been inserted in your nostril. Use the "clean" end of the cotton applicator, or use a new one
- After application, distribute the ointment throughout the no
- Wash your hands
- Do not use any medicines inside the nose (such as nasal sprays) during the 5-7 days you are using the ointment.
- This must be repeated 2 times a day for 5 days.

DELETE

Family and friends

MRSA **is not** a risk for healthy people. There are no restrictions on normal social contact or activities, and you are not a risk to other members of your family or friends. If there are any activities that you are concerned about, i.e. your work or a visit to a hospital or care home please contact your surgeon for advice.

Any questions, contact your surgeon

Tri-City Medical Center
Oceanside, California

PATIENT CARE SERVICES

ISSUE DATE: 08/07	**SUBJECT:** Family Centered Care – Pediatrics/Adolescents
REVISION DATE: 01/08, 04/09; 06/11; 08/14	~~POLICY NUMBER: IV.MM~~
Department Approval:	~~06/17~~09/20
Clinical Policies & Procedures Committee Approval:	~~07/17~~10/20
Nursing Leadership~~Executive Council~~ Approval:	~~07/17~~12/20
Department of Pediatrics Approval:	~~11/17~~05/21
Administration Approval:	08/21
Professional Affairs Committee Approval:	~~01/18~~ n/a
Board of Directors Approval:	01/18

A. **PURPOSE:**
1. Create a healing relationship with families at all levels of care that focuses on the developmental, physical, and social needs of the patient and family.

B. **DEFINITION(S):**
1. Family Centered Hospital: Families are involved in and empowered to care for their children's well-being. Family-centered care designates the family as the key decision-maker. To aid parents in making appropriate decisions, healthcare professionals collaborate and share information with families on an ongoing basis.
2. Adolescent population is defined as ages 14 through 20.

C. **POLICY:**
1. All members of the health care team are responsible for the promotion of family centered care.
2. To achieve family-centered care:
   a. Tri-City Healthcare District (TCHD) respects families and their pivotal role in promoting the well-being of their children.
   b. TCHD recognizes families as the constant factor in the life of the child and the family as an intrinsic part of the health care team.
   c. TCHD recognizes that service systems and personnel are episodic.
   d. Families may collaborate with staff to guide decisions regarding care patterns and day-to-day activities.
3. Relationships between families and healthcare providers are fostered by encouraging family members to participate in the direct care of the child and participate in decision-making regarding the child's care.
4. Healthcare team members make families feel comfortable both physically and emotionally throughout their Pediatric/Adolescent experience, and nurture their role as principal caregivers.
5. Hospital staff/personnel are educated on the benefits of enhanced family interaction to ensure optimal physical care and emotional outcomes for our hospitalized children and their families.

D. **FAMILY INVOLVEMENT:**
1. Collaboration and sharing information with families is ongoing. Families will be provided with accessible support services that may include educational, ethical, financial, and community resources.

E. **PROCEDURE:**

1. Physical Accommodations and Family Resources:
   a. Provide maps with directions to hospital and information about alternative transportation options, parking provisions, and hospital entry access to facilitate visitation.
2. Provide hospital/unit orientation as appropriate to include:
   a. Printed information regarding family participation in care
   b. Visiting policy
   c. Telephone calls by parents if unable to be at the bedside
   d. Support services
   e. Food service
   f. Automated Teller Machine **(ATM)**
   ~~g. Family library/resource center with a variety of textbooks, articles, videotapes and internet access.~~
3. A private space shall be provided for families to meet with caregivers for consultation or family discussions.
4. Healthcare personnel are welcoming and reassuring to each family member that visits. Opportunities that reinforce the importance of the family's role in the care of their child/adolescent are encouraged and provided. Opportunities are provided for families to ask questions about their pediatric/adolescent experience and share concerns that may arise.

F. FAMILY INVOLVEMENT/ATTACHMENT:

1. Encourage parents to participate in all aspects of the patient's care. Elicit their perception of goals and needs.
2. Parents are treated as full members of the health care team.
~~3. Parents have accessibility to the child/adolescent 24 hours a day including during procedures, rounds, and end-of shift reports.~~
~~4.~~**3.** Continual, open and honest communication about medical, psychosocial and ethical issues relevant to the child and family are fostered.
~~5.~~**4.** Family members may stay with patients as appropriate.
~~6.~~**5.** Provide information on what parents may expect during procedures and encourage participation when possible.
~~7.~~**6.** Inform families of patient's/parent's rights and responsibilities.
~~8.~~**7.** Provide explanations and access to educational materials concerning the child's medical and nursing care.
~~9.~~**8.** The roles and activities of participating disciplines and the parents are incorporated into the plan of care.
~~10.~~**9.** Staff shall encourage families to read and educate themselves regarding their child's medical condition.
~~11.~~**10.** Families are encouraged to become actively involved in the preparation for discharge.
   a. Parents are encouraged and informed of the process available to provide feedback through hospital survey as well as the follow-up telephone survey.

G. REFERENCE(S):

1. ~~Advances in Family-Centered Care. (2003). Collaborating with Patients and Families to Improve Quality and Patient Safety. Vol. 9 No.1~~
2. Byczkowski, Terri, et al. (2016). Family-Centered Pediatric Emergency Care. *Academic Pediatrics*, 16 (4) pp. 327-35.
~~3. The Advisory Board. (2003). The Family As Patient Care Partner.~~
~~4.~~**3.** Lewandowski, L., Tesler, Mary D. (2003). Family-Centered Care: Putting It Into Action. The SPN/ANA Guide to Family -Centered Care.
4. Smith, Joanna, et al. (2015). Involving Parents in Managing Their Child's Long-Term Condition – A Concept Synthesis of Family-Centered Care and Partnership-In-Care. *Journal of Pediatric Nursing*, 30 (1), pp. 143-59.
5. **Delbanco, T., & Aronson, M. (2020, March). A patient-centered view of the clinical-patient relationship. In *UpToDate*. Retrieved from https://www.uptodate.com/contents/a-patient-**

centered-view-of-the-clinician-patient-relationship/print?search=family%20centered%20care&source=search_result&selectedTitle=1~150&usage_type=default&displa

Tri-City Medical Center	~~Distribution:~~ Patient Care Services
PROCEDURE:	**INFUSION PUMP – INFUSION SYSTEM WITH GUARDRAILS**
Purpose:	To regulate intravenous infusion using an electronic control device.
Supportive Data:	The Alaris Intravenous Infusion Pump with Guardrails System provides medication error prevention software to protect patients at the point of infusion delivery. The SmartSite System encourages needle-free compliance and provides needle-free safety for associates and patients. Staff must utilize the appropriate Profile™ and Guardrails™ features and the channel labels when programming the Alaris Medley Infusion System to enhance safe delivery of intravenous medications and solutions.
Equipment:	~~1.~~ Alaris administration set ~~2.~~ Primary IV solution ~~3.~~ Filter ~~4.~~ Pump programmer point of care (POC) unit ~~5.~~ Pump module

PROCEDURE:

A. **Set-up of Primary Administration:**

1. Remove blue sheath from the silastic-pumping segment.
2. Close roller clamp and spike bag or glass container.
3. Open vent between the spike and drip chamber if using a glass container. Keep vent closed when using a plastic bag.
4. Squeeze drip chamber until 2/3 full.
5. Slowly open roller clamp and prime administration set. Remove air from check valve and injection ports by inverting and tapping while fluid is passing each of these sites or pull out trapped air using a syringe.
6. Close roller clamp when tubing is filled with fluid.

B. **Set-up of Pump (Module):**

1. Attach pump (modules) to point of care unit (POC) by holding channel at a 45° angle and snapping it into place.
2. Open large volume channel door by pulling up on the gray handle.
3. Insert the administration set using a three step process:
   a. Drop the blue fitment of the administration set in place into the upper fitment recess (it will fit loosely).
   b. Insert the "Free Flo-Stop" mechanism into the module (Blue to Blue).
   c. Place the tubing section below the "Free Flo-Stop" mechanism snuggling into the air-in-line detector recess.
   d. Failure to firmly place tubing below the "Free Flo-Stop" will result in air accumulating in the tubing.
   e. Close the door and secure by pressing inward at the top of the module door with one thumb while closing the door handle with the other hand.

C. **Programming the Guardrails IV Fluid Module:**

Guardrails IV Fluid Library allows the programming of continuous intravenous fluids.

1. Press the *SYSTEM ON* key (There will be a 10 second power on self-test POST).
2. Press the *YES* or *NO* key to indicate a new patient.
   a. *YES* clears the previous patient data.
   b. *NO* and then *"restore"* retains previous patient information and will lead to other profile information.

~~Department Review~~Patient Care Services Content Expert	Clinical Policies & Procedures	Nursing Leadership ~~Executive Council~~	Medical Staff Department or Division	Pharmacy & Therapeutics Committee	Medical Executive Committee	Administration	Professional Affairs Committee	Board of Directors
3/05, 4/07, 11/10, **01/19, 08/20**	12/10, **08/20**	12/10, **10/20**	**n/a**	**05/21**	01/11, **07/21**	**08/21**	02/1, **n/a**~~1~~	02/11

c. The system has the capability to store previous information such as weight, drug calculations, and drug library entries indefinitely or up to 8 hours after the pump is turned off.

3. Selecting Unit Specific Profiles
   a. Press the *YES* key if the current profile is your unit's specific profile.
   b. To change the current profile, press the *NO* key and select your unit specific profile. Press the *CONFIRM* key to verify your selection.
   c. All modules shall be programmed using unit specific profiles.
   d. Review the *TITLE BAR* every shift to confirm Unit Specific Profiles.
4. Pressing *CHANNEL SELECT* on the module turns on the module and makes it ready for programming.
5. Select *Guardrails IV Fluids*. Basic infusion shall only be selected when IV fluids are not listed in the Guardrails IV Fluids menu. Notify **Nursing Leadership and/or Pharmacy**~~your unit Educator~~ to have medications added to the Guardrails Drug Library.
6. Select an *IV Fluid* by pressing selecting key beside name of the IV Fluid. For more selections, press the *PAGE DOWN* key or use the alphabet selection option.
7. If the IV fluid you are trying to program is not listed, then select the "Maintenance IV" entry. This is a "generic" IV fluid entry to be used for rarely used IV fluids/large volume parenterals that are not in the IV fluid library.
8. Press the *YES* key to confirm your selection or press the *NO* key to change your selection.
9. Enter the rate by pressing the *RATE* key followed by pressing the numerical keys of the ordered rate to be infused.
10. Enter the volume by pressing the *VTBI (Volume to be Infused)* key followed by pressing the numerical keys of the volume to be infused.
11. Begin the infusion by pressing the *START* key.

D. **Creating a Module Label for Guardrails Drugs not listed in the Guardrails Library:**

1. Press the *CHANNEL SELECT* key on the desired module.
2. Select Maintenance IV from the Infusion Menu.
3. Enter the rate by pressing the *RATE* key followed by pressing the numerical keys of the ordered rate to be infused.
4. Enter the volume by pressing the *VTBI* key followed by pressing the numerical keys of the volume to be infused.
5. Press the *OPTIONS* key to label the module.
6. Press the *CHANNEL LABELS* key followed by entering the desired infusion label. If the desired infusion label is not present, *PAGE DOWN* and use the alphabet selection option.
7. Press the *START* key and the infusion will begin.

E. **Changing a Guardrail IV Fluid Label or Guardrail Drug Label**

1. Select the appropriate module to be labeled.
2. Press and hold the *CHANNEL OFF* key.
3. Once the screen displays "Powering Down," press the *OPTIONS* key.
4. Press the *CHANNEL SELECT* key on the module to be labeled.
5. Press the *GUARDRAILS IV FLUIDS OR GUARDRAILS DRUGS* key.
6. Select the new Guardrails IV Fluid or Drug by pressing the key beside the name of the IV Fluid or drug. For more selections, press the key below *PAGE DOWN* or use the alphabet selection option.
7. Press the *YES* key to confirm your selection.
8. Enter the rate by pressing the *RATE* key on the POC unit, followed by pressing the numerical keys of the ordered rate to be infused.
9. Enter the volume by pressing the *VTBI* key followed by pressing the numerical keys of the volume to be infused.
10. Begin the infusion by pressing the *START* key.

F. **Secondary Set-up and Programming Using the Guardrails Drug Library:**

1. Lower primary fluid on plastic suspension hanging device.
2. Prime, hang, and attach secondary line at injection site above pump.
3. Press *CHANNEL SELECT* on the module to be used for the secondary infusion.
4. Press the *SECONDARY* key.
5. Press the Secondary Guardrail Drug to be infused key.
6. Press the key next to the drug amount to be infused.
7. Press the *YES* key if the dosing unit (drug amount) selected is correct. Press the *NO* key if the dosing unit (drug amount) is incorrect and reselect the correct dosing unit (drug amount).
8. Press the *CONFIRM* key after secondary drug dose has been reviewed.
9. Press the *NEXT* key to confirm drug amount and diluent amount.
10. Enter the volume by pressing the *VTBI* key followed by pressing the numerical keys of the volume to be infused.
11. The rate and duration will automatically be entered. The rate and duration are programmed by pharmacy based on drug selected and total diluent.
    a. The duration of infusion of all medications within the Guardrails drug library shall be infused as programmed by pharmacy.
12. Begin the infusion by pressing *START* key.

G. **Changing a Guardrail Secondary Drug Label**

1. Select the appropriate module to be labeled.
2. Press and hold the *CHANNEL OFF* key.
3. Once the screen displays "Powering Down," press the OPTIONS key.
4. Press the *CHANNEL SELECT* key on the module to be used.
5. Press the *RESTORE* key to resume the Guardrail IV fluid.
6. Press the *SECONDARY* key.
7. Press the Secondary Guardrail Drug to be infused key.
8. Press the key next to the drug amount to be infused.
9. Press the *YES* key if the dosing unit (drug amount) selected is correct. Press the *NO* key if the dosing unit (drug amount) is incorrect and reselect the correct dosing unit (drug amount).
10. Press the *CONFIRM* key to verify the secondary drug dose has been reviewed.
11. Press the *NEXT* key to confirm the drug amount and the diluent amount.
12. Enter the volume by pressing the *VTBI* key followed by pressing the numerical keys of the volume to be infused.
13. The rate and duration are automatically entered. The rate and duration are programmed by pharmacy based on the drug selected and the total diluent. The duration of infusion of all medications within the Guardrails Drug library shall be infused as programmed by pharmacy.
14. Begin the infusion by pressing the *START* key.

H. **Guardrail Drugs: Programming Using the Guardrails Drug Library**

The Guardrails Drug Library allows the programming of continuous intravenous medications.

1. Select the appropriate Unit Specific Profiles.
2. Press *CHANNEL SELECT* on the module.
3. Select Guardrails Drug from Infusion menu:
    a. Select a Guardrail Drug by pressing the key beside the drug name to be infused. For more selections, press the soft key below *PAGE DOWN* or use the alphabet selection option.
    b. Press the *YES* key to confirm your selection or press the *NO* key to change your selection.
4. Enter the dose related questions associated with your drug selection by pressing the appropriate keys.
5. If a *CLINICAL ADVISORY* message appears, confirm you have read the information by pressing the *CONFIRM* key.

a. Clinical Advisory/Message(s) are displayed to alert to nursing that the medication administration information does not match the data information entered into the Alaris Drug Profile by pharmacy. Nursing shall confirm they have read and implemented the advisory by pressing the *CONFIRM* key.
b. Clinical advisory dose messages are displayed to alert nursing to one or more of the following:
   i. An entered medication dose exceeds Tri-City Medical Center's (TCMC) pharmacy safe administration limit.
   ii. An entered medication dose is below TCMC's pharmacy safe administration limit.
   iii. The rate of infusion exceeds TCMC's pharmacy identified infusion duration.
   iv. The rate of infusion is below TCMC's pharmacy identified infusion duration.
   v. The total volume to be infused is above TCMC's pharmacy identified infusion drug volume.
   vi. The total volume to be infused is below TCMC's pharmacy identified infusion drug volume.
c. Clinical advisory/messages for non-dose related alerts include:
   i. Attach additional infusion devices such as filters
   ii. Second RN to review the information programmed by the primary nurse.
d. Drugs may be administered outside of the Pharmacy identified limits and durations with a physician's order.

6. Confirm the *Guardrails Drug Setup* by pressing the *NEXT* key.
7. For Antibiotics:
   a. Enter the volume, press the *VTBI* key followed by pressing the numerical keys of the volume to be infused.
   b. The *RATE* and *DURATION* fields are automatically entered. Do not change the preset *DURATION* without consulting a pharmacist.
8. For Epidural Infusion:
   a. Enter the dose by pressing the *DOSE* key
   b. Enter the *VTBI* by pressing the *VTBI* key
   c. Enter the volume by pressing the numerical keys.
   d. The *RATE* is automatically entered.
   e. Second RN to review the information programmed by the primary nurse.
9. Begin the infusion by pressing *START* key.

I. **For Cardiac Drug Infusions, Weight and Non-Weight Drug Infusions:**
1. Select the appropriate drug and confirm the Guardrails Drug Setup
2. For weight-based drug infusions:
   a. Press the *PATIENT'S WEIGHT* key to enter weight.
   b. Press the *DOSE* key to enter dose.
   c. Press the *VTBI* key to enter total volume.
   d. The rate is automatically entered.
   e. Begin infusion by pressing the *START* key.
3. For non-weight based drug infusions:
   a. Press the *DOSE* key to enter dose or you may enter the *RATE.*
   b. Press the *VTBI* key to enter total volume
   c. The rate is automatically entered when the *DOSE* is entered or the dose is automatically entered when the *RATE* is entered.
   d. Begin infusion by pressing the *START* key.

J. **Drug Calculation for Drugs not Listed in the Guardrails Library**
1. Press *CHANNEL SELECT* key on the desired module.
2. Select *GUARDRAILS DRUG.*
3. Press *DRUG CALC* key for the *DRUG CALCULATION SETUP* option.

4. Enter the *DRUG AMOUNT* and the appropriate *UNIT OF MEASURE* (mcg, mg, gram, unit, mEq).
5. Enter *DILUENT VOLUME.*
6. Press *PATIENT WEIGHT* key. Answer *YES* to enter weight, answer *NO* if medication is not weight-based.
7. Press *TIME UNITS* key and then select the appropriate measure (i.e., Min, Hour, Day).
8. Press *DOSING UNIT* key to enter the appropriate dosing unit (mcg/kg/min or mg/kg/min).
9. Press the *NEXT* key to confirm the correct dosing unit has been entered.
10. Press the *VTBI* key and enter the total volume to be infused then select *START.*
11. To edit a drug calculation, repeat steps 1 – 10 and enter the new drug information.

K. **Pause:**

1. Press the *PAUSE* key on the module to be paused. (After 2 minutes, an audible alarm will sound and *PAUSE – RESTART CHANNEL* will scroll on the module display screen. The yellow alarm light will blink on the lighthouse of the module involved).
2. Press *RESTART* to resume the infusion.

L. **Clearing Volume Infused Set:**

1. Press the *VOLUME INFUSED* key on the screen of the POC. (NOTE: the screen displays time and date when each module was last cleared and soft key *PRI/SEC VOLUME* provides the ability to toggle between primary and secondary volumes infused.)
2. Clear channel by pressing the key beside the desired module on the POC screen.
3. Press the *CLEAR CHANNEL* key for one specific module *or CLEAR ALL* to clear volumes infused for entire system.
4. Return to POC Main Menu by pressing the soft key below *MAIN SCREEN.*

M. **Removal of a Module Label that IS NOT a Guardrail**

1. Press the *CHANNEL SELECT* key on the module to be labeled.
2. Press the *OPTIONS* key on the POC unit.
3. Press CHANNEL LABEL key.
4. Press the *CLEAR LABEL* key or select a new label by pressing the key next to the label desired on the POC unit.
5. Press the *START* key on the POC unit to resume the infusion.

N. **Silence an Alarm**

1. Press the *SILENCE* key to temporarily silence an alarm.
   a. The RN must remain with the patient during the time the alarm is silenced.
   b. The alarm will resume in two minutes if the cause of the alarm is not fixed.

O. **Increase/Decrease Alarm Sound**

1. Press the *AUDIO ADJUST* key.
2. Press *SOFTER* to decrease the volume of the alarms; press *LOUDER* to increase the volume of the alarms.
3. Press the *TEST* key to hear the volume of the alarm programmed.
4. Press *MAIN SCREEN* to return to the previous program.

P. **Adjusting Display Contrast**

1. Press the key below *DISPLAY CONTRAST.*
2. Press the *LIGHTER* or *DARKER* key to adjust the screen display.
3. Press *MAIN SCREEN* to return to the previous program.

Q. **Locking and Unlocking Tamper Resist Option**

1. Initiate the desired module.

2. Press and hold the *TAMPER RESIST SWITCH* located on the back of the POC unit for 3 to 4 seconds.
3. An advisory Tone and a three-second *PANEL LOCKED* prompt will be displayed to confirm activation of the *TAMPER RESIST SWITCH.*
4. Press *UNLOCK* the Tamper Resist, press and hold the TAMPER RESIST SWITCH for 3 to 4 seconds.
   a. The MAIN DISPLAY will show a PANEL UNLOCKED prompt for three seconds and an advisory tone will sound when the panel is unlocked.

R. **Power Down of a Module (To Turn a Channel Off)**

1. Press the *CHANNEL OFF* hard key on the desired module for approximately two seconds and then release the Channel will power off.

S. **Power Down of All Modules (To Turn Off All Channel Off)**

1. Press the *OPTIONS* key.
2. Press the *POWER DOWN ALL CHANNELS* key and then press *YES* to confirm. Powering Down will appear on the display screen.

T. **REFERENCES:**

1. Cardinal Health. (2003-2005). *Alaris system directions for use pc unit section.* Retrieved June 15, 2007, from http://www.cardinal.com/alaris/brochure/spodfuAlarisSystem8DFU.pdf

Tri-City Medical Center	Patient Care Services
PROCEDURE:	**INSULIN THERAPY ADMINISTRATION**
Purpose:	To outline the nursing management of patients requiring insulin via intravenous (IV) infusion and/or subcutaneously.
Supportive Data:	Only regular insulin is administered intravenously. All insulin drips will be delivered by an infusion control pump. All insulin drips are mixed by the Pharmacy except in emergent or urgent situations. An insulin syringe must be used when preparing insulin for administration. Insulin (or any other additive) shall never be added to IV solutions that are already hanging or infusing.
Equipment:	1. IV infusion control pump and tubing 2. Labels for IV tubing and insulin solution

A. **PROCEDURE FOR INSULIN DRIP MANAGEMENT:**

1. Obtain baseline blood glucose.
2. Verify physician/Allied Health Professional (AHP) order.
3. Administer regular insulin via continuous infusion pump.
   a. Attach pre-mixed insulin drip bag to IV pump tubing with date-change label
   b. Prime tubing
   c. Connect IV tubing to pump
   d. Program infusion rate (concentration is 100 units regular insulin per 100 mL of 0.9% sodium chloride) using infusion pump **dose error reduction software**~~Guardrails™;~~
      ~~d.~~**i. For calcium channel blocker toxicity may utilize more concentrated insulin infusion**
   e. Verify the following for accuracy with another registered nurse (RN) **by independent double check** when hanging a new IV insulin bag and/or changing the rate of an insulin infusion **per Patient Care Services Policy: Medications, High Risk/High Alert/Look Alike Sound Alike:**
      i. Pre-mixed insulin IV bag from pharmacy or insulin concentration when preparing the insulin drip urgently
      ii. Initial infusion rate
      iii. Blood glucose
   f. Connect tubing to infusion site
   g. Document in the electronic health record (EHR) initiation of insulin order and include second witness see Patient Care Services (PCS) Medication Administration Policy.
4. Monitor blood glucose as ordered by physician/AHP and PRN.

~~4.~~**5. Hold insulin drip if potassium level drops BELOW 3.3. Provide electrolyte replacement per orders. Re-start insulin drip when potassium >3.3.**

~~5. Check blood glucose one hour after discontinuing an insulin drip, then every 2 hours times 2 or as ordered by the physician/AHP.~~

6. **Verify**~~Document~~t blood glucose in EHR.
7. Administer subcutaneous insulin injection two hours prior to discontinuing an insulin drip as ordered by physician/AHP.

B. **PROCEDURE FOR SUBCUTANEOUS INSULIN MANAGEMENT:**

~~Examples of Subcutaneous Insulin~~	~~Approximate Time of Action~~		
	~~Onset~~	~~Peak~~	~~Duration~~
~~Rapid-acting~~ ~~• Humalog (lispro)~~ ~~• NovoLog (aspart)~~	~~5 – 15 minutes~~	~~1 – 2 hours~~ ~~0.5 – 2 hours~~	~~4 – 6 hours~~ ~~2 – 5 hours~~

Department Review	Clinical Policies & Procedures	Nurse Executive Committee	Division of Medicine ~~Diabetes Task Force~~	Pharmacy & Therapeutics Committee	Medical Executive Committee	Admini stration	Professional Affairs Committee	Board of Directors
03/93, 9/08, 01/09, 11/11, 12/13, 02/17, **10/19**	12/11, 12/13, 10/16, 02/17, **01/20**	12/11, 12/13, 10/16, 02/17, **02/20**	12/16, **09/20**	03/17, **05/21**	01/12, 03/14, 04/17, **07/21**	**08/21**	02/12, 04/14, 05/17, **n/a**	02/12, 04/14, 05/17

~~Examples of Subcutaneous Insulin~~	~~Approximate Time of Action~~		
	~~Onset~~	~~Peak~~	~~Duration~~
~~Short-acting~~ ~~• Humulin R® (regular)~~ ~~• Novolin R® (regular)~~	~~0.5 – 1 hour~~	~~2 – 3 hours~~ ~~2 – 5 hours~~	~~6 – 8 hours~~ ~~4 – 8 hours~~
~~Intermediate-acting (Used in pregnancy only)~~ ~~• Humulin N® (NPH, isophane suspension)~~ ~~• Novolin N® (NPH, isophane suspension)~~	~~2 – 4 hours~~ ~~1 – 2 hours~~	~~6 – 10 hours~~ ~~4 – 12 hours~~	~~10 – 18 hours~~ ~~10 – 24 hours~~
~~Long-acting~~ ~~• Lantus® (glargine)~~ ~~• Levemir® (detemir)~~	~~1 – 2 hours~~ ~~3 – 4 hours~~	~~Flat~~ ~~None to slight~~	~~Up to 24 hours~~ ~~~24 hours~~

1. **See Subcutaneous Insulin Types and Time of Action Grid for additional information on insulin administration.**
2. If the licensed nurse administering the insulin did not perform the blood glucose test they must verify the blood glucose in the EHR or glucose meter before administration.
   a. Insulin is time sensitive and must be given with**in** 30 minutes of the blood glucose test. If it has been greater than 30 minutes the blood glucose must be re-checked before the insulin administration.
3. Patients who are NPO and/or receiving parenteral nutrition or continuous tube feeding will have their blood glucose levels checked and correction insulin administered every 4 to 6 hours.
4. Patients receiving meals will have their blood glucose levels checked and insulin administered before meals (AC) and at bedtime (HS) (0800, 1130, 1730, 2100) unless otherwise ordered.
   a. Patients that are scheduled for early morning dialysis will also have their blood glucose levels checked and insulin administration at 0600 just before their early breakfast trays arrive.

~~5. Administer short-acting (regular) insulin 30 minutes before the meal for which it was ordered.~~

~~6.~~**5.** Administer rapid-acting insulin just prior to the meal ~~with meals~~ per physician/AHP orders.

~~7.~~**6.** Lantus® (glargine) ~~or Levemir® (detemir)~~ is usually dosed once daily at bedtime or twice a day at 0800 and 2100. Even though Lantus® **is a** ~~and Levemir® are~~ clear insulin~~s~~, do not mix with other insulins.

~~8.~~**7.** Do not massage injection site after injecting insulin.

~~9.~~**8.** Administration from vials:
   a. Single Dose of Insulin:
      i. Verify correct type and dosage of insulin.
      ii. Check expiration date on insulin vial (see PCS Medication Administration Policy).
      iii. Mix intermediate-acting insulin, (NPH, isophane) by gently rolling the bottle between hands. (Do not shake). ~~Do NOT mix Lantus® or Levemir® with other insulins.~~
      iv. After cleaning the top of the vial with an alcohol swab, withdraw dose as ordered by physician/AHP after inserting air equal to the insulin dose into the vial.
      v. Inject insulin subcutaneously, preferably into abdomen.
      vi. Document in EHR.
   b. Mixed Doses of Insulin (i.e., NPH + **Lispro**~~regular~~) in same syringe:
      ~~i. Do NOT mix Lantus® or Levemir® with other insulins~~
      ~~ii.~~**i.** Verify correct types and dosages of insulins
      ~~iii.~~**ii.** Check expiration dates on insulin vials (see PCS Medication Administration Policy).
      ~~iv.~~**iii.** Clean the tops of both vials with an alcohol swab.
      ~~v.~~**iv.** Draw up an amount of air equal to the total amount of insulin ordered.
      ~~vi.~~**v.** First inject the amount of air equal to the intermediate-acting insulin into that vial. Do not withdraw any insulin at this time.
      ~~vii.~~**vi.** Next inject the rest of the air into the vial of ~~short- or~~ rapid-acting insulin. Do not remove the needle from the vial. Withdraw the dose of ~~short- or~~ rapid-acting insulin.

~~viii.~~**vii.** Insert the needle into the intermediate-acting insulin vial and withdraw the intermediate-acting dose.
~~ix.~~**viii.** Inject insulin subcutaneously, preferably into abdomen.
~~x.~~**ix.** Document in EHR~~).~~

~~10.~~**9. Administration from** Insulin Pens:

a. Policy:
   i. Insulin pens are for single patient use only and should not be shared with other patients.
   ii. Un-used Insulin pens are returned to pharmacy when patient is discharged per PCS Medication Administration Policy.
   iii. Insulin pens must be primed before each injection.
   iv. A new pen needle is used for each administration of insulin. Never use a syringe to withdraw insulin from an insulin pen.
   v. Insulin pens expire 28 days from date dispensed per Pharmacy label and are stored in the patient specific bins per PCS Medication Administration Policy.

b. Procedure:
   i. Check expiration date on insulin pen.
   ii. Verify the insulin pen label matches the type of insulin ordered.
   iii. Verify the patient's name and EHR number matches the patient name and EHR number on the insulin pen. (Insulin pens are for single patient use only).
   iv. Remove ~~pen~~ cap from ~~the~~ insulin pen.
   v. Clean the rubber seal on the tip of the pen with an alcohol swab.
   vi. Pop the label and twist to remove the cap on the safety pen needle.
   vii. Line up the safety pen needle with the insulin pen, keeping the needle straight while pushing and then screwing the needle in clockwise onto the rubber seal.
   viii. Pull the cover of the safety pen needle straight off. Do not touch the white shield.
   ix. Prime the needle by dialing up a dose of 2 units
   x. Hold the pen with the safety pen needle pointing upward.
   xi. Tap the insulin reservoir to make any air bubbles rise up toward the needle.
   xii. Press the injection button all the way in and check to be sure insulin comes out of the needle tip.
   xiii. If insulin does not come out of the safety pen needle, repeat priming steps up to three times before changing the pen needle and trying again.
   xiv. If you are still unsuccessful, you may need another insulin pen.
   xv. After priming make sure the dial window reads "0" and then dial in the dose of insulin.
   xvi. Note: If you dial past the desired dose, dial the pen back down to the desired prescribed dose.
   xvii. Select the area of the body for the subcutaneous injection preferably into the abdomen.
   xviii. Clean the selected site with alcohol.
   xix. In one continuous motion, insert the needle into the skin at a 90-degree angle until the safety pen needle clicks. Your thumb should not be on the injection button during this step.
   xx. Maintaining constant pressure, deliver the dose slowly by pressing the injection button with your thumb all the way in, then count to 10 before removing the needle. The number on the dose window will return to "0" as you inject.
   xxi. Withdraw needle from skin.
   xxii. Remove pen needle from the insulin pen by twisting counterclockwise. Never store the pen with a ~~pen~~ needle attached.
   xxiii. Discard the used safety pen needle into the sharps container.
   xxiv. Replace pen cap and return the insulin pen to the patient's medication container in the medication room.
   xxv. Document in the ~~HER~~**EHR**.

C. **RELATED DOCUMENT(S):**

1. Patient Care Services Policy: Medication Administration
2. **Patient Care Services Policy: Medications, High Risk/High Alert/Look Alike Sound Alike**
3. ~~1.~~ **Subcutaneous Insulin Types and Time of Action Grid**

D. **REFERENCE(S):**

1. Becton, Dickson and Company. (2017). AutoShield™ Duo Pen Needle –Instructions for Use.
2. Humalog (R) [package insert]. Indianapolis, IN: Lilly USA, LLC; 2015.
3. Humulin ® [package insert]. Indianapolis, IN: Lilly USA, LLC; 2015.
4. Humulin N ® [package insert]. Indianapolis, IN: Lilly USA, LLC; 2015.
5. ISMP. Do not use an insulin pen for multiple patients! Hazard Alert. *ISMP Medication Safety Alert!* 2012;17(1):1,4
6. Lantus ® [package insert]. Bridgewater, NJ: Sanofi-aventis, LLC; 2015
7. Levemir ® [package insert]. Bagsvaerd, Denmark: Novo Nordisk; 2015.
8. Novolin ® [package insert]. Bagsvaerd, Denmark: Novo Nordisk; 2016.
9. Novolin N ® [package insert]. Bagsvaerd, Denmark: Novo Nordisk; 2016.
10. Novolog ® [package insert]. Bagsvaerd, Denmark: Novo Nordisk; 2016.

Subcutaneous Insulin Types and Time of Action Grid

Examples of Subcutaneous Insulin	Approximate Time of Action		
	Onset	Peak	Duration
Rapid-acting • Humalog (lispro) • NovoLog (aspart)	5 – 15 minutes	**1 – 2 hours** ~~0.5 – 2 hours~~	**4 – 6 hours** ~~2 – 5 hours~~
Short-acting • Humulin R® (regular) • Novolin R® (regular)	0.5 – 1 hour	**2 – 3 hours** ~~2 – 5 hours~~	**6 – 8 hours** ~~4 – 8 hours~~
Intermediate-acting **(Typically used in pregnancy only)** • Humulin N® (NPH, isophane suspension) • Novolin N® (NPH, isophane suspension)	**2 – 4 hours** ~~1 – 2~~ hours	**6 – 10 hours** ~~4 – 12 hours~~	**10 – 18 hours** ~~10 – 24 hours~~
Long-acting • Lantus® (glargine) • ~~Levemir® (detemir)~~	**1 – 2 hours** ~~3 – 4 hours~~	**Flat** ~~None to slight~~	**Up to 24 hours** ~~≈24 hours~~

Reference: American Diabetes Association website, retrieved 12/11/2019

Tri-City Medical Center
Oceanside, California

PATIENT CARE SERVICES

ISSUE DATE: 05/17	**SUBJECT: Insulin; Use of Concentrated Policy**
REVISION DATE(S):	
Department Approval:	~~11/16~~09/19
Clinical Policies and Procedures Approval:	~~12/16~~10/19
Nurse Executive Committee Approval:	~~01/17~~10/19
~~**Diabetes Task Force Approval:**~~	~~12/16~~
Division of Medicine Approval:	09/20
Pharmacy and Therapeutics Approval:	~~03/17~~05/21
Medical Executive Committee Approval:	~~04/17~~07/21
Administration Approval:	08/21
Professional Affairs Committee Approval:	~~05/17~~ n/a
Board of Directors Approval:	05/17

A. **PURPOSE:**
1. To address the inpatient management of insulin regimens for patients on a concentrated insulin product on an outpatient basis.
   a. Concentrated insulin products, particularly U-500 regular insulin pose a significant patient safety risk with regard to appropriate dose calculation, administration, and dose adjustments.
   b. Risk of inappropriate dosage adjustments is high due to lack of familiarity with concentrated insulin products by most non-specialized physician/Allied Health Professional (AHP) and the variable insulin needs of admitted patients.
      i. Many patients require significantly less insulin during admission as compared to their usual outpatient needs for various clinical reasons.

B. **DEFINITION(S):**
1. Concentrated insulin: Any insulin dosage form manufactured at concentrations greater than 100 units/mL, including but not limited to U-500 regular insulin, insulin degludec (Tresiba) U-200, insulin glargine (Toujeo) U-300, and Humalog U-200.

C. **POLICY:**
1. Concentrated insulins are not permitted for use at Tri-City Medical Center.
2. Patients on a concentrated insulin prior to admission who require continued insulin therapy during admission will be converted by a physician to a formulary based insulin regimen.
   a. A conversion to a basal/bolus regimen using insulin glargine and insulin lispro, respectively are recommended.
   b. A 20% to 50% reduction in total daily insulin units is recommended for the majority of patients when converting patients from a concentrated insulin regimen to a standard concentration basal/bolus regimen.

D. **REFERENCES:**

1. Paulus AO, Colburn JA, True MW, et al. Evaluation of total daily dose and glycemic control for patients taking U-500 regular insulin admitted to the hospital. Endocrine Practice. 2016;22:1187-1191
2. Samaan KH, Dahlke M, Stover J. Addressing safety concerns about U-500 insulin in a hospital setting. American Journal of Health Systems Pharmacy. 2011;68:63-68

3. Tripathy PR, Lansang MC. U-500 regular insulin use in hospitalized patients. Endocrine Practice. 2016;21:54-58

Tri-City Medical Center
Oceanside, California

PATIENT CARE SERVICES

STANDARDIZED PROCEDURE: METHICILLIN RESISTANT STAPHYLOCOCCUS AUREUS (MRSA) SCREENING

I. **POLICY:**

A. Function: To describe the process for screening patients for MRSA.

B. The following patient populations admitted to Tri-City ~~Medical Center~~**Healthcare District** (~~TCMC~~**TCHD**) shall be tested for MRSA during pre-registration process or within 24 hours of admission:

1. The patient has been discharged from a general acute care hospital within **thirty** (30) days prior to the current hospital admission.
2. The patient will be directly admitted to the Intensive Care Unit (ICU) or Neonatal Intensive Care Unit (NICU).
   a. This includes patients transferred into ICU from other medical units and neonates transferred into NICU from other hospital facilities.
3. The patient is receiving inpatient dialysis.
4. The patient is transferred from a skilled nursing facility **(SNF)**.
~~4. **Patient is from a correctional facility.**~~
~~5. Patient with a previous history of MRSA that meets both of the following criteria:~~
~~a. The last positive MRSA culture is greater than **thirty** (30) days ago and~~
~~b. Patient has not had an acute care admission in the last **thirty** (30) days.~~
~~i. Place patient in Contact Precautions.~~
~~ii. Discontinue Contact Precautions if screening culture and other clinical cultures taken on the day of admission are negative.~~
~~1)~~**i.** ~~Exception: Patients **with**who were recently screened**positive** pre-surgery for MRSA **results** and now are negative due to decolonization treatment. There is a high likelihood of re-colonization, so these patients will remain in Contact Precautions. **Contact Precautions are still required even if the patient completed decolonization treatment prior to surgery.**~~

C. The physician/Allied Health Professional **(AHP)** will decide to screen any ~~"P~~**p**atients who show evidence of increased risk invasive MRSA be screened for MRSA prior to discharge. ~~This does not apply to patients who screened MRSA positive on admission."~~

D. The physician/**AHP** must order the screening test and the physician/**AHP** or authorized designee, will be responsible ~~"~~to provide oral and written instructions regarding aftercare and precautions. (SB 1058, section 3, 1255.8, 4c and 4d)

E. When requested by the Infection Prevention and Control Department, Periodic Prevalence Studies may be performed to identify previously unknown colonized patients.

F. See Infection Control Policy: Management of Patients with **multi-drug resistant organism (MDRO) and/or C. Difficile Infection**~~MRSA~~ for additional information.

II. **PROCEDURE:**

A. During the patient history/data collection the nurse shall determine if the patient meets the circumstances described above and shall record that information in the patient's medical record.

Patient Care Services Content Expert	Clinical Policies & Procedures Committee	Nurse Executive Committee	Infection Control Committee	Pharmacy & Therapeutics Committee	Inter-disciplinary Practice Committee	Medical Executive Committee	Administration	Professional Affairs Committee	Board of Directors
12/08, 06/10, 05/12, 01/15, **11/17, 09/18**	05/12, 02/15, **02/18, 09/18, 03/20**	05/12, 02/15, **03/18, 11/18, 04/20**	~~04/15~~**04/18, 04/20**	05/12, 03/15, **05/18, 05/20**	05/12, 05/15, **01/21**	07/12, 06/15, **07/18, 07/21**	**08/21**	07/15, **n/a**	07/12, 07/15

1. Documentation of the circumstances listed above will generate a task for nares cultures to ~~"~~rule out MRSA.~~"~~

B. The nurse shall obtain cultures when indicated within 24 hours of admission and send to the ~~Tri-City Medical Center~~**TCHD** lab for processing.
   1. Nares cultures
      a. Swab both nares with attention to swabbing the anterior portion of the nares.
         i. For adult patients, use one culturette swab for both nares.
         ii. For pediatrics patient, use one culturette swab for both nares.
         iii. For neonates, use one nasopharyngeal swab for both nares.
      b. Swab nose using same swab to both nostrils being careful not to touch outside of nose.
      c. Insert swab ½ – 1 inch into nares gently rotating swab in a clockwise then counter clockwise **two (2) –to five (5)** times pressing gently into the nasal septum.
      d. Return swab into transport medium being careful not to touch sides of container.
      e. Label the culture in accordance with Patient Care Services Procedure:~~,~~ Specimen Handling and include "rule out MRSA," this allows the lab to screen for only this organism.

C. ~~Tri-City Medical Center~~**TCHD**'s clinical microbiology lab shall process nares cultures received to "~~rule out~~**screen for** MRSA".
   1. If the patient'**s screening** ~~-~~test **is** ~~s~~ positive for MRSA:
      a. ~~The patient will be placed in Contact Precautions in accordance with Infection Control Policy: IC 5, Standard and Transmission Based Precautions.~~
      b. ~~Micromedex p~~**P**re-printed MRSA education shall be provided to the patient or the patient's representative.

III. DOCUMENTATION:

A. When administering medications or implementing orders from a standardized procedure, the Registered Nurse shall enter the medication/order into the electronic health record
   1. Not required if a screening process triggers the order

IV. REQUIREMENTS FOR CLINICIANS PROVIDING INTERVENTIONS:

A. Current **unencumbered** California RN
B. Initial Evaluation: Orientation
C. Ongoing Evaluation: Annual~~ly~~

V. DEVELOPMENT AND APPROVAL OF THE STANDARDIZED PROCEDURE:

A. Method: This Standardized Procedure was developed through collaboration with Nursing, Medical Staff Committees to include, but not limited to the Interdisciplinary Committee, and Administration.
B. Review: Every two (2) years.

VI. CLINICIANS AUTHORIZED TO PERFORM THIS STANDARDIZED PROCEDURE:

A. All Registered Nurses who have successfully completed requirements as outlined above are authorized to direct and perform MRSA screening.

VII. RELATED DOCUMENT(S):

A. Patient Care Services Procedure: Specimen Handling
B. Infection Control Policy: **IC 5** Standard and Transmission Based Precautions
C. Infection Control Policy: Management of Patients with ~~MRSA~~ **Multi-Drug Resistant Organism (MDRO) and/or C. Difficile Infection**

Tri-City Medical Center	~~Distribution:~~ Patient Care Services
PROCEDURE:	**PATIENT CONTROLLED ANALGESIA (PCA)**
Purpose:	To outline the interdisciplinary responsibilities for effective pain management utilizing patient controlled analgesia pump methodology.
Supportive Data:	Research has shown optimum analgesia can be achieved and maintained and sub-therapeutic levels or over-sedation avoided when patients control their own analgesia administration. The patient participates by initiating administration of the prescribed dose of an intravenous analgesic. Patient selection of the use of PCA must be appropriate based upon age, mental state, level of consciousness, psychological and/or intellectual capacity. PCA by proxy (anyone other than patient pressing button) is not practiced. Nursing will utilize patient/family reports of pain, nursing assessment and findings to determine appropriateness of administering analgesia.
Equipment:	1. PCA Pump 2. PCA Administration tubing 3. PCA Syringe

A. **DEFINITIONS:**

1. Patient Controlled Analgesia: an interactive method of pain management that allows **the** patient to actively participate in managing their pain.
2. Basal rate: continuous infusion rate of medication
3. PCA dose: dose self-administered by the patient
4. Lockout: a safety mechanism that takes into consideration medication pharmacology to prevent 'dose stacking' leading to potential overdose. Patient will not be able to self-administer next PCA dose until lockout interval has lapsed
5. Bolus dose: is a dose administered by a licensed provider in response to pain not effectively controlled by PCA
6. Multimodal analgesia: use of more than one method for controlling pain. May be pharmacological or non-pharmacological.
7. PCA by proxy: unauthorized administration of a PCA dose by another person. This has a potential to produce significant harm and is therefore not permitted by this policy.
8. Opiate naïve patient: any patient for whom accurate prescription and non-prescription drug history can be verified and documented as consuming less than 60mg of oral morphine equivalents per day continuously for at least 7 days. Patients, for whom accurate prior opiate consumption history cannot be verified, should be considered opiate-naïve.
9. Opiate tolerant patient: Patients with documented history of consuming prescription and non-prescription opiates at doses higher or equal to 60mg of oral morphine equivalents per day for at least 7 consecutive days.
10. Standard PCA orders – method of pain management allowing nurses to monitor and notify physician/**Allied Health Professional** for further orders to adjust the PCA settings
11. Titratable PCA orders – method of pain management allowing nurses to monitor and adjust PCA setting using an approved PowerPlan based on adequacy of pain control, sedation and other side-effects.

B. **POLICY:**

1. PCA is a safe and effective mode of delivering pain medications and ~~are~~ **is** often used in combination with other pain management modalities.
   a. Patient's ability to utilize PCA device and understanding of operation and rationale must be verified prior to initiation.

Department Review	Clinical Policies & Procedures	Nursing Leadership ~~Executive Council~~	Medical Staff Department or Division	Pharmacy & Therapeutics Committee	Medical Executive Committee	Administration	Professional Affairs Committee	Board of Directors
5/93, 02/11; 05/14, **06/20**	03/11;06/14, **06/20**	03/11;06/14, **07/20**	**n/a**	07/14, **05/21**	04/11; 8/14, **07/21**	**08/21**	05/11;10/14, **n/a**	7/03, 3/04, 2/06, 9/08, 05/11,11/14 Implemented 01/2016

b. The goal of the individual patient's pain management shall be clear.
c. Assessment and re-assessment of patient's pain will be performed using appropriate tools per Patient Care Services (PCS) **Policy:** Pain Management ~~Policy~~.
d. Recognize the signs of adverse drug reactions and toxicities.
e. Recognize appropriate situations for bolus dose administration.
f. Proxy administration of bolus doses is not permitted.

2. Patients receiving PCA shall be educated on appropriate use.
   a. All components of pain management through PCA will be explained.
   b. Patients will be informed about common adverse affects of medications they are receiving
   ~~c. For patients receiving end tidal CO_2 ($EtCO_2$) monitoring, see PCS $EtCO_2$ Procedure~~

C. **PROCEDURE STANDARD PCA:**

1. Physician/~~Provider~~**AHP** responsibilities.
   a. Verify and document patient medication allergies.
   b. Assess patient for cognitive and physical ability to manage a PCA self-administration system
   c. Complete pre-admission/pre-op pain medication history.
      i. Accurate prior pain medication history allows for better initial PCA dose selection.
   d. Enter orders in the electronic health record (EHR).
      i. PCA orders will only be accepted via approved PowerPlan in the EHR
      ii. PCA orders will include:
         1) Medication name
         2) PCA Dosé (mg, mcg)
         3) Lockout interval (min)
         4) Basal rate (mg/hr, mcg/hr), if applicable or appropriate
         5) Bolus dose (additional order)
   e. Manage potential adverse effects, especially constipation, nausea/vomiting, over sedation, respiratory depression, pruritus, confusion.
2. Pharmacist responsibilities:
   a. Verify and document patient medication allergies.
   b. Review outpatient pain medication requirements, concomitant drug-drug interactions (drugs that can cause sedation or respiratory depression), and high risk disease states (for example: history of chronic obstruction pulmonary disease with hypercapnea, sleep apnea).
   c. Verify physician/**AHP** ~~provider~~ orders **a** timely **manner.**
   d. Label all medication with patient name, medical record (MR) number, medication name, concentration, dose and rate.
   e. Assist with safe and effective medication administration.
   f. Detect and report medication-related adverse events.
3. Nursing to complete the following prior to initiating PCA therapy for pain management:
   a. Verify patient's ability to utilize PCA device and understanding of operation and rationale.
   b. Instruct patient/family about danger of having others press PCA button for patient.
      i. Ensure the patient is given written and verbal information regarding the PCA and document in medical record.
         1) Refer to the Tri-City Medical Center Intranet under Patient Information.
   c. Verify IV site and patency.
   d. Check blood pressure, pulse, respiratory rate, and character of respiratory status.
   e. Verify pain level with implementation of consistent pain rating tool (i.e., numerical pain scale 0-10).
   f. Request patient's acceptable pain level (target pain level).
   g. Check sedation level using Pasero Opiod-Induced Sedation Scale (POSS)
   h. Initiate end tidal CO_2 ($EtCO_2$) monitoring ~~see PCS $EtCO_2$ Procedure~~.
      i. If patient refuses EtCO2 monitoring, initiate continuous pulse oximetry ~~see Patient Care Services (PCS) Pulse Oximetry Procedure~~

ii. Document refusal of $EtCO_2$ monitoring in the EHR. If patient also refuses continuous pulse oximetry, document refusal of pulse oximetry in the EHR

i. Confirm pharmacist verification of physician order.

j. Verify and document patient medication allergies.

4. Initiation:
   a. Administer ordered medication per PCS **Policy:** Medication Administration ~~Policy~~.
   b. Program the pump in milligram (mg) dose only, never by volume (mL).
      i. Verify with second RN any change in medication, concentration, infusion rate, **new syringe,** lockout interval or demand dose.
      ii. Lock PCA keys in Pyxis, do not leave in pump/controller.
      iii. Use PCA keys to change syringe, tubing, adjust parameters of dosage, lockout intervals or one (1) hour limits.
   c. Administer loading dose as appropriate.
   d. Administer bolus dose(s) as appropriate.
   e. Document initiation of medication and syringe change(s) in electronic medication administration record (eMAR).
   f. Document initial assessment in the PCA section in the EHR.
      i. Include baseline data prior to initiating PCA.
   g. Ensure Naloxone (Narcan) is available in Pyxis.
5. Maintenance/Assessment:
   a. Check syringe for proper medication, date on syringe and tubing, and confirm correct program of pump-controller with the orders by the oncoming shift. Document verification in the PCA section in the EHR ~~e~~ (only requires one RN signature).
   b. Perform assessment including:
      i. Vital signs (blood pressure, pulse, respiratory rate, pain level and oxygen saturation if on pulse oximetry)
      ii. POSS score
      iii. $EtCO_2$ level
   c. Perform assessment upon initiation and any change in medication, concentration, infusion rate, lockout interval or PCA dose:
      i. Every one (1) hour times two, then
      ii. Every two (2) hours times three, then
      iii. Every four (4) hours until stable (stable is defined as patient at or below target pain level, respiratory rate is greater than or equal to 12, and level of sedation is less than or equal to 2 on the POSS)
      iv. If unstable, POSS score 3 or greater and respiratory rate less 10 (mechanical breaths) assess:
         1) Every one (1) hour times two, then
         2) Every two (2) hours times three, then
         3) Every four (4) hours until stable
   d. Document assessments in the PCA section in the ~~EHR~~**her,**
   e. Change the PCA tubing and syringe every 96 hours and label with date of next tubing change.
   f. Keep call bell within reach and encourage patient to ask for assistance as needed.
   g. Supervise ambulation.
6. Additional requirements for titratable PCA:
   a. Verify PCA orders include:
      i. Pathway (opiate naïve or opiate tolerant)
      ii. Loading dose - one-time bolus opiate to be administered immediately prior to PCA initiation
   b. Administer loading dose (DO NOT ADMINISTER if patient has signs of excessive sedation, hemodynamic instability or respiratory depression).
   c. Start PCA therapy
      i. If pain level is less than 6 (numerical scale) or at target pain level, continue current settings

ii. For pain level greater than or equal to 7 and patient does not exhibit excessive sedation:
1) Administer bolus dose per PowerPlan.
2) If unresponsive to bolus dose after at least 30 minutes, increase PCA dose/lockout interval in accordance with PowerPlan.
3) If pain is not controlled after two (2) PCA dose adjustments, physician/**AHP**~~provider~~ will be notified.

d. Assess pain response; RN may decrease PCA dose but not the lockout interval, per PowerPlan after 2 consecutive pain assessments, if patients' pain is well controlled, to maintain goal pain level on lowest possible opioid dose.

7. Report to physician immediately if:
a. Respiratory rate is less than 10 breaths per minute or apneic
b. $EtCO_2$ alarms indicating hypercapnea or persistent hypoventilation
c. Hypotension (decrease in systolic blood pressure 20 mmHg from baseline)
d. Anaphylactic reaction
e. Presence of persistent nausea, vomiting, rash, pruritus
f. Ineffective pain relief with current order
g. Patient level of consciousness unresponsive / POSS score is 3-4

8. Perform appropriate intervention(s) in the event of neurological, cardiovascular, or respiratory depression:
a. Discontinue PCA administration
b. Direct patient to breathe deeply
c. Stimulate patient verbally and tactually
d. Administer naloxone (narcan) IV push as ordered by physician and call Rapid Response Team
i. Observe for increased respiratory rate within 1-2 minutes of Narcan administration.
e. Notify physician of patient's condition
f. Monitor vital signs every 15 minutes until patient stable

D. **DOCUMENTATION:**
1. Document assessments in the PCA section in the EHR
2. Document initiation of medication and syringes changes on the (eMAR)
3. Document all narcotic wasting in Pyxis.

E. **RELATED DOCUMENT(S):**
1. PCS Policy: Medication Administration
2. PCS Policy: Pain Management
3. Medication Currently Used for PCA

~~E.~~**F. REFERENCES:**
1. Harvard PCA Patient Controlled Analgesia System (Brochure) of Bard Electro Medical Systems, Inc.
2. *Warning Issued On Analgesia "By Proxy"*, RN Magazine, Vol. 68, No. 3, March 2005.Pullen Jr., Richard. *Managing I.V. Patient-Controlled Analgesia*, Nursing 2003. Volume 33, Number 7.
3. Alaris Infusion Pump Computer Based Training, located on the Tri-City Medical Center Intranet, http://etcmc/alaris/medley(tm)_system_v7_cbt/menu.htm

Your Guide to Patient Controlled Analgesia (PCA)

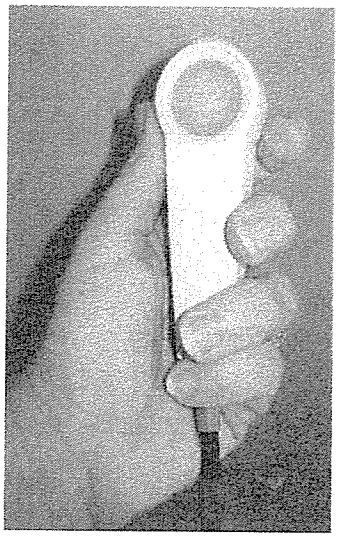
PCA

Patient Controlled Analgesia (PCA) is a way for patients to give themselves pain medication on an "as needed" basis. Your doctor determines the amount of pain medicine that will be given each time you push the button. This means that you have control over your own pain relief.

The PCA is simple to use. When you are feeling pain, push the button on the PCA handset and a dose of pain medication will be given to you automatically. Your nurse will show you how to use this handset. The medication goes directly into the vein through the IV (intravenous) tubing.

For your safety… ***YOU ARE THE ONLY ONE ALLOWED TO PUSH THE BUTTON ON THE HANDSET.***

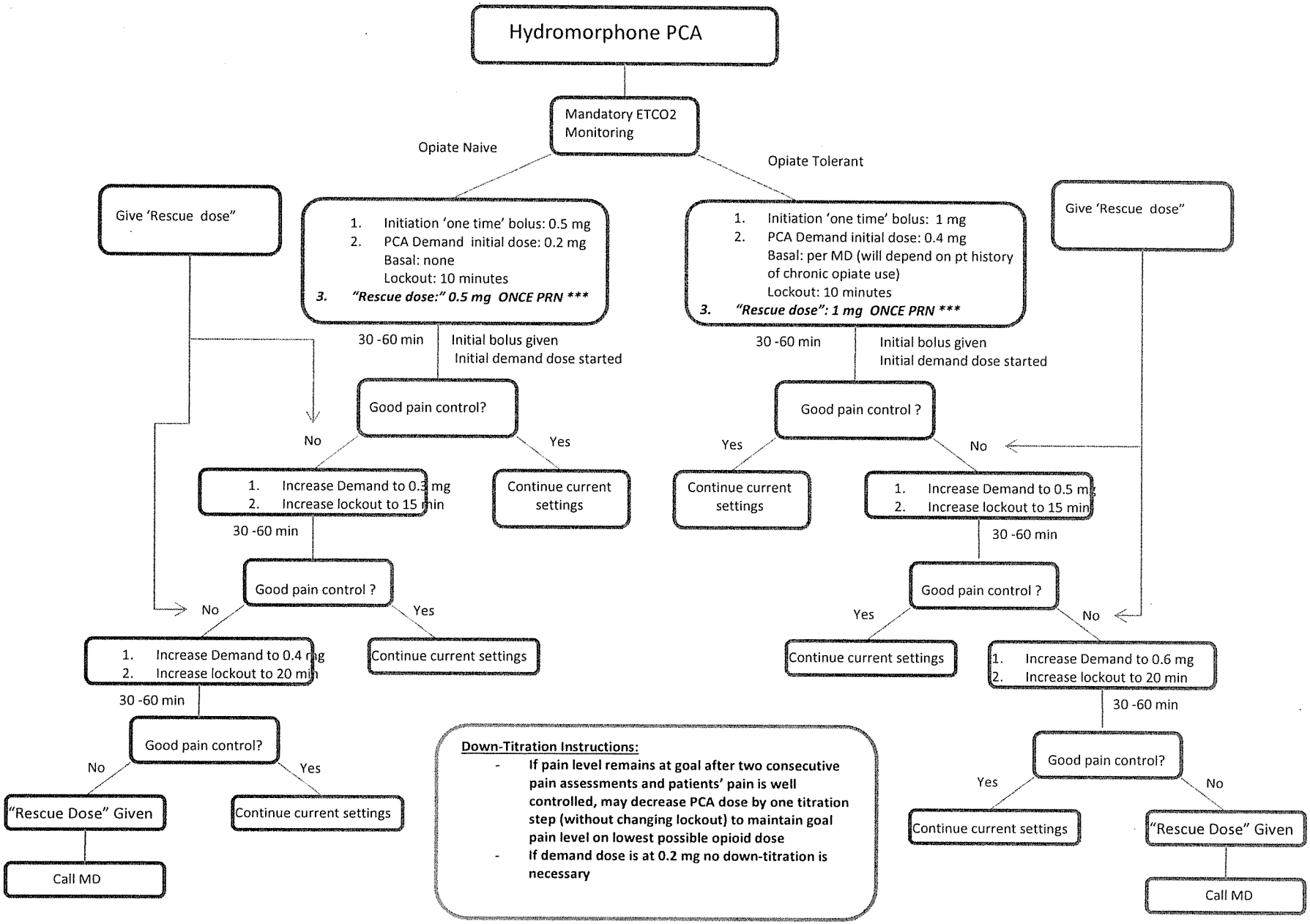
PCA is very safe. Many patients find it easier to rest and recover more quickly with good pain control. A certain amount of pain medicine is given when you, the patient, push the button. You may find it helpful to push the button just before an activity that may cause you pain, such as dressing changes, walking, coughing, or going to therapy. We understand that your pain is real. If your pain is not relieved, let your nurse know. We want to help you control your pain. If you experience any side effects such as itching, hives, nausea, constipation, difficulty urinating, mental confusion, or excessive sleepiness let your nurse know. Our goal is to make you as comfortable as possible during your stay here at Tri-City Medical Center.



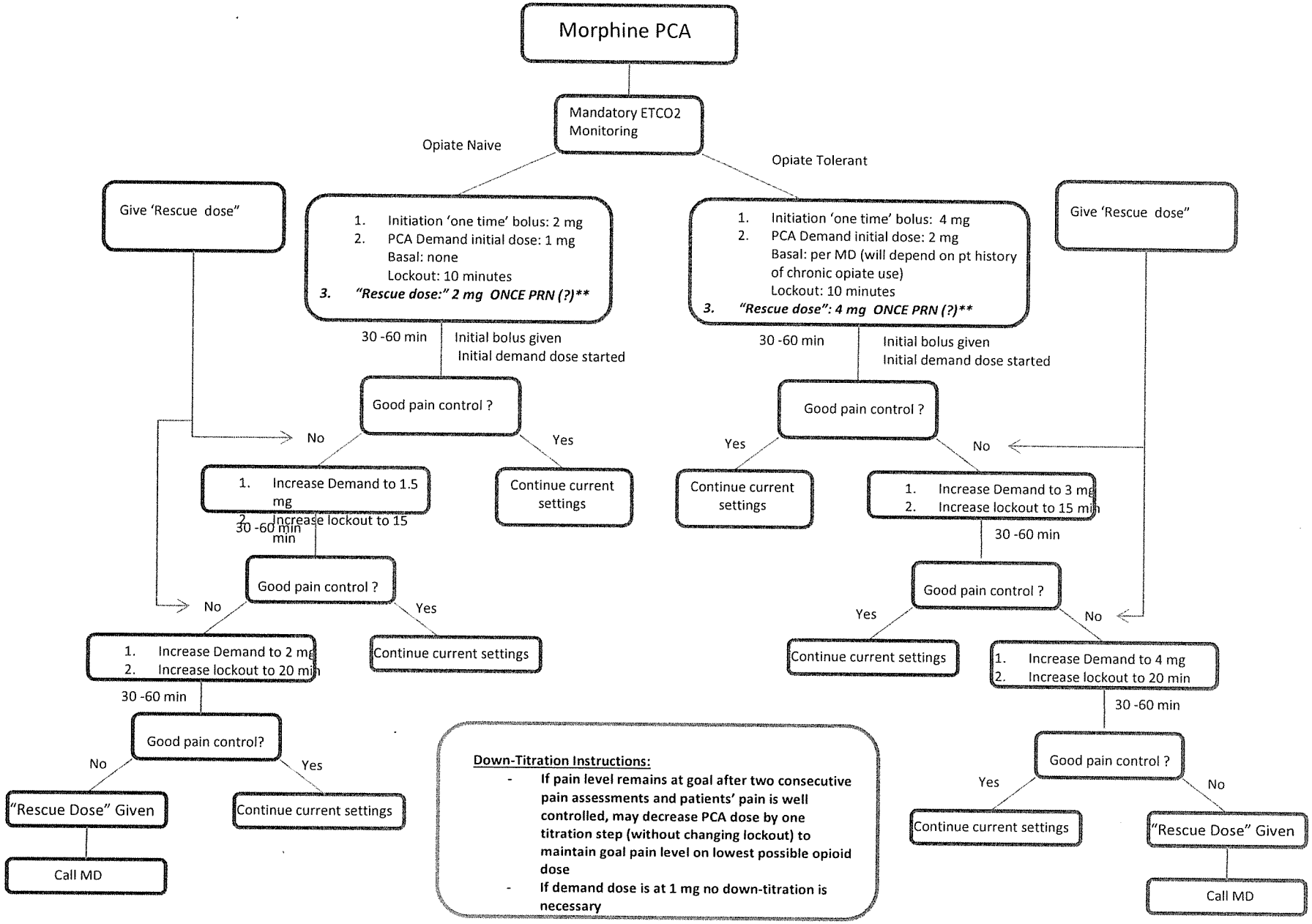
MEDICATIONS CURRENTLY USED FOR PCA

Medication	Side Effects	Route	Total Dose*	Onset	Duration
Opiods	Metabolized in liver excreted in urine				
Morphine	Respiratory depression, hypotension nausea and vomiting, Anaphylaxis, Histamine release.	IV IM/SQ	0.1-0.2 mg/kg 0.1-0.2 mg/kg	1-5 min 30 min	3-4 hr
Hydromorphone	Respiratory depression, somnolence, hypotension nausea and vomiting, urinary retention *5X more potent than Morphine mg for mg.*	IV IM SQ	1-4 mg every 4-6 hours	5-10 minutes	3-4 hr
Meperdine (DEMEROL) Only recommended if above PCA meds contraindicated.	Respiratory depression; Anxiety & agitation toxic metabolite can lower seizure threshold	IV/IM IV/IM IV/IM	25-30 mg 1-2 mg/kg Max dose: 100 mg. Max dose in any 24 hours is 600mg	3-5 min.	2 hr
Reversal Agents					
Naloxone (NARCAN)	Withdrawal symptoms (agitation / HTN, increased HR)	IV/IM/SQ	PCA Order for RR <10 Is 40 mcg / 0.4mg IV q 1-2 Min Until RR >10 [0.4mg Narcan (1mL) + 9mL NS] usual dose 0.1-0.4mg	1-2 min (IV)	15-45 min

DRUG/ CONC.	BASAL RATE ORDER	BASAL RATE SETTING IN MLs	BASAL RATE SETTING IN MGs	PCA DOSE Demand Dose ORDER IN MGs	PCA DELAY Lockout IN MINUTES	ONE-HR DOSAGE LIMIT IN mL's	ONE-HR DOSAGE LIMIT IN MGs
MORPHINE	**None**	**0**	**0**	**1**	**8**	**7.5**	**7.5**
1mg/ml	None	0	0	1	10	6.0	6.0
	1mg/hr	**1**	**1**	**1**	**8**	**8.5**	**8.5**
60 ml syringe	1mg/hr	1	1	1	10	7.0	7.0
55mg in 55 mL	**2mg/hr**	**2**	**2**	**1**	**8**	**9.5**	**9.5**
	2mg/hr	2	2	1	10	8.0	8.0
HYDROMORPHONE (Dilaudid)	**None**	**0**	**0**	**0.2**	**8**	**7.5**	**1.5**
0.2mg/ml	None	0	0	0.2	10	6.0	1.2
	0.2mg/hr	**1.0**	**0.2**	**0.2**	**8**	**8.5**	**1.7**
60 ml syringe	0.2mg/hr	1.0	0.2	0.2	10	7.0	1.4
10mg in 50mL	**0.4mg/hr**	**2**	**0.4**	**0.2**	**8**	**9.5**	**1.9**
	0.4mg/hr	2	0.4	0.2	10	8.0	1.6
MEPERIDINE (Demerol)	None	0	0	10	20	3.0	30
10mg/ml	None	0	0	15	20	4.5	45
60 ml syringe	None	0	0	20	20	6.0	60
550 mg in 55 mL	10mg/hr	1	10	15	20	5.5	55



** "Rescue dose " could be reserved for patients who reached the final titration step without achieving pain control OR it could be given prior to initiation of each titration step . MD will be contacted if the patient does not achieve pain control AND all titration options were exhausted by RN



** "Rescue dose " could be reserved for patients who reached the final titration step without achieving pain control OR it could be given prior to initiation of each titration step . MD will be contacted if the patient does not achieve pain control AND all titration options were exhausted by RN

Tri-City Medical Center
Oceanside, California

PATIENT CARE SERVICES

DELETE – incorporate into Patient Care Services Policy: Advance Health Care Directive

ISSUE DATE: 12/09

SUBJECT: Physicians Orders for Life Sustaining Treatment (POLST)

REVISION DATE: 05/10, 03/17

Patient Care Services Content Expert~~Department~~ Approval: ~~08/16~~04/20
Clinical Policies and Procedure Committee Approval: ~~09/16~~06/20
Nursinge Leadership~~Executive Committee~~ Approval: ~~09/16~~07/20
Critical Care Committee Approval: ~~10/16~~06/21
Pharmacy & Therapeutics Committee Approval: n/a
Medical Executive Committee Approval: ~~02/17~~07/21
Administration Approval: 08/21
Professional Affairs Committee Approval: ~~03/17~~ n/a
Board of Directors Approval: 03/17

~~A. **DEFINITIONS:**~~

~~1. Physicians Orders for Life Sustaining Treatment (POLST): A standardized form that complements an advance directive by taking the individual's wishes regarding life-sustaining treatment, and converting them into a physician order.~~

~~a. The POLST document is a statewide mechanism for seriously ill individuals or those in very poor health to communicate his or her wishes about a range of life-sustaining or resuscitative measures. It is portable, authoritative, and immediately actionable physician order consistent with the patient's wishes, which shall be honored across treatment settings.~~

~~b. Pink paper is the recognized and recommended color of the form; however, the form remains valid on any color paper including facsimiles and photocopies.~~

~~B. **POLICY:**~~

~~1. Tri-City Healthcare District (TCHD) shall honor Physicians Orders for Life Sustaining Treatment (POLST). This policy outlines appropriate actions when a patient enters the hospital with a POLST form.~~

~~2. A health care provider is not required to initiate a POLST form, but is required to treat a patient in accordance with the POLST form.~~

~~3. A legally recognized health care decision maker may execute, revise, or revoke the POLST form for a patient only if the patient lacks decision making capacity.~~

~~4. If the POLST form conflicts with the patient's previously expressed health care instructions or advance directive, then the most recent expression of the patient's wishes govern.~~

~~5. For any conflicts or ethical concerns about the POLST orders, appropriate hospital resources (e.g., ethics committees, care conference, legal, risk management, or other administrative and medical staff resources) may be utilized to resolve the conflict.~~

~~6. Patient presents with a completed POLST form:~~

~~a. The RN shall confirm with the patient, or the patient's legally recognized health care decision maker that the POLST form is valid.~~

~~b. The RN shall communicate to the treating physician or Allied Health Professional the existence of the POLST form.~~

~~c. A copy of the POLST form shall be placed in the medical record, under the Orders tab. The original POLST form shall be returned to the patient.~~

~~i. Enter POLST orders in Cerner.~~

~~7. Reviewing/Revising a POLST form:~~

a. The POLST form may be revised at any time by the patient or the patient's legally recognized healthcare decision maker. Initiate a referral to Social Services for assistance in revising the form.
   i. Discussions about revising or revoking the POLST shall be documented in the medical record, and dated and timed. This documentation shall include the essence of the conversation and the parties involved in the discussion.
   ii. To void the POLST form, draw a line through sections A through D and write "VOID" in large letters. Sign and date this line.
      1. If a new POLST form is completed, a copy of the original POLST marked "VOID" shall be kept in the medical record directly behind the current POLST.

C. **FORMS/RELATED DOCUMENTS:**
1. Physicians Orders for Life Sustaining Treatment (POLST) sample form

D. **REFERENCES:**
1. California Hospital Association Consent Manual (2015)

California POLST Form

In order to maintain continuity throughout California, please follow these instructions:

****** Copy or print POLST form on 65# Cover Pulsar Pink card stock. ******

Wausau Pulsar Pink card stock is available online and at some office supply stores.

Pulsar pink paper is used to distinguish the form from other forms in the patient's record; however, the form will be honored on any color paper. Faxed copies and photocopies are also valid POLST forms.

HIPAA PERMITS DISCLOSURE OF POLST TO OTHER HEALTH CARE PROVIDERS AS NECESSARY

Physician Orders for Life-Sustaining Treatment (POLST)

EMSA #111 B
(Effective 1/1/2016)*

First follow these orders, then contact **Physician/NP/PA**. A copy of the signed POLST form is a legally valid physician order. Any section not completed implies full treatment for that section. POLST complements an Advance Directive and is not intended to replace that document.

Patient Last Name:	Date Form Prepared:
Patient First Name:	Patient Date of Birth:
Patient Middle Name:	Medical Record #: *(optional)*

A — CARDIOPULMONARY RESUSCITATION (CPR): *If patient has no pulse and is not breathing.*

If patient is NOT in cardiopulmonary arrest, follow orders in Sections B and C.

Check One

☐ **Attempt Resuscitation/CPR** (Selecting CPR in Section A **requires** selecting Full Treatment in Section B)

☐ **Do Not Attempt Resuscitation/DNR** (Allow Natural Death)

B — MEDICAL INTERVENTIONS: *If patient is found with a pulse and/or is breathing.*

Check One

☐ **Full Treatment – primary goal of prolonging life by all medically effective means.**
In addition to treatment described in Selective Treatment and Comfort-Focused Treatment, use intubation, advanced airway interventions, mechanical ventilation, and cardioversion as indicated.

☐ ***Trial Period of Full Treatment.***

☐ **Selective Treatment – goal of treating medical conditions while avoiding burdensome measures.**
In addition to treatment described in Comfort-Focused Treatment, use medical treatment, IV antibiotics, and IV fluids as indicated. Do not intubate. May use non-invasive positive airway pressure. Generally avoid intensive care.

☐ ***Request transfer to hospital only** if comfort needs cannot be met in current location.*

☐ **Comfort-Focused Treatment – primary goal of maximizing comfort.**
Relieve pain and suffering with medication by any route as needed; use oxygen, suctioning, and manual treatment of airway obstruction. Do not use treatments listed in Full and Selective Treatment unless consistent with comfort goal. ***Request transfer to hospital only if comfort needs cannot be met in current location.***

Additional Orders: _____

C — ARTIFICIALLY ADMINISTERED NUTRITION: *Offer food by mouth if feasible and desired.*

Check One

☐ Long-term artificial nutrition, including feeding tubes. Additional Orders: _____

☐ Trial period of artificial nutrition, including feeding tubes. _____

☐ No artificial means of nutrition, including feeding tubes. _____

D — INFORMATION AND SIGNATURES:

Discussed with: ☐ Patient (Patient Has Capacity) ☐ Legally Recognized Decisionmaker

☐ Advance Directive dated _____, available and reviewed → Health Care Agent if named in Advance Directive:
☐ Advance Directive not available Name: _____
☐ No Advance Directive Phone: _____

Signature of Physician / Nurse Practitioner / Physician Assistant (Physician/NP/PA)
My signature below indicates to the best of my knowledge that these orders are consistent with the patient's medical condition and preferences.

Print Physician/NP/PA Name:	Physician/NP/PA Phone #:	Physician/PA License #, NP Cert. #:
Physician/NP/PA Signature: *(required)*		Date:

Signature of Patient or Legally Recognized Decisionmaker
I am aware that this form is voluntary. By signing this form, the legally recognized decisionmaker acknowledges that this request regarding resuscitative measures is consistent with the known desires of, and with the best interest of, the individual who is the subject of the form.

Print Name:		Relationship: *(write self if patient)*
Signature: *(required)*	Date:	FOR REGISTRY USE ONLY
Mailing Address (street/city/state/zip):	Phone Number:	

SEND FORM WITH PATIENT WHENEVER TRANSFERRED OR DISCHARGED

*Form versions with effective dates of 1/1/2009, 4/1/2011 or 10/1/2014 are also valid

HIPAA PERMITS DISCLOSURE OF POLST TO OTHER HEALTH CARE PROVIDERS AS NECESSARY

Patient Information

Name (last, first, middle):	Date of Birth:	Gender: M F

NP/PA's Supervising Physician	**Preparer Name** (if other than signing Physician/NP/PA)	
Name:	Name/Title:	Phone #:

Additional Contact ☐ None

Name:	Relationship to Patient:	Phone #:

Directions for Health Care Provider

Completing POLST

- **Completing a POLST form is voluntary**. California law requires that a POLST form be followed by healthcare providers, and provides immunity to those who comply in good faith. In the hospital setting, a patient will be assessed by a physician, or a nurse practitioner (NP) or a physician assistant (PA) acting under the supervision of the physician, who will issue appropriate orders that are consistent with the patient's preferences.
- **POLST does not replace the Advance Directive**. When available, review the Advance Directive and POLST form to ensure consistency, and update forms appropriately to resolve any conflicts.
- POLST must be completed by a health care provider based on patient preferences and medical indications.
- A legally recognized decisionmaker may include a court-appointed conservator or guardian, agent designated in an Advance Directive, orally designated surrogate, spouse, registered domestic partner, parent of a minor, closest available relative, or person whom the patient's physician/NP/PA believes best knows what is in the patient's best interest and will make decisions in accordance with the patient's expressed wishes and values to the extent known.
- A legally recognized decisionmaker may execute the POLST form only if the patient lacks capacity or has designated that the decisionmaker's authority is effective immediately.
- To be valid a POLST form must be signed by (1) a physician, or by a nurse practitioner or a physician assistant acting under the supervision of a physician and within the scope of practice authorized by law and (2) the patient or decisionmaker. Verbal orders are acceptable with follow-up signature by physician/NP/PA in accordance with facility/community policy.
- If a translated form is used with patient or decisionmaker, attach it to the signed English POLST form.
- Use of original form is strongly encouraged. Photocopies and FAXes of signed POLST forms are legal and valid. A copy should be retained in patient's medical record, on Ultra Pink paper when possible.

Using POLST

- Any incomplete section of POLST implies full treatment for that section.

Section A:

- If found pulseless and not breathing, no defibrillator (including automated external defibrillators) or chest compressions should be used on a patient who has chosen "Do Not Attempt Resuscitation."

Section B:

- When comfort cannot be achieved in the current setting, the patient, including someone with "Comfort-Focused Treatment," should be transferred to a setting able to provide comfort (e.g., treatment of a hip fracture).
- Non-invasive positive airway pressure includes continuous positive airway pressure (CPAP), bi-level positive airway pressure (BiPAP), and bag valve mask (BVM) assisted respirations.
- IV antibiotics and hydration generally are not "Comfort-Focused Treatment."
- Treatment of dehydration prolongs life. If a patient desires IV fluids, indicate "Selective Treatment" or "Full Treatment."
- Depending on local EMS protocol, "Additional Orders" written in Section B may not be implemented by EMS personnel.

Reviewing POLST

It is recommended that POLST be reviewed periodically. Review is recommended when:

- The patient is transferred from one care setting or care level to another, or
- There is a substantial change in the patient's health status, or
- The patient's treatment preferences change.

Modifying and Voiding POLST

- A patient with capacity can, at any time, request alternative treatment or revoke a POLST by any means that indicates intent to revoke. It is recommended that revocation be documented by drawing a line through Sections A through D, writing "VOID" in large letters, and signing and dating this line.
- A legally recognized decisionmaker may request to modify the orders, in collaboration with the physician/NP/PA, based on the known desires of the patient or, if unknown, the patient's best interests.

This form is approved by the California Emergency Medical Services Authority in cooperation with the statewide POLST Task Force.
For more information or a copy of the form, visit www.caPOLST.org.

SEND FORM WITH PATIENT WHENEVER TRANSFERRED OR DISCHARGED

Tri-City Medical Center	Distribution: Patient Care Services
PROCEDURE:	**STEMI TRANSFER FROM NON-PERCUTANEOUS CORONARY INTERVENTION CAPABLE FACILITY**
Purpose:	~~1.~~ To define appropriate actions to accommodate a STEMI patient transfer.

~~A. **DEFINITIONS:**~~

~~1. STEMI: ST-segment elevation myocardial infarction~~

~~B.~~**A. PURPOSE:**

1. To provide a systematic method for responding to ST Elevation Myocardial Infarction (STEMI) patient transfers from non-percutaneous coronary intervention capable facilities.
2. To assure compliance with Centers for Medicare & Medicaid Services (CMS), San Diego STEMI Guidelines as outlined by the County of San Diego Emergency Medical Services (EMS) STEMI Receiving Centers (SRC) Standards and other accreditation organization standards and guidelines.

~~C.~~**B. PROCEDURE:**

1. The transferring facility will notify Tri-City Medical Center (TCMC) **Emergency Department** of the request to transfer the STEMI patient. ~~by calling 1-855-333-TCMC.~~
   ~~a. The mobile intensive care nurse (MICN) in the radio room will begin the patient transfer Data Sheet and collect: patient name, DOB, sex, reason for transfer, transferring physician, physician contact number.~~

~~2. The MICN will ensure that patient transportation has been arranged by the transferring facility or activate transportation mode for the patient based upon the level of care required, availability of transport mode, and the estimated transport arrival to the transferring facility with consideration to expediting the arrival of the patient to TCMC.~~
   ~~a. Paramedic, Advanced Life Support ambulance~~
      ~~i. Dial North Comm Dispatch direct at 1-858-756-1126.~~
   ~~b. Air Medical Transport~~
   ~~c. Critical Care Transport~~

~~3. STEMI Bypass Plan: MICN will place TCMC on STEMI bypass status with the San Diego County MICN Data Entry Network upon acceptance of the STEMI transfer patient.~~
   ~~a. Cardiologist and/or Cardiac Cath Lab will be responsible for determining the need to continuing STEMI bypass.~~

~~4.~~**2.** The **mobile intensive care nurse (**MICN**)** will activate Code STEMI upon the earliest of the request for emergent transport, departure of the patient from the transferring facility, or radio report from the transporting agency.
   a. Contacts Public Branch Exchange (PBX) at 66 and requests Code STEMI activation to the Emergency Department (ED) with estimated time of arrival (ETA).

~~5.~~**3.** STEMI Team Notification:
   a. PBX operator will notify STEMI team members by sending a bulk page indicating Code STEMI Transfer activation and indicate patient name and ETA.
      1) Cardiac Cath Lab (CCL) team
   b. The ED physician will page the Cardiologist upon verbal acceptance of the patient with the transferring hospital physician.
      i. STEMI Team Response:
      ii. Cardiologist will respond to page by calling ED and consulting with ED physician.
         1) CCL team will respond to PBX confirming page was received and report to CCL and ED within 30 minutes from page .
   c. STEMI Team Response Verification
      i. PBX will notify the Code STEMI call originator of the STEMI team response.

Department Review	Clinical Policies & Procedures	Nursing Leadership ~~Executive Committee~~	Department of Emergency Medicine	Division of Cardiology	Medical Executive Committee	Admini stration	Professional Affairs Committee	Board of Directors
05/14~~New~~, 03/20	05/14, 04/20	05/14, 05/20	11/1406/20	12/15, 11/20	01/16, 07/21	08/21	02/16, n/a	02/16

ii. If no response from a CCL team member, PBX will notify the Cardiac Cath Lab Supervisor on call.

~~6.~~**4.** Cancellation of Code STEMI:

a. The ED physician or cardiologist evaluating the patient may, at his/her clinical discretion, cancel Code STEMI activation.

~~A. **RELATED DOCUMENTS:**~~

~~1. STEMI Transfer to TCMC ED Pathway~~

~~2. STEMI Transfer from Non-CPI Capable Facility Process~~

Tri-City Medical Center	~~Distribution:~~ Patient Care Services
PROCEDURE:	**THERAPEUTIC USE OF RADIOPHARMACEUTICALS FOR INPATIENTS**
Purpose:	To ensure appropriate radiation protection to staff, patients, and visitors.
Supportive Data:	Title 17 California Code of Regulations 10 CFR 20
Equipment:	N/A

A. **POLICY:**

1. All patients treated with Iodine $_{131}$ shall be placed in a private room with a toilet. The room and toilet areas most likely to be contaminated will be covered with protective material as appropriate to the amounts of contamination to be expected. Particular attention should be given to object likely to be touched by the patient, i.e., telephones, doorknobs and other items that would be difficult to decontaminate.
2. The patient's room will be as far away from the nursing station and heavy traffic hallways.
3. The patient's room will be properly posted in accordance with 10 CFR Part 20.1902
4. Surveys of the patient's room and surrounding areas will be conducted as soon as possible after administration of the treatment dosage. Exposure rates will be measured at the patient's bedside, at one meter from the bed, and at the entrance to the room and the adjoining room.
5. The Radiation Safety Officer (RSO) will "brief" the nurses on radiation safety precautions, and "supplement" this by completing the form "Nursing Instructions for Patient Receiving Radioactive Therapy". A copy will be posted on the patient's chart.
6. Radiation levels in unrestricted areas will be maintained as specified in 10 CFR Part 20.1301.
7. Tissue, surgical dressings, and other similar waste items will be placed in a specially designated container. The material in the container will be considered contaminated and held for decay prior to disposal as normal waste.
8. All linens and non-disposable items used for these patients will be held in plastic bags in the patient's room and will be checked for contamination by the nuclear medicine technologist, the RSO or designee. Items may be returned for normal use or held for decay or decontamination, as appropriate. (Items held for decay will be stored in the long term storage area on the roof of the center tower.)
9. Urine, excreta and vomits from Iodine $_{131}$ therapy patients shall be flushed down the toilet whenever possible.
10. Before a therapy patient's room is reassigned to another patient, the room will be surveyed for contamination and decontaminated if necessary, and all radioactive waste and waste container will be removed and stored until decay. The room will be considered clean if removable contamination is less than 200 dpm/100 cm. The radiation safety officer will issue a room release form to the nursing unit to verify decontamination has been completed.
11. Prior to administration, brief the patient on radiation safety procedures for dosage administration, visitor control, urine collection, radioactive waste and other items as applicable per department policy.
12. Only persons needed for medical, safety, or training purposes shall be present during the administration.
13. Mark a visitor "safe line" on the floor with tape as far from the patient as possible.
14. RSO or designee will supply the nurses with a dosimetry device and instruct the nurse as to correct procedure for using dosimetry device. Nurses will be considered Non-Occupational workers whose effective annual dose limit shall not exceed 0.5 rem. A record of the nurse's exposures shall be maintained in the RSO office.
15. A patient may be released without restriction if the exposure rate at one meter from the patient is 2 mR/hr or less, or the activity is 8 mCi or less.
    a. Higher levels of activity or exposure rates are permitted with restrictions.
        i. If the exposure rate at one meter is between 2 mR/hr and 18 mR/hr and/or the activity in the patient is between 8 and 80 mCi, the patient shall be given both

oral and written radiation/contamination precautionary instructions prior to discharge.

ii. Certain restrictions must be imposed on the release of the patient. Consult NCRP Report No. 37 for details pertaining to the age of persons in the household.

B. **NURSING INSTRUCTIONS ON RADIATIONS SAFETY PRECAUTIONS:**

1. **Only Registered Nurses will be allowed to do direct patient care with radiation patients on the inpatient units.**
~~1.~~**2.** **Registered n**~~N~~urses shall spend only the minimum **necessary** amount of time near the patient **to complete**~~for ordinary~~ nursing care.
~~2.~~**3.** Visitors will be limited to those 18 years of age or over unless other instructions are noted on patients chart.
~~3.~~**4.** Patients must remain in bed while visitors are in the room and visitors shall remain at least three feet from the patient, or behind the established visitor line.
~~4.~~**5.** Patients containing radioactive materials are to be confined to their room except for special medical or nursing purposes approved by the nuclear medicine department.
~~5.~~**6.** No nurse, visitor, or attendant who is pregnant shall be permitted in the room of a patient who has received a therapeutic amount of radioactivity until the patient no longer presents a radiation hazard. Female visitors will be asked ~~whether~~ **if** they are pregnant.
~~6.~~**7.** Attending personnel shall wear gloves when handling urinals, bedpans, emesis basins, or other container having any material obtained from the body of the patient. The gloves shall be left in the patient's room in the designated waste container. These gloves need not be sterile.
~~7.~~**8.** Disposable items such as food trays, plastic forks, plastic drinking cups etc. shall be used in the care of these patients whenever possible.
   a. These items shall be placed in the designated waste container. Contact the nuclear medicine technologist or the RSO will remove these items during the decontamination procedure.
~~8.~~**9.** All clothes and bed linens used by the patient shall be placed in the laundry bag provided and shall be left in the patient's room to be checked by the nuclear medicine technologist or the RSO.
~~9.~~**10.** All non-disposable items shall be placed in a plastic bag and shall be left in the patient's room to be checked by the nuclear medicine technologist or the RSO.
~~10.~~**11.** Surgical dressings shall be changed only as directed by the physician. Such dressings shall not be discarded but shall be collected in plastic bags. Handle these dressings only with tongs or tweezers. Wear disposable gloves. Contact the nuclear medicine technologist or the RSO for appropriate disposal and decay.
~~11.~~**12.** Utmost precautions must be taken to **prevent spilling**~~see that no~~ urine or vomit ~~is spilled~~ on the floor or the bed. If any part of the patient's room is suspected to be contaminated, notify the nuclear medicine technologist or the RSO.
~~12.~~**13.** If the nurse, attendant, or anyone else knows or suspects that his or her skin or clothing, including shoes, is contaminated, notify the nuclear medicine technologist or the RSO immediately.
   a. This person should remain in an area adjacent to the patient's room and should not walk about the hospital. If the hands become contaminated, wash them immediately with soap and water.
~~13.~~**14.** If a therapy patient ~~should~~ need**s** emergency surgery or **expires**~~should die~~, notify the RSO or the Nuclear Medicine Department immediately.
   a. The RSO shall initiate radiation safety precautions (e.g. as outlined in Section 5 of the NCRP Report No. 37)

C. **DISCHARGE:**

1. When the patient is discharged, call the RSO or designee or the nuclear medicine department and request that the room be surveyed and a room release has been issued before remaking the room for the general patient population.

D. **RELATED DOCUMENT(S):**
1. **Patient Care Services Policy: Radiation Safety**
~~1.~~2. **Principles of Radiation Safety**

Tri-City Medical Center	Patient Care Services
PROCEDURE:	**VENIPUNCTURE FOR SPECIMEN COLLECTION**
Purpose:	To establish a standard of care for the process of venipunctures for blood specimen collection.
Supportive Data:	The RN/Phlebotomist needs to be prepared with the proper equipment and supplies. The RN/Phlebotomist must choose the best site for the phlebotomy; positioning both, the patient and themselves, to facilitate a successful blood draw. Proper specimen collection is of the utmost importance to assure quality laboratory specimens.
Equipment:	1. Safety needles: Syringe, Multidraw Vacutainer and Butterfly and Blood Transfer Device, Luer-lok access device 2. Plastic Holder used for Vacutainer needles 3. Syringes – Sterile and non-sterile 4. Vacuum Tubes within expiration dates a. Blood Cultures b. Blue Stopper (sodium citrate) c. Red Stopper (no additive) d. Green Stopper (lithium heparin) e. Lavender Stopper (EDTA) f. Gray Stopper (sodium fluoride) 5. Tourniquets: a. Pre-cut tourniquet, a soft pliable non-latex bandage that is 1 inch wide and 15 inches long b. Blood pressure cuff 6. Antiseptics: a. 70% isopropanol (alcohol) b. Chloraprep (Chlorhexidine Gluconate) c. 2% Iodine Tincture SEPP 7. Non-sterile gauze pads: a. NICU: Saline Wipes 8. Puncture resistant disposal container 9. Adhesive bandages or Co-Flex flexible bandage, or gauze and paper tape 10. Non-latex gloves: 11. Blood Bank Armband if blood product(s) ordered

A. **POLICY:**

1. Non-Laboratory drawn specimens (by venipuncture only; excludes line draws) will be accepted by the laboratory if properly labeled blood specimen. Blood Cultures and Blood Bank Specimens will be accepted as follows:

Department	Blood Cultures	Blood Bank Specimens	Comments
Dialysis	no	With phlebotomist present at bedside	
Cardiac Cath Lab (CCL)	no	With phlebotomist present at bedside	
Emergency Department (ED)	no	With phlebotomist present at bedside	
Neonatal Intensive Care Unit (NICU)	yes	With phlebotomist present at bedside	
Intensive Care Unit (ICU)	no	With phlebotomist present at bedside	
Nursery			PKU only

Department Review	Clinical Policies & Procedures	Nursinge Leadership ~~Executive Committee~~	Department of Pathology	Pharmacy & Therapeutics Committee	Medical Executive Committee	Admini stration	Professional Affairs Committee	Board of Directors
09/06, 10/10, 05/14, 04/17, **07/20**	10/10, 05/14, 06/17, **08/20**	11/10, 05/14, 07/17, **10/20**	08/17, **06/21**	**n/a**	11/10, 06/14, 09/17, **06/21**	**08/21**	01/11, 07/14, 10/17, **n/a**	01/11, 07/14, 12/17

Department	Blood Cultures	Blood Bank Specimens	Comments
Operating Room Pre-op Hold	yes	Yes with properly labeled transfusion armband number	
Labor & Delivery (L&D)	no	Yes with properly labeled transfusion armband number	
Physician Offices	yes	Yes with properly labeled transfusion armband number	

a. The phlebotomist must **be** present at the bedside for blood bank specimens obtained by line draw.
b. The first blood culture may be obtained by line draw with physician order, and the second blood culture collection must be performed by venipuncture.

B. **PROCEDURE:**

1. Stoplight- read patient notices at the door or at the bedside.
2. Choose the appropriate personal protective equipment (PPE).
3. Introduce yourself, your reason of visit and your department.
4. Identify the patient using two identifiers depending on inpatient or outpatient status. Refer to Patient Care Services: Identification, Patient Policy
5. Verify patient diet restrictions have been followed if applicable.
6. Select Needle, System, and Collection Tubes:
   a. Select the appropriate type of needle and equipment for the blood draw based on the patient's physical characteristics and the amount of blood to be drawn.
      i. Vacutainer System: It is generally preferable to use the needle and syringe because it allows the blood to pass directly from the vein in the tube.
      ii. Plastic Syringe: In general, a syringe is used when drawing a specimen from individuals with fragile, thread or "rolly" vein walls and is used in conjunction with blood transfer device.
      iii. Butterfly Needle System: The butterfly system is used on infants and extremely difficult patients.
7. Perform hand hygiene and don gloves.
8. Provide patient education which may include:
   a. Although slightly painful, the venipuncture will be of short duration.
   b. Blood cultures require 2 separate draws (when applicable).
   c. Provide expectations for future repeat draws.
9. Position the patient:
   a. Sitting patient:
      i. Have the patient position his or her arm on the slanting on a slanting armrest and extend the arm to form a straight line from the shoulder to the wrist with no bend at the elbow.
   b. Lying down patient:
      i. Ask the patient to lie on his or her back in a comfortable position.
      ii. Have the patient extend his or her arm to form a straight line from the shoulder to the wrist.
      iii. Place a pillow under the arm if additional support is needed.
   c. No food, thermometer or chewing gum should be in the patient's mouth.
10. Select site for venipuncture:
   a. First choice is the arm without an intravenous (IV) access.
   b. Although the larger and fuller median cubital and cephalic veins are used most frequently, wrist and hand veins are also acceptable for venipuncture.
   c. Factors to consider in site selection:
      i. Extensive scarring: avoid burn areas
      ii. Mastectomy: specimens from this side may not be a representative specimen.

1) In emergency situation, you may proceed without physician/Allied Healthcare Professional (AHP)'s order.
2) For bilateral mastectomy, get approval from ordering physician/ AHP, then select site based upon their recommendation.

iii. Hematoma: may cause erroneous test results. If not other site available, collect specimen below the hematoma

iv. Cannula, Fistula, Vascular Graft: use a cannulated arm only after consulting with the attending physician/AHP

v. Foot draw:
1) Must not be attempted as a routine collection site, other than NICU.
2) A physician/AHP must give written permission before this procedure is started.

vi. A finger stick may be possible for some tests if no other site available.

vii. The nurse or physician/AHP may draw blood through the needle or catheter following insertion of IV catheter.

viii. Blood transfusions:
1) It is preferable to wait until the transfusion is completed before the blood is drawn, but orders regarding the timing of the blood draw would be followed.
2) When specimens are collected during the time that blood is being transfused, a comment "drawn during TXN" should be entered in the computer after each test.

d. If a patient has bilateral IV sites or the only arm available has an IV site:

~~ix. Refer to Venipuncture for Patients receiving Intravenous Infusion Procedure.~~

~~x.~~i. Never place a tourniquet or draw above an active IV site.

~~xi.~~ii. The site should be as far as possible below (distal) the IV.

~~xii.~~iii. When the site is within 3 inches of the active IV, the phlebotomist will need to free-text "DRAWN BELOW BUT NEAR IV" in the computer after each test.
1) Venipuncture above an inactive heparin lock is acceptable.

iv. IV fluids should be turned off a minimum of three (3) minutes as patient status permits.
1) Phlebotomist will ask the nurse to turn off or inactivate the IV fluids and inform the nurse when the draw is complete
2) Do not apply tourniquet until 3 minutes is over
~~1)~~3) The phlebotomist will need to free-text "IV OFF 3 MIN DRAWN ABOVE"

~~d.~~e. Close the patient's hand to make veins more prominent and easier to enter.
i. Avoid having the patient pump the hand which can cause the release of potassium from the muscle tissue.

~~e.~~f. Palpate and trace the path of veins several times with the index finger.
i. Arteries pulsate, are more elastic and have a thick wall.
ii. Thrombosed veins lack resilience, feel cordlike and roll easily.
iii. Lowering the extremity will allow the veins to fill to capacity.
iv. If superficial veins are not readily apparent, massage the arm from the wrist to the elbow to force blood into the vein wall.
v. Tapping sharply at the vein site with the index finger a few times will cause the vein to dilate.
vi. Applying a warming device, to the site for 4 minutes may have the same result.

11. Cleanse the venipuncture site with an alcohol pad using a circular motion from the center to the periphery. Allow area to dry.
a. For NICU infants **see NICU Standards of Care~~:~~**

~~i. Disinfect skin surfaces with Chlorhexadine Gluconate prep pads (available in NICU).~~
~~ii. Wipe away all disinfectant with saline wipe after procedure is complete.~~
~~iii. Alcohol should not be utilized for NICU infants.~~

b. **Allowing the site to ~~D~~d**rying~~** prevents the patient from having a burning sensation when the venipuncture is preformed and hemolysis of the specimen.

12. Apply the tourniquet:
    a. Wrap the tourniquet around the arm three to four inches above the venipuncture site.
    b. The tourniquet should be tight but not painful.
    c. The tourniquet should be released after no more than one minute.
    d. If the tourniquet must be applied for preliminary vein selection, it should be released and reapplied after two minutes.
    e. When drawing a Lactic Acid level:
        i. With other labs, collect the lactic acid level last and remove tourniquet before collection.
        ii. Without other labs do not use tourniquet.
13. Inspect the Needle and Syringe:
    a. Visually determine that the needle is free of hooks at the end of the point and free from small particles that could restrict the flow.
    b. Move the plunger within the barrel of the syringe to show syringe and needle patency and freedom of plunger movement.
14. Perform the Venipuncture:
    a. With thumb and forefinger, secure the vein by placing the forefinger 1 to 2 inches above the venipuncture site and the thumb just below the site.
    b. If unable to obtain a blood sample:
        i. Change the position of the needle.
            1) If the needle has penetrated too far into the vein, pull it back a bit.
            2) If it has not penetrated the vein far enough, advance it farther into the vein.
        ii. Try another tube, the tube being used may not have sufficient vacuum.
        iii. Probing is not recommended.
        iv. Loosen the tourniquet; it may have been applied too tightly thereby stopping the blood flow.
    c. If the Registered Nurse (RN)/Phlebotomist is unsuccessful after 2 attempts, it is suggested that he or she shall contact another person to attempt venipuncture.
    d. Factors to consider during venipuncture:
        i. To prevent hematoma:
            1) Puncture only the uppermost wall of the vein
            2) Remove the tourniquet before removing the needle
            3) Use major superficial veins
        ii. To prevent hemolysis:
            1) Mix anticoagulated specimens thoroughly by inverting tubes gently 5 to 10 times
            2) Avoid drawing blood from a hematoma
            3) Avoid drawing the plunger back too forcefully when using a needle and syringe
            4) Avoid using a needle that is too small
            5) Make sure the needle is fitted securely on the syringe to avoid frothing
            6) Without touching, ascertain that the venipuncture site is dry
15. Vacuum Method:
    a. Thread the appropriate needle into the vacutainer holder until it is secure.
    b. Tap all the tubes that contain additives to ensure that the entire additive is dislodged from the stopper and the wall of the tube.

c. Tube order for multiple collection draws:
   i. Blood Culture Bottles (Aerobic and Anaerobic)
   ii. Blue stopper (sodium citrate)
   iii. Red stopper (non-additive)
   iv. Green stopper (lithium heparin)
   v. Lavender stopper (EDTA)
   vi. Gray stopper (oxalate/sodium fluoride)

d. Insert the blood collection tube into the holder and onto the needle up to the recessed guideline on the needle holder. Do not push the tube beyond the guideline.
   i. Do not preassemble supplies outside the patient area.

e. With the bevel up, line up the needle with the vein. The needle should be held in one hand at a 15 to 30° angle to the arm. Penetrating the vein at the proper angle will prevent penetrating both blood vessel walls. The skin and vein should be entered in one smooth motion until the needle is in the center of the vein. Push the tube forward until the end of the needle punctures the stopper. Blood should flow immediately into the tube.

f. Fill the tube until the vacuum is exhausted and blood flow ceases. This will ensure that there is a correct ratio of anticoagulant to blood.

g. When the blood flow ceases, remove the tube from the holder. The shut-off valve recovers the point, stopping blood flow until the next tube is inserted.

h. Mix immediately after drawing each tube that contains an additive by gently inverting the tube 5 to 10 times. To avoid hemolysis, do not mix vigorously.

i. To obtain additional specimens, insert the next tube into holder. When the proper amount of blood has been obtained, the tourniquet should be released and patient's hand opened.

j. Before removing the needle from the vein, pull back slightly on the tube to release any remaining vacuum left in the tube.

k. The needle may then be withdrawn from the vein while gauze is placed over the puncture site.

l. Engage the safety mechanism on the needle. Dispose directly into sharps container.

16. Syringe and needle method:
   a. Insert the appropriate safety needle onto the syringe.
   b. Place the patient's arm in a downward position if possible.
   c. Line up the needle and syringe with the vein from which the blood will be drawn.
   d. Turn the needle so the bevel is in an upward position.
   e. Push the needle into the vein.
   f. Pull back on the syringe plunger until the desired amount of blood has been obtained.
   g. Release the tourniquet and open the patient's hand.
   h. The needle may now be withdrawn from the vein while gauze is placed over the venipuncture site.
   i. Lock the safety mechanism of the needle into place. Remove the needle from the syringe and dispose of the needle into the sharps container.
      i. Note: Never transfer blood by inserting the needle directly into the vacuum tubes.
   j. Attach a blood transfer device to the tip of the syringe and insert the vacuum tubes in order of blood draw to transfer the blood into the tubes.
   k. Gently mix tubes by inversion after transferring the blood into the tubes.
   l. Dispose of the syringe and transfer device into the sharps container.

17. Venipuncture using a butterfly needle:
   a. Attach appropriate syringe or vacutainer holder to tubing.
   b. Follow standard venipuncture technique until needed amount of blood is obtained.
   c. Follow proper process for needle withdrawal.
   d. Remove butterfly, engage safety mechanism on the needle, and dispose in a sharps container.

i. If syringe method is used, attach a blood transfer device to the syringe and fill the appropriate tubes with blood as outlined above.

18. Coagulation Studies:
    a. In-House Routine Tests:
        i. All the tests below are collected in a 2.7 ml sodium citrate (blue top) vacuum tube.
            1) PT (Prothrombin time and INR)
            2) PTT
            3) Fibrinogen
            4) D-Dimer
            5) TT (Thrombin Time)
            6) 1:1 Mixing Studies
        ii. DIC screens (Include PT/INR, PTT, Fibrinogen, FDP, D-dimer, Platelet Count and smear for schistocytes) require:
            1) 2.7 ml Sodium Citrate tube (Blue Top)
            2) EDTA tube (Lavender Top)
    b. In House Special Tests:
        i. The coagulation Department will provide tubes for the following tests:
            1) Infant Coagulation Studies: The coagulation Department will prepare special tubes for all children less than 1 year of age.
    c. Send out Special Coagulation Tests:
        i. The following will be drawn in ~~three (3)~~ 2.7 ml sodium citrate (Blue Top) tubes. :
            1) AT3 (Antithrombin III)
            2) Protein C
            3) Protein S
            4) Activated Protein C Resistant Factor V
            5) Factor Assays
            6) Hemostasis A Panel
            7) Refer to Laboratory Services Quick Reference Adult Patients Specimen Requirements~~- Coagulation Send outs Procedure~~ for the number of tubes required for each test(s) requested
    d. Special Considerations:
        i. It is very important to perform an atraumatic venipuncture, because any tissue fluid contamination will activate the clotting system.
        ii. It is critical that all tubes be filled to the required capacity. Overfilled tubes may clot and under filled tubes will give a false result
        iii. Line Draws: Coagulation studies are not to be drawn from A-lines unless ordered by a physician/AHP, except for NICU.
            1) The first 10 mL of blood must be discarded before blood is used to fill the coagulation tubes
                a) NICU: When utilizing venipuncture, do not discard any amount of specimen. Lines utilized for NICU Lab draws (in order of preference) should only be Umbilical Arterial Lines, Peripheral Arterial Lines, or Umbilical Venous lines.
            2) Phlebotomist/NICU RN must inform the Coagulation Department if a line draw must be done for a coagulation test.
            3) Must append a comment "line draw" to each test in the computer using FUNCTION: RE.
            4) Heel sticks and finger sticks are not allowed under any circumstances.
            5) Central Venous Access Devices: See Patient Care Service: Central Venous Access Devices, Adult Procedure.
        iv. Syringe draw: The last blood into a syringe will offer the best results for coagulation tests, so fill the blue top first.

1) If only coagulation tests are ordered, draw an extra 1-2 mL to leave in the syringe.

v. Butterfly draw: If the coagulation tube is the only tube to be drawn, a small red top tube should be drawn with at least 1 mL before filling the citrate tube (Blue Top).

19. Blood Cultures:
    a. Use appropriate equipment and draw appropriate volume of blood based on patient's age/weight:
        i. Newborns (less than 4 kilograms [kg]):
            1) Collect 1 mL of blood in a Peds Plus bottle from one site only.
        ii. Children 2 years of age or less:
            1) Collect 5 mL of blood in a Peds Plus bottle from one site only.
        iii. Children 2-6 years of age or weighing 30 – 80 pounds (lbs.):
            1) Use one aerobic and one anaerobic bottle and collect 5 mL of blood for each bottle
        iv. Adults and children weighing greater than 80 lbs.:
            1) Use 2 sets of aerobic and anaerobic bottles, each bottle containing 8-10 mL of blood.
            2) Select a different venipuncture site for each blood culture.
                a) If poor access requires that blood for culture be drawn through a port in an IV or indwelling catheter, the second must be drawn from a peripheral site as cultures drawn through catheters can indicate catheter colonization.
                b) Do not draw blood from a vein into which an IV solution is infusing.
                c) If venipuncture must be performed at the same site (usually due to bad veins), perform the second venipuncture at that site.
    b. Once a site is selected, clean site as follows and avoid touching site after cleansing.
        i. For adults, children, and infants greater than 2 months old:
            1) Using Chloraprep, cleanse with gentle, repeated back and forth strokes for 30 seconds and allow to dry.
            2) For infants less than 2 months old and NICU infants: disinfect skin surfaces with Chlorhexadine Gluconate prep pads (available in NICU). Wipe away all disinfectant with saline wipe after procedure is complete. Alcohol should not be utilized for NICU infants.
    c. Use a new needle with each venipuncture attempt.
        i. Do not palpate the skin after it is disinfected.
    d. Pop the cap of the blood culture bottle and inoculate first the aerobic bottle and then the anaerobic bottle with the appropriate amount of blood.
        i. If the cap has been off the blood culture bottle for any amount of time, the rubber stopper on the bottle must be cleaned with an alcohol prep pad.
        ii. For direct inoculation into the bottles from the needle apparatus, mark the side of the bottle with the recommended draw.
            1) For Aerobic bottles, mark 3rd lines down from top of bottle.
            2) For anaerobic bottles, mark 2nd lines down from top of bottle.
        iii. If using a needle and syringe, use the volume markings on the syringe to note the volume.
            1) Hold the syringe plunger during transfer to avoid transfer of excess blood into bottles having significant vacuum.
        iv. There is no need to change the safety device between inoculations.
20. Bandage the site:
    a. Patients not on anticoagulants:

i. Apply tape or an adhesive over the venipuncture site after checking that all bleeding has stopped. Ask the patient to leave the pressure dressing on for at least 30 minutes.
ii. If the patient continues to bleed, apply pressure to the site with a gauze pad until the bleeding stops. Then apply clean folded gauze as a pressure dressing to the site. Ask the patient to leave on the bandage for at least one hour.

b. Patients on anticoagulants:
i. Apply pressure for 2 minutes and then check for bleeding.
ii. Watch the venipuncture site for an additional 30-second interval until bleeding has stopped.
iii. Place clean gauze pad on the site and tape to create a pressure bandage.
1) Note: Patients on tPA will require additional pressure up to 20 minutes.

21. Disposal of Needle:
a. Dispose of needles promptly to prevent their reuse or accidental injury. The vacutainer needle and vacutainer holder assembly are disposed of in the sharps container. The syringe and needle should all be discarded in the sharps container.
i. Note: The vacutainer needle and holder will never be reused.
ii. Never clip, bend, recap, unscrew or otherwise manipulate a needle by hand.

22. Labeling:
a. Refer to Patient Care Services: Specimen Labeling Procedure.

23. Specimen Handling:
a. Follow any special specimen handling requirements for the specimens drawn such as protecting from light, placing on ice, or keeping at body temperature.

24. Specimen Transport:
a. When transporting from patient location to the Lab, place the specimens in a secondary container.
b. When using the pneumatic tube system, place the specimens in a zip lock, leak proof bag with the requisition or labels in the side pocket or clipped to the outside of the bag.

C. **RELATED DOCUMENT(S):**

1. Order of Draw
2. Patient Care Services: Central Venous Access Devices Procedure
3. Patient Care Services: Identification, Patients Policy
4. Patient Care Services: Specimen Labeling Procedure
~~Laboratory Pre-Analytical /Phlebotomy: Venipuncture for Patients receiving Intravenous Infusion Procedure~~
4~~.~~5. **Laboratory Pre-Analytical Phlebotomy: Adult Specimen Requirements** ~~Coagulation: Coagulation Send Outs Procedure~~

D. **REFERENCE(S):**

1. CLSI (2010) Procedures for the Handling and Processing of Blood Specimen for Common Laboratory Tests; Approved Guideline – Fourth Edition. CLSI document GP44-A4. Wayne, PA: Clinical and Laboratory Standards Institute
2. CLSI (2010) Tubes and Additives for Venous and Capillary Blood Specimen Collection; Approved Standard – Sixth Edition. CLSI document GP39-A6. Wayne, PA: Clinical and Laboratory Standards Institute
3. CLSI (2017) Collection of Diagnostic Venous Blood Specimens. 7th ed. CLSI standard GP41. Wayne, PA: Clinical and Laboratory Standards Institute
4. CLSI (2017) Essential Elements of a Phlebotomy Training Program. 1st ed. CLSI document GP48. Wayne, PA: Clinical and Laboratory Standards Institute

Tri-City Medical Center	~~Distribution:~~ Cardiac Cath**eterization** Lab
PROCEDURE:	**ARTERIAL SHEATH REMOVAL**
Purpose:	To remove an arterial sheath post cardiac catheterization. To be performed by CCL staff that ha**ves** been properly trained in the procedure of arterial sheath removal. (Registered Nurse, Cardiovascular technicians, **Cath Lab-Rad Tech,** and Angiotech II.)
Supportive Data:	None
Equipment	Sterile gloves, 10 ml empty syringe. Sterile 4 x 4's and tape.
Issue Date	**05/05**

A. **PROCEDURE:**

1. Hook up and monitor patient's blood pressure at 5 minute intervals and EKG tracing.
2. Explain the procedure to the patient.
3. Don gloves.
4. If ACT is ~~150~~ **160** or below, proceed with arterial sheath removal.
5. Aspirate approximately 5 ml from the arterial sheath side port.
6. Palpate artery above the sheath site.
7. Simultaneously pull arterial sheath out and firmly apply pressure with the other hand so there is no bleeding from arterial puncture site and no hematoma distal to site.
8. Apply firm pressure for 20 minutes.
9. Lift pressure and check for oozing and/or profuse bleeding.
10. If hemostatis has not been achieved, hold firm pressure for another 10 minutes until hemostatis is achieved.
11. Repeat step # 9 and call MD if hemostatis is not achieved.
12. Check distal pulses.
13. Dress wound.

~~ISSUED~~	~~REVIEWED~~	~~REVISED~~	~~APPROVED~~
~~05/05~~	~~05/05~~	~~03/09, 8/11~~	

Cardiac Catheterization Lab Review/Revise	Division of Cardiology	Pharmacy & Therapeutics Committee	Medical Executive Committee	Administration	Professional Affairs Committee	Board of Directors
05/05, 03/09,08/11, 05/20	06/21	n/a	07/21	08/21	n/a	08/11

Tri-City Medical Center	Distribution: Cardiac Cath Lab
PROCEDURE:	Electrocautery Machine Set-Up
Purpose:	To outline ~~nursing~~ **staff** responsibilities in t machine.
Supportive Data:	AORN Standards and Valley Lab (manufacturer's recommendations). Thorough preparation insures safe practice in the use of the electrocautery machine.
Equipment:	~~Force 2 or 4 electrocautery machine;~~**Plasma console or Bovie console (physician preference)** -REM grounding pad adult **or pediatric** ~~; REM grounding pad pediatric;~~ ~~-Cautery hand switch; Safety holster.~~
Issue Date:	**08/94**

DELETE: Material from this policy is covered in PCS Policy: Electrocautery Machine Set-Up

~~1. Insure that the electrocautery has a current Bio-Med sticker. The sticker reflects that the cautery machine has passed the electrical safety check.~~
~~2. Select grounding pad site. Make sure grounding pad site is clean and dry, excessive hair removed, no scars, skin intact and not placed over metal implants.~~
~~3. Select grounding pad appropriate to patient size. Use Pedi pad if patient's weight is less than 30 pounds (13.6 kg).~~
~~4. Place grounding pad close to the incision. This decreases chance of injury. For permanent pacemakers, grounding pad is placed on upper thigh of the left leg.~~
~~5. Plug grounding pad into cautery machine.~~
~~6. Turn on machine. Switch is located in back of the machine **(for plasma) and in front for the Bovie.**~~
~~7. Set cautery machine by pressing "ready" on front of machine.~~
~~8. Adjust settings per physician's preference. **For the Plasma cut and coag:use the up or down arrow, for the Bovie: hit recall for previous settings, or the arrows for cut or coag** Plug in hand switch to the cautery machine. To lower the power, push "READY" and "COAG" at the same time. An "L" will appear next to the coag.~~
~~9. Place hand switch in safety holster. Prevents potential injury by accidental activation of hand switch.~~

Reviewed	Revised	Division of Cardiology	Pharmacy & Therapeutics Committee	Medical Executive Committee	Admini stration	Professional Affairs Committee	Board of Directors
08/95; 03/03; 05/05; 5/09; 9/12	10/96; 04/03; 06/05; 05/09, 05/20	06/21	n/a	07/21	08/21	n/a	08/94; 11/96

Tri-City Medical Center	~~Distribution:~~ Cardiac Cath**eterization** Lab
PROCEDURE:	**PRONTO EXTRACTION CATHETER**
Purpose:	Removal of fresh, soft emboli and thrombi fro
Supportive Data:	Medtronic manufacturer data.
Equipment	Pronto extraction catheter, sterile tray set up, guiding catheter, interventional guide wire, rotating hemostatic valve, 10ml sringe, sterile heparinized saline.

DELETE – incorporated into Cardiac Catheterization Lab Procedure: Export Catheters

~~A. Scrub Tech:~~

~~1. Thoroughly flush the catheter and wire lumen with heparinized saline.~~

~~2. Draw 5ml of heparinized saline into the 30ml syringe, connect the syringe to the stopcock and connect the extension line to the catheter. Flush the entire connection to remove all air from the catheter, extension line, stopcock and syringe. Turn the stopcock to the off position.~~

~~3. With the stopcock in the off position, pull back the plunger on the 30ml syringe to the desired amount of extraction volume. Twist the plunger to lock the syringe in the vacuum position.~~

~~B. Deployment:~~

~~1. Cannulate the vessel using the appropriate guide and wire with attached rotating hemostatic valve. Flush the guide and rotating hemostatic valve with heparinized solution. ID of guide must be a minimum of .070.~~

~~2. Backload the Pronto catheter onto the guidewire. Advance the catheter on the guidewire until the wire exits the opening in the wire lumen.~~

~~3. Open the hemostatic thumbscrew and introduce the catheter, being careful to keep the guidewire in the guidwire lumen slot of the catheter. Tighten the O ring valve around the catheter just enough to prevent backflow, but not so tightly as to inhibit catheter movement.~~

~~4. Continue to advance the catheter over the guidewire to the selected vascular site, using fluoroscopic guidance. Stop advancement of the catheter if any resistance is encountered.~~

~~5. After fluoroscopically confirming catheter position (proximal to the thrombus), open the stopcock to begin extraction. Slowly advance the catheter distally away from the guiding catheter. Blood will enter the syringe until all of the vacuum is gone. Should aspiration not begin filling the syringe within 5 seconds remove the catheter without releasing the vacuum. Outside of the patient, either flush the extraction lumen or use a new catheter.~~

~~6. After completing the extraction process, turn the stopcock to the off position and remove the catheter, or attach second syringe and repeat extraction.~~

~~7. Draw 5ml of heparinized saline into the 30ml syringe. Connect the syringe to the stopcock, and connect the attached extension line to the catheter. Flush the entire connection to remove all air from the catheter, extension line, stopcock and syringe. Turn the stopcock to the off position.~~

~~Issued~~	~~Reviewed~~	~~Revised~~	~~Approved~~
	~~6/09; 9/12~~	~~9/12~~	

Cardiac Catheterization Lab Review/Revise	Division of Cardiology	Pharmacy & Therapeutics Committee	Medical Executive Committee	Administration	Professional Affairs Committee	Board of Directors
6/09; 9/12, **05/20**	**06/21**	**n/a**	**07/21**	**08/21**	**n/a**	

Tri-City Medical Center	~~Distribution:~~ Cardiac Cath**eterization** Lab
PROCEDURE:	**SCRUB PERSON – SET UP**
Purpose:	To establish set guidelines for total responsibilities of scrub person. All personnel will comply with the standards set forth and understand what is expected of them while they are scrubbed.
Supportive Data:	None
Equipment	None
Issue Date	**07/97**

A. **PROCEDURE:**

1. Perform surgical hand scrub according to Hospital policy.
2. Put on sterile gown and don sterile gloves. Circulator will tie the back. (See **Patient Care Services Procedure:**~~policy titled~~ "Gowning and Gloving ~~" in CCL"~~).
3. Drape x-ray handle, control panel, image intensifier and light with sterile bags.
4. Drape patient.
5. Connect and flush all tubing to transducer, contrast and flush solution.
6. Check for correct supplies on table. (i.e. Catheters, sheaths)
7. Hand physician sterile towel to dry hands. Follow **Patient Care Services Procedure:**~~policy titled "~~ Gowning and Gloving ~~"~~.
8. Follow physician instructions. Scrub tech is responsible for flushing all sheaths, catheters and needles during procedure and wiping all wires. Scrub tech is responsible for assisting physician with wire, catheter insertions and removal.
9. State total amount of contrast administered to monitor person.
10. With gloves on, discard used supplies in appropriate containers.
11. Collect reusable equipment, rinse in basin, drain, wrap in towel or place in clear plastic back and place in plastic white bin for decontamination. Take down to SPD.

B. **PRECAUTIONS:**

1. Sterility is of vital importance. When in doubt, throw it out. Personal protective equipment is mandatory and will be worn. Radiation protection equipment is available and always used during cine and fluoro procedures.

C. **RELATED DOCUMENT(S):**

1. **Patient Care Services Procedure: Gowning and Gloving**

~~Issued~~	~~Reviewed~~	~~Revised~~	~~Approved~~
~~7/97~~	~~10/00; 3/03; 5/05; 1/09; 9/12~~	~~4/03; 6/05; 1/09; 9/12~~	~~7/97~~

Cardiac Catheterization Lab Review/Revise	Division of Cardiology	Pharmacy & Therapeutics Committee	Medical Executive Committee	Administration	Professional Affairs Committee	Board of Directors
10/00; 04/03; 06/05; 01/09; 09/12, 05/20	06/21	n/a	07/21	08/21		08/11

Tri-City Medical Center	Cardiology
PROCEDURE:	**DOBUTAMINE STRESS ECHOCARDIOGRAM**
Purpose:	Further study Low Flow, Low Gradient Aortic Stenosis or for Cardiac Function/Viability and/or Wall Motion
Equipment:	Philips IE## Ultrasound Machine, IV start kit, Dobutamine 500mg/250 **mL**~~ee~~ bag, IV line and IV pump, blood pressure cuff, code cart is accessible

A. **DEFINITIONS:**

1. ~~A~~ Dobutamine Stress Echocardiogram: may be used if the patient is unable to exercise. Dobutamine mimics the effects of exercise on the heart.

B. **POLICY:**

1. A Dobutamine stress echocardiogram is a procedure that determines how well the heart and blood vessels are working.
2. Physician written order is mandatory.
3. A Cardiologist or physician extender must be present during the Dobutamine infusion.
4. The echocardiogram should contain the images, Doppler, and measurements. Modified views may be necessary as some views and measurements may not be available. Attempts must be documented.
5. Images will be captured digitally in a quad format and stored on the Horizon Cardiology digital workstation.
6. Machine settings, transducer selection and patient position will be adjusted as needed to optimize all captured images, including Doppler display.
7. If necessary, ECG electrodes can be repositioned to ensure "window" access.
8. Maintain a uniform depth setting throughout the exam. Generally, the depth should be no more than 16cm.
9. Be certain to position the apical views correctly within the quad screen so the apex of the heart is visible

C. **PROCEDURE:**

1. Daily Preparation:
   a. Check for prior exam for each patient. Print previous report and add to patient folder.
2. Patient Preparation:
   a. Introduce yourself and use (2) identifiers to verify correct patient
   b. Obtain brief cardiac history from patient
      i. Contraindications
         1) Acute Myocardial Infarction(MI) within 2 days
         2) Unstable (rest) angina with ECG changes suggesting ischemia
         3) Hemodynamic ~~nstability~~**instability**
         4) Symptomatic ~~severe~~ **Severe** Aortic Stenosis (AS)
         5) Uncontrolled symptomatic heart failure(HF)
         6) Acute pulmonary embolus or pulmonary infarction
         7) Acute myocarditis **or** pericarditis
         8) Acute aortic dissection
         9) Server**e** hypertension (greater than 240/120)
         10) High degree atrioventricular (AV) block
         11) Inability to exercise due to faulty internal heart structures
   c. CVT will explain the test to patient.
   d. Enter patient data into ultrasound machine and select appropriate settings.
   e. Perform "Standard Precautions" at all times

Cardiology Department	Division of Cardiology	Pharmacy & Therapeutics Committee	Medical Executive Committee	Administration	Professional Affairs Committee	Board of Directors
NEW 10/20	11/20	05/21	n/a	08/21	n/a	

f. Maintain patient privacy
g. Place blood pressure cuff on patient's arm.
h. Obtain resting blood pressure and print a resting ECG
i. IV placement (if patient does not have existing IV)
j. Vital signs (VS) and ECG rhythm will be obtained and documented prior to, during and after the exam

3. Dobutamine Stress Echocardiogram for Aortic Stenosis
   a. **Per physician orders,** Dobutamine ~~will~~ **is recommended to** start at 5mcg/kg/min ~~increasing~~ **and increase every three minutes, while** ~~the dose every three minutes,~~ obtaining images and VS. Max dose of Dobutamine is 20mcg/KG/min. End of exam will be at max dose of Dobutamine or when desirable numbers (MPG≥ 40mmhg and /or velocity≥4.0 gradients) have been achieved.
   b. The exam will be stopped if SBP >210mmHG; frequent arrhythmias; development of new wall motion abnormalities are seen, angina, or ST depression of >1mm
   c. The echo sonographer will obtain:
      i. Acquire 3 beat clip of apical 4-chamber, 2 chamber, 3 chamber showing LV function (EF)
      ii. Acquire image of baseline AV VTI, baseline LVOT VTI (no measurements)
      iii. For each incremental dose of Dobutamine given, acquire AV VTI & LVOT VTI. Do not make measurements until you have reached AV velocity of >4m/s.
      iv. Calculate AVA (VTI) using the calculation package using only the highest (>4m/s) AV VTI & the LVOT VTI associated with that same dose.
      v. Measure LVOT diameter in systole in the Parasternal Long Axis view zooming on the aortic valve.
   d. May use Imaging Enhancement Agent if needed for LV opacification
   e. The patient will be recovered post stress echo until the patient HR is within 20 beats of resting HR and SBP within 20mm HG of resting SBP.

4. Dobutamine Stress Echocardiogram for Cardiac function/viability and/or wall motion
   a. **Per physician orders,** Dobutamine ~~will~~ **is recommended to** start at 10mcg/kg/min and increase at 4 minutes. Obtain BP, HR, and 12 lead EKG.
   b. Increase Dobutamine to 20mcg/kg/min for 8 minutes. Obtain BP, HR, and 12 lead EKG.
      i. If HR @ 6 minutes is <70% of predicted HR, give Atropine 0.25mg IV.
   c. Increase Dobutamine drip to 30mcg/kg/min for 4 minutes. Obtain BP, HR, and 12 lead EKG
      i. At the start of stage3, start NS @ 1000ml/hr. If HR <85% of max predicted, then give Atropine 0.25mg
   d. Increase Dobutamine to 40mcg/kg/min for 2 minutes. Obtain BP, HR, and 12 lead EKG
      i. If 70% of the max predicted HR is not achieved by the end of the 4th stage then give Atropine 0.25mg every minute not to exceed 1 mg (total of 1mg to be given for test).
   e. Dobutamine drip will be stopped for imaging once the patient's HR reaches peak (220-patients age) or other endpoint is reached.
   f. The echo sonographer will obtain:
      i. Perform limited echo to confirm patient does not have severe AS. If suspected, calculate an AVA and notify MD
      ii. Use the "Pharmacological 4 Stage" Protocol found on the Epic US machines
      iii. The 4 stages to this protocol include: Baseline, low dose, peak dose, recovery
      iv. ~~Rocusing~~ **Focusing** on the Left ~~ventricule~~**ventricle**, acquire baseline images at Parasternal Long Axis, Parasternal Short Axis, 4 chamber, and 2 ~~chanber~~ **chamber** views. Accept stage.
      v. ~~10~~ **At** 10mcg of dobutamine, acquire the four low dose images. Accept stage.
      vi. Peak dose images should be ~~e~~obtained when the patient has reached >85% of their max predicted HR (dose may vary per patient). Accept stage
      vii. Acquire Recovery images once patients HR drops to <100bpm. Accept stage.
   g. May use Imaging Enhancement Agent if needed for LV opacification.

h. The patient will be recovered post stress echo until the patient's HR is within 20 beats of resting HR and SBP within 20mmg HG of resting SBP.

5. At the conclusion of the test
   a. Patient is wiped clean of gel and supplies are re-stocked.
   b. Proper infection control measures are taken to clean room.

D. **REFERENCES:**

1. www.ncbi.nlm.nih.gov/pmc/articles/PMC2996150/ American Society of Echocardiography (2019). Guidelines for Performance, Interpretation, and application of Stress Echocardiography in Ischemic Heart Disease: From the American Society of Echocardiogram

Tri-City Medical Center
Oceanside, California

Emergency Department

ISSUE DATE: NEW

SUBJECT: Ketamine for the Management of Pain in the Emergency Department

REVISION DATE:

Emergency Department Approval:	05/20
Department of Emergency Medicine Approval:	07/20
Pharmacy and Therapeutics Committee Approval:	09/20
Medical Executive Committee Approval:	11/20
Administration Approval:	~~12/20~~08/21
Professional Board Committee Approval	n/a
Board of Directors Approval:	

A. **PURPOSE:**

1. To define guidelines for patient selection, administration, monitoring and recovery for use of **K**~~k~~etamine in the Emergency Department (ED).

B. **INDICATIONS FOR USE:**

1. Provide pain relief to patients with severe acute painful conditions who are likely opiate tolerant and/or would not respond to high doses of IV opiates (i.e. migraine headaches, undifferentiated abdominal pain, back/neck pain, renal colic, etc…); relief of intractable neuropathic pain, intractable chronic pain, intractable cancer pain, and moderate to severe acute post-traumatic pain.

C. **POLICY:**

1. ED Physician will assess the patient for etiology and severity of pain, as well as likelihood of response to alternative therapies
2. ED Physician will assess the patient for possible contraindications
3. ED physician will assess patient's vital signs, oximetry, and mental status
4. Exclusion criteria:
   a. Hypersensitivity to **K**~~k~~etamine or any component of the formulation
   b. Recent hospitalization for psychiatric disorder, or a suicide attempt
   c. History of Psychosis: schizophrenia
   d. History of seizures
   e. Hydrocephalus or acute head injury
   f. H**istory**~~x~~ of glaucoma or acute globe injury
   g. Known or possible CAD, CHF, and/or uncontrolled HTN
   h. History of COPD with hypercarbia, asthma, laryngospasm, or upper respiratory infection
   i. H**istory**~~x~~ of airway instability, tracheal surgery, tracheal stenosis, tracheomalacia, and laryngomalacia
   j. Procedures that will stimulate the posterior pharynx
   k. Acute alcohol or drug intoxication
   l. Thyroid disease
   m. Pregnancy
   n. ~~Age less than (<) 12 months~~ **ED RN must give IV; so should be weight based; not age.**
5. Discharge Criteria:
   a. Patient is able to ambulate (unless lower extremity injury)
   b. Patient's mental status has returned to baseline
   c. Patient has a ride home or is being admitted to the hospital (ED)
   d. Patient's vital signs have returned to baseline

e. At least two hours have passed since time to last dose of ketamine was given

D. **PROCEDURE:**

1. Administration Guidelines: Restricted to adult patients being evaluated by an Emergency Medicine Physician (in ED only)
2. Recommended Dosing:
   a. Consider 0.3mg/kg IV over 10 minutes x1. (Usual dose range= 0.1mg/kg-0.5mg/kg).
      i. Use IBW in obese patients (BMI ≥ 30)
         1) Males= 50 + (2.3 x inches over 5 ft)
         2) Females= 45 + (2.3 x inches over 5 ft)
      ii. More rapid administration may result in respiratory depression/apnea and enhanced pressor response.
      iii. Maximum total dose = 50mg, although up to 35mg is usually sufficient. In the event that less than the recommended dose is used, an additional dose not to exceed the maximum total recommended dose can be considered to achieve desired effect.
   b. To be used in conjunction with other analgesics as adjuvant therapy
3. Nursing Considerations:
   a. May be administered peripherally or centrally **under the supervision of MD**
   b. **Suction must be available at the bedside prior to administration.**
   c. Monitoring:
      i. HR, BP, RR, Temperature, SPO2, and Pain Level must be monitored every 15 minutes for 1st hour, then every 30 minutes times 1 hour,
      ii. Maintain quiet area with minimal physical stimulation if possible
4. Notify ED Physician for presence of any of the following signs or symptoms:
   a. Systolic blood pressure of less than (<) 90mmHg or greater than BP (>)180mmHg
   b. Heart rate of less than (<) 60 bpm or greater than (>) 110 bpm
   c. Respiratory rate of less than (<) 10 breaths/minute
   d. Oxygen saturation of less than (<) 93% if ordered
   e. Nausea or vomiting
   f. Excess salivation
   g. Excess sedation

E. **REFRENCES:**

1. Correll GE et al. Subanesthetic Ketamine Infusion Therapy: A Retrospective Analysis of a Novel Therapeutic Approach to Complex Regional Pain Syndrome. Pain Medicine. 2004; 5(3):263-75.
~~1.~~**2.** Goldberg ME et al. Multi-day low dose Ketamine infusion for the treatment of complex regional pain syndrome. Pain physician. 2005; 8(2):175-9.
3. Bell RF et al. Peri-operative Ketamine for acute post-operative pain: a quantititative and qualitative systematic review. (Cochrane review). Acta Anaesthesiol Scand. 2005; 49(10):1405-28.
~~2.~~**4.** DeKock M et al. "Balanced Analgesia" in the perioperative period. Is there any place for Ketamine? Pain. 2001; 92:373-80.
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13. Marnix JS et al. Ketamine produces effective and long-term pain relief in patients with Complex Regional Pain Syndrome Type 1. 2009; 145:304-11.

~~7.~~**14.** Finkel JC et al. Ketamine as an Adjuvant for Treatment of Cancer Pain in Children and Adolescents. J of Pain. 2007; 6:515-21.

~~8.~~**15.** Clinical Practice Guideline for Emergency Department Ketamine Dissociative Sedation: 2011 Update Steven M. Green, Mark G. Roback, Robert M. Kennedy, Baruch Krauss Annals of emergency medicine 1 May 2011;57(5):449-461.

Tri-City Medical Center
Oceanside, California

Emergency Operations Procedure Manual
Special Circumstances

ISSUE DATE: 06/15 **SUBJECT: Drought Conditions**

REVISION DATE(S):

Department Approval Date(s):	~~05/15~~06/20
Environmental Health and Safety Committee Approval Dates(s):	~~06/15~~08/20
Medical Executive Committee Approval Dates(s):	n/a
Administration Approval:	08/21
Professional Affairs Committee Approval Date(s):	~~06/15~~ n/a
Board of Directors Approval Date(s):	06/15

A. **PURPOSE:**
1. To provide operational guidance during declared drought condition periods.

B. **POLICY:**
1. The State of California is subject to low rain years and periodic drought conditions. Facility water sources are provided by the City of Oceanside domestic water system. Tri-City Healthcare District may comply with all City of Oceanside water consumption reduction programs. Examples include limited landscape watering and facility designs that limit the consumption of domestic water.

C. **AFFECTED PERSONNEL/AREAS:**
1. Engineering Staff

D. **PROCEDURE:**
1. During periods of water conservation declared by the City of Oceanside, program modifications will be implemented to comply with the City's requirements.
2. Facilities and Grounds will be designed with water conservation technology whenever possible. Drought tolerant plants, trees and shrubs shall be considered. Physical Plant systems and fixtures shall comply with the City's standards for low flow and conservation guidelines.

Tri-City Medical Center
Oceanside, California

ENGINEERING
PERSONNEL

~~TRI-CITY MEDICAL CENTER~~ ~~Engineering Policy & Procedure~~	~~Section: ENGINEERING DEPARTMENT~~ ~~Subject: Orientation of New Employee~~ ~~Policy Number: 3000 Page 1 of 3~~
~~Department: Hospital-Wide~~	~~EFFECTIVE: 11/1/87~~ ~~REVISED: 9/94; 1/97; 5/00; 5/03, 6/06; 5/09; 6/12~~

SUBJECT: Orientation of New Employee

ISSUE DATE: 11/87
REVIEW DATE(S):
REVISION DATE(S): 9/94, 1/97, 5/00, 5/03, 6/06, 5/09, 6/12

Department Approval ~~Date(s):~~	02/20
Environmental Health and Safety Committee Approval ~~Date(s)~~:	03/20
Administration Approval:	08/21
Professional Affairs Committee Approval ~~Date(s)~~:	n/a
Board of Directors Approval ~~Date(s)~~:	

A. **PURPOSE:**

1. ~~To define the orientation process for new employees~~Due to the complexity of the services offered by the Engineering Department a comprehensive orientation to the processes and protocols essential to adequately prepare associates to work in this environment. This policy will define the processes necessary for orientating each new Engineering employee to safety and effectively perform his/her job duties.

~~B. GENERAL INFORMATION:~~

~~1. All new medical center employees receive an orientation to the Medical Center. The orientation, which is conducted by the Education Department within 30 days of the employee's starting date, addresses organizational structure, Medical Center and District policies applying to all employees, benefits and services available to employees, safety, infection control and the physical layout of the Medical Center.~~

~~C.~~B. **POLICY:**

1. All new employees of Tri-City Healthcare District (TCHD) shall undergo new hire orientation conducted under the Human Resources Department to acquaint them with the TCHD's mission, goals and operations.
2. All employees joining the Engineering department will also complete department-specific orientation, and training.
~~1.~~3. The orientation / training content will be current, applicable and individually designed based on job duties assigned to each new employee.~~Each new employee will receive an orientation to the Engineering Department from the Director of Engineering or designee before~~

~~assuming his duties. This orientation will be documented and will be made part of the employee's file within the department.~~

~~2. In addition, each employee will receive an orientation to his work environment from the supervisor of that area before assuming his duties. This orientation will also be documented and made part of the employee's file within the department.~~

~~D.~~C. **PROCEDURE:**

1. **All employees will receive general TCHD orientation.**
2. **Department-specific orientation and training will occur in the initial period of the employee's employment and prior to taking full responsibility for their assigned duties.**
3. **During the 90 day initial employment period, the new employee will be observed by Engineering Management for progress and adjustments to the training will be made accordingly.**
4. **Department-specific orientation includes but is not limited to:**
   - a. **All Engineering Employees:**
     - i. **Safety**
       - 1) **SDS**
       - 2) **Emergency Plans (fire, disaster, etc.)**
       - 3) **Hazardous Waste**
       - 4) **Personal Protective Equipment (PPE)**
     - ii. **Infection Control**
     - iii. **PPE**
     - iv. **Review of Workplace Violence policy**
     - v. **Training on work order system**
     - vi. **Warehouse procedures and new part requests**
   - b. **Building Engineering Employees (Use Form: Building Engineering New Employee Department Orientation):**
     - i. **Locations and safe operations of power tools**
     - ii. **Troubleshooting/repair of medical equipment including:**
       - 1) **Nurse call/pillow speakers**
       - 2) **TV**
       - 3) **Beds**
     - iii. **Electrical responsibilities**
     - iv. **Plumbing responsibilities**
     - v. **Operation of Air scrubbers**
     - vi. **Painting and wall patching training**
     - vii. **Appliance training**
     - viii. **HVAC System**
   - c. **Plant Operator Employees (Use form: Plant Operator New Employee Department orientation)**
     - i. **HVAC System**
     - ii. **Emergency Generators**
     - iii. **Boilers**
     - iv. **Cooling Towers**
     - v. **Pumps and motors**
     - vi. **Medical Gases**
     - vii. **Electrical distribution system**
     - viii. **Water distribution/plumbing system**
     - ix. **Medical/Surgical air and vacuum system**
     - x. **Alarm and safety devices**
5. ~~The~~ Engineering **Management**~~Director or designee~~ reviews **all orientation**~~the~~ information ~~in the New Employee Department Orientation (Attachment A & B)~~**form** with the new employee. When the employee indicates that **they** understand~~s~~ all the information presented by signing the orientation checklist, it is **forwarded to the Human Resources Department to be** filed in

his/**her** ~~department~~ personnel file.

D. **FORMS:**

1. **Department Orientation Checklist**
2. **Building Engineering New Employee Department Orientation Checklist**
3. **Plant Operator New Employee Department Orientation Checklist**

E. **RELATED DOCUMENT(S):**

1. **Administrative Human Resource Policy: New hire and Department Specific Orientation 8610-457.**
2. ~~The supervisor of the employee's work area reviews the information in the New Employee Work Area Orientation (Attachment B) with the new employee. When the employee indicates that he understands all the information presented by signing the orientation checklist, it is filed in his department personnel file.~~

ATTACHMENT A

NEW EMPLOYEE
DEPARTMENT ORIENTATION

Employee Name: _____

Orientation Date: _____

_____ Probationary Period
_____ Rate of Pay
_____ Attendance, including
_____ Work Hours and Days
_____ Break and Meal Periods
_____ Sickness or Tardiness Call-In Procedure
_____ Vacation Eligibility; Requests
_____ Time Cards
_____ Call-In Procedure

_____ Pay Practices, including
_____ Sick Leave
_____ Holiday, including Floating Holiday
_____ Vacation
_____ Notification of Employee Address or telephone Change

_____ _____

Employee Signature _____ Supervisor Signature

ATTACHMENT B

NEW EMPLOYEE
WORK AREA ORIENTATION

Employee Name: _____

Orientation Date: _____

___ Department Chain-of-Command
___ Duties and Responsibilities of the Position
___ Standards of Performance
___ Criteria-based Evaluation
___ Department Policies and Procedures
___ Emergency Preparedness Plan
___ Fire Plan
___ Department Layout, including
_____ Location of restrooms
_____ Location of fire extinguisher and alarms
_____ Location of exits to the outside
_____ Location of hazardous material lists and
_____ Material Safety Data Sheets

_____ _____

Employee Signature Supervisor Signature

~~ATTACHMENT A~~(FORM)

BUILDING ENGINEERING NEW EMPLOYEE DEPARTMENT ORIENTATION CHECKLIST

Employee Name:_____

Orientation Completion Date:_____

Below Items to be Completed on the 1st Day of Employment:		
1	Work Hours and Days	
2	Break and Meal Periods	
3	Sick or Tardiness Call-in Procedure	
4	Vacation Eligibility, Requests	
5	Time Cards	
6	Notification when Address or Telephone changes.	
7	Understanding our Chain Of Command	
8	Communication throughout the day with all Engineers and Management	
9	Understanding of when to ask for help	
10	Understanding the Importance of Communication and Logistical Analyzing when needed	
11	Hazardous Material Handling and Exposure.	
12	Orientation of the Warehouse Procedures and New Parts Requests.	
13	Tour of Hospital	
14	Utilizing Personal Protective Equipment (PPE)	
15	Zone Assignments and Supporting other Zones as needed.	
16	Training on Work Order system.	
17	Infection Control and Containment	
18	Operation of Construction Air Scrubbers	
Below Items to be Completed within 60 days of Employment:		
1	Training on how to utilize and the up keep of different types of drain snakes.	
2	Pillow Speaker Installation and Troubleshooting	
3	Program Patient and Non Patient Televisions	
4	Basic Installation of Receptacles and Switches	
5	Basic Lamp Ballast Installation	
6	Install Toilets and Bedpan Washers	
7	Install Faucets and assorted P-traps	
8	Solder basic Copper and Pipe Fittings	

9	Install Cast Iron Pipe and Fittings	
10	Safe Operation of Power Tools and Saws	
11	Operation of Patient Air Scrubbers	
12	Operation of the Temperature Guns	
13	Basic Painting and Wall Patching Training	
14	Basic Troubleshooting of Refrigerators and Freezers	
15	Basic Tour of Equipment used in the Kitchen and Cafeteria	

Employee Signature:_____

Supervisor Signature:_____

~~ATTACHMENT B~~(FORM)

PLANT OPERATOR NEW EMPLOYEE DEPARTMENT ORIENTATION CHECKLIST

Employee Name:_____

Orientation Completion Date:_____

Below Items to be Completed on the 1st Day of Employment:		
1	Work Hours and Days	
2	Break and Meal Periods	
3	Sick or Tardiness Call-in Procedure	
4	Vacation Eligibility, Requests	
5	Time Cards	
6	Notification when Address or Telephone changes.	
7	Understanding our Chain Of Command	
8	Communication throughout the day with all Engineers and Management	
9	Understanding of when to ask for help	
10	Understanding the Importance of Communication and Logistical Analyzing when needed	
11	Hazardous Material Handling and Exposure.	
12	Orientation of the Warehouse Procedures and New Parts Requests.	
13	Tour of Hospital, Central Plant, Assigned Mechanical Rooms and Equipment	
14	Utilizing Personal Protective Equipment (PPE)	
15	Zone Assignments and Supporting other Zones as needed.	
16	Training on Work Order system.	
17	Infection Control and Containment	
Below Items to be Completed within 60 days of Employment:		
1	Training on Generators	
2	Training on Boilers	
3	Training on Cooling Towers	
4	Training on Chillers	
5	Training on Vacuum Pumps	
6	Training on Medical Air Compressors	
7	Training on Control Air Compressors	
8	Training on Emergency Shut Off Valves	

9	Training on RO Water System	
10	Training on DI Water System	
11	Training on Medical Gases	
12	Training on Air Handlers	
13	Training on Exhaust Fans	
14	Training on Monitored Positive and Negative Pressure Rooms	
15	Training on Closed Loop Water Treatment	
16	Training on Water Management Plan and Legionella Prevention	
17	Training on Required Rounding at Each Shift	

Employee Signature:_____

Supervisor Signature:_____

Tri-City Medical Center
Oceanside, California

ENGINEERING
PERSONNEL

~~TRI-CITY MEDICAL CENTER~~ ~~Engineering Policy & Procedure~~	~~Section: ENGINEERING DEPARTMENT~~ ~~Subject: In-service Education~~ ~~Policy Number: 3001 Page 1 of 1~~
~~Department: Hospital-Wide~~	~~EFFECTIVE: 11/1/87~~ ~~REVISED: 9/94; 1/97; 5/00; 5/03, 6/06; 5/09; 6/12~~

SUBJECT: In-service Education

ISSUE DATE: 11/87
REVIEW DATE(S):
REVISION DATE(S): 9/94, 1/97, 5/00, 5/03, 6/06, 5/09, 6/12

Department Approval ~~Date(s)~~:	**02/20**
Environmental Health and Safety Committee Approval ~~Date(s)~~:	**03/20**
Administration Approval:	**08/21**
Professional Affairs Committee Approval ~~Date(s)~~:	**n/a**
Board of Directors Approval ~~Date(s)~~:	

A. **PURPOSE**:
1. To outline, the in-service education program of the Department of Engineering.

B. **POLICY**:
1. All new employees (with the exception of clerical personnel) will receive in-service education prior to assuming their job duties.
2. Such in-service training shall include **but are not limited to the follow**~~,~~ as appropriate to each employee's assigned duties:
   a. The handling of hazardous materials used in the department.
   b. Maintenance and operation of:
      i. The electrical distribution system
      ii. The emergency generator set
      iii. The elevators, lifts and pneumatic tube system
      iv. The HVAC system
      v. The plumbing and water distribution systems
      vi. The boiler systems,
      vii. The medical gas system and
      viii. The medical/surgical vacuum system
3. Job safety techniques such as:
      i. Lockout procedure
      ii. Handling of medical gas cylinders
4. Additional in service education will be given to all employees when appropriate, as determined by ~~the Director of Engineering or his designee~~**Engineering Management**.
      a. As a result of their review of personnel evaluations, equipment maintenance histories, and work-related accidents or injuries.~~;~~

b. To acquaint personnel to the handling, operation and maintenance of new equipment. ~~or;~~

c. To inform personnel about new or modified government regulations that relate directly to them or to their job duties.

5. In service ~~will be documented in the employee's personnel file~~ **documentation will be maintained** in the Engineering Office.

Tri-City Medical Center
Oceanside, California

ENGINEERING
PERSONNEL

~~TRI-CITY MEDICAL CENTER~~ ~~Engineering Policy & Procedure~~	~~Section: ENGINEERING DEPARTMENT~~ ~~Subject: Continuous Education~~ ~~Policy Number: 3002 Page 1 of 1~~
~~Department: Hospital-Wide~~	~~EFFECTIVE: 11/1/87~~ ~~REVISED: 9/94; 1/97; 5/00; 5/03, 6/06; 5/09; 6/12~~

SUBJECT: Continuous Education

ISSUE DATE: 11/87
REVIEW DATE(S):
REVISION DATE(S): 9/94, 1/97, 5/00, 5/03, 6/06, 5/09, 6/12

Department Approval ~~Date(s)~~:	**02/20**
Environmental Health and Safety Committee Approval ~~Date(s)~~:	**03/20**
Administration Approval:	**08/21**
Professional Affairs Committee Approval ~~Date(s)~~:	**n/a**
Board of Directors Approval ~~Date(s)~~:	

A. **PURPOSE:**
1. To define the procedure by which eligible employees may receive continuing education.

B. **POLICY:**
1. Engineers will be encouraged to take advantage of relevant continuing education.
2. The department will make available to the employees information received **regarding** ~~from the employee and the local schools concerning~~ educational ~~programs~~**opportunities as they become avaliable**.
3. ~~Supervisors~~ **Managment** will provide guidance to employees, as requested, concerning the selection of programs that will help employees achieve their performance or advancement goals.
4. An effort will be made to adjust staffing schedules to accommodate the needs of employees participating in continuing education programs.

Tri-City Medical Center
Oceanside, California

ENGINEERING
PERSONNEL

~~TRI-CITY MEDICAL CENTER~~ ~~Engineering Policy & Procedure~~	~~Section: ENGINEERING DEPARTMENT~~ ~~Subject: Staffing~~ ~~Policy Number: 3003 Page 1 of 1~~
~~Department: Hospital-Wide~~	~~EFFECTIVE: 11/1/87~~ ~~REVISED: 9/94; 1/97; 5/00; 5/03, 6/06; 5/09; 6/12~~

SUBJECT: Staffing

ISSUE DATE: 11/87
REVIEW DATE(S):
REVISION DATE(S): 9/94, 1/97, 5/00, 5/03, 6/06, 5/09, 6/12

Department Approval ~~Date(s)~~:	**02/20**
Environmental Health and Safety Committee Approval ~~Date(s)~~:	**03/20**
Administration Approval:	**08/21**
Professional Affairs Committee Approval ~~Date(s)~~:	**n/a**
Board of Directors Approval ~~Date(s)~~:	

A. **PURPOSE:**
1. To define the responsibility and procedure for staff allocation.

B. **POLICY:**
1. Staffing needs and allocation will be determined by ~~the Director of~~ Engineering **Management**.
2. Staffing assignments will be made by the ~~Director of~~ Engineering ~~or designee~~**Management** and will be posted in accordance with District Policy.
3. Permanent changes in the staffing schedule will be made at the discretion of ~~the~~ Engineering ~~Director~~ **Management** and requests for such changes ~~will~~ **may** be based on:
   a. The service needs of the department and the facility.~~;~~
   b. Seniority of the requester.~~; and~~
   c. Qualifications of the requester as assessed in his most recent performance.
4. Temporary changes in staffing schedule will be made by ~~the Director of~~ Engineering **Management** ~~or his designee~~ in response to:
   a. Urgent and unexpected service demands.~~;~~
   b. Scheduled leaves of absence or vacation which may disrupt the department's ability to deliver service.~~; or~~
   c. Unscheduled leaves of absence or disability and unexpected terminations.
5. Staff will be scheduled in a manner which will ensure that the department is able to provide some level of service 24 hours a day, seven days a week, including holidays.

Tri-City Medical Center
Oceanside, California

ENGINEERING
PERSONNEL

~~TRI-CITY MEDICAL CENTER~~ ~~Engineering Policy & Procedure~~	~~Section: ENGINEERING DEPARTMENT~~ ~~Subject: Sick Call-In Procedure~~ ~~Policy Number: 3005 Page 1 of 1~~
~~Department: Hospital-Wide~~	~~EFFECTIVE: 11/1/87~~ ~~REVISED: 9/94; 1/97; 5/00; 5/03, 6/06; 5/09; 6/12~~

SUBJECT: Sick Call-in Procedure

ISSUE DATE: 11/87
REVIEW DATE(S):
REVISION DATE(S): 9/94, 1/97, 5/00, 5/03, 6/06, 5/09, 6/12

Department Approval ~~Date(s)~~:	**02/20**
Environmental Health and Safety Committee Approval ~~Date(s)~~:	**03/20**
Administration Approval:	**08/21**
Professional Affairs Committee Approval ~~Date(s)~~:	**n/a**
Board of Directors Approval ~~Date(s)~~:	

A. **PURPOSE:**
1. To define the policy and procedure of the Engineering Department with regard to sick call-in.

B. **SICK CALL-IN PROCEDURE:**
1. An employee who will be absent from his shift or who will report work late must notify one of the following individuals (listed in order of preference) at least 2 hours before the beginning of ~~his~~ **their** shift:
   a. ~~Duty Engineer~~**Engineering Manager or Supervisor**
   b. ~~Engineering Manager~~**Duty Engineer**
   ~~c. Director of Engineering~~
2. ~~May be contacted via the page operator at home or by beeper if necessary.~~

Tri-City Medical Center
Oceanside, California

ENGINEERING
PERSONNEL

DELETE: Duplicate of Admin Policy 8610-415: Dress and Appearance Philosophy

~~TRI-CITY MEDICAL CENTER~~ ~~Engineering Policy & Procedure~~	~~Section: ENGINEERING DEPARTMENT~~ ~~Subject: Dress and Grooming~~ ~~Policy Number: 3006 Page 1 of 2~~
~~Department: Hospital-Wide~~	~~EFFECTIVE: 11/1/87~~ ~~REVISED: 9/94; 1/97; 5/00; 5/03, 6/06; 5/09; 6/12~~

SUBJECT: Dress and Grooming

ISSUE DATE: 11/87
REVIEW DATE(S):
REVISION DATE(S): 9/94, 1/97, 5/00, 5/03, 6/06, 5/09, 6/12

Department Approval Date(s):	02/20
Environmental Health and Safety Committee Approval Date(s):	03/20
Administration Approval:	08/21
Professional Affairs Committee Approval Date(s):	n/a
Board of Directors Approval Date(s):	

~~A. **POLICY/PROCEDURE:**~~

~~1. Clothing~~

~~a. Uniforms, issued by the department, shall be worn by all Engineering Personnel and shall be kept clean and in good repair by the employee.~~

~~b. The choice of personal clothing must always reflect consideration of the work environment, safety, practicality and good taste. Specifically prohibited are floor-length skirts, shorts or cut offs, and see through or low cut tops.~~

~~c. Personal clothing shall be clean and in good repair at all times.~~

~~2. Shoes~~

~~a. Engineering personnel shall wear shoes appropriate to their work setting which demonstrates consideration of health and safety requirements. Recommended are heavy-soled, fulled enclosed shoes or boots of leather and either brown or black in color.~~

~~b. Specifically prohibited are backless shoes, sandals, thongs and tennis shoes.~~

~~3. Jewelry~~

~~a. Jewelry which presents a safety hazard to the wearer or interferes with work activity in any way shall not be worn.~~

~~4. Personal Grooming~~

~~a. Hair must be kept neat and clean, hair length must be maintained in a neat and professional manner. Beards, moustaches and sideburns must be kept neatly trimmed.~~

~~b. Hair which presents a hazard to the wearer or interferes with work activity must be contained by a hairnet or other acceptable covering.~~

~~c. Office secretarial staff are exempt from length of hair requirements but must meet all other requirements.~~

~~B. Attachment:~~

~~1. Acknowledgment of Dress and Grooming Regulations.~~

TRI-CITY HOSPITAL DISTRICT

ACKNOWLEDGMENT OF DRESS AND GROOMING REGULATIONS

At the time I became employed by the Tri-City Medical Center, I was informed by a representative from my department of the clothing and grooming regulations for my department.

It is understood and agreed by me that any significant variation from these departmental dress and grooming regulations, which it may make, may be cause for termination of my employment from the Medical Center

_____
Employee Signature

_____
Department Representative Signature

Tri-City Medical Center
Oceanside, California

ENGINEERING
PERSONNEL

DELETE: Duplicate of Admin Policy 8610-426 : Performance Evaluations

~~TRI-CITY MEDICAL CENTER~~ ~~Engineering Policy & Procedure~~	~~Section: ENGINEERING DEPARTMENT~~ ~~Subject: Performance Evaluation~~ ~~Policy Number: 3007 Page 1 of 1~~
~~Department: Hospital-Wide~~	~~EFFECTIVE: 11/1/87~~ ~~REVISED: 9/94; 2/97; 5/00; 5/03, 6/06; 5/09; 6/12~~

SUBJECT: Performance Evaluation

ISSUE DATE: 11/87
REVIEW DATE(S):
REVISION DATE(S): 9/94, 2/97, 5/00, 5/03, 6/06, 5/09, 6/12

Department Approval Date(s):	**02/20**
Environmental Health and Safety Committee Approval Date(s):	**03/20**
Administration Approval:	**08/21**
Professional Affairs Committee Approval Date(s):	**n/a**
Board of Directors Approval Date(s):	

~~A. **PURPOSE:**~~

~~1. To define the policy for the conduct of performance evaluations.~~

~~B. **POLICY:**~~

~~1. Each employee will receive an evaluation of his performance:~~
~~a. At least once prior to the completion of his probationary period;~~
~~b. At the conclusion of a trial period following his transfer to a new position, and/or;~~
~~c. At least annually.~~

~~2. The employee will be evaluated against pre-established criteria which are directly related to his job duties.~~

~~3. The performance evaluation will be discussed with the employee and documented in writing.~~

~~4. As part of the evaluation, action plans for areas in which the employee does not meet the performance standards, if applicable, will be documented in writing.~~

~~5.~~1. ~~Plans and opportunities for further development, if appropriate, will be mutually identified by the supervisor and employee and documented in writing.~~

Tri-City Medical Center
Oceanside, California

DELETE – Policy not required.

ENGINEERING
PERSONNEL

~~TRI-CITY MEDICAL CENTER~~ ~~Engineering Policy & Procedure~~	~~Section: ENGINEERING DEPARTMENT~~ ~~Subject: Job Descriptions~~ ~~Policy Number: 3008 Page 1 of 1~~
~~Department: Hospital-Wide~~	~~EFFECTIVE: 11/1/87~~ ~~REVISED: 9/94; 2/97; 5/00; 5/03, 6/06; 5/09; 6/12~~

SUBJECT: Job Description

ISSUE DATE: 11/87
REVIEW DATE(S):
REVISION DATE(S): 9/94, 2/97, 5/00, 5/03, 6/06, 5/09, 6/12

Department Approval Date(s):	02/20
Environmental Health and Safety Committee Approval Date(s):	03/20
Administration Approval:	08/21
Professional Affairs Committee Approval Date(s):	n/a
Board of Directors Approval Date(s):	

~~A. PURPOSE:~~

~~1. To outline the use of job descriptions in the Department of Engineering.~~

~~B. POLICY:~~

~~1. There will a job description for each position in the Engineering Department.~~
~~2. Two or more employees may have the same job title so the specific duties of any one position may vary depending on work assignments.~~
~~3. A criteria-based evaluation tool developed for each job description will be used to assess each employee's performance.~~
~~4.~~1. ~~(See "Performance Evaluations").~~

Tri-City Medical Center
Oceanside, California

ENGINEERING
PERSONNEL

DELETE- Policy no longer applicable. Do not utilize On-call staff.

~~TRI-CITY MEDICAL CENTER~~ ~~Engineering Policy & Procedure~~	~~Section: ENGINEERING DEPARTMENT~~ ~~Subject: On Call Personnel~~ ~~Policy Number: 3009~~ ~~Page 1 of 1~~
~~Department: Hospital-Wide~~	~~EFFECTIVE: 8/30/89~~ ~~REVISED: 9/94; 2/97; 5/00; 5/03, 6/06; 5/09; 6/12~~

SUBJECT: On Call Personnel

ISSUE DATE: 08/89
REVIEW DATE(S):
REVISION DATE(S): 9/94, 2/97, 5/00, 5/03, 6/06, 5/09, 6/12

Department Approval Date(s):	02/20
Environmental Health and Safety Committee Approval Date(s):	03/20
Administration Approval:	08/21
Professional Affairs Committee Approval Date(s):	n/a
Board of Directors Approval Date(s):	

~~A. PURPOSE:~~

~~1. To establish response parameters for Engineering Department personnel that are off duty but considered "On Call".~~

~~B. GENERAL INFORMATION:~~

~~1. "On Call" or "On Call Personnel" are those personnel assigned to respond to a need for additional help at the Medical Center before or after normal working hours, weekends or holidays. Normal working hours, for the purpose of policy, are daily 0730 to 1600 except weekends and holidays.~~

~~C. POLICY:~~

~~1. "On Call Personnel" are expected to respond to the Medical Center's call for assistance as follows:~~

~~a. By Telephone - within 15 minutes~~

~~b.~~a. ~~Report to Work - within 60 minutes~~

Tri-City Medical Center
Oceanside, California

ENGINEERING
PERSONNEL

DELETE- Duplicate info from Admin Policy 8610-437: Flex/Float to

~~TRI-CITY MEDICAL CENTER~~ ~~Engineering Policy & Procedure~~	~~Section: ENGINEERING DEPARTMENT~~ ~~Subject: Productivity~~ ~~Policy Number: 3010 Page 1 of 2~~
~~Department: Hospital-Wide~~	~~EFFECTIVE: 8/30/89~~ ~~REVISED: 9/94; 2/97; 5/00; 5/03, 6/06; 5/09; 6/12~~

SUBJECT: Productivity

ISSUE DATE: 08/89
REVIEW DATE(S):
REVISION DATE(S): 9/94, 2/97, 5/00, 5/03, 6/06, 5/09, 6/12

Department Approval Date(s):	**02/20**
Environmental Health and Safety Committee Approval Date(s):	**03/20**
Administration Approval:	**08/21**
Professional Affairs Committee Approval Date(s):	**n/a**
Board of Directors Approval Date(s):	

~~A. **PURPOSE:**~~
~~1. To provide for the efficient management of the work force.~~
~~2. To comply with Hospital policy for flexing the work force.~~
~~3. To provide an organized plan for flexing the work force during periods of low work load.~~

~~B. **POLICY:**~~
~~1. The Engineering Department shall efficiently manage the departmental workforce according to work load, hospital policy and hospital administration.~~

~~C. **PROCEDURE:**~~
~~1. Departmental work load will be determined by the monthly Departmental Productivity report.~~
~~2. Departmental Productivity reports are generated from time card records and monthly completed Work order Report for Engineering personnel.~~
~~3. Employees are responsible for the accuracy of their personnel time cards.~~
~~4. Employees are responsible for documenting their time worked on the CMMS Computer System.~~
~~5. Documentation of time worked shall account for a minimum of 87.5% of productive time recorded on the employee time card.~~

~~D. **WORK FORCE FLEXING:**~~
~~1. The department work force can be flexed upon request of Administration. The amount of this flexing will be determined by Administration as stated in Hospital Policy and Procedure No. 437.~~
~~2. The department work force can be flexed relevant to the Department Productivity Report.~~
~~3. The amount of work force flexing will be figured by subtracting hours worked from 87.5% of productive hours paid.~~
~~4. Employees that do not have 87.5% of productive time accounted for as time worked will be~~

recruited to flex their working hours during the following month by an amount equal to that figured by the formula in paragraph 3 of this section, subject to the discretion of the departmental director.

5. When the department is requested by the hospital administration to flex hours over and above the amount generated by those employees subject to paragraph 14 of this section, all employees shall be required to flex (in 8 hour increments) on a rotating basis per Table 1-1 below.
6. Employees with less that 87.5% productivity shall be required to flex prior to implementation of the flexing rotation.
7. Stationary Engineers are exempt from flexing.
8. **TABLE 1-1. FLEXING ROTATION**
   a. Volunteers
   b. Director of Engineering
   c. Engineering Manager
   d. Engineering Supervisor
   e. Engineering Mechanic II (most senior to newest employee)
   f. Construction Engineer (most senior to newest employee)
   g. Engineering Mechanic I (most senior to newest employee)
   h. Construction Administrative Coordinator
   i. Engineering Administrative Coordinator

9.1. The Engineering Administrative Coordinator shall maintain an up-to-date rotation listing by name and shall also maintain an up-to-date record of all flexing that occurs within the department based upon information provided by Engineering Supervisor. Recorded information will include name, date, number of hours flexed and the reason for flexing (low productivity, rotation, etc.) This information, along with the departmental productivity reports, shall be used by the Director to administer this flexing policy.

Tri-City Medical Center
Oceanside, California

ENGINEERING
PERSONNEL

DELETE- information covered on Engineering Policy 3000: Orientation of New Employees.

~~TRI-CITY MEDICAL CENTER~~ ~~Engineering Policy & Procedure~~	~~Section: ENGINEERING DEPARTMENT~~ ~~Subject: Utilities Management User Training~~ ~~Policy Number: 3011 Page 1 of 1~~
~~Department: Engineering~~	~~EFFECTIVE: 8/30/89~~ ~~REVISED: 9/94; 2/97; 5/00; 5/03, 6/06; 5/09, 6/12~~

SUBJECT: Utilities Management User Training

ISSUE DATE: 08/89
REVIEW DATE(S):
REVISION DATE(S): 9/94, 2/97, 5/00, 5/03, 6/06, 5/09, 6/12

Department Approval Date(s):	**02/20**
Environmental Health and Safety Committee Approval Date(s):	**03/20**
Administration Approval:	**08/21**
Professional Affairs Committee Approval Date(s):	**n/a**
Board of Directors Approval Date(s):	

~~A. **POLICY:**~~
~~1. Tri-City Medical Center's Engineering personnel will be required to attend monthly meetings that will specifically address training the users of utilities equipment including, but not limited to:~~
~~a. H.V.A.C. System~~
~~b. Emergency Generator~~
~~c. Steam Boilers~~
~~d. Pumps and Motors~~
~~e. Medical Gases~~
~~f. Electrical Distribution Systems~~
~~g. Water Distribution/Plumbing System~~
~~h. Medical/Surgical Air and Vacuum System~~
~~i. Alarms and Safety Devices~~
~~j. OSHA Training~~
~~k. Medical Equipment (Beds, Nurse Call, Etc.)~~

Tri-City Medical Center
Oceanside, California

ENGINEERING
PERSONNEL

DELETE- Items covered in Engineering Policy 3001 Continuous Education.

~~TRI-CITY MEDICAL CENTER~~ ~~Engineering Policy & Procedure~~	~~Section: ENGINEERING DEPARTMENT~~ ~~Subject: Utilities Management Continuing Education~~ ~~Policy Number: 3011.1 Engineering Page 1 of 1~~
~~Department: Engineering Department~~	~~EFFECTIVE: 8/30/89~~ ~~REVISED: 9/94; 2/97; 5/00; 5/03, 06/06; 5/09; 6/12~~

SUBJECT: Utilities Management Continuing Education

ISSUE DATE: 08/89
REVIEW DATE(S):
REVISION DATE(S): 9/94, 2/97, 5/00, 5/03, 6/06, 5/09, 6/12

Department Approval Date(s): 02/20
Environmental Health and Safety Committee Approval Date(s): 03/20
Administration Approval: 08/21
Professional Affairs Committee Approval Date(s): n/a
Board of Directors Approval Date(s):

~~A. **POLICY:**~~
~~1. Annual continuing education of all utility system components is required of each Engineering employee.~~
~~2. Training outlines will be used to ensure standards are maintained.~~
~~3. Specialists in various utility system functions such as boiler operation, water treatment, electrical safety, H.V.A.C. Systems operation and more will be utilized in addition to the Director of Engineering and Engineering Manager conducting training.~~
~~4. In order to cover all utility systems annually, departmental meetings are scheduled monthly to cover department policies, problems and specific user training.~~
~~5. Documentation on all utility systems continuing education is located in the Engineering office.~~

DELETE- Item is a form no longer utilized by department.

TRI-CITY MEDICAL CENTER Engineering Policy & Procedure	Section: ENGINEERING DEPARTMENT Subject: Customer Satisfaction Survey Policy Number: 3012 Page 1 of 1
Department: Engineering	EFFECTIVE: 2/97 REVISED: 5/00; 5/03, 6/06; 5/09; 6/12

ENGINEERING DEPARTMENT
INTERNAL CUSTOMER SERVICE SURVEY
(WORKORDER)

In an effort to obtain valuable feedback regarding services the Engineering Department provides, we request your assistance in completing this customer service survey. The information we receive from this survey will be used to improve the quality of our services. We have chosen a work order that has recently been performed in your area and would like your opinion of our service. When you have completed this survey, please return it to Engineering Department. Thank you for your participation in our quality improvement process.

Work Order Number_____ (Please see attached)

Please circle the number that most closely indicates your degree of rating with the following statements:
5 = Superior, 4 = Excellent, 3 = Good, 2 = Satisfactory, 1 = Needs Improvement, 0 = Poor, N/A = Not Applicable

1)	5	4	3	2	1	0	N/A	Please rate the response of Engineering Dept. to your call.
2)	5	4	3	2	1	0	N/A	Please rate the performance of Engineering Dept. technician that responded to your call.
3)	5	4	3	2	1	0	N/A	Were you kept adequately informed as to delays in service? (parts on order, manpower shortages, etc.)
4)	5	4	3	2	1	0	N/A	After the work was completed, the work area was clean & free of debris and clutter.
5)	5	4	3	2	1	0	N/A	The work was completed within your time expectations.
6)	5	4	3	2	1	0	N/A	Were you kept informed of the cost of materials to provide service?
7)	5	4	3	2	1	0	N/A	How would you rate the overall performance of the Engineering Dept. team?

Department: _____ Contact Person: _____ Phone Number: _____

PLEASE RETURN TO ENGINEERING DEPARTMENT WHEN COMPLETED. THANK YOU.

If you have any comments or suggestions on how we may improve our services, please use the reverse side.

Tri-City Medical Center
Oceanside, California

ENGINEERING
PERSONNEL

~~TRI-CITY MEDICAL CENTER~~ ~~Facilities Policy & Procedure~~	~~Section: FACILITIES MANAGEMENT~~ ~~Subject: Performance Improvement Plan~~ ~~Policy Number: 3013 Page 1 of 6~~
~~Department: Engineering~~	~~EFFECTIVE: 9/94~~ ~~REVISED: 2/97; 5/00; 5/03, 6/06; 5/09; 6/12~~

SUBJECT: Performance Improvement Plan

ISSUE DATE: 09/94
REVIEW DATE(S):
REVISION DATE(S): 2/97, 5/00, 5/03, 6/06, 5/09, 6/12

Department Approval ~~Date(s)~~:	**02/20**
Environmental Health and Safety Committee Approval ~~Date(s)~~:	**03/20**
Administration Approval:	**08/21**
Professional Affairs Committee Approval ~~Date(s)~~:	**n/a**
Board of Directors Approval ~~Date(s)~~:	

A. **PURPOSE:**

1. In keeping with the Tri-City ~~Medical Center's~~**Healthcare District's (TCHD)** mission, Engineering in a systematic, collaborative and continuous approach will endeavor to deliver optimal service in an environment of minimal risk.

B. **OBJECTIVES:**

1. There is a planned, continuous ongoing systematic process to monitor and evaluate the quality of the services provided in the Department.
2. When problems are identified, action is taken and the effectiveness of that action is evaluated.
3. When opportunities to improve services are identified, action is taken and the effectiveness of the action is evaluated.

C. **GOALS:**

1. Provide a safe, functional and effective environment for patients, employees and other individuals in the organization.
2. Educate staff about their role in the ~~CQI~~ **Performance Improvement** Program.
3. Develop performance standards for the following:
   a. Staff safety, management, knowledge and skill;
   b. Level of participation in safety activities;
   c. Emergency and incident reporting procedures that specify when and where reports are communicated; and
   d. Inspection, preventative maintenance and testing of safety equipment.
4. Develop safety training programs for users and maintainers of equipment and utilities.
5. Institute educational and self-improvement programs to enhance performance, morale and

loyalty

6. Emphasize the "dimensions of performance" including:
   a. Efficacy
   b. Appropriateness
   c. Availability
   d. Timeliness
   e. Effectiveness
   f. Continuity
   g. Safety
   h. Efficiency
   i. Respect and caring
7. Focus on those functions and aspects of patient care that are essential to quality patient care and a safe care environment.
8. Encourage everyone in ~~Tri-City Medical Center~~**TCHD** to participate in the processes and activities that make the environment of care safe and effective.
9. Manage and improve the environment of care.

D. **SCOPE OF ACTIVITIES:**

1. The Performance Improvement Committee will work together with ~~the Director of~~ Engineering **Management** to create, implement and evaluate the program within the department. As part of ~~Tri-City Medical Center's~~**TCHD's** Performance Improvement Plan, overall responsibility for monitoring and evaluating Facilities Management is assigned to ~~the Director of~~ Engineering **Management** and the Performance Improvement Committee.
2. The Engineering Management provides and is responsible for a variety of services including the following:
   a. Repair of equipment and utility systems;
   b. Plant and grounds maintenance;
   c. Review of equipment and utility failures, incidence reports, user errors and component failures;
   d. Equipment evaluations;
   e. Management of the preventative maintenance program;
   f. Utility and equipment use and safety education and training programs;
   g. Review of health alerts and medical device recalls;
   h. State and federal regulations compliance;
   i. Construction and planning; and
   j. Life safety.

E. **METHODOLOGY:**

1. A quality strategy will be established for each of the major functions listed above. This is accomplished by identifying the key components of the function, the expected outcomes and the specific performance standards.
2. The internal and external customers and their needs will be identified. Customers include anyone who receives Engineering related services directly or indirectly.
3. Incorporate Performance Improvement principles into training programs.
4. By developing a spirit of ownership staff members should develop responsibility for their positions and a commitment to quality and ~~Tri-City Medical Center~~**TCHD**.
5. Teamwork will be promoted within the department and facility wide.
6. Input from the staff members on how they can improve Engineering will be encouraged.
7. A complaint tracking system will be developed and maintained to track all types of complaints from staff and other customers.
8. Traditional monitoring and evaluation of activities along with quality audits will be conducted.
9. Improvement teams that focus on specific problems will have the responsibility of investigating all aspects of a process and recommending the best quality action plan. The team shall then implement the action plan and monitor the results to look for continual ways to improve the

processes.

F. **DEVELOP AND MEASURE PERFORMANCE INDICATORS:**

1. Example Indicators:
   a. Preventative maintenance procedures current within thirty days;
   b. Documented need for equipment monitoring;
   c. Employees educated on need to comply with lockout procedure;
   d. Work order response initiated within 48 hours;
   e. ~~24 hour t~~**T**urn-around time on repairs
   f. Interpersonal communication skills;
   g. Damage to equipment due to negligence;
   h. Timely submission of statistics;
   i. Customer/Staff satisfaction surveys;
   j. Occurrence of overtime;
   k. Utilities user errors;
   l. Equipment unscheduled down-time/failure;
   m. Employee awareness of departmental equipment and utilities operations;
   n. Equipment not available for PM or repair;
   ~~o. Phantom problems (non-reproduced complaints); and~~
   ~~p. Equipment back (recall) within one month.~~

G. **SET BENCHMARKS AND THRESHOLDS:**

1. As data is collected over a period of time, the ~~Facilities~~ **Engineering** Management will establish levels or benchmark points that will trigger review. ~~The Facilities~~ **Engineering** Management is always striving for an opportunity for improvement in the service.

H. **COLLECT DATA:**

1. ~~The Facilities~~**Engineering** Management staff will collect data for each aspect of care. The data is collected on an ongoing basis. The data is collected in order to prevent any potential problems. The data sources include the following:
   a. Statistical Data
   b. Worksheets and Work orders
   c. Meeting Minutes
   d. Direct Observation
   e. Patient/Staff Complaints and/or Surveys
2. Data shall be reviewed quarterly by Engineering Management and the Performance Improvement Committee. The Engineering employees will review the findings in order to determine whether a problem or opportunity for improvement in service exists. This evaluation may include analysis of patterns or trends in providing service that relate to specific shifts, staff, skills and/or structure.

I. **PERFORMANCE ASSESSMENT:**

1. The assessment process is systematic, interdisciplinary and interdepartmental. ~~The~~ Engineering Management uses a systematic process to assess collected data. The assessment process will include statistical quality control techniques as needed. Data assessment begins with a clear understanding. A systematic assessment framework with discipline involvement collects and analyzes data to answer questions about the processes and outcomes that are being monitored throughout the organization.
2. The following questions are:
   a. What is our current level of performance?
   b. How stable are current processes?
   c. Are there areas that could be improved?
   d. What should our improvement priorities be?
   e. Have strategies to improve performance been effective?

f. Have specifications for new or redesigned processes been met?

3. An interdisciplinary approach will be made to make comparisons of processes and outcomes over time. The data will be compared and reference databases utilized as needed. Priorities for improvement will be assessed. Improvement activities will be implemented based on assessment conclusions. To achieve this goal, each department will measure, assess and improve activities that relate to the performance of the department. ~~The~~ Engineering Management will collaborate as necessary with other departments throughout the organization.

J. **TAKE ACTIONS TO IMPROVE SERVICES:**

1. If evaluation identifies a problem or opportunity for improvement, the staff evaluates and determines the appropriate action and forwards that recommendation to the individual or group with the authority to act. Some possible actions include the following:
   - ~~2.~~**1.** Systems problems: Changes in communication channels, changes in organizational structure, adjustments in staffing and changes in equipment or chart forms
   - ~~3.~~**2.** Knowledge problems: In-service education, continuing education and circulating informational material.
   - ~~4.~~**3.** Behavior problems: Informal or formal counseling, changes in assignments and disciplinary action

K. **ASSESS THE EFFECTIVENESS OF THE ACTION AND DOCUMENT IMPROVEMENT:**

1. The monitoring and evaluation does not end when actions are taken. Not only does ~~the Facilities~~**Engineering** Management staff continue to monitor the performance indicators for future opportunities for improvement, but the staff will also determine whether the actions taken are successful in improving the service. The results of continued monitoring and evaluation provide the information to make that determination.
2. If services do not improve within the expected time, the staff will reexamine the performance indicator and take further action.
3. This follow-up is essential to the monitoring and evaluation process.

L. **COMMUNICATE RELEVANT INFORMATION TO THE ORGANIZATION WIDE PERFORMANCE IMPROVEMENT PROGRAM:**

1. To "close the loop" of the monitoring and evaluation process, the following information is reported to the ORGANIZATION WIDE Performance Improvement Committee:
   a. Findings/Conclusions
   b. Recommendations
   c. Actions
   d. Results of actions taken
2. The Engineering Performance Improvement Plan will be assessed ~~annually~~ **regularly** for its effectiveness and consistency with ~~Tri-City Medical Center's~~**TCHD's** Plan. The assessment is conducted by the Engineering and the Performance Improvement Committee and forwarded to the Governing Body.

M. FORM(S):

~~3.~~**1. Engineering Performance Indicators**

REMOVE FROM POLICIES AND CHANGE TO FORM

ENGINEERING PERFORMANCE INDICATORS

	BENCHMARK/ THRESHOLD	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	AVG
PLANT OPERATIONS & BUILDING ENGINEERING														
# OF P Ms SCHEDULED														
% P Ms COMPLETED ON TIME														
~~# OF EQUIPMENT INCIDENTS REPORTED~~														
~~# OF USER ERRORS IDENTIFIED~~														
~~# EQUIPMENT INCIDENTS WITH ADVERSE OUTCOMES~~														
# UTILITY FAILURES OR INTERRUPTS														
~~# OF MEDICAL DEVICE INCIDENTS~~														
~~% CUSTOMER SATISFACTION AVG < 4~~														
~~# OF EQUIPMENT NOT AVAILABLE FOR P M OR REPAIR~~														
LIFE SAFETY														
NUMBER OF FIRE DRILLS CONDUCTED														
~~% OF STAFF ABLE TO DEMONSTRATE KNOWLEDGE OF THEIR RESPONSIBILITIES DURING DRILL~~														
~~% FULLY OPERATIONAL FIRE DOORS~~														
~~AVERAGE STAFFING~~														
~~AVERAGE DAILY CENSUS~~														

Tri-City Medical Center
Oceanside, California

ENGINEERING
EQUIPMENT

~~TRI-CITY MEDICAL CENTER~~ ~~Engineering Policy & Procedure~~	~~Section: ENGINEERING DEPARTMENT~~ ~~Subject: Tool Storage, Distribution And Inventory~~ ~~Policy Number: 4000 Page 1 of 2~~
~~Department: Hospital-Wide~~	~~EFFECTIVE: 10/1/87~~ ~~REVISED: 9/94; 2/97; 5/00; 5/03, 06/06; 5/09; 6/12~~

SUBJECT: Tool Storage, Distribution and Inventory

ISSUE DATE: 10/87
REVIEW DATE(S):
REVISION DATE(S): 9/94, 2/97, 5/00, 5/03, 6/06, 5/09, 6/12

Department Approval ~~Date(s)~~:	**03/20**
Environmental Health and Safety Committee Approval ~~Date(s)~~:	**03/20**
Administration Approval:	**08/21**
Professional Affairs Committee Approval ~~Date(s)~~:	**n/a**
Board of Directors Approval ~~Date(s)~~:	

A. **PURPOSE:**

1. To define the responsibilities and procedures for the storage, distribution and inventory of tools used in the Engineering Department.

~~B. GENERAL INFORMATION:~~

~~1. Building Engineers are expected to carry the following tools with them in a tool pouch or box throughout the work day:~~
~~a. Screwdrivers: Phillips and straight blade type~~
~~b. Flashlight~~
~~c. Adjustable crescent wrench~~
~~d. Allen wrenches~~
~~e. Channel lock pliers~~
~~f. Needle nose pliers~~
~~g. Measuring tape~~
~~h. Knife~~
~~i. Electric tester (Multitest or wiggie)~~
~~j. Gloves~~
~~k. Ball peen hammer~~
~~2. Work gloves and ball peen hammer are kept in the employee's assigned, locked area.~~
~~3. All of the above are stored in the employee's assigned, locked area when the employee is not on duty.~~

~~C.~~B. **POLICY:**

1. **Building Engineers are expected to maintain a tool cart containing appropriate tolls for working in their assigned areas.**

~~1.~~**2.** All Engineering Dept. Tools must be returned to the tool crib at the end of the work day or upon completion of the work for which the tool was used, whichever occurs first.

2. No tools belonging to the Engineering Dept. may be removed for the Medical Center for personal use.

3. Personal tools will be kept on the person of the employee who owns them and the department will not be responsible for their loss.(See use of "Personal Tools").

4. It will be the responsibility of the employee who checks out a tool to clean that tool before he returns it to the tool crib or, if time is not available at the end of the shift, to check the tools out again and clean it at the beginning of the next workday.

5. If a tool belonging to the department breaks or becomes unusable while in use, the employee to whom it was checked out must bring this to the attention of his Supervisor when returning the tool to the tool crib.

6. ~~A small supply of basic tools will be kept in the Engineering Dept. for the exclusive use of evening, night and weekend engineers. These tools will not be used by engineers an other shifts without the approval of a supervisor.~~

7. Violations of this policy may result in disciplinary action.

Tri-City Medical Center
Oceanside, California

ENGINEERING
EQUIPMENT

~~TRI-CITY MEDICAL CENTER~~ ~~Engineering Policy & Procedure~~	~~Section: ENGINEERING DEPARTMENT~~ ~~Subject: Use of Personal Tools~~ ~~Policy Number: 4001 Page 1 of 1~~
~~Department: Hospital-Wide~~	~~EFFECTIVE: 11/1/87~~ ~~REVISED: 9/94; 2/97; 5/00; 5/03, 06/06; 5/09; 6/12~~

SUBJECT: Use of Personal Tools

ISSUE DATE: 10/87
REVIEW DATE(S):
REVISION DATE(S): 9/94, 2/97, 5/00, 5/03, 6/06, 5/09, 6/12

Department Approval ~~Date(s)~~:	**03/20**
Environmental Health and Safety Committee Approval ~~Date(s)~~:	**03/20**
Administration Approval:	**08/21**
Professional Affairs Committee Approval ~~Date(s)~~:	**n/a**
Board of Directors Approval ~~Date(s)~~:	

A. **PURPOSE:**
1. To define the responsibilities and conditions for the use of personal tools in the work place.

B. **POLICY:**
1. Personal tools may only be used with the approval of ~~the Director of~~ Engineering **Management** and ~~will~~ **may** be subject to ~~an annual~~ inspection. ~~by an Engineering Supervisor.~~
2. Personal tools which do not meet the department's quality or safety standards will not be permitted for use in the Engineering Dep**artmentt**.
3. The Engineering Dep**artment**~~.~~ will not assume the cost of repairing or replacing personal tools approved for use in the department.
4. It will be the responsibility of the employee who owns the tool to keep it clean and in good repair at all times.

~~C. PROCEDURE:~~
~~1. When an employee requests permission to use a personal tool in the work place, the Director of Engineering or designee inspects the tool to verify that it meets the department's quality and safety standards.~~
~~2 When the tool has been approved for use, the Director or designee enters the following information in the CMMS under Equipment Identification Number (EIN).~~
~~a. Name of Employee.~~
~~b. Tool description and type.~~
~~c. Date of inspection.~~
~~d. Name of individual inspecting the tool.~~
~~3. Once each year, all personal tools are automatically scheduled for re-inspection and Step 2 of this procedure is repeated.~~

Tri-City Medical Center
Oceanside, California

ENGINEERING
EQUIPMENT

~~TRI-CITY MEDICAL CENTER~~ ~~Engineering Policy & Procedure~~	~~Section: ENGINEERING DEPARTMENT~~ ~~Subject: Equipment Management Plan~~ ~~Policy Number: 4002 Page 1 of 3~~
~~Department: Engineering~~	~~EFFECTIVE: 9/94~~ ~~REVISED: 2/97; 5/00; 5/03; 6/06; 5/09; 6/12~~

SUBJECT: Equipment Management Plan

ISSUE DATE: 9/94
REVIEW DATE(S):
REVISION DATE(S): 2/97, 5/00, 5/03, 6/06, 5/09, 6/12

Department Approval ~~Date(s)~~:	**02/20**
Environmental Health and Safety Committee Approval ~~Date(s)~~:	**03/20**
Administration Approval:	**08/21**
Professional Affairs Committee Approval ~~Date(s)~~:	**n/a**
Board of Directors Approval ~~Date(s)~~:	

A. **POLICY:**

1. Tri-City Medical Center's Equipment Management Plan will provide and maintain an equipment management program that promotes the safe and effective use of equipment. Tri-City Medical Center's Equipment Management Plan includes the following:

B. **THE SELECTION AND ACQUISITION OF MEDICAL EQUIPMENT:**

1. All requests for electrically operated equipment shall be reviewed by the Director of Engineering prior to purchase to determine if the equipment meets appropriate space requirements, load and phase requirements, Underwriters Laboratory requirements, minimum safety standards of 3 wire AC line cord with hospital grade plug, appropriate warranties and manufacturer's reliability.

C. **ESTABLISHING CRITERIA FOR IDENTIFYING, EVALUATING AND TAKING INVENTORY OF MEDICAL EQUIPMENT TO BE INCLUDED IN THE EQUIPMENT MANAGEMENT PROGRAM:**

1. All mechanical and electrical patient care equipment will be evaluated prior to use based on function, physical risks associated with clinical use, maintenance requirements and equipment incidents. All incoming and existing equipment meeting the evaluation criteria are included in the equipment management program.

D. **ASSESSING AND MINIMIZING CLINICAL AND PHYSICAL RISKS OF EQUIPMENT THROUGH INSPECTION, TESTING AND MAINTENANCE:**

1. All mechanical and electrical patient care equipment will be evaluated prior to use. Semiannual preventative maintenance and safety inspections will be completed on all equipment in the program. The results of inspections and maintenance will be kept in Engineering Office.
2. Incident history is documented and maintained in the Director of Engineering's office.

Equipment displaying unusual repair history or unusual incidence of injury to staff or patients will be evaluated for necessary changes/replacement.

3. All other non-clinical electrically powered equipment will receive preventative maintenance semiannually and will be reviewed annually for incidents. This equipment will include, but not be limited to: lamps, typewriters, televisions, calculators, radios, computers. This equipment will also be safety inspected annually by the Engineering and a tag or sticker will be affixed.

E. **HAZARD NOTICES AND RECALLS:**

1. Recalled equipment shall be immediately removed from service until certified safe by the appropriate service company or agency.
2. See Medical Device Recall Policy, Safety Manual.

F. **MONITORING AND REPORTING OF MEDICAL DEVICE INCIDENTS RESULTING IN DEATH, SERIOUS INJURY OR SERIOUS ILLNESS OF ANY INDIVIDUAL AS PER SAFE MEDICAL DEVICE ACT OF 1990:**

1. The Safe Medical Device Act of 1990 requires that device user facilities (including hospitals, outpatient diagnostic and treatment facilities, nursing homes, ambulatory surgical facilities) report incidents to the device manufacturer when the facility determines a device has or may have caused or contributed to the death or serious injury of an individual. The facility must also send a copy of the report to the FDA in the case of a death.

G. **INVESTIGATION AND REPORTING OF EQUIPMENT MANAGEMENT PROBLEMS, FAILURES AND USER ERRORS:**

1. All equipment failures, utilities failures and user errors will be investigated and reported to the Administration and the EOC. Included in the report will be the error/failure date, location of the equipment, cause or affected area, resolution and follow-up. In the event the equipment problem was caused by user error, the user(s) will be inserviced on the operation and use of the equipment.

H. **THE MEDICAL EQUIPMENT MANAGEMENT PLAN INCLUDES A MEDICAL EQUIPMENT ORIENTATION AND EDUCATION PROGRAM:**

1. Thorough training will be provided regarding the capabilities, limitations and special applications of equipment included in the program by department directors or designee in involved departments. All users/maintainers of equipment shall be tested for competency according to the components of their job specifications.

I. **EMERGENCY PROCEDURES:**

1. Equipment which meets Tri-City Medical Center's criteria for critical to patient safety shall have emergency procedures in the event a malfunction or failure occurs. Equipment considered critical to patient safety includes life support, life sustaining or other such equipment whose malfunction or failure may result in an adverse patient outcome.
2. Equipment will be removed from service and tagged immediately.
3. Engineering will be notified of the failure.
4. An incident report will be completed describing the failure.

Tri-City Medical Center
Oceanside, California

ENGINEERING
EQUIPMENT

DELETE- informational use only. Will be added to internal department specific orientation documents.

~~TRI-CITY MEDICAL CENTER~~ ~~Engineering Policy & Procedure~~	~~Section: ENGINEERING DEPARTMENT~~ ~~Subject: General Instructions, Equipment~~ ~~Policy Number: 4004 Page 1 of 14~~
~~Department: Hospital-Wide~~	~~EFFECTIVE: 11/1/87~~ ~~REVISED: 1/94; 1/97; 5/00; 5/03 , 06/06 ; 5/09; 6/12~~

SUBJECT: General Instructions, Equipment

ISSUE DATE: 11/87
REVIEW DATE(S):
REVISION DATE(S): 1/94, 1/97, 5/00, 5/03, 6/06, 5/09, 6/12

Department Approval Date(s):	**02/20**
Environmental Health and Safety Committee Approval Date(s):	**03/20**
Administration Approval:	**08/21**
Professional Affairs Committee Approval Date(s):	**n/a**
Board of Directors Approval Date(s):	

~~A. **CONTROL AIR COMPRESSORS:**~~

~~1. There are five control air compressors located as follows:~~
~~a. A-2 in Machinery Room #1.~~
~~b. A-3 Located in Mechanical Room 2~~
~~c. A-4 in Women's Center Machinery Room.~~
~~d. A-6 in South Tower Basement Machinery Room.~~
~~e. A-7 Located in basement of Pavilion.~~

~~2. They normally operate independently, however, it is possible to cross-connect the systems and remove a compressor from service for repairs. Also A-3 air compressor can be used to supply the control air systems through a pressure regulator located in the southeast corner of #1 machinery room.~~

~~3. It is essential that control air pressure in all the systems be maintained through some cross-connection configuration because without it all heating and air conditioning equipment would go to heating.~~

~~4. There are other control air compressors which are totally independent of each other they are:~~
~~a. Mental Health Unit~~
~~b. Ancillary~~
~~c. Surgery~~
~~d. Central Plant~~

~~5. All stationary engineers are required to be fully knowledgeable in the operation of these compressors by referring to the manufactures' manuals.~~

~~B. **BUILDING ENERGY MANAGEMENT SYSTEMS:**~~

~~1. The Building Energy Management System (BEMS) consists of a main terminal, an on line~~

backup unit located in the Central Plant control room, a network of 25 Stand Alone Units (SCU'S) located at various locations throughout the hospital. The BEMS operates our H.V.A.C. systems utilizing Seimens Inc. "Insight System 600" software.

2. The Insight program allows the Plant Engineers to remotely control, monitor all H.V.A.C. equipments to provide a safe, comfortable environment for patients and staff at the maximum energy efficiency.
3. Main Terminal
   a. The main terminal is linked to 25 SCU'S (can be expanded to 99 units) and allows the Plant Engineer to perform different tasks from the control room such as:
      i. Start and stop various pieces of equipment
      ii. Monitor and change AHU's static pressure, discharged air temperature and humidity.
      iii. Adjust temperature set point in individual rooms in the Emergency Department, Operating Rooms, Women's Center, Assembly Rooms, Special Procedure areas, Cath Lab and Surgery.
      iv. Adding, modifying control graphics, Points, programs and download to all SCU'S.
      v. Trending data to evaluate the performance of equipments and control devises in order to increase efficiency.
   b. Each Plant Engineer is assigned a password and priority level. This allows them access to the computer at different levels.
4. Backup Unit
   a. Beside the main P.C. terminal, we have the Digital DEC Writer to be used as a backup unit. It cannot run the Insight program but has the capability to do all Insight tasks (Except Graphics) in SCU format. Access required is a single system password.
5. SCU'S
   a. These stand alone units are located at different locations throughout the hospital. Each has its own memory and operating program and can run independently. The Plant Engineer can access these units through either the main terminal or by plugging in the lap-top computer at the unit. Each SCU has backup batteries to be used when normal power is not available. In case of unit failure, all associated equipments will freeze at the last control positions.
6. We also have a lap-top computer to be used in the field as a substitute for the main terminal. It runs SCU software and can access the BEMS via communication ports located inside each SCU cabinet and at the room temperature sensors that connected to the Temperature Electronic Control System (TEC). The lap-top computer is mainly used by the Plant Engineer for trouble shooting the TEC system.
7. The BEMS is a very flexible system. All Plant Engineers are required to use their expertise and judgment to achieve our goal of providing safe, comfortable environment at the maximum energy efficiency. However, any change in programming, System configurations, and data base can be done by authorized personnel or Seimens Inc. only. In case of systems failure, contact Seimens at their 24 hour service number (619) 693-8711.

C. **BOILER OPERATION:**

1. The engineer on duty must give close attention to the operation of the boilers. The safety of patient and employees can be placed in jeopardy and/or great financial loss can result from an accident in the operation of the boilers.
2. **UNDER NO CIRCUMSTANCES ARE THE BOILERS TO BE LEFT UNATTENDED FOR MORE THAN 15 MINUTES**
3. Three principle hazards are:
   a. OVER PRESSURIZATION
   b. FURNACE EXPLOSION
   c. LOW WATER
4. While it is important to maintain steam pressure above 60 PSI to insure satisfactory operation of the sterilizers and heating equipment, safety is the first consideration in boiler operation. It is much better to shut down the boiler and loose steam for a short time than to court disaster, trying to maintain pressure by operating the boiler in an unsafe condition.

5. The nursing department must be notified if you are unable to maintain 60 PSI steam so that use of the sterilizer can be prevented until steam pressure is restored.
6. All engineers must be familiar with all aspects of boiler operation but most importantly they must be completely familiar with the equipment and procedures to assure that the proper water level in the boiler is maintained at all times. Any questions about the feed water system, pumps, D.A. tank, control circuits, makeup water, etc., as well as questions about the boiler fuel systems, air systems and control circuits must be referred to the Plant Engineering Supervisor as often as necessary to maintain competence in the operation of this equipment.
7. #1 and #2 boilers have an emergency feed water system in case the main feed water pumps fail at deaerating feed tank. The emergency feed system is located on the right side toward the rear on both boilers.
8. To operate:
   a. Open drain valve on emergency feed system.
   b. Open feed water valve from emergency system.
   c. Open cold water valve to emergency feed system all the way.
   d. Slowly open steam valve to emergency feed system all the way.
   e. Slowly back off on cold water feed valve until you hear steam and water being introduced into boiler.
   f. When water level is correct, close steam valve first and then close water valve. When complete, make sure all valves are in proper position.
9. Do not hesitate to call for assistance when trouble is experienced with a boiler, but all engineers are required to be able to place a boiler on the line and carry out all emergency procedures to maintain a boiler in operation.

D. **BOILER BLOW DOWN:**

1. Please follow closely the boiler blow down schedule. If it is not properly blown down, the readings will rise and it takes two or three days to get the readings back to normal. In order to properly blow down boilers, open front blow down valve slowly all the way for approximately two minutes then slowly close. Observe water level and when back to normal, open rear blow down valve slowly for approximately two minutes, then slowly close.

E. **TRANE CHILLERS:**

1. There are a total of 5 Trane Chillers. #1 chiller is a 500 ton, 3 stage centrifugal unit. It is on normal power and rated for 480 volts. The #2 and #3 chillers are each 300 ton, 3 stage units and also rated at 480 volts. #4 and #5 units are screw units used for the ice making mode during off peak hours. They are on normal power and rated at 480 volts. #4 and 5 chillers use F-22 refrigerant and units #1, 2 and 3 use F-11 refrigerant.
2. There are two cooling towers rated at 600 tons each. #1 tower is on emergency power along with condenser pump #17. #2 cooling tower is on normal power at 480 volts. Condenser water pumps #18, #19, #20, #21, and #22 are all on normal power. Chill water pumps #1 and #5 are on emergency power. Chill water pumps #2, #3, #4, #6 and #7 are all on normal power.
3. The computer is programmed to start the chillers along with appropriate condenser and chilled water pumps. This program can be overridden by the plant operator to run any chilled water or condenser water pump with any chiller.
4. It is the responsibility of all plant operators to learn the complete operation of these units as they are crucial in maintaining the comfort of the patients and employees.
5. In case of trouble, consult with the HVAC representative and call TRANE 576-2555 if needed.

F. **HOT WATER SYSTEMS – DOMESTIC:**

1. The domestic hot water systems supply water between 105 degree F and 120 degree F to showers and sinks. (Refer to section 70863(D) T22CAC) There are eight separate systems:
   a. Women's Center
   b. Center Building, South Tower and North Wing
   c. Emergency Room
   d. Surgery
   e. Pavilion

f. Ancillary
g. Central Plant
h. Mental Health Unit

2. The ancillary and the pavilion domestic water heaters are made by AERCO. The steam pressure is reduced from 100 psi to 15-20 psi for heating of domestic hot water. Water comes off the cold water system and is pumped through the heat exchangers then out to the system. Continuous circulation is achieved by a return water line and a circulating pump located at the water heater. The heater for the ancillary is located in the ancillary penthouse and the one for the pavilion is located in the pavilion basement machinery room.
3. In the pavilion, the water is piped from the heater directly to the second floor; there it splits into two loops, one supplies the north and west side, the other supplies the south and the east side. Water is supplied to the other four floors of the building by risers going up and down to their points of usage. The return loops are on the third floor, all unused water goes to these loops and is returned to the heating unit.
4. The south tower and the center tower are supplied by two heat exchangers located on the south wall of #1 machinery room. These are Bell & Gossett tube in shell type heat exchangers. The heating medium is reduced pressure steam, reduced to 30 psi from the main steam line pressure. The water is heated to reach the area where it is to be used at a temperature of 105 to 120 degrees F. The discharge temperature is controlled by the Center Plant Computer.
5. In the Mental Health Unit water enters into a 1,000 gallon tank located under the ICU patio. This water is circulated through solar panels on the building roof. The water goes from this tank to a heat exchanger in the machinery room. This heat exchanger uses 30 psi steam to add any additional required heat before the water goes into the building hot water system for use.

G. ELECTRICAL DISTRIBUTION SYSTEMS:

1. Electrical power is provided to the hospital by SDG&E at 12,000 volts. The main breaker is located in the main power building. Two breakers there direct this power to five transformers where the voltage is reduced to 480 volts for circuits on normal power only or to 208 volts for circuits on emergency power.
2. The #3 transformer is located to the south of the UPS room. #4 and #5 transformers are located in the main power building. 12,000 volts is provided to the power building in the south side room where it is reduced to 480 volts. From there it is sent to the ancillary, and a transformer and switch board in the refrigeration machinery space.
3. Two other transformers located in the electrical room of the pavilion are supplied by the 12,000 volts and reduce it to 480 and 208 volts. From the transformers it goes to other transformers, switchboards and motor control centers located in machinery spaces throughout the hospital. It is then sent to control panels that are in almost all areas of the hospital. All operating engineers are required to learn the location of these control panels in case the hospital looses power.

H. ELEVATORS:

1. In the event of elevator trouble, the engineer on duty will check all overload devices for tripping or burnout before calling the service man.
2. If you are unable to correct the trouble by a minor adjustment or repair, the elevator service man should be called regardless of night or holiday. Two elevators must be kept in service as near as possible. (NOTE: This does not include hydraulic.)
3. The car, which is out of service, should be placed on independent service so the remaining car will call at all floors. This can be done by putting independent switch on in car or opening power supply to elevator at MCC3. OUT OF SERVICE sign is hung from doors on all floors.
4. NOTE:
   a. Independent service when on no hall calls register Control is from inside car only.
   b. Attendant - When on Requires operator to hold up or down switch until car leaves floor. Hall button sounds buzzer and lights arrow from direction of call. Press up or down, car automatically goes to where call was registered.
   c. Emergency - When on. Operation is from car only. Pass switch can be used to bypass hall calls.
   d. When calling for service, elevators 1, 2, 5, and 6 can wait until morning or next business

day as all those floors are accessible from elevators 3 and 4.

I. ELEVATOR TROUBLESHOOTING:

1. The thirteen elevators in the Medical Center are under a service contract to Montgomery Elevators. A mechanic is on call at all times. When a call is received about an elevator problem, it is the plant engineers job to go to the elevator in question and to the best of his ability determine and possibly correct the problem.
2. First determine what the problem is: Is there power to the elevator; is the door closing properly; is it leveling at the floors; is it making strange noises; is the problem occurring at all floors or just one floor; is there debris in the door tracts?
3. If there is no power the circuit breakers are located in some remote and unexpected places. Numbers one and two elevators have breakers on MCC #3 in the elevator equipment room on the center tower roof. Numbers three and four elevators have breakers on SWBD EGI in the emergency generator room. Number five and six elevators have breakers on panel EB in #3 machinery room, numbers 7 through 10 have breakers in the pavilion roof machinery room. The elevators are equipped with earthquake safety shutoffs that sometimes trip from power fluctuations and other unexplained reasons and need to be reset.
4. After determining that power is available and there is no obvious and easily correctable solution call Montgomery Elevators to send out a service man.

J. EMERGENCY GENERATOR - CENTRAL PLANT:

1. The generating set is manufactured by Caterpillar, it is rated for 1199 hp and 894 kw at 480 volts.
2. It is located in a small building at the south end of the central plant. It will start automatically on a loss of normal power. When it is running and producing electricity, a transfer switch located in the electrical room in the SW corner of the upper level of the central plant, will transfer to the emergency source and start providing power to the emergency loads of the central plant.
3. Equipment that is on the emergency circuit includes the boilers, medical air compressors, the vacuum pumps, and control air compressor.
4. When normal power is restored, the generator will continue supplying power for a select period of time to prove the reliability of the normal source and it will automatically return the automatic transfer switch to the normal source, cool down for three minutes and shutdown.

K. EMERGENCY GENERATOR SYSTEMS - MAIN HOSPITAL:

1. There are four emergency generators supplying the main hospital buildings. #1 and #2 generators are rated at 400 kw each and #3 is rated at 600 kw. #4 is rated at 1,000 kw. It supplies power to the Women's Center and the new surgery. It along with the central plant generator are the only ones rated at 480 volts. They are located in the emergency generator room of the power building. They start automatically and are required to supply power in less than 10 seconds after a loss of normal power. Each generator supplies specified areas of the hospital through a number of transfer switches. At present:
   a. #1 Generator supplies #4 and 3 other transfer switches (EEB, ECB & ELB).
   b. #5 Transfer switch has been deleted and EEB and ECB now picks up it's load. ELB transfer switch is for medical gas panel alarms only in the new surgery. These transfer switches are located in the basement electric room except #4 transfer switch, which is in the generator room.
   c. #2 Generator supplies #1, #2, #3, transfer switches.
   d. #3 Generator supplies #9 transfer switch in the Ancillary, and #10 transfer switch in the Pavilion Penthouse.
   e. #3 Generator also supplies #12, #13, and #14 transfer switches in the electrical room of the ground floor of the Emergency Room.
   f. #4 Generator supplies power to #6, #7, and #8 transfer switches located in the electrical room in the Women's Center Penthouse. It also supplies power to transfer switches ECA, EEA, and ELA located in the electrical room in the new surgery roof top.
2. The system operates automatically so that upon a loss of normal power at any of the transfer switches, the respective generator will start and begin to generate electricity at which the transfer switch senses the power available and transfers to the emergency position.
3. It is the Plant Operator's responsibility to verify that all or part of the normal supply has been lost

and that all or the necessary generator or generators are running and supplying emergency power. If a generator is not supplying power, the Plant Operator will parallel or cross connect to supply power where needed.

L. **EQUIPMENT:**

1. When equipment is turned off or taken out of service, a notation will be made in the engineering log and note sent (use work request) to Engineering Manager. This note is to contain a brief statement as to why equipment is off.

M. **FUEL OIL REPLENISHMENT:**

1. Whenever the fuel level in the storage tank for the emergency generators drops below 75% of capacity, the level shall be restored to 95% by calling the appropriate vendor and placing an order for fuel.
2. Whenever the fuel level in any storage tank for the boilers reaches 50% of it's individual capacity, the level shall be restored to 95% by calling the appropriate vendor and placing an order for fuel.

N. **NATURAL GAS SHUTOFFS:**

1. The main natural gas shutoff and meter is located southeast of the Central Plant for the Central Plant, kitchen and lab.
2. There are labeled gas shut-off valves located next to #1 and #2 boiler.
3. The lab gas line, coming off the un-interrupted supply to the kitchen, is located in the ceiling of the materials department. The shut-off is located there.

O. **HEATING HOT WATER SYSTEMS:**

1. This system consists of the heat exchangers, pumps, piping and valves to supply heated water to the air handling units and duct heating coils to provide heating to the Medical Center.
2. There are five heat exchangers that provide heating water to various areas. Heat exchanger #1 is suspended from the ceiling in #1 machinery room. Heating water pumps P1 and P2 are located on the floor beneath the heat exchanger. The heating medium is 100 psi steam admitted to the heat exchanger by two pneumatic controlled regulating valves. One valve is adjusted to start opening at a control pressure of 5 psi and be fully open at 10 psi. The second valve is adjusted to start opening at 10 psi and be fully open at 15 psi.
3. Temperature control is accomplished by a Seimens Series 200 Controller. A master controller senses the outside air temperature and adjusts the temperature. A sub-master controller will call for varying pneumatic signals that throttle the regulating valves. The heated water from this heat exchanger is them pumped by either P1 or P2 heating pumps to the heating coils of all AHU in the center building and south tower. Heating for these rooms is accomplished by a heating coil in the cold duct at each room and these heating coils are supplied by hot water from this system.
4. Expansion and contraction of the water caused by temperature fluctuations is compensated for by a surge tank located on the center tower roof. It takes on hard water through a regulator during contraction caused by system cooling and discharges excess water through a relief valve when system pressure increases because of the expansion of the water during heating. The surge tank attaches to the system through a heating water return of AHU - 18.
5. Heating water for AHU - 21, 22, and 23 is supplied by a tube in shell heat exchanger located in the mechanical room of the new Women's Center. The water is circulated through the air handlers and back through the heat exchanger by a centrifugal pump. Water expansion and contraction in this system is compensated for by a surge tank in the machinery room that takes on make-up water through a pressure regulator. Temperature is controlled by a set point in the Seimens computer in the Central Plant Control Room.
6. There are heating systems available for the Ancillary and the Pavilion. The two systems are similar to each other and consists of a shell and tube heat exchanger, a surge tank and two circulating pumps controlled by the EMS computer and is maintained at 140 degree F. The Ancillary heat exchanger is located in the Ancillary machinery room, and the Pavilion heat exchanger is located in the Pavilion basement machinery room.

P. **MEDICAL AIR SYSTEMS:**

1. We have three medical air systems in the hospital. One supplies the patient rooms of the Pavilion. The other two systems supplies the rest of the hospital.
2. The Pavilion system is supplied by an Ingersoll-Rand type 30, model 235 HNL with non-lubricated cylinders. It is located in its special room on the Pavilion roof. Air pressure from this unit is regulated to 50 psi. Air outlets are found in all patient rooms and a pressure alarm and shutoff valves are located at each nursing station. This system is for the Pavilion and it is not possible to cross-connect this system with the rest of the hospital. The rest of the hospital is a connected system supplied by two air compressors.
3. An Ingersoll-Rand type 30T two stage air cooled compressor supplies oil free air through a series of filters and a refrigerated air dryer to the medical air system. This air compressor is located in the center tower penthouse.
4. A Champion oilless air compressor is located in the Central Plant machinery room. It supplies air into the medical air and pressure regulator system through a refrigerated air dryer. Each of these air compressors has the capacity to supply the whole system and are not used at the same time, but are alternated weekly. The air is piped to the patient rooms in the south tower, to the pediatrics area of the center tower and to patient rooms of the obstetrics department, surgery and emergency department. Besides the patient areas, it goes to the lab and to the pulmonary department in the ancillary building.
5. Air is supplied at about 50 psi and high and low pressure alarms are located at the various nursing stations. An alarm is also sounded and indicated in the plant control room and PBX.

Q. **MEDICAL AIR VACUUM:**

1. We have 3 Vacuum Pumps located in the Central Plant. They are controlled by a Micro Processor and staged to run where all three have same amount of run time.
2. These units provide vacuum for surgery, OB, ER, South Tower, ancillary and pavilion. They are on a preventative maintenance program.
3. The motors are 25 HP each and run on Emergency Power at 480 Volts.

R. **MEDICAL GAS SYSTEM NITROUS OXIDE:**

1. Nitrous oxide is used as an anesthetic. It is supplied by bottled gas from the Central Plant gas room and piped from a manifold to surgery, labor and delivery and outpatient surgery.
2. There are ten "H" size cylinders of nitrous oxide attached to a manifold in the Central Plant gas room. The manifold is designed so that 5 cylinders are supplying the system at a time and the other five cylinders are on standby and will begin to supply the system if system pressure falls below a set pressure.
3. The gas leaves the manifold and is reduced by a reducing valve in the line then it goes to a valve that reduces the gas pressure further, it also sets the pressure at which the standby cylinders start to feed the system and also serves as a switch-over valve to change from one bank of cylinders.
4. Alarms in the system are set to alarm at about 50-55 psi. One alarm from the pressure switch above the manifold alarms on the EMS computer. Another alarm on the wall in the Central Plant control room and PBX is monitored constantly. A main shut-off valve is located in air intake next to AHU 14 in the mechanical room 2, and shuts off nitrous oxide to the entire hospital. Other shut-off valves are located at the areas where it is used so that each area can be isolated.
5. Care must be exercised in the use of N20, commonly known as laughing gas. It is an asphyxiant; heavy concentrations should be avoided as it could lead to suffocation. It is also an oxidizer and will support combustion and must be prevented from contact with hydrocarbons, flames or sparks.

S. **OXYGEN SYSTEM:**

1. Oxygen for the hospital is supplied from the 6000 gallon oxygen tank located in the Central Plant gas room. The main tank is backed up by one 525 gallon auxiliary tank that will automatically start to feed at 55 psi.
2. There is one main line coming off the tank, and one branch that supplies the Pavilion. There is a main shut-off valve for the Pavilion supply inside the tunnel. Another branch line comes off the main oxygen line in the tunnel area, north side of surgery. This line feeds surgery, the Emergency Room, and the Women's Center. The main shut-off valve for the rest of the hospital is located in the air intake next to AHU 14 in the mechanical room 2. There are four emergency oxygen

hookups in case the main oxygen line fails from oxygen supply. They are located as follows:

a. Northwest side of surgery.
b. Center building east side next to air intake pit for AHU 14.
c. Pavilion northeast side.
d. Central Plant, bulk oxygen area

T. **PLANT OPERATIONS:**

1. The operating engineers, under the direct supervision of the Plant Engineering Lead, will maintain, in a safe and reliable running order, the entire hospital plant. The operating engineers will learn the function of all mechanical, electrical equipment and piping in the hospital so he can isolate equipment giving trouble or place a standby unit in service so the patients will suffer no inconvenience or discomfort.
2. When taking charge of a watch, the operating engineer will read the plant log, checking all equipment for safe and proper operation as he takes pressure, temperature and meter readings. In planning the days work, requests for repairs directly affecting the welfare of the patients will receive first attention.
3. Lubrication, cleaning and repair of equipment assigned to each man will then be carried out. Remaining time will be used to complete repairs to equipment left in the shop. Request for assistance or repair from other departments will be answered promptly and cheerfully. When the work is completed, you will promptly return to the engineering department as loitering for gossip in other departments will not be tolerated.
4. Maintenance of all equipment will be in strict accordance with the manufactures instructions to be found in the engineers file. At no time are you to guess at the answer causing unnecessary damage, readjustment or repair. Adjustment of the boiler and air-conditioning controls will be made only under the direct supervision of the Plant Engineering Supervisor. The assignment of specific equipment to each man for preventive maintenance is not to be construed as relieving you responsibility for the entire plant when on watch.
5. Should an emergency arise, take any action necessary to maintain the safety of the patients and notify the Plant Engineering Lead. If unable to reach the Plant Lead, call the Engineering Manager and duty engineer. If you can't reach any of these men, any off-duty engineers may be called in for assistance.

U. **PROTECTIVE CLOTHING FOR CLEARING SEWER STOPPAGES:**

1. Personnel assigned to clear sewer stoppages are required to wear the following protective clothing:
   a. Overalls, disposable
   b. Goggles, disposable
   c. Face mask, disposable
   d. Gloves, one pair of disposable gloves covered by one pair of leather gloves
2. ADDITIONALLY: The work area shall be restricted by erecting appropriate barriers and signs. Signs shall be worded as follows: MEN WORKING, APPROPRIATE PROTECTIVE CLOTHING REQUIRED
3. When work has been completed, and all equipment has been properly cleaned, all disposable protective clothing must be discarded by sealing in a plastic trash bag and deposit the bag in the trash compactor.

V. **REVERSE OSMOSIS SYSTEM:**

1. The reverse osmosis unit is located in the center tower penthouse. Water from the water softeners is pumped through a 25 micron filter to remove most of the suspended solids in the water then it goes through two carbon filters to remove any odors and taste, then through another 25 micron filter. The water then goes to a high pressure pump that forces the water through the membrane giving a water with a very low solid content. The water is then discharged into a 300 gallon stainless steel storage tank.
2. The storage tank is equipped with level switches that start the unit at about 12 inches in the tank and shuts the unit off at about 26 inches in the tank. The unit is rated for 1000 gallons per day. The water is then piped through PVC piping to nurse stations, SPD and other areas requiring almost pure water. It also provides deionized water for the lab and also two kidney dialysis chairs

in special procedures recovery. It passes through two mixed bed resin cylinders to the lab and is recirculated by a pump through two other mixed bed resin cylinders and an ultra violet unit for killing any microorganisms that might be in the water.

W. **STEAM DISTRIBUTION:**

1. Steam is used for heating, cooling, cooking, sterilization and humidification. It is used to heat the domestic hot water used in sinks and showers, and to heat the hot water used by the air handling units that provide heating to all areas of the hospital. In the kitchen, it is used in the preparation of foods in the steam kettles and in the dishwasher to heat water to a temperature that will sterilize dishes and cooking utensils. Steam is used for sterilizing surgical instruments in SPD, Surgery and Delivery Room sterilizers. It is also used to raise the humidity in areas where static electricity would be a problem on days of very low humidity. In cooling, steam is the medium that supplies the energy to operate our absorption chiller.
2. Steam leaves the boiler at approximately 110 psi (adjustable by the Plant Engineer) and enters a steam header. The first outlet from this header goes to another header that provides steam to the Ancillary and the Pavilion. In the Ancillary and the Pavilion machinery rooms, it is reduced in pressure and used as the heating medium in domestic hot water heat exchangers. Next, a small amount of steam goes to the D.A. tank for heating and de-aerating the feed water before it is put into the boilers.
3. Steam leaves the main steam header through three other steam lines. These three lines are then branched off and go through a reducing station sending 60 psi steam to the South Tower where it is used for humidification with another reducer sending 60 psi steam to SPD sterilizers. The center steam line goes to reducers in the SPD area, one reducer set at 30 psi for the kitchen and another 60 psi regulator for sterilizers in surgery. The northern most steam line goes into number one machinery room where it branches to supply two domestic hot water heat exchangers through pressure reducers, two heating water heat exchangers that use 100 psi steam, one heat exchanger supplies hot water to the heating coils in all patient rooms on the second and third floors of the Center Tower including DDL, excepting room #200 in pediatrics.
4. The 100 psi line continues to the roof top of the Women's Center where it is regulated down to 60 psi and furnishes steam to domestic and heating hot water.

X. **THERMOSTAT SETTINGS:**

1. Standard setting for thermostats throughout the hospital is 74 degrees Fahrenheit. Patient room units may be set up or down to suit the wishes of the patient with permission from the nurse or doctor in charge.
2. Humidity controls may be set to maintain not less than 50% relative humidity.
3. Temperature in the surgery and delivery rooms must be maintained above 68 degrees Fahrenheit and below 80 degrees Fahrenheit. The thermostats may be set anywhere within this range to suit the doctor, nurse or patient concerned.
4. Nursery temperature should be maintained at 75 to 76 degrees Fahrenheit for the comfort of the newborn. When complaints are received from nursing personnel that this area is too warm, they should be informed of this fact rather than set the thermostat down.

Y. **WATER SOFTENERS:**

1. There are two water softeners for boilers located in the Central Plant. They are Culligan water softener systems using resin to remove hardness in the city water. They mainly take out dissolved solids to prevent scale buildup in the heating system. The resin needs to be regenerated after a while to restore its ability to remove the hardness.
2. Our system regenerates when hardness levels exceed 2 g.p.m. To regenerate 1) the resin tank needs to be backwashed to remove all suspended solids, 2) the brine solution is injected to allow the resin to transfer Ca+, Na+... ions to CL-, CAT...ions. in brine solution. The regeneration procedure is fully automated. The hardness sensors in the tanks will activate the regenerating cycle if the control setting is in auto.
3. Brine waste during the regenerating cycle is stored in the brine waste tanks outside the Central Plant. The tanks are checked every Tuesday morning. It is the duty of the night shift engineer to ensure that these sensors are clean and the brine tank is full.

~~Z.~~ ~~**VISTA AND OCEANSIDE WATER BACK-UP:**~~

~~1. We have the capability to back-feed the Oceanside or Vista water loop around the hospital. This is to be done in the event we loose either water source. If we loose Oceanside water, we must close the discharge values on both Oceanside back-flow units. If we loose Vista water, we must close the discharge valves on the Vista back-flow unit. A 2.5" fire hose is kept in the Engineering control room (4 drawer file cabinet, top drawer). For this service the connection valves are located in front of the hospital main entrance 25' Northeast of valves #11, 12, & 13 on the master water system map in Control Room of Engineering. In case of water failure from either system, install 2.5" fire hose and slowly open both valves.~~

~~2. City water supply to various buildings of the hospital can be shut off by closing the specific outside water valves. These water valves can be opened or closed only by using the valve handle which is stored in the chiller room.~~

~~3.~~**1.** ~~A complete valve location map is located in the control plant control room. Please familiarize yourself with this map. It gives locations of all domestic and irrigation shut-off valves and how to isolate certain areas.~~

Tri-City Medical Center
Oceanside, California

ENGINEERING
SAFETY AND SECURITY

~~TRI-CITY MEDICAL CENTER~~ ~~Engineering Policy & Procedure~~	~~Section: ENGINEERING DEPARTMENT~~ ~~Subject: General Safety & Knowledge~~ ~~Policy Number: 5000 Page 1 of 4~~
~~Department: Hospital-Wide~~	~~EFFECTIVE: 11/1/87~~ ~~REVISED: 9/94; 2/97; 5/00; 5/03, 06/06; 6/12~~

SUBJECT: General Safety and Knowledge

ISSUE DATE: 11/87
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Department Approval ~~Date(s)~~:	**03/20**
Environmental Health and Safety Committee Approval ~~Date(s)~~:	**03/20**
Administration Approval:	**08/21**
Professional Affairs Committee Approval ~~Date(s)~~:	**n/a**
Board of Directors Approval ~~Date(s)~~:	

A. **PURPOSE:**
1. To define the general safety rules for work in the Engineering Department.

B. **RULES:**
1. Work Areas
   a. Keep all machinery and shop areas in a clean, orderly and well organized condition.
   b. Allow sufficient space around machinery to permit inspection and repair.
   c. Provide at least 5.0 foot candles of lighting in all work areas.
   d. Install tube guards over lights which are less than eight feet from the floor or which may be subject to damage during the movement of large boxes or equipment.
   e. Isolate and barricade work areas from external hazards or distractions.
   f. Post warning signs around work areas so that they do not pose a hazard to others.
   g. Do not leave tools or equipment where they may create a tripping hazard.
   h. Keep all fire exits clear and do not obstruct identifying signs.
   i. Make sure all work areas are properly ventilated for the work being performed.
2. Machinery and Equipment
   a. Operate only that machinery or equipment which you have been trained and authorized to use.
   b. Do not use equipment with frayed cards or broken plugs.
   c. Inspect ropes, cables, and chains for defects regularly and replace them as necessary.
   d. Make certain machine guards are properly attached or installed as required.
3. Hazardous Substances
   a. Use eye protection whenever indicated or required.
   b. Use other types of protective devices, equipment or clothing whenever indicated.
   c. Store flammable liquids in limited quantities in containers approved for such use.
   d. Make certain containers are properly marked. Discard substances left in unmarked or

improperly marked containers.

e. Use the proper trigger assembly for the delivery of compressed air used in cleaning so that the pressure does not exceed 30 PSI. Do not clean clothing with compressed air.

f. If accidentally exposed to a toxic substance, obtain medical attention immediately.

g. Remove broken glass immediately with a broom or brush and dust pan. Do not pick up broken glass by hand.

h. Do not enter the rooms of patients receiving radioisotopes until authorized to do so by a nuclear medicine physician or technician. When authorized to enter, wear a film badge (issued by the department administrator of Radiology or Nuclear Medicine) and wear any protective attire indicated by the Nursing Staff or staff of Radiology or Nuclear Medicine.

4. Ladders

a. Check to be certain all elevated platforms, steps or extension ladders are in good ~~repair~~ **working condition** before use.

b. Use only ladders with a non-slip base.

c. Do not use metal ladders. ~~for electrical work of any kind.~~

d. Use the proper ladder height for the job,

e. Do not stand on the **last step or the** top rung of a ladder.

5. Other Precautions

a. Use proper lifting techniques at all times. Use mechanical equipment or request assistance when lifting very heavy objects.

b. Do not participate in horseplay or practical jokes on the work site.

c. Report any and all accidents to the supervisor immediately. Obtain medical treatment as necessary and submit required documentation promptly.

6. The following is a list of questions the Engineering personnel of Tri-City ~~Medical Center~~**Healthcare District** should be able to answer:

a. Address of this facility.

b. Code word for fire.

c. Code word for disaster.

d. How to telephone the fire department.

e. How often is there a fire drill in this facility.

f. The types of fires (A, B, C). What are they?

g. The types of extinguishers in this facility.

h. How are extinguishers in this facility operated.

i. Basic fire procedures.

j. Evacuation procedures (fire exit plan) and where posted.

k. Location of fire exits.

~~l. Location of fire and emergency preparedness manuals.~~

~~m.~~**l.** Location of emergency water storage.

~~n.~~**m.** Location of emergency generator.

~~o.~~**n.** What functions when emergency generator is in operation?

~~p.~~**o.** Location of fuel storage for emergency generator.

~~q.~~**p.** Location of main sprinkler valve**s**.

~~r.~~**q.** Location of spare sprinkler heads. How and when to install.

~~s.~~**r.** Location of oxygen cylinder storage (how stored) and oxygen shutoff.

~~t.~~**s.** Location of disaster kits.

~~u.~~**t.** Location of main fire alarm panel. (Supervisory personnel -- how to reset alarm panel(s)).

~~v.~~**u.** Location of air circulation shutoff(s). (Air-conditioning and heating).

~~w.~~**v.** Location of gas shutoff**s**.

~~x.~~**w.** Location of wrench for gas shutoff**s**.

~~y.~~**x.** Location of water shutoff**s**.

~~z.~~**y.** Location of electric shutoff**s**.

~~aa.~~**z.** Location of fire extinguishers.

~~bb.~~**aa.** Location of fire alarm boxes.

~~cc.~~**bb.** Location of smoke detectors.

~~dd. Location of blind and/or deaf patient amenities.~~

~~ee.~~**cc.** *These questions are not necessarily in order of importance.*

Tri-City Medical Center
Oceanside, California

ENGINEERING
SAFETY AND SECURITY

~~TRI-CITY MEDICAL CENTER~~ ~~Engineering Policy & Procedure~~	~~Section: ENGINEERING DEPARTMENT~~ ~~Subject: Electrical Safety General~~ ~~Policy Number: 5001 Page 1 of 1~~
~~Department: Hospital-Wide~~	~~EFFECTIVE: 11/1/87~~ ~~REVISED: 9/94; 2/97; 5/00; 5/03, 06/06; 6/12~~

SUBJECT: Electrical Safety General

ISSUE DATE: 11/87
REVIEW DATE(S):
REVISION DATE(S): 9/94, 2/97, 5/00, 5/03, 6/06, 6/12

Department Approval ~~Date(s)~~:	**03/20**
Environmental Health and Safety Committee Approval ~~Date(s)~~:	**03/20**
Administration Approval:	**08/21**
Professional Affairs Committee Approval ~~Date(s)~~:	**n/a**
Board of Directors Approval ~~Date(s)~~:	

A. **PURPOSE:**
1. To outline general rules of electrical safety.

B. **RULES:**
1. Do not operate power tools unless you have been trained and are authorized to do so.
2. Remove from service and repair any power tools with a frayed cord or broken plug, or which causes a minor shock during use.
3. Maintain a clearance of 3 feet around electrical control panels at all times.
4. Use only those extension cords and trouble lights which have been approved by the department.
5. Do not use metal ladders. ~~for electrical work of any kind.~~
6. Deactivate and secure ~~with a padlock,~~ electrical circuits before doing work on the circuit or on equipment connected to it **using Lockout/Tagout**.
7. Do not repair, service, or perform any work on energized electrical lines or equipment except for:
   a. Testing of line voltage and current.
   b. Cutting of power lines **that are** presenting an immediate hazard to life.
8. Perform electrical safety test procedures in the manner specified in National Electrical Code.

Tri-City Medical Center
Oceanside, California

DELETE: Duplicate information in Engineering Policy: Lockout Tagout Procedures

ENGINEERING
SAFETY AND SECURITY

~~TRI-CITY MEDICAL CENTER~~ ~~Engineering Policy & Procedure~~	~~Section: ENGINEERING DEPARTMENT~~ ~~Subject: Electrical Safety Lockout Procedure~~ ~~Policy Number: 5003 Page 1 of 2~~
~~Department: Hospital Wide~~	~~EFFECTIVE: 11/1/87~~ ~~REVISED: 9/94; 2/97; 5/00; 5/03, 06/06, 6/12~~

SUBJECT: Electrical Safety Lockout Procedure

ISSUE DATE: 11/87
REVIEW DATE(S):
REVISION DATE(S): 9/94, 2/97, 5/00, 5/03, 6/06, 6/12

Department Approval Date(s):	**02/20**
Environmental Health and Safety Committee Approval Date(s):	**03/20**
Administration Approval:	**08/21**
Professional Affairs Committee Approval Date(s):	**n/a**
Board of Directors Approval Date(s):	

~~A. **PURPOSE:**~~

~~1. To outline the procedure for deactivating electrical circuits during maintenance and preventing accidental reactivation.~~

~~B. **GENERAL INFORMATION:**~~

~~1. Lockout - Condition in which the circuit breaker or disconnect to electrical equipment has been turned off and each employee working on the deactivated equipment has hung his personal padlock tag on the switch or control.~~

~~2. Padlock - Device hung on a deactivated circuit which makes re-connection or activation of the circuit impossible.~~

~~3. Lockout Tag - Tag attached to a deactivated switch containing the name of the employee working on the circuit and the nature of the work being performed.~~

~~C. **POLICY:**~~

~~1. The mechanic or stationary engineer performing maintenance on a circuit is personally responsible for deactivating that circuit's breaker or disconnect and padlocking it to prevent it reactivation.~~

~~2. The mechanic or stationary engineer who has padlocked a circuit breaker or disconnect is also responsible for placing his personal lockout tag on the deactivated circuit.~~

~~3. Each engineer working on equipment fed by the circuit will place his personal padlock and lockout tag on the deactivated circuit before performing any work on the equipment.~~

~~4. No engineer shall use another engineer's padlock or lockout tag.~~

~~5. No engineer shall remove another engineer's padlock or lockout tag.~~

~~6. No engineer shall ever permit someone other than himself to remove his padlock or lockout tag.~~

~~7. No circuit shall be reactivated until each employee who originally padlocked it has personally~~

removed his padlock and lockout tag and the work area has been inspected to insure that no one will be endangered when the circuit breaker is turned on or the equipment on the circuit is started.

8. Push-button switches will not be used as a substitute for the lockout procedure.
9. Violations of any part of this lockout procedure shall constitute grounds for disciplinary action.

D. **PROCEDURE:**

1. Turn off the circuit breaker or disconnect.
2. Secure the deactivated circuit breaker or disconnect with your personal padlock adapter and padlock.
3. Place your personal lockout tag on the deactivated circuit breaker or disconnect.
4. When your work on the affected equipment or circuit has been completed remove your padlock and lockout tag - and only yours. Do not remove any other padlock or lockout tag unless instructed to do so by a supervisor.
5. If an employee who has placed his padlock and/or lockout tag on a circuit breaker or disconnect cannot be located, contact a supervisor for permission before attempting to remove it.
6. Reactivate the circuit only after each employee has personally removed his padlock and lockout tag (or a supervisor has given permission to remove another employee's padlock) and the work area has been inspected to ensure that no one will be endangered when the circuit breaker is turned on or the equipment on the circuit is started.
7. If you lose your padlock key or lockout tag, report the loss to your supervisor immediately and obtain a new padlock or tag from him.

Tri-City Medical Center
Oceanside, California

ENGINEERING
SAFETY AND SECURITY

DELETE - all items included in EOC Hazardous Material & Waste Management Communication Plan

~~TRI-CITY MEDICAL CENTER~~ ~~Engineering Policy & Procedure~~	~~Section: ENGINEERING DEPARTMENT~~ ~~Subject: Hazardous Substance Communication Program~~ ~~Policy Number: 5004 Page 1 of 4~~
~~Department: Hospital-Wide~~	~~EFFECTIVE: 11/1/87~~ ~~REVISED: 9/94; 2/97; 5/00; 5/03, 06/06, 6/12~~

SUBJECT: Hazardous Substance Communication Program

ISSUE DATE: 11/87
REVIEW DATE(S):
REVISION DATE(S): 9/94, 2/97, 5/00, 5/03, 6/06, 6/12

Department Approval Date(s):	**03/20**
Environmental Health and Safety Committee Approval Date(s):	**03/20**
Administration Approval:	**08/21**
Professional Affairs Committee Approval Date(s):	**n/a**
Board of Directors Approval Date(s):	

~~A. **REFERENCES:**~~
~~1. California Administrative Code, Title 8, Article 110, Section 5194~~

~~B. **PURPOSE:**~~
~~1. To outline the procedure by which hazardous substances will be identified managed and disposed of by the Engineering Department.~~

~~C. **GENERAL INFORMATION:**~~
~~1. Requirements of Article.110, Title 8, C.A.C.~~
~~a. Requires all employers to provide information to their employees about the hazardous substances to which they are exposed by means of a hazard communication program, labels and other forms of warning, material safety data sheets, and information and training.~~
~~2. Definitions~~
~~a. Material Safety Data Sheet (MSDS) - Written or printed material prepared by a manufacturer or importer concerning the physical a chemical properties (e.g., vapor pressure, flash point), the physical hazards (e.g., potential for fire, explosion or reactivity, the health hazards safe exposure limits, generally applicable precautions for safe handling, use and control, emergency and first-aid procedures, and waste disposal procedures which pertain to hazardous substance.~~
~~b. Health Hazards - substances for which there is statistical evidence that acute or chronic health effects may occur in exposed employees.~~
~~c. Carcinogen - may cause cancer.~~
~~d. Corrosive - destroys living tissue~~
~~e. Highly toxic - may be lethal in very small doses.~~

f. Irritant - causes a reversible inflammatory effect on living tissue at the site of contact after four hours of exposure.
g. Toxic - may be lethal in relatively small to moderate doses.
h. Target organ effects - negatively affects specific organs or tissues of the body (e.g., liver, eyes, skin).

D. **POLICY:**

1. Identification of Hazardous Substances
   a. The Engineering Department, in determining which substance used in the department are hazardous, will rely on the evaluations produced by the manufacturers and importers of such substances unless information is disseminated from a reliable source indicating that the substance is significantly more hazardous than the manufacturer or importer's evaluation has indicated.
   b. In addition to those substances identified by manufacturers and importers as being hazardous, the Director of Engineering will treat as hazardous any substance which he knows from his professional knowledge and experience to be hazardous.
   c. A list of substances determined to be hazardous, and identified by their chemical and product names (if different), will be submitted the Hospital Safety Coordinator and posted in the following location of the Engineering Department:
      i. Engineering Services Office.
      ii. Boiler Room
      iii. Engineering, Special Projects
         1) This list will be updated immediately when the department is informed that new or existing products have been determined to be hazardous, and will be reviewed annually so that products no longer in use may deleted. (See Attachment 1).
   d. The Hazardous Substances Inventory List will be re-evaluated annually and changes or additions will be submitted to the Safety Committee. Such re-evaluation will consider:
      i. New information about the material and its hazards;
      ii. New regulations or changes in the regulations;
      iii. New procedures to reduce the hazards of exposure;
      iv. Alternative materials or methods discovered; and
      v. New procedures available or required for waste disposal.
   e. The Director of Engineering or designee will verify that each container of a hazardous substance received has been labeled, tagged or marked in English by the manufacturer or importer with the following information:
      i. Identity of the hazardous substance(s) contained therein; and
      ii. Appropriate hazard warnings.
   f. Secondary containers used to store or transport the hazardous substance for a period longer than one work shift will be labeled, tagged or marked with the same information.
   g. Before beginning work on an unlabeled pipe, employees will contact the Director of Engineering of his designee for the following information:
      i. The contents of the pipe;
      ii. Potential hazards associated with handling the content of the pipe, if any.
      iii. Safety precautions which should be taken when working on the pip or in handling its contents.
   h. Contractors with employees working in the hospital at the request of, or with the knowledge of the Director of Engineering, will be informed of:
      i. Hazardous substances to which their employees may be exposed while at the job site.
      ii. Precautions such employees should take to reduce or prevent exposure, such as using protective clothing or equipment.
2. Material Safety Data Sheets (MSDS)
   a. Copies of MSDS for each hazardous substance in use in the department will be:
      i. Sent to the Hospital Safety Coordinator;
      ii. Kept in binders marked "Material Safety Data Sheets" in readily accessible areas

~~of the Engineering Services Office and Boiler Room.~~

~~b. Copies of the MSDS will be made readily available, upon request, to designated representatives of government departments or agencies, and to the employee's physician. If, upon such request, an MSDS is not available or a required item of information has not been provided to the manufacturer or importer, the Director of Engineering shall make a written inquiry to the manufacturer, producer or seller accordance with Section 5194 (g) (11) of the C.A.C., Title 8.~~

~~3. Employee Information and Training~~

~~a. Department orientation of new employees will include, relative to the identification, handling and disposal of hazardous substances, the following:~~

~~i. Information relative to the right of the employee, his or his Collective bargaining agent to receive information regarding the hazardous substances to which the employee may be exposed and to the exercise of that right without fear of discharge or other discrimination by the employer.~~

~~ii. Information about the requirements of Section 5194, Article 110, of the C.A.C.~~

~~iii. Information about any operations in their work area where hazardous substances are present.~~

~~iv. Information relative to the hazardous substance communication program of this department, including:~~

~~1) The location and availability of the written program;~~

~~2) An explanation of the labeling system;~~

~~3) An explanation of the Material Safety Data Sheet, it contents and where the MSDS can be found;~~

~~4) How the employees can obtain and use the appropriate information.~~

~~v. Training in the methods and observations that may be used to detect the presence or release of a hazardous substance in the work place such as audible alarms or distinctive odors.~~

~~vi. Training in the physical and health hazards of the substances in the work area, and measures that can be taken to protect against such hazards, such as work practices and the use of personnel protective equipment.~~

~~vii. Information and training in emergency and first aid procedures to be followed in the event of exposure to a hazardous substance.~~

~~b. The Director of Engineering will provide new or revised MSDS to employees within 30 days of their receipt if the new information indicates significantly increased risks to, or measures necessary to protect, employee health as compared to those stated on the original or most recent MSDS provided.~~

ATTACHMENT 1

HAZARDOUS SUBSTANCE INVENTORY LIST

SUBSTANCE	TRADE NAME	AREA OF USE	MSDS NO.

Tri-City Medical Center
Oceanside, California

ENGINEERING
SAFETY AND SECURITY

~~TRI-CITY MEDICAL CENTER~~ ~~Engineering Policy & Procedure~~	~~Section: ENGINEERING DEPARTMENT~~ ~~Subject: Asbestos Control Program~~ ~~Policy Number: 5005 Page 1 of 2~~
~~Department: Hospital-Wide~~	~~EFFECTIVE: 11/1/87~~ ~~REVISED: 9/94; 2/97; 5/00; 5/03, 06/06, 6/12~~

SUBJECT: Asbestos Control Program

ISSUE DATE: 11/87
REVIEW DATE(S):
REVISION DATE(S): 9/94, 2/97, 5/00, 5/03, 6/06, 6/12

Department Approval Date(s):	**03/20**
Environmental Health and Safety Committee Approval Date(s):	**03/20**
Administration Approval:	**08/21**
Professional Affairs Committee Approval Date(s):	**n/a**
Board of Directors Approval Date(s):	

~~A. REFERENCES:~~

~~1. Code of Federal Regulations Title 29, Section 1910.1001, Occupational Safety and Health Administration (OSHA)~~

~~2. California Administrative Code, Title 8, Section 5208~~

~~B.~~A. **PURPOSE:**

1. To designate responsibilities related to the control of asbestos throughout the Medical Center.

~~C. GENERAL INFORMATION:~~

~~1. Definitions:~~

~~a. Friable - material which can be crumbled, pulverized, or reduced to powder in the hand, readily releasing fibers with minimal mechanical disturbance.~~

~~b. Non-Friable - matrix-bonded composite material in which fiber release is inhibited as a result of the bonding process (e.g., starch, glue, cement, etc.)~~

~~2. Materials containing asbestos in all Tri-City Medical Center Facility constructed prior to 1975 have been identified and inspected and as appropriate, removed, enclosed or encapsulated.~~

~~3. Construction projects on facilities built prior to 1975 are not begun until the intended project area has been surveyed for materials potentially containing asbestos fibers, and until such materials have been tested for the presence of asbestos.~~

~~D.~~B. **POLICY:**

~~1. A reassessment of all buildings in this facility built prior to 1975 will be made semi-annually to determine the condition of all previous identified asbestos containing material.~~

~~2. The reassessment will be made by an engineer and will include:~~

~~a. The condition of the asbestos-containing materials;~~
~~b. Changes in building use; and~~
~~c. Changes in occupants' activity patterns.~~

~~3. Limited damage to pipe covering or boiler lagging discovered during the reassessments will be repaired by Engineering Building Engineers with duct tape or a non-asbestos-containing plaster.~~

1. If asbestos is suspected in an area, an outside contractor will be brought in to complete testing prior to any working being done in the area.

~~4. If damage is extensive, requiring removal of large amounts of asbestos-containing material, an EPA-licensed contractor will be engaged to perform the work.~~

~~5.~~**2.** If, as a result of ~~reassessment~~**testing**, it is determined that ~~fiber release has occurred or is likely to occur~~**asbestos is present,** one or more of the following steps will be taken, as appropriate:

a. The material will be removed by an EPA-licensed contractor;
b. The material will be enclosed; or
c. The material will be encapsulated.

3. Construction projects are not begun until the intended project area has been surveyed for materials potentially containing asbestos fibers, and until such materials have been tested for the presence of asbestos.

~~c.~~

~~The reassessment and significant actions taken therefore will be documented in the Computerized Maintenance Management System.~~

C. REFERENCES:

1. Code of Federal Regulations Title 29, Section 1910.1001, Occupational Safety and Health Administration (OSHA)
2. California Administrative Code, Title 8, Section 5208
~~6.~~

Tri-City Medical Center
Oceanside, California

DELETE - Mercury no longer used in hospital.

ENGINEERING
SAFETY AND SECURITY

~~TRI-CITY MEDICAL CENTER~~ ~~Engineering Policy & Procedure~~	~~Section: ENGINEERING DEPARTMENT~~ ~~Subject: Clean Up Of Mercury Spill~~ ~~Policy Number: 5006 Page 1 of 1~~
~~Department: Hospital-Wide~~	~~EFFECTIVE: 11/1/87~~ ~~REVISED: 9/94; 2/97; 5/00; 5/03, 06/06, 6/12~~

SUBJECT: Clean Up of Mercury Spill

ISSUE DATE: 11/87
REVIEW DATE(S):
REVISION DATE(S): 9/94, 2/97, 5/00, 5/03, 6/06, 6/12

Department Approval Date(s):	**03/20**
Environmental Health and Safety Committee Approval Date(s):	**03/20**
Administration Approval:	**08/21**
Professional Affairs Committee Approval Date(s):	**n/a**
Board of Directors Approval Date(s):	

~~A. **PURPOSE:**~~
~~1. To outline a safe procedure for the clean-up of mercury spills.~~

~~B. **GENERAL INFORMATION:**~~
~~1. Mercury: A heavy, silver-white metallic element which produces a poisonous vapor and may cause birth defects.~~
~~2. Supplies and Equipment Required (all stored in the Environmental Service Department),~~
~~a. Mercury vacuum hand pump*~~
~~b. Mercury sponge*~~
~~c. Stainless steel adapter tube*~~
~~d. Rubber gloves~~
~~e. Face mask~~
~~f. Mercury absorbing powder (HGX)~~
~~g. Impervious disposable container * Provided as part of commercial spill kit.~~

~~C. **POLICY:**~~
1. ~~Environmental Services is responsible for clean up of spills. In case of emergency, see Environmental Services Procedure Manual.~~

Tri-City Medical Center
Oceanside, California

ENGINEERING
SAFETY AND SECURITY

DELETE- duplicate of Admin Policy: Alerts/Recalls/Notifications- 8610-229

~~TRI-CITY MEDICAL CENTER~~ ~~Engineering Policy & Procedure~~	~~Section: ENGINEERING DEPARTMENT~~ ~~Subject: Safety Product Recall~~ ~~Policy Number: 5010 Page 1 of 1~~
~~Department: Hospital-Wide~~	~~EFFECTIVE: 3/19/90~~ ~~REVISED: 9/94; 2/97; 5/00; 5/03, 06/06, 6/12~~

SUBJECT: Safety Product Recall

ISSUE DATE: 3/90
REVIEW DATE(S):
REVISION DATE(S): 9/94, 2/97, 5/00, 5/03, 6/06, 6/12

Department Approval Date(s):	**03/20**
Environmental Health and Safety Committee Approval Date(s):	**03/20**
Administration Approval:	**08/21**
Professional Affairs Committee Approval Date(s):	**n/a**
Board of Directors Approval Date(s):	

~~A. **POLICY:**~~

~~1. To provide a plan of action to be taken for product recalls to protect the safety and well-being of all patients, staff and visitors whenever information on a product related hazard is brought to the Engineering Department.~~

~~B. **PURPOSE:**~~

~~1. To protect patients, visitors and employees from potential hazards resulting from treatment with or by use of a product suspected of having a defect.~~
~~2. To avoid claims on alleged negligence in response to product recalls.~~
~~3. To receive full credit or value from the manufacturer for products recalled.~~

~~C. **PROCEDURE:**~~

~~1. Product recalls received by this department from any source outside of the hospital is to be copied for distribution within the department and then forwarded to Patient Care Review for any other appropriate action.~~
~~2. Product recall notices received from Patient Care Review are to be distributed within the department for appropriate action.~~
~~3. Hospital Technology Alerts received from Patient Care Review are to be distributed within the department for appropriate action.~~
~~4. Department supervisors will take action on product recalls based on recommendations of the manufacturer and assessment of the hazard risk within the hospital (i.e. repair, removal from service, shipment to manufacturer, etc.)~~
~~5. Patient Care Review is to be notified immediately if any defective product has caused injury to ANY individual.~~
~~6. Patient Care Review will be notified of any action(s) taken.~~

~~D. **DISTRIBUTION:**~~

~~1. Director of Engineering Department~~
~~2. Engineering Manager~~
~~3. Engineering Supervisor~~
~~4.~~1. ~~Supervisor of Biomedical Engineering~~

Tri-City Medical Center
Oceanside, California

ENGINEERING
SAFETY AND SECURITY

SUBJECT: Interim Life Safety Program

ISSUE DATE: 11/87
REVIEW DATE(S): 08/15
REVISION DATE(S): 3/97, 5/00, 5/03, 6/06, 6/12, 09/15

Department Approval ~~Date(s)~~:	~~08/15,~~ 03/20
Environmental Health and Safety Committee Approval ~~Date(s)~~:	~~08/15,~~ 03/20
Administration Approval:	08/21
Professional Affairs Committee Approval ~~Date(s)~~:	09/15
Board of Directors Approval ~~Date(s)~~:	09/15

A. **POLICY:**

1. It is the policy of Tri-City Healthcare District (TCHD) to assure the safety of all building occupants during periods of construction or when significant deficiencies compromise the level of life safety protection provided by the building.

B. **PURPOSE:**

1. Interim Life Safety Measures (ILSM) are administrative actions taken to temporarily compensate for the hazards posed by construction activities and/or failures of life safety components of the building.
2. Implementation of the ILSM is required in or adjacent to all impacted areas. ILSM apply to all personnel, including construction workers and must be implemented upon project development, and continuous enforced through project compliance.

C. **PROCEDURE:**

1. Whenever ILSM is in place at TCHD, the Director of Engineering or ~~designate~~**designee**, the Safety Officer and Infection Control Practitioner will conduct routine inspections of the affected area. A complete ILSM Assessment will be performed for each project with the Director of Engineering or ~~designate~~**designee**, Safety Officer and Infection Control Practitioner. The following items will be evaluated:
2. Ensure all exits remain clear. This includes areas directly affected as well as all other exits.
3. Ensure free access to emergency services (i.e. vehicles, materials, etc. are not blocking the access route or parking areas.)
4. Check for the disabling of the fire protection systems. A small disaster could escalate if the fire protection system is not functional. An alternate system must be provided any time the primary system is off-line for a period greater than 12 hours.
5. Fire alarm, detection, and suppression systems must not be impaired. A temporary (but equivalent) system shall be used if the system is impaired.
6. ~~NOTE:~~ If the fire alarm or fire sprinkler systems are disabled for four or more hours in a 24 hour period, a fire watch will be implemented and documented.
7. Assure temporary construction partitions are smoke tight and constructed from non-combustible materials. Adequate signage shall discourage casual observers from opening or entering the partitions.
8. The Engineering Department will maintain all existing fire-fighting equipment in all areas of the present facilities. The *contractor* shall provide sufficient fire-fighting equipment to cover all areas of new construction and provide additional fire-fighting equipment in all areas being renovated.

9. Smoking is prohibited on campus including parking lots and construction sites.
10. The construction site(s) will be kept clean and orderly. Materials will not be stored in the corridors. All waste and debris will be removed at the end of each work day by the construction crews. Construction offices and break areas will be kept clean by the construction crews.
11. ~~A minimum of two documented F~~fire drills ~~per shift per quarter (six per quarter) must occur in~~ **may be conducted in** the construction zone, areas adjacent to the construction zones, and other areas affected by re-routing of exits. A report should be presented to the EOC Committee confirming and evaluating the drills, including recommendations and/or follow-up.
12. Hazard surveillance by Engineering personnel of the construction site shall be increased and documented. Attention is to be given to evacuation routes, construction areas, storage, office/lunch areas, and fuel storage.
13. Whenever the safety of adjacent areas is compromised because of construction, the appropriate staff shall be informed. Engineering will conduct training and alternate exit routes shall be identified, posted and the staff informed.
14. For areas where construction is occurring, department specific education programs covering all employees are to be conducted explaining interim life safety matters and current life safety deficiencies.
15. The construction site must be restricted from all but authorized staff. Adequate signage shall be provided, including indications of a "hard hat" area.
16. Alternate access must be provided for public and emergency traffic whenever a disruption occurs.
17. Contractor must ensure that roads and pathways are clear of construction debris, materials, etc.
18. Proper notification must be made to local authorities (fire, police, other) whenever life safety is diminished.
19. The governing body of the Medical Center will be kept informed of the status of life safety during project, via reports from the EOC Committee and/or the surveillance reports.
20. Construction workers must be made aware of egress routes.
21. Construction workers' egress routes must be inspected daily to ensure no obstacles.
22. Effective storage, housekeeping, and debris removal must be in place to reduce collection of combustibles in construction areas by the Construction Superintendent.
23. Whenever fire zones are altered, appropriate staff (Security, Engineering, Telephone Operators, and the department affected) are trained in regard to new or different life safety measures regarding their changed compartmentalization of the fire zones and any new fire safety measures.
24. All welding, brazing, and soldering shall take place only in designated areas where the risk of combustion due to sparks has been minimized. A "Hot Work Permit" must be obtained and approved by Plant Operations (where fire alarms are monitored) *prior* to the start of these activities' beginning.

D. **FORM(S):**

1. ILSM Assessment Form
2. Pre-Construction Risk Assessment Form
3. Hot Work Permit

FORM 1: ILSM Assessment Form

Interim Life Safety Measures Assessment Tool

Project / Deficiency:
Location: By:
Initial Date: Reassessment Date:

Evaluate deficiency and/or construction hazards to determine when and to what extent one or more of the following measures apply:

Impact Evaluation	Yes / No / NA	Measures Implemented
1. Will any area exits be obstructed? Will any construction materials, equipment, or debris block the free use of all exits adjacent to the construction site or impacted by the project? Will all existing exit signs remain in place and operational?		
2. Will any exterior access points to the building be blocked? Will access to emergency departments, entrances, fire lanes and exit discharges be impeded by obstructions, storage, or other impediments?		
3. Will any fire alarm systems & suppression systems be compromised and / or altered?		
4. Will any construction partitions need to be erected?		
5. Will any additional fire extinguishers and equipment be necessary & provided on site? Equipment must be functional and tests and inspections are up to date.		
6. Will the Smoking prohibition need to be communicated, monitored and enforced?		
7. Will construction storage need to be minimized and housekeeping & debris removal policies communicated, monitored and enforced?		
8. Will additional fire drills be necessary for staff in affected areas and/or within construction area (contractor staff)?		
9. Will surveillance of the area be necessary?		
10. Will any additional training of staff and/or contractors be necessary to compensate for impaired structural or compartmental features of fire safety?		
11. Will facility-wide safety education programs need to be communicated to promote awareness of fire safety building deficiencies, construction hazards, and ILSM?		
12. List any other Life Safety Code deficiency / concerns identified:		
13. List any other Life Safety Code deficiency / concerns identified:		
14. List any other Life Safety Code deficiency / concerns identified:		

Additional Comments:

FORM 2: Pre-Construction Risk Assessment Form

Tri City Medical Center
Assessment of the Impact of Construction Projects

Project:	Location(s):	Start Date:	End Date:
Project Coordinator:	Contractor:		

Category	Factors	Risk Evaluation
(A) Noise	Impact, duration, scheduled time of work	
(B) Air / Dust	Cutting, Grinding, Sanding, etc.	
(C) Infection Control	Category of Risk: [_] 1 – 2 – 3 – 4	
(D) Vibration	Tool use, demolition, distance	
(E) Life Safety impact	Hot work, disabling alarms, penetrations, exit modifications, smoking	
(F) Security	Site security, access control	
(G) Disruption of utilities	Planned shutdowns, Construction near utility system supplies	
(H) Emergency Services	Obstruct access to fire lanes or fire dept.?	

Brief description of work to be performed:

List areas of forecasted concerns for any/all of the Categories listed above	List appropriate measure(s) recommended for limiting disruption / code violation / potential adverse outcome.
(A)	
(B)	
(C)	
(D)	
(E)	
(F)	
(G)	
(H)	

Form 3: Hot Work Permit

Tri-City Medical Center

Facilities Management / Construction

PERMIT FOR WELDING-CUTTING-HOT WORK

BEFORE STARTING HOT WORK, REVIEW ALL SAFETY PRECAUTIONS. CAN THIS WORK BE AVOIDED OR IS THERE A SAFER WAY?

THIS PERMIT IS REQUIRED FOR ANY TEMPORARY OPERATION INVOLVING OPEN FLAME OR PRODUCING HEAT AND/ SPARKS: WELDING,CUTTING, BRAZING, GRINDING, SOLDERING, OR USING TORCH TO THAW PIPING OR HEAT MATERIAL. THIS PERMIT APPLIES TO ONLY THIS JOB, IN THE AREA SPECIFIED, DURING THE TIME AND DATE NOTED.

INSTRUCTIONS

SUPERVISOR:

1. Complete PRECAUTION & SAFEGUARD CHECKLIST at right.
2. Complete form, copy, retain original.
3. Issue copy to competent person doing job.
4. Verify FIRE WATCH.

HOT WORK TO BE DONE BY:

☐ Employee.
☐ Contractor: _____

LOCATION:

_____

WORK TO BE DONE:

_____

PERSON DOING JOB:

_____

_____Signed

Signed:(Supervisor)

_____

I have verified that the above location has been inspected and the required PRECAUTIONS and SAFEGUARDS have been taken. Permission is authorized only for the above work.

PRECAUTIONS & SAFEGARDS CHECKLIST

☐ SPRINKLER PROTECTION in service and extinguisher available.
☐ Hot work equipment in good repair.

REQUIREMENTS WITHIN 50FT OF WORK

☐ Flammable liquids and combustible material removed from area.
☐ Floors swept and overhead structure cleaned from dust, lint and debris.
☐ Fire resistive covers and metal shields provided as needed.
☐ All floor and wall openings covered and/or protected
☐ WALLS/CEILINGS: Remove combustibles away from opposite side or adjacent structures.

WORK ON ENCLOSED EQUIPMENT

☐ Adequate ventilation provided.
☐ Thoroughly clean and remove all flammables and combustibles
☐ Atmosphere checked with gas detector.
☐ Purge any flammable vapors.
☐ Confirmed space/lockout permits, if required.

FIRE WATCH

☐ Trained and equipped Fire Watch provided during operations and at least 30 minutes after.

SPECIAL INSTRUCTIONS: _____

_____

_____

PERMIT EXPIRES	DATE	TIME	FINAL CHECK-UP	DATE	TIME

WORK COMPLETE	DATE	TIME			
SIGNED: (WELDER)			SIGNED (INSPECTOR)		

Tri-City Medical Center
Oceanside, California

ENGINEERING
SAFETY AND SECURITY

~~TRI-CITY MEDICAL CENTER~~ ~~Engineering Policy & Procedure~~	~~Section: ENGINEERING DEPARTMENT~~ ~~Subject: Confined Space Entry~~ ~~Policy Number: 5012 Page 1 of 3~~
~~Department: Engineering~~	~~EFFECTIVE: 8/30/89~~ ~~REVISED: 9/94; 2/97; 5/00; 5/03, 06/06, 6/12~~

SUBJECT: Confined Space Entry

ISSUE DATE: 8/89
REVIEW DATE(S):
REVISION DATE(S): 9/94, 2/97, 5/00, 5/03, 6/06, 6/12

Department Approval Date(s):	**03/20**
Environmental Health and Safety Committee Approval Date(s):	**03/20**
Administration Approval:	**08/21**
Professional Affairs Committee Approval Date(s):	**n/a**
Board of Directors Approval Date(s):	

A. **DEFINITION:**
1. "Confined Space" is defined by OSHA as:
   a. having adequate size and configuration for employee entry to perform work.
   b. has limited or restricted means of access or egress.
   c. is not designed for continuous employee occupancy.
2. "Permit-Required Confined Space" is a confined space that has one or more of the following characteristics:
   a. contains or has the potential to contain a hazardous atmosphere.
   b. contains a material that has the potential for engulfing an entrant.
   c. has an internal configuration such that the entrant could be trapped or asphyxiated by inwardly converging walls or by a floor that slopes downward and tapers to a smaller cross-section.
   d. contains any other serious safety or health hazard.

B. **POLICY:**
1. A worksite evaluation was conducted to determine if there were any permit required confined spaces ~~in~~ **at** Tri-City ~~Medical Center~~**Healthcare District (TCHD)**. Identified permit required confined spaces include, boilers, sterilizers ventilation systems and underground storage tanks. All permit required spaces will be posted with danger signs to alert employees to the existence, location and danger involved (i.e. "DANGER PERMIT-REQUIRED CONFINED SPACE, DO NOT ENTER").
2. Authorized entrants, attendants, and entry supervisors will receive appropriate training to assure knowledge of duties and responsibilities during entry to confined spaces before assigned such duties. The training shall establish employee proficiency in the duties required. Training logs shall be maintained by the Engineering. Confined space supervisor will be familiar with all aspects of OSHA (29 CFR 1910.146).

C. **PROCEDURE:**

1. All permit required confined spaces will be tested to determine if conditions are acceptable for entry.
2. Spaces will be monitored as necessary to determine if acceptable conditions are maintained during work interval.
3. If atmospheric hazards are suspected, atmosphere will be tested first for oxygen levels, then combustible gases and vapors and then for toxic gases and vapors. Atmospheric monitoring equipment shall be supplied and used at all times during work interval.
4. Ventilating, purging, inerting or flushing of space, if required, is conducted as necessary. There may be no hazardous atmosphere within the space when an employee is inside.
5. Supervisor shall document the basis for determining that all hazards in a permit-required space have been eliminated including date, location and signature of the person making the determination. The certification shall be made available to each employee entering the space.

D. **PERMIT SHALL INCLUDE:**

1. The space to be entered, purpose of entry, date and authorized duration of entry. Names of all entrants. Names of all attendants. The name of entry supervisor. The hazards of the space to be entered. The measures used to isolate the space and eliminate hazards. The acceptable entry conditions. The results of the initial and periodic tests performed and the initials of the testers. The rescue and emergency services that can be summoned and the means for summoning those services. The communication procedures used by the authorized entrants and attendants to maintain contact during entry. Personal protective, testing, communications, alarm and rescue equipment provided.
2. Before the entry begins, the entry supervisor identified on the permit shall sign the permit to authorize entry. The permit shall be posted at entry portal.
3. The duration of the permit will not exceed the time required to complete the job or task identified on the permit. The permit shall be canceled by the entry supervisor and will be retained by Engineering for a period of at least one year.
4. Any unsafe conditions will be removed before entrance cover is opened.
5. As soon as entry cover is removed barriers shall be erected promptly to protect against accidental falls or equipment falling in space.
6. Entrants shall communicate with the attendant as necessary to enable the attendant to alert entrants of the need to evacuate.
7. Alert the attendant whenever the entrant recognizes any warning signs of exposure to a dangerous situation or prohibited condition.
8. Exit from the space as quickly as possible whenever an order is given by the attendant, entry supervisor or an evacuation alarm is sounded.
9. Attendant shall remain outside the space and continuously maintain an accurate count of authorized entrants until relieved by another attendant.
10. Attendant will monitor activities inside and outside the space to insure it is safe for entrants.
11. Attendant shall summon emergency services as soon as it is determined that entrants may need assistance to escape. Emergency services shall be informed of the hazards they may confront and granted access to confined spaces so as to prepare appropriate rescue plans.
12. Attendant may only enter a permit space to attempt a rescue if they have been trained and equipped for rescue operations and have been relieved by another attendant.

E. **CONTRACTORS WHO ENTER PERMIT-REQUIRED CONFINED SPACES:**

1. Will be informed of the hazards identified and experience with the space.
2. Will be informed that permit-required confined spaces may only be entered with compliance to (29 CFR 1910.146).
3. Contractor will inform Director of Engineering of procedure to be followed by contracted personnel when entering permit confined space.
4. Contractor will be informed of all precautions and procedures to protect employees in or near

space.

5. ~~Director of Engineering~~**Engineering Management** will coordinate operations with contractor when both hospital employees and contracted personnel will be working in space.
6. ~~Director of Engineering~~**Engineering Management** will debrief contractor at the end of job to ascertain any hazards encountered or created during entry.

Tri-City Medical Center
Oceanside, California

ENGINEERING
SAFETY AND SECURITY

~~TRI-CITY MEDICAL CENTER~~ ~~Engineering Policy & Procedure~~	~~Section: ENGINEERING DEPARTMENT~~ ~~Subject: Safe Use of Electrical Equipment~~ ~~Policy Number: 5014 Page 1 of 2~~
~~Department: Engineering~~	~~EFFECTIVE: 3/19/90~~ ~~REVISED: 9/94; 2/97; 5/00; 5/03, 06/06, 6/12~~

SUBJECT: Safe Use of Electrical Equipment

ISSUE DATE: 3/90
REVIEW DATE(S):
REVISION DATE(S): 9/94, 2/97, 5/00, 5/03, 6/06, 6/12

Department Approval ~~Date(s)~~:	**07/19**
Environmental Health and Safety Committee Approval ~~Date(s)~~:	**09/19**
Administration Approval:	**08/21**
Professional Affairs Committee Approval ~~Date(s)~~:	**n/a**
Board of Directors Approval ~~Date(s)~~:	

A. **PURPOSE:**

1. Electrically powered equipment is a vital part of ~~modern~~ patient care, but electricity can be hazardous~~ to you and your patient.~~. ~~Please read this document carefully and~~**All Engineering personnel must** follow the **electrical safety** instructions **in this policy** ~~listed~~ at all times.~~ If there is something that you don't understand - ASK YOUR SUPERVISOR about it.~~

B. **PROCEDURE:**

1. Be kind to the equipment. Remove plugs from the wall sockets by grasping the body of the plug ~~-~~**and** not by pulling on the line cord.
2. Avoid routing power cords and patient cables in areas of heavy foot traffic or cart traffic. If possible, do not roll carts over power cords or patient cables.
3. Do not drape power cords or patient cables across radiators, sinks or any other metal surface.
4. Do not use damaged or worn wall outlets. If a plug falls out of a wall socket under its own weight, get it fixed as soon as possible. ~~-~~**D**~~d~~o not resort to ~~surgical~~ **duct** tape.
5. Do not use "cheaters" to connect equipment with three pin attachment plugs to two-slot receptacles. All two-slot outlets shall be replaced with the three-slot type. Do not attempt to "modify" any piece of electrical equipment, including wall plugs yourself.
6. Do not use multiple outlet adapters (cube taps) or extension cords except in an emergency when power has been cut off to some of the receptacles in the area.
7. **Power strips are allowed as long as they meet the requirements set forth in National Fire Protection Agency (NFPA) 99 – 2012 Edition**
8. Switch the equipment "off" before plugging it into or unplugging it from the wall outlet.
9. If a patient is connected to ~~the~~ **a piece of** equipment (such as an EKG monitor or recorder) **obtain approval from the nursing staff and biomed before disconnecting the equipment.**

After nursing staff and biomed approval, R~~r~~emove the **wire** connections **from the patient** before switching the power "on" or "off."

10. All equipment shall be mounted securely. Do not stack instruments on top of each other, unless they are designed to be stacked that way. Do not put vessels containing liquids that could be spilled on the top of equipment.
11. **Get into the habit of checking wall receptacles, line cords, plugs, patient cables and connectors for wear and tear, such as chipping, fraying, charring or loose connections. All outlets in the area and the plugs on the equipment shall be the three pin and ~~-~~marked "hospital grade."**
12. **If you receive an electric shock, even a minor one ("tingling" sensation) when you touch a piece of equipment, report it immediately. Failure to report may cause ~~i~~injury or death.**
13. **Avoid touching electrical equipment (even the controls of monitors) with one hand and metal surface with the other hand, particularly if you suspect an electrical problem. Do not touch equipment with wet hands**
14. **Report all possible hazardous electrical situations that you note to your Supervi~~i~~sor.**
15. **Notify your Supervisor if you need further guidelines or clarifications to the content of this policy.**

~~**BE A SAFETY WATCHDOG:**~~

~~Get into the habit of checking wall receptacles, line cords, plugs, patient cables and connectors for wear and tear, such as chipping, fraying, charring or loose connections. All outlets in the area and the plugs on the equipment shall be the three-pin and preferably marked "hospital grade."~~
~~Verify that all of the electrical equipment is functioning properly each time a new patient is moved into the area. If it is not, request that it be fixed.~~
~~If you receive an electric shock, even a minor one, ("tingling" sensation) when you touch a piece of equipment, report it immediately. Failure to do this could cost a life.~~
~~If possible, avoid touching electrical equipment (even the controls of monitors) with one hand and another metal surface with the other hand, particularly if you suspect an electrical problem. Do not touch equipment with wet hands.~~
~~Report all possible hazardous situations that you note to the Director of Engineering. Report all incidents of:~~

~~Electrical shock~~
~~Fluid spilled into equipment~~
~~Equipment sparking or smelling of burning~~
~~Equipment being dropped or otherwise damaged~~
~~SPECIAL PRECAUTIONS~~

~~If a patient's life could be threatened by loss of power to a piece of equipment (such as a respirator) find out where the circuit breakers for that area are located, and also keep an extension cord that will reach to another branch circuit available at all times.~~

~~If power is provided from an isolated power system, be familiar with the proper procedure to carry out if the monitor (red light and audible signal) activates.~~

~~If the patient is provided with pacemaker leads, internal monitoring leads or pressure lines leading to the heart or major blood vessels, special precautions are required to avoid the possibility of even very small electric currents passing directly to the heart.~~

~~All equipment that is connected to these "invasive pathways" shall be labeled as suitable for this purpose~~

Tri-City Medical Center
Oceanside, California

DELETE – Duplicate information from Orientation and Continuous Education policies.

ENGINEERING
SAFETY AND SECURITY

~~TRI-CITY MEDICAL CENTER~~ ~~Engineering Policy & Procedure~~	~~Section: ENGINEERING DEPARTMENT~~ ~~Subject: Utilities Management User Training~~ ~~Policy Number: 5015 Page 1 of 1~~
~~Department: Engineering~~	~~EFFECTIVE: 5/97~~ ~~REVISED: 5/00; 5/03, 06/06, 6/12~~

SUBJECT: Utilities Management User Training

ISSUE DATE: 5/97
REVIEW DATE(S):
REVISION DATE(S): 5/00, 5/03, 6/06, 6/12

Department Approval Date(s):	**03/20**
Environmental Health and Safety Committee Approval Date(s):	**03/20**
Administration Approval:	**08/21**
Professional Affairs Committee Approval Date(s):	**n/a**
Board of Directors Approval Date(s):	

~~A. **POLICY:**~~
~~1. Tri-City Medical Center's Engineering personnel will be required to attend monthly meetings that will specifically address training the users of utilities equipment including, but not limited to:~~
~~a. H.V.A.C. System~~
~~b. Emergency Generator~~
~~c. Steam Boilers~~
~~d. Pumps and Motors~~
~~e. Medical Gases~~
~~f. Electrical Distribution Systems~~
~~g. Water Distribution/Plumbing System~~
~~h. Medical/Surgical Air and Vacuum System~~
~~i. Alarms and Safety Devices~~
~~j. OSHA Training~~
~~k. Medical Equipment (Beds, Nurse Call, Etc.)~~
~~2. All Engineering personnel will be reviewed annually to ensure attendance for all utilities training meetings.~~
~~3. Location of training outlines and documentation is in Central Plant office.~~

DELETE – Topic is covered in new employee orientation policy.

~~TRI-CITY MEDICAL CENTER~~ ~~Facility Policy & Procedure~~	~~Section: ENGINEERING DEPARTMENT~~ ~~Subject: Emergency Generator Training~~ ~~Policy Number: 5016 Page 1 of 4~~
~~Department: Engineering~~	~~EFFECTIVE: 5/97~~ ~~REVISED: 5/00; 5/03, 06/06, 6/12~~

Department Approval:	07/19
Environmental Health and Safety Committee Approval:	09/19
Administration Approval:	08/21
Professional Affairs Committee Approval:	n/a
Board of Directors Approval:	

~~EMERGENCY GENERATOR TRAINING:~~

~~Conditions under which emergency generator will automatically activate~~

~~Areas and functions of hospital served by each generator~~

~~Manual bypass procedure in case automatic transfer switch does not activate~~

~~Generator testing procedure explanation of gauges and controls such as temperature gauge, oil pressure, voltage and amp gauges~~

~~Shutdown procedures include emergency shutoffs~~

~~Underground storage tanks of diesel fuel for generators~~

~~SOURCE OF EMERGENCY POWER:~~

~~Changeover:~~
- ~~Manual~~
- ~~Automatic~~

~~Emergency Generator:~~
- ~~Date manufactured~~
- ~~Date installed~~
- ~~Capacity~~
- ~~Voltage~~
- ~~Amperes~~
- ~~Phases~~
- ~~Automatic start~~
- ~~Manual transfer switch~~
- ~~Automatic transfer switch~~
- ~~Bypass for transfer switch~~

Type:
Diesel

Fuel storage capacity:
Gallons
Hours of service

TRI-CITY MEDICAL CENTER **Engineering Policy & Procedure**	**Section: ENGINEERING DEPARTMENT** **Subject:** Emergency Generator Training **Policy Number:** 5016 Page 2 of 4
Department: Engineering	**EFFECTIVE:** 5/97 **REVISED:** 5/00; 5/03, 06/06, 6/12

Frequency of tests:
Daily
Weekly
Monthly

ITEMS SUPPLIED WITH EMERGENCY POWER:

Illumination and Receptacles. All receptacles connected to emergency system and all light switches controlling emergency lighting shall be identified in a conspicuous and permanent manner.

Corridors serving patients and corridors leading to exits or stairs shall be provided with lighting having an intensity of not less than one foot candle at floor level.

Illuminated exit signs and exit direction signs.

Stairways designated as fire exits shall be provided with at least one light per story, plus additional lighting necessary to assure at least one foot candle illumination of the stairway enclosures on all landings and steps or ramps.

Lighting having an intensity of not less than 10 foot candles at working surfaces shall be provided in each area needed to assure continued function of the hospital, including but not limited to nurses' stations, utility rooms, medicine preparing rooms, pharmacies, central supply, kitchens, formula rooms, boiler plant, mechanical equipment rooms, switchboard rooms, telephone equipment rooms. Suitable battery powered lights may be acceptable.

Lighting having an intensity of at least 10 foot candles throughout the rooms at 30 inches above the floor, and at least one duplex receptacle for each 3 bassinets in newborn, suspect, premature, isolation and pediatric nurseries.

Operating, Delivery and Emergency Units:

Operating lights.

General illumination in Operating, Delivery Room and Emergency Department, corridors and associated work areas having an intensity of at least 10 foot candles at working surfaces.

At least 3 receptacles in each Operating Room, Delivery Room and Emergency Department.

Lighting having an intensity of at least 10 foot candles throughout the rooms at 30 inches above the floor and at least 2 duplex receptacles, to which no equipment such as lighting fixtures, motorized beds, or patient

TRI-CITY MEDICAL CENTER **Engineering Policy & Procedure**	**Section:** **ENGINEERING DEPARTMENT** **Subject:** Emergency Generator Training **Policy Number:** 5016 Page 3 of 4
Department: Engineering	**EFFECTIVE:** 5/97 **REVISED:** 5/00; 5/03, 06/06, 6/12

monitoring equipment are normally connected, at the head of each bed, in intensive care, cardiac care and recovery rooms. Patient monitoring equipment in these rooms shall be supplied from the emergency system.

Duplex electrical receptacles, at least each 50 linear feet in patient corridors, so located that any bed can be reached with a 50 foot extension cord, to be used for connecting portable, apparatus, such as suction apparatus, oxygen tents, diagnostic equipment, heart pacers and electrocardiograph.

Lighting having an intensity of at least 10 foot candles in psychiatric patient areas other than bedrooms.

Laboratories. Lighting having an intensity of at least 10 foot candles at working surfaces and receptacles for essential processes, such as blood typing and cross matching equipment.

Lighting having an intensity of at least 10 foot candles in telephone switchboard rooms at a height of 30" above floor.

Communications, Signal and Alarm Systems:

Fire alarm and smoke detection systems, including two-way intercommunication system if used for fire alarm

Nurse call system in all areas

Oxygen and nitrous oxide low pressure and system change over alarms

Ground indicators in anesthetizing locations

Emergency call systems in Operating Room, Delivery Room, Recovery Room, Intensive Care and Nursery areas

Power for Essential Building Services:

Where patient elevators are required, at least one patient elevator shall be able to operate continuously on emergency power. At least one elevator operating on emergency power shall be accessible from all patient areas not on the ground floor. Provisions shall be made to operate other patient elevators from the emergency system, one at a time, long enough to evacuate patients and personnel from the cabs.

All power required to operate at least one source of heat together with all auxiliary equipment and controls, to provide domestic hot water and heat for sterilization.

All power required to operate at least one source of heat together with all auxiliary equipment controls; and where needed, convectors, circulating systems and air handling systems to provide heat in critical areas such

TRI-CITY MEDICAL CENTER **Engineering Policy & Procedure**	**Section: ENGINEERING DEPARTMENT** **Subject:** Emergency Generator Training **Policy Number:** 5016 Page 4 of 4
Department: Engineering	**EFFECTIVE:** 5/97 **REVISED:** 5/00; 5/03, 06/06, 6/12

as Surgery Units, Delivery Units, Nursery Units, Recovery Rooms and Emergency Department.

In design temperature zones, all power required to operate at least one source of heat together with all auxiliary equipment, controls, and where needed, convectors, circulating systems and air handling systems to provide heat in patient rooms.

Exception: Where only electric power is used for space heating, electric heating in required areas shall be supplied from the emergency system or an alternate source of heat shall be provided for emergency use. Where normal power service to the facility consists of more than one public utility distribution feeder, emergency heating for patient rooms will not be required.

Supply and exhaust fans serving critical areas such as Surgery Units, Delivery Units, Nursery Units, Recovery Rooms and Emergency Department, and controls for these fan systems; electronic filters, if provided

Air compressor for temperature controls (where serving critical areas)

Central suction systems serving critical medical and surgical functions

Surgical and medical compressed air systems, if installed

Blood bank, bone bank, biological and other critical refrigerators

Incubators in laboratory, if critical tests would be affected by loss of normal power

Sump pumps and sewage ejectors, including alarms

Domestic water booster pumps, where installed

Ventilation system for emergency generator room, if required for generator operation

Food handling equipment

DELETE – Topic is covered in new employee orientation policy.

~~TRI-CITY MEDICAL CENTER~~ ~~Engineering Policy & Procedure~~	~~Section: ENGINEERING DEPARTMENT~~ ~~Subject: HVAC System User Training Outline~~ ~~Policy Number: 5017 Page 1 of 1~~
~~Department: Engineering~~	~~EFFECTIVE: 5/97~~ ~~REVISED: 5/00; 5/03, 06/06, 6/12~~

Department Approval:	07/19
Environmental Health and Safety Committee Approval:	09/19
Administration Approval:	08/21
Professional Affairs Committee Approval:	n/a
Board of Directors Approval:	

~~HVAC System User:~~

~~Location and operation of cooling tower and chiller:~~

~~Include start up and shutdown procedures~~

~~Location of emergency shutoff:~~

~~Switches and circumstances under which emergency shutoffs should be used~~

~~Proper temperature ranges of chilled water:~~

~~How to increase or decrease temperature~~

~~Areas of hospital served by chilled water system~~

~~Location and operation of all zone valves and thermostats~~

~~Locations and operation of all package units including areas of the hospital they serve:~~

~~Emergency shutoff procedures~~

~~Location of thermostats controlling package units and proper way to adjust thermostats~~

~~Trouble shooting procedures for chilled water units and package units~~

~~The proper method to inspect and change filters:~~

~~Include temperature, pressure, etc. ranges for HVAC System~~

DELETE – Topic is covered in new employee orientation policy.

~~TRI-CITY MEDICAL CENTER~~ ~~Engineering Policy & Procedure~~	~~Section: ENGINEERING DEPARTMENT~~ ~~Subject: Medical Gas Training Outline~~ ~~Policy Number: 5018 Page 1 of 1~~
~~Department: Engineering~~	~~EFFECTIVE: 5/97~~ ~~REVISED: 5/00; 5/03, 06/06, 6/12~~

Department Approval:	07/19
Environmental Health and Safety Committee Approval:	09/19
Administration Approval:	08/21
Professional Affairs Committee Approval:	n/a
Board of Directors Approval:	

~~Medical gas systems are designed, installed, operated and maintained in a manner that is designed to provide an adequate and safe supply of nonflammable medical gases for all required hospital operations in compliance with NFPA.~~

~~A preventative maintenance program for the medical gas systems which are safe and reliable includes, but is not limited to the following:~~

~~Inspections and corrective actions are documented of the following:~~

- ~~Alarm systems tests~~
- ~~Tagging of major valves~~
- ~~Emergency shutoff controls are labeled~~

~~Procedures specifying actions to be taken during a failure of essential nonflammable medical gas system or equipment are located in Engineering and the Fire and Emergency Preparedness Manuals distributed to each department.~~

~~These procedures include provisions for obtaining and distributing an emergency supply of nonflammable medical gases.~~

~~Surgical Air and Oxygen will be supplied by: See Emergency Phone List Vendor in Appendix Section.~~

~~At the time of installation, nonflammable medical gas piping systems are inspected and tested for correct configuration and existing ones are tested after any repairs or modifications. (Percentage of oxygen in piped in system is checked weekly by Respiratory Therapy).~~

~~Refer to Respiratory Therapy Departmental Manuals for procurement, handling, storage and dispensing of therapeutic gases. This includes cylinder handling protocols. Also refer to Surgery/Anesthesia and Facilities Management Manuals.~~

~~Keep petroleum based products away from oxygen (a spontaneous combustion or explosion hazard).~~

~~Adherence to all equipment safety protocols to prevent potential spark emitting around oxygen.~~

~~NOTE: Cylinder requirements include the fact that cylinders must be provided with a method to prevent falls at all times, including during transportation and whether full or empty.~~

DELETE – Topic is covered in new employee orientation policy.

~~TRI-CITY MEDICAL CENTER~~ ~~Engineering Policy & Procedure~~	~~Section: ENGINEERING DEPARTMENT~~ ~~Subject: Training Outline for Use of Medical Gas Delivery System and Proper Use, Storage and Handling of Cylinder Gases~~ ~~Policy Number: 5019 Page 1 of 1~~
~~Department: Engineering~~	~~EFFECTIVE: 5/97~~ ~~REVISED: 5/00; 5/03, 06/06, 6/12~~

Department Approval:	07/19
Environmental Health and Safety Committee Approval:	09/19
Administration Approval:	08/21
Professional Affairs Committee Approval:	n/a
Board of Directors Approval:	

~~Location and proper use of all shutoff valves for piped gases.~~

~~Location of all piped gas alarms and procedures to follow if alarm is activated.~~

DELETE – Topic is covered in new employee orientation policy.

~~TRI-CITY MEDICAL CENTER~~ ~~Engineering Policy & Procedure~~	~~Section: ENGINEERING DEPARTMENT~~ ~~Subject: Training Outline for Use of Pumps and Motors~~ ~~Policy Number: 5020 Page 1 of 3~~
~~Department: Engineering~~	~~EFFECTIVE: 5/97~~ ~~REVISED: 5/00; 5/03, 06/06, 6/12~~

Department Approval:	07/19
Environmental Health and Safety Committee Approval:	09/19
Administration Approval:	08/21
Professional Affairs Committee Approval:	n/a
Board of Directors Approval:	

~~Use of pumps and motors:~~

~~Start up and shutdown procedures~~

~~Location and operation of emergency shutoffs~~

~~Trouble shooting procedures including:~~

~~Electrical safety when working on equipment~~

~~Motors and Controllers:~~

~~Nameplate data available on all motors~~

~~Check condition of all motor housing~~

~~Motors suitably enclosed for protection in areas where they might come in contact with liquids~~

~~Adequate ventilation provided for all motors~~

~~Motors clean, free from dust, oil, etc.~~

~~Conductors to motors of proper size~~

~~Continuous duty motors protected against running over current~~

~~Motor temperatures within the listed "rated temperature rise"~~

~~Check motors for noise and vibration~~

~~Controllers marked with control voltage~~

~~Controls in sight of motors~~

Controllers clean and in good condition

Check switches/circuit breakers related to controllers for evidence of arcing.

Introduction to Single-Phase Motors:

TRI-CITY MEDICAL CENTER **Engineering Policy & Procedure**	**Section: ENGINEERING DEPARTMENT** **Subject:** Training Outline for Use of Pumps and Motors **Policy Number:** 5020 Page 2 of 3
Department: Engineering	**EFFECTIVE:** 5/97 **REVISED:** 5/00; 5/03, 06/06, 6/12

Parts of single-phase motor

Definitions

NEMA Motor Standards

Motor enclosures

Nameplate data

Induction motors

Single-phase stator field

Single-phase rotor field

Split-phase starting

Number of poles

Electrical degrees

Synchronous speed

Starting switches

Standard and special split-phase motors

Split-Phase Motors:

Starting single-phase motors

Stator windings

Split-phase motor connections

Identifying motor leads

Winding connections:

TRI-CITY MEDICAL CENTER **Engineering Policy & Procedure**	**Section: ENGINEERING DEPARTMENT** **Subject:** Training Outline for Use of Pumps and Motors **Policy Number:** 5020 Page 3 of 3
Department: Engineering	**EFFECTIVE:** 5/97 **REVISED**: 5/00; 5/03, 06/06, 6/12

Consequent-pole windings

Two-speed motors

Two-speed, three-winding motors

Four-winding motors

Dual-voltage motors

Trouble-shooting split-phase motors

Open circuit in a winding

Shorted turns in a winding

When a motor fails to start

When a motor runs slow

Electrical safety

DELETE – Topic is covered in new employee orientation policy.

TRI-CITY MEDICAL CENTER **Engineering Policy & Procedure**	**Section:** ENGINEERING DEPARTMENT **Subject:** Steam Boiler Training Outline **Policy Number:** 5021 Page 1 of 1
Department: Engineering	**EFFECTIVE:** 5/97 **REVISED**: 5/00; 5/03, 06/06, 6/12

Department Approval:	07/19
Environmental Health and Safety Committee Approval:	09/19
Administration Approval:	08/21
Professional Affairs Committee Approval:	n/a
Board of Directors Approval:	

Proper start up and shutdown:

Procedures

Location and function of all controls, limit switches, sight glasses, blow down valves, header valves.

Hospital needs for steam and areas supplied

Emergency shutdown procedures and when to use them

Safety in working around high pressure steam

The function and testing of relief valves

Definition Boiler:

To supply steam to the autoclaves and the heating system

Purpose:

To notify the proper service or persons when repair of the boiler is beyond the capabilities of the on-call engineer in Engineering.

Procedure:

After determining that repairs cannot be made in a timely manner or beyond the scope of in-house capabilities call: Refer to Emergency Phone List Vendors.

Notify the President / CEO and all departments. Tell them approximately how long the boiler will be out of service.

After repairs are made, notify the departments.

Boiler Room (List boilers with pressure, temperature, level etc. ranges specific to boilers).

Tri-City Medical Center
Oceanside, California

ENGINEERING
SAFETY AND SECURITY

~~TRI-CITY MEDICAL CENTER~~ ~~Engineering Policy & Procedure~~	~~Section: ENGINEERING DEPARTMENT~~ ~~Subject: Underground Storage Tanks~~ ~~Policy Number: 5022 Page 1 of 1~~
~~Department: Engineering~~	~~EFFECTIVE: 5/97~~ ~~REVISED: 5/00; 5/03, 06/06, 6/12~~

SUBJECT: Underground Storage Tanks

ISSUE DATE: 5/97
REVIEW DATE(S):
REVISION DATE(S): 5/00, 5/03, 6/06, 5/09, 6/12

Department Approval ~~Date(s)~~:	**03/20**
Environmental Health and Safety Committee Approval ~~Date(s)~~:	**03/20**
Administration Approval:	**08/21**
Professional Affairs Committee Approval ~~Date(s)~~:	**n/a**
Board of Directors Approval ~~Date(s)~~:	

A. **POLICY:**

1. Tank levels will be checked on a daily basis. Where a dipstick is used, it will be double checked for accuracy.
2. When using a stick, a level will be used to ensure consistency and accuracy in tank measuring.
~~3. A lock will be kept at the fill point at all times to guard against vandalism or theft.~~
~~4.~~**3.** All measurements shall be taken during a period when no entries or withdrawals from the tank have occurred for at least a four (4) hour period.
~~5.~~**4.** If a variance over ~~0.05~~**1** gallon~~s~~ per **24** hour **period** is found, the Director of Engineering or designee must be notified immediately to take action. Within twenty-four (24) hours after the variance is found either in writing or verbally the owner shall be notified.
~~6.~~**5.** Within two (2) hours after a reading has taken place, the records will be reviewed and checked against previous readings for deficiencies.
~~7.~~**6.** All tank inspections (annually) per NFPA shall be done by a certified agency and a copy of their report will be sent to the state.
~~8.~~**7.** ~~Also, A~~**a** quarterly statement will be submitted to the local agency verifying that all tests are within allowable variances **by an outside contractor**.
~~9.~~**8.** In the event of a loss, tank testing will occur within forty- eight (48) hours of the finding.

DELETE – Topic is covered in new employee orientation policy.

~~TRI-CITY MEDICAL CENTER~~ ~~Engineering Policy & Procedure~~	~~Section: ENGINEERING DEPARTMENT~~ ~~Subject: Training Outline for Use of Water Delivery~~ ~~Policy Number: 5023 Page 1 of 1~~
~~Department: Engineering~~	~~EFFECTIVE: 5/97~~ ~~REVISED: 5/00; 5/03, 06/06, 6/12~~

Department Approval:	07/19
Environmental Health and Safety Committee Approval:	09/19
Administration Approval:	08/21
Professional Affairs Committee Approval:	n/a
Board of Directors Approval:	

~~Location and operation (include emergency shutoff for all water pumps and circulation pumps, include Preventative Maintenance procedures.) See outline for pumps and motors.~~

~~Location and area controlled for all water shutoff valves: hot and cold.~~

~~Location and operation of all back flow devices (testing requirements).~~

~~The need for periodic plumbing inspections.~~

~~How to inspect for electrolysis and when to use die electric unions.~~

Tri-City Medical Center
Oceanside, California

ENGINEERING
SAFETY AND SECURITY

~~TRI-CITY MEDICAL CENTER~~ ~~Engineering Policy & Procedure~~	~~Section: ENGINEERING DEPARTMENT~~ ~~Subject: Mold Remediation Program~~ ~~Policy Number: 5024 Page 1 of 1~~
~~Department: Hospital-Wide~~	~~EFFECTIVE: 4/20/2010~~ ~~REVISED: 6/12~~

SUBJECT: Mold Remediation Program

ISSUE DATE: 4/10
REVIEW DATE(S):
REVISION DATE(S): 6/12

Department Approval ~~Date(s)~~:	**03/20**
Environmental Health and Safety Committee Approval ~~Date(s)~~:	**03/20**
Administration Approval:	**08/21**
Professional Affairs Committee Approval ~~Date(s)~~:	**n/a**
Board of Directors Approval ~~Date(s)~~:	

~~A.~~ ~~**REFERENCES:**~~

~~1. Center for Disease Control and Prevention, Healthcare Infection Control Practice Advisory Committee, Guideline for Environmental Infection Control in Healthcare Facilities, 2003~~

~~2. US Department of Labor Occupational Safety and Health Administration, A brief guide to mold in the workplace~~

~~3. TCMC Infection Control Manual IC.13.3~~

~~B.~~**A. PURPOSE:**

1. To designate responsibilities related to the control of Aspergillus (Mold) and fungi throughout the Medical Center. The purpose of mold remediation is to correct the moisture problem and to remove moldy, contaminated materials.

~~C.~~**B. GENERAL INFORMATION:**

1. Molds and fungi can be found anywhere inside or outside throughout the year. When excessive moisture or water accumulates indoors, mold growth often will occur. Molds generally do not cause systemic infections, except for persons with impaired immunity.

~~D.~~**C. POLICY:**

1. When mold is discovered during maintenance or construction, Engineering staff will immediately notify the Infection Prevention Practitioner and EOC Officer to seek consultation.
2. Engineering staff will:
   a. Participate in training process for mold remediation and construction barrier containment.
   b. Follow remediation precautions as outlined in IC 13.3
   c. Follow procedure for containment as per IC 13.2 Construction Policy Matrix.

d. Wear appropriate PPE during remediation.
e. Follow IC 13.3 for mold remediation/ cleanup methods and mold remediation procedure.
f. The material will be encapsulated.

D. REFERENCES:

1. **Center for Disease Control and Prevention, Healthcare Infection Control Practice Advisory Committee, Guideline for Environmental Infection Control in Healthcare Facilities, 2003**
2. **US Department of Labor Occupational Safety and Health Administration, A brief guide to mold in the workplace**
3. **TCMC Infection Control Manual IC.13.3**
~~f.~~**a.**

Tri-City Medical Center
Oceanside, California

ENGINEERING
QUALITY ASSURANCE

DELETE: All information refereced in Preventative Maintenance Policy.

~~TRI-CITY MEDICAL CENTER~~ ~~Engineering Policy & Procedure~~	~~Section: ENGINEERING DEPARTMENT~~ ~~Subject: Building Maintenance Program (BMP)~~ ~~Policy Number: 7001 Page 1 of 2~~
~~Department: Hospital-Wide~~	~~EFFECTIVE: 2/16/06; 5/09; 6/12~~ ~~REVISED:~~

SUBJECT: Building Maintenance Program (BMP)

ISSUE DATE: 2/16, 5/09, 6/12
REVIEW DATE(S):
REVISION DATE(S):

Department Approval Date(s):	03/20
Environmental Health and Safety Committee Approval Date(s):	03/20
Administration Approval:	08/21
Professional Affairs Committee Approval Date(s):	n/a
Board of Directors Approval Date(s):	

~~A. PURPOSE:~~

~~1. It is the policy of Tri-City Medical Center that the facilities be maintained using a Building Maintenance Program (BMP)~~

~~B. GENERAL INFORMATION:~~

~~1. The purpose of this Policy & Procedure is to describe the Building Maintenance Program (BMP) in place at Tri-City Medical Center in Oceanside and other surveyable areas. This BMP is a multi-layered program that employs numerous surveys and inspections performed by multiple departments and employees at various times. This Policy & Procedure will describe these surveys and inspections and how they overlay.~~

~~C. POLICY:~~

~~1. It is the responsibility of the Director of Engineering to provide program oversight, develop and enforce procedures and ensure compliance therewith. Included in this program:~~
~~a. 1 ½ hr FRRA doors and 1 hr FRRA doors, including occupancy separation doors, stairwell doors, horizontal exit doors, cross-corridor doors~~
~~b. Smoke barrier walls~~
~~c. Means of Egress illumination~~
~~d. Exit signs~~
~~e. Grease-producing devices including kitchen exhaust hoods and exhaust duct system and grease traps.~~
~~2. Not included in the program is the maintenance of egresses free from ice and snow, due to the temperate climate and trash and linen chute doors.~~
~~3. Compliance goal will be 95% for doors, egress illumination, & exit signs. Kitchen grease trap, hood, & vent maintenance will be tracked "pass/fail" rather than 95% compliance because of the~~

~~small population. Wall and Smoke Barrier penetrations will be inspected on RAT Patrol, but 95% compliance will not be computed mathematically. The Director Engineering will review the reports from the RAT Patrol and make a subjective assessment of effectiveness.~~

~~4. Attachment A provides a matrix that outlines the BMP and how the different elements are managed as referenced by the Statement of Conditions. It lists the equipment & systems noted in the SOC for inclusion in the BMP. Attachment A also provides a description of the different overlaying processes used in maintaining the set equipment and systems~~

~~5. Attachment B is a copy of the checklist used by the Director of Engineering or designee during the weekly Environment of Care Rounds. This form indicates in the left margin, which items are under the BMP. When completing this form, any condition noted that is not normal or compliant shall include a brief comment and the work order number assigned to the problem. Blank line items shall indicate that no problem was noted.~~

~~6. Attachment C outlines the Rapid Action Team, nicknamed the RAT Patrol. The RAT Patrol is primarily an inspection tool to identify problems and create a real-time work list. It is conducted most Wednesday mornings immediately after the 7:30 a.m. shift change and involves all oncoming and off going Engineers being assigned a specific BPM inspection/check in a specific area of each building and surveyable portions with the entire building being inspected simultaneously. Discrepancies are collected and the entire process should take less than a half hour. The Director of Engineering shall track compliance rates for doors, exit signs, and report results to the Environment of Care Leads Committee. Detailed RAT Patrol tracking sheets are not included in this P&P.~~

~~7. Completed copies of Attachment B and the RAT Patrol reports shall be retained in the Engineering Director's office.~~

~~D. **ATTACHMENTS:**~~

~~1. Building Maintenance Plan~~
~~2. Environment of Care survey form~~
~~3.~~**1.** ~~Rapid Action Team (RAT Patrol)~~

Tri-City Medical Center
Oceanside, California

DELETE: Security Specific policy, Engineering uses "Loss of Electrical Power" Procedure.

ENGINEERING
EMERGENCY PREPAREDNESS

~~TRI-CITY MEDICAL CENTER~~ ~~Security Policy & Procedure~~	~~Section: ENGINEERING DEPARTMENT~~ ~~Subject: Medical Center Power Outage~~ ~~Policy Number: 8000.1 Page 1 of 1~~
~~Department: Hospital Wide~~	~~EFFECTIVE: 3/25/91~~ ~~REVISED: 3/97; 5/00; 5/03, 5/06; 5/09; 6/12~~

SUBJECT: Medical Center Power Outage

ISSUE DATE: 3/91
REVIEW DATE(S):
REVISION DATE(S): 3/97, 5/00, 5/03, 5/06, 5/09, 6/12

Department Approval Date(s):	**03/20**
Environmental Health and Safety Committee Approval Date(s):	**03/20**
Administration Approval:	**08/21**
Professional Affairs Committee Approval Date(s):	**n/a**
Board of Directors Approval Date(s):	

~~A. **PURPOSE:**~~

~~1. To set forth guidelines to utilize by Security officers when confronted with a Power Outage at the Medical Center.~~

~~B. **POLICY:**~~

~~1. It is the policy of the Security department to maintain as safe an environment as possible for all medical staff, patients and visitors in all area's of the Medical Center.~~

~~C. **PROCEDURE:**~~

~~1. Upon either notification or observation of any type of Power Outage, the Security Officer will immediately notify the on duty Security Supervisor, the on duty Plant Operating Engineer and the on duty Administrative Coordinator. A detailed Daily Security Report entry will be made by the duty security officer.~~

~~2. The initiating Security Officer will be responsible to obtain a repair status update in three (3) hours of the initial contact with the Operating Engineer. This information will be immediately forwarded to the Director of Security.~~

~~3. If the Operating Engineer determines that the outage can't be immediately repaired, the Shift Supervisor or the Senior Security officer will assign the available manpower to employee parking areas, for escort/security duty.~~

~~4. All officers assigned to a parking area WILL wear a orange reflective vest and attempt to maintain a position of high visibility.~~

~~5. A detailed AGENT'S REPORT regarding the outage will be prepared by the initiating Security Officer and forwarded to the Director of Security.~~

~~6.~~1. ~~It will be the responsibility of the Senior Shift Security officer to PASS ON the pertinent fact of this power outage to the oncoming Security Officers.~~

Tri-City Medical Center
Oceanside, California

ENGINEERING
EMERGENCY PREPAREDNESS

~~TRI-CITY MEDICAL CENTER~~ ~~Engineering Policy & Procedure~~	~~Section: ENGINEERING DEPARTMENT~~ ~~Subject: Fire Drill Procedures~~ ~~Policy Number: 8014 Page 1 of 2~~
~~Department: Hospital-Wide~~	~~EFFECTIVE: 7/94~~ ~~REVISED: 3/97; 5/00; 5/03; 12/05; 5/09; 6/12~~

SUBJECT: Fire Drills ~~Procedures~~

ISSUE DATE: 7/94
REVIEW DATE(S):
REVISION DATE(S): 3/97, 5/00, 5/03, 12/05, 5/09, 6/12

Department Approval ~~Date(s)~~:	**03/20**
Environmental Health and Safety Committee Approval ~~Date(s)~~:	**03/20**
Administration Approval:	**08/21**
Professional Affairs Committee Approval ~~Date(s)~~:	**n/a**
Board of Directors Approval ~~Date(s)~~:	

A. **PURPOSE:**
1. The purpose of this policy is to set forth an orderly, systematic method of providing fire response training for the staff of the hospital.

B. **GENERAL INFORMATION:**
1. The hospital is constructed in such a way as to create numerous areas known as smoke compartments. These compartment areas are intended to control smoke spread in the event of a fire.
2. To insure that all hospital staff are involved in fire drills. All fire drills will be held and documented by smoke compartment.

C. **POLICY:**
1. Fire drills are to be held:
   a. Fire drills will be rotated among the three shifts so that each shift will have at least two drills in each calendar quarter.
   b. Fire Drills are to be held in a different smoke compartment each month. Smoke compartments will not be repeated until all compartments have had a drill.
2. Fire drills are to be observed and documented in the following areas:
   a. Smoke compartment where the drill is held.
   b. All smoke compartments immediately adjacent to the compartment where the drill is held. This includes above and below.
   c. Documentation will be done by completing the "Fire Drill Observers Comments" form.
      i. Prior to the drill, these forms are to be distributed by Engineering personnel holding the drill.
      ii. Distribution will be to the person in charge of the unit occupying the smoke

compartments involved in the drill.

iii. Observers comments are to be collected immediately after the drill.

iv. All reports are to be sent to ~~the Director of~~ Engineering **Management**.

3. Observations will be made of the following criteria:
   a. Does the staff know what to do in the event they should discover a fire?
      i. Rescue, Alarm, Contain, Extinguish
   b. Does the staff know what to do if they hear the fire alarm?
      i. Report to your assigned work place, close all doors and wait for instructions.
   c. Does the staff know how to use a fire extinguisher?
      i. Pull the pin, aim at the fire, squeeze the trigger, sweep across fire.
   d. Does the staff know where the nearest fire extinguisher and fire alarm are located?
   e. Does the staff know where transportation equipment is located?
   f. Does the staff know how to use transportation equipment?
   g. Did the staff hear the fire alarm?
   h. Did the staff hear the "code red" announcement?
   i. Did the fire doors close and latch in the area you observed?
   j. Does the staff know their evacuation location?
   k. California Department of Corrections Rehabilitation Unit (CDCR) will collaborate with facilities when conducting fire drills.

D. FORM(S):

1. Fire Drill & Event Form

2. Observer's Report

~~k.~~3. Fire Drill Procedure

FORM: Fire Drill & Event Form

MEDICAL CENTER/FIRE DRILL EVENT				
Date:	Time:	QTR:	Zone:	Location:

METHOD OF ACTIVATION					
SMOKE DETECTOR	#	Silent Drill (During Quiet Hours)		Fire Drill	
PULL STATION	#	Other		Fire Event	

SCENARIO OR CAUSE OF ALARM:	
"All Clear" Authorized by:	Time of "All Clear":

ENGINEERING STAFF OBSERVATIONS	YES	NO	NA
Were all doors and windows closed to prevent the spread of smoke and fire?			
Did staff use the alarm pull station or dial the correct extension?			
Did first contact person alert the other staff?			
Did the automatic fire doors close and latch properly?			
Did security meet the fire department at the main entrance?			
Was the alarm system audible/ visible?			
Did staff respond according to R.A.C.E.?			
Was the staff familiar with the location and use of the fire extinguishers?			
Did the staff know or demonstrate where to evacuate patients if needed?			
Were corridors clear of clutter?			
Was staff aware of who is authorized to shut off med gases?			
Was staff trained when deficiencies were observed?			
Did PBX Operators respond and give the correct fire location?			
Was alarm notification received with monitoring station (S.T.O.P.)? **attach monitoring station notification form.* (CP FAX# 760-940-3435)			

Description or Deficiencies:
Corrective Actions:

Fire Drill Responder's Signatures.		

Recommendation to Safety Committee?	Yes		No		
Follow up training recommended?	Yes		No		

Engineer Printed Name:	Signature:
Safety Officer/Designee Printed Name:	Signature:

FORM: Fire Drill Observer's Report

TRI-CITY MEDICAL CENTER/FIRE DRILL OBSERVERS REPORT				
Date:				
Time:				
Fire Drill Location:				
Observer's Location:				
Observer's Printed Name:	**Observer's Signature:**			
Item	**Observer's Findings**	**YES**	**NO**	**NA**
1	Were all doors and windows closed to prevent the spread of smoke and fire?			
2	Did the automatic fire doors close and latch properly?			

3	Was the alarm system audible/ visible?			
4	Did staff respond according to R.A.C.E.?			
5	Was the staff familiar with the location and use of the fire extinguishers?			
6	Did the staff know or demonstrate where to evacuate patients if needed?			
7	Were corridors clear of clutter?			

Observed Deficiencies or Recommendations:

Corrective Actions (To be completed by Facilities Management)

FORM: Fire Drill Procedure

Tri City Medical Center

Fire Drill Protocols and Procedures

Fire drills will be conducted at a minimum of 2 per shift per quarter. The shifts consist of:

- A.M. = 0700-1500.
- P.M. = 1500-2300.
- Night = 2300-0700.

Night Shift

Night shift drills do not require activation of the Fire Alarm System. This portion should be simulated as not to disturb patients. However, notification and location during the Night Shift drills is to be made via Overhead page by the PBX Operator. These drills will be identified as "Silent Drills" on the Fire Drill reports.

To Conduct a Fire Drill

1. Use the Fire Drill Schedule for the current year to identify the location for the next required drill. Locate the compartment in the smoke compartment maps located in this binder.

2. Send out an email to Administration 24 hours prior to conducting the drill. See the Fire Drill Notifications page for detailed instructions. Try to avoid scheduling a drill during Building Maintenance break times. Break times are 09:00-09:30, 12:00-13:30, 14:00- 14:30.
3. Notify the Central Station at SSD (800-888-0444) within 30 minutes of the test. Do not put the system on test. Just let them know that you will be conducting a test. (See Fire Drill Notifications page)
4. Gather the following forms: Fire Drill/Event Form – 1 each
   Observers Report – 2 per adjacent compartment (6 maximum)
5. Distribute Observer's Reports to two people per adjacent smoke compartments.
6. Conduct the Fire Drill. Complete the Fire Drill/Event Report. Gather the Observer's reports from the adjacent compartments. Submit the reports to the Engineering Supervisor's desk for review. Alert the Supervisor to any issues that arose during your drill. Issues found must be corrected as soon as possible.
7. Deliver your completed report to the Engineering Supervisor.
8. Supervisor- Contact SSD and ask for an activity report for the date and time that the drill or event occurred. Once received attach the report to the completed Drill or Event report.
9. Supervisor- Correct any deficiencies listed in the report. Note the corrections in the report.
10. File the report in the current Fire Drill/Event Log.

To Report A Fire Event

1. Complete a Fire Drill/Event Report and list as much information as possible in the Description or Deficiencies section. Observer's reports are not needed in this case.
2. Supervisor- Contact SSD and ask for an activity report for the date and time that the event occurred. Once received attach the report to the completed Drill or Event report.
3. Supervisor- Correct any deficiencies listed in the report. Note the corrections in the report.
4. File the report in the current Fire Drill/Event Log.

The Joint Commission EC.02.03.03 EP 1-5

NEPA 101 Life Safety Code 2000ed 21.7.1.2-3

DELETE – Not needed.

~~TRI-CITY MEDICAL CENTER~~ ~~Engineering Policy & Procedure~~	~~Section: ENGINEERING DEPARTMENT~~ ~~Subject: Definitions of Utility Failure~~ ~~Policy Number: 8020 Page 1 of 1~~
~~Department: Engineering~~	~~EFFECTIVE: 9/94~~ ~~REVISED: 2/97; 5/00; 5/03, 5/06; 5/09; 6/12~~

Department Approval:	07/19
Environmental Health and Safety Committee Approval:	09/19
Administration Approval:	08/21
Professional Affairs Committee Approval:	n/a
Board of Directors Approval:	

~~**ELECTRICAL DISTRIBUTION**: One breaker in a distribution panel which would shut down a whole area. Any facility wide failure lasting 10 seconds or more.~~

~~**EMERGENCY POWER**: Any contamination of fuel source, switch gear malfunction, power interruption lasting 10 seconds. Any failure or shutdown during monthly testing or actual use.~~

~~**COMMUNICATION:**~~

~~PBX and Page: Any area loss of overhead paging system~~
~~Phone: Failure of any one switch on the phone system, loss of any one card.~~
~~Nurse Call: Any zone failure (8 – 9 rooms)~~

~~**VERTICAL TRANSPORT**: When 2 out of 4 elevators are inoperable for more than 8 hours.~~

~~**HVAC**: Unscheduled complete shutdown of one chiller or a major air handling unit or air control system.~~

~~**PLUMBING/PORTABLE WATER**: Contamination of the potable water supply. Unscheduled shutdown of a main riser for more than one hour.~~

~~**BOILER HEAT AND STEAM**: Steam pressure below 40, alarm goes off.~~

~~**MEDICAL GAS/O2/NITROUS/VACUUM**: Any time the alarm goes off, contamination, any failed test of the system.~~

~~**SEWER**: Unscheduled shutdown of a main riser for more than one hour.~~

~~**STERILIZERS**: 2 failures in OR, 1 in Lab, 2 in Central Steam.~~

~~**FIRE ALARM AND DETECTION**: Loss or unscheduled shutdown of a zone.~~

~~**FIRE EXTINCTION**: Loss or unscheduled shutdown of a zone.~~

Tri-City Medical Center
Oceanside, California

ENGINEERING
~~EMERGENCY PREPAREDNESS~~OPERATIONS

~~TRI-CITY MEDICAL CENTER~~ ~~Engineering Policy & Procedure~~	~~Section: ENGINEERING DEPARTMENT~~ ~~Subject: Room Temperatures~~ ~~Policy Number: 8021 Page 1 of 1~~
~~Department: Hospital-Wide~~	~~EFFECTIVE: 12/1990~~ ~~REVISED: 9/94; 1/97; 5/00; 11/02; 11/03 ; 5/06; 5/09; 6/12~~

SUBJECT: Room Temperatures

ISSUE DATE: 12/90
REVIEW DATE(S):
REVISION DATE(S): 9/94, 1/97, 5/00, 11/02, 11/03, 5/06, 5/09, 6/12

Department Approval ~~Date(s)~~:	**03/20**
Environmental Health and Safety Committee Approval ~~Date(s)~~:	**03/20**
Administration Approval:	**08/21**
Professional Affairs Committee Approval ~~Date(s)~~:	**n/a**
Board of Directors Approval ~~Date(s)~~:	

A. **POLICY:**

1. In order to provide a comfortable environment and conserve energy, the following are to be adhered to:
   a. Standard setting for thermostats throughout the hospital is 70° F in winter and 74° F in summer.
   b. Patient room units may be set up or down to suit the wishes of the patient.
   c. Temperature in the surgery and delivery rooms must be maintained above ~~64~~ **68** ° F. and below ~~80~~ **75** ° F. The thermostats may be set any where within this range to suit the doctor, nurse or patient concerned.
   ~~c.~~**d. Due to specific use, OR12 must be maintained between 70-75° F.**
   ~~d. Surgery locations, relative humidity will be maintained per the 2001 California Mechanical Code, section 315.1.1 and table 315, 30% - 60% RH. All surgical suites will be monitored, trended and recorded by Plant Operations computer system. Annual calibration of humidistats will be performed to ensure proper function.~~
   e. The NICU ~~N~~**n**ursery temperature should be maintained at ~~75~~ **72** ° F. to 76 ° F. for the comfort of the newborn**s**.
   ~~e.~~**f.** When requests are received from nursing personnel **to adjust temperatures outside of these predetermined parameters,**~~that the area is too warm,~~ they should be informed of the **set ranges as reason why** ~~is fact rather than set~~ the thermostat **can't be adjusted further.**~~down.~~

Tri-City Medical Center
Oceanside, California

ENGINEERING
EMERGENCY PREPAREDNESS

~~TRI-CITY MEDICAL CENTER~~ ~~Engineering Policy & Procedure~~	~~Section: ENGINEERING DEPARTMENT~~ ~~Subject: Ordering Supplies~~ ~~Policy Number: 8024 Page 1 of 1~~
~~Department: Engineering~~	~~EFFECTIVE: 5/08~~ ~~REVISED: 6/12~~

SUBJECT: Ordering of Critical Supplies

ISSUE DATE: 5/08
REVIEW DATE(S):
REVISION DATE(S): 6/12

Department Approval ~~Date(s)~~:	**03/20**
Environmental Health and Safety Committee Approval ~~Date(s)~~:	**03/20**
Administration Approval:	**08/21**
Professional Affairs Committee Approval ~~Date(s)~~:	**n/a**
Board of Directors Approval ~~Date(s)~~:	

A. **PURPOSE:**

1. To ensure that the hospital can operate when **critical** supplies are **consumed or** disrupted during **a** disaster.

B. **POLICY:**

1. Facilities ~~Manger/Supervisor~~**Management will** ~~to~~ closely monitor fuel, medical gases and other essential supplies.
2. ~~The Plant Operator to order~~ **D**diesel fuel ~~to~~ **levels should** maintain at least 12,600 gallon**s between the two** ~~in the~~ tank**s**.
3. Order bulk oxygen before the tank level drops to 32"
4. **Ordering of other essential supplies will be coordinated Supply Chain Management and vendors to maintain adequate levels.**

Tri-City Medical Center
Oceanside, California

ENGINEERING
~~GENERAL ADMINISTRATIVE~~OPERATIONS

SUBJECT: Breached Medical Gas Lines

ISSUE DATE: 11/87
REVIEW DATE(S):
REVISION DATE(S): 9/94, 1/97, 5/00, 5/03, 6/06, 6/09, 8/11, 6/12, 04/16

Department Approval ~~Date(s)~~:	~~03/16,~~ 03/20
Environmental Health and Safety Committee Approval ~~Date(s)~~:	~~03/16,~~ 04/20
Administration Approval:	08/21
Professional Affairs Committee Approval ~~Date(s)~~:	04/16
Board of Directors Approval ~~Date(s)~~:	04/16

A. **PURPOSE:**

1. Any medical gas lines that are repaired, added or replaced shall be tested for purity and contamination before being allowed for patient usage.
2. This policy includes oxygen, nitrous oxide and medical air.
3. All documentation of testing will be retained in the Engineering Department.
4. All testing will be scheduled by ~~Projects~~ **Engineering** Department and performed by a Certified Medical Gas Testing Company.

Tri-City Medical Center
Oceanside, California

ENGINEERING
EMERGENCY PREPAREDNESS

SUBJECT: Code Green Policy

ISSUE DATE: 8/91 **POLICY NUMBER: 8007**
REVIEW DATE(S): 08/15
REVISION DATE(S): 3/94, 3/97, 5/00, 5/03, 5/06, 5/09, 6/12, 10/15

Department Approval ~~Date(s)~~:	**~~08/15,~~ 03/20**
Environmental Health and Safety Committee Approval ~~Date(s)~~:	**~~09/15,~~ 04/20**
Administration Approval:	**08/21**
Professional Affairs Committee Approval ~~Date(s)~~:	**10/15**
Board of Directors Approval ~~Date(s)~~:	**10/15**

A. **PURPOSE:**
1. To establish guidelines to follow in the event of an oxygen system failure

B. **POLICY:**
1. The responsibility of providing emergency sources of oxygen in the event of a failure of the normal oxygen supply system is coordinated between Engineering and Pulmonary Services with the support of Security, Nursing, and notification by PBX. Department Directors will be notified and further activation of the disaster call back tree will be implemented depending upon the scope of the event and the available personnel. Documentation of the emergency with all pertinent details and outcomes, including any adverse patient reactions, will be completed by the above.

C. **RESPONSIBILITY:**
1. PULMONARY SERVICES is responsible for:
   a. Notifying the PBX operator (66) of Code Green and location
   b. Providing patients with oxygen from portable tanks and manually ventilating them if necessary in coordination with nursing
   c. Initially activating the emergency H-cylinder back-up system for the affected area
   d. Coordinating action plan with Engineering
   e. Monitoring continued use and need for more H-cylinders
   f. Communicating the situation to the Department Director and activating the Disaster Call Back as necessary
2. ENGINEERING DEPARTMENT is responsible for:
   a. Troubleshooting and repairing the oxygen system
   b. Determining if designated valves need closing and for the proper actuation of the appropriate valves
   c. Coordinating action plan with Pulmonary Services
   d. Aiding in the replenishment of H-cylinders
   e. Notifying the oxygen supply company and arranging for additional oxygen
   f. Communicating the situation to the Department Director and activating the Disaster Call Back as necessary
3. NURSING SERVICES is responsible for:
   a. Notifying PBX (66) of O2 pressure alarm and location if Facilities is unaware.
   b. Oversight of clinical issues; communicating patient oxygen needs to Respiratory Care Practitioners (RCP)
   c. Assisting RCPs in providing E cylinders and/or manually bagging patients as necessary

d. Communicating the situation to the Department Director and activating the Disaster Call Back as necessary

4. SECURITY is responsible for:
   a. Providing immediate response to affected area
   b. Providing a spare walkie-talkie to the RCP Supervisor or Lead in that affected area
   c. Assisting Engineering (back-up for night shift)
   d. Communicating the situation to the Department Director and activating the Disaster Call Back as necessary
5. PBX OPERATOR is responsible for:
   a. Announcing CODE GREEN and LOCATION on the overhead paging system
   b. ~~Beeping~~ **Notifying** the Pulmonary Supervisor/Lead Therapist, Engineering, and ~~Nursing~~ **Administrative** Supervisor immediately upon notification of CODE GREEN. ~~with the message 2222~~

D. **PROCEDURE:**

1. CODE GREEN and location is communicated by PBX Operator who ~~pages~~ **notifies** Engineering, Pulmonary and Administrative Supervisor
2. Security and Pulmonary respond to affected area; Security provides walkie talkie to RCP Supervisor/Lead
3. Once the Engineers have shut down the affected zone valves, the RCPs shall place the emergency H-cylinder connector into an available wall outlet and slowly open the cylinder valve to re-pressurize the zone.
4. RCP Supervisor communicates and coordinates action plan with Engineering via channel 1 on walkie talkie
5. RCPs communicate with nursing in affected area to assure that patient **oxygen** ~~O_2~~ needs are met
6. H-cylinders are monitored for pressure levels; Engineering assists with additional H-cylinders and vendor ordering if needed
7. CODE GREEN is deactivated with notification from Engineering that the system has been charged to full operating pressure utilizing normal or alternate bulk oxygen sources.

E. **LOCATIONS OF EMERGENCY CYLINDERS:**

1. Pavilion: Rooms 277&278 - ~~(~~2 oxygen H-cylinders in each room~~)~~.
2. South Tower; 1st room on left in ILU ~~– code 0106~~ ~~(~~4 H-cylinders~~)~~.
3. ~~Middle~~ **Center** Tower: Pulmonary 2 South – 1 H-cylinder
4. NICU: 1 Air H-cylinder and 1 oxygen H-cylinder in ABG lab.
5. 1 North /Rehab: Dirty utility room – 2 oxygen H-cylinders.
6. Emergency Room: Dirty utility room – ~~code 7720 –~~ 3 oxygen H-cylinders.

Tri-City Medical Center
Oceanside, California

ENGINEERING
GENERAL ADMINISTRATIVE

DELETE – Information in EOC Hazardous Material and Waste Management and Communication Plan.

SUBJECT: Contractors- Hazard Communications Program

ISSUE DATE: 9/94
REVIEW DATE(S):
REVISION DATE(S): 1/97, 5/00, 5/03, 6/06, 6/09, 8/11, 6/12

Department Approval Date(s):	03/16
Environmental Health and Safety Committee Approval Date(s):	03/16
Administration Approval:	08/21
Professional Affairs Committee Approval Date(s):	04/16
Board of Directors Approval Date(s):	04/16

~~A. **POLICY:**~~

~~1. It is the responsibility of the contracting engineer to provide on-site contractors with the following information:~~

~~a. Hazardous chemicals to which they may be exposed while on the job site.~~

~~b. Precautions the contractor and his/her employees may take to lessen the possibility of exposure by usage of appropriate protective measures.~~

~~2. It is the responsibility of the contracting engineer to contact each contractor before work is started to gather and disseminate information concerning hazards which the contractor will bring into the workplace.~~

~~3. Compliance with the OSHA Hazard Communications Standard is certified by:~~

~~Name, Title~~

~~Date~~

Tri-City Medical Center
Oceanside, California

ENGINEERING
GENERAL ADMINISTRATIVE

SUBJECT: Contractors Working in the Facility

ISSUE DATE: 09/94
REVIEW DATE(S):
REVISION DATE(S): 01/97, 05/00, 05/03, 10/05, 06/09, 08/11, 6/12, 04/16

Department Approval Date(s):	~~03/16,~~ 03/20
Environmental Health and Safety Committee Approval Date(s):	~~03/16,~~ 04/20
Administration Approval:	08/21
Professional Affairs Committee Approval Date(s):	04/16
Board of Directors Approval Date(s):	04/16

A. **POLICY:**

1. All contractors will coordinate all work within Tri-City Healthcare District **(TCHD)** ~~Facilities~~ **facilities** with the Engineering **Department** before beginning work.

B. **PROCEDURE:**

1. Before beginning work, all contractors shall check in at the Engineering office to obtain ID badges. The outside contractor will supply the following information: scope of work, authorization, duration and any pertinent information that is required.
2. All contractors who need to be in the hospital for more than fours hours are required to view the infection control video and ~~take~~ **complete** hospital orientation.
3. All contractors shall follow the hospital infection control ~~policy~~**practices**.
4. All contractors shall work as professionally as possible so as not to aggravate patients, staff and visitors.
5. All contractors shall follow the hospital ~~smoking~~ policy **that prohibites smoking**.
6. If special parking is required, permission shall be granted and coordinated through Engineering.
7. All contractors are to maintain their work area as clean as possible while working and clean up thoroughly when finished.
8. If any utilities or critical systems are to be interrupted, notification of Engineering personnel is mandatory. Engineering personnel will in turn assist.
9. All contractors are asked to use competent subcontractors on hospital projects. Poor work practice will not be tolerated.
10. All contractors are expected to use courtesy. Loud and abusive language will not be tolerated.
11. Contractors must provide assurance not to block corridors and fire exits.
12. Any life safety code violations incurred during construction or renovation will result in close coordination with Engineering's interim life safety measures.
13. All contractors working above the ceiling ~~are~~ **may be** required to **obtain an Above Ceiling Work Permit.** ~~replace a~~**A**ll disturbed ceiling tile**s must be replaced**.
14. Any work involving penetration of firewalls needs to obtain Fire Wall Penetration Permit from Engineering Department. All penetrations in fire/smoke partitions are to be sealed with fire caulk and inspected by engineering staff before final payment is made.
15. Any hot work requires a Hot Work Permit that can be obtained at Engineering.
16. Upon completion of daily activities contractors are asked to check out and report progress to Engineering.

C. **FORM(S):**

1. **Fire Wall Penetration Permit**
2. **Above Ceiling Work Permit**
3. **Hot Work Permit**

FIRE WALL PENETRATION PERMIT

In the interest of Fire & Life Safety this facility requires all Contractors to file a Fire Wall Penetration Permit with the Facilities Management Department.

This Permit pertains to any work done by a Contractor that necessitates penetrating a fire rated wall, floor or ceiling assembly.

This facility requires the Contractor to return the penetrated assembly to its original rating by using tested and approved Firestop methods.

The Contractor is responsible to obtain the items necessary to perform a compliant fire wall penetration. The following items need to be submitted along with this permit in order for the permit to be issued: UL Listing to be used, floor plan showing locations of each penetration.

A copy of this permit needs to be taped to the ladder while working. Failure of having this permit posted will result in an immediate work stoppage for at least one day.

Please complete the information below and return it to the Facilities Management Office.

CONTRACTOR'S COMPANY NAME: _____

ON SITE CONTACT'S NAME & PHONE #: _____

JOB LOCATION: _____

BRIEF DESCRIPTION OF JOB: _____

_____

_____

BASE MATERIAL TO BE PENETRATED: **Gypsum** **Plaster** **Concrete** **CMU**

PENETRATING ITEM: **Metal pipe** **Insulated metal pipe** **Ductwork** **Cables/trays** **Other (specify)**

HAVE YOU BEEN CERTIFIED TO INSTALL FIRESTOP? **Yes** **No**
IF YES, METHOD (Provide copy of proof)

_____

Date: _____

Permit Approved By: _____ **Contractor Requesting:** _____

Post Inspection By: _____ **Date:** _____

ABOVE CEILING PERMIT

In the interest of Fire & Life Safety, this facility requires all Contractors to file an Above Ceiling Permit with the Facilities Management Department before doing any work in the ceilings.

A copy of this permit needs to be taped to the ladder while working. Failure of having this permit posted will result in an immediate work stoppage for at least one day.

Please complete the information below and return it to the Facilities Management Office.

CONTRACTOR'S COMPANY NAME: _____

ON SITE CONTACT'S NAME & PHONE #: _____

JOB LOCATION: _____

BRIEF DESCRIPTION OF JOB: _____

WILL YOU BE INSTALLING ANY ANCHORS? _____

WILL YOU NEED TO MODIFY ANY EXISTING ABOVE CEILING INSTALLATIONS? _____

WILL YOU NEED TO PENETRATE ANY FIRE WALLS? __

BASE MATERIAL TO BE PENETRATED: **Gypsum** **Plaster** **Concrete** **CMU**

PENETRATING ITEM: Metal pipe **Insulated metal pipe** **Ductwork** **Cables/trays** **Other (specify)**

HAVE YOU BEEN CERTIFIED TO INSTALL FIRESTOP? **Yes** **No**
IF YES, METHOD (Provide copy of proof)

This facility requires the Contractor to return the penetrated assembly to its original rating by using tested and approved Firestop methods.

The Contractor is responsible to obtain the items necessary to perform a compliant fire wall penetration. The following items need to be submitted along with this permit in order for the permit to be issued: UL Listing to be used, floor plan showing locations of each penetration.

Date:_____

Permit Approved By: _____ **Contractor Requesting:**_____

Post Inspection By: _____ **Date:** _____

Tri-City Medical Center
Facilities Management / Construction

PERMIT FOR WELDING-CUTTING-HOT WORK

BEFORE STARTING HOT WORK, REVIEW ALL SAFETY PRECAUTIONS. CAN THIS WORK BE AVOIDED OR IS THERE A SAFER WAY?

THIS PERMIT IS REQUIRED FOR ANY TEMPORARY OPERATION INVOLVING OPEN FLAME OR PRODUCING HEAT AND/ SPARKS: WELDING,CUTTING, BRAZING, GRINDING, SOLDERING, OR USING TORCH TO THAW PIPING OR HEAT MATERIAL. THIS PERMIT APPLIES TO ONLY THIS JOB, IN THE AREA SPECIFIED, DURING THE TIME AND DATE NOTED.

INSTRUCTIONS

SUPERVISOR:

1. Complete PRECAUTION & SAFEGUARD CHECKLIST at right.
2. Complete form, copy, retain original.
3. Issue copy to competent person doing job.
4. Verify FIRE WATCH.

HOT WORK TO BE DONE BY:

☐ Employee.
☐ Contractor:

_____

LOCATION:

_____

WORK TO BE DONE:

_____

PERSON DOING JOB:

_____

_____Signed

Signed:(Supervisor)

_____

I have verified that the above location has been inspected and the required PRECAUTIONS and SAFEGUARDS have been taken. Permission is authorized only for the above work.

PRECAUTIONS & SAFEGARDS CHECKLIST

☐ SPRINKLER PROTECTION in service and extinguisher available.
☐ Hot work equipment in good repair.

REQUIREMENTS WITHIN 50FT OF WORK

☐ Flammable liquids and combustible material removed from area.
☐ Floors swept and overhead structure cleaned from dust, lint and debris.
☐ Fire resistive covers and metal shields provided as needed.
☐ All floor and wall openings covered and/or protected
☐ WALLS/CEILINGS: Remove combustibles away from opposite side or adjacent structures.

WORK ON ENCLOSED EQUIPMENT

☐ Adequate ventilation provided.
☐ Thoroughly clean and remove all flammables and combustibles
☐ Atmosphere checked with gas detector.
☐ Purge any flammable vapors.
☐ Confirmed space/lockout permits, if required.

FIRE WATCH

☐ Trained and equipped Fire Watch provided during operations and at least 30 minutes after.

SPECIAL INSTRUCTIONS: _____

_____

_____

PERMIT EXPIRES	DATE	TIME	FINAL CHECK-UP	DATE	TIME

WORK COMPLETE	DATE	TIME			
SIGNED: (WELDER)			SIGNED (INSPECTOR)		

~~16.~~

Tri-City Medical Center
Oceanside, California

ENGINEERING
GENERAL ADMINISTRATIVE

SUBJECT: Daily Journal

ISSUE DATE: 11/87
REVIEW DATE(S):
REVISION DATE(S): 10/94, 01/97, 05/00, 05/03, 06/06, 06/09, 08/11, 06/12, 04/16

Department Approval Date(s):	~~03/16,~~ 03/20
Environmental Health and Safety Committee Approval Date(s):	~~03/16,~~ 04/20
Administration Approval:	08/21
Professional Affairs Committee Approval Date(s):	04/16
Board of Directors Approval Date(s):	04/16

A. **PURPOSE:**

1. The purpose of this instruction is to develop and execute a standard procedure to record and maintain a permanent record of significant occurrences within Engineering Department. The journal will be kept in the Plant Operations division of Engineering.

B. **PROCEDURE:**

1. The journal contains a log sheet for each day of the year.
2. The following procedures and information will be included in the journal:
   a. All equipment failure, estimate of time for completion of repairs and when the piece of equipment has been repaired.
   b. Major equipment in operation or shifted.
   c. Tests and inspections.
   d. Report of injury and cause to personnel in the Engineering.
   e. Safety hazards and the appropriate corrective action taken.
   f. Service calls or inspections by contract insurance company and regulatory agencies that are visiting the hospital.
   ~~f.~~**g. Any calls made to Engineering Management regarding critical equipment issues or failures.**
3. Journal will start with the beginning of each shift.
4. All department personnel will coordinate with "duty engineer" the entries of significance that should be recorded in the journal at the end of the working shift.
5. Entries shall be made in ink - no erasures. If a change is to be made, draw a line through the item and put your initials beside it.
6. The journal will be reviewed by ~~Facilities Manager or his/her designe~~**Engineering Managemente** on a regular basis to insure all significant problems, safety hazards or recommendations has been properly resolved.

Tri-City Medical Center
Oceanside, California

ENGINEERING
EQUIPMENT

SUBJECT: Designing & Installing Utility Systems

ISSUE DATE: 12/15
REVIEW DATE(S):
REVISION DATE(S):

Department Approval ~~Date(s)~~:	~~08/15,~~ 03/20
Environmental Health and Safety Committee Approval ~~Date(s)~~:	~~10/15,~~ 03/20
Medical Executive Committee Approval ~~Dates(s)~~:	n/a
Administration Approval:	08/21
Professional Affairs Committee Approval ~~Date(s)~~:	11/15
Board of Directors Approval ~~Date(s)~~:	12/15

A. **POLICY:**

1. It is the policy of the Tri-City Health District (TCHD) to select and install utility equipment that best meets patient care and operational needs.

B. **PURPOSE:**

1. This is accomplished through a proactive approach of evaluating & selecting the best quality and most cost effective equipment utilizing qualified personnel for determining appropriate utility needs, designing well engineered and suitable mechanisms for utility provision, and assuring the safe operation of all new and existing equipment via aggressive adherence to a detailed preventative maintenance program. The Engineering Department will work in conjunction with professional engineers, qualified contractors and designers / architects, reputable vendors, internal infection control, personnel, nursing management and trained & professional facilities mechanics and engineers in order accomplish these tasks.

C. **PROCEDURE:**

1. The selection, acquisition, and installation of all critical utility equipment will be evaluated for specific use and location. The Capital Committee & Engineering Department will evaluate all requests of new utility systems based on the recommendations of the following individuals:
   a. Requesting department head(s)
   b. Engineering Management & Administration
   c. Hospital architect(s) & designers
   d. Professional Engineers and Installation Contractors with an extensive history working with health care utility systems.
   e. Infection Control practitioner
   f. Materials Management
   g. Code experts and outside consultants
   h. OSHPD (Office of Statewide Health Planning and Development)
2. These systems shall undergo a detailed review for appropriate design, specifications, and suitability for providing the advanced needs of current, state of the art patient care. Input from each of the above members shall be sought to ensure that each change or modernization of the current utility systems is designed to assure it meets the needs of occupants.
3. Each new utility, once acquired and installed, shall undergo a preoccupancy operational test prior to occupying and or using the newly installed utility equipment. Final use of new utility equipment in renovated spaces shall also undergo the approval of the appropriate regulatory

agencies. In the event of a negative test result or the discovery of a system that is not functioning properly, the Engineering Department shall reconvene those responsible individuals to oversee possible solutions.

4. Preventative Maintenance shall be performed at specified intervals as deemed appropriate by the manufacturer recommendation or alternate maintenance strategy. This maintenance will be the responsibility of trained, professional hospital maintenance **personnel**. Increased testing and inspections of systems may occur due to the outcome of inspection or testing analysis.
5. In the event of adverse test results or the discovery of a system that is not functioning properly, the Engineering Department shall reconvene ~~those~~ responsible individuals to oversee possible solutions.

Tri-City Medical Center
Oceanside, California

ENGINEERING
OPERATIONS

SUBJECT: Domestic Hot Water Temperature

ISSUE DATE: 11/87
REVIEW DATE(S):
REVISION DATE(S): 09/94, 01/97, 05/00, 05/03, 06/06, 06/09, 08/11, 06/12, 04/16

Department Approval ~~Date(s)~~:	~~03/16,~~ 03/20
Environmental Health and Safety Committee Approval ~~Date(s)~~:	~~03/16,~~ 04/20
Administration Approval:	08/21
Professional Affairs Committee Approval ~~Date(s)~~:	04/16
Board of Directors Approval ~~Date(s)~~:	04/16

A. **PURPOSE:**
1. To define the acceptable range in temperature of domestic hot water throughout the facility.

B. **POLICY:**
1. The temperature of hot water (domestic hot water) in this facility shall be maintained between 105 and 120 degrees Fahrenheit.
2. Any taps delivering water at a temperature exceeding 125 degrees Fahrenheit will be prominently marked.

C. **PROCEDURE:**
1. The temperature of domestic hot water is tested on regular basis by the Plant Operators.
2. Legionella testing is scheduled by ~~the Facilities Manager or his/her designee~~**Engineering Management** on as needed basis and performed by a qualified Contractor.

Tri-City Medical Center
Oceanside, California

ENGINEERING
EQUIPMENT

ISSUE DATE: NEW

SUBJECT: Emergency Eyewash Shower and Flushing Stations

REVISION DATE(S):

Engineering Content Expert Approval:	09/18
Environmental Health & Safety Committee Approval:	03/20
Administration Approval:	08/21
Professional Affairs Committee Approval:	
Board of Directors Approval:	

A. **PURPOSE:**

1. This Standard practice provides minimum requirements for performance, use and testing of equipment that is used for emergency drenching and/or flushing of the eyes and body

B. **POLICY:**

1. It is the policy of Tri-City Healthcare District (TCHD) that suitable emergency eyewash, shower and flushing equipment be provided in areas where there is reasonable potential for exposure to injurious corrosive materials. All personnel who may need to use the emergency eyewash, shower or flushing equipment are to be trained on its location and use.

C. **GUIDELINES:**

1. Immediate and proper use of emergency drenching and flushing is essential to minimizing injury upon injurious corrosive chemical contact. The following guidelines should aid in minimizing injury due to contact with corrosive materials.
2. Use of Emergency Eyewash / Shower:
   a. Flush eyes and/or skin for at least 15 minutes.
   b. If using a portable eyewash station, follow manufacturer guidelines on bottle.
   c. Hold eyelids open with fingers so flushing fluid can fully irrigate the eyes. Nearby staff should be prepared to assist with holding the eyelids open and other staff may be needed to assist with keeping the person under the flushing fluid for 15 minutes.
   d. Immediately remove contaminated clothing. Do this while under a shower when gross contamination has occurred. Have someone assist with clothing removal when possible and use a blanket or other article as a shield to provide privacy to the person under the emergency shower.
3. The Engineering Department is responsible for making sure that flushing, inspection, and repair of the emergency drenching and flushing equipment occurs. The minimum flushing and inspection requirements are as follows:
   a. Plumbed eyewash and eye/face wash stations must be activated and flushed once per week. Flush for a duration of at least five minutes.
   b. Inspect eyewash stations while flushing to make sure that water raises approximately equal heights and that fluid flow is sufficient to flush both eyes simultaneously while at a velocity low enough to be non-injurious to the user.
   c. Each eyewash station must be reviewed weekly to make sure components are in place, inspect for leaks or pipe damage, proper placement of protective covers and the station is readily accessible with no obstacles.
   d. Plumbed emergency showers and drench hose stations must be activated and flushed once per month.

e. Testers must sign their initials and date inspected on tags to inform users of the most recent inspection and the unit is safe and ready for use.

f. Failed inspections/testing will be corrected immediately when deficiencies are noted. If deficiencies cannot be immediately corrected, tag the unit "DO NOT USE" & notify department staff.

D. **REFERENCE(S):**

1. ANSI Standard Z358.1-1998
2. Barclay's California Code of Regulations. Title 8 p. 5152
3. OSHA Standard 29 CFR 1910.151

Tri-City Medical Center
Oceanside, California

ENGINEERING OPERATIONS

SUBJECT: Emergency Generator Test Loads

ISSUE DATE: 11/94
REVIEW DATE(S):
REVISION DATE(S): 01/97, 05/00, 05/03, 06/06, 06/09, 08/11, 06/12, 04/16

Department Approval ~~Date(s)~~:	**~~03/16,~~ 03/20**
Environmental Health and Safety Committee Approval ~~Date(s)~~:	**~~03/16,~~04/20**
Administration Approval:	**08/21**
Professional Affairs Committee Approval ~~Date(s)~~:	**04/16**
Board of Directors Approval ~~Date(s)~~:	**04/16**

A. **POLICY:**

1. Required test loads for the emergency generators have been calculated by the following method as set forth by National Fire Protection Association (NFPA) 110.
2. All transfer switches are identified as to which generator with they were associated.
3. Each transfer switch actual load was recorded on each phase for 72 hours while being supplied by San Diego Gas & Electric (SDG&E). Recordings were made in amps.
4. Recorded actual loads were then totaled for each phase per generator.
5. Required test load is 30% of name plate rating in amps.
~~5.~~**6. If 30% test is not achieved, load bank testing will be completed annually.**

#1 GENERATOR NAME PLATE DATA: 400KW 500KVA 1384A				
	PHASE			
ACTUAL LOAD:	A	B	C	Average
	685.5	672.3	600.6AMPS	652.8A
Required load = 30% of name plate amps = 415 amps				
#2 GENERATOR NAME PLATE DATA: 400KW 500KVA 1388A				
	PHASE			
ACTUAL LOAD:	A	B	C	Average
	331.1	300.0	504.2AMPS	378.4A
Required load = 30% of name plate amps = 417 amps				
#3 GENERATOR NAME PLATE DATA: 600KW 750KVA 2082A				
	PHASE			
ACTUAL LOAD:	A	B	C	Average
	234.4	189.8	206.0AMPS	210A
Required load = 30% of name plate amps = 625 amps				
#4 GENERATOR NAME PLATE DATA: 1000KW 1250KVA 1503A				
	PHASE			
ACTUAL LOAD:	A	B	C	Average
	312.1	327.3	302.2AMPS	313.8A
Required load = 30% of name plate amps = 451 amps				
CENTRAL PLANT GENERATOR NAME PLATE DATA: 800KW 1000KVA 1203A				
	PHASE			
ACTUAL LOAD:	A	B	C	Average
	41.1	46.2	41.6AMPS	42.9A
Required load = 30% of name plate amps = 361 amps				

Tri-City Medical Center
Oceanside, California

ENGINEERING
EMERGENCY PREPAREDNESS

SUBJECT: **Emergency Power Systems**

ISSUE DATE: 12/15
REVIEW DATE(S):
REVISION DATE(S):

Department Approval ~~Date(s)~~:	~~09/15,~~ 03/20
Environmental Health and Safety Committee Approval ~~Date(s)~~:	~~10/15,~~ 04/20
~~Medical Executive Committee Approval Dates(s)~~:	~~n/a~~
Administration Approval:	08/21
Professional Affairs Committee Approval Date(s):	11/15
Board of Directors Approval Date(s):	12/15

A. **POLICY:**

1. Tri-City Healthcare District (TCHD) provides an uninterrupted supply of electrical power for providing patient, visitor, and staff safety.

B. **PURPOSE:**

1. The emergency electrical generators provide emergency power automatically upon failure of commercial power sources. The generators that provide the emergency power are maintained daily and tested monthly to assure a reliable source of emergency power. Automatic transfer switches are checked and operation verified with each test of the generators.
2. Fuel for these generators is maintained on site, and will allow at least 72 hours of independent power operations. Refueling arrangements are maintained with vendors to assure the level of fuel does not fall below this level.
3. The following systems are fed by Emergency Electrical Power:
   a. Alarms Systems
   b. All Elevators
   c. Bone, Blood, and Tissue Storage
   d. Egress Lighting
   e. Emergency & Urgent Care Areas
   f. Emergency Communication System
   g. HVAC Systems for all Patient Care Areas
   h. Illuminated Exit Signs
   i. Kitchen Services
   j. Medical Air Compressors
   k. Medical Vacuum Systems
   l. Laboratory
   m. Negative Pressure Rooms
   n. Nurseries
   o. Obstetrical Delivery Rooms
   p. Operating Rooms
   q. Recovery Rooms
   r. Steam Generation
   s. Surgical Vacuum Systems
   t. Power and Lighting for All Patient Care Areas not listed above

Tri-City Medical Center
Oceanside, California

ENGINEERING
GENERAL ADMINISTRATIVE

SUBJECT: Engineering Hours of Service

ISSUE DATE: 04/90 **POLICY NUMBER:** 1006
REVIEW DATE(S): 08/15
REVISION DATE(S): 09/94, 01/97, 05/00, 05/03, 06/06, 06/09, 08/11, 06/12, 10/15

Department Approval Date(s):	~~08/15,~~ 03/20
Environmental Health and Safety Committee Approval Date(s):	~~09/15,~~ 04/20
Administration Approval:	08/21
Professional Affairs Committee Approval Date(s):	10/15
Board of Directors Approval Date(s):	10/15

A. **PURPOSE:**
1. To define the normal hours of service of the Engineering Department and the procedure for obtaining service outside those hours.

B. **GENERAL INFORMATION:**
1. Emergency Services are those engineering services needed to resolve problems or conditions which pose a threat to patient or employee safety or which may significantly affect the ability of a department or area to carry out an essential function.

C. **POLICY:**
1. The Engineering Department will be available to provide emergency service 24 hours a day, 7 days a week, including holidays.
2. The department will provide routine services and will respond to non-emergent requests for services during its normal hours of services, as specified below.

D. **HOURS OF SERVICE:**
1. Emergency Service - 24 hours per day, 7 days a week
   a. Contact: Engineering Office at extension 7148. Monday through Friday 0730-1600 hours.
      i. Outside above hours, the Duty Engineer may be contacted ~~through the Engineering Office extension 7795 or by pager through the hospital operator.~~**via cell phone at 760-802-2697.**
2. Door key access: Call the Security Office at extension 3366.
3. Routine /Non-emergency Services and Projects:
   a. Submit a work order on the Intranet.
4. Administrative and other Services:
   a. ~~Contact~~**Engineering Office**~~: Director of Engineering~~, Monday through Friday, 0730-1600 at extension **7148.**~~7709.~~
   b. ~~Maintenance~~ **Facilities** Supervisor, Monday through Friday, 0730-1600 at extension 7559.
   c. ~~Central Plant Supervisor~~**Facilities Manager**, Monday through Friday, 0730-1600 at extension 7120.

Tri-City Medical Center
Oceanside, California

ENGINEERING OPERATIONS

SUBJECT: Equipment Repair

ISSUE DATE: 11/87
REVIEW ~~DATE(S)~~:
REVISION ~~DATE(S)~~: 09/94, 01/97, 05/00, 05/03, 06/06, 05/09, 08/11, 06/12

Department Approval ~~Date(s)~~:	**07/16, 03/20**
Environmental Health and Safety Committee Approval ~~Date(s)~~:	**07/16, 04/20**
Administration Approval:	**08/21**
Professional Affairs Committee Approval ~~Date(s)~~:	**~~01/17~~ n/a**
Board of Directors Approval ~~Date(s)~~:	**01/17**

A. **PURPOSE**

1. To outline the procedure by which damaged or malfunctioning equipment will be repaired.

B. **GENERAL INFORMATION:**

1. CMMS- A computerized information system used to facilitate the scheduling, monitoring and documentation of equipment and environmental maintenance.

C. **PROCEDURE:**

1. In response to a work order submitted, the Engineer inspects damaged or malfunctioning equipment to determine what repairs or adjustments are needed, if any.
2. If the Engineer determines that the work cannot be done in house, he/she obtains approval of the Engineering Supervisor to have the work performed by an external vendor.
3. When the work has been completed by the Engineer or the external vendor, the assigned individual documents the repairs made and the date the work was completed on the work order for entry in the CMMS.
4. If the repair work is done at or near the time of the equipment's scheduled preventive maintenance, the preventive maintenance schedule is updated accordingly.
5. ~~If the repairs cannot be completed within 24 hours, the Engineer notifies the user department.~~
6. **5.** If the repair work is performed by an external vendor, the Engineer inspects or tests the equipment upon its return to make certain the repairs have been made properly and that the equipment meets appropriate electrical safety standards before returning it to the user department.
7. **6.** If the Engineer or external vendor determines that the equipment cannot be repaired, the Engineer or Supervisor returns the equipment to the user department with instructions to dispose of it in accordance with ~~TCMC~~ **Administrative** Policy ~~#8610-200~~ "Equipment Transfer, Storage, Trade-in, and Disposal".

Tri-City Medical Center
Oceanside, California

ENGINEERING
OPERATIONS

SUBJECT: ~~Humidity Level Control~~Maintaining Proper Environments in Anesthetizing Locations

ISSUE DATE: 12/09
REVIEW ~~DATE(S)~~:
REVISION ~~DATE(S)~~: 08/11, 06/12, 12/15

Department Approval ~~Date(s)~~:	10/15, 08/19
Environmental Health and Safety Committee Approval ~~Date(s)~~:	10/15
~~Medical Executive Committee Approval Dates(s):~~	~~N/A~~
Administration Approval:	08/21
Professional Affairs Committee Approval ~~Date(s)~~:	11/15
Board of Directors Approval ~~Date(s)~~:	12/15

A. **PURPOSE:**

1. It is the policy of Tri-City Healthcare District **(TCHD)** to maintain temperature**, air exchange rates, air pressure relationships, filtration efficiencies** -and humidity levels suitable for the care, treatment, and service provided in all anesthetizing locations.

B. **POLICY:**

1. **TCHD Engineering Department will maintain and test air exchange rates, air pressure relationships and filtration efficiencies in all anesthetizing locations.**
~~1.~~**2.** The relative humidity and temperature levels in all anesthetizing locations shall be maintained as required by Centers for Medicare & Medicaid Services (CMS) State Operations Manual Appendix A – Survey Protocol, Regulations and Interpretive Guidelines for Hospitals – Survey Procedure 482.41 (c) (3); and CMS categorical LSC waiver detailed in the CMS Survey and Certification Group memo dated April 19, 2013 (Ref. S&C:13-25-LSC & ASC).

C. **PROCEDURE:**

1. **Air Exchange Rates:**
   a. **A qualified air balance testing contractor will be routinely scheduled to verify that air-exchange rates are within compliance.**
   b. **Frequency of the inspections will be based on the equipment performance and reliability.**
2. **Air Pressure Relationships:**
   a. **Plant Operators will check the air pressure relationship monthly to ensure compliance.**
3. **Filtration Efficiencies:**
   a. **Primary filters: all air handler primary filters will be changed every six (6) months.**
   b. **Secondary filters: all air handler filters will be changed every two (2) years (+/- 30 days).**
   c. **High-Efficiency particulate air (HEPA) filters: HEPA filters will be changed every three (3) years (+/- 30 days).**
4. **Temperature and Humidity:**
   ~~1.~~**a.** The Plant Engineering Staff is responsible for maintaining and tracking the relative humidity and temperature levels for all anesthetizing locations.
5. The Building Management System shall be ~~programmed~~ **used** to track and record the relative humidity levels continuously.

6. **Humidity level must be kept above** ~~and alert the duty plant engineer if the humidity level drops below~~ 20%.

~~2.~~**D. IN CASE OF FAILURE:**

1. **If any environmental measures listed in this policy are found to be out of range, the following steps needs to be followed:** ~~Plant Engineering staff shall take corrective actions and notify Surgery Department when the relative humidity level drops below 20%.~~
   a. **Immediately notify Engineering Management**
   b. **Notify affected department or House Supervisor to take the room out of service.**
   c. **Notify Infection Control**

~~3.~~**2. Once the failure is repaired, retest the equipment/room to ensure compliance.**

~~D.~~**E. REFERENCES**:

1. Centers for Medicare & Medicaid Services (CMS) State Operations Manual Appendix A – Survey Protocol
2. Regulations and Interpretive Guidelines for Hospitals – Survey Procedure 482.41 (c) (3)
3. CMS categorical LSC waiver detailed in the CMS Survey and Certification Group memo dated April 19, 2013 (Ref. S&C:13-25-LSC & ASC)

Tri-City Medical Center
Oceanside, California

ENGINEERING
EQUIPMENT

SUBJECT: **Initial Testing of New Utility Components**

ISSUE DATE: 12/15
REVIEW ~~DATE(S)~~:
REVISION ~~DATE(S)~~:

Department Approval ~~Date(s)~~:	**09/15, 3/20**
Environmental Health and Safety Committee Approval ~~Date(s)~~:	**10/15, 03/20**
~~Medical Executive Committee Approval Dates(s):~~	**~~N/A~~**
Administration Approval:	**08/21**
Professional Affairs Committee Approval ~~Date(s)~~:	**11/15**
Board of Directors Approval ~~Date(s)~~:	**12/15**

A. **POLICY:**
1. Each operational component of a utility system on the inventory will be tested to assure all performance and safety specifications are met prior to initial use.
2. Utility Systems include, but are not limited to:
   a. Electrical
   b. HVAC
   c. Plumbing
   d. Steam and Boilers
   e. Medical Gas and Vacuum
   f. Communication
   g. Vertical and Horizontal Transport

B. **TESTING ON DELIVERY:**
1. Each operational component of utility systems will be tested by Engineering Department prior to initial use.
2. All operational components will be inspected upon delivery for damage. Damaged goods will be returned to the supplier.
3. The Engineering Department and the vendor will unpack and inspect the equipment for any damages. In addition, the Engineering Department will determine if all required operating and service information were supplied with the equipment. If any damage is observed, or documentation is missing, the Engineering Department will notify the Purchasing Department. The Purchasing Department will notify the supplier to take necessary action.
4. The Engineering Department will conduct appropriate performance and safety inspections, and calibration checks. When it is determined that the equipment meets all requirements for performance and safety, the Engineering Department will release the equipment for use.
5. The completion date and results of the test will be documented and maintained by the Engineering Department.

C. **TESTING OF INSTALLED SYSTEMS:**
1. All fixed and mounted equipment will be installed as required by contract documents and authorities having jurisdiction.
2. The manufacturer, supplier, or the Engineering Department will install or mount the equipment as required by contract documents and authorities having jurisdiction.
3. All required power and signal lines will be installed and certified as specified and required by

contract documents and authorities having jurisdiction.

4. All fixed and mounted equipment will be tested for performance and safety as specified in the contract documents and authorities having jurisdiction. The Engineering Department and appropriate engineering staff will witness all certification testing and calibration not performed by hospital staff. The manufacturer will be involved in the testing and certification as appropriate.
5. The completion date and results of the test will be documented and maintained by the Engineering Department.

Tri-City Medical Center
Oceanside, California

ENGINEERING
OPERATIONS

SUBJECT: Inspection Testing and Maintenance of Fire Alarm Detection and Automatic Extinguishing System

ISSUE DATE: 5/91
REVIEW ~~DATE(S)~~:
REVISION ~~DATE(S)~~: 09/94, 01/97, 05/00, 05/03, 06/06, 06/09, 08/11, 06/12, 04/16

Department Approval ~~Date(s)~~:	**~~03/16,~~ 03/20**
Environmental Health and Safety Committee Approval ~~Date(s)~~:	**~~03/16,~~ 04/20**
Administration Approval:	**08/21**
Professional Affairs Committee Approval ~~Date(s)~~:	**04/16**
Board of Directors Approval ~~Date(s)~~:	**04/16**

A. **PURPOSE:**

1. To describe the process by which the Fire Alarm Detection and Automatic Extinguishing System will be inspected, tested and maintained.

B. **GENERAL INFORMATION:**

1. Computerized Maintenance Management System (CMMS) - A computerized information system to be used to facilitate the scheduling, maintenance and documentation of equipment testing and inspection.

C. **PROCEDURE:**

1. A qualified service company is contracted to inspect and test the Fire Alarm Detection and Automatic Extinguishing Systems to ensure compliance with Authorities Having Jurisdiction (AHJ). Inspections and tests are conducted in compliance with National Fire Protection Association (NFPA) regulations.
2. Maintenance of these systems is performed by Engineering Engineers and/or qualified service company, as necessary, in compliance with NFPA regulations.

Tri-City Medical Center
Oceanside, California

ENGINEERING
OPERATIONS

SUBJECT: Maintenance and Inspection Electrical Distribution System and Emergency Generator

ISSUE DATE: 11/87
REVIEW ~~DATE(S)~~:
REVISION ~~DATE(S)~~: 09/94, 01/97, 05/00, 05/03, 06/06, 06/09, 08/11, 06/12, 04/16

Department Approval ~~Date(s)~~:	~~03/16,~~ 03/20
Environmental Health and Safety Committee Approval ~~Date(s)~~:	~~03/16,~~ 04/20
Administration Approval:	08/21
Professional Affairs Committee Approval ~~Date(s)~~:	04/16
Board of Directors Approval ~~Date(s)~~:	04/16

A. **PURPOSE:**

1. To describe the process by which the electrical distribution system is maintained and inspected.

B. **GENERAL INFORMATION:**

1. Computerized Maintenance Management System (CMMS) - A computerized information system used to facilitate the scheduling, monitoring, and documentation of equipment and environmental maintenance.

C. **PROCEDURE:**

1. Building Engineers check electrical receptacles in accordance with a scheduled work order produced by the CMMS and indicating the established time frame and maintenance instructions.
2. Work orders for other components of the electrical distribution system, are produced on a pre-programmed schedule by CMMS.
3. Each work order is assigned by ~~the Facilities Manager or his/her designee~~**Engineering Management** to a qualified Engineer.
4. The Engineer performs preventive maintenance (and corrective maintenance if needed), inspects the system, and conducts testing: as specified in the CMMS instruction set printed on the work order.
5. The Engineer prepares and submits to the Engineering Department a work order for any repair work which will take more than thirty minutes to complete or for which he does not have tools or parts readily available.
6. The Engineer completes the Preventative Maintenance Work Order, indicating specific preventive or corrective actions he has taken and noting the date the scheduled maintenance was complete. This information to be entered in the CMMS.
7. The Plant Operations Engineer inspects the generators monthly and tests them under actual load and operating temperature conditions for at least 30 minutes. The tests are documented and the Supervisor reviews these test results to be certain the generators are performing in a reliable manner.

Tri-City Medical Center
Oceanside, California

ENGINEERING
OPERATIONS

SUBJECT: Maintenance and Inspection Medical Gas System

ISSUE DATE: 11/87
REVIEW ~~DATE(S)~~:
REVISION ~~DATE(S)~~: 09/94, 01/97,0z 05/00, 05/03, 06/06, 06/09, 08/11, 05/12, 01/17

Department Approval ~~Date(s)~~:	**~~07/16,~~ 03/20**
Environmental Health and Safety Committee Approval ~~Date(s)~~:	**~~07/16,~~ 04/20**
Administration Approval:	**08/21**
Professional Affairs Committee Approval ~~Date(s)~~:	**01/17**
Board of Directors Approval ~~Date(s)~~:	**01/17**

A. **PURPOSE**:
1. To describe the process by which the medical gas systems are maintained and inspected.

B. **GENERAL INFORMATION**:
1. Computerized Maintenance Management System (CMMS) - A computerized system used to facilitate the scheduling, monitoring and documentation of equipment and environmental maintenance.

C. **POLICY:**
~~1. Normal and reserve supplies.~~
~~2.~~**1.** The Duty Engineer checks the normal and reserve supplies of liquid oxygen once each shift and documents the levels on the daily round sheet. Oxygen is -maintained between 75" and 25".
~~3.~~**2.** It is the responsibility of the Duty Engineer to reorder oxygen when the level is between 25" and 30".
~~4.~~**3.** The Duty Engineer checks the normal and reserve supply of nitrous oxide once each shift and documents the levels on the daily round sheet. Nitrous Oxide is re-ordered when the **established reorder point is reached.** ~~primary supply is exhausted and the secondary supply is activated. The Duty Engineer then shuts off the valve on the empty tanks to prevent backflow.~~ **The reorder point is to be determined based on usage rate and product delivery lead time needed.**
~~5.~~**4.** The Duty Engineer observes the delivery and transfer of oxygen. Invoices indicating volumes and purity delivered are kept on file in the Engineering Department.
~~6.~~**5.** Following periods of construction or evidence (e.g., alarms) that the system has been breached, the medical gas system will be tested by -a 3rd party to verify that the gases being delivered are pure. Documentation of such testing will be kept on file in the Engineering Department.
~~7.~~**6.** A qualified vendor is contracted annually to perform an inspection of all master signals, area alarms, automatic pressure switches, shut off valves, flexible connections, outlets and purity from source in accordance with NFPA to ensure compliance with Authorities Having Jurisdiction (AHJs).

Tri-City Medical Center
Oceanside, California

ENGINEERING
OPERATIONS

SUBJECT: Maintenance and Inspection Medical/Surgical Air and Vacuum System

ISSUE DATE: 11/87
REVIEW DATE(S):
REVISION DATE(S): 9/94, 1/97, 5/00, 5/03, 6/06, 6/09, 8/11, 6/12

Department Approval Date(s):	**03/16, 03/20**
Environmental Health and Safety Committee Approval Date(s):	**03/16, 04/20**
Professional Affairs Committee Approval Date(s):	**04/16**
Board of Directors Approval Date(s):	**04/16**

A. **PURPOSE**:
1. To describe the process by which the medical/surgical and vacuum system is maintained and inspected.

B. **GENERAL INFORMATION**:
1. Computerized Maintenance Management System (CMMS): A computerized information system used to facilitate the scheduling monitoring and documentation of equipment and environmental maintenance.

C. **PROCEDURE**:
1. A work order for preventive maintenance, and /or inspection testing of each component of the medical/surgical air and vacuum system is produced on a pre-programmed schedule by the CMMS.
2. The work is assigned by ~~the Facilities Manager or his/her designee~~**Engineering Management** to an Engineer to complete.
3. The Engineer performs preventive maintenance (and corrective maintenance if needed), inspects the system and conducts testing as specified in the CMMS instruction set printed on the work order.
4. The Engineer prepares and submits to the Engineering Department a work order for any repair work which will take more than thirty minutes to complete or for which he does not have tools or parts readily available.
5. The Engineer completes the Preventative Maintenance Work Order, indicating specific preventive or corrective actions he has taken and noting the date the scheduled maintenance was completed. This information is entered into CMMS.
6. Respiratory Therapy Department personnel checks system flow rates before each procedure and reports malfunctions to the Engineering Department.
7. A qualified vendor is contracted annually to perform an inspection of all master signals, area alarms, automatic pressure switches, shut-off valves, flexible connections, outlets and purity from source in accordance with NFPA to ensure compliance with Authorities Having Jurisdiction (AHJs).

Tri-City Medical Center
Oceanside, California

ENGINEERING
OPERATIONS

SUBJECT: Maintenance and Inspection Boiler/Steam System

ISSUE DATE: 11/87
REVIEW ~~DATE(S)~~:
REVISION ~~DATE(S)~~: 09/94, 01/97, 05/00, 05/03, 06/06, 06/09, 08/11, 06/12, 04/16

Department Approval ~~Date(s)~~:	~~03/16,~~ 03/20
Environmental Health and Safety Committee Approval ~~Date(s)~~:	~~03/16,~~ 04/20
Administration Approval:	08/21
Professional Affairs Committee Approval ~~Date(s)~~:	04/16
Board of Directors Approval ~~Date(s)~~:	04/16

A. **PURPOSE:**

1. To describe the process by which the boiler/steam system is maintained and inspected.

B. **GENERAL INFORMATION:**

1. Computerized Maintenance Management System (CMMS) - A computerized information system used to facilitate the scheduling monitoring and documentation of equipment and environmental maintenance.

C. **PROCEDURE:**

1. A work order for preventive maintenance, inspection, and/or testing of each component part to the boiler/steam system is produced at pre-programmed schedule by the CMMS.
2. The work is assigned by ~~the Facilities Manager and/or his designee~~**Facilities Management** to an Engineer or a Qualified Contractor.
3. The Engineer or a Qualified Contractor performs preventive maintenance (and corrective maintenance, if needed), inspects the system and conducts testing as specified in the CMMS instruction set printed on the work order.
4. The Engineer prepares and submits to the Engineering Department a Corrective Maintenance form for any repair work which will take more than thirty minutes to complete or for which he/she does not have tools or parts readily available.
5. The Engineer or Qualified Contractor completes the Scheduled Maintenance Work Order, indicates specific preventive or corrective actions taken and notes the date the scheduled maintenance was completed. This information to be entered into the CMMS.
6. The engineer checks the alternative fuel supply daily and replenishes it when at 12,~~500~~ **600** gallons to maintain at least a 72 hour supply.

Tri-City Medical Center
Oceanside, California

ENGINEERING
GENERAL ADMINISTRATIVE

SUBJECT: Maintenance Work Request System

ISSUE DATE: 11/87
REVIEW ~~DATE(S)~~:
REVISION ~~DATE(S)~~: 10/94, 01/97, 05/00, 05/03, 06/06, 06/09, 08/11, 06/12, 04/16

Department Approval ~~Date(s)~~:	~~03/16,~~ 03/20
Environmental Health and Safety Committee Approval ~~Date(s)~~:	~~03/16,~~ 04/20
Administration Approval:	08/21
Professional Affairs Committee Approval ~~Date(s)~~:	04/16
Board of Directors Approval ~~Date(s)~~:	04/16

A. **PURPOSE:**

1. To establish an effective means of requesting, coordinating and completing maintenance work orders.

B. **PROCEDURE:**

1. Corrective maintenance can be defined as those actions required to restore equipment, buildings and grounds to normal condition and to operate as designed. The following procedures are established to initiate and carry out an effective program and are considered normal means for obtaining maintenance action.
2. ~~The Maintenance~~ Work Request**s** ~~System will~~ **fall into** ~~be divided by the Building Maintenance Supervisor or his/her designee into~~ three major categories which **define a time frame in which work will be completed:** ~~are defined as follows:~~
   a. URGENT: These are corrective actions of such a nature that the failure to take immediate action or actions will jeopardize the safety of patients, visitors and staff.
   b. ROUTINE: These are corrective actions which should be performed at the first opportunity, but their nature is such that the primary function of the hospital is not significantly affected. Work orders will be picked up on a daily basis by Engineering personnel.~~.~~
   c. DEFERRED: Some routine work orders may be deferred based on priority.
3. For the Maintenance Work Request System to operate efficiently, it is mandatory that the telephon**inge** ~~and paging~~ for Engineering be used only in cases of urgent requirements or emergencies (safety, flood, fire, power loss, etc.).
4. On a ~~daily~~ **regular** basis, ~~the Building Maintenance Supervisor or his/her designee~~**Engineering Management** will ~~assign work orders to personnel and~~ review completed work orders for completeness and correctness of repairs and/or the need for purchases or outside assistance.

Tri-City Medical Center
Oceanside, California

ENGINEERING
EMERGENCY PREPAREDNESS

~~TRI-CITY MEDICAL CENTER~~ ~~Engineering Policy & Procedure~~	~~Section: ENGINEERING DEPARTMENT~~ ~~Subject: Managing Census Zones~~ ~~Policy Number: 8023 Page 1 of 1~~
~~Department: Engineering~~	~~EFFECTIVE: 3/07;~~ ~~REVISED: 5/09; 6/12~~

SUBJECT: Managing Facilties against Patient Census ~~Zones~~

ISSUE DATE: 3/07
REVIEW ~~DATE(S)~~:
REVISION ~~DATE(S)~~: 05/09, 06/12

Department Approval ~~Date(s)~~:	**07/19**
Environmental Health and Safety Committee Approval ~~Date(s)~~:	**09/19**
Administration Approval:	**08/21**
Professional Affairs Committee Approval ~~Date(s)~~:	
Board of Directors Approval ~~Date(s)~~:	

A. **PURPOSE:**

1. To provide engineering support services to help minimize delay and /or diversion of patients into ~~TCMC~~ **Tri City Healthcare District (TCHD) facilities** during periods of high census and perform preventive maintenance and repairs in patient care areas during low census.

B. **POLICY:**

1. **Director of Engineering or designee** ~~Facilities Manger/Supervisor to~~ closely monitor**s** daily bed census **to schedule work appropriately to minimize the impact to patient care and flow.**
2. **If possible, construction projects to be scheduled during the times that minimize the impact to patient care and flow.**
3. ~~1.~~ **Coordinate the timing of all work with affected department heads.**

Tri-City Medical Center
Oceanside, California

ENGINEERING
EQUIPMENT

SUBJECT: **Mapping the Distribution of Utility Systems Controls**

ISSUE DATE: 12/15
REVIEW ~~DATE(S)~~:
REVISION ~~DATE(S)~~:

Department Approval ~~Date(s)~~:	~~09/15,~~ 03/20
Environmental Health and Safety Committee Approval ~~Date(s)~~:	~~10/15,~~ 03/20
~~**Medical Executive Committee Approval Dates(s):**~~	~~N/A~~
Administration Approval:	08/21
Professional Affairs Committee Approval ~~Date(s)~~:	11/15
Board of Directors Approval ~~Date(s)~~:	12/15

A. **POLICY:**

1. It is the policy of the Tri-City Healthcare District (TCHD) to maintain drawings and documents mapping the distribution of utility systems that indicate the location of controls for the partial or complete shutdown of each utility system. These drawings will be maintained to further ensure, through training of Engineering Department personnel, that proper procedures are followed in the shutdown of any utility system component.
2. The drawings for TCHD are located in the plan room.

~~B. **PROCEDURE:**~~

~~1. Procedures specific to the following utility systems are located on the TCHD Intranet.~~
~~2.~~3. Utility Systems include, but are not limited to:
   a. Electrical
   b. HVAC
   c. Plumbing
   d. Steam and Boilers
   e. Medical Gas and Vacuum
   f. Communication
   g. Vertical and Horizontal Transport
~~3. When a utility system must be shutdown, notify Administration, Administrative Supervisor Team and the Department Directors of each affected Department.~~
4. Changes to the utility systems that affect the distribution of the service are documented on the appropriate maps.

Tri-City Medical Center
Oceanside, California

ENGINEERING
OPERATIONS

SUBJECT: New Equipment: Inventory and Inspection

ISSUE DATE: 11/87
REVIEW ~~DATE(S)~~:
REVISION ~~DATE(S)~~: 09/94, 01/97, 05/00, 05/03, 06/06, 05/09, 08/11, 06/12

Department Approval:	**~~07/16,~~ 03/20**
Environmental Health and Safety Committee Approval:	**~~07/16,~~04/20**
Administration Approval:	**08/21**
Professional Affairs Committee Approval:	**01/17**
Board of Directors Approval:	**01/17**

A. **PURPOSE:**

1. To outline the procedure by which new equipment is inventoried and inspected before release for patient care or other use.

B. **GENERAL INFORMATION:**

1. **Computerized Maintenance Management System (**CMMS**)** - A computerized information system used to facilitate the scheduling, monitoring and documentation of equipment and environmental maintenance.
2. Environmental Unit - A space of manageable size in terms of square footage or work intensity classified by the principal activity which takes place within it.
3. Equipment Identification Number (EIN) - A number assigned to a specific piece of equipment, equipment grouping, or environmental unit for the purpose of identification and maintenance scheduling in CMMS.

C. **POLICY:**

1. All patient care equipment designated for use anywhere within the hospital shall be inspected and tested by the Engineering Department or Biomedical Department before initial use.
2. New equipment which fails to pass the applicable electrical safety test will not be approved for use in the hospital until the deficiencies have been corrected.

D. **PROCEDURE:**

1. The receiving department (Materials Management) notifies the Engineering Department that new equipment has been received.
2. Engineering performs new equipment inspection (places a safety sticker if successful) and determination is made whether the equipment should be assigned an individual EIN, maintenance schedule and instructions or should be considered part of its environmental unit and maintained as such.
3. If the equipment fails to pass the required tests or does not meet the standards specified by the hospital, the equipment will be returned to the supplier by the Materials Management Department.
4. Once above steps are completed, Engineering enters all the equipment information into the CMMS.

Tri-City Medical Center
Oceanside, California

ENGINEERING
EQUIPMENT

SUBJECT: Operation of Fire and Smoke Dampers

ISSUE DATE: 12/15
REVIEW ~~DATE(S)~~:
REVISION ~~DATE(S)~~:

Department Approval ~~Date(s)~~:	~~09/15,~~ 03/20
Environmental Health and Safety Committee Approval ~~Date(s)~~:	~~10/15,~~ 03/20
~~**Medical Executive Committee Approval Dates(s):**~~	~~N/A~~
Administration Approval:	08/21
Professional Affairs Committee Approval ~~Date(s)~~:	11/15
Board of Directors Approval ~~Date(s)~~:	12/15

A. **POLICY:**

1. It is the policy of Tri-City Healthcare District (TCHD) to operate fire and smoke dampers 1 year after installation and then every 6 years to verify that they fully close.

B. **OPERATE FIRE AND SMOKE DAMPERS 1 YEAR AFTER INSTALLATION:**

1. Fire and Smoke dampers will be tested 1 year after initial installation
2. An ~~ILSM (~~Interim Life Safety Measure **(ILSM)** assessment needs to be performed and documented whenever a damper is reported as failed or when dampers are deemed inaccessible.
3. The completion date of the test is documented
4. When an area undergoes renovation, a set of mechanical drawings are provided indicating where new dampers have been installed.

C. **OPERATE FIRE AND SMOKE DAMPERS EVERY 6 YEARS:**

1. The hospital operates fire and smoke dampers at least every 6 years after the 1 year inspection to verify that they fully close.
2. An ILSM (Interim Life Safety Measure) assessment needs to be performed and documented whenever a damper is reported as failed or when dampers are deemed inaccessible.
3. The completion date of the test is documented.

D. **FORMS:**

~~3.~~1. **Interim Life Safety Measures (ILSM) Assessment Tool**

Interim Life Safety Measures Assessment Tool

Project / Deficiency:
Location: By:
Initial Date: Reassessment Date:

Evaluate deficiency and/or construction hazards to determine when and to what extent one or more of the following measures apply:

Impact Evaluation	Yes / No / NA	Measures Implemented
1. Will any area exits be obstructed? Will any construction materials, equipment, or debris block the free use of all exits adjacent to the construction site or impacted by the project? Will all existing exit signs remain in place and operational?		
2. Will any exterior access points to the building be blocked? Will access to emergency departments, entrances, fire lanes and exit discharges be impeded by obstructions, storage, or other impediments?		
3. Will any fire alarm systems & suppression systems be compromised and / or altered?		
4. Will any construction partitions need to be erected?		
5. Will any additional fire extinguishers and equipment be necessary & provided on site? Equipment must be functional and tests and inspections are up to date.		
6. Will the Smoking prohibition need to be communicated, monitored and enforced?		
7. Will construction storage need to be minimized and housekeeping & debris removal policies communicated, monitored and enforced?		
8. Will additional fire drills be necessary for staff in affected areas and/or within construction area (contractor staff)?		
9. Will surveillance of the area be necessary?		
10. Will any additional training of staff and/or contractors be necessary to compensate for impaired structural or compartmental features of fire safety?		
11. Will facility-wide safety education programs need to be communicated to promote awareness of fire safety building deficiencies, construction hazards, and ILSM?		
12. List any other Life Safety Code deficiency / concerns identified:		
13. List any other Life Safety Code deficiency / concerns identified:		
14. List any other Life Safety Code deficiency / concerns identified:		

Additional Comments:

Tri-City Medical Center
Oceanside, California

ENGINEERING
OPERATIONS

SUBJECT: Pre-Purchase Evaluations

ISSUE DATE: 11/87
REVIEW ~~DATE(S)~~:
REVISION ~~DATE(S)~~: 09/94, 01/97, 05/00, 05/03, 06/06, 05/09, 08/11, 06/12 , 01/17

Department Approval:	07/16, 03/20
Environmental Health and Safety Committee Approval:	07/16, 04/20
Administration Approval:	08/21
Professional Affairs Committee Approval:	01/17
Board of Directors Approval:	01/17

A. **PURPOSE:**

1. To outline the policy under which the Engineering Department will make pre-purchase equipment evaluations.

B. **POLICY:**

1. The Engineering Department will make pre-purchase evaluations of equipment at the verbal or written request of a user department, the medical center administration or a member of the professional staff.
2. Such pre-purchase evaluations shall be confined to:
   a. Construction quality
   b. Mechanical reliability
   c. Ease of maintenance
   d. Compatibility with existing systems and environment of anticipated use
   e. Underwriters Laboratories, or other agency approval
   f. Other information concerning the equipment about which Engineering Department personnel may be expected to be knowledgeable.

Tri-City Medical Center
Oceanside, California

ENGINEERING
GENERAL ADMINISTRATIVE

SUBJECT: Preventive Maintenance

ISSUE DATE: 11/87
REVIEW ~~DATE(S)~~:
REVISION ~~DATE(S)~~: 09/94, 01/97, 05/00, 05/03, 06/06, 02/09, 08/11, 06/12, 04/16

Department Approval ~~Date(s)~~:	~~03/16,~~ 03/20
Environmental Health and Safety Committee Approval ~~Date(s)~~:	~~03/16,~~ 04/20
Administration Approval:	08/21
Professional Affairs Committee Approval ~~Date(s)~~:	04/16
Board of Directors Approval ~~Date(s)~~:	04/16

A. **PURPOSE:**

1. To describe the process by which preventative maintenance (PM) work within Tri-City Healthcare District (TCHD) facilities is assigned, performed and documented.

B. **GENERAL INFORMATION:**

1. Preventative Maintenance (PM): Those regularly scheduled activities performed to ensure that each facility, and the individual items classified as part of it, are maintained in a safe, functional and aesthetically acceptable condition. ~~See Attachment 1 for items generally maintained as part of an environmental unit.~~
2. Computerized Maintenance Management System (CMMS): A computerized Information system used to facilitate the scheduling, monitoring, documentation and instructions on performing PMs of equipment and environmental maintenance.

C. **POLICY:**

1. TCHD will maintain its facilities in a manner and in accordance with a schedule that will serve to provide a safe, functional, and aesthetically pleasing environment.
2. PMs will be scheduled, performed and documented in accordance with PM procedures set in the CMMS.

D. **PROCEDURE:**

1. Each month, each Engineer will receive a list of PMs that he **or she** is responsible to complete by assigned due dates.
2. The Engineer conducts each PM scheduled by the due date and in accordance with the procedure listed in CMMS.
3. **If the scheduled maintenance cannot be performed for any reason, the assigned individual must notify his/her immediate supervisor and document such reason on CMMS.**
4. **Assigned individuals, upon completing inspection and preventative maintenance, will note significant findings. The individual will then generate a corrective maintenance work order stating problem found. The corrective maintenance work order number will be logged on the preventative maintenance work order for equipment history purposes and noted in the comments section when closing out the preventative maintenance work order.**
5. Once the PM is completed, an Engineer logs the results in the CMMS and ~~notifies the Supervisor in case an issue had been identified~~**closes the PM work order**.
6. In case of failure, the Supervisor will assess the situation and if necessary will enforce and document Interim Life Safety Measure (ILSM) or **System Failure Report/**Interim Utility Safety

Measure (IUSM) to keep the occupants safe.

E. **FORMS:**

1. ~~Items Generally Included in Preventative Maintenance But Not Limited To.~~**Interim Life Safety Measure (ILSM)**
2. ~~1.~~**System Failure Report / Interim Utility Safety Measure (IUSM)/**

Interim Life Safety Measures Assessment Tool

Project / Deficiency:
Location: **By:**
Initial Date: **Reassessment Date:**

Evaluate deficiency and/or construction hazards to determine when and to what extent one or more of the following measures apply:

Impact Evaluation	Yes / No / NA	Measures Implemented
1. Will any area exits be obstructed? Will any construction materials, equipment, or debris block the free use of all exits adjacent to the construction site or impacted by the project? Will all existing exit signs remain in place and operational?		
2. Will any exterior access points to the building be blocked? Will access to emergency departments, entrances, fire lanes and exit discharges be impeded by obstructions, storage, or other impediments?		
3. Will any fire alarm systems & suppression systems be compromised and / or altered?		
4. Will any construction partitions need to be erected?		
5. Will any additional fire extinguishers and equipment be necessary & provided on site? Equipment must be functional and tests and inspections are up to date.		
6. Will the Smoking prohibition need to be communicated, monitored and enforced?		
7. Will construction storage need to be minimized and housekeeping & debris removal policies communicated, monitored and enforced?		
8. Will additional fire drills be necessary for staff in affected areas and/or within construction area (contractor staff)?		
9. Will surveillance of the area be necessary?		
10. Will any additional training of staff and/or contractors be necessary to compensate for impaired structural or compartmental features of fire safety?		
11. Will facility-wide safety education programs need to be communicated to promote awareness of fire safety building deficiencies, construction hazards, and ILSM?		
12. List any other Life Safety Code deficiency / concerns identified:		
13. List any other Life Safety Code deficiency / concerns identified:		
14. List any other Life Safety Code deficiency / concerns identified:		

Additional Comments:

Tri-City Medical Center
Plant Operations
Systems-Failure Report / Interim Utility Safety Measures (IUSM)

Date of failure	
Reporting Engineer	
Tracking Number	
System involved	
Failure Start Time	
Failure End Time	
Total Time	

Describe the problem?
What caused the problem?
What areas, equipment, or service were affected?
What actions were taken as interim measures (IUSM) until repaired?
How was the problem resolved?
What steps were taken to avoid a recurrence?

Reviewed

Department Supervisor:	**Date:**
Director of Engineering:	**Date:**

Tri-City Medical Center
Oceanside, California

ENGINEERING
OPERATIONS

SUBJECT: Purchasing Procedure

ISSUE DATE: 11/87
REVIEW ~~DATE(S)~~:
REVISION ~~DATE(S)~~: 09/94, 01/97, 05/00, 05/03, 06/06, 05/09, 08/11, 06/12, 01/17

Department Approval:	**~~07/16,~~ 03/20**
Environmental Health and Safety Committee Approval:	**~~07/16,~~ 04/20**
Administration Approval:	**08/21**
Professional Affairs Committee Approval:	**01/17**
Board of Directors Approval:	**01/17**

A. **PURPOSE:**

1. To define the procedure for the purchasing of material or services by the Engineering Department.

B. **POLICY:**

1. Fill out Purchase Requisition form as applicable.
2. Obtain approval from ~~Director of Engineering or his/her designee~~**Engineering Management**.
3. Procure a Purchase Order (P.O.) number from Materials Management.~~.~~
4. Place the order with the vendor and obtain delivery dates whenever possible. Be sure to place this information on the form.
5. P.O. will be marked as received/completed in one of the following fashions:
   a. When the goods are received at the receiving dock, the Purchasing Department will close the P.O. as received.
   b. For all other services, Engineering Department will approve invoice received against the appropriate PO and email a copy of the approved (by ~~Director of Engineering or his/her designee~~**Engineering Management**) invoice to the Purchasing Department to mark the P.O. as received/completed.

Tri-City Medical Center
Oceanside, California

ENGINEERING
GENERAL ADMINISTRATIVE

SUBJECT: Routine Hospital Rounds

ISSUE DATE: 11/87
REVIEW ~~DATE(S)~~:
REVISION ~~DATE(S)~~: 10/94, 01/97, 05/00, 05/03, 06/06, 06/09, 08/11, 06/12, 04/16

Department Approval ~~Date(s)~~:	~~03/16,~~ 03/20
Environmental Health and Safety Committee Approval ~~Date(s)~~:	~~03/16,~~ 04/20
Administration Approval:	08/21
Professional Affairs Committee Approval ~~Date(s)~~:	04/16
Board of Directors Approval ~~Date(s)~~:	04/16

A. **POLICY:**

1. Routine rounds will be made at the beginning of each shift, by the Plant Operator on ~~shift~~**duty**.
2. **A** ~~Commence~~ **complete** tour of hospital **will be made while checking all items from Central Plant Equipment Rounds form**.
3. ~~Make a visual check of boiler room. Check the water level in the condensate return tank. Normal operating level should be maintained. Check boiler feed pumps noting any unusual conditions. Check the water level of each boiler. Conduct an operational check test of low-water cut off. Record the steam pressure of operating boiler. Test and record the boiler water softener to assure make-up water is soft.~~
3. Check mechanical **rooms and** equipment **daily using individualized forms located at each location**.
4. **Notify Engineering Management immediately of any critical issues or concerns.** ~~Operation of exhaust fans, chillers, domestic and heating hot water circulating pumps, cooling towers, air compressors, air handlers and record any discrepancies.~~
5. ~~Return to Engineering office with a list of any discrepancies noted during your inspection.~~ Make proper entries in the Daily Journal **of any discrepancies noted during your inspection**.

B. **FORM(S):**

1. **Central Plant Equipment Rounds**
   ~~5.~~

Tri-City Medical Center
Central Plant Equipment Rounds

Date:	Shift: 2330-0800	Duty Engineer:	OAT: F	Rel. Hum %

Boiler	1	2
Steam Pressure (110)		
Stack Temperature		
Water Level		
Low water shut off		
Bottom Blow down		

Vacuum Pump(s)	1	2	3
Vacuum (-wg)			
Oil level			
Exhaust Filter			
DA Tank Leak Check			
Running Pump #			
Pump Check			
Pump Motor Check			

Compressors	Medical	Control
Receiver psi		
Line Pressure		
Manual Drain		
DA Tank Level		
DA Tank Temp		
DA Tank Pressure ***(5-7psi)***		
DA Feed water psi ***(220-160)***		

Chillers	#1	#2	#6
Chill water Temp In/ Out	/	/	/
Chill water Pressure	/	/	/
Cond. Water Temp In/Out	/	/	/
Cond. Water Psi In/Out	/	/	/
Oil Level			

Water Meters	
DA Make up	
Softener #1	
Softener #2	
Chill W. MK up	
Cooling T. #1	
Cooling T. #2	
CT Blow down	
CT pH	
CT Cond.	
CT Biocide	
CT Acid	
CT TRT	
CT Bleach	

Central Plant Chiller Room MCC – Breakers Checked

Ice Makers	Chiller #4	Chiller #5
Glycol Temp In/Out	/	/
Cond. Water Temp In/Out	/	/
Evaporator Pressure		
Condenser water Pressure	In / Out	In / Out

Generators	1	2	3	4	5
Control In Auto					
Tank Level					
Heater					
Charger Volts					

CP Gas Bay	Supply	Reserve
Ox Boiler Switched		
Oxygen : psi		
Nitrous Oxide		
Nitrogen		

Lab Gasses	Line	Sup.	Res.
Carbon D. **(20)**			
Anaerobic **(50)**			
DI Water Pump	1	2	

Weekly Checks	
Drench Showers	
Diesel Fuel Lines	

Water Temperature	Domestic	Heating
Ancillary		
BHU		
Central Plant		
Emergency Dept.		
Pavilion		

Notes:

RCU HX1/HX2		/	Mechanical Room Checks						
Surgery			Central Plant Mechanical Room						
Women's Center			Isolation Rooms						
Ice Charging		Room #							
AHU's on Computer		Time							
Surgery Humidity		Hour Meter							
R.O Water Level		Pressure							
Fuel Soundings		Revised: 2/11/2020 - Rafael Martinez							

Tri City Medical Center
Central Plant Equipment Rounds

Date:	Shift: 0730-1600		Duty Engineer:				OAT: F		Rel. Hum %				
Boiler	1	2	Vacuum Pump(s)	1	2	3	Compressors		Medical		Control		
Stack Temperature			Vacuum (-wg)				Receiver psi						
Steam Pressure (110)			Oil level				Line Pressure						
Water Level			Exhaust Filter				Manual Drain						
Low water shut off			CP Gasses	Supply		Reserve	Lab Gasses		Line		Sup.		Res.
DA Tank Level			Oxygen psi:				Carbon D. **(20psi.)**						
DA Temp		DA psi	Nitrous Oxide				Anaerobic **(50psi.)**						
Feed Water psi (220-160)			Nitrogen				DI Pump on		1		2		

Chillers	#1	#2	#6	Daily Checks									
Chill water Temp In/ Out	/	/	/	AHU's on Computer									
Chill water Pressure In/Out	/	/	/	R.O. Water Level									
Cond. Water Temp In/Out	/	/	/	Assigned Mech. RMs									
Cond. Water Psi In/Out	/	/	/										
Oil Level													
Cooling Tower Oil Level	CT1:	CT2:											
Central Plant Chiller Room MCC – Breakers Checked													

Ice Makers	Chiller #4	Chiller #5	Generators	1	2	3	4	5		
Glycol Temp In/Out	/	/	Control In Auto							
Cond. Water Temp In/Out	/	/	Tank Level							
Evaporator Pressure			Heater							
Condenser water Pressure			Charger Volts							

Water Temperature	Domestic	Heating	Isolation Rooms							
Ancillary			Room #							
BHU			Time							
Central Plant			Hour Meter							
Emergency Dept.			Pressure							
Pavilion			Notes:							
RCU HX1/HX2		/								
Surgery										
Women's Center										

Mechanical Room Check							
Larry Blair		ER Penthouse		Ancillary Penthouse			
Peter Layon		Behavioral Health		South Tower			
David Thompson		Generator Room		Main Electrical Room		Women's Center Penthouse	
Tracy West		Surgery Penthouse		RCU Penthouse			
Notes:							

Revised: 2/11/2020 - Rafael Martinez

Tri City Medical Center
Central Plant Equipment Rounds

Date:	Shift: 1530-0000		Duty Engineer:				OAT: F	Rel. Hum %	
Boiler	1	2	Vacuum Pump(s)	1	2	3	Compressors	Medical	Control
Stack Temperature			Vacuum (-wg)				Receiver psi		
Steam Pressure			Oil level				Line Pressure		
Water Level			Exhaust Filter				Manual Drain		
Low water shut off			Isolation Rooms						
DA Tank Level			Room #						
DA Temp	DA psi		Time						
Feed Water psi (220-160)			Hour Meter						
			Pressure						

Daily Checks				Chiller Room MCC Breakers Checked	
AHU's (Computer)			Chiller Logs Completed		
R.O. Water Level		Running Chillers	1	2	4	5	6
		Time Ice Charge Started					

CP Gas Bay	Supply	Reserve	Water Temperatures	Domestic	Heating
Oxygen Line psi			Ancillary		
Oxygen Tank Level			BHU		
Nitrous Oxide			Central Plant		
Nitrogen			Emergency Dept.		
Lab Gasses	Line	Sup.	Res.	Pavilion		
Carbon D. **(20psi)**				RCU HX1/HX2		/
Anaerobic **(50 psi)**				Surgery		
DI Water Pump On	1	2		Women's Center		

Generators	1	2	3	4	5
Control in Auto					
Tank Level					
Heater On					
Charger Volts					

Assigned Mechanical Rooms:,							
C. W.	RCU Basement and		RCU Penthouse				
S. C.	Pavilion Penthouse		Pavilion Basement		Mechanical Room 5		

Notes:

Revised: 2/11/2020 - Rafael Martinez

Tri-City Medical Center
Oceanside, California

DELETE: Duplicate information in Preventative Maintenance policy.

ENGINEERING
OPERATIONS

ISSUE DATE: 11/87
Maintenance

SUBJECT: Scheduled Equipment

REVIEW DATE(S):
REVISION DATE(S): 9/94, 1/97, 5/00, 5/03, 6/06, 5/09, 8/11, 6/12

Department Approval:	~~07/16~~03/20
Environmental Health and Safety Committee Approval:	~~07/16~~03/20
Administration Approval:	08/21
Professional Affairs Committee Approval:	01/17
Board of Directors Approval:	01/17

~~A. **PURPOSE:**~~

~~1. To define the procedure for inspection, maintenance and repair of Engineering equipment..~~

~~B. **GENERAL INFORMATION:**~~

~~1. Scheduled Maintenance - Includes, as appropriate, inspection; preventative and corrective maintenance; functional testing, performance testing, calibration and safety testing.~~

~~2. Equipment - life support, life safety, infection control and non-life support equipment maintained by the Engineering Department.~~

~~3. Computerized Maintenance Management System (CMMS) A computerized information system used to facilitate the scheduling, monitoring and documentation of equipment and environmental maintenance.~~

~~4. Equipment Inventory: A table listing of all types of individually inventoried equipment and distinct environmental units or equipment groups, and including for each, the appropriate maintenance instructions, location and frequency of maintenance.~~

~~C. **POLICY:**~~

~~1. Preventive Maintenance (P.M.) Work Orders will be assigned on a monthly basis.~~

~~2. Assigned individuals, upon completing inspection and preventive maintenance, will note significant findings. The individual will then generate a corrective maintenance work order stating problem found. The corrective maintenance work order number will be logged on the Preventive Maintenance Work Order for equipment history purposes and noted in the comments section when closing out the Preventive Maintenance Work Order.~~

~~3. Scheduled P.M. work orders should be completed by the assigned due date. If the scheduled maintenance cannot be performed for any reason, the assigned individual must notify his/her immediate supervisor and document such reason on P.M. work order.~~

~~4. If scheduled maintenance is performed by an external vendor, the vendor will be instructed to perform maintenance in accordance with the work order and contract agreement. Any associated maintenance shall be documented.~~

Tri-City Medical Center
Oceanside, California

ENGINEERING
GENERAL ADMINISTRATIVE

SUBJECT: Scope of Service

ISSUE DATE: 11/87
REVIEW ~~DATE(S)~~:
REVISION ~~DATE(S)~~: 09/94, 01/97, 05/00, 05/03, 06/06, 02/09, 08/11, 06/12, 04/16

Department Approval ~~Date(s)~~:	~~03/16,~~ 03/20
Environmental Health and Safety Committee Approval ~~Date(s)~~:	~~03/16,~~ 04/20
Administration Approval:	08/21
Professional Affairs Committee Approval ~~Date(s)~~:	04/16
Board of Directors Approval ~~Date(s)~~:	04/16

A. **PURPOSE:**

1. To define the scope of services provided by the Engineering Department in an effort to create a safe and quality environment for patient care, visitors and employees.

B. **POLICY**:

1. In an effort to comply with all regulatory agencies while ensuring safe and quality environment, the Engineering Department will be responsible for the condition and function of all of the hospital facilities, including all utilities and Engineering equipment. All of the facilities and equipment therein, are inspected and maintained in accordance with the Computerized Maintenance Management System (CMMS).
2. Equipment maintained by the Engineering Department includes but is not limited to the following:
   a. Central Plant Equipment
   b. Generators and Automatic Transfer Switches
   c. Fire Alarm and Fire Suppression Equipment
   d. Elevators
   e. HVAC
   f. Steam Equipment
   g. Ice Machines
   h. Water Fountains
   i. Eye Wash Stations
   j. Drench Showers
   k. Exit Lights
   l. Lighting
   m. Power Distribution Equipment
   n. Domestic Water Equipment
   o. Other Engineering/Building equipment not listed here. Full list of equipment is available at the Engineering Department.
3. Movement of furniture and equipment is provided as follows:
   a. Performed by the Environmental Services Department.
4. Key and lock services are provided by Engineering.
5. Service manuals for patient care and other equipment maintained by Engineering are kept on file in the Engineering Department.
6. User/Operator instructions are on file in the department in which the equipment is used and by Engineering.

7. Construction Projects Services are ~~provided~~ **coordinated** by the Engineering Department.

Tri-City Medical Center
Oceanside, California

ENGINEERING
GENERAL ADMINISTRATIVE

SUBJECT: Staff Meetings

ISSUE DATE: 4/90
REVIEW ~~DATE(S)~~:
REVISION ~~DATE(S)~~: 09/94, 01/97, 05/00, 05/03, 06/06, 06/09, 08/11, 06/12, 04/16

Department Approval ~~Date(s)~~:	~~03/16,~~ 03/20
Environmental Health and Safety Committee Approval ~~Date(s)~~:	~~03/16,~~ 04/20
Administration Approval:	08/21
Professional Affairs Committee Approval ~~Date(s)~~:	04/16
Board of Directors Approval ~~Date(s)~~:	04/16

A. **PURPOSE:**
1. To establish time and attendance requirements for staff meetings.

B. **PROCEDURE:**
1. Departmental meetings will be as follows:
   a. Supervisors on an as needed basis.
   b. All department meetings will be conducted monthly.
2. Division meetings will be as follows (or on as needed basis):
   a. Projects - Weekly.
   b. Building Engineering — **Twice** Weekly.
   c. Plant Engineering - Weekly.

C. **POLICY:**
1. Departmental staff meetings will be held, as posted monthly, in the Division Shops or designated class room.
2. All staff on duty at TCMC will be expected to attend. Copies of the meeting minutes will be ~~emailed for review~~**placed in a binder for review and sign off.** ~~and i~~It is the responsibility of all personnel to review and comment on any discrepancies by the given deadline. After the deadline the meeting minutes will be considered as archived.
3. The agenda of the meetings will be determined by input from all employees.
4. The meeting will be conducted by the appropriate individual or his designee.

Tri-City Medical Center
Oceanside, California

ENGINEERING
GENERAL ADMINISTRATIVE

SUBJECT: Statement of Accountability and Responsibility

ISSUE DATE: 11/87
REVIEW ~~DATE(S)~~:
REVISION ~~DATE(S)~~: 09/94, 01/97, 05/00, 05/03, 06/06, 02/09, 08/11, 06/12, 04/16

Department Approval ~~Date(s)~~:	~~03/16,~~ 03/20
Environmental Health and Safety Committee Approval ~~Date(s)~~:	~~03/16,~~ 04/20
Administration Approval:	08/21
Professional Affairs Committee Approval ~~Date(s)~~:	04/16
Board of Directors Approval ~~Date(s)~~:	04/16

A. **PURPOSE:**

1. To describe the hierarchy of accountability and responsibility within the Engineering Department and that between the department and hospital administration.

B. **POLICY:**

1. The Engineering Department inclusive of Building Engineering, Plant Operations and Projects is the responsibility of the Director of Facilities **or designee**. It is the responsibility of this individual to ensure that all the divisions of the Engineering Department operate as efficiently and effectively as practicable, works cooperatively with other hospital departments toward achieving its goals and objectives and meets the applicable standards and regulations of the accrediting and licensing bodies.
2. In carrying out these responsibilities, the ~~Facilities~~ Director **of Facilities or designee** is directly accountable to the Chief Operating Officer.

Tri-City Medical Center
Oceanside, California

ENGINEERING
OPERATIONS

SUBJECT: System Failure Report

ISSUE DATE: 08/91
REVIEW ~~DATE(S)~~: 07/15
REVISION ~~DATE(S)~~: 09/94, 01/97, 05/00, 05/03, 06/06, 05/09, 08/11, 06/12, 09/15

Department Approval ~~Date(s)~~:	~~07/15,~~ 03/20
Environmental Health and Safety Committee Approval ~~Date(s)~~:	~~08/15,~~ 04/20
Administration Approval:	08/21
Professional Affairs Committee Approval ~~Date(s)~~:	09/15
Board of Directors Approval Date(s):	09/15

A. **PURPOSE:**

1. To establish and maintain a method of reporting, correcting and preventing failures of vital systems in the facility.

B. **POLICY:**

1. A system failure report shall be generated for any failure of a vital system serving Tri-City Healthcare District (TCHD). A "vital system" is defined as any system listed below or any other system that could adversely affect patient care or the safety and/or comfort of visitors or staff if it fails to operate.
   a. Normal power
   b. Emergency power
   c. Fire-alarm system
   d. Medical air
   e. Control air
   f. Oxygen system
   g. Nitrous oxide system
   h. Nitrogen system
   i. Chilled water
   j. Exhaust system
   k. Air-handling system
   l. Domestic water
   m. Fire sprinkler system
   n. Steam
   o. Hot water
   p. De-ionized water system
   q. Vacuum System
   r. Elevators

C. **PROCEDURE:**

1. Utilization of the report: A system failure report must be used for any system covered under the policy statement. However, it may also be used for any system, regardless of its importance, as long as the correct procedure is followed. The report should be initiated immediately following the failure.
2. Assignment of responsibility: in all cases, the responsibility for the investigation, resolution and prevention of the problem causing the system failure will be assigned to one person. That person will be designated the System Failure Report manager. The report manager will be appointed by ~~the Director, the Engineering Manager or a Supervisor within the Engineering~~

~~Department~~**Engineering Management**.

3. Report Manager's duties: It is the duty of the of the Report Manager to contact every person - impacted to provide a swift analysis of the system failure and to formulate both the immediate and long term plan to prevent a recurrence. The Manager will convey his or her findings and recommendations in writing via the System Failure Report to ~~the Director of Engineering or his designee~~**Engineering Management**.
4. Report routing: Once assigned, the System Failure Report will remain with the Report Manager until its completion. Upon such completion, it shall be routed directly to the Director of ~~Engineering~~**Facilities or designee**, who will review it. If ~~the Director~~**Engineering Mangement** approves the reports, the report ~~will~~ **may** be emailed to impacted leaders, EOC Officer, and the Administration. A copy of the report will be stored on Engineering's Shared Drive. If ~~the Director~~**Engineering Mangement** does not approve the report, he/she will send it back to the Report Manager along with recommendations. The Report Manager must carry out those recommendations and resubmit the report.
5. Report logging: System Failure Reports will be kept on the Engineering Shared Drive in files for each calendar year. Each report will be assigned an identification number, numbering will restart from 1 at the beginning of each calendar year.
6. Follow up and review: Regularly ~~the Director of Engineering~~ **Engineering Mangement** shall review all System Failure Reports. An analysis will be undertaken to determine the effectiveness of the remedial actions taken, with particular attention to a trends or recurrences. If it is determined that further action is required on a system, then all of those actions shall be documented and reported to the Environmental Health and Safety Committee.

D. **FORM(S):**

1. ~~Plant Operations~~ Systems Failure Report / **Interium Utility Safety Measures (ISUM)**

~~List Based Risk Assessment Tool For Utility Systems.~~Utility System Risk Assessment Form

Risk Elements	Risk Score	Emergency Response Plan Recommended		Additional Training Recommended		Backup or Emergency Equipment Recommended		Additional Policies / Procedures Recommended		Comments
	0-4	Y	N	Y	N	Y	N	Y	N	
Loss of normal power										
Loss of emergency										
Loss of cooling										
Loss of heating										
Loss of ventilation										
Loss of water										
Water contamination										
Loss of steam										
Loss of medical gas										
Loss of vacuum										
Loss of elevators										
Loss of tube system										
Loss of telephone										
Loss of paging										
Loss of IS services										

Department Surveyed: _____

Department Manager: _____

Date of Survey: _____

Risk Rating Values	
Risk Value	Criteria
0	~~No risk or not applicable~~**Little or no impact**
1	~~Minimal risk of injury~~**Requires modification of staff activity but no additional equipment**
2	~~Moderate risk of injury~~**Requires modification of staff activity and additional supplies or equipment.**
3	~~Significant risk without history of injury~~**Requires modification of staff activity, increase in staffing and immediate action to protect patient safety.**
4	~~Significant risk with history of injury~~**Conditions are imcompatible with staff or patient safety. Requires immediate relation of staff and paitents and implementation of emergency procedures.**

Tri-City Medical Center
Oceanside, California

ENGINEERING
QUALITY ASSURANCE

~~TRI-CITY MEDICAL CENTER~~ ~~Engineering Policies & Procedures~~	~~Section: ENGINEERING DEPARTMENT~~ ~~Subject: Utility Systems Risk Assessment~~ ~~Policy Number: 7002~~ ~~Page 1 of 2~~
~~Department: Hospital-Wide~~	~~EFFECTIVE: 11/1/87~~ ~~REVISED: 3/97; 5/00; 11/02; 5/03, 06/06; 5/09; 6/12~~

SUBJECT: Utility Systems Risk Assessment

ISSUE DATE: 11/87
REVIEW ~~DATE(S)~~:
REVISION ~~DATE(S)~~: 09/97, 05/00, 11/02, 05/03, 06/06, 05/09, 06/12

Department Approval ~~Date(s)~~:	**03/20**
Environmental Health and Safety Committee Approval ~~Date(s)~~:	**04/20**
Administration Approval:	**08/21**
Professional Affairs Committee Approval ~~Date(s)~~:	
Board of Directors Approval ~~Date(s)~~:	

A. **~~INTRODUCTION~~POLICY:**

1. Utility systems are designed and operated to provide an environment suitable for patient care and business operations. Many patient care and business operations areas depend on proper function of utility systems for effective, safe outcomes. If a utility system fails, the consequences could range from incidental to devastating.
2. Dealing effectively with the impact of a utility system failure requires two activities. The first is conducting a risk assessment to determine the potential consequences of a utility failure on each business operations and patient care unit in the hospital. The second is developing methods for managing the consequences.
3. This ~~procedure~~ **policy** describes a risk assessment process for determining the impact of a utility failure on any department of the hospital. The form accompanying the procedure is used to document the risk assessment and indicate what methods of response might be used to manage the consequences of a failure.
4. Managing the identified risks may require development of policies and procedures, purchase and installation of equipment, and staff training. These details are the responsibility of the managers of affected departments, senior administration, and the staff of Engineering Department.

~~B. SCOPE:~~

~~1. A utility systems failure risk assessment will be conducted for each department of Tri-City medical Center.~~

~~C.~~**B. RESPONSIBILITY:**

1. ~~**Director of Engineering**~~ **Engineering Management**
   a. Appoints a team to conduct utility system failure risk assessments.
   b. Evaluates the results and prioritizes development of alternatives.
   c. Works with departments and senior administration to obtain resources required to manage consequences of utility failures.
   d. Develops Engineering policies and procedures for responding to utility system failures or disruptions.
   e. Coordinates development of documents indicating the location and function of controls for management of shut down and recovery of utility systems.
2. **Department Heads**
   a. Work with Engineering Department staff to evaluate the potential impact of a utility failure or disruption on the ability to perform normal patient care and business operations.
   b. Develop clinical and/or operational policies and procedures for managing the consequences of a utility system failure or disruption.

C. PROCEDURES:

~~3.~~**1. A utility systems failure risk assessment will be conducted for each department of Tri-City Heathcare District (TCHD).**

~~4.~~**2.** ~~The Director of Engineering~~ **Engineering Management** appoints a team of departmental staff to survey all clinical and operations departments.

~~5.~~**3.** The team works with the manager of each department to identify the consequences of a utility system disruption or failure on the ability of the department to conduct "business as usual".

4. The potential impact is rated using the Utility System Risk Assessment form.

~~6.~~**5. Rate each listed factor for potential impact on the patient care services or business operations of each area.**

~~7.~~**6.** The risk assessment results are reported to the Environment of Care Committee.

~~8.~~**7.** The results of the risk assessment are used to develop administrative, clinical, engineering, and operational procedures for managing utility system failures or disruptions.

D. FORM(S):

1. **Utility System Risk Assessment form**

~~D. Instructions for Utility System Risk Assessment Form:~~

~~1. Rate each listed factor for potential impact on the patient care services or business operations of each area of Tri-City Medical Center. Use the following scale to rate the relative impact of a utility system failure or disruption:~~

~~a.~~

~~1~~	~~Little or no impact~~
~~2~~	~~Requires modification of staff activity but no additional equipment~~
~~3~~	~~Requires modification of staff activity and additional supplies or equipment~~
~~4~~	~~Requires modification of staff activity, increase in staffing, and immediate action to protect patient safety~~
~~5~~	~~Conditions are incompatible with staff or patient safety. Requires immediate relocation of staff and patients and implementation of emergency procedures~~

Tri-City Medical Center
Oceanside, California

ENGINEERING
OPERATIONS

SUBJECT: Work Order Requests

ISSUE DATE: 11/87
REVIEW ~~DATE(S)~~:
REVISION ~~DATE(S)~~: 09/94, 01/97, 05/00, 05/03, 06/06, 05/09, 08/11, 06/12, 01/17

Department Approval:	**~~07/16,~~ 03/20**
Environmental Health and Safety Committee Approval:	**~~07/16,~~ 04/20**
Administration Approval:	**08/21**
Professional Affairs Committee Approval:	**01/17**
Board of Directors Approval:	**01/17**

A. **PURPOSE:**

1. To describe the process by which requests for Engineering will be processed and documented.

B. **GENERAL INFORMATION:**

1. Work Order Requests- Work orders generated by a user department and transmitted via the Computerized Maintenance Management System.
2. Computerized Maintenance Management System (CMMS) - A computerized information system used to facilitate the scheduling, monitoring and documentation of equipment and environmental maintenance.
3. Emergency Services - Those Engineering services needed to resolve problems or conditions which pose an immediate threat to patient or employee safety or which may significantly affect the ability of a department or area to carry out an essential function.

C. **POLICY:**

1. The priority with which work orders received either by telephone or CMMS will be handled will be determined by the Engineering Supervisor or designee.
2. Emergency work orders will be assigned to an Engineer for immediate handling.

D. **PROCEDURE:**

1. The Engineering Supervisor or designee checks the CMMS at least twice each hour for work orders which have been generated by user departments.
2. The Engineering Supervisor or designee reviews the work orders received, determines the priority with which they must be handled, and assigns them to an Engineer.
3. The Engineer to whom the request is assigned completes the work or notifies the Engineering Supervisor or designee of any reason why it cannot be completed promptly, (i.e., lack of parts, lack of familiarity with equipment, etc.).
4. When the work has been completed, the assigned Engineer ~~documents the total man-hours and materials used, and~~ closes the work order in CMMS.

Tri-City Medical Center
Oceanside, California

MEDICAL STAFF

ISSUE DATE: 03/03	**SUBJECT:** Adverse Incident/Occurrence for Post-Graduate Staff
REVISION DATE(S): 03/08, 08/12, 02/18	**POLICY NUMBER:** 8710 – 512
Department Approval:	~~07/17~~03/21
Credentials Committee Approval:	~~11/17~~04/21
Pharmacy and Therapeutics Approval:	n/a
Medical Executive Committee Approval:	~~11/17~~05/21
Administration Approval:	08/21
Professional Affairs Committee Approval:	~~01/17~~ n/a
Board of Directors Approval:	02/18

A. **PROCEDURE:**

1. The person(s) involved or witnessing an adverse incident or occurrence involving any of the interns, residents, or fellows shall immediately contact the supervising physician.
   a. If the supervising physician is not known or unavailable, then the program coordinator or program director shall be contacted. The program director or designee will investigate all issues and take appropriate measures, as necessary, to resolve and/or correct the behavior(s).
2. The outcome of the investigation will be reported to the Chief of Staff or his/her designee.
3. The outcome for any adverse event will be summarized on the annual Graduate Medical Education (GME) summary and presented to the Board of Directors.

Tri-City Medical Center
Oceanside, California

MEDICAL STAFF

ISSUE DATE: 03/07	**SUBJECT:** Credentialing Requirements for Fluoroscopy Supervisor and Operator Permit
REVISION DATE(S): 03/08, 08/12, 01/18	**POLICY NUMBER:** 8710-528

Department Approval:	~~07/17~~02/21
Credentials Committee Approval:	~~11/17~~04/21
Pharmacy and Therapeutics Approval:	n/a
Medical Executive Committee Approval:	~~11/17~~05/21
Administration Approval:	08/21
Professional Affairs Committee Approval:	~~01/18~~ n/a
Board of Directors Approval:	01/18

A. **PURPOSE:**
1. Physicians who utilize fluoroscopy in the medical center must obtain and maintain a valid California Fluoroscopy Supervisor and Operator Permit.
2. Privileges for fluoroscopy may be granted to qualified practitioners in order to demonstrate compliance with this standard.

B. **CREDENTIALING CRITERIA:**
1. A valid Fluoroscopy Supervisor and Operator Permit issued by the California Radiologic Health Branch.
2. Proctoring criteria:
   a. None
3. Reappointment requirements:
   a. Continued valid Fluoroscopy Supervisor and Operator Permit.

C. **CROSS-REFERENCES:**
1. Radiology Unit Specific Fluoroscopy Procedures

Tri-City Medical Center
Oceanside, California

MEDICAL STAFF

ISSUE DATE: 10/09	**SUBJECT:** Credentialing Standards for Transoral Esophagogastric Fundoplication (TIF)
REVISION DATE(S): 10/09, 01/18	**POLICY NUMBER:** 8710-556

Department Approval:	~~07/17~~02/21
Credentials Committee Approval:	~~11/17~~04/21
Pharmacy and Therapeutics Approval:	n/a
Medical Executive Committee Approval:	~~11/17~~06/21
Administration Approval:	08/21
Professional Affairs Committee Approval:	~~01/18~~ n/a
Board of Directors Approval:	01/18

A. **PURPOSE:**

1. The following criteria shall be used in credentialing physicians who request privileges for TIF.

B. **CREDENTIALING CRITERIA:**

1. Initial Application:
   a. The applicant must have completed an ACGME accredited residency program and possess board certification or board eligibility in Surgery.
   b. The applicant must also have completed a training course in EsophyX$_2$® TIF™2; or have performed at least five EsophyX$_2$® TIF™2 procedures in the past 12 months.
2. Proctoring Criteria:
   a. The proctoring will be waived if the applicant provides the certification that they attended EsophyX$_2$® TIF™2 training course. OR
   b. The first five (5) cases performed after granting of the privilege will be proctored by a practitioner who currently has the TIF privilege and has been released from proctoring.
3. Reappointment Criteria:
   a. Three (3) cases performed annually during the reappointment cycle (6 cases total) with acceptable success and complication rates.

Tri-City Medical Center
Oceanside, California

MEDICAL STAFF
CONTINUING MEDICAL EDUCATION (CME)

ISSUE DATE: 03/06	**SUBJECT: Cultural and Linguistic Proficiency**
REVISION DATE(S): 05/08, 08/12, 09/14, 08/18	**POLICY NUMBER:** 8710-601
Medical Staff Department Approval:	~~07/18, 01/20,~~ 10/20
Continuing Medical Education Committee Approval:	~~04/08, 07/12, 08/14, 07/18, 01/20,~~ 01/21
Pharmacy & Therapeutics Committee Approval:	n/a
Medical Executive Committee Approval:	~~05/08, 08/12, 09/14, 08/18,~~ 02/20
Administration Approval:	~~08/18, 03/20~~08/21
Professional Affairs Committee:	n/a
Board of Directors Approval:	05/08, 08/12, 09/14, 08/18, 3/20

A. PURPOSE:

To ensure subjects of cultural and linguistic competency in the practice of medicine are included in Continuing Medical Education (CME) activities in accordance with California Bill AB 1195. The IMQ/CMA policy applies to non-exempt CME activities and addresses the essential elements for compliance with Assembly Bill 1195, and was updated by the Boards of CMA and IMQ in July and August 2013.

B. DEFINITIONS:

1. **Cultural Competency:** A set of integrated attitudes, knowledge, and skills that enables a health care professional, or organization to care effectively for patients from diverse cultures, groups, and communities.
2. **Linguistic Competency:** The ability of a physician and surgeon to provide patients who do not speak English, or who have limited ability to speak English, with direct communication in the patient's primary language.

C. POLICY:

1. **Identification of CLC Disparity:** Planners are responsible for proactively identifying one (or more) CLC disparities when planning an educational activity with **clinical content**. The CLC disparity must be relevant to the identified gaps or learning needs of the target audience or our patient population.
   a. Faculty is not responsible for identifying CLC disparities.
   b. The planner will document on the planning form if there is no clinical care component, or no CLC disparity identified.
2. **Objectives:** Tri-City Medical Center shall include cultural and linguistic objectives in CME activities that address cultural beliefs, which may include cause, severity, treatment, and acceptability of the patient's own illness, as well as, language barrier implications, and the need for providing appropriate interpreters and appropriately interpreted material. Objectives shall include at least one, or a combination of, the following:
   a. Application of linguistic skills to communicate effectively with the target population.
   b. Utilization of cultural information to establish therapeutic relationships.
   c. Elicitation and incorporation of pertinent cultural data in diagnosis and treatment.
   d. Understanding and application of cultural and ethnic data to the process of clinical care.
3. **Cultural Diversity Form:** Each CME speaker shall complete and sign a *Cultural Diversity* form which informs the speaker of the requirement that cultural and linguistic information/resources are required for each CME activity with clinical content.

4. Cultural references shall be made available to attendees at CME activities.

D. FORM(S):

1. Cultural Diversity Form – Sample.

E. RELATED DOCUMENT(S):

1. Tri-City Medical Center "A Guideline for General Cultural Awareness" – Sample.

F. REFERENCE(S):

*Institute for Medical Quality (IMQ)/California Medical Association (CMA) 2014 CME Accreditation Criteria and Policies for Continuing Medical Education (CME) *with annual report glossary.*

Cultural Diversity Form - Sample

Tri-City Medical Center
CULTURAL DIVERSITY FORM

Date: _____

Topic: _____

Speaker: _____

The California legislature passed AB 1195, which states that as of July 1, 2006 all Category 1 CME activities that relate to patient care must include a cultural diversity/linguistics component.

DEFINITIONS: Cultural competency means a set of integrated attitudes, knowledge, and skills that enables a health care professional or organization to care effectively for patients from diverse cultures, groups, and communities. Linguistic competency means the ability of a physician and surgeon to provide patients who do not speak English or who have limited ability to speak English, direct communication in the patient's primary language.

We believe there is relevant cultural diversity information relating to one or more of the following: age, gender, race, socio-economics, sexual orientation, religion, language, ethnicity, etcetera that impacts the care of patients and you are required to include it in your presentation. If no relevant cultural or linguistic health or health care disparities are identified, this should be documented.

Therefore, the following objective will be added to the activity publicity to potential attendees and also to the attendee evaluation form:

> *Discuss the various culturally relevant diversities (gender, age, race, religion, ethnicity, language, sexual orientation, socio-economics, etc.) that relate to demographics, diagnosis, and treatment.*

I have read this form and will comply with AB 1195 as outlined above.

Signature:_____ Date:_____

Cultural Awareness Guide - Sample

Tri-City Medical Center

A Guideline for General Cultural Awareness

Culture Group and Language	Belief Practices	Nutritional Preferences	Communication Awareness	Patient Care/Handling of Death
American English	Christian and Jewish beliefs are prominent. Many others exist in smaller numbers. Family-oriented.	Beef, chicken, potatoes, vegetables, fast foods, ethnic foods.	Talkative, shake hands, not much touching during conversation. Prefer to gather information for decision-making. Some hugging and kissing, mainly between women.	Family members and friends visit in small groups. Expect high-quality care.
Argentinean Spanish	90% Catholic, some Protestant and Jewish. Strong belief in saints, purgatory, and heaven. People from rural areas may be more superstitious.	Emphasis on meat, especially beef with homemade pastas, pastries, and local wines. Maté, national beverage that is stimulating and "addictive" like coffee.	Talkative, very expressive, direct and to the point. Extroverted. Good eye contact. Like personal and physical contact such as holding hands, hugging, and kissing.	Educated, yet reluctant to get medical attention or accept new medical advancements. Independent, often deny disability. Believe in natural and holistic remedies, herbal teas, pure aloe, natural oils, and poultices. Family gets involved with caring for the ill family member.
Brazilian Portuguese. Diverse cultural backgrounds including: European, African, Indian.	Mostly Catholic. Growing Evangelical representation. Candomble, similar to Santeria. Macumba (blend of African, Brazilian, Indian).	Beans and rice are staple. Feijoada-black beans, beef, and port; churrasco (charcoal-broiled meats); manioc (vegetable); tropical fruits.	Very sociable. Will stand close to each other. Social kissing, hugging, touching, good eye contact	Emphasis on family unity – will want to be actively involved. Tend to trust medical personnel; place great faith in doctors and nurses. Some believe in herb treatment, teas, and balsams.
Canadian English, French and Innuit (Eskimo)	Protestant, Catholic, and Jewish. 80% of the population lives within 1,00 miles of the United States boarder.	Comparable to American diet. French influence in Montreal and Quebec.	Prefer no touching or kissing. Take things at face value.	Follow nurses' instructions. Accustomed to socialized medicine, less litigation. Take physicians at their word. Willing to wait for treatment.
Cayman English, with some changes in accents and verbs.	People are very religious. Majority of the island is Baptist or "Church of God." Voodoo and psychics are outlawed.	Fish, turtle, beef, goat, and conch, rice, beans, and plantains, fried food very rich in fat; cooked or fried in coconut oil or milk.	Like to be acknowledged. Good eye contact. Prefer no touching or kissing. Very talkative and known for their friendliness. Everyone on the island knows each other.	Like to be told what is going on by doctor. Would rather talk to doctors than nurses. Prefer one-on-one care.
Chinese Many dialects spoken; one written language.	Religions: Taoism, Buddhism, Islam, and Christianity. Harmonious relationship with nature and others, loyalty to family, friends, and government. Public debate of conflicting views is unacceptable. Accommodating, not confrontational. Modesty, self-control, self-reliance, and self-restraint. Hierarchical structure for interpersonal and family interactions.	Belief in theory of "yin" (cold) and "yang" (hot) when they are sick. No food with "yin" after surgery (e.g., cold desserts, salad). Often lactose intolerant. Soy sauce, MSG, and preserved foods. Diet consisting of vegetables and rice. Tofu (bean curd) can be prepared in various ways.	Quiet, polite, and unassertive. Suppress feelings of anxiety, fear, depression, and pain. Eye contact and touching sometimes seen as offensive or impolite. Emphasize loyalty and tradition. Self-expression and individualism are discouraged.	Women uncomfortable with exams by male physicians. May not adhere to fixed schedule. May fear medical institutions. Use a combination of herbal and Western medicine at the same time. Traditional: acupuncture, herbal medicine, massage, skin scraping, and cupping. Alcohol may cause flushing.
Cuban Spanish	Catholic with Protestant minority. Santeria, which can include animal sacrifice.	Cuban bread, café con leche, Cuban coffee; roast pork, black beans, and rice, plantains, yucca, chicken and rice.	Some may have a tendency to be loud when having a discussion. Use their hands for emphasis and credibility, and prefer strong eye contact.	Culture requires visiting the sick; the extended family supports the immediate family. It is an insult to the patient if there is not a large family/friend presence.
Ecuadorian Spanish, Quechua-Indian	Primarily Catholic. Increase in Protestant, Baptist, and Jehovah Witness. Very respectful toward religious leaders. Small percentage of population is wealthy with much political control. Family size is usually large.	Diet high in fruits and proteins; starches: rice, potatoes, and corn. Food is prepared fresh daily, usually with salsa. Coastal diet: rice and fish (ceviche). Drink beer and soda	Extremely polite. Reserved. Respectful. Especially helpful	Prefer pampering ill family members; stay overnight with patient. Not stoic when it comes to pain. Very private and modest. Embarrassed if they do not look their best. Extremely protective of family; often parents live with grown children.
Filipino English, Spanish, and Tagalog (80 Dialects)	Catholic. Seek both faith healer and Western physician when ill. Belief that many diseases are the will of God.	Theory of hot and cold food. Certain foods in the Philippines are traditionally eaten hot or cold, e.g., milk is only taken HOT. Fish, rice, vegetables, and fruit. Meals have to be HOT.	Value and respect elders. Loving and family-oriented. Set aside time just for family.	Family decision important. Ignore health-related issues; often noncompliant. In spite of Western medicine, they often leave things in the hands of God, with occasional folk medicine. Home remedies: herbal tea, massage, and sleep. May subscribe to supernatural cause of disease.

Culture Group and Language	Belief Practices	Nutritional Preferences	Communication Awareness	Patient Care/Handling of Death
Guatemalan Spanish; Mayan heritage; European influence	Primarily Catholic. Increase in Protestants. Very respectful toward elders. European heritage; strong family ties.	Diet high in fruits, vegetables, rice, beans, and tortillas (corn flour bread).	Quiet, reserved, and respectful. Will not question for fear of insulting professional.	Modest, private, and stoic. Believe in alternative methods of healing.
Haitian Creole; French is taught in schools	Catholic and Protestant. Voodoo is practiced. Large social gap exists between wealthy and poor citizens.	Large breakfast and lunch. Light dinner. Rice, fried pork, grillot, and red beans. Herbs and cloves.	Quite and polite. Value touch and eye contact.	Obedient to doctor and nurse, but hesitant to ask questions. View use of oxygen as indication of severe illness. Occasionally share prescriptions and home remedies.
Hindu Hindi	The belief in cyclic birth and reincarnation lies at the center of Hinduism. The status, condition, and caste of each life is determined by behavior in the last life	Cow is sacred. No beef. Some strictly vegetarian.	Limited eye contact. Do not touch while talking.	Do not try to force food when religiously forbidden. Death: The priest may tie a thread around the neck or wrist to signify a blessing. This thread should not be removed. The priest will pour water into the mouth of the body. Family will request to wash the body. Eldest son is responsible for the funeral rites.
Jamaican English, Patois (broken English)	Christian beliefs dominate (Catholic, Baptist, and Anglican). Some Rastafari influence.	Beef, goat, rice and peas, chicken, vegetables, fish and lots of spices. Some avoid eating pork and pork products because of religious beliefs.	Respect for elders is encouraged. Reserved. Avoid hugging and showing affection in public. Curious and tend to ask a lost of questions.	Will try some home remedies before seeking medical help. Like to be completely informed before procedures. Respectful of doctor's opinion. Can be reluctant to admit that they are in pain. May not adhere to a fixed schedule.
Japanese Japanese	Self-praise or the acceptance of praise is considered poor manners. Family is extremely important. Behavior and communication are defined by role and status.	Food presentation is important. Fish and soybean are main sources of protein, as well a meats and vegetables (some pickled). Rice and noodles; tea; soy sauce. Often lactose-intolerant.	Use attitude, actions, and feelings to communicate. Talkative people are considered showoffs or insincere. Openness considered a sign of immaturity, lack of self-control. Implicit nonverbal messages are of central importance. Use concept of hierarchy and status. Avoid eye contact and touch.	Family role for support is important. Insulted when addressed by first name. Confidentiality is very important for honor. Information about illness kept in immediate family. Prone to keloid formation. Cleft lip or palate not uncommon. Alcohol may cause flushing. Tendency to control anger.
Jewish Many from Eastern European countries. English, Hebrew, and Yiddish. Three basic groups: Orthodox (most strict), Conservative, and Reform (least strict).	Israel is the holy land. Sabbath is from sundown Friday to sundown on Saturday. It is customary to invite other families in for Friday evening Sabbath dinner.	Orthodox and some Conservatives maintain a Kosher diet. Kosher food is prepared according to Jewish law under Rabbinical supervision. Eating of unclean animals is forbidden. Blood and animal fats are taboo (blood is synonymous with life). Do not mix meat with dairy products.	Orthodox men do not touch women, except for their wives. Touch only for hands-on care. Very talkative and known for their friendliness.	Stoic and authoritative. Appreciate family accommodation. Jewish law demands that they seek complete medical are. Donor transplants are not acceptable to Orthodox Jews, but are to Conservative and Reform. Death: Cremation is discouraged. Autopsy is permitted in less strict groups. Orthodox believes that entire body, tissues, organs, amputated limbs, and blood sponges need to be available to family for burial. Do not cross hands in postmortem care.
Korean Hangul	Family-oriented. Believe in reincarnation. Religions include Shamanism, Taoism, Buddhism, Confucianism, and Christianity. Belief in balance of two forces: hot and cold.	High fiber, spicy seasoning, rice, Kim Chee (fermented cabbage). Speak little during meal. Often lactose- and alcohol-intolerant.	Reserved with strangers. Will use eye contact with familiar individuals. Etiquette is important. First names used only for family members. Proud and independent. Children should not be used as translators due to reversal of parent/child relationship.	Family needs to be included in plan of care. Prefer non-contact. Respond to sincerity.
Mexican Spanish. People of Indian heritage may speak one of more than 50 dialects.	Predominantly Roman Catholic. Pray, say rosary, have priest in time of crisis. Limited belief in "brujeria" as a magical, supernatural, or emotional illness precipitated by evil forces.	Corn, beans, avocado, chilies, and yellow rice. Heavy use of spices.	Tend to describe emotions by using dramatic body language. Very dramatic with grief, but otherwise diplomatic and tactful. Direct confrontation is rude.	May believe that outcome of circumstances is controlled by external force; this can influence patient's compliance with health care. Women do not expose their bodies to men or other women.
Muslim Language of the country and some English	Belief on one God, "Allah," and Mohammed, his prophet. Five daily prayers. Zakat, a compulsory giving of alms to the poor. Fasting during the month of Ramadan. Pilgrimage to Mecca is the goal of the faithful.	No pork or alcohol. Eat only Halal meat (type of Kosher).	Limit eye contact. Do not touch while talking. Women may cover entire body except face and hands.	Do no force foods when it is religiously forbidden. Abortion before 130 days is treated as discarded tissue; after 130 days, as a human being. Before death, confession of sins with family present. After death, only relatives or priest may touch the body. Koran, the holy book, is recited near the dying person. The body is bathed and clothed in white and buried within 24 hours.

Culture Group and Language	Belief Practices	Nutritional Preferences	Communication Awareness	Patient Care/Handling of Death
Northern European Language of the country and some English	Similar to American customs. Protestant with large Catholic population and some Jewish. Multi-ethnic groups.	Comparable to American diet – meat, vegetables, and starches. Coffee, hot tea, and beer.	Courtesy is of utmost importance. Address by surname and maintain personal space and good eye contact.	Maintain modesty at all times. Stoic regarding pain tolerance. Death is taken quietly with little emotional expression. Patients/family tend not to question medical authority.
Southern European Language of the country and some English	Roman Catholic, Protestant, Greek Orthodox, and some Jewish.	Main meat at midday: pasta, meat, and fish with cheeses and wine. Fresh fruit. Espresso coffee.	Talkative and very expressive. Direct and to the point. Extroverted. Good eye contact. Like personal and physical contact: holding hands, patting on back, and kissing.	Educated, yet reluctant to get medical attention. Very independent. Birth control and abortion are accepted in some countries and not in others. The whole family is involved in care of ill family member.
Samoan Samoan, English	Christian 99.7%. Religion plays important role. Believe that outcome of medical treatment, both western and traditional medicine, is a manifestation of the healing power of God through intervention of human prayers. Children seen as gifts of God. Big families are valued.	Traditional food derives mainly from tropical crops, root vegetables, coconut products, fresh fruit, pork, chicken, and seafood. Adoption of westernized eating habits has caused increase in obesity and diabetes.	Shy and tend not to ask questions or question a health professional's authority. Tend to say they understand even if they do not and will often give you the answer you want to hear rather than the truth. Samoans are very tradition-oriented; culture is steeped in complex set of social hierarchies, courtesies and customs. Respect, modesty, politeness, and humility are valued.	Facilities should assign health providers of the same gender. If western medicine is perceived as ineffective, Samoans may use traditional healers. Prayer is important part of the healing process and often seen as final solution to a health problem. Relatives are use to being allowed to be with patient at all times. When a patient is dying, it is important to let relatives have as much time with them as possible. Many Samoans believe that illness is caused by demons, a curse, or past wrongdoing. Mental health issues are not easily talked about due to stigma and shame.
Vietnamese Vietnamese language has several dialects. Also French, English, and Chinese	Family loyalty is very important. Religions include Buddhism, Confucianism, Taoism, Cao Di, Hoa Hoa, Catholicism, and occasional ancestral worship. General respect and harmony. Supernatural is sometimes used as an explanation for disease.	Rice often with green leafy vegetables, fish sauce added for flavor. Meat used sparingly and cut into small pieces. Tea is main beverage. Often lactose- and alcohol-intolerant.	Communication – formal, polite manner; limit use of touch. Respect conveyed by nonverbal communication. Use both hands to give something to an adult. To beckon someone, place palm downward and wave. Don't snap your fingers to gain attention. Person's name used with title, i.e., "Mr. Bill," "Director James." "Ya" indicates respect, no agreement.	Negative emotions conveyed by silence and reluctant smile; will smile even if angry. Head is sacred – avoid touching. Back rub – uneasy experience. Common folk practices – skin rubbing, pinching, herbs in hot water, balms, string tying. Misunderstanding about illness – drawing blood seen as loss of body tissue; organ donation causes suffering in next life. Hospitalization is last resort. Flowers only for the dead.

(Note: This chart was developed by the culture connection, a continuous quality improvement team at South Miami Hospital that eventually evolved into the culture committee. This chart is hung in the various departments around the hospital as a quick reference tool for health care personnel in their dealings with patients from different cultures. The culture tool is the result of a cooperative effort by hospital employees who represent the various cultures mentioned. The hospital welcomes input from other health care organizations so it can add information about additional cultures and languages. Reprinted with permission of Carol Biggs, South Miami Hospital.)

Tri-City Medical Center
Oceanside, California

MEDICAL STAFF

ISSUE DATE: 01/07	**SUBJECT:** Ongoing Professional Practice Evaluation: OPPE & FPPE
REVISION DATE: 03/08, 05/08, 06/08, 07/15, 07/17	**POLICY NUMBER:** 8710 – 509

Medical Staff Department Approval:	~~01/21~~07/21
Medical Staff Committee Approval:	n/a
Pharmacy and Therapeutics Approval:	n/a
Medical Executive Committee Approval:	~~01/21~~07/21
Administration Approval:	~~03/21~~08/21
Professional Affairs Committee Approval:	n/a
Board of Directors Approval:	03/21

A. **PURPOSE:**

1. To provide guidelines for the Medical Staff to identify competency and professional practice trends that impact quality of care and patient safety which may require intervention by the organized medical staff. The information used in the Ongoing Professional Practice Evaluation (OPPE) ~~evaluation~~ may be acquired through the following three components:
   a. Ongoing Professional Practice Evaluation (OPPE) (To include Direct Observation)
   b. Individual Case/Peer Review
   c. Focused Professional Practice Evaluation (FPPE)

B. **POLICY:**

1. The Medical Executive Committee (MEC) has oversight of the Ongoing Professional Practice Evaluation (OPPE) process. The Medical Quality Peer Review Committee (MQPR) is a multi-specialty committee that evaluates and monitors the quality and appropriateness of healthcare services provided to patients and recommends plans for improving and sustaining quality patient care on an ongoing basis to the MEC.
2. Medical Staff members, departments, divisions and committees participate in peer review activities in accordance with this policy as well as the Medical Staff Bylaws, Medical Staff Rules and Regulations, Department/Division Rules and Regulations, and as required by licensure regulations, accreditation standards and conditions of participation in Federally funded programs. Peer review includes all evaluation activities involving members of the Medical Staff ("Practitioners"), including quality improvement, utilization review, monitoring, proctoring, focused review, Focused Professional Practice Evaluation (FPPE), On-going Professional Practice Evaluation (OPPE) and medical record review. The results of peer review activities are utilized to assess a Practitioner's professional practice as part of the credentialing, privileging, and corrective action processes.
3. Members of the medical staff will receive provider-specific feedback on an ongoing basis via the OPPE process.
4. OPPE information in the individual practitioner's file is available to authorized individuals with a legitimate reason for access based on their assigned responsibilities. Individuals with access to provider-specific information is limited to:
   a. The specific provider
   b. Chief of Staff and Medical Staff Department/Division Chair
   c. Members of the MEC and Credentials Committee for purposes of considering appointment, re-appointment, privileges or corrective action
   d. The Board of Governors for the specific purposes associated with this policy and their role in approving members of the Medical Staff

e. Specific medical and hospital staff that support the work of the Medical Staff in carrying out the duties associated with this policy
f. Individuals surveying for accrediting bodies with appropriate jurisdiction (e.g. The Joint Commission or state/federal regulatory bodies).

5. MQPR meeting minutes will be reported through the MEC meeting for approval.

C. **ONGOING PROFESSIONAL PRACTICE EVALUATION ("OPPE"):**

1. Definition: A Summary of ongoing data collected for the purpose of assessing a practitioner's clinical competence and professional behavior.
2. Ongoing Evaluation: At eight (8) month intervals, every Practitioner will undergo ongoing evaluations defined by each Department/Division. Relevant data is collected and assembled for review by the applicable Department Chair/Division Chief, who shall determine whether the Practitioner is performing: 1) well/within desired expectations and that no further action is warranted; or 2) **that an issue exists and requires action to address the finding; or 3)** that an issue exists that requires a focused evaluation; or ~~4~~3) recommending revocation of a privilege because it is no longer required, recommending suspension of a privilege; or 54) that there has been zero performance of a privilege thereby triggering focused review (proctoring) whenever the practitioner performs the privilege; or ~~6~~5) determining that a privilege should be continued without change because the organization's mission is to be able to provide the privilege to its patients. Ongoing evaluations shall be included in the Practitioner's credential file as part of the reappointment process. This process will evaluate a Practitioner's professional performance on an on-going basis, utilizing the following six (6) areas of General Competencies:
   a. Patient Care
   b. Medical / Clinical Knowledge
   c. Practice-based learning and Improvement
   d. Interpersonal and communication skills
   e. Professionalism
   f. Systems / Based Practice
3. **Individual quality measures within the OPPE profiles will have thresholds/benchmarks to guide the department/division chair in determining provider performance. (Department/Division specific quality measures are approved annually by the medical staff). If a concern is identified, the department/division chair will propose actions to address the finding.**
4. **Individual peer review outcomes within the OPPE profiles will have a threshold to guide the department/division chair in determining provider performance. This will be acquired through the following point-based system:**
   a. **Within Standard of Care & Not Physician Related: 0 Points**
   b. **Minimal Variance from the Standard of Care & Violation of Hospital Policy (with quality component): 1 Point**
   c. **Moderate Variance from the Standard of Care: 2 Points**
   d. **Significant Variance from the Standard of Care: 3 Points**
5. **The total number of points will be added for each provider for the 8-month timeframe/OPPE cycle. The point threshold per 8-month cycle is set by the MQPR Committee and may change as deemed warranted by the MQPR Committee. If a practitioner exceeds the set point threshold (this is referred to as a trigger), the department/division chair will review further and propose actions to address the finding.**
6. **A summary report will be provided to the MQPR Committee periodically outlining all practitioners that have exceeded thresholds in a specific quality measure or peer review outcome during their OPPE cycle. The report will also track if providers are continuing to perform poorly in subsequent OPPE cycles. Customary actions will occur as follows, but actions may be subject to change at the discretion of the department/division chair:**
   a. **1st OPPE cycle exceeding threshold: Letter from chair notifying provider area in need of improvement.**
   b. **2nd OPPE cycle exceeding threshold (consecutive): Letter from chair notifying**

provider area in need of improvement has exceeded the threshold a second time and has been referred to MQPR. Letter from MQPR requesting response from provider re: plan of improvement.

~~3.~~**c. 3rd cycle concern (consecutive): Letter from chair notifying provider area in need of improvement has exceeded the threshold a third time and has been referred to MQPR for potential FPPE. MQPR will review again and make recommendation to MEC for FPPE as deemed warranted.**

***7. Individual professional behavior review outcomes within the OPPE profiles will have a threshold to guide the department/division chair in determining provider performance. This will be acquired through the following point-based system:**

***a. No Determined Behavioral Issue: 0 Points**

b. Minimal Violation of Physician Code of Conduct/Violation of Hospital Policy (without quality component): 1 Point *(HIM suspension, angry outbursts, name calling, loud or inappropriate arguments, inappropriate comments in medical record, etc.)

c. Moderate Violation of Physician Code of Conduct: 2 Points *(Belittling, berating, intimidating, swearing, shaming others for negative outcomes, discriminatory comments, threat of physical force, etc.)*

~~4.~~**d. Significant Violation of Physician Code of Conduct: 3 Points (Physical boundaries violation or sexual harassment, threat of physical force, unwanted physical~~~~ian~~ or sexual contact, throwing objects, etc.)**

~~5.~~**8. The total number of points will be added for each provider for the 8-month timeframe/OPPE cycle. The point threshold per 8-month cycle will be set by the Professional Behavior Committee (PBC) and may change as deemed warranted by the PBC. If a practitioner exceeds the set point threshold (this is referred to as a trigger), the department/division chair will refer the trend to the PBC committee/chair to propose actions to address the finding. Behavioral trends will be managed through the Professional Behavior Committee (PBC) and not tracked/monitored through MQPR.**

~~6.~~**9.** After OPPE review is completed by the respective Department/Division chair, the Practitioner **will** receive~~s~~ a letter with the review findings and a copy of the OPPE file is placed in the Practitioner's file.

D. **INDIVIDUAL CASE REVIEW/PEER REVIEW:**

1. Definition: An assessment of a practitioner's professional performance by other practitioners through the review of individual patient record(s). The review can identify a provider's strengths and opportunities for improvement.
2. The MQPR, a multidisciplinary committee, serves as the formal peer review committee for all departments and divisions. The work of the MQPR does not preclude case discussions at department/division/committee meetings for purposes of shared learning.
3. Case reviews are initiated based on department/division established criteria, reported deviations from expected care, statistical analysis showing (i) important single events, levels of performance, or patterns or trends varying significantly from expected; (ii) performance varying significantly from other organizations; (iii) performance varying significantly from recognized standards, variances from utilization practices, (iv) risk management concerns involving quality of care, complaints from patients/family or staff relating to quality of care, (v) notices from regulatory bodies, accreditation agencies or third party payors involving quality of care, or **(vi)** if an appropriate~~, (vi)~~ medical staff officer determines a need.
4. Case reviews will be performed by the applicable department/division (or designee thereof in accordance with the Medical Staff Bylaws or Rules and Regulations). Review findings will be documented and rated in accordance with a system established by the Medical Quality/Peer Review Committee (MQPR). *Refer to attachment A (Quality Case Review Flowchart)* for details regarding review process for cases with suspected or identified quality of care concerns.
5. **Case reviews involving a single department/division will generally be reviewed by a first and second line reviewer. If a specialty specific second line peer reviewer is unavailable,**

the second line review will be assigned to a peer with privileges closest to the specialty being reviewed.

6. **Case reviews involving multiple departments/divisions will only require a first line reviewer for each department/division involved in effort to minimize the number of reviewers assigned to an individual case.**
7. **Case reviews found to have been within the standard of care or not physician related: Theses cases will be added to the monthly MQPR Committee agenda as informational cases not warranting discussion. Should the MQPR chair or any other member of the MQPR Committee identify a concern, the case can be re-opened and discussed. No correspondence will go out to the attributing provider for these cases unless there is an educational component involved. (Providers are informed of all case reviews and outcomes every 8 months as part of the customary OPPE process).**
8. **Case reviews found to have been in violation of hospital policy or with minimal departure from the standard of care: These cases will be added to the monthly MQPR Committee agenda as informational cases not warranting discussion. Should the MQPR chair or any other member of the MQPR Committee identify a concern, the case can be re-opened and discussed. An educational letter is sent to the attributing provider noting the final review findings/outcome/area(s) of opportunity.**
9. **Case reviews found to have moderate or significant departure from the standard of care: A letter will be sent notifying the attributing provider(s) of the initial review findings/concerns/questions and opportunity to provide input on the case. The letter will indicate that if input is not received within the allotted timeframe (generally 2 weeks), the review will proceed accordingly. These cases will be discussed at the MQPR Committee. If the MQPR Committee feels that additional information is warranted, the case will be tabled pending additional provider input/response. An educational letter is sent to the attributing provider noting the final review findings/outcome/area(s) of opportunity.**
10. **Second line case reviewers/MQPR representation: Most department/divisions have one representative that sits on the MQPR Committee. When feasible, the representative that sits on the MQPR Committee will perform the second line case review for their respective department/division. Case discussions involving a specialty that does not have a seat on the MQPR committee will have an ad hoc representative attend the MQPR Committee on an as needed basis.**
11. **Cases involving a clear violation of hospital policy with no additional quality component will only require a first line review.**

~~4.~~**12.** **First and second line review discrepancies: If a second line reviewer disagrees with the first line reviewer's adjudication, the two reviewers will deliberate in effort to come to consensus on adjudication. If the two reviewers are unable to come to agreement, the case will be referred to the MQPR Committee for further discussion.**

~~5.~~**13.** Review Timelines: Peer review of a particular matter shall be conducted as soon as reasonably possible based on when the matter is discovered and the complexity of the matter to be reviewed. In general, initial review of those circumstances identified herein should be carried out within thirty (30) days of discovery. Completion of the peer review process of a particular circumstance should occur within ninety (90) days of discovery, unless unusual events interceded, include but not limited to, focused review or referral to another department/division. Delays in review shall be reported to the MQPR and Medical Executive Committee. Expedited reviews are appropriate in the event there may be an imminent threat to the health or safety of an individual.

~~6.~~**14.** Reporting Findings: The findings of peer review activities are reported through the MQPR Committee and on to the Medical Executive Committee following each MQPR meeting.

~~7.~~**15.** Action: Consistent with the provisions of the Medical Staff Bylaws, the department/division/quality review committee/chair/chief may take action or make recommendations for action, including implementation of monitoring, proctoring and focused evaluation activities. Any recommendations for corrective action which may give rise to hearing rights shall be processed in accordance with the Medical Staff Bylaws.

~~8.~~**16.** External Peer Review: There are circumstances which can potentially warrant external peer

review (e.g. ambiguity, conflict of interest, lack of internal expertise). Cases recommended for external review must be approved by the MEC. External peer review will be performed by a contracted peer review organization that is board certified and in active practice. The external peer review report is forwarded to the MQPR for review, discussion and file case disposition.

E. **FOCUSED PROFESSIONAL PRACTICE EVALUATION("FPPE"):**

1. Definition: Monitoring, proctoring and focused review activities utilized -to evaluate the privilege-specific competence of a practitioner granted new/initial privileges, where activity is insufficient to evaluate competence at time of privilege renewal, or when questions arise regarding a practitioner's ability to provide quality care.
2. Monitoring: Monitoring shall consist of the on-going scrutiny of a Practitioner's practice without limitations or obligations on the monitored Practitioner. Examples include, but are not limited to, retrospective chart review, concurrent chart review, and concurrent observation.
3. Proctoring:
   a. Concurrent proctoring is when a Practitioner is obligated to arrange for another Practitioner to be present during a patient care episode and, except in the case of an emergency, when the Practitioner may not proceed with the specific patient care unless the proctor is present.
   b. Retrospective proctoring is when a Practitioner's provision of care and treatment is evaluated through review of the medical record. In the case of newly or initially granted privileges, all Practitioners shall be subject to such proctoring requirements as set for the in the Medical Staff Bylaws, Medical Staff Rules and Regulations, and Department/Division Rules and Regulations. In addition, in cases where a Practitioner has insufficient activity in a particular privilege to evaluate competence at time of renewal, the proctoring process may be utilized.
   c. The provisions of the Bylaws and Rules and Regulations shall be followed with regard to the methods of proctoring, duration of proctoring, criteria for conclusion of proctoring, process for conclusion of proctoring, etc.
4. Focused Review: In case where, based on the evaluation of a Practitioner's current clinical competence, compliance with standards, or ability to perform requested privileges, questions arise regarding a Practitioner's ability to provide quality care, focused review may be initiated. Circumstances which may give rise to focused professional practice evaluation include, but are not limited to, provision of inappropriate care, including a single egregious incident or a clinical practice trend; mortality/morbidity complication rates at variance with applicable standards; failure to comply with hospital or medical staff policies, procedures, rules, regulations, bylaws, laws, regulations or standards; action by a licensing agency or other governmental entity; a significant pattern of malpractice claims; and a significant number or dollar amount of malpractice settlements, judgments or arbitration awards.
   a. INITIATION PROCESS: Request for a FPPE must be in writing, submitted to the MQPR Committee and MEC, with supported reference to the specific activities or conduct alleged. Monitoring for the FPPE may include but is not limited to periodic chart review, concurrent chart review, direct observation, monitoring diagnostic and treatment techniques, interviews with staff.
   b. Time frame for the FPPE: The Medical Executive Committee will approve the time frame required for monitoring.
   c. Monitoring Plan: If the MEC initiates the request for an FPPE, the Practitioner will be notified in writing. The initial written notice shall include a statement of facts demonstrating the request for FPPE was reasonable and warranted. This communication must also include what is wrong with the performance and what improvements are expected.
   d. OUTCOME OF FPPE: A summary of findings and conclusion is forwarded to the MEC for review. If actions are recommended, the department/division chair is involved in reviewing the FPPE findings and formulating the proposed action plan. The Practitioner will be notified in writing of conclusions and recommendations following FPPE.

F. **GENERAL RULES SURROUNDING PEER REVIEW ACTIVITIES:**

1. Participants in the Peer Review Process:
   a. Peer: Within the context of this policy, a "peer" is one with similar clinical competence and scope of responsibility, and to the extent possible, in the same or related specialty, with the experience to render technically sound judgment of the clinical circumstances under review.
   b. Reviewer(s): The Department/Division Chair/Chief shall appoint Practitioners to perform case reviews. The reviewer shall not be personally involved in the care of the patient, and to the extent possible should not be a member of the same practice group or have other personal or professional conflicts.
   c. Affected Practitioner: A Practitioner whose practice is being reviewed shall participate in the peer review process at the earliest reasonable time to afford the affected Practitioner with an opportunity to provide additional information or obtain education regarding the particular circumstances. This participation may include, but is not limited to, written response or attendance at a meeting, as determined by the Department/Division/Committee. In cases where the peer review process advances to the investigation for corrective action stage, the process shall comply with the provisions of the Medical Staff Bylaws.
   d. Support Staff: Employees of the hospital may be designated to assist the Medical Staff with its peer review activities. Employees acting in such roles shall be under the direction and supervision of the Medical Staff, and shall comply with all Medical Staff confidentiality requirements with regard to peer review materials.

~~e.~~**2.** Data Sources/Collection: The cases for peer review are derived from quality review reports,patient satisfaction surveys, department specific criteria and reports generated from coded-medical records.

~~2.~~**3.** Criteria shall be reviewed by each department/ division annually. The criteria can be changed before the annual review with request from Department Chair.

~~3.~~**4.** The MQPR will meet as necessary to conduct business; generally monthly but no less than 10 times per calendar year.

~~4.~~**5.** Peer Review results are used in the reappointment process and in ongoing performance improvement activities for all members of medical staff.

~~5.~~**6.** Cases requiring immediate action or intervention are shared directly from Risk Manager to Department Chairman or Chairman of MQPR Committee and may require direct intervention.

~~6.~~**7.** Systems or Process Concerns identified during a case review/discussion will be noted in the Peer Review minutes and referred to the appropriate personnel for further evaluation and action as appropriate. MQPR will track systems/process issues through completion.

~~7.~~**8.** For cases of Practitioner comportment, refer to Medical Staff Policy 511.1, Physician Behavior Policy.

G. **CATEGORY OF ASSIGNMENTS:**

1. Not Physician Related
   a. These events are- **non-physician related.** ~~casually related to the patient, to support care provided within the hospital, or care provided outside the hospital~~. Trending data from this category would not enhance or identify opportunities to improve physician-specific performance but may demonstrate trends useful for departmental or hospital wide management.
2. Within The Standard of Care
   a. These events reflect care that is within the contemporary standards of the specialty or expected standards of the department.
   b. These events reflect care that resulted in a complication and or prolonged clinical course, but the care remained within the contemporary standards of the specialty or the department.
3. Departure From The Standard of Care
   ~~a. In each occurrence below, the physician will be notified:~~

~~b.~~**a.** Minimal Variance

i. These events reflect care that is minimally outside the contemporary standards of the specialty or expected standards of the department,~~-~~ **that may have or did result in temporary or permanent harm to the patient.** ~~and which might be to the detriment of the patient. There could be review, response or further study by the committee.~~

~~c.~~**b.** Moderate Variance

i. These events reflect care that is clearly outside the contemporary standards of the specialty or expected standards of the department **that may have or did result in temporary or permanent harm to the patient.** ~~to the detriment of the patient. There must be review, response, trending, or further study by the committee.~~

~~d.~~**c.** Significant Variance

i. These events represent gross departures from expected standards~~,~~ **and** raise immediate questions about judgment or technique**. These events may have or did result in temporary or permanent harm to the patient.** ~~and require an immediate response from the committee or department. In each occurrence, the physician will be notified.~~

~~ii.~~**4.** Violation of Hospital Policy (Includes poor communication **and** ~~or~~ inadequate documentation.

~~iii.~~**5. No Identified Physician Behavioral Issue**

~~iv.~~**6. Violation of Physician Code of Conduct**

~~v.~~**a. Minimal Violation**

~~vi.~~**i. These events reflect behavior that minimally violates physician code of conduct (HIM suspension, angry outbursts, name calling, loud or inappropriate arguments, inappropriate comments in the medical record.**

b. Moderate Violation

~~vii.~~**i. These events reflect behavior that moderately violates physician code of conduct ((Belittling, berating, intimidating, swearing, shaming others for negative outcomes, discriminatory comments, etc).**

b. Significant Violation

i. These events reflect behavior that significantly violates physician code of conduct (Physical boundaries violation or sexual harassment, threat of physical force, unwanted physical or sexual contact, throwing objects, etc.)

~~viii. Violation of Physician Code of Conduct These behavioral events will initiate an immediate response. The physician will be notified.~~

~~H.~~B. APPEAL PROCESS:

1. Practitioner(s) asked for information by a reviewing committee with regard to quality events of a particular case(s) must respond within 30 days of receipt of such request. If no response is received within 30 days, the committee will make its determination without that physician(s) input.
2. If the Practitioner disagrees with the category assigned, he/she may request appeal from the committee where the assignment is made. If the appeal is not resolved to the satisfaction of the Practitioner, the MQPR Committee shall serve as the appeal review body and the MEC as the final appeal body.
3. The Medical Staff member may review his/her file on request as outlined in the Medical Staff Bylaws.
4. Any evaluation of a quality event that is not completed within six (6) months of initial review will be reported to the MQPR Committee and may be subject to assessment by the committee chairperson.

~~I.~~C. REFERENCES:

1. Medical Staff Standards, Joint Commission 2017
2. Effective Peer Review A Practical Guide to Contemporary Design, 3rd Edition, Robert Marder, May 2013

Tri-City Medical Center
Oceanside, California

MEDICAL STAFF

ISSUE DATE: 04/08	**SUBJECT:** Tuberculosis Screening of Licensed Independent Practitioners and Allied Health Professionals
REVISION DATE(S): 05/08, 08/12	**POLICY NUMBER:** 8710 – 538

Medical Staff Department Approval:	~~05/18~~02/21
Infection Control Committee Approval:	~~07/18~~03/21
Credentials Committee Approval:	~~01/18~~05/21
Pharmacy & Therapeutics Committee Approval:	n/a
Medical Executive Committee Approval:	~~07/18~~06/21
Administration Approval:	~~08/18~~08/21
Professional Affairs Committee Approval:	n/a
Board of Directors Approval:	08/18

A. **PURPOSE:**

1. Screening for tuberculosis provides a mechanism to detect latent or active disease. This will facilitate treatment and appropriate follow-up to decrease the risk of transmission within Tri-City Health District.

B. **SUPPORTIVE DATA:**

1. Tri-City Medical Center falls into the Department of Health and Human Services 'medium-risk classification' as defined in the Guidelines for Preventing the Transmission of Mycobacterium tuberculosis in Health-Care Settings, 2005. Facilities in this category should perform baseline and annual TB screening for all healthcare workers who might have contact with persons with suspected or confirmed TB disease. **Joint Commission**~~JCAHO~~ Standard IC.4.10 also requires interventions to reduce the risk of infection, specifically, "testing of licensed independent practitioners (e.g. physicians and allied health professionals)".

C. **POLICY:**

1. All licensed independent practitioners are required to complete initial appointment, pursuant to § 4.5-1 of the Medical Staff Bylaws, application for initial appointment and reappointment and annual screening for Mycobacterium tuberculosis. Failure to comply with this requirement will result in the initial application being deemed incomplete and, for current staff members, pursuant to § 6.3-5, of the Medical Staff Bylaws, limited suspension of clinical privileges.
2. An individual's requirement to fulfill screening will depend upon previous testing results (See Tuberculosis Testing for LIPs)
3. The QuantiFERON-TB®-Gold (QFT-G) is a blood test that measures interferon-gamma release from sensitized white blood cells and may be used in any situation which calls for a tuberculin skin test (TST). Unlike the TST, it does not require two-step testing and does not cross-react with Bacillus Calmette-Guérin (BCG). However, whereas the TST is offered free of charge, physicians electing to obtain a QFT-G will have to pay for the test (approximately $50) though the hospital can assist with the venipuncture and transport of the specimen to an appropriate facility.

D. **PROCEDURE:**

1. Medical Staff Office provides LIPs with a tuberculosis screening form (MD Tuberculosis Annual Attestation Form) at the time of initial appointment.

2. Completed forms are stored in the individual's credentials file.
3. WorkPartners Occupational Medicine establishes an annual tuberculosis screening date for tracking.
4. Workpartners is responsible for sending reminder letters to the LIP on an annual basis.
5. Delinquent LIP's reappointment packets are considered incomplete and all clinical privileges shall be subject to suspension per bylaws if requirements are not met.

E. RELATED DOCUMENT(S):

1. MD Tuberculosis Annual Attestation Form
2. Tuberculosis Testing for LIPs

F. REFERENCE(S):

1. CDC Draft Guidelines for Preventing the Transmission of M.tb in Health-Care Settings, 2005 http://www.cdc.gov/nchstp/tb/Federal_Register/New_Guidelines/TBICGuidelines.pdf
2. CAHM Comprehensive Accreditation Manual for Hospitals: the Official Handbook, Refreshed Core, January **2020**~~2005~~

Tri-City Medical Center	~~Distribution:~~ Women~~'s~~ and **Newborn**~~Children's~~ Services **Neonatal Intensive Care Unit**
~~**PROCEDURE**~~**POLICY**:	**SEDATION/ANALGESIA USED DURING THERAPEUTIC OR DIAGNOSTIC PROCEDURES FOR THE NICU PATIENT**
Purpose:	To establish guidance for the safe administration of sedatives used specifically for a level of sedation referred to as moderate sedation/analgesia ~~(previously referred to as "conscious sedation"), delineate required components of care. To provide uniform guidelines allowing clinicians to provide their patients with the benefits of sedation while minimizing the associated risks.~~
~~Supportive Data:~~	
~~Equipment:~~	~~1. Emergency care with cardiac monitor/defibrillator and airway management equipment~~ ~~2. Pulse oximeter~~ ~~3. Blood pressure monitor~~ ~~4. Suction equipment~~ ~~5. Positive pressure oxygen delivery system available~~ ~~6.~~1. ~~Reversal medications – Naloxone (Narcan) and Flumazenil (Romazicon) – readily available.~~

A. **~~PROCEDURE~~: CONSIDERATIONS**

~~1. The level of sedation (anxiolysis or minimal, conscious or moderate, deep, or general anesthesia) and the American Society of Anesthesiologists (ASA) classification determines the requirements for administration and monitoring of patients receiving sedation.~~

~~2. The practitioner using sedation medication shall have available the facilities, personnel, and equipment to manage any emergency situation experienced by the patient and as mandated by state and national regulatory agencies.~~

~~3. In the event of an emergency occurrence, resuscitation will be provided using Neonatal Resuscitation Program (NRP) guidelines.~~

~~4. Goals of sedation in the neonatal patient:~~

~~a. Achieve adequate sedation with minimal risk.~~

~~b. Minimize discomfort, pain and agitation.~~

~~c. Facilitate technical performance of the procedure.~~

1. **Moderate Sedation: A drug-induced depression of consciousness during which patients respond in an age-appropriate manner, (e.g., withdrawal, crying) to light tactile stimulation. No intervention is required to maintain a patent airway, and spontaneous ventilation is adequate.**
2. **Physicians ordering/administering/monitoring patients receiving sedation must be privileged in the procedure being performed through the medical staff and governing body at time of appointment and reappointment, in accordance with appropriate medical staff privileging criteria.**
3. **The healthcare professional performing the procedure is responsible for obtaining consent (if required) for the procedure.**
4. **The physician will evaluate the infant prior to the procedure and determine appropriateness of feeding status and timing of last feeding in relation to timing of the procedure.**
5. **Infants receiving sedation or analgesia should have intravenous (IV) access throughout the procedure and until there is no longer a risk for cardiorespiratory depression.**

B. **PROCESS**

NICU Department Review/~~Revision Date~~	Perinatal Collaborative Practice ~~Clinical Policies & Procedures~~	Department of Anesthesiology ~~Patient Care Quality Committee~~	Pharmacy & Therapeutics Committee~~Medical Department Review~~	Medical Executive Committee	Administration	Professional Affairs Committee	Board of Directors Approval
4/09, 04/13, 02/20	4/09, 04/13, 03/20	5/09, 11/20	05/21	05/13, 07/21	08/21	6/09, 06/13, n/a	6/09, 06/13

1. Time Out
   a. Completed immediately before the start of the procedure.
   b. Use consent form to read patient's name, approved second patient identifier and procedure, verifying site is marked if applicable.
   c. Document appropriately in the medical record.
2. Monitoring Guidelines
   a. Infant must be monitored by RN and/or physician when sedation or analgesia medications are administered
   b. Use of direct visual observation, continuous cardiorespiratory, and pulse oximetry monitoring is required.
   c. Ensure alarm limits are set to patient-appropriate parameters.
   d. Vital Signs (VS), including blood pressure, heart rate, respirations, oxygen saturations and pain/sedation score, should be completed every 5 min during the procedure.
   e. NPASS (Neonatal Pain Agitation and Sedation Scale) shall be used to assess pain and sedation throughout the procedure.
3. Reversal agents for medications given for sedation/analgesia should be readily available during the procedure.
4. Emergency resuscitation equipment should be available at the bedside at all times.

C. <u>DOCUMENTATION</u>

1. Physician procedure note should indicate
   a. Infant's suitability and evaluation for the procedure
   b. Name of procedure performed
   c. Pre-procedure diagnosis or indication
   d. Post-procedure diagnosis
   e. Patient Status
   f. Name of physician performing the procedure
   g. Medications used for sedation/analgesia
   h. Complications
   i. Findings
2. VS obtained should be documented in the medical record
3. Any interventions taken to stabilize the infant's condition during the procedure should be documented.
4. A full assessment should be completed and documented by the registered nurse (RN) prior to the start of the procedure.
5. Pre-Procedure Checklist should be completed.
6. ~~Patient selection:~~
   a. ~~Candidates for sedation are those patients who must undergo painful or difficult procedures where cooperation and/or comfort will be difficult or impossible without pharmacological support. Such procedures include:~~
      i. ~~Laser therapy for retinopathy or prematurity~~
      ii. ~~Chest tube insertion~~
   b. ~~Patients are screened using the American Society of Anesthesiologists (ASA) physical status classification. This system categorizes patients according to their physical status and is commonly used to help determine a patient's risk for anesthesia or sedation.~~
7. ~~Physician and qualified individual clinical competency:~~
   a. ~~The staff member responsible for the treatment and/or monitoring of the patient must demonstrate competency in:~~
      i. ~~NRP~~
      ii. ~~Knowledge of area emergency procedures, including emergency cart inventory.~~
      iii. ~~Recognition and treatment of any associated complication.~~
      iv. ~~Establishment/maintenance of an unobstructed airway and use of bag and mask ventilation to assist breathing.~~

v. Implementation of emergency measures within scope of licensure/competency for sudden adverse developments in patient status.
vi. Ability to monitor, interpret and report pertinent observations in vital signs and pulse oximetry.
vii. Familiarity with sedative drugs, reversal agents, dosing and physiologic effects.

8. Competency/Credentialing:
   a. Physicians ordering/administering/monitoring patients receiving sedation must be privileged in the procedure being performed through the medical staff and governing body at time of appointment and reappointment, in accordance with appropriate medical staff privileging criteria.
   b. RNs/Competent Qualified Individuals:
      i. Initial competency is required in administration of sedating agents, side effects, reversal agents, hospital policy, and identification of and response to emergencies (airway management and resuscitation) prior to conducting sedation.
      ii. Staff involved in sedation shall complete an annual sedation competence evaluation.

B. DEFINITION OF TERMS:

1. **Moderate Sedation:** A drug-induced depression of consciousness during which patients respond in an age-appropriate manner, (e.g., withdrawal, crying) to light tactile stimulation. No intervention is required to maintain a patent airway, and spontaneous ventilation is adequate.
2. **ASA Class Determinations:**
   a. Class I
      i. No organic, physiologic, biochemical or psychiatric disturbance. Normal healthy patient.
   b. Class II
      i. Mild-moderate systemic disturbance, may or may not be related to reason for surgery. Examples: (hypertension, diabetes mellitus).
   c. Class III
      i. Severe systemic disturbance. (Examples: heart disease, poorly controlled hypertension).
   d. Class IV
      i. Life-threatening systemic disturbance (Examples: congestive heart failure, persistent angina pectoris).
   e. Class V
      i. Moribund patient. Little chance for survival. Surgery is last resort. (Examples: uncontrolled bleeding, ruptured abdominal aortic aneurysm).
   f. Class VI
      i. Clinically dead patients being maintained for harvesting of organs.
   g. Class E
      i. Patient requires emergency procedure.
3. NPASS (Neonatal Pain Agitation and Sedation Scale)
   a. Valid and reliable clinical/pain/agitation and sedation tool for neonates.

C. PRE-PROCEDURAL ASSESSMENT AND EDUCATION:

1. Instruction to parents: the physician or qualified staff member shall provide verbal or written instructions to the parent/guardians to include potential complications or risks of sedation, appropriate pre-procedure dietary precautions and medication advice.
2. Dietary precautions:
   a. For emergency procedures, the physician, in determining the appropriate interval between last PO intake and sedation procedure should exercise sound clinical judgment. If possible, such patients may benefit from delaying the procedure and administering

appropriate pharmacological treatment to reduce gastric volume and increase gastric pH.

b. When proper fasting has not been assured, the increased risks of sedation shall be carefully weighed against its benefits and the lightest effective sedation should be used.
   i. An emergency patient may require protection of the airway before sedation.

c. Recommended NPO status is four hours.

3. Vital statistics: record weight (in kilograms) and adjusted gestational age.
4. Pre-procedure health evaluation: the physician will perform a pre-procedure/sedation assessment which includes health history including:
   a. Allergies and previous allergic reaction
   b. Time and nature of last oral intake to verify PO status
   c. Current medications including dose, time, rouse and site of administration
   d. Disease, disorders, or abnormalities
   e. Previous hospitalization including date and purpose
   f. Review of systems with a statement as to airway patency
   g. Vital signs and oxygen saturation documented immediately prior to administration of sedating agent
   h. Appropriate pre-sedation assessment must be on the chart at the time of sedation and will include documentation of sedation plan
5. Perform seven elements of final time out
   a. Consent complete
   b. Correct identity
   c. Correct procedure
   d. Correct site
   e. Correct side
   f. Correct position
   g. Correct special equipment
6. Intra-procedure
   a. Measure/assess on an ongoing basis and document (every 5 minutes) or more often if significant changes in the patient's condition occurs during the procedure:
      i. Blood pressure
      ii. Heart rate
      iii. Respiratory rate
      iv. O_2 saturation
      v. Level of pain/sedation using the NPASS Scale
      vi. Any unusual occurrences are documented
7. Post-procedure care, documentation and discharge:
   a. Vital signs and pain level are continuously monitored and documented every 15 minutes until patient meets discharge criteria.

D. **SPECIFIC GUIDELINES FOR MODERATE SEDATION:**

1. Drugs/dosage ranges: these drugs usually result in conscious (**moderate**) sedation when administered in the dosages indicated to ASA Class I and II patients. The name of the drug, dose, route, site and time of administration shall be documented.
2. An MD or RN may administer medications. Medication administration should be titrated to affect with adequate time provided to assess level of consciousness/degree of sedation.
3. Support personnel: the primary responsibility of the qualified support personnel is to monitor the patient throughout the sedation procedure. This support is in addition to the practitioner performing the procedure. Support individuals should be trained in NRP and have knowledge of the contents of the emergency cart or kit, and have demonstrated sedation competency. The RN managing the care of a patient receiving IV sedation shall not leave the patient unattended or engage in tasks that would compromise continuous monitoring of the patient by the RN. The RN functions as described in this policy may not be assigned to unlicensed assistant personnel.
4. Monitoring:

~~a. Monitoring pre-procedure:~~
~~i. Immediately prior to sedation, the patient is reevaluated by an individual competent in conscious sedation to include baseline blood pressure, HR, RR and oxygen saturation.~~
~~b. Monitoring intra-procedure:~~
~~i. Continuous monitoring during conscious (moderate) sedation includes:~~
~~1) Heart rate~~
~~2) Respiratory rate~~
~~3) Oxygen saturation (pulse oximetry) BP when >2 years old~~
~~4) Visual assessment including skin color, airway patency, sedation level, and pain level~~
~~5) Documentation of monitoring parameters shall be recorded at least every five minutes on the sedation record~~
~~6) The patient's head position should be checked periodically to ensure airway patency~~
~~c. Post procedure monitoring and recovery care: when the treatment procedures have been completed, the vital signs (including BP) should be recorded every 15 minutes until the patient meets discharge criteria. For procedures requiring IV sedation, IV access must be maintained until discharge criteria are met. If sedation is by a route other than IV, the need to maintain IV access is determined on a case-by-case basis.~~
~~d. The time and condition of the patient is documented in the sedation flowsheet.~~
~~5. Documentation:~~
~~a. Each sedation procedure will be documented on the sedation record. This record is filed in the patient's chart and includes pre-sedation information, vital signs, and medication dosages during sedation and post-sedation status.~~
~~6. Medications used for moderate sedation:~~
~~a. Ativan~~
~~b. Fentanyl~~
~~c. Versed~~
~~d. Narcan~~

~~E.~~D. REFERENCES:

1. ~~American Academy of Pediatrics, (2006). Guidelines for Monitoring and Management of Pediatric Patients During and After Sedation for Diagnostic and Therapeutic Procedures: An Update. Pediatrics 118:6, 2587-2602.~~**Beauman, S. & Bowles, S. (Eds.) (2019). *Policies, procedures, and competencies for neonatal nursing care* (6th edition). National Association of Neonatal Nurses.**
~~1.~~2. **Cote, C.J., Wilson, S., American Academy of Pediatrics, & American Academy of Pediatric Dentistry. (2019). Guidelines for monitoring and management of pediatric patients before, during, and after sedation for diagnostic and therapeutic procedures. *Pediatrics, 143*(6) e20191000. https://doi.org/10.1542/peds.2019-1000**
~~2. Rady Children's Hospital, (2003). Sedation of Patients Undergoing Diagnostic or Therapeutic Procedures. Center Policy Manual CPM-5-09.~~
~~3. Young & Mangum, (2007). Neofax 20th Ed. Thomson Healthcare.~~

Tri-City Medical Center	Nuclear Medicine **Radioactive Materials License** ~~Procedu~~
PROCEDURE:	**THERAPEUTIC USE OF RADIOPHARMAC**
Purpose:	Ensure appropriate radiation protection to sta
Supportive Data:	Title 17, California Code Of Regulations 10 C
Equipment:	NA
Issue Date:	~~Revision Date(s):~~

DELETE – duplicate content to Patient Care Services Procedure Therapeutic Use of Radiopharmaceuticals for Inpatients

1. ~~All patients treated with Iodine 131 shall be placed in a private room with a toilet. The room and toilet areas most likely to be contaminated will be covered with protective material as appropriate to the amounts of contamination to be expected. Particular attention should be given to object likely to be touched by the patient, e.g. telephones, doorknobs and other items that would be difficult to decontaminate.~~
2. ~~The patient's room will be as far away from the nursing station and heavy traffic hallways as is consistent with good medical care. All meals will utilize disposable trays, dishes and utensils to help prevent contamination.~~
3. ~~The patient's room will be properly posted in accordance with 10 CFR Part 20.1902~~
4. ~~Surveys of the patient's room and surrounding areas will be conducted as soon as possible after administration of the treatment dosage. Exposure rates will be measured at the patient's bedside, at one meter from the bed, and at the entrance to the room and the adjoining room.~~
5. ~~"Brief" the nurses on radiation safety precautions, and "supplement" this by completing the form "Nursing Instructions for Patient Receiving Radioactive Therapy". A copy will be posted on the patients chart.~~
6. ~~Radiation levels in unrestricted areas will be maintained as specified in 10 CFR Part 20.1301.~~
7. ~~Tissue, surgical dressings, and other similar waste items will be placed in a specially designated container. The material in the container will be considered contaminated and held for decay prior to disposal as normal waste.~~
8. ~~All linens and non disposable items used for these patients will be held in plastic bags in the patient's room and will be checked for contamination by the nuclear medicine technologist the Radiation Safety Officer or designee. Items may be returned for normal use or held for decay or decontamination, as appropriate. (Items held for decay will be stored in the long term storage area on the roof of the center tower)~~
9. ~~Urine, excreta and vomit from Iodine 131 therapy patients shall be flushed down the toilet whenever possible.~~
10. ~~Before a therapy patient's room is reassigned to another patient, the room will be surveyed for contamination and decontaminated if necessary and all radioactive waste and waste containers will be removed and stored until decay. The room will be considered clean if removable contamination is less than 200dpm/100cm. The radiation safety officer will issue a room release form to the nursing unit to verify decontamination has been completed.~~
11. ~~Prior to administration, brief the patient on radiation safety procedures for dosage administration, visitor control, urine collection, radioactive waste and other items as applicable.~~
12. ~~Only persons needed for medical, safety, or training purposes shall be present during the administration.~~
13. ~~Mark a visitor "safe line" on the floor with tape as far from the patient as possible.~~
14. ~~Supply the nurses with a dosimetry device. Instruct the nurse as to the correct procedure for using the dosimetry device. Nurses will be considered Non-Occupational workers whose effective annual dose limit shall not exceed 0.5 rem. A record of the nurses' exposures shall be maintained in the RSO office.~~
15. ~~A patient may be released without restriction if the exposure rate at one meter form the patient is 2 mR/hr or less, or the activity is 8 mCi or less. Higher level of activity or exposure rates is permitted with restrictions. If the exposure rate at one meter is between 2 mR/hr and 18 mR/hr~~

Nuclear Medicine Radioactive Materials License Department	Department of Radiology	Pharmacy & Therapeutics Committee	Medical Executive Committee	Administration	Professional Affairs Committee	Board of Directors
06/11, 02/20	09/20	n/a, 05/21	07/21	08/21	n/a	

and/or the activity in the patient is between 8 and 80 mCi, the patient shall be given both oral and written radiation/contamination precautionary instructions prior to discharge. Certain restriction must be imposed on the release of the patient. Consult NCRP Report No. 37 for details pertaining to the age of persons in the household.

B. **NURSING INSTRUCTIONS ON RADIATIONS SAFETY PRECAUTIONS**

1. Nurses shall spend only the minimum amount of time near the patient for ordinary nursing care.
2. Visitors will be limited to those 18 years of age or over unless other instructions are noted on patients chart.
3. Patients must remain in bed while visitors are in the room and visitors shall remain at least three feet from the patient, or behind the established visitor line.
4. Patients containing radioactive materials are to be confined to their room except for special medical or nursing purposes approved by the nuclear medicine department.
5. No nurse, visitor, or attendant who is pregnant shall be permitted in the room of a patient who has received a therapeutic amount of radioactivity until the patient no longer presents a radiation hazard. Female visitors shall be asked whether they are pregnant.
6. Attending personnel shall wear gloves when handling urinals, bedpans, emesis basins, or other containers having any material obtained from the body of the patient. The gloves shall be left in the patient's room in the designated waste container. These gloves need not be sterile.
7. Disposable items such as food trays, plastic forks, plastic drinking cups etc. shall be used in the care of these patients whenever possible. These items shall be placed in the designated waste container. Contact the nuclear medicine technologist or the RSO will remove these items during the decontamination procedure.
8. All clothes and bed linens used by the patient shall be placed in the laundry bag provided and shall be left in the patient's room to be checked by the nuclear medicine technologist or the RSO.
9. All non-disposable items shall be placed in a plastic bag and shall be left in the patients' room to be checked by the nuclear medicine technologist or the RSO.
10. Surgical dressings shall be changed only as directed by the physician. Such dressings shall not be discarded but shall be collected in plastic bags. Handle these dressings only with tongs or tweezers. Wear disposable gloves. Contact the nuclear medicine technologist or the RSO for appropriate disposal and decay.
11. Utmost precautions must be taken to see that no urine or vomits is spilled on the floor or the bed. If any part of the patients' room is suspected to be contaminated, notify the nuclear medicine technologist or the RSO.
12. If the nurse, attendant, or anyone else knows or suspects that his or her skin or clothing, including shoes, is contaminated, notify the nuclear medicine technologist or the RSO immediately. This person should remain in an area adjacent to the patients' room and should not walk about the hospital. If the hands become contaminated, wash them immediately with soap and water.
13. If a therapy patient should need emergency surgery or should die, notify the Radiation Safety Officer or the Nuclear Medicine Department immediately. The Radiation Safety Officer shall initiate radiation safety precautions (e.g. as outlined in Section 5 of the NCRP Report No. 37)
14. When the patient is discharged, call the radiation safety officer or his designee or the nuclear medicine department and request that the room be surveyed and a room release has been issued before remaking the room for the general patient population.

Tri-City Medical Center
Oceanside, California

PULMONARY SERVICES

SUBJECT: Respiratory Medication Administration

ISSUE DATE: 05/09
REVISION DATE(S): 09/09, 01/12, 06/15

Department Approval:	~~08/16~~03/20
Medical Staff Pulmonary Division:	~~04/17~~12/20
Pharmacy and Therapeutics Approval:	~~07/17~~05/21
Medical Executive Committee Approval:	~~08/17~~07/21
Administration Approval:	08/21
Professional Affairs Committee Approval:	~~09/17~~ n/a
Board of Directors Approval	09/17

A. **POLICY**:

1. Respiratory medication treatments will be rendered as close to the Respiratory medication standard times as possible. Patient diagnostic testing, meals trays, Codes, Rapid Response calls and urgent PRN (as needed) calls may impact the times that therapy is being provided.
2. The Respiratory Care Practitioner (RCP) may stagger times to keep the intervals between treatments appropriate.
3. The general expectation is that treatments will be given within one hour before or after the targeted treatment scheduled time.

B. **PROCEDURE**:

1. The RCP will stay with the patient during the treatment with the exception being the Emergency department and ICU where close monitoring is provided
2. ~~Patients may be treated concurrently if they are in the same room with the RCP using proper infection control techniques~~.
3. The RCP must compare the Medication Administration Record (MAR) and the physician's medication order to ensure accuracy.
4. ~~Below is the table listing the Respiratory therapy Medication times:~~
5. ~~**RT BID – actual time: 0800/2000 (Can't modify the table.)**~~

DELETE Table

Rx	Times Given
RT Daily (1/Day)	
RT QAM (1/Day)	
RT BID (2/Day)	
RT TID (3/Day)	
RT QID (4/Day)	00
RT Q4h (Every 4 hou	00, 2300, 0300
RT Q6h (Every 6 hours)	0300, 1500, 2100, 0900
RT Q8h (Every 8 hours)	0800, 1600, 2400
RT Q12h (Every 12 hours)	0900, 2100
WA (While awake)	Rx will be given routinely during daylight hours 0700-2000. If the patient requires therapy during the night, it may be given.
PRN (As needed)	Patient request/RN or RCP judgment.

Tri-City Medical Center
Oceanside, California

PULMONARY REHABILITATION

SUBJECT: Contraindications to Pulmonary Rehab Exercise

ISSUE DATE: 09/08
REVISION DATE: 11/11, 12/12

Department Approval:	02/20
Division of Pulmonary Approval:	n/a
Pharmacy and Therapeutics Approval:	n/a
Medical Executive Committee Approval:	07/21
Administration Approval:	08/21
Professional Affairs Committee Approval:	n/a
Board of Directors Approval:	

A. **PURPOSE:**
1. To establish contraindications to pulmonary rehabilitation exercise.

B. **POLICY:**
1. Patients with one or more of these contraindications shall not be allowed to exercise.

C. **DEFINITIONS:**
1. Contraindications to exercise:
   a. Unstable angina
   b. Resting diastolic blood pressure of greater than 110 mm Hg or systolic BP greater than 210 shall be evaluated on a case by case basis
   c. Orthostatic blood pressure drop of greater than 20 mm Hg with symptoms
   d. Acute systemic illness or fever
   e. Uncontrolled atrial or ventricular arrhythmias
   f. Uncontrolled sinus tachycardia (greater than 120 beats per minute)
   g. Uncompensated congestive heart failure
   h. Glucose level greater than 300 unless cleared by physician (participants primary MD or Pulmonary Rehab Medical Director)

Tri-City Medical Center
Oceanside, California

PULMONARY REHABILITATION SERVICES
~~TRI-CITY MEDICAL CENTER~~
~~Oceanside, California~~
~~UNIT SPECIFIC POLICY MANUAL- Pulmonary Rehabilitation Services~~

SUBJECT: Exercise Prescription

ISSUE DATE: 08/08
REVISION DATE(S): 11/11, 12/12

Department Approval ~~Date(s)~~:	**02/20**
Division of Pulmonary Approval ~~Date(s)~~:	**n/a**
Pharmacy and Therapeutics Approval ~~Date(s)~~:	**n/a**
Medical Executive Committee Approval ~~Date(s)~~:	**07/21**
Administration Approval	**08/21**
Professional Affairs Committee Approval ~~Date(s)~~:	**n/a**
Board of Directors Approval ~~Date(s)~~:	**10/13**

A. **DEFINITIONS:**

1. To establish guidelines for prescribing maximal safe exercise to Pulmonary Rehabilitation patients. To establish guidelines for exercise prescriptions which enhance cardiopulmonary endurance, body composition, flexibility and muscular strength and endurance.

B. **POLICY:**

1. The initial exercise prescription signed by the MD (on **Pulmonary Rehabilitation** ~~P.R.~~ order sheet) will allow patient to begin the program at a low level of intensity, increasing to reach target heart rate (THR) or other specified parameters set by patients physician. The intensity, duration, and type of exercise to be performed will be determined by the pulmonary rehabilitation staff. The rehabilitation staff will be responsible for the development of the exercise prescription, which will bear the appropriate signature. The Pulmonary Rehabilitation Respiratory Therapist is to increase or progress the intensity or workload in order to titrate target heart rate.

~~1.~~**2. The Pulmonary Rehabilitation Respiratory Therapist is to progress the intensity or duration of exercise based on patient's Rate of Perceived Dyspnea (RPD) or 3-5 on the modified Borg scale which is moderate to vigorous intensity (50%-80%) peak work rate.**

C. **PROCEDURE:**

1. I~~i~~ntensity of exercise will be prescribed not to exceed 85% of the functional capacity **and or an RPD of 5 on the modified Borg Scale. Intensity of exercise may be prescribed by heart rate, rating ~~ng of perceived dyspnea (RPD)~~, Spo2 and Metabolic Equivalents (METS).** . Intensity of exercise may be prescribed by hear rate, rating of perceived exertion (RPE) or by METS. The target heart is calculated by the following methods: 60-80% of maximum heart rate, using the physician approved age-related chart for maximum heart rate.
2. The Rating of Perceived Exertion (RPE) Scale may be used as a valid and reliable indicator of the level of physical exertion during constant intensity exercise to establish exercise prescription intensity. Patients' will self-monitor the RPE at a specified heart rate until the heart rate- RPE relationship is learned. Then the RPE may be employed as an additional method for regulating intensity. The intensity of exercise may be prescribed by determining 70% of the patient's functional capacity and then selecting activities with energy expenditure in METS at the desired level.

3. Duration of the conditioning phase will be 20-90 minutes and the patient will report no undue fatigue an hour after exercise.
4. The frequency of exercise sessions shall be 2 times weekly.
5. Progression in the outpatient exercise program is dependent on the patient's functional capacity. Clinical status and needs or goals. The heart rate/signs and symptoms are indicators for progression to higher metabolic workloads.
6. The type of exercise performed includes aerobic activities such as walking, recumbent elliptical, recumbent or upright bike, arm ergometer, free weight and universal weight gym weight machine workouts. Light weights (1pounds each arm up to 5 pounds each arm) with numerous repetitions may be employed to increase muscle strength and endurance. Patients with hypertension dysrhythmias or poor cardiac reserve are excluded from the weight conditioning, or circuit weight/universal gym.

D. **FORMS**

1. The exercise prescription is recorded on a daily exercise sheet.

E. **REFERENCE LIST**

1. Guidelines for Pulmonary Rehabilitation 4th Edition

Tri-City Medical Center
Oceanside, California

PULMONARY REHABILIATION SERVICES

SUBJECT: Home Exercise Program

ISSUE DATE: 10/08
REVISION DATE(S): 11/11, 12/12, ~~08~~10/13

Department Approval ~~Date(s)~~:	**~~05/18~~02/20**
Division of Pulmonary Approval ~~Date(s)~~:	**n/a**
Pharmacy and Therapeutics Approval ~~Date(s)~~:	**n/a**
Medical Executive Committee Approval ~~Date(s)~~:	**07/21**
Administration Approval:	**08/21**
Professional Affairs Committee Approval ~~Date(s)~~:	**n/a**
Board of Directors Approval ~~Date(s)~~:	**10/13**

A. **DEFINITIONS:**

1. To establish guidelines for home exercise and activity on days when the participant is not exercising within the confines of the outpatient rehabilitation program.

B. **POLICY**

1. All participants will be given instruction in home exercise within two weeks of beginning the outpatient program unless otherwise requested by their physician or it is the consensus of the team that home exercise should be delayed secondary to medical reasons.
2. The home exercise program will be specifically tailored to meet the individual participant's needs and goals. The participant's current functional capacity, medical status, and level of physical fitness will be taken into consideration when writing the home program.
3. Home exercise instruction will include thorough, written information on warm-up, cool-down, mode, intensity, duration, frequency, and progression.
4. A professional staff member will thoroughly instruct the participant regarding home exercise. The participant will be given a written set of instructions, a chart to record progress, heart rates, and RPE. All questions are answered and a staff member must sign and date the record stating that the home program was reviewed. A copy remains in the participant's chart.

C. **FORMS:**

1. The participant is given a weekly home exercise log. The participant will return the exercise log weekly for review by a member of the professional staff. The staff member reviews the record to assure the proper routine, i.e., warm-up, cool-down, heart rate within THRR, and proper progression of the exercise prescription, has been followed. This also provides a prime opportunity for encouragement and motivation.

D. **REFERENCE LIST**

1. Pulmonary Health, Rehabilitation and Exercise Testing; Policy and Procedure Guideline Manual 2nd Edition.
2. Guidelines for Pulmonary Rehabilitation; 4th Edition.

Tri-City Medical Center
Oceanside, California

PULMONARY REHABILITATION SERVICES

SUBJECT: Maintenance and Repair of Equipment

ISSUE DATE: 06/08
REVISION DATE(S): 12/12

Department Approval ~~Date(s)~~:	05/18
Division of Pulmonary Approval ~~Date(s)~~:	n/a
Pharmacy and Therapeutics Approval ~~Date(s)~~:	n/a
Medical Executive Committee Approval ~~Date(s)~~: if	n/a
Administration Approval:	08/21
Professional Affairs Committee Approval ~~Date(s)~~:	n/a
Board of Directors Approval ~~Date(s)~~:	12/12

A. **PURPOSE:**

1. To establish guidelines for the repair and maintenance of exercise equipment that has developed a malfunction or is otherwise not suitable for use in it's current condition in the Pulmonary Rehabilitation Program.

B. **POLICY:**

1. In the event of a malfunction of a piece of exercise equipment, the machine shall be unplugged, if electrically powered and shall be prominently tagged with a "Sorry Out of Order" sign.
2. Utilize the Tamis work order system, and submit a work order to BioMed department. Following their assessment of the problem, BioMed shall determine if the repair can be completed in-house or if it needs to be outsourced to a vendor.
3. Yearly preventive maintenance of the equipment is currently under the oversight of Tri-City Medical Center BioMed (Aramark) Department.

C. **GENERAL GUIDELINES:**

1. Tag all malfunctioning equipment with large, plain view signs not to use.
2. Record the equipment information and possible problem in TCMC intranet work orders. Print out requested work order; place in a plastic protector and post in office until work order is completed.
3. Contact Biomed or specific vendor for warranty repairs.
4. Follow up on issue to make sure repair is done and equipment is put back into service.

Tri-City Medical Center
Oceanside, California

PULMONARY REHABILIATION SERVICES

SUBJECT: Scope of Services

ISSUE DATE: 08/08
REVISION DATE(S): 11/11, 12/12, ~~08~~10/13

Department Approval ~~Date(s)~~:	**~~05/18~~02/20**
Division of Pulmonary Approval ~~Date(s)~~:	**n/a**
Pharmacy and Therapeutics Approval ~~Date(s)~~:	**n/a**
Medical Executive Committee Approval ~~Date(s)~~:	**07/21**
Administration Approval:	**08/21**
Professional Affairs Committee Approval ~~Date(s)~~:	**n/a**
Board of Directors Approval ~~Date(s)~~:	**10/13**

A. **DEFINITIONS:**

1. The Department of Pulmonary Rehabilitation provides diagnostic, therapeutic and educational services to in patients and out patients under the direction of a licensed ~~Pulmonary~~**pulmonary** physician. Services are provided to adult and geriatric age groups. The Pulmonary Rehabilitation Center is open Monday – Friday from 7:30 a.m. to 3 p.m. to meet the needs of our patients.

B. **DIAGNOSTIC SERVICES INCLUDE:**

1. Non-Invasive Oxygen Assessment (Pulse Oximetry)-before, during and after exercise
2. Monitor Heart Rate-before, during and after exercise
3. Blood Pressure- before and after exercise
4. Home Oxygen Assessment
5. Glucose Monitoring and Exercise Therapy for Diabetic Patients

C. **SERVICES INCLUDE:**

1. Patient Pulmonary Assessment
2. Patient Respiratory Education
3. Medical Gas Administration

D. **STAFF RESPONSIBILITIES INCLUDE:**

1. In conjunction with the Medical Director of Pulmonary Rehabilitation develop an individualized treatment plan with collaborative patient goals.
2. Document the need for a skilled level of care and services.
3. Ensure patient safety.
4. Provide patient education and training sessions.
5. Evaluate patient progress.
6. Reassess and (if needed) adjust the treatment plan.
7. In conjunction with the Medical Director of Pulmonary Rehabilitation participate in pulmonary rehabilitation team conferences, staff meetings, and in-services, as appropriate.
8. Monitor patient and program outcomes.
9. Develop a home program plan to promote long-term adherence to recommended life-style changes.
10. Initiate departmental emergency procedures as necessary.
11. Recommend pulmonary rehabilitation to potential patients.
12. Maintain communication with the referring health care professionals.

E. **PROVIDERS OF SERVICE:**

1. All providers of respiratory therapy are appropriately oriented to the Department and are licensed as required by law. Respiratory Care Practitioners (RCPs) acquire additional training and continuing education to ensure the proper care of patients. RCPs function under the direction of a Medical Director who specializes in Pulmonary Medicine.
2. The role of the RCP at Tri-City Medical Center and additional ~~Pulmonary~~**pulmonary** support staff is described in the Job Descriptions and Policies and Procedures. The Department of Pulmonary Services is composed of professional, technical, and support staff in the following categories:
   a. Director
   b. Coordinator
   c. Registered Respiratory Therapists (RRTs)
   d. Certified Respiratory Therapists (CRTs)

F. **REFERENCE LIST:**

1. Guidelines For Pulmonary Rehabilitation Programs 4th Edition

Tri-City Medical Center
Oceanside, California

PULMONARY REHABILITATION SERVICES

SUBJECT: Staffing

ISSUE DATE: 09/08
REVISION DATE(S): 12/12

Department Approval ~~Date(s)~~:	**05/18**
Division of Pulmonary Approval ~~Date(s)~~:	**n/a**
Pharmacy and Therapeutics Approval ~~Date(s)~~:	**n/a**
Medical Executive Committee Approval ~~Date(s)~~:	**n/a**
Administration Approval:	**08/21**
Professional Affairs Committee Approval ~~Date(s)~~:	**n/a**
Board of Directors Approval ~~Date(s)~~:	**02/12**

A. **PURPOSE**

1. To define staffing needs and to provide safe care to participants during exercise sessions.

B. **POLICY**

1. The Pulmonary Rehabilitation Center shall meet or exceed AACVPR Staffing Guidelines
2. During the Pulmonary Rehabilitation Program (Tuesday and Thursday), sessions are staffed at a ratio of 4 participants to one staff member.
3. During the Pulmonary Rehabilitation Maintenance (Monday, Wednesday and Friday), sessions are staffed with one staff member.
4. Two staff members shall be present in the department at all times while participants are exercising.

Tri-City Medical Center
Oceanside, California

PULMONARY REHABILIATION SERVICES

SUBJECT: Strength Training

ISSUE DATE: 08/08
REVISION DATE(S): 11/11, 12/12, ~~8~~10/13

Department Approval ~~Date(s)~~:	**~~05/18~~07/21**
Division of Pulmonary Approval ~~Date(s)~~:	**n/a**
Pharmacy and Therapeutics Approval ~~Date(s)~~:	**n/a**
Medical Executive Committee Approval ~~Date(s)~~:	**07/21**
Administration Approval:	**08/21**
Professional Affairs Committee Approval ~~Date(s)~~:	**n/a**
Board of Directors Approval ~~Date(s)~~:	**10/13**

A. **DEFINITION(S):**

1. Strength training is beneficial for patients with chronic lung disease. Weight lifting may lead to improvements in muscle strength, increased exercise endurance~~,~~ and fewer symptoms during **Activities of Daily Living** (ADL's).

B. **POLICY:**

1. A strength training prescription in pulmonary rehabilitation is to begin with lower weights and higher repetitions to work on muscle endurance. On an individual basis, higher weights and fewer repetitions to promote strength development may be indicated. Safety and prevention of muscle tears are of crucial importance. Strength training precautions are warranted for postsurgical pulmonary patients, those with osteoporosis, and patients diagnosed with primary arterial hypertension.
2. According to the AACVPR, patients diagnosed with the following conditions should be excluded from resistance training:
   a. Congestive heart failure
   b. Uncontrolled arrhythmias
   c. Severe valvular disease
   d. Uncontrolled hypertension (SBP $\geq$ 240mm Hg or DBP $\geq$100mm Hg)

C. **PROCE~~U~~DURE:**

1. Participants must complete a thorough orientation, which includes, but is not limited to the following:
   a. Proper body position with each movement.
   b. Proper range of motion and speed of movement with each motion.
   c. Proper breathing patterns and avoidance of the Valsalva maneuver during activity.

D. **FORM(S):**

1. Strength training is recorded on a daily exercise sheet.

E. **REFERENCE(S) ~~LIST~~:**

1. Guidelines for Pulmonary Rehabilitation Programs 4th Edition
2. Pulmonary Health, Rehabilitation and Exercise Testing

Tri-City Medical Center
Oceanside, California

SURGICAL SERVICES
SURGERY

ISSUE DATE: 06/09

SUBJECT: Anesthesia: Type, Location And Monitoring of

REVISION DATE(S): 05/15; 11/15; ~~02/20~~04/17

Surgical Services Department Approval:	**~~10/16~~02/20**
Department of Anesthesiology Approval:	**~~10/16~~03/20**
Operating Room Committee Approval:	**~~10/16~~07/20**
Pharmacy and Therapeutics Approval:	**~~02/17~~05/21**
Medical Executive Committee Approval:	**~~03/17~~07/21**
Administration Approval	**08/21**
Professional Affairs Committee Approval:	**~~04/17~~ n/a**
Board of Directors Approval:	**04/17**

A. **PURPOSE:**

1. To provide guidelines for type, location and monitoring of Anesthesia Services throughout Tri-City Medical Center under various forms of anesthesia.

B. **DEFINITION(S):**

1. General Anesthesia: Depression of consciousness caused by the administration of anesthetic agents during which the patient is not arousable.
2. Spinal Anesthesia: Injection of anesthetic substances in the spinal fluid.
3. Epidural Anesthesia: Injection of anesthesia substances in the epidural space.
4. Regional Anesthesia: A region of the body anesthetized with local anesthesia.
5. MAC: Monitored Anesthesia Care- Anesthesia provider present during a procedure and includes varying levels of sedation, analgesia and anxiolysis as necessary.
6. **Intravenous (**IV) Sedation: Depressed level of consciousness induced by the administration of sedatives in which patients retain the ability to maintain an open airway and respond to physical stimulation or verbal commands.
7. PACU: Post Anesthesia Care Unit.

C. **POLICY:**

1. General Guidelines:
   a. A pre-anesthesia assessment is performed for each patient before anesthesia induction.
   b. Each patient's anesthesia care is planned.
   c. Anesthesia options and risks are discussed with the patient and family, if appropriate, prior to administration.
   d. Each patient's physiological status is monitored during anesthesia administration.
   e. The patient's post-procedure status is assessed on admission to and before discharge from the PACU.
   f. Patients are discharged by a qualified licensed independent practitioner or according to criteria approved by the medical staff.
2. Type and Location:
   a. General ~~, spinal and epidural~~**and regional anesthesia** ~~procedures are~~ **may be** ~~conducted~~ **performed** in ~~the Operating Rooms (OR)~~**Surgery**, **Interventional** Radiology **(IR)** ~~Suite~~, Cardiac Catheterization Lab (Cath Lab), Labor & Delivery, and in other designated monitored units (e.g., **Emergency Department,** PACU).
   b. MAC may be performed in ~~Endoscopy,~~ Cath Lab, ~~OR~~**Surgical Services**, **IR**~~Radiology Suite~~, Intensive Care Unit (ICU), and in other designated monitored units.

c. IV sedation ~~procedures~~ may be performed in the Emergency Department (by non-anesthesia providers), ~~Endoscopy, OR, PACU~~**Surgical Services**, **IR**~~Radiology Suite~~, ICU, and in other designated monitored units.

D. **REFERENCES:**

1. Title XXII §70233 & 70235.
2. The Joint Commission **2021**~~2017~~

Tri-City Medical Center	Surgical Services
PROCEDURE:	**SURGERY BLOOD IN ICE CHESTS**
Purpose:	To outline the steps for transport and storage of blood in ice chests in Surgery.
Supportive Data:	To have blood readily available in the surgical suite when administration is anticipated in a surgical procedure.
Equipment:	Ice chest with ice blocks (from Blood Bank).
Issue Date:	08/95

A. **POLICY**

1. Surgery staff members may check out blood from the Blood Bank and transport to Surgery after demonstrating competency.
2. Each unit of blood has a Safe-T-Vue temperature monitor affixed.
   a. The Safe-T-Vue temperature monitor is checked by the blood transporter and the Blood Bank staff when checking out the blood.
   b. The Safe-T-Vue temperature monitor must be white; if it is red the blood must be returned to the Blood Bank and may not be used.
3. Ice chests:
   a. Units of blood are placed in an ice chest for transportation to Surgery and storage in the surgical suite during the procedure.
   b. An ice chest may be used when two (2) or more units of blood are ordered to the surgical room.
   c. No more than five (5) units of blood may be placed in an ice chest. Obtain multiple ice chests for more than five (5) units of blood.
   d. Ice blocks to keep the blood cold must be changed every nine (9) hours. After nine (9) hours the ice chest must be returned to the Blood Bank for new ice blocks.
      i. The Blood Bank monitors time for the ice blocks and notifies the surgical suite when ice blocks need to be changed.
   e. Units of blood must be stored in the ice chest with the Safe-T-Vue temperature monitor down.

B. **PROCEDURE:**

1. Transporting blood to surgery:
   a. Blood may only be checked out for one patient at a time.
   b. After blood is checked out from the Blood Bank, the transporter must proceed directly to the receiving surgical suite. The transporter may not stop during transport.
   c. Prior to transfusing, each unit of blood must be checked by two (2) licensed healthcare providers (a registered nurse [RN] and a second RN, perfusionist, or anesthesiologist) in accordance with Patient Care Services Procedure: Blood Products Administration.
   d. If additional blood is required during a procedure, it will be sent in a new ice chest.
   e. Ice chests are low level disinfected (i.e., wiped with hospital approved disinfectant) in the lab after each use.

Department Review	Department of Anesthesiology	Operating Room Committee	Pharmacy & Therapeutics Committee	Blood Utilization Review Committee	Medical Executive Committee	Professional Affairs Committee	Board of Directors
03/18; 02/20	n/a	03/18, 02/20	n/a	**07/18, 01/21**	05/18, 07/21	07/18, 08/21	11/96, 06/00, 03/03, 01/06, 10/09, 09/12, 07/18

Tri-City Medical Center	~~Distribution:~~ Women and Newborn Services
PROCEDURE:	**AMNIOCENTESIS**
Purpose:	To outline the nursing care of the patient undergoing an amniocentesis.
Supportive Data:	Amniocentesis is the aspiration of fluid from the uterus through an abdominal puncture for the purpose of amniotic fluid analysis. This procedure may be performed at any time during pregnancy. Once the amniotic fluid has been obtained, laboratory testing may be conducted for diagnosis of disease or evaluation of fetal lung maturity.
Equipment:	1. Electronic fetal monitor 2. Amniocentesis tray 3. Ultrasound machine 4. Patient identification labels

A. **PRE-PROCEDURE:**

1. Verify physician order.
2. Verify that the physician has discussed the indications, the risks, and benefits of the procedure with the patient.
   a. Ensure the signed consent is on the medical record.
3. Place the patient on electronic fetal and uterine monitoring for at least 20 minutes prior to amniocentesis.
4. Notify physician for Fetal Heart Rate (FHR) tracing that represents a Category II or Category III interpretation. See Fetal Heart Rate Surveillance/**Monitoring Procedure.** ~~Policy.~~
5. Obtain maternal vital signs and blood pressure.
6. Assist patient to a lateral recumbent or supine with hip tilt position.

B. **INTRA-PROCEDURE:**

1. Complete Universal Protocol, TIME OUT procedure, before beginning the procedure. See Universal Protocol Procedure, Patient Care Services.
2. Assist the physician as directed.
   a. Prepare equipment needed for procedure- amniocentesis tray, ultrasound machine, sterile gloves, ultrasonic gel, and labels with patient's identification
   b. Assist provider in obtaining an Amniotic Fluid Index (AFI) and Ultrasound to determine fetal viability, Estimated Gestational Age, placental and fetal position, singleton or multiple gestation, and detection of gross fetal malformation.
3. Label specimens at the bedside, utilizing the two patient identifiers and send for testing as ordered by physician.
   a. Protect specimen from light.
4. Apply band-aid to puncture site or 2x2 gauze with tape as indicated.

C. **POST-PROCEDURE:**

1. Continue external fetal and uterine monitoring for at least 1-hour post procedure or as indicated by provider. Assess for the presence of contractions and assess site of needle aspiration for bruising, bleeding, or leakage of fluid.
2. Administer Anti-D globulin as ordered by physician for D-Negative patient.

D. **DOCUMENTATION:**

1. Document procedure in the patient's medical record. .
2. Notify the physician for any of the following post-procedure events:
   a. Baseline fetal bradycardia or tachycardia.
   b. Uterine Activity (e.g., contractions, preterm labor).
   c. Vaginal bleeding.

Review/Revision Date	Department of OB/GYN	~~Division of Neonatology~~	Department of Pediatrics	Pharmacy & Therapeutics	Medical Executive Committee	Administration	Professional Affairs Committee	Board of Directors Approval
8/96; 2/99; 5/00; 6/03; 6/06, 12/12; 2/20	01/13; 04/16, 06/21	~~n/a~~	n/a	n/a	05/13, 04/16 , 07/21	08/21	06/13, 05/16, n/a	06/13, 05/16

3. If patient is discharged to home, review the following instructions and those advised by the physician:
   a. Not to lift anything heavy for two days.
   b. Report to physician:
      i. Any amniotic fluid leakage.
      ii. Fever
      iii. Severe cramps (slight cramps for the first day or two are normal).
      iv. Vaginal bleeding.
4. Document the teaching and any interventions completed in the patient's medical record.

E. **REFERENCES:**

1. Simpson, K. & Creehan, P. (200914) Perinatal Nursing (-45th Ed.), Philadelphia: Lippincott, Williams & Wilkins.
2. Simpson, J., Richards, D., Otano, L. & Driscoll, D., **Gabbe, S., Janiaux, E., Niebyl, J.** (20162) Gabbe Obstetrics: Normal and Problem Pregnancies (67th Ed.) St. Louis: W.B. Saunders Company.
3. Chisholm, C. & Ferguson, J. Ultrasound-Guided Procedures in Obstetrics. Ultrasound Clinics, 2012 (7) 325-335.
4. Mattson, S. & Smith, J. (20146) Core Curriculum for Maternal- Newborn Nursing, **54**th Ed. St. Louis: Saunders; Elsevier.

Tri-City Medical Center	~~Distribution:~~ Women and Newborn 's Services
PROCEDURE:	**BALLOON CERVICAL RIPENING CATHETER**
Purpose:	To outline the nursing care for the patient with an unfavorable cervix, undergoing placement of a mechanical dilator (balloon catheter) through the cervical os.
Supportive Data:	Mechanical methods for cervical ripening are indicated prior to labor induction at term when the cervix is unfavorable for induction. Balloon catheters are a current method used to soften the cervix, and may be appropriate for women for whom pharmacologic agents for cervical ripening are contraindicated.
Equipment:	~~1.~~ **Double balloon cervical ripening device** ~~18 gauge (balloon) catheter~~ ~~a.~~**1.** ~~40-80 ml balloon~~ **2. 60 mL Luer-lock syringe** **3. Sterile gloves** **4. Sterile v**~~V~~aginal speculum, if requested by provider ~~2.~~**5. Sterile specimen cup** ~~3.~~**6.** Sterile normal saline or sterile water for injection ~~4. (2) 30-60 mL syringes~~ **7. X-ray detectable sponges** **8.** Tape/stabilizing device ~~5.~~**9. Ring Forceps**

A. DEFINITIONS:

1. Cervical ripening is defined as the process of effecting physical softening and distensibility of the cervix in order to achieve preparation for labor and birth.

~~A.~~**B. INDICATIONS AND CONTRAINDICATIONS:**

1. Indications for cervical ripening
   a. Unfavorable cervix
   b. Induction of labor indicated for:
      ~~i. Chorioamnionitis~~
      ~~ii.~~**i.** Fetal demise
      ~~iii.~~**ii.** Post-term pregnancy
      ~~iv.~~**iii.** Fetal compromise (oligohydramnios, intrauterine growth restriction (IUGR) or isoimmunization)
      ~~v.~~**iv.** Preeclampsia or eclampsia
      v. Maternal medical condition such as diabetes mellitus, renal disease, chronic pulmonary disease or chronic hypertension
      vi. Elective Indication greater than 39 weeks
      ~~vi.~~**vii. Trial of labor after Cesarean (TOLAC)**
      ~~vii. Psychosocial indication~~
      ~~viii. Trial of labor after Cesarean (TOLAC)~~
2. Contraindications:
   a. ~~Vasa previa~~**Low lying placenta, placenta previa, vasa previa, placenta percreta**
   ~~b. Complete placenta previa~~
   ~~c.~~**b.** Fetal malpresentation (transverse lie, breech)
   c. Previous classical uterine incision
   d. Prior uterine myomectomy involving the endometrial cavity
   e. Active genital herpes lesions
      ~~Rupture of membranes~~
   f. Cervical infection or chorioamnionitis

Women & ~~Newborn~~Newborn Services Review/Revision	Department of OB/GYN	Department of Pediatrics	Pharmacy and Therapeutics	Medical Executive Committee	Administration	Professional Affairs Committee	Board of Directors Approval
7/03; 5/09, 06/19, 2/20	01/13, 06/15, 10/19, 06/21	n/a	n/a	05/13, 08/15, 07/21	08/21	06/13, 09/15, n/a	06/13, 9/15

g. **Higher Order Multiple gestation (greater than twins)**
~~d.~~**h.** Umbilical cord prolapse
i. Unexplained heavy vaginal bleeding in third trimester
~~e.~~**j.** **Non-category I fetal heart rate tracing must be assessed by provider prior to initiation**

~~B.~~**C.** **PROCEDURE:**

1. RN shall verify physician/Allied Health Professional (AHP) order.
~~2. RN shall verify prenatal record on patient's medical chart.~~
~~3.~~**2.** Prior to placement of the **cervical ripening** balloon catheter, the RN shall initiate **at least 30 minutes of** continuous electronic fetal monitoring to obtain a fetal heart rate (FHR) tracing predictive of fetal well being at the time of observation, Category I tracing.
   a. Notify physician/AHP for FHR tracing displaying Category II or Category III criteria.
3. **Obtain baseline set of maternal vital signs and complete physical assessment.**
4. **Verify that documentation of indication, gestational age, Bishop score, pelvic adequacy, fetal size, and presentation are on the medical record.**
5. **Educate patient on procedure**
6. **Verify documentation of informed consent is on the medical record.**
7. **Establish intravenous (IV) access per physician/AHP order.**
8. **Have patient void prior to placement.**
~~4.~~**9.** Position patient per physician/AHP request for catheter placement, care should be taken to minimize effects of supine hypotension.
   a. Physician/AHP may place **cervical ripening** balloon catheter **with use of the product stylet, or with a sterile speculum to assist with visualization.** ~~, manually if stylet is available with catheter set up for directed placement or provider may request a speculum to help visualization for catheter placement.~~
~~5.~~**10.** After the **cervical ripening** balloon catheter has been placed in the cervical os and the balloon**s are** inflated with sterile water or normal saline by the physician/AHP, tape or use stabilizing device to secure the catheter to the patient's medial thigh.
   a. Caution: do not overfill balloon**s** beyond manufacturer's guidelines (balloon**s** usually inflate**s** ~~with~~ **to** 40mL of fluid, with a maximum of ~80 mL **of fluid per balloon**).
~~6.~~**11.** Reposition the patient in a lateral position as soon as possible following insertion.
12. **Patient Monitoring:**
   a. **Continue to electronically monitor the fetal heart rate (FHR) for a minimum of 30 minutes after placement of the cervical ripening balloon catheter to observe for fetal response. Intermittent fetal monitor may then be used unless otherwise indicated.**
   b. **Patient activity/ambulation is per physician/AHP order.**
13. **Notify the provider for any~~of either~~ one of the following:**
   a. **Non-category I FHR tracing**
   b. **When the cervical ripening balloon catheter extrudes (falls out)**
   c. **If patient experiences vasovagal symptoms with traction on the catheter**
   d. **Uterine tachysystole non-responsive to nursing interventions.**
   e. **Maternal fever**
   f. **When rupture of membranes occurs~~. If membranes rupture it is recommended that the cervical ripening balloon catheter be removed in preparation for spontaneous labor.~~**
   g. **Unexpected vaginal bleeding.**
   h. **Patient's intolerance of device.**
14. **Documentation:**
   a. **FHR and uterine activity before, during, and after the procedure. FHR pattern and uterine activity are documented every 30 minutes, or more frequently per clinical situation/provider orders.**
   b. **Time of insertion and provider performing procedure.**

c. Maternal vital signs, including pain
d. Amount of saline used to the fill each balloon
e. Time cervical ripening balloon catheter falls out
f. Physician/AHP removing the balloon catheter

~~7.~~ Spontaneous rupture of membranes~~Document the type, size and placement of the transcervical balloon catheter with the amount of fluid instilled in the balloon in the patient's electronic health record (HER).~~

~~8. Continue to electronically monitor the fetal heart rate for a minimum of 30 minutes after placement of transcervical -balloon catheter to observe for fetal response (NST).~~

~~9. Patient activity/ambulation is per physician/AHP order.~~

~~10. Document the time and notify the physician/AHP when the balloon extrudes (falls out), as this usually indicates that the cervix is beginning to dilate.~~

~~a. The balloon catheter should be removed when an active labor pattern is established~~

~~11. Document the onset of regular painful contractions, maternal fever, and continuous uterine pain.~~

~~12. Document ongoing maternal-fetal assessments per WNS procedure: "Fetal Surveillance – g. Interpretation and Documentation of FHR" in the patient's HER.~~

15. Removal of the balloon cervical ripening catheter:
    a. Leave cervical ripening balloon catheter in place for up to 24~~12~~ hours.
    b. Earlier removal should occur for any of the following indications and the physician/AHP must be notified:
        ~~Spontaneous rupture of membranes~~
        i. Vaginal bleeding, more than bloody show
        ii. Uterine tachysystole
        iii. Maternal fever
        iv. Evidence of a non-category 1 FHR tracing
        v. Removal may be indicated if spontaneous active labor is experienced, if pain level increases to an intolerable level, or if patients requests so.

~~13.~~16. Additional considerations:
    a. If the patient's cervix is still unfavorable after removal, other ripening agents may be considered and immediately administered, if appropriate.

~~C.~~D. REFERENCES:

1. American Academy of Pediatrics & American College of Obstetricians and Gynecologists. (201~~2~~7). Guidelines for Perinatal Care. (7th Ed.). Elk Grove, IL, Washington DC: Authors.

~~1. AAP & ACOG. (20012). Guidelines for Perinatal Care, 7th Edition~~

2. Atad, J., Hallak, M., Ben-David, Y., Auslender, R., & Abramovici, H. (1997). Ripening and dilation of the unfavourable cervix for induction of labor by a double balloon device: Experience with 250 cases. British Journal of Obstetrics and Gynaecology. 104, 29-32.

3. Cook Medical Cervical Ripening Balloon package inset J-CCRB507.

4. Cromi, A., Ghezzi, F., Agosti, M., et al. (2011). Is transcervical foley catheter actually slower than prostaglandins in ripening the cervix? A randomized study. American Journal of Obstetrics and Gynecology, 338, 1-7.

5. Heinemann, J., Gillen, G., Sanchez-Ramos, L., & Kaunitz, A. M. (2008). Do mechanical methods of cervical ripening increase infectious morbidity? A systematic review. American Journal of Obstetrics and Gynecology, 199, 177-187.

~~2.~~6. Kennedy, B.B, Ruth, D.J., Martin, E.J. (20~~09~~20) Intrapartum Management Modules (~~4th~~rd-5th Ed.) Philadelphia, PA. Lippincott Williams and Wilkins.

~~3.~~7. Simpson, K. R. (2008). *Cervical Ripening & Induction & Augmentation of Labor*, 3rd Edition

~~4.~~ Simpson, K. R., & Creehan, P. A. (2001~~4~~20). Perinatal Nursing (4th Ed.) Philadelphia, PA: Wolters Kluwer / Lippincott Williams & Wilkins

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Tri-City Medical Center
Oceanside, California

WOMEN AND NEWBORN SERVICES
~~CHILDREN'S UNIT SPECIFIC POLICY MANUAL~~

ISSUE DATE: NEW

SUBJECT: Emergency/Stat Cesarean Section Notification Process

REVISION DATE: 02/20

Women and Newborn~~Children's~~ Services Department Approval~~Director~~:	**~~05/14~~03/20**
Department of OB/GYN:	**~~04/14~~06/21**
Department of Pediatrics Approval:	**n/a**
Pharmacy & Therapeutics Committee Approval:	**n/a**
Medical Executive Committee:	**~~07/14~~07/21**
Administration Approval:	**08/21**
Professional Affairs Committee:	**~~08/14~~ n/a**
Board of Directors Approval:	**08/14**

A. **PURPOSE:**

1. To delineate the notification process for an Emergency Cesarean Section (C-Section) for maternal or fetal indications and responder roles. Clinical indications that may require an emergency, urgent or crash C-Section can include but are not limited to:
   a. Prolapsed Umbilical Cord
   b. Uterine Rupture
   c. Placental Abruption
   d. Uncontrolled **Bleeding With a Known** Placenta Previa
   e. Category III Fetal Heart Rate Tracings
   f. Fetal Bradycardia
   g. Failed assisted vaginal delivery attempt (Forceps/Vacuum)
   ~~h. Eclampsia~~

B. **DEFINITIONS:**

1. An Emergency C-Section paging tree can be activated when a patient on the Labor and Delivery (L&D) unit experiences an obstetrical emergency indicating emergent delivery by C-Section.
2. The Emergency C-Section response team consists of:

Primary Obstetrician(OB) and/or any OB Provider IN HOUSE	**OB-1 Anesthesiologist**	**Anesthesia Technician (if in house)**
L&D Charge RN	**OB Surgical Tech**	**L&D RN/RNs**
Respiratory Therapist (RT)	**Neonatologist**	**~~Nursery~~ Transition RN**
L&D Unit Secretary	**NICU Charge RN/Assignment RN**	**Mother/Baby Charge RN**

3. **Additional**~~Ad hoc~~ members may be called at the discretion of the charge RN and can include: ~~Perioperative Aide,~~ Other L&D RN's, ~~Mother-Baby Unit Charge RN,~~ Mother/Baby Unit Assistant Care Technician (ACT), Chaplain and Social Services.

C. **POLICY:**

1. An Emergency C-section Page shall be called for any of the clinical indications identified in A.1.
2. The Emergency Page may be requested and/or activated by the following personnel:
   a. Provider
   b. L&D Charge Nurse **or designee**~~/Assistant Nurse Manager (ANM)~~
   c. **OB** Nurses
   d. Unit Secretary when directed from any of the above members

3. The paging tree is initiated by dialing the operator at extension "66" on the telephone and informing the operator to initiate the "EMERGENCY C-SECTION" page tree. Staff should tell the operator the location of the expected C-Section (Emergency C-Section: L&D Operating Room (OR) #1 or OR #2)
   a. The operator will page out this TEXT message to the listed members (STAT C-Section, OR #1/**#2**). Please note there is NO OVERHEAD page.

D. **RESPONSE PLAN:**

1. When an Emergency C-Section text page is received, the members of the health care team responsible for responding are to report to the location identified and provide assistance as indicated by their role.
2. The Primary L&D RN: shall notify the charge RN of the emergency, acts as the team leader until relieved by the obstetrical provider or anesthesiologist, and ensures patient is safely transported back to the OR for an emergency C-Section. Other responsibilities shall include:
   a. Establishment of a patent IV site if not already in place
   b. Patient should be positioned to maximize uterine and fetal perfusion on transfer
   c. Oxygen via face mask ~~a consideration~~**if necessary**
   d. When in the OR: Obtain fetal heart tones if indicated, Foley placement if not already done, Betadine splash prep
3. The Charge Nurse obtains a history of the situation and may initiate or designate someone to initiate the Emergency C-Section notification tree by dialing 66, if not already done.
   a. Directs personnel, make reassignments as necessary and assists ~~the~~ patient transport to the OR
   b. Assigns another RN/s to assist the primary RN with patient transfer, OR prep and/or anesthesia support for Rapid Sequence Intubation (RSI) ~~need~~
4. The Obstetrical Provider evaluates the patient's condition and directs the surgery initiation ~~if required~~.
5. The Anesthesiologist acts/assists the obstetrician, provides airway management, RSI if indicated, and surgical anesthesia support.
6. The second/third L&D RN supports the primary RN to assist with OR preparations and/or assists anesthesia with RSI, if the anesthesia technician is not available. Items can include
   a. Starting IV line/s, inserting a Foley, administering medications as needed
   b. Being available to the anesthesiologist to assist with RSI:
      i. Place ECG leads, BP cuff and pulse ox on the patient
      ii. Give supplementation oxygen to the patient, as directed
      iii. Assist with cricoid pressure as directed. Do not release until told by anesthesiologist
   c. Performing surgical preparations, recording the events
7. The Anesthesia Technician receives direction from the anesthesiologist, which can include
   a. Giving supplementation oxygen to the patient, as directed
   b. Assisting the anesthesiologist with RSI preparations
8. The OB Surgical Technician Prepares the OB OR as directed for potential operative procedure.
~~9.~~ The **Transition Nurse** ~~Nursery RN~~ is responsible for **setting up equipment needed for the Newborn.** ~~calling **a Team NICU by dialing 66 and stating Team NICU to the designated OR. This will ensure the arrival of the NICU nurse, Neonatologist, and Respiratory Therapist.** the NICU team if a NICU Nurse is requested and shall call the RT and Neonatologist from the OR if they have not yet arrived to the OR. Other considerations can include:~~
~~a. Bringing the Neonatal Crash Cart to the OR~~
~~10.~~**9.** **Respiratory Therapisty** ~~-~~ Neonatal Intensive Care Unit is responsible for supporting the neonatal respiratory resuscitation needs and readying the equipment in the OR as indicated.
~~11.~~**10.** Neonatologist directs and leads the neonatal resuscitation.
~~12.~~**11.** The Unit Secretary for L&D receives direction from the charge RN.
   a. Initiates the Emergency C-section Paging Tree by calling #66
   b. Pages/Calls the primary OB provider to the OR STAT
   c. Helps direct response team members to the correct room/location

d. Takes care of charting paperwork preparation of surgery paperwork if indicated

E. **CROSS-REFERENCE:**

1. Patient Care Standard (PCS) Standardized Procedure – Code Blue PCS Standardized Procedure.
2. Patient Care Standards Rapid Response Team (RRT).
3. Patient Care Standards, **CODE MATERNITY** ~~OB CODE STAT~~ Policy

F. **REFERENCES:**

1. American Academy of Pediatrics (AAP) and American Congress of Obstetrics and Gynecology (ACOG) 201~~2~~**17**. Guidelines for Perinatal Care, ~~7~~**8**th Ed. Washington, DC.
2. Simpson, K. & Creehan, P. (~~2008~~**2020**) Association of Women's Health, Obstetric and Neonatal Nurses (AWHONN) Perinatal Nursing **5th Edition**. Philadelphia, PA.
3. Besuner, P. (2007). AWHONN Templates for Protocols and Procedures for Maternity Services, 2nd Ed. Washington, DC.

Tri-City Medical Center	Women and **Newborn**~~Children's~~ Services ~~Procedure Manual~~
PROCEDURE:	**FETAL HEART RATE(FHR) SURVEILLANCE/ MONITORING**
Purpose:	To provide current terminology and nomenclature for the description of FHR tracings and uterine contractions for use in clinical practice. Terminology and nomenclature are based on the 2008 National Institute of Child Health and Human Development (NICHD) workshop report on electronic fetal monitoring.

A. **POLICY:**

1. The Association of Women's Health, Obstetric and Neonatal Nursing (AWHONN) supports the assessment of the laboring woman and her fetus during labor through the use of **intermittent** auscultation **(IA)**, palpation and/or electronic fetal monitoring (EFM) techniques.
2. The availability of registered nurses and other health care professionals who are skilled in maternal-fetal assessment, to include fetal heart monitoring (FHM) techniques is important for optimal care of the mother and fetus.
3. FHM policies/procedures shall specify the standardized FHM language to be used and staff shall use these standardized descriptive terms to communicate and document FHR characteristics, interpretation and any associated interventions. **See Attachment 2008 NICHD Descriptive Terms for FHR Characteristics.**

   ~~3. See Fetal Heart Rate Monitoring Definitions~~
4. Consensus regarding interpretation and management of EFM across disciplines is essential in providing safe patient outcomes.
5. **When fetal surveillance is used, the goal is to assess fetal well-being and the fetal heart rate (FHR) response to labor in order to make appropriate, physiologically based clinical decisions and to identify those fetuses at risk for hypoxia and provide timely intervention to avoid adverse outcomes.**
6. **FHR surveillance shall be performed by an RN who has attended intermediate or advanced fetal monitoring courses every two years. Or an RN who has Certification in Electronic Fetal Monitoring (C-EFM), the RN is required to maintain their certification every three years.**
7. **If the patient refuses fetal monitoring the provider will be notified, the refusal will be documented in the patient's electronic medical record (EMR) and the refusal of treatment form will be signed by the patient.**
8. **Frequency of assessment and documentation is determined by AWHONN practice guidelines.**

B. **ATTATCHMENTS:**

1. **2008 NICHD Descriptive Terms for FHR Characteristics**
2. **2008 Three-Tier Fetal Hart Rate Interpretation System**
4~~.~~3. **Uterine Activity**

~~B. DEFINITIONS:~~

~~1. FETAL HEART RATE (FHR):~~

~~a. BASELINE FHR is determined by approximating the mean FHR rounded to increments of 5 beats per minute(bpm) during a 10 minutes window, excluding accelerations, decelerations and periods of marked FHR variability (>25bpm).~~

~~b. There must be at least 2 minutes of identifiable baseline segments (not necessarily continuous) in any 10 minute window or the baseline for that period is INDETERMINATE. In the case of indeterminate baseline, refer the the prior 10 minute window for baseline determination.~~

Women and Newborn~~Children's~~ Services Department Review	Department of OB/GYN	Department of Pediatrics	Pharmacy & Therapeutics	Medical Executive Committee	Administration	Professional Affairs Committee	Board of Directors
5/14; 02/20	4/14, 06/21	n/a	n/a	7/14, 07/21	08/21	8/14	8/14

c. NORMAL baseline rate: 110- 160 bpm
d. TACHYCARDIA: Baseline rate: > Greater than 160 bpm
e. BRADYCARDIA: Baseline rate: < Less than 110 bpm

2. FHR VARIABILITY: Determined in a 10 minute window, excluding accelerations and decelerations. Defined as fluctuations in the baseline FHR that are irregular in amplitude and frequency. The fluctuations are visually quantitated as the amplitude of the peak to trough in bpm.
   a. Absent= amplitude range is undetectable
   b. Minimal= amplitude range of 5 bpm or fewer
   c. Moderate= amplitude range of 6-25 bpm
   d. Marked= amplitude ranger of greater than 25 bpm
3. ACCELERATION: visually apparent abrupt increase in FHR. Increase from the onset of the acceleration to the peak is usually less than < 30 seconds.
   a. For gestations > 32 weeks: The peak must be > or equal to 15 bpm above the baseline FHR and must last > or equal to 15 seconds from the FHR acceleration onset to baseline return.
   b. For gestations < 32 weeks: an acceleration is defined as having a peak of >greater than 10 bpm above baseline with a duration of at least 10 seconds.
   c. Prolonged accelerations= an acceleration lasting longer than 2 minutes duration, but < 10 minutes duration.
   d. An acceleration lasting longer than 10 minutes in duration is defined as a FHR baseline change.
4. PERIODIC/EPISODIC/RECURRENT and/or INTERMITTENT PATTERNS:
   a. Periodic FHR patterns are changes that occur with the uterine contraction
   b. Episodic patterns are those that are not associated with uterine contractions. (can occur at any time)
   c. FHR changes are also defined as recurrent if they occur with > greater than or equal to 50% of the contractions in a 20 minute window.
   d. FHR changes are defined intermittent if they occur with < less than 50% of the contractions in any 20 minute window
5. DECELERATIONS (DECEL): Visual or subtle decreases in the FHR bpm from the baseline which usually returns to baseline. Characteristics of the deceleration are indicative of the pathophysiology associated with the FHR decrease.
   a. LATE DECEL: visually apparent, but can be subtle decelerations that are, usually symmetrical with a gradual decrease and return of the FHR, associated with a contraction. They are PERIODIC. A gradual FHR decrease is defined as the deceleration taking longer than 30 seconds to get to the lowest point/ or nadir before returning to the baseline rate AND the nadir of the deceleration occurs after the peak of the contraction.
      i. CAUSE: Utero-placental Insufficiency (UPI)
   b. EARLY DECEL: visually apparent, but can also be subtle decelerations that are usually symmetrical with a gradual decrease and return of the FHR, associated with a contraction. They are PERIODIC. The nadir of the deceleration usually occurs at the same time as the peak of the contraction, almost mirroring the contraction from start to finish. In most cases the onset, nadir and recovery of the deceleration are coincident with the beginning, peak and ending of the contraction.
      i. CAUSE: Fetal Head Compression
   c. VARIABLE DECEL: visually apparent, ABRUPT deceleration in the FHR. An abrupt decrease is defined as the FHR decel getting to the nadir or lowest point in less than 30 seconds. The decrease in FHR is >greater than 15 bpm, lasting greater than 15 seconds but less than 2 minutes duration. THEY are EPISODIC in pattern, so can occur at any time. When a variable decel is associated with a contraction, the onset, depth and duration commonly vary with successive uterine contractions.
      i. CAUSE: Umbilical Cord Compression
   d. PROLONGED DECEL: visually apparent decrease in FHR from the baseline that is >greater than 15 bpm, lasting longer than 2 minutes until its return to the baseline FHR BUT less <than 10 minutes. (A change in FHR longer than 10 minutes is a baseline change)

6. ~~SINUSOIDAL FHR PATTERN: specific FHR pattern that is defined as having visually apparent, smooth, sine wave-like undulating pattern in FHR baseline with a cycle frequency of 3-5 minutes that persists for >greater than or equal to 20 minutes.~~
7. ~~FHR PATTERN CATEGORIZATION: FHR tracings and patterns provide information on the current acid-base status/ oxygenation status of the fetus. Categorization of the FHR tracing provides and evaluation based on the FHR at that point in time and these are based on a (3) tier system. FHR tracings and patterns can and will change. A FHR tracing may move back and forth between categories depending on the clinical situation, management and intervention strategies employed.~~
   a. ~~CATEGORY I- FHR tracings are normal and strongly predictive of normal fetal acid-base status at the time of observation and may be managed in a routine manner with either continuous or intermittent monitoring. Catergory I FHR tracings include al of the following:~~
      i. ~~Basline FHR : 110-160~~
      ii. ~~FHR Varability: Moderate~~
      iii. ~~Early decels may be present or absent~~
      iv. ~~Accelerations in FHR may be present or absent~~
      v. ~~Late or Variable decels are NOT present~~
   b. ~~CATEGORY II- FHR tracings are indeterminate; not predictive of abnormal fetal acid-base staus. Category II FHR tracings require evaluation, continued surveilliance, initiation of appropriate corrective measures when indicated and re-evaluation. Once identified, these tracings may require more frequent evaluation and continued surveillance, unless they revert to a Category I. Category II FHR tracings include all FHR characteristics NOT categorized as a Category I or Category III. Examples of Category II FHR tracings include any of the following:~~
      i. ~~Bradycardia not accompanied by absent FHR variability~~
      ii. ~~Tachycardia~~
      iii. ~~Minimal FHR variability~~
      iv. ~~Absent FHR variability without recurrent decelerations~~
      v. ~~Marked FHR variability~~
      vi. ~~Absence of induced FHR accelerations after fetal stimulation~~
      vii. ~~Recurrent variable decels accompanied by minimal or moderate FHR variability~~
      viii. ~~Prolonged decelerations~~
      ix. ~~Recurrent late decels with moderate FHR variability~~
      x. ~~Variable decels with other characteristics such as slow return to baseline FHR, FHR overshoots or "shoulders" which are indicative of reduced fetal oxygenation.~~
   c. ~~CATEGORY III- FHR tracings are abnormal. Category III tracings are predictive of abnormal fetal acid-base status at the time of observation. The implementation of uterine resuscitation interventions are required. If unresolved, Category III FHR tracings most often necessitate prompt delivery. Category III tracings include either:~~
      i. ~~Absent FHR variability AND any of the following:~~
         1) ~~Recurrent late decels~~
         2) ~~Recurrent variable decels~~
         3) ~~Bradycardia~~
         4) ~~Sinusoidal pattern~~
      ii. ~~FHR patterns shall be described in terms of these established Categories rather than indicating if they are reassuring or non-reassuring patterns.~~
8. ~~SBAR (Situation, Background, Assessment, Recommendations): A full descriptions of a FHR tracing to providers requires a qualitative and quantitative description of:~~
   a. ~~Baseline FHR~~
   b. ~~FHR variability~~
   c. ~~Presence of FHR accelerations~~
   d. ~~Uterine contraction pattern~~
   e. ~~Any periodic or episodic decelerations~~
   f. ~~Any changes or trends of FHR pattern over time~~
   g. ~~Category Interpretation of the FHR tracking (Category I, II, or III)~~

~~9. INTERMITTENT or FHR by ASCULATATION: Please see Mosby's Nursing Procedure for Intermittent Fetal Monitoring/ Ascultation.~~

C. **EQUIPMENT NEEDED:**

1. Electronic Fetal Monitor
~~1.~~2. **Doppler ultrasound transducer**
~~2. External Transducer (Dopplaer)~~
3. External Tocodynamometer **(TOCO)**
4. Fetal Monitoring Belts **or Belly Band**~~/ Straps~~
~~5. Internal Leg Plate Transducer for Fetal Spiral Electrode(FSE) monitoring~~
~~6. Internal Leg Plate for Intrauterine Pressure Catheter (IUCP) monitoring~~
~~7.~~5. **Fetal Spiral Electrode** (FSE), **connection cord and attachment sticker pad**
~~8.~~6. **Intrauterine Pressure Catheter** (IUPC) **and connection cord**
~~9.~~7. Transducer Gel
8. Fetal Monitor Paper
9. **Handheld Doppler (IA)**
10. **Fetoscope (IA)**

D. **ELECTRONIC FETAL MONITORING PROCEDURE:**

1. **Review EFM equipment and explain reasons for use.**
2. **Position the patient so the uterus is displaced off of their inferior vena cava to increase uterine perfusion and fetal oxygenation.**
3. **Place monitor belts or belly band**
4. **Determine the fetal lie using Leopold's Maneuvers for best placement of the fetal doppler.**
   a. **See Elsevier Online Skills for how to perform Leopold's Maneuvers**
5. **Apply transducer gel to the doppler to gain maximum signal of the FHR**
6. **Secure fetal doppler in place using the monitor belts or belly band, assuring patient comfort.**
7. **If the patient is having uterine contractions (UC), palpate the uterus during a contraction to determine the hardest point of the patient's abdomen and place the TOCO over this point.**
   a. **Calibrate the uterine resting tone by "zeroing" the monitor when the uterus is at rest or palpates soft.**
8. **Secure TOCO in place using the monitor belts or belly band, assuring patient comfort.**
9. **With a provider order RN may place an FSE in the presence of ruptured membranes. See Elsevier Online Skills.**

E. **INTERMITTENT AUSCULATION (IA) PROCEDURE:**

1. **Explain fetal monitoring to the patient and support person**
2. **Assist the woman to a semi-Fowler's or wedged lateral position.**
3. **Assess fetal position using Leopold's Maneuvers.**
4. **Place Doppler over fetal back or area of maximum intensity of FHR.**
5. **Assess maternal pulse, by using a pulse ox or palpate the radial pulse, to ensure that it is different from FHR.**
6. **Assess FHR baseline, rhythm and changes in the FHR expressed as increases or decreases that are abrupt or gradual.**
   a. **Between uterine contractions for 30-60 seconds to identify baseline rate.**
   b. **During a uterine contraction and at least 1 minute after to identify fetal response to the contraction.**
7. **Palpate uterine contraction during auscultation to clarify relationship to FHR changes.**
8. **Assess uterine contractions for frequency, duration, quality.**
9. **Promote maternal comfort and fetal oxygenation.**

F. **DOCUMENTATION GUIDELINES:**

1. Intrapartum Monitoring: A complete analysis of the FHR and uterine activity will be documented hourly at a minimum per AWHONN guidelines in the patient's Electronic Medical Record (EMR).
   a. Documentation may be accomplished via written charting on established forms, as directed, per hospital contingency plan for unexpected computer downtime.
   b. When electronic fetal monitoring is used to record FHR data permanently, periodic assessment documentation can be used to summarize evaluation of fetal status.
      i. For example, during active pushing phase, summary documentation of fetal status approximately every 5-15 minutes indicating there was continuous nursing bedside attendance and evaluation is reasonable.
   c. IA: document a complete fetal monitoring assessment prior to and after any procedure or event such as AROM, before and after vaginal exams, or initiation of analgesia or anesthesia.
2. Antepartum Monitoring: A complete analysis of the FHR and uterine activity will be documented hourly at a minimum per AWHONN guidelines in the patient's Electronic Medical Record (EMR).
   a. May have continuous monitoring in the presence of risk factors, based on medical history and per provider order.
   b. In the absence of continuous monitoring, obtain FHT at least once per shift or per provider order.
   c. Documentation may be accomplished via written charting on established forms, as directed, per hospital contingency plan for unexpected computer downtime.
3. Annotations- Complete annotations for any clinical, medical, and/or nursing interventions performed in response to labor progress and/or FHR assessment on the electronic strip or in the fetal monitoring evaluation section in the EMR. Items for consideration can include but are not limited to:
   a. Ambulation of the patient; position changes
   b. Initiating inductions or insertion of cervical ripening agent both mechanical or pharmacological.
   c. Increasing or decreasing Pitocin
   d. Medication administration
   e. Oxygen administration
   f. Anesthesia introduction
   g. Artificial or Spontaneous rupture of membranes
   h. Vaginal examinations
   i. Interventions completed for Category II or Category III strips
   j. Vacuum assisted delivery application times, pull attempts

~~10.~~

~~D.~~G. STANDARDS OF PRACTICE~~STANDARDS OF PRACTICE~~:

~~1. FHR surveillance shall be performed by an RN who has attended at least a Basic Fetal Monitoring Course and/or has continuing educational units in intermediate or advanced fetal monitoring courses every two years.~~

~~2. Using a fetal monitor to observe the FHR and FHR pattern~~ **~~and uterine contractions~~** ~~is one method of assessing fetal well-being in utero and~~ **~~can~~** ~~be done by continuous external or internal electronic fetal monitoring OR by intermittent monitoring~~ **~~either~~** ~~via auscultation~~ **~~or electronic fetal monitoring~~**~~.~~

~~3. During labor induction or cervical ripening with Pitocin, Misoprostol (Cytotec) or Cervidil (prostaglandin E2) continuous fetal monitoring shall be utilized, unless otherwise indicated in the provider orders.~~ **~~See Cervidil, Cytotec, and Pitocin policies for further information.~~**

~~4. The frequency of assessment and documentation is determined by AWHONN practice guidelines~~

~~5. The objective assessment of actual contraction strength requires the use of an IUPC.~~

~~6. If the patient refuses fetal monitoring, the provider will be notified, refusal documented in the patient's medical record and refusal of treatment form signed by the patient.~~

~~7. Paper speed for EFM is maintained at 3 centimeters/ minute.~~

1. **Continuous, Intermittent Fetal Monitoring or IA may be used during labor, per provider order.**
   a. **See Pitocin, Cervidil, Cytotec policies for specific fetal monitoring guidelines while in use.**
2. FHR Interpretation will include the assessment of the FHR baseline rate rounded to the nearest 5 bpm, variability, the presence or absence of accelerations, decelerations, changes or trends ~~in the FHR patterns~~ over time **and interventions (see attachments for definitions).** ~~.~~
3. **Assessment is a visual review of the FHR tracing which may be indicated in the EMR by stating "RN reviewed strip" or "RN at bedside continuously assessing FHR".**
4. **Documentation is a summary of fetal status characteristics including baseline, variability, accelerations, decelerations, and uterine activity.**
5. **Risk factors include but are not limited to diabetes/gestational diabetes, hypertensive disorders of pregnancy, maternal medical disease, intrapartum bleeding, intrauterine infection, membrane rupture >24 hours at term, prior uterine incision, preterm labor (<37weeks), post-term labor (>42weeks), use of Pitocin, abnormal or undetermined fetal status, congenital anomalies, velamentous cord insertion, IUGR, meconium stained fluid and abnormal FHR during monitoring.**
6. **Uterine contraction (UC) documentation will include frequency, duration, intensity, and resting tone while using a TOCO or palpitation. While using an IUPC documentation will include frequency, duration, intensity in mmHg and resting tone in mmHg and palpation. (see Uterine Activity attachment for details/definitions)**
   a. **Assessment and documentation of UC will be completed with each FHR assessment and documentation.**
   b. **Abnormal contraction assessment can include:**
      i. **Uterine resting tone greater than 20mmHg for IUPC use, or the muscle stays firm on palpation.**
      ii. **Tachysystole or contractions lasting longer than 2 minutes in duration.**
      ~~8. Documentation of the FHR interpretation is completed hourly at a minimum.~~
7. In the **absence of risk factors the** ~~and not on Pitocin~~ **RN must assess** the **FHR and UC**~~fetal heart rate~~:
   a. **Latent Labor (< 6cm) every 30 minutes**
   b. **Active Labor (6cm-10cm) every 30 minutes**
   ~~a.~~ **Second Stage (Pushing) every 15 minutes** ~~(the assessment done at these intervals only need to be documented as an annotation on Fetal Link/IView. See Documentation section for further instruction on full FHR and Contraction charting)~~ ~~and document:~~
   ~~**Provider discretion if less than 4cm**~~
   ~~i. Every 30 minutes during the latent phase of labor~~**(4-5cm)**
   ~~Every 15 **30** minutes during the active phase **(greater than or equal to 6cm)**and 2nd stage of labor~~
   ~~ii. **Every 15 minutes while pushing**~~
8. In the **presence of risk factors the RN must assess the FHR and UC:**~~RISK FACTORS (including but not limited to meconium stained amniotic fluid, intrapartum bleeding, abnormal or undetermined fetal status, congenital anomalies, IUGR, Category II or III FHR tracing, prior uterine incision, diabetes, hypertension, the use of Pitocin for induction or augmentation)~~ assess ~~(the assessment done at these intervals only need to be documented as an annotation on Fetal Link/IView. See Documentation section for further instruction on full FHR and Contraction charting)~~ ~~and document:~~
   a. **Latent Labor (< 6cm) every 15 minutes**
   b. **Active Labor (6cm-10cm) every 15 minutes**
   ~~b.~~**c. Second Stage (pushing) every 5 minutes**
      ~~i. Every 15-30 minutes during the latent phase of labor **(4-5cm)**~~
      ~~ii. Every 15 minutes during active phase of labor **and passive fetal descent(greater than 6cm)**~~
      ~~iii. Every 5 minutes during **pushing**the 2nd stage~~
   ~~c. Antepartum considerations:~~

~~i. May have continuous monitoring in the presence of risk factors, based on medical history ad per provider order.~~
~~ii. Consider obtaining fetal heart tones, at least once daily.~~

9. In the absence of risk factors RN must document the FHR and UC:
   a. Latent Labor (< 6cm) every 30-60 minutes
   b. Active Labor (6cm-10cm) every 30 minutes
   c. Second Stage (pushing) every 15-30 minutes
10. In the presence of risk factors the RN must document the FHR and UC:
   a. Latent Labor (< 6cm) every 30 minutes
   b. Active Labor (6cm-10cm) every 30 minutes
   c. Second Stage (pushing) every 5-15 minutes
11. IA: In the absence of risk factors RN must assess and document FHR and UC:
   a. Latent Labor (<6cm) every 30-60 minutes
   b. Active Labor (6cm-10cm) every 15-30 minutes
   c. Second Stage (pushing) every 5-15 minutes
   d. If abnormal FHR occurs or if risk factors develop, apply EFM and notify provider. The change in patient status should be documented in the EMR.

H. FHR PATTERN CATEGORIZATION:

1. FHR tracings and patterns provide information on the current acid-base status/oxygenation status of the fetus. Categorization of the FHR tracing provides and evaluation based on the FHR at that point in time and these are based on a (3) tier system. FHR tracings and patterns can and will change. A FHR tracing may move back and forth between categories depending on the clinical situation, management and intervention strategies employed.
   a. CATEGORY I-FHR tracings are normal and strongly predictive of normal fetal acid-base status at the time of observation an may be managed in a routine manner with either continuous, intermittent monitoring, or IA.
   b. CATEGORY II- FHR tracings are indeterminate; not predictive of abnormal fetal acid-base status. Category II FHR tracings require evaluation, continued surveillance, initiation of appropriate corrective measures when indicated and re-evaluation. Once identified, these tracings may require more frequent evaluation and continued surveillance, unless they revert to a Category I. Category II FHR tracings include all FHR characteristics NOT categorized as a Category I or Category III.
   c. CATEGORY III- FHR tracings are abnormal. Category III tracings are predictive of abnormal fetal acid-base status at the time of observation. The implementation of uterine resuscitation interventions are required. If unresolved, Category III FHR tracings most often necessitate prompt delivery.
2. FHR patterns shall be described in terms of these established Categories rather than indicating if they are reassuring or non-reassuring patterns.
3. Interpretation of IA Findings:
   a. CATEGORY I FHR characteristics by auscultation include all of the following:
      i. Normal FHR baseline between 110 and 160 bpm.
      ii. Regular rhythm
      iii. Presence of or absence of FHR increased or accelerations from the baseline rate
      iv. Absence of FHR decreases or decelerations from the baseline
   b. CATEGORY II FHR characteristics by auscultation include any of the following:
      i. Irregular rhythm
      ii. Presence of FHR decreases or decelerations from the baseline
      iii. Tachycardia
      iv. Bradycardia

I. INTERVENTIONS/MANAGEMENT OF FHR FINDINGS:

1. The physiologic goals for intrauterine resuscitation include the following:
   a. Support maternal coping and labor progress
   b. Maximize uterine blood flow
   c. Maximize umbilical circulation
   d. Maximize appropriate uterine activity
2. Intrauterine resuscitation refers to a series of techniques that include but may not be limited to:
   a. Maternal repositioning
   b. Reduction of uterine activity
   c. Intravenous (IV) fluid bolus
   d. Correction of maternal hypotension
   e. Amnioinfusion during first-stage labor
   f. Modification of maternal pushing efforts during second-stage labor
   g. Oxygen (O2) administration
      i. Administer by non-rebreather mask at 10L/min.
      ii. Discontinue as soon as possible base on the response.
      iii. Use with caution and not to be used as the first or only intervention.
3. For Category II progressing to Category III or Category III FHR patterns, initiate interventions based on suspected mechanism of insult (listed below), notify provider of the patient/ FHR status and response to the interventions:
   a. LATE DECELERATIONS: (UPI)
      i. Reposition the patient to maximize blood flow to the uterus
      ii. Discontinue oxytocin infusion
      iii. Increase Intravenous (IV) fluids
      iv. Administer O2 at 10 Liters via non-rebreather face mask
   b. VARIABLE DECELERATIONS: (Umbilical Cord Compression):
      i. Reposition the patient to alleviate suspected compression
      ii. Increase IV Fluids
      iii. Administer O2 at 10 Liters via non-rebreather face mask
      iv. Perform a vaginal exam to assess for prolapsed cord possibility. If prolapsed cord is felt, relieve cord compression by lifting the presenting part off the cord and immediately call for help.
      v. Decrease or discontinue oxytocin infusion, as indicated
      vi. Consider Amnioinfusion per provider order
   c. PROLONGED DECELERATION:
      i. Reposition the patient to maximize blood flow to the uterus
      ii. Discontinue oxytocin infusion
      iii. Increase IV fluids
      iv. Administer O2 at 10 Liters per minute via non-rebreather face mask
      v. Anticipate the possible administration of terbutaline if deceleration is related to tachysystole or tetanic uterine contraction per provider order
   d. TACHYSYSTOLE:
      i. Reposition the patient to maximize blood flow to the uterus
      ii. Discontinue oxytocin infusion and administer O2 at 10L via non-rebreather facemask if FHR is demonstrating a Category II progressing to Category III or a Category III tracing
      iii. Increase IV Fluids
      iv. Anticipate the administration of terbutaline per provider order as needed

~~9. Uterine Contractions are quantified as the number of contractions present in a 10 minute window, averaged over 30 minutes. Contraction frequency alone is a partial assessment of uterine activity. Other factors such as duration, intensity, and resting tone/ uterine muscle relaxation time between contractions are equally important to assess. The following represents the terminology to describe uterine activity:~~
~~a. Normal contraction pattern: Less than < 5 contractions in 10 minutes averaged over a 30 minute period.~~
~~b. Tachysystole: Greater > 5 contractions in a 10 minutes averaged over a 30 minute period.~~

~~i. Tachysystole should always be qualified as it related to the presence or absence of FHR decelerations.~~
~~ii. Tachysystole applies to both spontaneous or stimulated contractions~~
~~c. External Assessment (Tocodynamometer) assess and document:~~
~~i. Frequency (Time averaged from the beginning of one contraction to the beginning of another): Usually in minutes~~
~~ii. Duration (Time measured from the start to the end of the contraction): Usually in seconds~~
~~iii. Intensity(By palpation): Mild, Moderate or Strong~~
~~iv. Resting Tone (By palpation): After contraction is uterine muscle soft or firm?~~
~~d. Internal Assessment (IUPC) assess and document:~~
~~i. Frequency in minutes~~
~~ii. Duration in seconds~~
~~iii. Intensity in mmHg~~
~~iv. Resting tone in mmHg~~
~~e. Abnormal contraction assessment can include:~~
~~i. Uterine resting tone greater than 20 mmHg for IUPC use OR muscle stays firm on palpation (no rest/ not soft)~~
~~ii. Tachysystole or contractions lasting longer than 2 minutes duration.~~
~~10. Interventions/ Management of FHR Findings: For Category II progressing to Category III or Category III FHR patterns, initiate interventions based on suspected mechanism of insult (listed below), notify provider of the patient/ FHR status and response to the interventions:~~
~~a. LATE DECELERATIONS: (UPI)~~
~~i. Reposition the patient to maximize blood flow to the uterus~~
~~ii. Discontinue oxytocin infusion~~
~~iii. Increase Intravenous (IV) fluids~~
~~iv. Administer O2 at 10 Liters via non-rebreather face mask~~
~~b. VARIABLE DECELERATIONS: (Umbilical Cord Compression):~~
~~i. Reposition the patient to alleviate suspected compression~~
~~ii. Increase IV Fluids~~
~~iii. Administer O2 at 10 Liters via non-rebreather face mask~~
~~iv. Perform a vaginal exam to assess for prolapsed cord possibility. If prolapsed cord is felt, relieve cord compression by lifting the presenting part off the cord and immediately call for help.~~
~~v. Discontinue oxytocin infusion, as indicated~~
~~vi. Consider amnioinfusion per provider order~~
~~c. PROLONGED DECELERATION:~~
~~i. Reposition the patient to maximize blood flow to the uterus~~
~~ii. Discontinue oxytocin infusion~~
~~iii. Increase IV fluids~~
~~iv. Administer O2 at 10 Liters per minute via non-rebreather face mask~~
~~v. Anticipate the possible administration of terbutaline if deceleration is related to tachysystole or tetanic uterine contraction per provider order~~
~~d. TACHYSYSTOLE:~~
~~i. Reposition the patient to maximize blood flow to the uterus~~
~~ii. Discontinue oxytocin infusion **and administer O2 at 10L via non-rebreather facemask** if FHR is demonstrating a Category II or **progressing to** Category III or a Category III tracing (See Oxytocin administration procedure)~~
~~iii. Increase IV Fluids~~
~~iv. Administer O2 at 10 Liters per minute via non-rebreather face mask~~
~~v. Anticipate the administration of terbutaline per provider order as needed~~

~~E. **STEPS OF THE PROCEDURE:**~~
~~1. Review EFM equipment and explain reasons for use~~

~~2. Position the patient so the uterus is displaced off of her spine **inferior vena cava** to increase uterine perfusion and fetal oxygenation.~~
~~3. Apply belts or other securing device to the patient to hold the fetal monitoring cables in place.~~
~~4. Determine the fetal lie using ~~L~~Leopald's maneuvers for best placement of the dopplaer.~~
~~5. Apply transducer gel to the Doppler to gain maximum signal of the FHR.~~
~~6. Secure the Doppler in place using the belts, assuring patient comfort.~~
~~7. If the patient is having contractions, palpate the uterus during a contraction to determine the hardest point of the contraction and place the tocodynamometer (toco) over this point.~~
~~a. Calibrate the uterine resting tone by "zeroing" the monitor when the uterus is at rest or become soft.~~
~~8. Secure the toco with the belt, assuring patient comfort~~
~~9. For internal monitoring application, please see the FSE and IUPC procedures in Mosby's **Elsevier**~~

~~F. **DOCUMENTATION GUIDELINES:**~~
~~1. Intrapartum and Antepartum Monitoring: A complete analysis of the FHR and uterine activity will be documented hourly at a minimum and per AWHONN guidelines in the patient's Electronic Medical Record (EMR).~~
~~**1.** Documentation may be accomplished via written charting on established forms, as directed, per~~
~~a. hospital contingency plan for unexpected computer downtime.~~
~~When electronic fetal monitoring is used to record FHR data permanently, periodic documentation can be used to summarize evaluation of fetal status. **With or without risk factors, the RN must document a full assessment of FHR and Contraction Pattern:**~~
~~**Every 30 minutes during the latent phase of labor (before 5cm)**~~
~~**Every 30 minutes during the active phase (greater than or equal to 6cm)**~~
~~**Every 15 minutes while pushing**~~
~~**Antepartum considerations:**~~
~~**May have continuous monitoring in the presence of risk factors, based on medical history and per provider order**~~
~~**Consider obtaining fetal heart tones, at least once daily**~~
~~b.~~
~~i. For example, during active pushing phase, summary documentation of fetal status approximately every 30 minutes indicating there was continuous nursing bedside attendance and evaluation is reasonable.~~
~~2. Annotations- Complete annotations for any clinical, medical, and/or nursing interventions performed in response to labor progress and/or FHR assessment on the electronic strip or in the fetal monitoring evaluation section in the EMR. Items for consideration can include but **are** not limited to:~~
~~a. Ambulation of the patient; position changes~~
~~b. Initiating inductions or insertion of cervical ripening agent both mechanical or pharmacological.~~
~~c. Increasing or decreasing Pitocin~~
~~d. Medication administration~~
~~e. Oxygen administration~~
~~f. Anesthesia introduction~~
~~g. Artificial or Spontaneous rupture of membranes~~
~~h. Vaginal examinations~~
~~i. Interventions completed for Category II or Category III strips~~
~~j. Vacuum assisted delivery application times, pull attempts~~
~~k. Others~~
~~**RELATED DOCUMENT(S):**~~
~~**Fetal Heart Rate Monitoring Definitions**~~

~~G.~~J. REFERENCE LIST:

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Attachment 1

2008 NICHD Descriptive Terms for FHR Characteristics

TERM	DEFINITION
Baseline Rate	Approximate mean FHR rounded to increments of 5 bpm during a 10-minute window excluding accelerations and decelerations and periods of marked variability. There must be ≥2 minutes of identifiable baseline segments (not necessarily continuous) in any 10-minute window, or the baseline for that period is indeterminate. In such cases, one may need to refer to the previous 10-minute window for determination of the baseline. Normal baseline rate: 110-160 bpm.
Bradycardia	Baseline rate of < 110 bpm.
Tachycardia	Baseline rate of > 160 bpm
Baseline variability	Determined in a 10-minute window, excluding accelerations and decelerations. Fluctuations in the baseline FHR that are irregular in amplitude and frequency and are visually quantified as the amplitude of the peak-to-trough in bpm. -Absent variability, Amplitude range undetectable. -Minimal variability, Amplitude range visually detectable but ≤ 5 bpm. -Moderate variability, Amplitude range 6-25 bpm. -Marked variability, Amplitude range > 25 bpm.
Acceleration	Visually apparent abrupt increase in FHR. *Abrupt* increase is defined as an increase from onset of acceleration to peak in < 30 seconds. Peak must be ≥15 bpm, and the acceleration must last ≥15 seconds from the onset to return. Acceleration lasting ≥10 minutes is defined as a baseline change. Before 32-week gestation, accelerations are defined as having a peak ≥10 bpm and a duration of ≥10 seconds.
Prolonged acceleration	Acceleration ≥2 minutes but < 10 minutes in duration.
Early deceleration	Visually apparent, usually symmetrical, gradual decrease and return of the FHR associated with a uterine contraction. The nadir of the deceleration occurs at the same time as the peak of the contraction. In most cases, the onset, nadir, and recovery of the deceleration are coincident with the beginning, peak, and ending of the contraction, respectively.
Late deceleration	Visually apparent, usually symmetrical, gradual decrease and return of the FHR associated with a uterine contraction. A *gradual* FHR decrease is defined as one from the onset to the FHR nadir of ≥30 seconds. The decrease in FHR is calculated from the onset to the nadir of the deceleration. The deceleration is delayed in timing, with nadir of the deceleration occurring after the peak of the contraction. In most cases, the onset, nadir, and recovery of the deceleration occur after the beginning, peak, and ending of the contraction, respectively.
Variable deceleration	Visually apparent abrupt decrease in FHR. An *abrupt* FHR decrease is defined as from the onset of the deceleration to the beginning of the FHR nadir of <30 seconds. The decrease in FHR is calculated from the onset to the nadir of the deceleration. The decrease in FHR is ≥15 bpm, lasting ≥15 seconds, and <2 minutes in duration. When variable decelerations are associated with uterine contractions, their onset, depth, and duration commonly vary with successive uterine contractions.
Prolonged deceleration	Visually apparent decrease in FHR from the baseline that is ≥15 bpm, lasting ≥2 minutes, but < 10 minutes. A deceleration that lasts ≥ 10 minutes is a baseline change.
Recurrent	Occurring with ≥ 50% of contractions in any 20-minute window.
Intermittent	Occurring with < 50% of contractions in any 20-minute window.
Periodic	Associated with uterine contractions.
Episodic	Not associated with uterine contractions.
Sinusoidal pattern	Visually apparent, smooth, sine wave-like undulating pattern in FHR baseline with cycle frequency of 3-5/minute that persists for ≥ 20 minutes.

Attachment 2:

2008 Three-Tier Fetal Hart Rate Interpretation System

CATEGORY I

Category I fetal heart rate (FHR) tracings include all of the following:

- Baseline rate: 110-160 beats per minute (bpm)
- Baseline FHR variability: Moderate
- Late or variable decelerations: absent
- Early decelerations: present or absent
- Accelerations: present or absent

CATEGORY II

Category II FHR tracings include all FHR tracings not categorized as Category I or Category III. Category II tracings may represent and appreciable fraction of those encountered in clinical care. Examples of Category II FHR tracings include any of the following:

Baseline Rate

- Bradycardia not accompanied by absent baseline variability
- Tachycardia

Baseline FHR Variability

- Minimal baseline variability
- Absent baseline variability not accompanied by recurrent decelerations
- Marked baseline variability

Accelerations

- Absence of induced accelerations after fetal stimulation

Periodic or Episodic Decelerations

- Recurrent variable decelerations accompanied by minimal or moderate baseline variability
- Prolonged deceleration ≥2 minutes but <10 minutes
- Recurrent late decelerations with moderate baseline variability
- Variable decelerations with other characteristics, such as slow return to baseline, "overshoots," or "shoulders"

CATEGORY III

Category III FHR tracings include either

- Absent baseline FHR variability and any of the following:
  - -Recurrent late decelerations
  - -Recurrent variable decelerations
  - -Bradycardia
- Sinusoidal pattern

Note From: The National Institute of Child Health and Human Development Workshop Report on Electronic Fetal Monitoring: Update on Definitions, Interpretation, and Research Guidelines. *Journal of obstetric, Gynecologic and Neonatal Nursing.* (2008), 37, 510-515; *Obstetrics & Gynecology,* 112, p. 665. Copyright 2008 by the American College of Obstetricians and Gynecologists.

Attachment 3:

Uterine Activity

Uterine contractions (UC) are quantified as the number of contractions present in a 10-minute window, averaged over 30 minutes. Contraction frequency alone is a partial assessment of uterine activity. Other factors such as duration, intensity, and relaxation time between contractions are equally important in clinical practice. The following represents terminology to describe uterine activity:

A. Normal contraction pattern: ≤ 5 contractions in 10 minutes, averaged over a 30-minute window.
B. Tachysystole: >5 contractions in 10 minutes, averaged over a 30-minute window.
C. Characteristics of UC:
    a. Tachysystole should always be qualified as to the presence or absence of associated FHR decelerations.
    b. The term "tachysystole" applies to both spontaneous or stimulated labor. The clinical response to tachysystole may differ depending on whether contractions are spontaneous or stimulated.
    c. The terms "hyperstimulation" and "hypercontractility" are not defined and should be abandoned.

UC are described with the following: frequency, duration, intensity, and resting tone.

A. Frequency: measured as the interval from the beginning of one contraction to the beginning of the next, documented in minutes.
B. Duration: is timed from the start of the contraction to the end of the contraction and documented in seconds.
C. Intensity/Strength: Qualified as mild, moderate, or strong (determined via palpation) when using a TOCO.
    a. When using an IUPC the strength indicates the peak of the contraction in mmHg, and intensity describes the peak of the contraction minus the resting tone.
    b. Intensity can be summarized by calculating Montevideo units (MVU).
        i. MVU are calculated by measuring the peak intensity, or amplitude, in mmHg and subtracting the resting tone in mmHg for each contraction occurring in a 10-minute period of time and adding these number together.
D. Resting tone: is assessed between contractions and is characterized as soft or firm (determined via palpation) when using a TOCO, and as mmHg when using an IUPC.

~~Fetal Heart Rate Monitoring Definitions~~

~~FETAL HEART RATE (FHR):~~
~~BASELINE FHR is determined by approximating the mean FHR rounded to increments of 5 beats per minute(bpm) during a 10 minutes window, excluding accelerations, decelerations and periods of marked FHR variability (>25bpm).~~
~~There must be at least 2 minutes of identifiable baseline segments (not necessarily continuous) in any 10 minute window or the baseline for that period is INDETERMINATE.~~

~~In the case of indeterminate baseline, refer the the prior 10 minute window for baseline determination.~~

~~NORMAL baseline rate: 110- 160 bpm~~

~~TACHYCARDIA: Baseline rate: > Greater than 160 bpm~~

~~BRADYCARDIA: Baseline rate: < Less than 110 bpm~~

~~FHR VARIABILITY: Determined in a 10 minute window, excluding accelerations and decelerations. Defined as fluctuations in the baseline FHR that are irregular in amplitude and frequency. The fluctuations are visually quantitated as the amplitude of the peak to trough in bpm.~~

~~Absent= amplitude range is undetectable~~

~~Minimal= amplitude range of 5 bpm or fewer~~

~~Moderate= amplitude range of 6-25 bpm~~

~~Marked= amplitude ranger of greater than 25 bpm~~

~~ACCELERATION: visually apparent abrupt increase in FHR. Increase from the onset of the acceleration to the peak is usually less than < 30 seconds.~~

~~For gestations > 32 weeks: The peak must be > or equal to 15 bpm above the baseline FHR and must last > or equal to 15 seconds from the FHR acceleration onset to baseline return.~~

~~For gestations < 32 weeks: an acceleration is defined as having a peak of >greater than 10 bpm above baseline with a duration of at least 10 seconds.~~

~~Prolonged accelerations= an acceleration lasting longer than 2 minutes duration, but < 10 minutes duration.~~

~~An acceleration lasting longer than 10 minutes in duration is defined as a FHR baseline change.~~

~~PERIODIC/EPISODIC/RECURRENT and/or INTERMITTENT PATTERNS:~~

~~Periodic FHR patterns are changes that occur with the uterine contraction~~

~~Episodic patterns are those that are not associated with uterine contractions. (can occur at any time)~~

~~FHR changes are also defined as recurrent if they occur with > greater than or equal to 50% of the contractions in a 20 minute window.~~

~~FHR changes are defined intermittent if they occur with < less than 50% of the contractions in any 20 minute window~~

~~DECELERATIONS (DECEL): Visual or subtle decreases in the FHR bpm from the baseline which usually returns to baseline. Characteristics of the deceleration are indicative of the pathophysiology associated with the FHR decrease.~~

~~LATE DECEL: visually apparent, but can be subtle decelerations that are, usually symmetrical with a gradual decrease and return of the FHR, associated with a contraction. They are PERIODIC. A gradual FHR decrease is defined as the deceleration taking longer than 30 seconds to get to the lowest point/ or nadir before returning to the baseline rate AND the nadir of the deceleration occurs after the peak of the contraction.~~

~~CAUSE: Utero-placental Insufficiency (UPI)~~

~~EARLY DECEL: visually apparent, but can also be subtle decelerations that are usually symmetrical with a gradual decrease and return of the FHR, associated with a contraction. They are PERIODIC. The nadir of the deceleration usually occurs at the same time as the peak of the contraction, almost mirroring the contraction from start to finish. In most cases the onset, nadir and recovery of the deceleration are coincident with the beginning, peak and ending of the contraction.~~

~~CAUSE: Fetal Head Compression~~

~~VARIABLE DECEL: visually apparent, ABRUPT deceleration in the FHR. An abrupt decrease is defined as the FHR decel getting to the nadir or lowest point in less than 30 seconds. The decrease in FHR is >greater than 15 bpm, lasting greater than 15 seconds but less than 2 minutes duration. THEY are EPISODIC in pattern, so can occur at any time. When a variable decel is associated with a contraction, the onset, depth and duration commonly vary with successive uterine contractions.~~

~~CAUSE: Umbilical Cord Compression~~

PROLONGED DECEL: visually apparent decrease in FHR from the baseline that is >greater than 15 bpm, lasting longer than 2 minutes until its return to the baseline FHR BUT less <than 10 minutes. (A change in FHR longer than 10 minutes is a baseline change)

SINUSOIDAL FHR PATTERN: specific FHR pattern that is defined as having visually apparent, smooth, sine wave-like undulating pattern in FHR baseline with a cycle frequency of 3-5 minutes that persists for >greater than or equal to 20 minutes.

FHR PATTERN CATEGORIZATION: FHR tracings and patterns provide information on the current acid-base status/ oxygenation status of the fetus. Categorization of the FHR tracing provides and evaluation based on the FHR at that point in time and these are based on a (3) tier system. FHR tracings and patterns can and will change. A FHR tracing may move back and forth between categories depending on the clinical situation, management and intervention strategies employed.

CATEGORY I- FHR tracings are normal and strongly predictive of normal fetal acid-base status at the time of observation and may be managed in a routine manner with either continuous or intermittent monitoring. Catergory I FHR tracings include al of the following:

- Basline FHR : 110-160
- FHR Varability: Moderate
- Early decels may be present or absent
- Accelerations in FHR may be present or absent
- Late or Variable decels are NOT present

CATEGORY II- FHR tracings are indeterminate; not predictive of abnormal fetal acid-base staus. Category II FHR tracings require evaluation, continued surveliance, initiation of appropriate corrective measures when indicated and re-evaluation. Once identified, these tracings may require more frequent evaluation and continued surveillance, unless they revert to a Category I. Category II FHR tracings include all FHR characteristics NOT categorized as a Category I or Category III. Examples of Category II FHR tracings include any of the following:

- Bradycardia not accompanied by absent FHR variability
- Tachycardia
- Minimal FHR variability
- Absent FHR variability without recurrent decelerations
- Marked FHR variability
- Absence of induced FHR accelerations after fetal stimulation
- Recurrent variable decels accompanied by minimal or moderate FHR variability
- Prolonged decelerations
- Recurrent late decels with moderate FHR variability
- Variable decels with other characteristics such as slow return to baseline FHR, FHR overshoots or "shoulders" which are indicative of reduced fetal oxygenation.

CATEGORY III- FHR tracings are abnormal. Category III tracings are predictive of abnormal fetal acid-base status at the time of observation. The implementation of uterine resuscitation interventions are required. If unresolved, Category III FHR tracings most often necessitate prompt delivery. Category III tracings include either:

- Absent FHR variability AND any of the following:
  - Recurrent late decels
  - Recurrent variable decels
  - Bradycardia
  - Sinusoidal pattern

FHR patterns shall be described in terms of these established Categories rather than indicating if they are reassuring or non-reassuring patterns.

INTERMITTENT or FHR by AUSCULATATION: Please see Mosby's Nursing Procedure for Intermittent Fetal Monitoring/ Auscultation.

Normal contraction pattern: Less than < 5 contractions in 10 minutes averaged over a 30 minute period.

- Tachysystole: Greater > 5 contractions in a 10 minutes averaged over a 30 minute period.
  - i. Tachysystole should always be qualified as it related to the presence or absence of FHR decelerations.
    - i. Tachysystole applies to both spontaneous or stimulated contractions

Tri-City Medical Center
Oceanside, California

WOMEN AND NEWBORN SERVICES ~~POLICY MANUAL~~

ISSUE DATE: 9/04	**SUBJECT:** Trial of Labor after Cesarean (TOLAC), Vaginal Birth after Cesarean (VBAC)

REVISION DATE: 11/05; 4/09, 05/15; 02/20

Department Approval Date(s):	~~09/14~~03/20
Department of OB/GYN Approval Date(s):	~~01/15~~06/21
Department of Pediatrics Approval Date(s):	n/a
Pharmacy and Therapeutics Approval Date(s):	n/a
Medical Executive Committee Approval:	~~04/15~~07/21
Administration Approval:	08/21
Professional Affairs Committee Approval:	~~05/15~~ n/a
Board of Directors Approval:	05/15

A. **PURPOSE:**
1. To define parameters for trial of labor after cesarean, vaginal birth after cesarean, to include physician availability.
2. To identify the criteria for trial of labor after cesarean/vaginal birth after cesarean.
3. To identify contraindications to trial of labor after cesarean/vaginal birth after cesarean.
4. To identify physician and nursing responsibilities when caring for patients attempting trial of labor after cesarean/vaginal birth after cesarean.

B. **DEFINITIONS:**
1. Cesarean delivery:
   a. Delivery of a fetus through an abdominal incision.
2. Trial of labor after cesarean (TOLAC):
   a. Labor during a pregnancy after a previous cesarean delivery with the goal of having a vaginal birth.
3. Vaginal birth after cesarean (VBAC):
   a. Successful vaginal delivery after a previous cesarean section.
4. Immediately available per American Congress of Obstetrics and Gynecology (ACOG) definition:
   a. Physician should be immediately available throughout ~~active~~ labor to provide emergency care and an emergency Cesarean Section if needed.
   b. Anesthesiologist in ~~house..~~**house.**
   c. Adequate support staff to perform an emergency Cesarean Section.~~ is immediately available.~~
5. Available back-up support:
   a. It is the responsibility of the attending physician to ensure that arrangements have been made with another obstetrician for back-up coverage.
   ~~a.~~**b.** The **backup Anesthesiologist is available within 30 minutes, in the event the primary OB Anesthesiologist is occupied with a patient procedure.**~~usual on-call anesthesia is available within 30 minutes or next available as back-up support in the event that the attending OB anesthesiologist is occupied with a patient procedure and another case arises.~~

C. **CRITERIA FOR TOLAC/VBAC:**
1. **No more than two previous Low-transverse Cesarean Births**~~One or two prior low transverse cesarean section OR two prior low transverse cesarean sections with a previous vaginal birth~~

2. Vertex presentation of fetus
3. Less than 42 week's gestation
4. Clinically adequate pelvis
5. No history of:
   a. Prior disruption of uterine wall – ie, surgeries, acreta and its variants.
   b. Uterine scar dehiscence.
   c. Uterine rupture.
6. Onset of spontaneous labor.
7. ~~If induction~~**If induction** of labor is initiated for ~~a VBAC~~**a VBAC**/~~TOLAC a~~**TOLAC a** favorable cervix, ~~and/or~~ mechanical cervical softening techniques shall be considered.
8. Uses of prostaglandins, Cervidil (PGE2) or Misoprostil (PGE1) for cervical ripening or induction of labor are contraindicated.
9. Exception: use of PGE_1 and/or PGE_2 prostaglandins, Misoprostol, Cervidil may be used on patients with fetal demise. ~~**less than 28 weeks gestation, and a prior single transverse lower segment cesarean delivery.**~~ Refer to "Dinoprostone (Cervidil) Use for Cervical Ripening" procedure. Refer to "Misoprostol Use for Cervical Ripening" procedure.
10. May use the intrauterine pressure catheter (IUPC) for judicious titration of oxytocin.

D. **CONTRAINDICATIONS TO TOLAC/VBAC:**

1. Inability to perform emergency cesarean delivery:
   a. Surgeon unavailability.
   b. Anesthesiologist unavailability.
   c. Insufficient nursing and ancillary staff to care for patients.
   d. Insufficient surgical capability to accommodate patient needs.
2. Greater than two previous cesarean deliveries, regardless of incision location.
3. Breech presentation of fetus.
4. Medical or obstetric complication that precludes vaginal delivery.
5. Post-term pregnancy (42 weeks or greater).
6. Prior classical, T-shaped, other transfundal uterine surgery/scar.
7. Contracted maternal pelvis.
~~7.~~**8. Prior uterine rupture**

E. **PHYSICIAN RESPONSIBILITIES:**

1. Informed consent and the plan of management shall be documented on the prenatal record during a prenatal visit and prior to patient's arrival to labor and delivery.
   a. Getting this document signed in the hospital might be rushed and may be difficult to confirm that the risks and benefits have been discussed in the manner that constitutes informed consent for a laboring patient whose decision making capacity may be altered by pain and/or medication(s).
2. The documentation in the prenatal record shall reflect specific risks, benefits and that alternatives were discussed per the ACOG selection criteria for TOLAC candidacy.
   a. This documentation should reflect that the physician and patient are in agreement for:
      i. The plan of management.
      ii. The delivery mode.
   b. If this consent is not available upon admission, a hospital consent form shall be signed by the patient, or the patient's legally authorized representative, as evidence of the informed consent process noted in the patient's prenatal record.
      i. The hospital consent is not in lieu of the informed consent process that occurs in a prenatal visit between the obstetrician and his/her patient.
3. Documentation of the location of the prior c-section of incision shall be included in the plan of management on the hospital record, if not documented on the prenatal record.
   a. If the location of the prior c-section uterine scar is not available to the attending physician, the physician must document in his plan of management why s/he felt it

appropriate to continue with a VBAC/TOLAC on the hospital progress notes and on the informed consent signed by the patient.

4. The laboring patient may elect to have a repeat cesarean birth vs. the documented "Prenatal record" plan for TOLAC upon admission to labor and delivery and/or at any point during her labor.
5. When scheduling an induction of labor for a TOLAC patient from the physician's office/clinic, it is the responsibility of the attending physician to inform the labor and delivery charge nurse that the patient is a previous c-section so that appropriate nursing staff can be scheduled to maintain the 1:1 staffing requirement.
6. Obstetrician is immediately available during a patient's TOLAC. If the attending OB is occupied with another patient procedure or is ~~other wise~~**otherwise** unavailable, an additional Obstetrician must be immediately available to assume care of the VBAC patient's labor and delivery. Note: "immediately available" is defined as either in-house or within 5 minutes walking ~~distance..~~**distance.**
7. Anesthesiologist dedicated to OB is in-house, and is immediately available during a patient's ~~TOLAC..~~**TOLAC.** The OB Anesthesiologist is to be notified when there is a TOLAC patient on the unit. Back up support is available with on-call anesthesia.
8. If the individual obstetrician elects to use a PGE_1 (Misoprostil), and/or PGE_2 (Prepidil/Cervidil) prostaglandin for a fetal demise, the physician must insert the **first dose of the** agent.

F. **NURSING RESPONSIBILITIES:**

1. Verify with the patient that the informed consent discussion with the attending physician took place, and ensure that all questions have been clearly answered by the physician.
2. Ensure procedural consent for TOLAC/ VBAC is signed and in patient health record.
3. Nurse to patient ratio during TOLAC/VBAC is 1:1.
   a. A nurse and a scrub nurse or tech with obstetrical surgical circulating experience will be immediately available.
4. Continuous electronic fetal monitoring, including close maternal monitoring of the uterine activity pattern is initiated and maintained during TOLAC/VBAC.
5. If oxytocin is used to augment labor, please reference the Procedure "Oxytocin Administration for Induction/Augmentation of Labor".
6. Obtain labs on admission: CBC, Type and Screen.
7. Maintain vascular access at all times during TOLAC/VBAC:
   a. Intravenous line is required – a saline lock is not acceptable.
8. Assess for signs of scar separation/ uterine rupture:
   a. Variable FHR deceleration that evolves into late deceleration.
   b. Bradycardia.
   c. Blood-stained amniotic fluid.
   d. Hematuria
   e. Vaginal bleeding.
   f. Alterations in uterine contractions.
   g. Abdominal pain that continues between contractions
   h. Loss of fetal station on examination
   i. **Pain at previous incision site**

G. **CHAIN OF COMMAND:**

1. Staff nurse
2. Shift Supervisor/Charge Nurse
3. Clinical Manager/Designee
4. Director/Designee
5. Chairman, Department of Obstetrics/Gynecology
6. Chief of Staff
7. Immediate Past Chief of Staff
8. Chief of Staff - Elect

H. **REFERENCES:**

1. AAP & ACOG, (2012~~7~~) Guidelines for Perinatal Care, ~~7~~**8**th Edition.
~~2. American Congress of Obstetricians and Gynecologists (2010). Vaginal birth after previous cesarean delivery. *ACOG Practice Bulletin.* Number 55. Washington, DC: Author.~~
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TRI-CITY HEALTHCARE DISTRICT
MINUTES FOR A REGULAR MEETING
OF THE BOARD OF DIRECTORS

June 24, 2021 – 3:30 o'clock p.m.
Meeting Held via Teleconference

A Regular Meeting of the Board of Directors of Tri-City Healthcare District was held via teleconference at 3:30 p.m. on June 24, 2021.

The following Directors constituting a quorum of the Board of Directors were present via teleconference:

Director Rocky J. Chavez
Director George W. Coulter
Director Nina Chaya, M.D.
Director Gigi Gleason
Director Leigh Anne Grass
Director Tracy M. Younger

Absent was Director Adela Sanchez

Also present were:

Steven Dietlin, Chief Executive Officer
Scott Livingstone, Chief Operations Officer
Candice Parras, Chief, Patient Care Services
Ray Rivas, Chief Financial Officer
Roger Cortez, Chief Compliance Officer
Aaron Byzak, Chief External Affairs Officer
Dr. Gene Ma, Chief Medical Officer
Jennifer Paroly, Foundation President
Jeremy Raimo, SVP, Business Development
Susan Bond, General Counsel
Dr. Mark Yamanaka, Chief of Staff
Jeffrey Scott, Board Counsel
Teri Donnellan, Executive Assistant

1. The Board Chairperson, Rocky J. Chavez, called the meeting to order at 3:30 p.m. with attendance as listed above.

2. Approval of Agenda

   It was moved by Director Grass to approve the agenda as presented. Director Younger seconded the motion. The motion passed (5-0-0-2) with Directors Coulter and Sanchez absent.

3. Pledge of Allegiance

   Director Chavez led the Pledge of Allegiance.

4. Public Comments – Announcement

Chairperson Chavez read the Public Comments section listed on the June 24, 2021 Regular Board of Directors Meeting Agenda.

5. Special Recognitions –

a) Mark K. Yamanaka, M.D., Chief of Staff

Chairperson Chavez recognized Dr. Mark Yamanaka for his leadership during his tenure as Chief of Staff during some of the most difficult times in the hospital's history. On behalf of the Board of Directors he presented Dr. Yamanaka with a plaque recognizing his service and commitment.

6. Auxiliary Report –

Mr. Jeff Marks, Auxiliary President presented a report on the Auxiliary as follows:

- Currently there are 292 active members (a 40% drop in membership since last year and 153 resignations due to the pandemic);
- 192 members have received vaccinations through Tri-City Medical Center; the status of the remaining 100 is unknown
- The Auxiliary is mandating vaccinations for all active members;
- 12 volunteers manned the Covid-19 Phone Support, logging over 1,500 hours;
- Volunteers contributed over 7,000 hours for the vaccination clinic;
- The Auxiliary has given the hospital a $50,000 donation from Gift Shop proceeds, however the Gift Shop has been closed since the pandemic and therefore there will be no donations in the coming year; and
- New officers will be installed on June 30, 2021 with Linda Wolff assuming the role of President and Bunny McElliott, Secretary

Mr. Marks also recognized Linda Wolff and Bunny McElliott for their tremendous support in both the Vaccination Clinic and the Covid-19 Phone Support.

Chairperson Chavez invited Board members to the Auxiliary Installation of Officers on June 30th.

6. May 2021 Financial Statements – Ray Rivas, Chief Financial Officer

Mr. Rivas reported on the fiscal year to date financials as follows (Dollars in Thousands):

- Net Operating Revenue – $302,548
- Operating Expense - $314,814
- EBITDA - $14,218
- EROE – $1.3

Mr. Rivas reported on the fiscal year to date Key Indicators as follows:

- Average Daily Census – 150
- Adjusted Patient Days – 90,447
- Surgery Cases – 5,484
- ED Visits – 37,419

Mr. Rivas reported on the current month financials (Dollars in Thousands):

- Operating Revenue – $31,867
- Operating Expense - $28,366
- EBITDA - $5,782
- EROE – 4,682

Mr. Rivas also reported on the current month Key Indicators as follows:

- Average Daily Census – 146
- Adjusted Patient Days – 8,444
- Surgery Cases – 546
- ED Visits – 3,734

- Net Patient Accounts Receivable - $41.2
- Days in A/R – 53.0

Director Younger questioned the dip in Emergency Department visits in April. Candice Parras, Chief Patient Care Officer stated Emergency Department visits tapered off after the spike in the first part of 2021, however in May there was a spike in Emergency Department visits due to the Scripps data breach and the spike continues to go up daily.

6. New Business –

Consideration to approve Resolution No. 802, A Resolution of the Tri-City Healthcare District Establishing the Appropriations Limit for Tri-City Healthcare District for the Fiscal Year Commencing July 1, 2021 and Ending June 30, 2022.

Mr. Rivas explained this is a resolution that is a statutory requirement that sets an appropriation limit for the District. He further explained it is a calculation that sets the maximum amount the District could collect in tax revenue and is based on cost of living and population statistics. Special Districts have an apportionment of the 1% property tax that is collected and the resolution reflects the maximum Tri-City could receive, with this year's maximum at $17 million. He anticipates the District will receive closer to $12 million.

Chairperson Chavez clarified for the Board that although the District will receive approximately $12 million our expenses are over $301 million a year.

It was moved by Director Coulter to approve Resolution No. 802, A Resolution of the Tri-City Healthcare District Establishing the Appropriations Limit for Tri-City Healthcare District for the Fiscal Year Commencing July 1, 2021 and Ending June 30, 2022. Director Gleason seconded the motion.

The vote on the motion via a roll call vote was as follows:

AYES:	**Directors:**	**Chavez, Chaya, Coulter, Gleason, Grass, and Younger**
NOES:	**Directors:**	**None**
ABSTAIN:	**Directors:**	**None**
ABSENT:	**Directors:**	**Sanchez**

7. Consideration to add tables for Foundation Gala

Director Grass stated the Board has historically partnered with the Foundation by purchasing two tables to the annual Gala. She encouraged the Board to continue this practice and considering adding an additional table to invite key stakeholders to the event.

Ms. Jennifer Paroly, Foundation President stated three tables with premier seating will enable the Foundation to reach out to additional key leaders in the community and showcase our physicians and services that are so vital to the communities we serve.

It was moved by Director Grass that the Tri-City Healthcare District Board of Directors purchase three tables for the Foundation Gala. Director Chaya seconded the motion.

The vote on the motion via a roll call vote was as follows:

AYES:	**Directors:**	**Chavez, Chaya, Coulter, Gleason, Grass, and Younger**
NOES:	**Directors:**	**None**
ABSTAIN:	**Directors:**	**None**
ABSENT:	**Directors:**	**Sanchez**

7. Old Business – None

8. Chief of Staff

a) Consideration of the May 2021 Credentialing Actions Involving the Medical Staff as recommended by the Medical Executive Committee on May 24, 2021.

Dr. Yamanaka stated there are no additions or revisions to the Credentials as presented.

It was moved by Director Grass to approve the May 2021 Credentialing Actions Involving the Medical Staff as recommended by the Medical Executive Committee on June 21, 2021. Director Coulter seconded the motion.

The vote on the motion via a roll call vote was as follows:

AYES:	**Directors:**	**Chavez, Chaya, Coulter, Gleason, Grass, and Younger**
NOES:	**Directors:**	**None**
ABSTAIN:	**Directors:**	**None**
ABSENT:	**Directors:**	**Sanchez**

9. Consideration of Consent Calendar

Director Chaya pulled item 11 (20) Consideration to renew the agreement with Anesthesia Services Medical Group (ASMG) for anesthesia coverage for a term of 24

months, beginning July 1, 2021 through June 30, 2023, not to exceed a total cost of $2,069,102 for the term.

Director Chaya stated she would be recusing herself for this agenda item due to her employment with ASMG.

Director Gleason pulled item 11 (21) May 27, 2021 Regular Meeting minutes.

Director Gleason stated she would be abstaining from the vote for the May 26, 2021 Regular Meeting minutes as she was absent from the meeting.

It was moved by Director Grass to approve the Consent Calendar minus the two items pulled from the agenda. Director Gleason seconded the motion.

The vote on the motion via a roll call vote was as follows:

AYES:	**Directors:**	**Chavez, Chaya, Coulter, Gleason, Grass, and Younger**
NOES:	**Directors:**	**None**
ABSTAIN:	**Directors:**	**None**
ABSENT:	**Directors:**	**Sanchez**

10. Discussion of items pulled from Consent Calendar

(21) Minutes – Approval of May 27, 2021 Regular Meeting

It was moved by Director Grass to approve the Minutes of the May 27, 2021 Regular Meeting. Director Coulter seconded the motion.

The vote on the motion via a roll call vote was as follows:

AYES:	**Directors:**	**Chavez, Chaya, Coulter, Grass, and Younger**
NOES:	**Directors:**	**None**
ABSTAIN:	**Directors:**	**Gleason**
ABSENT:	**Directors:**	**Sanchez**

Director Chaya exited the room at 3:57 p.m. due to a conflict.

(20) Consideration to renew the agreement with Anesthesia Services Medical Group (ASMG) for anesthesia coverage for a term of 24 months, beginning July 1, 2021 through June 30, 2023, not to exceed a total cost of $2,069,102 for the term.

It was moved by Director Grass to renew the agreement with Anesthesia Services Medical Group (ASMG) for anesthesia coverage for a term of 24 months, beginning July 1, 2021 through June 30, 2023, not to exceed a total cost of $2,069,102 for the term. Director Younger seconded the motion.

The vote on the motion via a roll call vote was as follows:

AYES:	**Directors:**	**Chavez, Coulter, Gleason, Grass and Younger**
NOES:	**Directors:**	**None**
ABSTAIN:	**Directors:**	**None**
ABSENT:	**Directors:**	**Chaya, Sanchez**

Director Chaya rejoined the meeting.

11. Comments by Members of the Public

There were no comments by members of the public.

12. Comments by Chief Executive Officer

Mr. Dietlin, CEO provided a brief report on COVID-19. He stated currently Tri-City has one positive COVID-19 inpatient and we have vaccinated well over 30,000. He commented that the collaborative response of the team including clinical and non-clinical staff, community partners, the Foundation Board, Auxiliary and Administration has been amazing.

Mr. Dietlin reported CDPH will be updating hospital visitation in light of the reduction in positive COVID-19 individuals.

Mr. Dietlin also reported on other hospital initiatives including our partnership with the county and city for Behavioral Health Services; MRI project which is out to bid; TCMC's partnership with the Foundation for the ER Remodel project which will improve the function of the ER and patient experience, all of which are an investment in our community's future. Mr. Dietlin also commented on TCMC's award winning heart and stroke program where patients receive world class care.

Mr. Dietlin expressed his appreciation to Jeff Marks, Auxiliary President for his leadership over the past two years and congratulated Linda Wolff and Bunny McElliott who will assume the roles of President and Secretary, respectively. He also thanked the Auxiliary for their tremendous help with the Vaccination Clinic and COVID-19 Phone Support.

Lastly, Mr. Dietlin congratulated Tri-City team members that were recognized at the *Heroes of Oceanside Event* on June 24th including Chara Cote, for her Leadership in Meeting Reporting Standards, Jeff Gregory, Excellence in Customer Service, Tricia Guerra and Melissa Terah for Creation of a Best-in-Class Vaccination Clinic, Josh Mueller, Excellence in Customer Service and the entire Information Technology Department for Shepherding a New Network Installation and EMR Conversion. He stated it is an entire team effort and all these heroes are supported by other team members at Tri-City Medical Center.

Mr. Dietlin stated today marks Mr. Scott Livingstone's last meeting. He expressed his appreciation to Mr. Livingstone for his service and wished him well.

Mr. Dietlin recognized Dr. Mark Yamanaka who led the Medical Staff as their Chief of Staff for the last two years through the pandemic and rose to every occasion. He expressed his appreciation to Dr. Yamanaka for his incredible partnership.

Mr. Dietlin stated Dr. Jamie Johnson will supersede Dr. Yamanaka and Administration looks forward to working with Dr. Johnson.

Chairman Chavez reported earlier this afternoon our CEO, Steve Dietlin was recognized by the San Diego Business Journal as the CEO of the Year in the Business Non-Profit category. He congratulated Mr. Dietlin on his well-deserved award.

13. Board Communications

Director Chaya commented on the number of great things discussed today. She expressed her appreciation to Dr. Yamanaka for leading the Medical Staff during one of the most difficult times and Jennifer Paroly for leading the Foundation.

Director Coulter congratulated Mr. Dietlin on his accomplishments. He also thanked Chairperson Chavez for his leadership and commented that this is one of the best Boards he has had the pleasure of working with.

Director Coulter also recognized Dr. Yamanaka for his service and thanked everyone for their good work.

Director Gleason congratulated Mr. Dietlin on his award and thanked him for his leadership. She also expressed her appreciation to Dr. Yamanaka and wished him the best in his future endeavors. She acknowledged the Auxiliary and their efforts in the Vaccination Clinic and Covid-19 Call Center and finally extended her best wishes to Mr. Livingstone.

In closing, Director Gleason stated she looks forward to partnering with the Foundation on the ER project and Gala and working together towards a common goal.

Director Grass congratulated Mr. Dietlin on his well- deserved award. She also expressed her appreciation to Dr. Yamanaka for his dedication and support during a very difficult time.

Director Grass stated it is with a heavy heart that August will be her last Board meeting. She expressed her appreciation for the overwhelming support she received through two election cycles.

Lastly, Director Grass commented on the number of positive projects currently underway including the Emergency Room remodel.

Director Younger reiterated the comments made by her fellow Board members

14. Report from Chairperson

Chairperson Chavez reported Director Grass's last meeting will be August 26, 2021 and she will be sorely missed. He stated the vacancy and appointment process will be explained by Board Counsel during an upcoming Board meeting.

Chairperson Chavez expressed his appreciation to Dr. Yamanaka for all the great work during his tenure as Chief of Staff.

Lastly, Chairperson Chavez shared a grateful patient story.

15. Move to adjourn

It was moved by Director Coulter and seconded by Director Younger to adjourn the meeting at 4:05 p.m. The motion passed (6-0-0-1) with Director Sanchez absent.

16. There being no further business Chairperson Chavez adjourned the meeting at 4:05 p.m.

_____
Rocky J. Chavez, Chairperson

ATTEST:

_____
Tracy M. Younger, Secretary

TRI-CITY HEALTHCARE DISTRICT
MINUTES FOR A SPECIAL MEETING
OF THE BOARD OF DIRECTORS

July 26, 2021 – 2:00 o'clock p.m.
Via Teleconference

A Special Meeting of the Board of Directors of Tri-City Healthcare District was held via teleconference at 2:00 p.m. on July 26, 2021.

The following Directors constituting a quorum of the Board of Directors were present via teleconference:

Director Rocky J. Chavez
Director Nina Chaya, M.D.
Director George W. Coulter
Director Leigh Anne Grass
Director Adela Sanchez
Director Tracy Younger

Absent was Director Gigi Gleason

Also present via teleconference were:

Steve Dietlin, Chief Executive Officer
Jeff Scott, Board Counsel
Susan Bond, General Counsel
Teri Donnellan, Executive Assistant

1. The Board Chairperson, Director Chavez, called the meeting to order at 2:05 p.m. via teleconference with attendance as listed above. Director Chavez led the pledge of allegiance.

2. Approval of agenda

   It was moved by Director Coulter to approve the agenda as presented. Director Younger seconded the motion. The motion passed (6-0-0-1) by a roll call vote with Director Gleason absent.

4. Oral Announcement of Items to be discussed during Closed Session

   Board Counsel Jeff Scott made an oral announcement of the items listed on the July 26, 2021 Special Board of Directors Meeting Agenda to be discussed during Closed Session which included one matter of Potential Litigation, Conference with Labor Negotiators and Reports Involving Trade Secrets with various disclosure dates.

5. Motion to go into Closed Session

   It was moved by Director Coulter and seconded by Director Younger to go into Closed Session at 2:05 p.m. The motion passed (6-0-0-1) by a roll call vote with Director Gleason absent.

6. At 3:30 p.m. the Board returned to Open Session with attendance as previously noted.

7. Report from Chairperson on any action taken in Closed Session.

The Board in closed session directed Board counsel to take appropriate action concerning the potential litigation matter.

The Board also heard an update on the labor negotiations with the California Nursing Association.

Finally, the Board heard reports involving hospital trade secrets and took no action.

8. Open Session

a) Consideration to approve an addendum to the Professional Services Agreement between Tri-City Healthcare District and Tri-City Primary Care Medical Group to include additional physician coverage to the Medical Group. Amount not to exceed $600,000 in order to expand physician coverage in the communities served by the District.

Mr. Dietlin stated he is excited to expand the physician group and is seeking Board approval today to make that happen.

It was moved by Director Grass to approve an addendum to the Professional Services Agreement between Tri-City Healthcare District and Tri-City Primary Care Medical Group to include additional physician coverage in the communities served by the District. Director Coulter seconded the motion.

The vote on the motion via a roll call vote was as follows:

AYES:	**Directors:**	**Chavez, Chaya, Coulter, Grass, Sanchez and Younger**
NOES:	**Directors:**	**None**
ABSTAIN:	**Directors:**	**None**
ABSENT:	**Directors:**	**Gleason**

b) Consideration to approve an agreement with Stryker Communications to acquire and Install Surgical Lights in OR Rooms 5 through 10 and the full integration communication package in OR Rooms 5 and 6 not to exceed $1.6 million.

Mr. Dietlin stated updating the OR lights is a sizable item which was accounted for in the budget.

It was moved by Director Chaya to approve an agreement with Stryker Communications to acquire and install Surgical Lights in OR Rooms 5 through 10 and the full integration communication package in OR Rooms 5 and 6 not to exceed $1.6 million. Director Sanchez seconded the motion.

The vote on the motion via a roll call vote was as follows:

AYES:	**Directors:**	**Chavez, Chaya, Coulter, Sanchez and Younger**
NOES:	**Directors:**	**None**
ABSTAIN:	**Directors:**	**None**

ABSENT: Directors: Gleason, Grass (due to technical issue)

c) Consideration to approve an agreement with Vista Community Clinic for data sharing for QIP (Quality Incentive Program) not to exceed $50,000, effective July 1, 2021 through June 30, 2023.

Mr. Dietlin explained the Quality Incentive Program is a "pay for performance" program that is about improving outcomes for our MediCal population. The agreement will allow data sharing between the Vista Community Clinic and Tri-City.

It was moved by Director Coulter to approve an agreement with Vista Community Clinic for data sharing for QIP (Quality Incentive Program), not to exceed $50,000, effective July 1, 2021 through June 30, 2023. Director Younger seconded the motion.

The vote on the motion via a roll call vote was as follows:

AYES:	**Directors:**	**Chavez, Chaya, Coulter, Sanchez and Younger**
NOES:	**Directors:**	**None**
ABSTAIN:	**Directors:**	**None**
ABSENT:	**Directors:**	**Gleason, Grass (due to technical issue)**

d) External Affairs – Tri-City's 60th Anniversary

Mr. Aaron Byzak, Chief External Affairs Officer gave an overview of Tri-City's 60th Anniversary celebration which he has been working on for the last two years and which will escalate over the next few months. Mr. Byzak stated the goal is to have a positive, lasting impact on the hospital. He provided examples of the following:

- History Wall – Covering 1961 – 2021
- Photographic Wall Art
- Healthcare Heroes Posters

Additional 60th Anniversary Activities will include:

- Advertising via Billboards, Podcasts, Digital Marketing as well as in Journals, Newsletters, Magazines and the Coast News.
- Social Media Campaign
- Employee Events including an Employee Appreciation Barbeque Event, Spirit Week Activities, Heroes and COASTAL Commitment T-Shirts, to name a few.
- Facility improvements including new color pallet (paint), flooring and signage standards, along with ED Outdoor Waiting Area improvements.

Mr. Byzak also discussed the COASTAL Commitment which is wide-ranging outreach initiative with nearly 60 partner organizations.

Lastly, Mr. Byzak commented on some of the recent media announcements which included Kaiser Permanente Partners with Tri-City Medical Center, North County Surgeons Use Philosophies of Martial Arts in Daily Life and Occupation,

LA Rams Safety Visits TCMC and Honors Healthcare Heroes and Tri-City's Homebound Senior Vaccination Program, to name a few.

9. Board Member Comments

Director Grass stated she was very impressed with Mr. Byzak's 60th Anniversary report.

Director Chaya echoed Director Grass's comments and stated she looks forward to the celebration!

Director Sanchez stated she attended the Carlsbad Street Fair this past weekend and is very proud of the work Mr. Byzak and his team are doing.

Director Younger also echoed previous Board member comments.

Director Coulter stated we are headed in the right director and Mr. Byzak is doing an outstanding job.

Chairperson Chavez stated today's meeting is being held via Zoom as it is unknown how the Delta variant will evolve.

Chairperson Chanvez recognized Director Chaya for her participation in the Oceanside Vaccination Clinic event and also thanked Dr. Ma and staff for their efforts with the event.

Chairperson Chavez extended well wishes and positive thoughts to Director Gleason.

Lastly, Chairperson Chavez reported Director Grass will be leaving her position on the Board effective August 31st. He stated a presentation will be made at the August Regular Board Meeting as to the Board replacement process for Director Grass. He stated it will be an open and transparent process.

8. Adjournment

It was moved by Director Coulter and seconded by Director Grass to adjourn the meeting at 4:20 p.m. **The motion passed (6-0-0-1) by a roll call vote with Director Gleason absent.**

_____

Rocky J. Chavez
Chairperson

ATTEST:

_____

Tracy M. Younger
Secretary

Tri-City Medical Center

ADVANCED HEALTH CARE FOR YOU

Financial Information

TCMC Days in Accounts Receivable (A/R)

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	C/M YTD Avg	Goal Range
FY22	63.3												63.3	48-52
FY21	51.1	50.9	52.7	50.7	50.9	50.7	55.4	54.6	50.9	53.0	62.4		51.1	

TCMC Days in Accounts Payable (A/P)

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	C/M YTD Avg	Goal Range
FY22	102.6												102.6	75-100
FY21	107.1	103.1	101.1	99.6	99.6	92.7	93.9	94.6	94.0	100.5	103.5		107.1	

TCHD EROE $ in Thousands (Excess Revenue over Expenses)

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	C/M YTD	C/M YTD Budget
FY22	($900)												($900)	($1,450)
FY21	($1,489)	($923)	($930)	$508	($175)	($881)	$1,109	($245)	$210	($554)	$4,682		($1,489)	

TCHD EROE % of Total Operating Revenue

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	C/M YTD	C/M YTD Budget
FY22	-3.24%												-3.24%	-5.27%
FY21	-6.12%	-3.74%	-3.60%	1.78%	-0.64%	-3.12%	4.13%	-0.92%	0.73%	-1.89%	14.69%		-6.12%	

Tri-City Medical Center ADVANCED HEALTH CARE FOR YOU

Financial Information

TCHD EBITDA $ in Thousands (Earnings before Interest, Taxes, Depreciation and Amortization)

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	C/M YTD	C/M YTD Budget
FY21	$190												$190	$ (351)
FY21	($191)	$291	$302	$1,738	$879	$332	$2,344	$935	$1,383	$422	$5,782		($191)	

TCHD EBITDA % of Total Operating Revenue

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	C/M YTD	C/M YTD Budget
FY22	0.69%												0.69%	-1.28%
FY21	-0.78%	1.18%	1.17%	6.09%	3.22%	1.18%	8.73%	3.50%	4.79%	1.44%	18.14%		-0.78%	

TCMC Paid FTE (Full-Time Equivalent) per Adjusted Occupied Bed

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	C/M YTD	C/M YTD Budget
FY22	5.73												5.73	5.25
FY21	5.38	5.66	5.40	5.87	5.25	5.75	5.10	5.61	6.18	6.33	5.64		5.38	

TCHD Liquidity $ in Millions (Cash + Available Revolving Line of Credit)

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
FY22	$81.4											
FY21	$59.5	$57.4	$83.5	$76.9	$71.3	$68.5	$71.4	$75.4	$83.2	$67.3	$59.6	

Building Operating Leases
Month Ending July 31, 2021

Lessor	Sq. Ft.	Base Rate per Sq. Ft.		Total Rent per current month	LeaseTerm Beginning	Ending	Services & Location	Cost Center
6121 Paseo Del Norte, LLC 6128 Paseo Del Norte, Suite 180 Carlsbad, CA 92011 V#83024	Approx 9,552	$3.59	(a)	50,599.27	07/01/17	06/30/27	**OSNC - Carlsbad** 6121 Paseo Del Norte, Suite 200 Carlsbad, CA 92011	7095
Cardiff Investments LLC 2729 Ocean St Carlsbad, CA 92008 **V#83204**	Approx 10,218	$2.58	(a)	34,350.62	07/01/17	06/30/22	**OSNC - Oceanside** 3905 Waring Road Oceanside, CA 92056	7095
Creek View Medical Assoc 1926 Via Centre Dr. Suite A Vista, CA 92081 V#81981	Approx 6,200	$2.70	(a)	19,810.00	07/01/20	06/30/25	**PCP Clinic Vista** 1926 Via Centre Drive, Ste A Vista, CA 92081	7090
CreekView Orhopaedic Bldg, LLC 1958 Via Centre Drive Vista, Ca 92081 **V#83025**	Approx 4,995	$2.50	(a)	16,592.85	07/01/17	06/30/22	**OSNC - Vista** 1958 Via Centre Drive Vista, Ca 92081	7095
JDS FINCO LLC 499 N EL Camino Real Encinitas, CA 92024 V#83694	Approx 2,460	$2.15	(a)	7,011.00	04/01/20	03/31/22	**La Costa Urology** 3907 Waring Road, Suite 4 Oceanside, CA 92056	7082
500 W Vista Way, LLC & HFT Melrose P O Box 2522 La Jolla, CA 92038 V#81028	Approx 7,374	$1.67	(a)	12,314.58	07/01/21	06/30/26	**Outpatient Behavioral Health** 510 West Vista Way Vista, Ca 92083	7320
OPS Enterprises, LLC 3617 Vista Way, Bldg. 5 Oceanside, Ca 92056 #V81250	Approx 7,000	$4.12	(a)	37,908.00	10/01/12	10/01/22	**North County Oncology Medical Clinic** 3617 Vista Way, Bldg.5 Oceanside, Ca 92056	7086
SCRIPPSVIEW MEDICAL ASSOCIATES P O Box 234296 Encinitas, CA 234296 V#83589	Approx 3,864	$3.45	(a)	13,356.32	06/01/21	05/31/26	**OSNC Encinitas Medical Center** 351 Santa Fe Drive, Suite 351 Encinitas, CA 92023	7095
TCMC, A Joint Venture 3231 Waring Court, Suit D Oceanside, CA 92056 V#83685	Approx 1,444	$2.59	(a)	3,754.00	02/01/20	07/31/21	**Pulmonary Specialists of NC** 3231 Waring Court Suit D Oceanside, CA 92056	7088
Total				**195,696.64**				

(a) Total Rent includes Base Rent plus property taxes, association fees, insurance, CAM expenses, etc.

Education & Travel Expense
Month Ending July 2021

Cost Centers	Description	Invoice #	Amount	Vendor #	Attendees
7894	ONS ONCC	62821EDU	338.00	83689	HOLLAND KATHLEEN
8740	ONS ONCC	70921 EDU	103.00	82315	HURLOW PAONESSA, COLIN
8740	ONC ONCC	71521 EDU	103.00	83243	MUELLER, SETH
8740	ONS/ONCC	72321EDU	103.00	83593	BAUTISTA GINA
8740	CCRN WEBINAR	70921 EDU	159.00	83598	DEDAD OLIVIA
8740	OB NURSING RENEWAL	70121 EDU	167.00	81968	SALGADO, KARMEN FRANCES
8740	AWHONN	72321EDU	200.00	77478	WILDERN, KATE
8740	ORTHOPEDIC CERTIFICATION	70921 EDU	200.00	79494	MONTIJO, DIANNE
8740	MASTER IN HEALTH	72321EDU	5,000.00	83710	ORTIZ REGIN CLENN

**This report shows reimbursements to employees and Board members in the Education & Travel expense category in excess of $100.00.
**Detailed backup is available from the Finance department upon request.