TRI-CITY HEALTHCARE DISTRICT
AGENDA FOR A REGULAR MEETING
September 24, 2020 – 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: 923 6261 0493; Passcode: 018673

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	August 2020 Financial Statement Results	10 min.	CFO
6	New Business – None	--	--
7	Old Business – None	--	--
8	Chief of Staff a) September 2020 Credentialing Actions and Reappointments Involving the Medical Staff as recommended by the Medical Executive Committee on September 21, 2020	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 760-940-3347 at least 48 hours prior to the meeting so that we may provide reasonable accommodations.

	Agenda Item	Time Allotted	Requestor
9	Consideration of Consent Calendar ***Requested items to be pulled require a second.*** (1) Consideration to approve the addition of Dr. Arash Calafi to the currently existing On-Call Coverage Panel for Orthopedics for a term of 20 months, beginning November 1, 2020 through June 30, 2022. (2) Consideration to approve the addition of Vmax Chest, Inc. (Marius Viseroi, M.D.) to the currently existing On-Call Coverage Panel for Pulmonary and ICU, for a term of 12 months, beginning October 1, 2020 through September 30, 2021. (3) Consideration to approve the renewal of an agreement with Dr. Gehaan D'Souza as the Medical Director for Plastic Surgery Consultative and Procedural Services for a term of 12 months beginning October 1, 2020 through September 30, 2021, for a total cost for the term of $55,440. (4) Consideration to approve the renewal of an agreement with Dr. Martina Klein for the Co-Medical Directorship for Outpatient Behavioral Health for a term of 22 months, beginning September 1, 2020 \through June 30, 2022, for an hourly rate of $144 and an annual cost of $82,944 and a total cost for the term of $152,064. (5) Consideration to approve the renewal of an agreement with Dr. Dennis Ordas for the Co-Medical Directorship for Outpatient Behavioral Health a term of 22 months, beginning September 1, 2020 through June 30, 2022 for an hourly rate of $144 and an annual cost of $82,944 and a total cost for the term of $152,064. (6) Consideration to approve the addition of the Regents of the University of California to the Spine ED On Call Coverage Panel for a term of 24 months, beginning July 1, 2020 through June 30, 2022. (7) Administrative & Board Committees **A. Policies** **1) Patient Care Services Policies & Procedures** a) Chain of Command Policy b) Chest Tube Management Procedure c) Dialysis, Acute Treatment of the Inpatient Policy d) Malignant Hyperthermia Management Procedure e) Medications Brought in By the Patient Policy f) Research Activities: Investigational Medications **2) Administrative Policies & Procedures** a) EMTALA Emergency Medical Screening 506 **3) Unit Specific – Emergency** a) EZ-IO Intraosseous (IO) Infusion System Procedure **4) Unit Specific – Home Care** a) Disposal of Needles & Syringes, Hazardous Materials b) Home Total Parenteral Nutrition TPN c) Infusion Program	10 min.	Standard

	Agenda Item	Time Allotted	Requestor
	d) Look Alike Sound Alike Medications (DELETE) e) Subcutaneous Insertion and Site Maintenance for Infusions via Patient Controlled Analgesia Pump (DELETE) f) Vitamin Additives to TPN Bag (Delete) **5) Unit Specific – Infection Control** a) Aerosol Transmissible Diseases and Tuberculosis Control Plan b) Mold Abatement IC 13.3 **6) Unit Specific – NICU** a) Peripherally Inserted Central Catheters and Midline Catheters Insertion (DELETE) b) Peripherally Inserted Central Catheters, Dressing Change, Maintenance and Removal of **7) Unit Specific – Outpatient Specialty Clinic** a) Adverse Reaction Medication Event b) Medical Administration and Pharmacy Monthly Inspections c) Removal of Skin Lesions using Liquid Nitrogen **8) Unit Specific – Surgical Services** a) Medications in Surgery Policy **9) Unit Specific – Women & Newborn Services** a) Neonatal Abstinence Syndrome, Pharmacological Treatment of (DELETE) **10) Unit Specific – Wound Care** a) Physician Orders		
	(8) Board Committees		
	A. Community Healthcare Alliance Committee Director Chavez, Committee Chair *(No meeting held in September, 2020)*		CHAC Comm.
	B. Finance, Operations & Planning Committee Director Nygaard, Committee Chair Open Community Seats – 0 *(No meeting held in September, 2020)*		FO&P Comm.
	C. Audit, Compliance & Ethics Committee Director Younger, Committee Chair Open Community Seats – 0 *(No meeting held in September, 2020)*		Audit, Comp. & Ethics Comm.
	(9) Minutes – Approval of: a) August 27, 2020, Regular Meeting b) August 27, 2020, Special Meeting		Standard
	(10) Meetings and Conferences – None		
	(11) Dues and Memberships - None a) CDPH License Renewal - $293,360		

	Agenda Item	Time Allotted	Requestor
	(12) Reports (a) Dashboard – Included (b) Construction Report – None (c) Lease Report – (August, 2020) (d) Reimbursement Disclosure Report – (August, 2020) (e) Seminar/Conference Reports – None		
10	Discussion of Items Pulled from Consent Agenda	10 min.	Standard
11	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
12	Comments by Chief Executive Officer	5 min.	Standard
13	Board Communications (three minutes per Board member)	18 min.	Standard
14	Report from Chairperson	3 min.	Standard
15	Total Time Budgeted for Open Session	1 hour	
16	Adjournment		

Tri-City Medical Center
MEDICAL STAFF

TRI-CITY MEDICAL CENTER
MEDICAL STAFF INITIAL CREDENTIALS REPORT
September 9, 2020

Attachment A

INITIAL APPOINTMENTS (Effective Dates: 9/25/2020 – 7/31/2022)

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 9/25/2020 through 7/31/2022:

- **AZAM, Arsalan MD/Emergency Medicine (TeamHealth)**
- **DESADIER, Jason DO/Emergency Medicine (TeamHealth)**
- **LABBAD, Gabriel MD/OB/GYN (North County Health Services)**
- **LEON, Josue MD/OB/GYN (Vista Community Clinic)**

Tri-City Medical Center
MEDICAL STAFF

TRI-CITY MEDICAL CENTER
MEDICAL STAFF CREDENTIALS REPORT – 1 of 4
September 9, 2020

Attachment B

BIENNIAL REAPPOINTMENTS: (Effective Dates 10/01/2020 -9/30/2022)

Any items of concern will be "red" flagged in this report. The following application was recommended for reappointment to the medical staff office effective 10/01/2020 through 9/30/2022, based upon practitioner specific and comparative data profiles and reports demonstrating ongoing monitoring and evaluation, activities reflecting level of professionalism, delivery of compassionate patient care, medical knowledge based upon outcomes, interpersonal and communications skills, use of system resources, participation in activities to improve care, blood utilization, medical records review, department specific monitoring activities, health status and relevant results of clinical performance:

- ALLEYNE, Neville, MD/Orthopedic Surgery/Active
- BEDROSIAN, Diane, MD/ Pediatrics/Active
- COOPERMAN, Andrew, MD/Orthopedic Surgery/Active
- CURRY, Jason, MD/Physical Medicine & Rehab/Refer and Follow
- DAUGHERTY, David, MD/Orthopedic Surgery/Active
- DAVIES, James, MD/Ophthalmology/Active Affiliate
- ELLINI, Ahmad, MD/Pediatric Cardiology/Active Affiliate
- FERBER, Jeffrey, MD/Family Medicine/Active Affiliate
- GLASSER, Judd, MD/Emergency Medicine/Active
- GUPTA, Anshu, MD/ Plastic Surgery/Active
- IYENGAR, Srinivas, MD/Ophthalmology/Active
- KHALESSI, Alexander, MD/Neurological Surgery/Refer and Follow
- LIU, Wilson, MD/Family Medicine/Refer and Follow
- LOTAN, Roi, MD/Teleradiology/Active Affiliate
- PENDLETON, Robert, MD/Ophthalmology/Active
- PERRIZO, Nathan, DO/ Pain Medicine/Active
- QUESNELL, Tara, DO/Neurology/Active

Attachment B

- RIAD, Shareef, MD/Teleradiology/Active Affiliate
- SEIDEN, Grant, MD/Orthopedic Surgery/Active
- SHOWAH, Henry, MD/Emergency Medicine/Active
- SLATER, Madeline, MD/Infectious Disease/Active
- TINIO, Stephen, MD/ Family Medicine/Refer and Follow
- ZIERING, Robert, MD/Allergy & Immunology/Active Affiliate
- ZIMMERMANN, Andres, MD/Internal Medicine/Refer and Follow

RESIGNATIONS: (Effective date 9/30/2020 unless otherwise noted)

Automatic:

- WHITNEY, Janet, DO/Wound Care

Voluntary:

- PANZER, Glenn, MD/Hospice & Palliative Medicine
- SAMADY, Joseph, MD/Dermatology
- SMITH, Ryan, DO/Emergency Medicine

Tri-City Medical Center
MEDICAL STAFF

TRI-CITY MEDICAL CENTER
MEDICAL STAFF CREDENTIALS REPORT – Part 2 of 3
September 9, 2020

REQUEST FOR EXTENSION OF PROCTORING REQUIREMENT

The following practitioners were given six months from the last reappointment date to complete their outstanding proctoring. These practitioners failed to meet the proposed deadline and are approved for an additional 6 months to complete their proctoring for the privileges listed below. Failure to meet the proctoring requirement by **March 31, 2021** would result in these privileges automatically relinquishing.

- **ABBOUD, Jean Paul, MD** — **Ophthalmology**

REQUEST FOR EXTENSION OF PROCTORING REQUIREMENT

The following practitioners were given two extensions months from the last reappointment date to complete their outstanding proctoring. These practitioners failed to meet the proposed deadline and are approved for an additional 3 months to complete their proctoring for the privileges listed below. Failure to meet the proctoring requirement by **December 31, 2020** would result in these privileges automatically relinquishing.

- **AFRA, Robert, MD** — **Orthopedic Surgery**
- **ANTOUN, David, MD** — **Internal Medicine**
- **COHEN, David, MD** — **Cardiology**
- **JAMSHIDI-NEZHAD, Mohammad, DO** — **General and Vascular Surgery**
- **KUSHNARYOV, Anton, MD** — **Otolaryngology**
- **SHIN, Heamin, DPM** — **Podiatric Surgery**

ADDITIONAL PRIVILEGE REQUEST (Effective 9/25/2020)

The following practitioners requested the following privilege(s) and met the initial criteria for the privilege(s):

- **SUNTAY, Berk MD** — **OB/GYN**

Tri-City Medical Center
MEDICAL STAFF

TRI-CITY MEDICAL CENTER
CREDENTIALS COMMITTEE REPORT – Part 3 of 3
September 9, 2020

PROCTORING RECOMMENDATIONS

• BIERMAN, Andrew NP	Allied Health Professional
• BROWN, Kaley PAC	Allied Health Professional
• CAMPBELL, Leticia MD	OB/GYN
• KOTAK, Kamal MD	Cardiology
• LANE, Richard MD	Neurology
• LAUFIK, Martin MD	Radiology
• NASIRI, Arian MD	Radiology
• PATEL, Cecil MD	Radiology
• YUNG, Aaron MD	Interventional Cardiology
• ZHANG, Clarice DO	Emergency Medicine

TCHD Board of Directors
DATE OF MEETING: September 24, 2020
PHYSICIAN AGREEMENT for ED ON-CALL COVERAGE – Orthopedics

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

Physician's Name: Arash Calafi, M.D.

Area of Service: Emergency Department On-Call: Orthopedics

Term of Agreement: 20 months, Beginning, November 1, 2020 – Ending, June 30, 2022

Maximum Totals: Within Hourly and/or Annualized Fair Market Value: YES
Addition of new physician to current shared call panel; no increase in expense

Rate/Day	Panel Days per Year	Panel Annual Cost
Monday-Friday: $1,500	FY21 & FY22: 522	$783,000
Saturday-Sunday: $1,650	FY21 &FY22: 208	$343,200
	Total Term Cost:	**$1,126,200**

Position Responsibilities:

- Provide 24/7 patient coverage for all Orthopedics specialty services in accordance with Medical Staff Policy #8710-520 (Emergency Room Call: Duties of the On-Call Physician)
- Complete related medical records in accordance with all Medical Staff, accreditation, and regulatory requirements.

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: Sherry Miller, Manager, Medical Staff Services / Gene Ma, Chief Medical Officer

Motion: I move that the TCHD Board of Directors approve the addition of Arash Calafi, M.D. to the currently existing ED On-Call Coverage Panel for Orthopedics for a term of 20 months, beginning November 1, 2020 and ending June 30, 2022.

TCHD BOARD OF DIRECTORS
DATE OF MEETING: September 24, 2020
PHYSICIAN AGREEMENT for ED ON-CALL COVERAGE – Pulmonary & ICU

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

Physician's Name: Vmax Chest Inc., (Marius Viseroi, M.D.)

Area of Service: Emergency Department On-Call: Pulmonary & ICU

Term of Agreement: 12 months, Beginning, October 1, 2020 – Ending, September 30, 2021

Maximum Totals: Within Hourly and/or Annualized Fair Market Value: YES
For entire Current ED On-Call Area of Service Coverage: Pulmonary & ICU
No Additional Cost to the District

Rate/Day	Panel Days per Year	Panel Annual Cost
$1,500	October 1, 2020-September 30, 2021	$547,500
	Total Term Cost	**$547,500**

Position Responsibilities:

- Provide 24/7 patient coverage for all Pulmonary & ICU specialty services in accordance with Medical Staff Policy #8710-520 (Emergency Room Call: Duties of the On-Call Physician)
- Complete related medical records in accordance with all Medical Staff, accreditation, and regulatory requirements.

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: Sherry Miller, Manager-Medical Staff Services / Gene Ma, M.D., Chief Medical Officer

Motion: I move that the TCHD Board of Directors authorize the agreement with Vmax Chest Inc., (Marius Viseroi, M.D.)., to provide ED On-Call coverage for the Pulmonary and ICU panel, for a term of 12 months, beginning October 1, 2020 and ending September 30, 2021, at a daily rate of $1,500 for a total term cost of $547,500.

TCHD BOARD OF DIRECTORS
DATE OF MEETING: September 24, 2020
MEDICAL DIRECTORSHIP AGREEMENT FOR PLASTIC SURGERY - CONSULTATIVE & PROCEDURAL SERVICES

Type of Agreement	X	Medical Directors		Panel	X	Other: Consulting & Procedural Services
Status of Agreement		New Agreement		Renewal – New Rates	X	Renewal – Same Rates

Physician's Name: Gehaan D'Souza, M.D.

Area of Service: Hospital Inpatient, Observation & Outpatient Units

Term of Agreement: 12 months, Beginning, October 1, 2020 – Ending, September 30, 2021

Maximum Totals: Within Hourly and/or Annualized Fair Market Value: YES

Rate/Hour	Hours per Month	Hours per Year	Monthly Cost	12 month (Term) Cost
$210	22	264	$4,620	$55,440

Position Responsibilities:

- Physician to provide Plastic Surgery Services (Consultative and Procedural) for registered TCMC Hospital patients (inpatient, observation, and outpatient units)
- Provide medical direction and services for plastic, wound care and reconstructive surgery
- Recommend to the medical staff that patients receive evidence-based plastic, wound and reconstructive care
- Participate in in-service training, utilization review, and service as a liaison for the community

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: Jeremy Raimo, Sr. Director Business Development / Steve Dietlin, Chief Executive Officer

Motion:

I move that the TCHD Board of Directors authorize Dr. Gehaan D'Souza as the Medical Director for Plastic Surgery Consultative and Procedural Services for a term of 12 months beginning October 1, 2020 and ending September 30, 2021, for a total cost for the term of $55,440.

TCHD BOARD OF DIRECTORS
DATE OF MEETING: August 27, 2020
PHYSICIAN AGREEMENT Co-Medical Director – Outpatient Behavioral Health Services

Type of Agreement	X	Co-Medical Directors		Panel	X	Other: Reduced Hours
Status of Agreement		New Agreement		Renewal – New Rates	X	Renewal – Same Rates

Physician's Name: Dennis Ordas, M.D.

Area of Service: Outpatient Behavioral Health-Morning, Afternoon and Evening Program

Term of Agreement: 22 months, Beginning, September, 1, 2020 – Ending, June 30, 2022

Maximum Totals: Within Hourly Fair Market Value. This agreement reduces hours from 63 to 48 (Plus 4 hours per month of vacation coverage, if needed). Hours cover medical director and Case Care Management duties per CMS Manual (Pub 100-02)

	Rate/Hour	Hours per Month	Hours per Year	Monthly Cost	Annual Cost	22 month (Term) Cost
Medical Director Duties	$144	32	384	$4,608	$55,296	**$101,376**
Case Care Management and Other Duties	$144	16	192	$2,304	$27,648	**$50,688**
Vacation Coverage	$144	4	48	$576	$6,912	**$12,672**
Total:		**52**	**624**	**$7,488**	**$89,856**	**$164,736**

Co-Medical Director Responsibilities:

- Provide medical supervision and direction to the unit, including the morning, afternoon and evening programs
- Supervise and promote the quality of care and evaluate delivery systems.
- Oversee the development of evidence-based clinical services and provide psychiatric expertise.
- Facilitate weekly problem solving and treatment team meetings with clinical staff.
- Review all treatment plans at least monthly to determine appropriateness of problems and treatment goals.
- Evaluate and review policies and procedures and make suggestions for changes as appropriate.
- Provide education to other physicians and departments regarding intensive outpatient level of care

Case Care Management and other Duties:

- Take on utilization management duties and respond to insurance authorization calls for IOP and communicate clinical determination of medical necessity
- Evaluate patients at least once per month for medical necessity and discharge readiness
- Evaluate whether patients are medically stable and meet inclusion/exclusion criteria for IOP on admission and monthly thereafter.
- Prepare reports and records as requested by hospital and regulatory bodies
- Provide professional guidance to staff Monday through Friday and evaluate risk/protective factors and recommend whether a patient needs inpatient treatment or can be managed with safety planning. Respond to calls Mondays through Fridays, 8 am-5 pm.

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

son responsible for oversight of agreement: Sarah Jayyousi-Operations Manager, Outpatient Behavioral Health / Candice Parras, Chief Patient Care Services

Motion:

I move that the TCHD Board of Directors authorize the agreement with Dr. Dennis Ordas for the Co-Medical Directorship for a term of 22 months, beginning September 1, 2020 and ending June 30, 2022 for an hourly rate of $144, an annual cost of $89,856, and a total cost for the term of $164,736

TCHD BOARD OF DIRECTORS
DATE OF MEETING: August 27, 2020
PHYSICIAN AGREEMENT Co-Medical Director – Outpatient Behavioral Health Services

Type of Agreement	X	Co-Medical Directors		Panel	X	Other: Increased Hours
Status of Agreement		New Agreement		Renewal – New Rates	X	Renewal – Same Rates

Physician's Name: Martina Klein, M.D.

Area of Service: Outpatient Behavioral Health-Morning and Afternoon Program

Term of Agreement: 22 months, Beginning, September, 1, 2020 – Ending, June 30, 2022

Maximum Totals: Within Hourly Fair Market Value. This agreement increases hours from 32 to 48 per month (Plus 4 hours per month of vacation coverage if needed). (Taking on Dr. Ordas's reduced hours). Hours cover Medical Director and Case Care management duties, per CMS Manual (Pub. 100-02)

	Rate/Hour	Hours per Month	Hours per Year	Monthly Cost	Annual Cost	22 month (Term) Cost
Medical Director Duties	$144	32	384	$4,608	$55,296	**$101,376**
Case Care Management Duties	$144	16	192	$2,304	$27,648	**$50,688**
Vacation Coverage	$144	4	48	$576	$6,912	**$12,672**
Total:		**52**	**624**	**$7,488**	**$89,856**	**$164,736**

Co-Medical Director Responsibilities:

- Provide medical supervision and direction to the unit, including the morning, afternoon and evening programs
- Supervise and promote the quality of care and evaluate delivery systems.
- Oversee the development of evidence-based clinical services and provide psychiatric expertise.
- Facilitate weekly problem solving and treatment team meetings with clinical staff.
- Review all treatment plans at least monthly to determine appropriateness of problems and treatment goals.
- Evaluate and review policies and procedures and make suggestions for changes as appropriate.
- Provide education to other physicians ahttps://kasa-solutions.com/proposed-legislation-allows-lmft-lmhc-bill-medicare/nd departments regarding intensive outpatient level of care

Case Care Management and other Duties:

- Take on utilization management duties and respond to insurance authorization calls for IOP and communicate clinical determination of medical necessity
- Evaluate patients at least once per month for medical necessity and discharge readiness
- Evaluate whether patients are medically stable and meet inclusion/exclusion criteria for IOP on admission and monthly thereafter.
- Prepare reports and records as requested by hospital and regulatory bodies
- Provide professional guidance to staff Monday through Friday and evaluate risk/protective factors and recommend whether a patient needs inpatient treatment or can be managed with safety planning. Respond to calls Mondays through Fridays, 8 am-5 pm.

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: Sarah Jayyousi-Operations Manager, Outpatient Behavioral Health / Candice Parras, Chief Patient Care Services

Motion:
I move that the TCHD Board of Directors authorize the agreement with Dr. Martina Klein for the co-medical directorship for a term of 22 months, beginning September 1, 2020 and ending June 30, 2022, for an hourly rate of $144, an annual cost of $89,856, and a total cost for the term of $164,736.

TCHD BOARD OF DIRECTORS
DATE OF MEETING: September 24, 2020
PHYSICIAN AGREEMENT for ED ON-CALL COVERAGE- SPINE

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

Vendor's Name: The Regents of the University of California

Area of Service: Emergency Department On-Call: Spine

Term of Agreement: 24 months, Beginning July 1, 2020 – Ending June 30, 2022

Maximum Totals: Within hourly and/or Annualized Fair Market Value: YES
Addition of Medical Group to current call panel: SPINE. No additional cost to district.

Rate/Day	Panel Days per Year	Panel Annual Cost
$450	FY21: 365 days	$164,250
	FY22: 365 days	$164,250
	Total Term Cost	**$328,500**

Position Responsibilities:

- Provide 24/7 patient coverage for all Spine specialty services in accordance with Medical Staff Policy #8710-520 (Emergency Room Call: Duties of the On-Call Physician)
- Complete related medical records in accordance with all Medical Staff, accreditation, and regulatory requirements.

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: Susan Hadley-Director, Network Development / Gene Ma, M.D., Chief Medical Officer

Motion:
I move that the TCHD Board of Directors authorize the agreement with The Regents of the University of California for Spine ED Call Coverage Physician Services for a term of 24 months, beginning July 1, 2020 and ending June 30, 2022 at a daily rate of $450, an annual cost of $164,250, and a total term cost of $328,500.

ADMINISTRATION CONSENT AGENDA
September 14th, 2020

CONTACT: Candice Parras, CPCS

Policies and Procedures	Reason	Recommendations
Patient Care Services Policies & Procedures		
1. Chain of Command Policy	3 Year Review, Practice Change	
2. Chest Tube Management Procedure	3 Year Review, Practice Change	
3. Dialysis, Acute Treatment of the Inpatient Policy	3 Year Review, Practice Change	
4. Malignant Hyperthermia Management Procedure	3 Year Review, Practice Change	
5. Medications Brought In By the Patient Policy	3 Year Review, Practice Change	
6. Research Activities: Investigational Medications	NEW	
Administrative Policies & Procedures/Pay Practices		
1. EMTALA_Emergency Medical Screening 506	3 Year Review	
Unit Specific		
Emergency		
1. EZ-IO Intraosseous (IO) Infusion System-Procedure	3 Year Review	
Home Care		
1. Disposal of Needles & Syringes, Hazardous Materials	3 Year Review, Practice Change	
2. Home Total Parenteral Nutrition TPN	3 Year Review	
3. Infusion Program	3 Year Review, Practice Change	
4. Look Alike Sound Alike Medications	DELETE	
5. Subcutaneous Insertion and Site Maintenance for Infusions via Patient Controlled Analgesia Pump	DELETE	
6. Subcutaneous Medication Administration - Subcutaneous Catheter	3 Year Review, Practice Change	
7. Vitamin Additives to TPN Bag	DELETE	
Infection Control		
1. Aerosol Transmissible Diseases and Tuberculosis Control Plan	3 Year Review, Practice Change	
2. Mold Abatement IC 13.3	3 Year Review, Practice Change	
NICU		
1. Peripherally Inserted Central Catheters and Midline Catheters Insertion	DELETE	
2. Peripherally Inserted Central Catheters and Midline Catheters, Dressing Change, Maintenance, and Removal of	3 Year Review, Practice Change	
Outpatient Specialty Clinic		
1. Adverse Reaction Medication Event	3 Year Review,	

ADMINISTRATION CONSENT AGENDA
September 14th, 2020

CONTACT: Candice Parras, CPCS

Policies and Procedures	Reason	Recommendations
	Practice Change	
2. Medical Administration and Pharmacy Monthly Inspections	3 Year Review, Practice Change	
3. Removal of Skin Lesions using Liquid Nitrogen	3 Year Review, Practice Change	
Surgical Services		
1. Medications in Surgery Policy	3 Year Review, Practice Change	
Women & Newborn Services		
1. Neonatal Abstinence Syndrome, Pharmacological Treatment of	DELETE	
Wound Care		
1. Physician Orders	3 Year Review	

Tri-City Medical Center
Oceanside, California

PATIENT CARE SERVICES

ISSUE DATE: 12/01 **SUBJECT:** Chain of Command

REVISION DATE: 06/03, 12/04, 10/05, 03/10, 06/13 07/16, 09/17 ~~POLICY NUMBER: I.J~~

Patient Care Services Content Expert~~Department~~ Approval:	~~04/17~~05/20
Clinical Policies and Procedures Committee Approval:	~~06/17~~05/20
Nursing Leadership~~Executive Council~~ Approval:	~~07/17~~08/20
Medical Staff Department or Division Approval:	n/a
Pharmacy and Therapeutics Approval:	n/a
Medical Executive Committee Approval:	~~08/17~~08/20
Administration Approval:	09/20
Professional Affairs Committee Approval:	~~09/17~~ n/a
Board of Directors Approval:	09/17

A. **PURPOSE:**

1. Chain of Command provides employees an expeditious process to resolve administrative, clinical, or other patient safety or service issues in order to provide safe patient care. All employees are encouraged to use the chain of command to present an issue of concern and pass it up the lines of authority until a resolution is reached. In situations where the safety of the patient or of employees, visitors, and others does not allow time for use of the chain of command, employees shall take the concern to the highest level he/she deems necessary.

B. **POLICY:**

1. Tri-City Healthcare District (TCHD) will not tolerate any acts of reprisal against those who raise issues concerning quality patient care.
2. All TCHD employees and health care providers (HCP) are responsible for ensuring that patients receive quality care and should implement chain of command to obtain necessary patient care interventions when the quality of care or safety of a patient is in question.
3. Examples of when to implement the chain of command may, include but are not limited to the following:
   a. An unresolvable issue creating a patient care/safety concern.
   b. A conflict delaying or preventing the provision of patient services.
   c. A disruption in service(s) that cannot be resolved in an appropriate timeframe.
   d. A conflict exists concerning the plan of care/physician orders for the patient.
   e. The plan of care is unclear and caregiver is unable to get clarification from physician.
   f. Qualified care professional providers are unavailable: Registered Nurses (RNs), physicians, and other essential care providers.
   g. Unprofessional behavior by or impairment of the healthcare providers that jeopardize patient care.
   h. Instances where a physician has not responded in a timely manner to a deteriorating patient condition.
   i. The RNs assessment of the patient varies significantly from physician's assessment.
   j. In clinical situations where the RN believes the physician has not responded in a manner to fully address the issues raised, that may present an immediate risk to the patient.
4. Occurrence of an event in an area that disrupts operations and affects the public or may warrant regulatory notification:

a. Contact immediately, Monday through Friday, Area **Leadership**~~Manager/Director~~ who will call their Area Chief.~~and~~ **The** Area Chief **is** to notify Chief Executive Officer (CEO).
b. Contact immediately nights, holidays, Saturday and/or Sunday, Administrative Supervisor (AS) who will call the Clinical Administrator on Call and Administrator on Call to notify the CEO.

5. The next level of authority shall be contacted if issues are not resolved in an appropriate time frame. Progression continues through the levels of authority until the issue is resolved.
   a. In some instances, one or more levels may be passed over up to the area Chief or CEO due to extremely sensitive subjects or when the higher level of authority may be the individual involved.
6. For conflicts that cannot be resolved between employees related to patient care/safety issues, the order in which the lines of authority shall be contacted are as follows **as applicable**:
   a. The employees shall attempt to address and resolve conflict outside of the patient care area.
   b. If unresolved, then the Supervisor on Duty/Department **Leadership**~~Supervisor~~ is notified.
   c. If unresolved, then the Manager and/or AS is notified.
   d. If unresolved, then the Director is notified.
   e. If unresolved, then the Senior Director is notified.
   f. If unresolved, then the Area Chief is notified.
7. For conflicts involving physicians/Allied Health Professionals (AHP), the order in which the lines of authority shall be contacted upon initiation of chain of command is as follows **as applicable**:
   a. The HCP shall contact the Department Supervisor/**Leadership**~~Manager~~ in a confidential manner to express concerns.
   b. If unresolved, the Manager and/or AS is notified.
   c. If unresolved, the Director is notified.
   d. If unresolved, the Senior Director is notified.
   e. If unresolved, the Clinical Administrator on Call and Administrator on Call is notified.
   f. If unresolved, the Department/Division Chair of the identified department/division is notified.
   g. If unresolved, the Chief Of Medical Staff, **Chief Medical Officer** and CEO are notified
8. The AS is available as a resource when contacting all levels of authority.

C. **PROCEDURE FOR CONTACTING PHYSICIANS:**

1. For instances when a call is placed to a physician and the physician has not responded in a timely manner:
   a. Urgent situations:
      i. If the physician has not returned the call within five (5) minutes, the HCP will contact Private Branch Exchange (PBX) for assistance in contacting the physician.
      ii. PBX will make several attempts to contact the physician. If the physician has still not responded within thirty (30) minutes, PBX will notify the AS of the lack of physician response. The AS will contact the HCP for additional information regarding the situation.
      iii. The AS will contact the Chief of Service.
      iv. The AS will contact the Clinical On-Call as needed.
   b. Non-urgent situations:
      i. If the physician has not returned the call within thirty (30) minutes, the HCP will contact PBX for assistance in contacting the physician.
      ii. PBX will make several attempts to contact the physician. If the physician has still not responded within one (1) hour, PBX will notify the AS of the lack of physician response. The AS will contact the HCP for additional information regarding the situation.
      iii. The AS will contact the Chief of Service as needed.

D. **DOCUMENTATION:**

1. The HCP shall document the following in the medical record under clinical notes without including personal opinions:
   a. Date, time, and name of person contacted
   b. Events and observations objectively as they occur
   c. Specific facts and accurate times
2. Quality review report (QRR) shall be completed and submitted to Risk Management.

E. **RELATED DOCUMENTS:**

1. Administrative Policy: Incident Report – Quality Review Report (QRR) RL Solutions 396

Tri-City Medical Center	~~Distribution:~~ Patient Care Services
PROCEDURE:	**CHEST TUBE MANAGEMENT**
Purpose:	To define the nursing interventions for assisting with the insertion of chest tubes for the adult and adolescent patients. To define nursing management of adult and adolescent patients with chest tubes.
Supportive Data:	Closed chest drainage systems are used to facilitate the evacuation of fluid, blood, and air from the pleural space, the mediastinum or both; to restore negative pressure to the pleural space; and promote reexpansion of a collapsed lung. ~~Mosby's~~ **Online Skill** Chest Tube Insertion Procedure ~~Mosby's~~ **Online Skill** Chest Tube: Closed Drainage System Procedure
Equipment:	1. One 250mL bottle of Normal Saline 2. Chest Tube Dressing Change Equipment a. Silvasorb Gel or Povidone-Iodine Ointment b. 2-inch silk tape or micropore c. Normal Saline d. 4x4 gauze sponges e. 4x4 gauze drainage sponges 3. Chest Tube Removal Kit a. Suture removal kit b. ChloraPrep (triple swabsticks) c. Silvasorb Gel~~, Bacitracin-Zinc, and Povidone-Iodine ointment~~ d. 2 ~~Kelly~~ **plastic** clamps e. 4x4 gauze sponges (package of 10) f. Chux g. 2 zip holders **h.** 1 large red bag ~~h.~~**i. 2-inch paper tape**

A. **PROCEDURE:**

1. Assisting with the Insertion of a Chest Tube
   a. Place Chest Tube Insertion Cart in patient's room.
      i. Set up chest drainage device (Refer to Online Clinical Skills Chest-Tube: Closed Drainage System **Management**).
      ii. Assisting physician**/Allied Health Professional (AHP)** (Refer to Online Clinical Skills Chest Tube Insertion).
      iii. Ensure chest x-ray is completed **post-insertion** per physician**/AHP**'s order.
2. Chest Tube Monitoring, Nursing Assessment and Care
   a. Refer to Online Clinical Skills Chest-Tube Insertion.
   b. Ensure a Chest Tube Removal Kit **is** readily available in patient's room.
      i. Attach Chest Tube Removal Kit to Intravenous (IV) pole on Telemetry, Acute Care Services (ACS), and Progressive Care Unit.
   c. Secure chest drainage system to the IV pole using two zip holders. Silk tape may be used to secure the drainage system.
   d. Monitor the amount and type/color of drainage per the physicians**/AHP'** **orders.**
   e. Mark the collection chamber at the end of every shift and PRN with the date, time, and **initials**. Document the drainage amount in the medical record.
      i. The amount of drainage within the first two hours after insertion may be approximately 100 to 300 mL the amount of drainage should begin to decrease over the next few hours and days.

Department Review	Clinical Policies & Procedures	Nursing Leadership ~~Executive Committee~~	Medical Staff Department or Division	Pharmacy & Therapeutics Committee	Medical Executive Committee	Admini stration	Professional Affairs Committee	Board of Directors
4/09; 5/12; 11/15, 02/20	06/12, 12/15, 04/20	06/12, 01/16, 08/20	n/a	n/a	10/12, 09/16, 08/20	09/20	11/12, 10/16, n/a	12/12, 11/16

f. Assess the patient **per physician/AHP** ~~as ordered after chest tube insertion~~. If no order for assessment, assess as outlined in Online Clinical Skills Chest Tube: Closed Drainage Systems.
g. Discuss with the physician/**AHP** and obtain an order to perform range of motion exercises for shoulder on the side of the chest tube site to prevent frozen shoulder secondary to immobility.
h. Discuss the need for physical therapist assistance with the physician/**AHP**. Ambulate patient per physician/**AHP**'s order.
    i. If there is no order to ambulate, ensure patient sits on the side of bed to enhance ventilation, maximize lung inflation, and improve gas exchange.
    ii. Discuss the need for activity orders with physician/**AHP**.
i. Patient positioning:
    i. Elevate head of the bed (HOB) 30 to 45 degrees or per physician/**AHP**'s order.
    ii. Lobectomy and all other lung surgeries: position patient on the non-operative side or per physician/**AHP**'s order.
    iii. Pneumonectomy: position supine or on the operative side.
    iv. Reposition patient at least every two hours
j. Incentive Spirometry (IS)
    i. Ensure patient uses the IS as ordered by physician//**AHP**~~Allied Health Professional~~.

3. Dressing Change: Chest Tube Insertion Site
a. Change chest tube insertion site dressing every other day and PRN, unless ordered otherwise by physician/**AHP**.
b. Remove dressing and discard in appropriate receptacle.
c. Clean chest tube insertion site with normal saline applied to sterile 4x4 gauze sponge.
d. Pat insertion site dry with 4x4 gauze sponge.
e. Apply Silvasorb gel or follow physician/**AHP**'s order.
f. Anchor chest tube to patient's skin.
g. Apply one to two 4x4 drain sponges underneath the chest tube and 1-2 on top of the chest tube. Ensure chest tube is not kinked.
h. Apply two to three 4x4 gauze sponges on top of the drain sponges.
i. Apply silk tape or micropore over 4x4 dressing. (Do not use paper, **foam** ~~form~~ or elastoplast tape to secure chest tube dressing.)
j. Ensure drainage tubing is visible, not kinked, and properly positioned. Do not position or secure drainage tubing behind patient's back.
k. Do not reinforce chest tube dressing. If dressing becomes saturated or soiled:
    i. Remove dressing
    ii. Assess connections
    iii. Apply a new dressing
    iv. Notify physician/**AHP**

4. Chest Tube Removal: **Assist**
a. Ensure a Chest Tube Removal Kit is readily available and assist physician/**AHP** as needed.
b. Monitor**ing** the patient **post-removal** ~~for the following~~:
    i. Obtain chest x-ray as ordered.
    ii. Ensure adequate respiratory status. Assess the following:
        1) Breath sounds
        2) Heart rate
            a) Monitor cardiac rhythm on Cardiac Monitoring Units
        3) Respiratory rate and quality
        4) Oxygen saturation
        5) Notify physician/**AHP** for abnormal findings
    iii. Monitor insertion site for bleeding. If bleeding is found, apply pressure and place a tight occlusive dressing over site. Notify the physician/**AHP** for persistent

bleeding. (Persistent bleeding from the insertion site could mean the chest tube was against a vein of the chest wall before removal.)

iv. Monitor suture site and surrounding skin. Notify physician/**AHP** for abnormalities such as excessive redness, dark or inflamed skin with necrotic areas.

v. Monitor the site for signs of infection.

vi. Monitor insertion area for development of subcutaneous emphysema (Crepitus), which is an indication of an air leak into the surrounding tissues.

vii. Monitor for signs and symptoms of pericardial effusion or cardiac tamponade. i.e. distant heart tones, decreased blood pressure, tachycardia, pulsus paradoxus, narrowed pulse pressure

viii. Assess pain and medicate per physician/**AHP** orders

5. ~~Heimlich Chest Drain Valve~~

a. ~~The Heimlich Chest Drain Valve is used for uncomplicated pneumothorax with little or no drainage. The valve allows air and fluid to pass in one direction.~~

b. ~~There is a flutter valve which replaces an under water drainage bottle system.~~

c. ~~Observe the flutter every shift and PRN to ensure air is escaping from the pleural space.~~

d. ~~Never clamp, close the ends of the valve, or use an airtight dressing or rubber glove over the valve.~~

i. ~~If there is drainage from the valve, place gauze on the valve and secure with tape ensuring not to occlude or cover valve.~~

e. ~~Assess the patient's vital signs including oxygen saturation and assess for signs of respiratory distress. Notify physician of abnormal findings.~~

f. ~~Ensure the proximal end of the valve is attached to the patient's chest tube catheter.~~

g. ~~Ensure the distal end of the valve, if ordered, is attached to a drainage bag or regulated suction.~~

h. ~~Assess patient insertion site and surrounding skin. Notify the physician of abnormal findings.~~

Heimlich Chest Drain Valve

B. **EXTERNAL LINKS:**

1. Online Clinical Skills: Chest Tube Insertion
2. Online Clinical Skills: Closed Drainage System Management
~~2.~~3. ~~Online Clinical Skills: Chest Tube: One-Way Valve~~

C. **REFERENCES:**

~~1. Boston, Dickinson & Company. (2015). Heimlich valve. Retrieved from http://www.bd.com/medical-surgical/products/heimlich.asp~~

~~2.~~1. Elsevier: Online Clinical Skills Nursing Skills. (~~2006-2015~~**October 2019**). Chest tube insertion. **Retrieved** from Tri-City Medical Center ~~interanat~~ **Intranet**.

2. Elsevier: Online Clinical Skills Nursing Skills. (~~20062015~~ **November, 2018**). Chest tube: Closed drainage ~~device~~ **system management**.: Retrieved from Tri-City Medical Center Intranet
3. ~~**Elsevier: Online Clinical Skills Nursing Skills. (September, 2019). Chest Tube: One-Way Valve. Retrieved from Tri-City Medical Center Intranet**~~
4. **Teleflex Medical. (~~20202009~~). Understanding chest drainage. Retrieved from http://www.teleflex.com/en/usa/ucd/index.php**
5. Urden, L.D., Stacy, K. M., & Lough, M. E. (2014). Critical care nursing. Diagnosis and Management. (7th ed.). St. Louis, MO: Elsevier

D. **RELATED DOCUMENTS:**

1. Online Clinical Skills ~~(formerly Mosby)~~ Chest Tube Insertion

Tri-City Medical Center
Oceanside, California

PATIENT CARE SERVICES

ISSUE DATE:	**3/02**	**SUBJECT:**	**Dialysis, Acute Treatment of the Inpatient**
REVISION DATE:	**10/02, 6/03, 4/06, 7/08, 5/11; 6/14 08/14, 07/15**	**POLICY NUMBER:**	**IV.FF**

Patient Care Services Content Expert Approval:	**10/19**
Clinical Policies & Procedures Committee Approval:	**~~05/15~~11/19**
Nursing Executive Committee Approval:	**~~05/15~~04/20**
Medical Staff Department or Division Approval:	**n/a**
Pharmacy & Therapeutics Committee Approval:	**~~05/15~~05/20**
Medical Executive Committee Approval:	**~~06/15~~08/20**
Administration Approval:	**09/20**
Professional Affairs Committee Approval:	**~~07/15~~ n/a**
Board of Directors Approval:	**07/15**

A. **POLICY:**

1. Tri-City Medical Center (TCMC) has a contractual agreement with San Diego Dialysis (Fresenius) to perform acute hemodialysis and peritoneal dialysis for inpatients.
2. Dialysis will be done in the patient's room.
3. Emergency situations:
   a. The dialysis registered nurse (RN) will implement a Rapid Response or Code Blue if necessary by dialing 66 via the phone to report a Code Blue and initiate Basic Life Support (BLS) to the dialysis patient.
   b. In case of emergent situation, the **Nursing Leadership or designee**~~Assistant Nurse Manager/Relief Charge RN~~ on the unit will be notified immediately by the dialysis nurse.
   c. The Rapid Response Team (RRT) will be contacted to provide care for the dialysis patient if the dialysis nurse becomes incapacitated until a replacement dialysis RN can be found or treatment is discontinued.
4. TCMC's direct care responsibilities for patients undergoing dialysis treatments are as follows:
   a. Delivering nursing care normally provided to patients while not receiving dialysis, unless otherwise contraindicated during dialysis. This includes treating pain and providing immediate emergency response in the event a patient on dialysis treatment suffers a sudden change in condition.
   b. Administering medications:
      i. The primary RN will be responsible for administering all routine intravenous (IV) medications
      ii. Review the electronic medication administration (EMAR) for post dialysis IV medications. Post Dialysis IV medications are to be administered by the primary RN unless patient has no IV access.
         1) If no IV access, the dialysis nurse will administer the post dialysis IV medications
   c. Providing the dialysis staff with equipment and supplies outlined in Dialysis Supplies and Equipment Provided by TCMC. .
   d. Providing written physician orders for the necessary dialysis services and making these orders available to the dialysis staff at the time services are to be rendered.
   e. Obtaining a signed consent for hemodialysis from the patient or appropriate designee prior to the first treatment.

f. Providing access for treatment. The physician who inserts a dialysis catheter is responsible for proper placement via chest x-ray that is confirmed by a radiologist.

5. Fresenius Medical direct care responsibilities for patients undergoing dialysis are as follows:
   a. Providing specially trained and competent nursing staff that will perform all patient care functions directly related to the dialysis services ordered.
   b. Adhering to TCMC policies and procedures, and all regulatory requirements
   c. Providing those items in Dialysis Supplies and Equipment Provided by Fresenius.
   d. Maintaining equipment required for dialysis treatments, including set-up, take down, and cleaning.
   e. Obtaining and reviewing physician orders directly related to the dialysis services for appropriateness, and directly contacting ordering physicians for any order clarification required.
      i. Review for post dialysis medications and request all of the medications from pharmacy.
   f. Administering medication and blood products that are ordered during dialysis.
   g. Contacting the physician and the primary nurse for any urgent or emergent changes in the patient condition.
   h. Documenting nursing services provided during treatment per Fresenius policy.
      i. The following shall be documented in the electronic health record:
         1) Intake/Out
         2) Vital signs
         3) Medications and blood products administered during dialysis **and post dialysis if no intravenous access**
         4) Central line dressing change (if performed by dialysis RN)
         5) Appropriate dialysis service charges
   i. Assures patient is medically stable before leaving at completion of treatment.
   j. Participates in a hand-off report with the patient's primary nurse pre and post dialysis treatment.

B. **HANDOFF COMMUNICATION**

1. Before the dialysis treatment starts, the primary RN will provide a handoff report to the dialysis RN that will include but not limited to:
   a. Vital signs
   b. Weight
   c. Intake/output
   d. Most recent blood sugar as applicable
   e. Review of medication orders, including medications given
   f. Orientation, level of consciousness
   g. Dialysis access
   h. Code status
2. When the patient has completed the dialysis treatment, the dialysis RN will provide hand off report to the primary RN that will include but not limited to:
   a. How patient tolerated treatment
   b. Intake/output including dialysis output
   c. Vital signs
   d. Medications given during dialysis
   e. Blood products administered
   f. Post dialysis access care (i.e. bleeding) and status of dressing
   g. Review of post dialysis medication orders.

C. **FORMS/RELATED DOCUMENT:**

1. Dialysis Supplies and Equipment Provided by TCMC **and Fresenius**
2. ~~Dialysis Supplies and Equipment Provided by Fresenius~~

Tri-City Medical Center
Oceanside, California

Dialysis Supplies and Equipment

The following exhibit set forth such equipment and supplies to be provided by Hospital (Tri-City Medical Center) pursuant to the contract:

1. Electrodes and monitoring equipment
2. Non-invasive blood pressure monitoring machine
3. IV infusion pumps and tubing
4. IV administration sets
5. Normal Saline
6. Anticoagulant Citrate Dextrose – Formula A Solutions
7. Priming and Replacement fluids
8. Hemoperfusion Cartridge
9. Syringes as needed
10. Hypodermic Needles as needed
11. Iodine swab sticks and Alcohol swabs
12. Tape as needed
13. 2X2 and 4X4 gauze pads (sterile & non) as needed
14. Non sterile gloves, various sizes and latex non-powder same sizes
15. Sterile gloves, various sizes
16. Surgical masks or N 95 masks as needed
17. Blood administration sets and appropriate blood filters
18. Pressure wrap bandage
19. Bed pans and urinals
20. Drinking cups and straws
21. Any other supplies not provided by provider, which are necessary to perform the service.

In instances where any of the foregoing are unavailable, the Hospital shall provide reasonable substitute products.

The following exhibit sets forth such equipment and supplies to be provided by Provider (Fresenius) pursuant to the contract:

Dialysis Supplies

1. Artificial Kidneys
2. Arterial and Venous Blood Lines
3. Transducers
4. Dialyzing Fluids
5. Fistula Needles
6. Universal Connectors
7. Extension Clamps
8. Adapter Seal Clamps
9. Convertible Adapters
10. Drain Set
11. Del Clamps
12. Treatment Record

Apheresis Supplies (general)

1. Blood Cell Separator
2. Blood Cell Separator Tubing set
3. Machine Maintenance
4. Blood Warmer and Blood Warmer Tubing
5. AV Fistula needles
6. Treatment Record

Dialysis Supplies and Equipment

Immunoadsorption Therapy Supplies (in addition to the above apheresis supplies):

1. Plasma transfer sets with spike and needle adapter (Fenwal or equivalent)
2. Transfer pack container 2000 mL with coupler (Fenwal or equivalent)
3. Transfer pack unit 600 mL with needle adapter (Fenwal or equivalent)
4. Y-type blood component recipient set (Fenwal or equivalent)
5. Spike to Syringe Adapter
6. PXL8 Leukocyte filters (Pall or equivalent)
7. Extension Set 3.0 mL 51 cm
8. Needle Lock Device (Baxter or equivalent)
9. Male to male adapter
10. 3-way stopcock

Provider and Hospital agree as new state-of-the-art supplies or equivalent equipment may be substituted as may be worked between both parties.

Tri-City Medical Center	Patient Care Services
PROCEDURE:	**MALIGNANT HYPERTHERMIA MANAGEMENT**
Purpose:	To provide guidelines for the Registered Nurse caring for a patient at risk for or presenting with Malignant Hyperthermia.
Supportive Data:	Malignant Hyperthermia Association of the United States (MHAUS) MH Hotline: 1-800-644-9737
Equipment:	Malignant Hyperthermia Cart - located in Operating Room (OR) and Obstetrics Post Anesthesia Care Unit (OB-PACU) Crash Cart Cardiac Monitor Pulse Oximeter Electronic temperature measuring device with appropriate probes for measuring central temperature Capnography Ice Refrigerated Normal Saline IV fluids (at least 10 liters) Refrigerated Normal Saline irrigation Hypothermia unit Blood collection tubes for laboratory tests Criticore Foley machine CVP line set Alaris Infusion Pump Arterial Line Set

A. **DEFINITION:**

1. Malignant Hyperthermia (MH) is a rare, life-threatening complication that may arise from medications commonly used in anesthesia. MH is most frequently triggered by inhalation anesthetics (e.g., Desflurane, Sevoflurane, Isoflurane, and Halothane) and succinylcholine, but it may also be induced by trauma, strenuous exercise, or emotional stress. MH is genetically transmitted and the incidence of MH increases in patients with central core disease and some muscular dystrophies.
2. MH syndrome begins with a hypermetabolic condition in skeletal muscle cells that involves altered mechanisms of calcium function at the cellular level. The triggering agent causes a series of chain reactions in the body resulting in sustained muscle contraction, increasing body temperature, and massive production of lactic acid and carbon dioxide. Onset is acute and rapid in progression. Early diagnosis and intervention is critical. Signs of MH may occur during induction or maintenance of anesthesia, although MH can occur postoperatively or after repeated exposures to anesthesia.

B. **PROCEDURE:**

1. Patients are screened pre-operatively for personal and familial history of MH. Prepare for an MH susceptible patient in the following manner:
   a. Bring the MH cart to the OR/treatment area.
   b. Remove anesthetic vaporizers from the anesthesia machine. If unable to remove the vaporizers, tape them in the OFF position.
   c. Flush volatile anesthesia vapors from the anesthesia machine according manufacturer's instructions for use (IFU).
   d. Replace the carbon dioxide absorbent in the anesthesia machine.
   e. Replace the anesthesia circuit and reservoir bag.

Department Review	Clinical Policies & Procedures Committee	Nursinge LeadershipExecutive Committee	Department of Anesthesiology	Pharmacy & Therapeutics Committee	Medical Executive Committee	Administration	Professional Affairs Committee	Board of Directors
7/09,5/12, 04/18, 04/20	7/12, 05/18, 06/20	05/18, 07/20	05/18	n/a	8/12, 06/18, 08/20	09/20	8/12, 07/18, n/a	8/12, 07/18

~~e.~~**f. Insert activated charcoal filters onto the inspiratory and expiratory limbs of the breathing circuit.**

2. Monitor for the following signs and symptoms of MH:
   - a. Increasing end-tidal carbon dioxide ($ETCO_2$) despite **increasing (e.g., doubling) minute ventilation**~~hyperventilation~~
   - **b. Trunk or total body rigidity**
   - ~~a.~~**c. Masseter spasm (trismus)**
   - ~~b.~~**d.** Tachycardia
   - ~~c.~~**e.** Tachypnea (may not be seen in a paralyzed patient)
   - ~~d. Muscle stiffness (trunk or total body rigidity)~~
   - ~~e. Masseter spasm or trismus~~
   - ~~f. Hypoxia and dark (desaturated) blood in the operative field (if applicable)~~
   - ~~g. Unstable or elevated blood pressure~~
   - ~~h. Cardiac dysrhythmias~~
   - ~~i. Changes in CO_2 absorbent (temperature, color change)~~
   - ~~j.~~**f.** Mixed respiratory and metabolic acidosis (note: MH can occur without significant metabolic acidosis)
   - ~~k. Skin flushed, mottled, cyanotic, or diaphoretic~~
   - ~~l. Rising body temperature (1-2°C every 5 minutes)~~
   - **g. Increased temperature (may be an early or late sign)**
   - ~~m.~~**h. Brown or cola-colored urine (**~~M~~myoglobinuria)**
   - ~~n. Hyperkalemia, hypercalcemia, lactic acidemia~~
   - ~~o. Pronounced elevation in creatine kinase (CK) level~~
3. Immediate interventions upon diagnosis of MH:
   - a. Notify surgeon/procedural physician to stop the procedure as soon as possible and the anesthesia provider shall discontinue MH triggering agents (i.e., volatile inhalation anesthetic agents and succinylcholine). For emergency procedures, continue with non-triggering anesthetic technique.
   - b. Hyperventilate with 100% oxygen at flows of **at least** 10L/minute ~~or more~~ to flush volatile anesthetics and lower $ETCO_2$.
     - i. ~~If available, i~~Insert activated charcoal filters **(located on MH cart)** into the inspiratory and expiratory limbs of the breathing circuit.
     - ii. Do not waste time changing the breathing circuit and CO_2 absorbent.
   - c. Call for all available help.
   - d. For MH onset occurring outside of Surgical Services, call Code Blue and notify Surgery of the MH emergency. Request Surgery to send the MH cart and available staff to assist.
   - e. For MH onset occurring in Surgical Services, alert the OR ~~Assistant Nurse Manager (ANM)~~**Supervisor/Charge Nurse**/designee and Unit Secretary of the MH emergency. They will:
     - i. Recruit all available staff (recommend at least ten additional staff members), including RN's, techs, and transporters.
     - ii. Page "Any available anesthesiologist STAT" to appropriate area for assistance.
     - iii. Code Blue may be called if additional assistance is required.
   - f. Call MHAUS MH Hotline (1-800-644-9737) for expert consultation, as needed.
     - i. Send MH cart (from Surgery Equipment Room- or OB-PACU) and Crash Cart to treatment area. The MH cart contains the initial dose of dantrolene sodium and other necessary supplies.
   - g. Call pharmacy for all available dantrolene sodium to be sent STAT to the treatment area.
   - h. Send for at least 10 liters of refrigerated normal saline for infusion (located in **Surgery** Open Heart refrigerators, ED or ICU).
   - i. Set-up pressure lines for an arterial line, central line, and/or pulmonary artery catheter.
   - j. Designate three (3) nurses/designees to mix dantrolene sodium in rapid assembly line preparation. Initial dose is 2.5mg/kg IV, to be given rapidly through large-bore IV, if possible~~.~~:

i. Each 20mg vial of dantrolene sodium is reconstituted with 60mL sterile water for injection (without a bacteriostatic agent). There are 3 grams of mannitol in each 20mg vial of dantrolene sodium.
ii. To mix dantrolene sodium in rapid, assembly line fashion:
1) First nurse/designee draws up sterile water and injects 60mL into each 20mg vial of dantrolene sodium.
2) Second nurse/designee shakes the vials to dissolve (not readily soluble).
3) Third nurse/designee draws up the dantrolene sodium ready for administration.

k. Send for hypothermia unit (located in ED and ICU).
l. Send bags and buckets of ice to treatment area (from an ice machine; in the OR this is located in the central core behind OR 5/6).
m. Designate nurse to record assessments, treatments, events, and medications administered (including times given and doses).

4. Treat the patient per physician/AHP orders:
a. Administer dantrolene sodium rapid IV push (through large-bore IV, if possible), starting with 2.5mg/kg, per physician/AHP order.
i. Dantrolene sodium should be repeated until signs of MH are reversed, per the order of the treating physician/AHP. More than 10mg/kg (up to 30mg/kg) of dantrolene sodium may be necessary.
~~i.~~ii. **Signs of MH reversal include significantly decreased $ETCO_2$, temperature stopped increasing, and rigidity, if present, should resolve.**
b. Treat metabolic acidosis with bicarbonate, per physician/AHP order. It is recommended to start with 1-2mEq/kg if blood gas values are not yet available.
c. Cool the patient if core temperature reaches greater than 39°C:
i. Ensure external warming sources (i.e., forced-air warming unit, warm blankets) are removed from the patient.
ii. Apply ice to body surfaces (head, axillae, groin, patient's side). Gel cold packs are located in the MH cart refrigerator for immediate application. Additional bags of ice may be utilized as necessary.
iii. Infuse ~~refrigerated~~**cold** Normal Saline (0.9%) intravenously at a rate of 1 liter every 10 minutes x 3 liters. Refrigerated Normal Saline is located in the MH cart refrigerator. DO NOT administer Lactated Ringer (LR) solution, which may contribute to acidosis.
iv. Lavage open body cavities with ~~cold~~**cool** saline, as applicable.
v. Utilize other cooling techniques per the order of the treating physician/AHP. Examples of other cooling techniques include:
1) Insert a nasogastric tube and lavage with cold saline irrigation.
2) Insert a rectal tube and lavage with cold saline irrigation.
3) Apply a hypothermia unit/cooling blanket.
vi. Discontinue cooling measures if the patient's temperature drops lower than 38°C and falling to prevent hypothermia. Resume cooling measures if the temperature begins to rise again.
d. Treat dysrhythmias per physician/AHP order, including anti-arrhythmic agents and defibrillation as necessary. Avoid calcium channel blockers, which may cause hyperkalemia or cardiac arrest in the presence of dantrolene sodium.
e. Treat hyperkalemia per physician/AHP order, including:
i. Hyperventilation
ii. Bicarbonate 1-2mEq/kg IV (maximum dose of 50mEq)
iii. Calcium chloride 10mg/kg IV (maximum dose of 2000mg) or calcium gluconate 30 mg/kg IV push (Maximum dose 3,000 mg) for life threatening hyperkalemia
iv. Regular insulin 10 units IV push plus Dextrose 50% 50 mL IV push
v. Check glucose levels hourly
f. Continue to monitor $ETCO_2$, **minute ventilation electrolytes,** blood gas values (venous blood gas values may document hypermetabolism earlier than arterial values),

~~electrolytes~~, creatine kinase (CK), core temperature, **urine output and color,** coagulation studies, and serum studies as ordered by the physician/AHP. Treat as ordered by the physician/AHP. ~~Monitor lab results for:~~

~~i. Blood gases:~~
~~1) Decreased pH~~
~~2) Decreased partial pressure of oxygen (PaO_2)~~
~~3) Increased partial pressure of carbon dioxide ($PaCO_2$)~~
~~ii. Electrolyte studies:~~
~~1) Increased potassium (K^+)~~
~~2) Increased calcium~~
~~3) Increased magnesium~~
~~iii. Decreased sodium~~
~~iv. Coagulation studies:~~
~~1) Prolonged prothrombin time (PT)~~
~~2) Prolonged partial thromboplastin time (PTT)~~
~~3) Decreased platelets~~
~~v. Serum studies:~~
~~1) Increased creatine phosphokinase (CPK)~~
~~2) Increased myoglobin~~
~~3) Increased creatinine~~
~~4) Increased glucose~~
~~5) Increased lactate~~
~~6) Increased pyruvate~~
~~7) Increased lactic dehydrogenase~~
~~8) Increased aldolase~~

g. Prepare and assist physician/AHP with insertion of arterial line and central line.
h. Insert temperature monitoring indwelling urinary catheter (i.e., Criticore Foley) and monitor urine output (amount and color).
   i. If urine output falls to less than 0.5mL/kg/hour, or CK and/or K^+ values rise more than transiently, induce diuresis to greater than ~~1~~2mL/kg/hour **to prevent myoglobinuria-induced renal failure**, per physician/AHP order. ~~It is recommended to administer bicarbonate to alkalinize urine and prevent myoglobinuria induced renal failure.~~
   ii. Administer furosemide (0.5mg-1mg/kg; maximum dose of 40mg) per physician/AHP order, as needed to maintain urinary output.
i. Transfer patient to ICU after stabilized, per physician/AHP order.

C. **TREATMENT POST-MH ~~CRISIS~~ACUTE PHASE:**

1. Continuously evaluate the patient for signs of MH relapse for at least 24 hours following cessation of ~~acute phase~~**signs of** MH. Signs of MH relapse include:
   a. Increasing muscular rigidity in the absence of shivering **or inadequate sedation. This can occur even with complete paralysis with conventional paralytics (e.g., vecuronium, cisatracurium).**
   b. Inappropriate hypercarbia with respiratory acidosis
   c. Metabolic acidosis without other cause
   d. Inappropriate temperature rise
2. Immediately notify the physician/AHP for signs of MH relapse and implement interventions per physician/AHP orders.
   a. 25% of MH events relapse, which can be fatal. Do not delay treatment if MH relapse occurs.
3. Monitor the patient post-MH acute phase per physician/AHP orders. Monitoring recommendations post-MH acute phase include:
   a. Temperature, blood pressure, heart rate, and respirations every hour for 24 hours post-acute phase. May progress to every 4 hours, if stable.

b. Frequent blood gases are recommended as per clinical signs. CK is recommended every six (6) hours, or less often as the values trend downward. Monitor lab values for improvement of electrolyte imbalance, acidosis, enzyme elevations, renal damage, coagulopathies, etc. Report and treat abnormal values as ordered.
c. Assess for thrombophlebitis at peripheral IV sites from dantrolene sodium, and for possible bleeding coagulopathies.
d. Assess for alterations of neurological status. Report neurological deterioration.
e. Assess for residual muscle pain/swelling. Administer analgesia as ordered and provide appropriate comfort measures.
f. Monitor urine output. Report low urine output and treat as ordered.

4. Dantrolene sodium may be administered post-acute phase MH, per physician/AHP order.
   a. Recommended dantrolene sodium administration rate is 1 mg/kg IV every 4-6 hours, or 0.25 mg/kg/hour continuous infusion.
   b. Dantrolene sodium administration may be continued for 24 hours post-acute phase MH, or longer as clinically indicated.
   c. Discontinue dantrolene sodium administration per physician/AHP orders. Recommendations for dantrolene sodium discontinuation include:
      i. Consider increasing the interval between doses to every eight (8) hours or twelve (12) hours prior to discontinuation.
      ii. Consider discontinuation of dantrolene sodium if all of the following criteria are met:
         1) Metabolic stability for 24 hours
         2) Core body temperature is less than 38°C
         3) CK is decreasing
         4) No evidence of myoglobinuria
         5) Muscle is no longer rigid

D. PATIENT/FAMILY EDUCATION:

1. The physician/AHP shall explain the following to the patient/family:
   a. MH and therapeutic interventions
   b. Precautions for future surgeries/procedures
   c. Genetic transmission of MH and implications for first degree relatives.
2. The physician/AHP shall complete the Adverse Metabolic Reaction to Anesthesia (AMRA) form at www.mh~~regaus~~.org/registry. A follow-up letter should be sent to the patient and his/her primary care physician.
3. The patient/family shall be referred to the North American MH Registry and the Malignant Hyperthermia Association of the United States (MHAUS) for follow-up. Current MHAUS contact information is available at www.mhaus.org.

E. DOCUMENTATION:

1. Document all patient assessments, interventions, responses and medications administered in the ~~medical~~ **electronic health** record **(EHR)**.
2. Document patient and family education in the ~~medical record~~**EHR**.

F. RELATED DOCUMENT(S):

1. Malignant Hyperthermia Cart Checklist

G. REFERENCE(S):

1. **Rothrock, J. C. & McEwen, D. R. (2019). *Alexander's Care of the Patient in Surgery, 16th Edition*. St. Louis, MO: Elsevier.**
~~1. Rothrock, J. C. (2015). Alexander's Care of the Patient in Surgery (15th ed). St. Louis, MO: Elsevier.~~
2. "Emergency Therapy for Malignant Hyperthermia" (February ~~2015~~**2019**). Malignant Hyperthermia Association of the United States (MHAUS). Protocol ordered from www.mhaus.org.

UNIT:_____ TRI-CITY MEDICAL CENTER MALIGNANT HYPERTHERMIA CART CHECKLIST MONTH:_____ YEAR: _____

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
ICE BUCKETS & BAGS																															
NEXT MEDICATION EXPIRATION DATE																															
NEXT SUPPLY EXPIRATION DATE																															
BLACK LOCK ON RED SUPPLY BAG																															
BLACK LOCK ON SUPPLY DRAWER																															
MEDICATION DRAWER YELLOW LOCK # Check mark indicates unchanged from prior day																															
MEDICATION DRAWER Yellow Lock # matches orange sticker #																															
REFRIGERATOR YELLOW LOCK # Check mark indicates unchanged from prior day																															
REFRIGERATOR Yellow Lock # matches orange sticker #																															
SIGNATURE OF EMPLOYEE CHECKING CART																															

PROBLEM/ACTION/RESOLUTION DOCUMENTATION – Record with reference to above date

Date	Problem	Action Taken	Resolution Achieved

Revision Date(s): 8/12, 7/18

Tri-City Medical Center
Oceanside, California

PATIENT CARE SERVICES

ISSUE DATE:	**12/81**	**SUBJECT:**	**Medications Brought In By the Patient**
REVISION DATE:	**09/97; 12/00; 03/01; 02/05; 04/05; 03/07; 10/09; 06/11; 08/13; 10/17**	**~~POLICY NUMBER: IV.DD~~**	

Patient Care Services Content Expert~~Department~~ Approval:	**~~03/17~~03/20**
Clinical Policies and Procedures Approval:	**~~05/17~~05/20**
Nursinge Leadership~~Executive Committee~~ Approval:	**~~05/17~~06/20**
Medical Staff Department/Division Approval:	**n/a**
Pharmacy and Therapeutics Approval:	**~~05/17~~07/20**
Medical Executive Committee Approval:	**~~06/17~~08/20**
Administration Approval:	**09/20**
Professional Affairs Committee Approval:	**~~10/17~~ n/a**
Board of Directors Approval:	**10/17**

A. **POLICY:**

1. As part of the "Conditions of Admission," the patient understands and agrees personal medications (including non-prescription, prescription, and herbal) will not be consumed by patient during their hospital stay.
   - **a.** This applies to both inpatient and outpatient services.
   - **b.** The hospital pharmacy department may request a patient provide their personal medications for administration if the medication is unobtainable by the hospital pharmacy department.
   - **c.** During the admission process, patients are asked to provide all medications (including non-prescription, prescription, and herbal) that he/she is currently taking.
   - **~~1.~~d.** After review of the patient's personal medications by admitting staff, medications will be returned to the patient's family or patient's representative for storage at patients' residence. If the patient does not have family members or a representative present upon admission, the hospital pharmacy department will store the medications in the pharmacy department.
2. If it is deemed necessary to administer a patient's own medication while the patient is in the hospital (inpatient or outpatient) the following conditions must be met before the medication is administered to the patient:
   - a. The patient's physician has ordered the drugs and the order has been entered in the patient's medical record. The order shall contain the name of the drug, strength, route, frequency, and the time the order was written.
   - b. The medication containers are clearly and properly labeled.
   - c. The contents of the containers have been examined and positively identified after arrival at the hospital, by the patient's physician or the hospital pharmacist. The pharmacist or physician will initial the vial, attach the medication checked by label, and affix the label to the medication container.
   - d. The integrity of the medication has been visually evaluated by the pharmacist or the physician.
   - e. If the pharmacist or physician cannot positively identify or assure the medications' integrity, administration of the medication is not allowed.
3. All medications are administered by the nurse and recorded on the patients' medication administration record.
4. If the medication is a non-controlled medication, it shall be stored in a secure area at the nursing

station (locked medication room). If the medication is a controlled medication, it shall be stored in the Pyxis Medstation. The pharmacist shall inventory and add the controlled drugs to the Pyxis Medstation under patient's own medications (POM's). If a Pyxis Medstation is not available, the controlled medication will be stored in a locked, secure area at the nursing station and the medication counted and remaining drug noted after every dispensation to the patient to maintain accountability.

5. Parenteral medications may not be administered to patients unless prepared by or acquired by the Pharmacy Department at Tri-City Medical Center.
6. When the patient's own medications are brought into the hospital ~~including Crisis Stabilization Unit (CSU),~~ a family member shall take the medications home.
7. When patient's own medication(s) cannot be taken home, the nurse shall:
   a. Place a patient label on all 3 pages of the Patient's Own Medication Record form.
   b. List medications by name on the form:
      i. Any controlled substances need to be verified and counted by a nurse and pharmacist or pharmacy technician. Pharmacy personnel will provide a counting tray.
         ~~1) CSU: two nurses shall verify the medication(s)~~
      ii. Non-controlled drugs do <u>not</u> need to be counted.
      iii. Indicate if any bottles are empty upon receipt.
   c. Call pharmacy to pick up patient's own medications and the attached form. When the pharmacy technician or the pharmacist arrives to pick up the medications, the nurse and pharmacy personnel shall verify that the non-controlled drugs listed on the form are present and will verify and count any controlled drugs that may be listed on the form. The quantity of the controlled drug counted shall be listed on the form attached to the bag. The nurse and pharmacy personnel shall each sign and date the form.
      ~~i. CSU: does not call the pharmacy and two nurses shall verify the medication(s) and each sign and date the form.~~
   d. Patients own medications are to be stored inside of security bags using unique numbered locks. The lock number shall be transcribed onto the form after verification of the medications is complete. Then the pharmacy personnel and nurse shall label the bag with a patient sticker and place the patient's own medications inside of the security bag which will be locked in the presence of both parties.
      ~~i. CSU: stores medications on the unit~~
   e. Document that patient's meds have been stored in Pharmacy in the medical record. Give pink copy to patient, and place yellow copy in chart.
      ~~i. CSU: document in patient's record that patient's medications have been stored on unit.~~
8. When patient is discharged:
   a. The nurse shall ensure the pharmacy is notified to retrieve patient's medications upon discharge.
      ~~i. CSU: stores medications on the unit~~
   b. If patient's own medications are ordered as discharge medications, the nurse shall instruct the patient accordingly.
   c. Pharmacy personnel will deliver the bag of patient's own meds to the nursing unit. Pharmacy personnel with the discharging nurse shall verify the lock number and that no tampering of the bag has occurred.
      ~~i. CSU: two nurses shall perform the verification~~
   d. The patient's own medications shall be returned to the patient with their other belongings.
   e. The patient's own medications that are not retrieved will be disposed of per Pharmacy Policy: Unusable Medications.

B. **<u>RELATED DOCUMENT(S):</u>**

1. Pharmacy Policy: Unusable Medications

Tri-City Medical Center
Oceanside, California

PATIENT CARE SERVICES

ISSUE DATE: NEW

SUBJECT: Research Activities: Investigational Medications

REVISION DATE:

Patient Care Services Content Expert Approval:	05/20
Clinical Policies & Procedures Committee Approval:	05/20
Nursinge Leadership ~~Executive Council~~ Approval:	06/20
Pharmacy & Therapeutics Committee Approval:	07/20
Medical Executive Committee Approval:	08/20
Administrative Approval:	09/20
Professional Affairs Committee Approval:	n/a
Board of Directors Approval:	

A. **PURPOSE:**

1. To provide guidelines for coordination of medical, nursing, administration, and pharmacy staff in providing for the safe use and dissemination of investigational medications, biologics and devices within the Tri-City Healthcare District (TCHD).
2. To provide guidelines for coordination of medical, nursing, administration, and pharmacy staff in hospital-driven research.

B. **DEFINITION(S):**

1. Clinical Research Site refers to the external organization that is conducting the Clinical Trial or Study.
2. Informed Consent Form (ICF): A document which explains the following:
   a. Details of the study
   b. The potential risks and benefits
   c. Rights and responsibilities
3. Investigational Drugs and Biologics – New drugs or biologics which have been issued an Investigational New Drug (IND) number by the FDA. These medical treatments are for investigational use only
4. Investigational Review Board (IRB): ~~An IRB is~~ A committee established to review and approve research involving human subjects. The purpose of the IRB is to ensure that all human subject research be conducted in accordance with all federal, institutional, and ethical guidelines. Western IRB is TCHD's IRB of record.
5. Principal Investigator (PI) – Physician(s) with privileges at Tri-City **Healthcare District**~~Medical Center~~ (TCHD) who are responsible for the conduct of the clinical study. In the case of drug studies, the PI would sign the FDA Form 1572 and TCHD would be listed on the Form as a site.
6. Research Subject: All patients enrolled in a clinical trial are referred to by trial personnel as a study subject per FDA guidelines.
7. Research is a systematic investigation, including research development, testing and evaluation, designed to develop or contribute to generalizable knowledge. Activities which meet this definition constitute research for purposes of this policy, whether or not they are conducted or supported under a program which is considered research for other purposes.
8. Sponsor: An individual, company, institution or organization which takes responsibility for the initiation, management and/or financing of a clinical trial.

C. **POLICY:**

1. All IRB requests are to be made through the TCHD Chief Medical Officer.
2. Clinical trials are administered only in accordance with protocols approved by TCHD.
   a. Investigational drugs, radiation, biologics or devises shall be used only under the supervision of the principal investigator and/or sub-investigator, who assumes the burden of responsibility for the proper conduct of the clinical trial and securing the necessary ICF consent.
   b. The principle or sub-investigator must be a member of the Medical Staff of TCHD for all investigational drug protocols approved by TCHD.
   c. Investigational medications are administered only under the supervision of the authorized investigator and according to protocol. They are to be distributed by the Pharmacy.
3. The IRB and the Pharmacy and Therapeutics (P&T) Committee have oversight over established investigational medication use policies and procedures.
4. TCHD's Director of Pharmacy or designee is responsible for providing information on storage, labeling, distribution and waste. The Director of Pharmacy or designee shall review the Investigational Drug Fact sheet with nursing personnel as requested.~~.~~
5. If not specified in the protocol, investigational medications are assessed for hazard characteristics to direct safe handling and disposal. If the information provided is deemed insufficient to make an informed decision, the investigational drug is considered hazardous.
6. Verbal orders for a study medication are not acceptable.

D. **PROCEDURE / ROLES AND RESPONSIBILITIES:**

1. ~~Each hard copy of the patient health record shall contain a research tab.~~ The signed ICF is to be placed in **the health record**~~this section~~.
   a. IF THERE IS NO CONSENT and the patient does not have one available, the RN or Healthcare provider needs to call the clinical trial site to obtain a copy.
   b. No procedures or trial-related medications may be administered until this consent is on file in the health record.
2. Prior to the initiation of the clinical research study, sufficient education is provided to the pharmacy and nursing staff charged with dispensing and administering the medication.
3. Copies of the orders are to be provided to lab and radiology when appropriate.
4. Sponsor:
   a. Provides information on storage, labeling, and distribution to pharmacy
5. Principal Investigator:
   a. Provides a nursing summary and drug fact sheet to the nursing in one-page outlines. The information provided shall include:
      i. Dosage form
      ii. Route of administration
      iii. Strength
      iv. Actions
      v. Uses
      vi. Side effects
      vii. Adverse effects
      viii. Interactions
      ix. Symptoms of toxicity
   b. Obtains fully executed ICF and places a copy in the health record.
   c. Upon study initiation, the PI shall provide a written order to the ~~IDS~~ Pharmacy.
      i. If oral study medication has been provided to study subject they may take their own study drug.
      ii. An order from the PI for the oral drug can be provided by the site or ~~IDS~~ Pharmacy.
6. Pharmacist:
   a. Review the Investigational Drug fact sheet with nursing personnel as requested.
   b. Process all investigational medications

i. The TCHD Pharmacy address must be listed as the receiving party for all investigational drug study medications.
ii. Study drug distributor/Sponsor must notify pharmacy as to expected date of receipt, and every attempt must be made by distributor to deliver during normal business hours.
iii. Once received in the pharmacy, investigational study medications shall be inspected for damage, quantity verified, documented on the study master accountability form, and stored at appropriate temperature by the pharmacist or delegated pharmacist trained on the study.
iv. Investigational study medications shall be stored in a separate locked room within the pharmacy, accessible only to pharmacists and other pharmacy personnel under the supervision of a pharmacist.
    1) ~~High/low t~~Temperature logs shall be maintained in this room for drugs stored under ambient and refrigerated conditions **per Pharmacy Procedure: Patient Medication Refrigerators.**
v. An inventory record shall be kept on each investigational drug. A record shall be kept for each dose of investigational drug dispensed.
vi. Inventory of investigational drugs shall be kept and include the following:
    1) Quantities dispensed
    2) Identities of patients
    3) Quantities of medications returned, lost, or destroyed
vii. Clinical trial materials and/or investigational drugs shall be returned or destroyed per protocol and sponsor direction.
viii. Information on current Drug and Study Protocols is maintained in the Pharmacy. Information on closed studies is maintained in the Pharmacy for a period of at least one year following the study close-out. After one year, the information may be moved to on-site storage for at least another year before transfer to off-site storage. All ~~IDS~~ study documentations are to be kept permanently.

c. Dispenses Investigational drugs (TCHD licensed pharmacist only)
i. All investigational drugs shall be properly labeled, with auxiliary labeling if necessary:
    1) Name of drug or identification of investigational protocol.
    2) Strength
    3) Expiration date of the drug. If no expiration date is available, a re-test date shall be used as the expiration date. In the event that an expiration or re-test date is not available, a memo from the sponsor shall be obtained stating that they assume responsibility for notifying the pharmacy prior to the drugs expiration date.
    4) Expired or damaged medications are isolated from all other study medications. These medications are not placed into storage with non-study medications
ii. For intravenous investigational agents the following process shall be followed:
    1) A pharmacist, ~~IDS~~ or intravenous (IV) room pharmacist, shall prepare or directly supervise preparation of all IV investigational infusions.
    2) For any IV doses not dispensed during the IV room pharmacist shift, communication will be made to the evening pharmacist of any pending investigational infusions.
    3) IV infusions for investigational drugs should be infused via a separate site and clearly labeled as "Investigational Drug" whenever possible. If IV infusions for investigational drugs are infused into a line with other medications, the line must be flushed with normal saline, or flushed per study protocol if specified by the sponsor.
iii. For studies without a study-specific transportation log, a TCHD **electronically monitored** dispensing/transportation log shall be completed whenever

investigational medications are delivered by pharmacy personnel to nursing units. The pharmacy personnel and receiving nurse will sign the log.

iv. Procedures pertaining to the disposition of any remaining study drug or study drug preparation shall be determined prior to patient enrollment.
1) Medications not used by the patient shall be returned to the pharmacy or may be retained by the patient per physician's order.
2) When the protocol is closed, the medications shall be returned to the sponsor, physician, or destroyed through standard hospital procedure, as directed by the sponsor or PI.

d. All pharmacists involved in investigational drug dispensation must complete training by the Director of Pharmacy or designee and sign-off that they have received training.
i. Training and delegation logs shall be maintained in the pharmacy study binder.
ii. **Curriculum Vitae** (CV)'s and California pharmacist license shall be maintained in the pharmacy study binder if required by the sponsor.
iii. Staff education is provided in the departments and to the staff involved.

e. Two pharmacists check the final prepared study medication prior to dispensing. In the event that two pharmacists are not available, a pharmacist and another licensed clinician perform the final check.

7. Study Coordinator:
a. Provides an in-service to nursing when all items are finalized.
b. Study requirement checklist must be completed by the PI or research coordinator prior to enrollment of patients.
c. Staff education is provided in the departments and to the staff involved.
i. Pharmacists involved in study drug dispensing or monitoring shall be educated on study procedures. This shall include:
1) Documentation
2) Monitoring (if required by the study)
3) Randomization (when pharmacy is the responsible party)
4) Blinding
5) Proper storage, preparation, and dispensing of the study drug.

8. Nursing:
a. Reviews orders, the nursing summary, and drug fact sheets
b. Coordinates distribution of the information and in-service education to the nursing staff.

9. Registered Nurse administering medication(s):
a. Verifies informed consent.
i. A copy of the consent is retained in the IDS pharmacy and **health**~~medical~~ record ~~under the research tab~~
b. Reviews the **Pre-Printed Order** (PPO), drug fact sheet and nursing summary
c. Administers IV infusions for investigational drugs via a separate site and clearly labeled as "Investigational Drug"
~~B.~~**i.** Investigational drugs can only be infused into a line with other medications with approval from the PI and ~~IDS~~ Pharmacist.

E. **DOCUMENTATION:**

1. Documentation in the health record shall include:
a. Signed copy of informed consent ~~filed under research tab~~
b. Physician's order for the investigational drug including:
i. Name
ii. Dose
iii. Route
iv. Duration of administration (included on the PPO)
v. Frequency of administration
vi. Acceptable rescue medications for an adverse drug reaction
c. Order for disposition of any unused medication

d. Completed Medication Administration Record (MAR)
e. All side effects and adverse reactions to the investigational drug shall be noted in the nursing notes and reported to the physician.
f. Results for all tests ordered at TCHD as part of the research protocol

F. **PATIENTS ENTERING TCHD WHO ARE PARTICIPATING IN AN OUTSIDE CLINICAL TRIAL:**

1. For patients entering TCHD who are in an outside clinical trial (not recognized or approved by the TCHD ~~SRC~~), the pharmacy shall adhere to the following guidelines:
   a. The PI shall be notified and evaluate the appropriateness of the patient's continuance in the investigational study.
      i. If no contraindication exists, the investigational study medications may be continued during hospitalization.
      ii. If the PI does not have privileges at TCHD this information must be communicated to the admitting physician or hospitalist assuming care of the patient.
   b. The admitting physician or Allied Health Professional (AHP) shall provide a written order for "patient may take own study drug" or similar wording.
   c. The IDS pharmacist shall verify identity and confirm the study drug.
   d. The PI shall complete the Investigational Drug Fact Sheet for nursing and pharmacy.
   e. The TCHD SRC and pharmacy shall accept a copy of the original informed consent
      i. A copy shall be placed on the patient's medical chart
   f. Sufficient education is provided to the pharmacy and nursing staff charged with dispensing and administering the medication.

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

1. **Pharmacy Procedure: Patient Medication Refrigerators**

H. **REFERENCE(S):**

1. **https://www.fda.gov/regulatory-information/search-fda-guidance-documents/clinical-trials-guidance-documents**
2. **https://support.nlm.nih.gov/knowledgebase/category/?id=CAT-01242**
3. **http://wirb.com/Pages/default.aspx**
1. ~~http://www.fda.gov/RegulatoryInformation/Guidances/ucm389154.htm~~
2. ~~https://www.nlm.nih.gov/services/ctconsent.html~~

Tri-City Health Care District
Oceanside, California

ADMINISTRATIVE ~~POLICY MANUAL~~
COMPLIANCE

ISSUE DATE: 05/00

SUBJECT: EMTALA: Emergency Medical Screening

REVISION DATE: 06/03; 01/06; 08/09; 02/11

POLICY NUMBER: 8610-506

Administrative Content Expert~~Department~~ Approval:	**~~02/17~~05/20**
Administrative Policies & Procedures Committee Approval:	**~~02/17~~07/20**
Medical Executive Committee Approval:	**~~03/17~~ n/a**
Administration Approval:	**09/20**
Professional Affairs Committee Approval:	**~~04/17~~ n/a**
Board of Directors Approval:	**04/17**

A. **PURPOSE:**

1. To ensure compliance with the Federal requirements contained in the Emergency Medical Treatment and Labor Act (EMTALA). EMTALA waiver allows hospitals to direct or relocate individuals which would normally be prohibited under EMTALA of individuals with unstable emergency medical conditions if necessitated by the circumstances of the declared emergency. CMS will provide notice of the waiver.

B. **DEFINITION(S):**

1. Individual who presents with an emergency medical condition: An individual who presents with an emergency medical condition anywhere on Tri-City Healthcare District (TCHD) campus, even if the individual presents at a location other than the Emergency Department (ED). TCHD's campus includes ambulatory services departments located on or adjacent to the campus, as well as the medical center parking lots, sidewalks, and access roads.
2. Emergency Medical Condition:
   a. A medical condition manifesting itself by acute symptoms of sufficient severity (including severe pain, psychiatric disturbances, and/or symptoms of substance abuse) such that the absence of immediate medical attention could reasonably be expected to result in either placing the health of an individual (or with respect to a pregnant woman, the health of her unborn child) in serious jeopardy; serious impairment of bodily functions; or serious dysfunction of any bodily organ or part; or
   b. With respect to a pregnant woman who is having contractions, there is adequate time to affect a safe transfer to another hospital before delivery or the transfer may pose a threat to the health or safety of the woman or her unborn child.
3. Medical Screening Exam (MSE): The process required to reach, with reasonable clinical confidence, the point at which it can be determined whether an emergency medical condition does or does not exist. MSE requires an evaluation by a qualified medical provider, within the capability of the hospital's ED, to determine whether an emergency medical condition exists, or if the person is in labor. The MSE is a dynamic process and represents a spectrum ranging from a simple process involving only a brief history and physical, to a complex process that involves performing ancillary studies and procedures, depending on the patient's presenting symptoms.
4. Stabilization: Stabilization includes the provision of such medical treatment for the condition, necessary to assure within reasonable medical probability that no material deterioration of the condition is likely to result from, or occur during, the transfer of the individual from a facility, or that the woman has delivered the child and placenta. Stabilization may include either stabilization for discharge or stabilization for transfer.
5. Triage: Determines the order in which patients will be seen.

C. **POLICY:**

1. Collection of financial information in the ED must be performed in accordance with this policy.
2. Hospitals may not delay in providing a medical screening examination (MSE) or necessary stabilizing treatment by inquiring about an individual's ability to pay for care. Individuals who have an emergency medical condition must be offered, and if desired, receive a MSE regardless of answers the individual may give to questions asked during the registration process. In addition, a hospital may not delay screening or treatment to an individual while information is verified. However, hospitals may continue to follow reasonable registration processes for individuals presenting with an emergency medical condition. Reasonable registration processes may include requesting information about insurance as long as these procedures do not delay screening or treatment.
3. Each patient seeking treatment in the ED is entitled to an emergency MSE. When collecting financial information in the ED setting, the following guidelines must be followed:
   a. A MSE and necessary stabilization may not be refused by TCHD for any reason, even if a managed care plan refuses to authorize treatment or pay for services the MSE must be completed despite ability to pay.
   b. A MSE for an ED patient may not be delayed in order to:
      i. Inquire about an individual's ability to pay
      ii. Inform the patient that he/she must pay a co-pay or deductible if they choose to be treated
      iii. Perform insurance verification and authorization
      iv. Inform the patient that his/her care will be free or at a lower cost if another facility is used
   c. The MSE must be the same for all individuals presenting to the ED with the same condition, regardless of financial status or payment source. Triage does not qualify as an appropriate medical screening exam.
4. The registrar or Triage RN must refrain from making any comments that the patient might interpret to mean that services might not be provided based on ability to pay. For example, the registrar must not say, "We don't accept XYZ insurance here."
5. The registrar shall not request co-pays, deductibles, or past due balances from the patient until the MSE and necessary stabilization have occurred.
6. If a patient expresses the intent to leave the ED, the patient shall be encouraged to remain in the ED until the MSE and necessary stabilization are completed. If a patient leaves TCHD as a result of questions asked prior to receiving the MSE, it may be interpreted that the there was a suggestion that the patient leave the ED. This must be well documented by the Triage RN.
7. If a patient presents to the ED with a life-threatening emergent condition (i.e., patient arrives via ambulance in cardiac arrest) the MSE and necessary stabilization will begin immediately. The registrar may obtain the information identified in C.10 below from a source other than the patient (i.e., next of kin). Otherwise, financial information shall be obtained after the patient has received a MSE and necessary stabilizing treatment. Financial information may be discussed with the patient only after stabilization.
8. In case of an emergent situation or active labor identified after the MSE, stabilization and treatment will begin immediately. The registrar may obtain the information identified in C.10 below, as well as insurance verification and authorization, provided that the necessary stabilization and treatment are not delayed. When the physician determines that an emergency medical condition no longer exists, the patient may;
   a. Accept treatment and financial liability.
9. If the MSE determines that the patient does not have an emergency medical condition, or the patient is not in active labor, the patient shall be informed of his/her treatment options. The registrar may obtain the information identified in C.10 below, as well as insurance verification and authorization. After the MSE is completed, and once the physician has made the determination that an emergency medical condition does not exist, the patient may be informed of his/her potential financial liability. The patient may;
   a. Accept treatment and financial liability.

b. Refuse additional treatment. If treatment is refused, the physician may refer the patient to another facility.

10. The registration process may be initiated as long as the process does not cause a delay in the provision of a MSE and necessary stabilization for an emergency medical condition. Basic identifying information may be gathered and entered into Affinity to allow for processing of tests in the order entry system. Basic information obtained may include:
    a. Patient's full name
    b. Patient's date of birth
    c. Social Security number
    d. Family physician
    e. Insurance plan information, if applicable
11. If patient's information is already present in Affinity, the registrar will verify the existing information.
12. An Advance Beneficiary Notification Notice (ABN) shall not be obtained when rendering emergency medical treatment.
13. Signage indicating payment is due at time of service, or indicating that the patient's insurance may not pay for the service may not be placed in the ED lobby or treatment area.
14. Registration/ patient access management personnel must educate all registration staff responsible for registering, billing, and maintaining patient records.
15. The Registration supervisor shall observe registrars at regular intervals during the orientation period and at least annually thereafter to ensure compliance with this policy. Deviations from the policy will result in corrective action.

D. **REFERENCES:**

1. Social Security Act, Section 1867, 42 U.S.C. 1395dd, Examination and Treatment for Emergency Conditions and Women in Labor.
2. Social Security Act, Section 1867, 42 U.S.C. 1395cc, Emergency Medical Treatment and Active Labor Act.
3. Federal Register 489.24, Special Responsibilities of Medicare Hospitals in Emergency Cases.
4. Federal Register 489.53, Terms of Provider Agreements, Acceptance of Program Beneficiaries.
5. Current California Hospital Association (CHA) Consent Manual – Chapter: Patient Transfer, Discharge, or Temporary Absence
6. EMTALA Answer Book **2020**~~2016~~, Author Mark M. Moy

Tri-City Medical Center	Emergency Department
PROCEDURE:	**EZ-IO INTRAOSSEOUS (IO) INFUSION SYSTEM** **7010-015**
Purpose:	To outline the procedure on use and care of Intraosseous infusions
Supportive Data:	Intraosseous infusion has been proven to be a safe and effective way to administer medications, fluids and blood products in both adults and pediatric patients that require rapid access for fluid resuscitation when standard IV access has not been achieved in a timely manner.
Equipment:	Adult or pediatric Intraosseous Infusion Systems, EZ-IO drill device, appropriate size IO needle for age, local anesthetic (optional but should be considered if the patient is conscious), Chlorhexidine prep, syringe for aspiration, normal saline flush syringe for irrigation, dressing supplies, EX connect extension tubing, IV tubing and fluids, pressure infusion bag, rapid infuser or Alaris pump. For removal of IO device a 10mL syringe, gauze and medical tape.
Issue Date:	08/07

A. **DEFINITIONS:**

1. Intraosseous (IO) infusion is indicated when rapid access to the circulation for administration of medications is needed and other standard attempts to obtain IV access have failed. IO infusion should be given any time intravenous (IV) cannulation is either too difficult or too time consuming to accomplish. IO needles are recommended for any age group.

B. **POLICY:**

1. The use of the EZ-IO drill and needle for insertion is performed by a physician/Allied Health Professional (AHP) or Registered Nurse.
2. Infusion through and removal of the IO after insertion is within nursing scope of practice.
3. DO NOT leave the EZ-IO catheter in for more than 24 hours. The IO catheter must be removed within 24 hours after initial insertion. Wristband, which is included in the kit, is placed on the patient at time of insertion indicating the time the catheter must be removed.

C. **PROCEDURE:**

1. Insertion of an IO using the EZ-IO is performed only by a physician/Allied Health Professional (AHP) or Registered Nurse.
2. The physician/Allied Health Professional (AHP) or Registered Nurse will select the appropriate site for insertion of the IO needle.
3. Nursing should position the patient (depending on the site) and stabilize the area for insertion.
4. Cleanse the area with Chlorhexidine antiseptic solution (Chloraprep).
5. The clinician inserting the IO may use local anesthetic (20-40mg of 2% Lidocaine) for patient comfort as necessary.
6. The clinician inserting the IO will insert a 15G x 1" needle for adult or 15G x 0.6" for pediatric, using the EZ-IO device.
7. After insertion, the placement is confirmed by aspirating blood or marrow contents with a syringe. Syringe bolus (flush) of IO device with 10ml normal saline should infuse easily without resistance.
8. Connect the EZ connect tubing (included in the EZ-IO needle kit). The end with the angle attaches to the IO device catheter and the straight end to the standard IV tubing.
9. Secure tubing and catheter. Apply a sterile dressing.
10. Date dressing. (Must be removed within 24 hours).
11. While every attempt will be made to remove IO catheters prior to admitting patients to Intensive Care Unit (ICU), there may be the occasion when the catheter must remain until another route may be established, such as standard IV access or appropriate central access device.
12. Pediatric patients may be transferred to other facilities with the IO device in place.
13. Removal of the catheter is accomplished by following the steps listed below:

Department Review	Department of Emergency Medicine	Pharmacy and Therapeutics	Medical Executive Committee	Administration	Professional Affairs Committee	Board of Directors
10/14, 02/20	11/14, 03/20	**01/15, 05/20**	02/15, 08/20	09/20	03/15, n/a	08/07; 02/11; 03/15

a. Supporting the patient's limb with the catheter.
b. While maintaining aseptic technique connect a sterile 10ml luer-lock syringe to the hub of the catheter to provide a handle to withdraw the IO catheter device from the bone.
c. Rotate the syringe and catheter clockwise while gently pulling. DO NOT ROCK the IO catheter while removing. Rocking or bending the catheter with a syringe may cause the catheter to separate from the hub.

D. **SAFETY:**

1. Contraindications and Cautions:
   a. An IO is not recommended in any fractured extremities because of the risk of fluid and medication infiltrating into the surrounding tissue.
   b. To decrease the risk of infection, avoid placing the IO line through burned or infected tissue.
   c. General contradictions may include patients with bone disorders, such as osteoporosis and osteogenesis imperfecta.
   d. Do not infuse marrow toxic medications, (such as certain antibiotics) via the IO route.
2. Age Specific Considerations:
   a. IO access is widely recommended for use in pediatric population (AHA, 2002).
   b. It is now recommended in the management of adult patients who are critically ill (Waisman & Waisman, 1997l Frascone et al., 2001).
3. Complications:
   a. Unsuccessful attempts to penetrate the bony cortex or bending the needle by use of excessive force delays vascular access.
   b. Puncture of the posterior cortex as a result of excessive pressure during insertion of the needle.
   c. Fluid leakage from the infusion site. Fluid extravasation may occur, especially if the insertion was difficult or both cortices were penetrated. This fluid extravasation may lead to compartmental syndrome.
   d. Fat embolism resulting from use of high-pressure volume infusions.
   e. Potential osteomyelitis, which appears to be associated with prolonged continuous infusions.
   f. Clot formation within the bone marrow needle, causing slowing of the rate of infusion. The use of a pressure bag often alleviates this issue.
   g. Tibia fractures.

E. **REFERENCE LIST:**

a. Semonin-Holleran, R (2004); *Intraosseous Access* (pg.302-307), 3rd edition,
b. In Proehl, J.A. *Emergency Nursing Procedures*, Saunders; AHA, 4th edition (2008),
c. *Pediatric Advance Life Support manual*, Dallas Author; AHA, (2011),
d. *Advanced Cardiac Life Support manual*, Dallas Author; Stanley, R. (2011),
e. *Intraosseous Infusion* (pg.475-485), In Roberts J.R. & Hedges, J.R (Eds),
f. *Clinical Procedures in Emergency Medicine*, 6th edition (2013), Philadelphia, W.B. Saunders.
g. Lewis GC, Crapo SA, William JG. *Critical skills and Procedures in Emergency Medicine- Vascular Access Skills and Procedures.* Emerg Med Clin N Am 2013;31:59-86 Retrieved from: Http://dx.doi.org/10.1016/j.emc.2012.09.006
h. Ibrahim M, Cairney K. *Intraosseous (IO) Infusion as a Means of Vascular Access.* British J of Resuscitation. Autumn:23-6 (2012)
i. Rogers J, Fox M. *The Safety of Intraosseous Vascular Access.* Emergency Medicine Patient Safety Foundation Forum. Fall 18-21(2012)
j. Weiser G, Hoffmann Y, Galbraith R, Shavit I. *Current Advances in Intraosseous Infusion – A Systematic Review.* Resuscitation; 83(1):20-6. doi:1016/j.resusitation.2011.07.020 (2012)

Tri-City Health Care District	~~Distribution: Patient Care Services~~Home Health Care
PROCEDURE:	**DISPOSAL OF NEEDLES & SYRINGES; HAZARDOUS MATERIALS**
Purpose:	To properly dispose of syringes and needles to prevent injury/accident to employees, patients, and caregivers.
~~Supportive Data:~~	
Equipment:	A locked puncture proof container with a slot in the top for dropping in syringes and needles.
Issue Date:	**09/03**

A. **PROCEDURE:**

1. ~~1.~~ Used syringes and needles will be placed in a puncture resistant hazardous waste container with a slot in the top. Home Care uses commercial containers.
2. Entire used syringe and needle is dropped into the container. The needle is not recapped.
3. Container is transported by the Home Care nurse into the home when it is anticipated that syringes will be used.
4. Patients and families are instructed to use the locked puncture proof container supplied by infusions companies if needles and sharps are used by ~~Pt~~**patient** or ~~C/G~~**care giver**. **Note:** Families with small children in the home should be cautioned to place barrier over opening of the puncture resistant container.
5. Used containers are stored ~~in the Radiation Department~~ and ~~are~~ placed in a **biohazardous waste receptacle** within a locked area **in suite 212 outside of the Home Health Office**.
6. Any employee transporting sharps and specimens must carry an Agency copy of Limited Quantity **Hauler** Exemption.
7. ~~7.~~ Containers are intended for one time use and are not to be recycled. ~~All containers are logged in and out via tracking form attached until returned to the Agency.~~
8. These containers weighing under 20 pounds, are picked up from the locked storage area every month **by Facilities Department.**
9. Containers are ordered from the purchasing department.
10. No other biohazardous material is transported by agency staff.

~~Issued:~~	~~Reviewed:7\99;8\00~~	~~Revised:8\06;11\97;8\08;3\03~~	
~~09/03~~	~~1\06 , 11/08, 8/12~~	~~12/08~~	

~~S:\home Care/P & P\HomeCare\disposalneedlessyringeshazinfectmaterial Mvd1\06,10\06~~

Department Review	Pharmacy & Therapeutics Committee	Medical Executive Committee	Administration	Professional Affairs Committee	Board of Directors
08/96, 11/97, 08/98, 07/99, 08/00, 03/03, 01/06, 12/08, 08/12, 06/20	07/20	08/20	09/20	n/a	08/12

Tri-City Medical Center	~~Distribution RN~~ Home Health Care
PROCEDURE:	**HOME TOTAL PARENTERAL NUTRTION (TPN)**
Purpose:	To provide total energy and nutrient requirements in amounts sufficient to maintain a proper metabolic state and positive nitrogen balance intravenously
Supportive Data:	When a patient requires TPN accurate, safe and consistent measures must be implemented to reduce risk of infection, metabolic complications and maintain integrity of the central venous catheter. Proper monitoring allows for the assessment of the patient's tolerance of the nutritional support. 1. Dressing Changes (See long-term venous catheters procedure) 2. Initiating Home TPN (Continuous/Cyclic Infusion) Proper initiation of TPN per guidelines reduces the risk of metabolic complications, i.e. hyperglycemia, fluid overload
Equipment:	• Non-sterile gloves • Alcohol prep pads (3) • Chloroprep swabs • 12ml syringe with needleless syringe cannula filled with 10ml of normal saline • Vitamins/additives already have been added to TPN solution bag – Remove from refrigerator approximately 30-60 minutes before infusing • Normal Saline • IV poles • Infusion pump • TPN tubing • 1.2 micron filter • Isopropyl alcohol • Paper towel • Trash can • Needle discard container • Micropore tape – 1"
Issue Date:	97

A. **HOME TOTAL PARENTERAL NUTRTION (TPN):**

~~1. STEPS~~

~~2.~~1. Hand Hygiene.

~~3.~~2. Verify label on TPN solution with TPN profile from pharmacy.

~~4.~~3. Inspect solution and container for integrity, i.e. punctured bag, contaminates or precipitates.

~~5.~~4. Clean working area thoroughly with an approved disinfectant, such as sani-cloth and isopropyl alcohol.

~~6.~~5. Remove protective cap from TPN bag.

~~7.~~6. Open tubing package, close roller clamp/slit clamp. Remove protective cap from spike and insert spike into bag port.

~~8.~~7. Attach 1.2 micron filter to tubing prn.

~~9.~~8. Invert bag and hang on IV pole.

~~10.~~9. Follow instructions for pump, prime tubing via pump.

~~11.~~10. Cleanse injection cap on end of catheter with 3 alcohol pads.

~~12.~~11. Release clamp on extension set/central venous catheter.

~~13.~~12. Flush catheter with 10cc of N.S. If immediately hanging a new TPN bag, may flush catheter with 5 ml of NS.

~~14.~~13. Connect tubing to injection cap on catheter.

~~15.~~14. Administer TPN as ordered. Tapering up and down. Check pump for program accuracy.

~~16.~~15. IV Pump and tubing have built in safeguards to prevent bolus infusions.

~~17.~~16. IV tubing, filter and solutions changed every 24 hours.

~~18.~~17. Monitoring guidelines per MD-Pharmacy order: i.e. weights.

~~19.~~18. The patient/caregiver will receive education regarding TPN.

B. **REFERENCES:**

1. Perry, et.al. Clinical Nursing Skills and Techniques.Mosby, Inc.: St. Louis, 2006

Review	Revised	Pharmacy & Therapeutics Committee	Medical Executive Committee	Administration	Professional Affairs Committee	Board of Directors
11/97, 09/00, 06/06,08,09	06/03, 06/06, 08/12	07/20	08/20	09/20	n/a	97,03,06, 09

~~Reider, et.al. Journal of Home Health Care Practice. Aspen Publishers. Maryland,1994~~

2. Gorski, et.al. Policies and Procedures for Infusion Therapy, Infusion Nurses Society, Inc., MA 2016
3. Gorski, et.al. Journal of Infusion Nursing. Infusion Therapy Standards of Practice, Infusion Nurses Society, Inc., MA 2016

~~Issued:~~	~~Reviewed:~~	~~Revised:~~	~~Approved:~~
~~97~~	~~11/97, 9/00,6/06,08,09~~	~~6/03, 6/06, 8/12~~	~~97,03,06, 09 CP~~

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~~8/20/12:gam~~

Tri-City Health Care District
Oceanside, California

~~UNIT SPECIFIC POLICY MANUAL~~
HOME HEALTH CARE

~~ISSUE DATE: 1/99~~	~~SUBJECT: INFUSION PROGRAM~~
~~REVISION DATE: 9/04, 3/05, 9/07, 2/08, 8/09~~	~~POLICY NUMBER: 314~~
~~REVIEW DATE: 12/04, 9/07, 2/08, 8/09, 9/11, 3/13~~	~~APPROVAL: 10/04, 4/05, 11/07, 8/08, 2/10, 1/12~~

ISSUE DATE: 01/99	**SUBJECT: Infusion Program**
REVISION DATE(S): 10/04, 4/05, 11/07, 8/08, 2/10, 01/12	**POLICY NUMBER: 314**

Home Health Care Approval:	**06/20**
Pharmacy and Therapeutics Approval:	**07/20**
Medical Executive Committee Approval:	**08/20**
Administration Approval:	**09/20**
Professional Affairs Committee Approval:	**n/a**
Board of Directors Approval:	**01/12**

A. **POLICY**:
1. It is the policy of the Agency to ensure that patients are properly assessed and screened prior to acceptance for home intravenous therapy, using a defined set of criteria. Medical and psychosocial evaluations are equally important in determining the efficacy and safety of parenteral fluid and medication administration in the home.

B. **PURPOSE**:
1. To provide Intravenous services within the parameters defined by Home Health Best Practices

C. **PROCEDURE**:
1. Tri-City Home Health will only provide infusion therapies for which appropriate procedures have been written. Services provided are also dictated by the fact that infusion therapies must be administered by an RN who has completed the educational and performance objectives for Intravenous Therapy Administration.
2. Examples of therapies that may be administered in the home by Tri-City Home Health are:
   a. Pain Management, including PCA
   b. Antibiotic Administration * (See first dose antibiotic administration criteria)
   c. Antiviral and Antifungal Therapy on a case-to-case basis, after consultation with pharmacist
   d. Hydration
   e. Total Parenteral Nutrition (TPN) Central
   f. Specified IV Push Medications
      i. Diphenhydramine hydrochloride (Benadryl)
      ii. Furosemide (Lasix)
      iii. Metoclopramide (Reglan)
      iv. Methylprednisolone (Solu-Medrol)
      v. Nalaxone (Narcan)
   g. Hydrocortisone (Solu-cortef)
3. Therapies **not** to be administered in the home by Tri-City Home Care:
   a. IV cardiac drugs
   b. IV aminophylline
   c. IV calcium

d. IV pitocin
e. IV cancer chemotherapy
f. IV phenothiazine derivatives
g. IV mercurial derivatives
h. IV heparin drips
i. IV insulin drip
j. IV potassium bolus
k. Any experimental medications
l. Blood or blood products to include: Whole blood, packed RBC's, saline washed RBC's, frogen-deglycerolixed RBC's, fresh frozen plasma, all types of Platelets, Granulocytes, Cryoprecipitates-factorVIII, Factor VIII concentrates, Factor 1x concentrates, Albumin, Immune Serum Globulin (IgG) nonspecific, IgG RH immune globutin (IgG anti-D) IgG hepatitis B immune globulin.

D. **ADMISSION CRITERIA**

1. General admission criteria for admission to Home Care services must be met in order to qualify for admission to, and retention in the Home Infusion Program.
2. The physician who is primarily responsible for the patient's IV fluid regimen at home has ordered appropriate fluids, evaluated the patient, and determined that IV fluids are medically necessary. He or she will also monitor and evaluate the course of therapy.
3. The infectious disease diagnosis has been established and is supported by results of cultures whenever possible.
4. The patient's medical condition is stable, and all care needs can be met at home and meet the Home Care criteria for admission. He or she has no other medical problem necessitating continued hospitalization.
5. The patient or caregiver (or both) has willingly agreed to participate in home therapy ~~and signs the Infusion Consent Form~~.
6. The patient and/or caregiver shall be competent, motivated, and compliant individuals who are willing to undergo training and assume responsibility for home infusion therapy
7. The patient or caregiver (or both) is capable of learning and performing all required procedures.
8. The patient's home environment is adequate for the requirements for the patient's specific IV therapy. Some medications will require freezer or refrigerator storage. Telephone access must be available.
9. The patient and or caregivers psychosocial status has been assessed and is judged to be appropriate for home therapy with regard to the following:
   a. Availability of support person or caregiver if needed.
   b. Sufficient level of motor skills (especially with regard to ambulation and manual dexterity) when required.
   c. Compliance with established policies.
   d. Functional mental status (especially with regard to long and short-term memory, absence of depression, ability to concentrate).
   e. Ability to follow written instructions.
   f. Stability and safety of home setting.
10. Eligibility for reimbursement for home infusion therapy has been assessed, and the patient or responsible party has been advised of results of the assessment and is willing to assume financial responsibility when appropriate.
11. Geographic areas need to be identified as safe for home visitation by agency personnel, prior to admission to the program.
12. The preferred time for skilled nursing visits to be made is between the hours of 7:30 to 21:00, although the patient and/or caregiver will have access to a home care registered nurse 24 hours per day~~, as recorded on the resource telephone list and provided to all home health patients~~.
13. Consideration for home therapy will be cancelled or not accepted if one or more of the following conditions is present:
    a. Unstable medical condition

b. Care needs in excess of home care capabilities
c. Psychosocial instability (poor compliance or motivation, improper home environment)
d. Known recent or currently active IV drug abusers.

14. The first dose of antibiotic may need to be given in the physician's office, hospital setting or under the supervision of a physician or his/her designee, based on information received from the first dose antibiotic checklist and consultation with RN, MD and Pharmacist.

E. **ADMISSION/INITIAL HOME VISIT**

1. Clinician Taking Referral:
   a. Schedule visit time in close proximity to delivery of medication and equipment by pharmacy. Timing is to be coordinated by intake clinician and/or hospital Case Manager with pharmacy and admitting RN.
   b. It is policy that anaphylaxis kits are ordered for the home of patients receiving **first dose** IV antibiotics. The following is the first dose antibiotic administration and appropriate treatment for anaphylaxis:
      ~~1)~~**i.** Prior to IV medication administration check the first dose antibiotic administration criteria checklist carefully. Obtain baseline nursing assessment and vital signs. Have anaphylaxis kit within reach.
      ~~2)~~**ii.** During IV administration, observe for anaphylactic response. If response occurs stop the flow of the drug and call 911 immediately. Administer anaphylactic kit medications as ordered by physician. ~~epinephrine 0.3mg (1:1000) sq. May repeat every 10-15 minutes up to 3 doses. Administer diphenhydramine hydrochloride (Benadryl) undiluted 50mg. IV push over two minutes. If no patent IV, give deep IM.~~ Monitor patient until the arrival of paramedics checking vital signs and patency of airway. Initiate CPR if necessary. The physician is notified when patient is stable. All interventions are documented and an ~~QRR~~ **unusual occurrence** form submitted.
   c. All orders for IV medications and solutions must include the name of the medication solution, dosage, dilution, route, frequency of administration, and rate of infusion.
   ~~2.~~**d.** Laboratory work as indicated for each medication or solution shall be ordered by the physician.

~~3.~~**2.** RN Doing Skilled Nursing Visit:
   a. Orders for IV medications and solutions, intradermal anesthesia with lidocaine 1% without epinephrine, and orders for anaphylaxis must be obtained before the RN can perform IV administration of medications and solutions.
   b. Case by case evaluation will occur to determine the type of IV line patient will need to have in place based on the medications and solutions to be administered.
   c. Medications and solutions prepared by the pharmacy should arrive in the home as expected and shall be properly labeled with the patient's name, name of drug, dosage, diluent, date of preparation, expiration date, initials of preparer, and any special instructions. Emergency medications/supplies must be replaced by the pharmacy and sent to the home as soon as possible after their use.
   d. Complete standard admission assessment and paperwork as required for all home health patients. Assess and document specific information as needed for successful home infusion.
   e. Assess the patient's/caregiver's physical ability to perform intravenous administration procedures, as necessary.
   f. Assess environment for minimal necessities to perform intravenous procedures (electrical, refrigeration, plumbing, phone).
   g. Assess the patient's and/or caregiver's ability to comprehend instruction of intravenous administration procedure. The components of education will include aseptic technique, catheter care, infusion pump set-up and use of alarms, administration of parenteral medications, metabolic complications, catheter complications, TPN and disposal of used equipment.

h. Initiate basic instruction in administration of intravenous therapy in the home and document ~~on the Home Infusion Patient Education Record.~~ **instruction provided, return demo and level of understanding in the patient medical record.**

i. Develop individual patient treatment plan for administration of intravenous therapy in the home, documenting responses, interaction, patient physical status and all pertinent information **including need for follow up RN visit(s) to provide additional instruction and verify patient/caregiver satisfactory return demonstration.**

DELETE – follow Patient Care Services Policy: Medications, High Risk/ High Alert/ Look Alike Sound Alike

TRI-CITY Healthcare DISTR
Oceanside, California

UNIT SPECIFIC POLICY MANUAL
HOME HEALTH

ISSUE DATE: 1/20/05	SUBJECT: Look Alike/Sound Alike Medications
REVISION DATE: 1/07, 2/08	POLICY NUMBER: 320
REVIEW DATE: 3/05, 9/06, 1/07, 2/09, 3/10, 10/11	APPROVAL: 4/05, 1/07, 4/08, 5/09, 5/10, 1/12

Home Health Care Approval:	**06/20**
Pharmacy and Therapeutics Approval:	**07/20**
Medical Executive Committee Approval:	**08/20**
Administration Approval:	**09/20**
Professional Affairs Committee Approval:	**n/a**
Board of Directors Approval:	

~~PURPOSE:~~

~~To delineate the Agency clinician's role in the protection of the patient regarding look-alike/sound-alike medications.~~

~~POLICY:~~

~~It is the policy of the Agency to comply with the Joint Commission's National Safety Goal to identify and, at a minimum, annually review a list of look-alike/sound-alike drugs most commonly used by the organization, and to implement measures to prevent errors involving the accidental interchange of these drugs. The Agency has determined a list of look-alike/sound-alike medications frequently encountered in the home setting.~~

~~PROCEDURE:~~

1. ~~It is the responsibility of the admitting clinician to review the initial medication profile for all medications that appear to be similar. New medications added to the profile will be reviewed for similarities by all clinicians caring for the patient.~~

2. ~~Clinicians will educate the patient regarding the similarity of medications and suggest ways to prevent error. Education may include separation of the bottles or marking the bottles with another identifier.~~

3. ~~The list of determined look-alike/sound-alike drugs that are frequently encountered in the home setting for the Tri-City Home Health patient population are listed on a separate attached sheet for easy reference.~~

One Hundred Look Alike and Sound Alike Drugs

1. Aciphex *and* Accupril *and* Aricept
2. Actonel *and* Actos
3. Advair *and* Advicor
4. Allegra *and* Viagra
5. Alprazolam *and* Lorazepam
6. Amicar *and* Omacor
7. Amiloride *and* Amlodipine
8. Amiodarone *and* Amantadine
9. Antivert and Axert
10. Apresoline and Priscoline
11. Atacand and Antacid
12. Benadryl *and* Benazepril
13. Benicar *and* Mevacor
14. Bupropion *and* Buspirone
15. Captopril *and* Carvedilol
16. Carbamazepine *and* Oxcarbazepine
17. Cardura *and* Coumadin
18. Celebrex *and* Celexa *and* Cerebyx
19. Celexa *and* Zyprexa
20. Claritin (loratadine) *and* Claritin Eye (ketotifen fumarate)
21. Clonazepam *and* Clonidine *and* Klonopin
22. Codeine *and* Lodine
23. Colace *and* Cozaar
24. Colchicine *and* Cortrosyn
25. Coumadin *and* Avandia
26. Cymbalta *and* Symbyax
27. Darvocet *and* Percocet
28. Darvon *and* Diovan
29. Depakote *and* Depakote ER
30. Diabenese *and* Diamox
31. Diabeta *and* Zebeta
32. Diflucan *and* Diprivan
33. Dilaudid *and* Dilaudid-5
34. Diovan *and* Zyban
35. Doxil *and* Paxil
36. Dulcolax (bisacodyl) *and* Dulcolax (docusate sodium)
37. Effexor *and* Effexor XR
38. Engerix-B pediatric *and* Engerix-B adult
39. Femara *and* Femhrt
40. Fentanyl *and* Sufentanil
41. Flonase *and* Flovent
42. Folic Acid *and* Folinic Acid
43. Granulex *and* Regranex
44. Guaifenesin *and* Guanfacine
45. Humalin *and* Humalog
46. Hydralazine *and* Hydroxyzine
47. Isordil *and* Plendil
48. Kadian *and* Kapidex
49. Keflex *and* Keppra
50. Klonopin *and* Clonidine
51. Lantus *and* Lente
52. Lasix *and* Luvox
53. Levenir *and* Levenox
54. Lexapro *and* Loxitane
55. Lopressor *and* Lyrica
56. Lorazepam *and* Alprazolam *and* Clonazepam
57. Lyrica *and* Lopressor
58. Metfromin *and* Metronidazole
59. Methadone *and* Dexmethylphenidate *and* Mephyton
60. Micronase *and* Macrozide
61. Miralax *and* Mirapex
62. Morphine *and* Hydromorphine
63. Motrin *and* Neurontin
64. MS Contin *and* Oxycontin
65. Mucinex *and* Mucomyst
66. Noroxin *and* Neurontin
67. Nifedipine *and* Nicardipine *and* Nimodipine
68. Norvasc *and* Navane
69. Novolin *and* Humulin *and* Novolog
70. Omeprazole *and* Fomepizole
71. Oxycodone *and* Hydrocodone
72. Oxycontin *and* MS Contin *and* Oxycodone
73. Paroxetine *and* Fluoxetine *and* Piroxicam
74. Paxil *and* Doxil
75. Percocet *and* Darvocet *and* Procet
76. Plavix *and* Paxil
77. Plendil *and* Isordil
78. Prednisone *and* Prednisolone
79. Procan SR *and* Procanbid
80. Procardia XL *and* Protain XL
81. Protonex *and* Lotronex
82. Provera *and* Proscar *and* Prozac
83. Restoril *and* Risperdal
84. Roxanol *and* Roxicet
85. Seroquel *and* Seroquel XR
86. Sertraline *and* Cetirizine
87. Sinequan *and* Saquinavir *and* Singulair
88. SoluCortef *and* SoluMedrol *and* DepoMedrol
89. Sulfadiazine *and* Sulfasalazine
90. Tramadol *and* Trazodone
91. Tricor *and* Tracleer
92. Ultracet *and* Duricef
93. Vesicare *and* Vesanoid
94. Wellbutrin SR *and* Wellbutrin XL
95. Xanax *and* Zantac
96. Zestril *and* Zegerid
97. Zetia *and* Bextra
98. Zocar *and* COzaar
99. Zostrix *and* Zovirax
100. Zyprexa *and* Celexa

Tri-City Medical Center	~~Distribution: Nursing~~ Home Health Care
PROCEDURE:	**SUBCUTANEOUS CATHETERS**
Purpose:	**Subcutaneous access is utilized to administer medication via injection or continuous small volume infusion into the subcutaneous tissue where medication is absorbed through both adipose and connective tissue.**
~~Supportive Data:~~	
Equipment:	**General Supplies** • **Gloves** • **Alcohol prep pads** • **Sharps container** • **Syringe** **Site Dressing** • **Gauze** • **Transparent semipermeable membrane (TSM)** • **Tape** **Subcutaneous Infusion Equipment** • **Subcutaneous needle 25-27 gauge, ½ inch** • **10% providone-iodine swabs** • **Subcutaneous access infusion kit** • **Extension tubing, if necessary** • **Prefilled medication container or cassette** • **Infusion pump**
Issue Date:	

A. **SUBCUTANEOUS CATHETERS:**

1. Patient Assessment and Education
   a. Verify patient's identity.
   b. Obtain and verify physician's order.
   c. Provide patient/ CG with educational material/information regarding procedure.
   d. Obtain patient's consent.
   e. Assess patient.
   f. Place patient in reclining position.
2. Prior to Beginning Procedure
   a. Wash hands.
   b. Don mask and gloves.
   c. Use aseptic technique and observe Standard Precautions throughout procedure.
3. Insertion Site and Device Selection
   a. Select insertion site with adequate subcutaneous tissue: a fat fold of at lease 1 inch (2.5 cm) when thumb and forefinger are pinched together. Site selection is also based on patient's anticipated mobility and comfort. Sites may include:
      i. Supraclavicular area
      ii. Anterior chest wall
      iii. Lower abdomen
      iv. Outer aspects of the arms and thigh
   b. Avoid areas that are:
      i. Scarred
      ii. Infected
      iii. Irritated
      iv. Edematous
      v. Bony

Review	Revision	Pharmacy & Therapeutics Committee	Medical Executive Committee	Administration	Professional Affairs Committee	Board of Directors
06/10, 07/12, 06/20	08/12	07/20	08/20	09/20	n/a	03/04

vi. Highly vascularized
vii. Near the waistline

c. Select access device with a 25-27 gauge, ½ inch steel needle or catheter.

4. Insertion Site Preparation
   a. Wash insertion site with antiseptic soap and water if necessary.
   b. Remove excess hair from insertion site via clipping if necessary.
   c. Disinfect insertion site (see Chapter 5, Policy on Site disinfection). Chlorprep.
5. Device Placement and Therapy Initiation
   a. Follow manufacturer's guidelines for access device placement.
   b. Inspect access device for defects.
6. For Continuous Subcutaneous Infusion:
   a. Prepare equipment and medication to be administered.
   b. Lift skin up into small mound between thumb and index finger.
   c. Insert primed subcutaneous infusion system with attached access device into the skin.
   d. Stabilize access device.
   e. Secure connection junctions.
   f. Dress access site using transparent dressing to allow for site observation and palpation.
   g. Initiate therapy.
7. For Subcutaneous Injection:
   a. Use syringe with 25-27 gauge, ½ inch disposable needle containing medication to be administered.
   b. Grasp skin firmly to elevate subcutaneous tissue.
   c. Position needle bevel-up and insert at a 90 degree angle.
   d. Release grasp on skin once needle is inserted.
   e. Pull back slightly on the plunger to aspirate; if blood appears, withdraw needle. Prepare second access site and repeat procedure.
   f. Slowly inject medication. (Note: Only medications recommended for subcutaneous administration may be given.)
   g. After injection is complete, gently but rapidly remove access device and discard in appropriate container.
   h. Apply pressure to injection site and dress with sterile gauze.
8. Site Care and Maintenance
   a. Inspect access site and equipment:
      i. Observe site for bleeding, bruising, inflammation, drainage, edema, or cellulites
      ii. Monitor patient for complaints regarding burning or itching at site
      iii. Observe old sites for signs of irritation or infection
   b. Change administration set immediately upon suspected contamination; otherwise, change administration set, including add-on devices and tubing, every 3-5 days as long as a closed system is maintained.
   c. Change access site dressing immediately upon suspected contamination; otherwise, change transparent semipermeable membrane (TSM) dressing every 3-5 days during site rotation.
   d. Rotate access site every 3-5 days. Select new site at least 1 inch from previous site, preferably dependent on patient comfort.
9. Post-Insertion
   a. Do not flush subcutaneous access device.
   b. Discard used equipment and supplies.
   c. Remove gloves.
   d. Wash hands.
   e. Document in patient's medical record.

~~3. **EQUIPMENT:**~~
~~1. **General Supplies**~~
~~a. **Gloves**~~
~~b. **Alcohol prep pads**~~

c. Sharps container
d. Syringe

2. Site Dressing
   a. Gauze
   b. Transparent semipermeable membrane (TSM)
   c. Tape

3. Subcutaneous Infusion Equipment
   a. Subcutaneous needle 25-27 gauge, ½ inch
   b. 10% providone-iodine swabs
   c. Subcutaneous access infusion kit
   d. Extension tubing, if necessary
   e. Prefilled medication container or cassette
   f. Infusion pump

Issued:	Reviewed:	Revised:	Approved:
	6/10, 07/12	8/12	3/04

Tri-City Homecare	Distribution: RNs, LVNs
PROCEDURE:	DELETE – no longer needed

SUBCUTANEOUS INSERTION AND SITE MAINTENANCE FOR INFUSIONS VIA PATIENT CONTROLLED ANALGESIA PUMP

~~PURPOSE:~~	~~To outline the nursing responsibilities for subcutaneous insertion and site maintenance for infusions via PCA pump.~~
~~SUPPORTIVE DATA:~~	~~Subcutaneous pumps will be used to provide an access route to receive analgesia at a steady rate to maintain blood levels of narcotic to control the patient's discomfort.~~
~~EQUIPMENT:~~	~~Alcohol Swabs~~ ~~Op-site 4"x6" tegaderm (pre-cut 2" x 3")~~ ~~Sub-Q Infusion Sof-Set/butterfly needle~~ ~~Pharmacia Pump with MS Cassette and Tubing~~

~~A. SUBCUTANEOUS INSERTION AND SITE MAINTENANCE FOR INFUSIONS VIA PATIENT CONTROLLED ANALGESIA PUMP~~

~~STEPS~~	~~KEY POINTS~~
~~1. Wash hands~~	~~Purging the tubing of air prevents the introduction of air into the tissue.~~
~~2. Connect cassette tubing to infusion pump and prime infusion set needle with medication.~~	~~Preference for site selection will be:~~ ~~a. Abdomen~~ ~~b. Thigh~~ ~~c. Anterior Chest~~ ~~d. Back (this site will be used only when other areas are not accessible.)~~
~~3. Don gloves~~	
~~4. Select appropriate insertion site for subcutaneous infusion set.~~	~~a. New sites will be at least an inch from the previous site.~~ ~~b. Avoid any current or past radiation sites.~~ ~~c. Avoid scarred or irritated areas.~~ ~~d. Consider patient comfort and mobility.~~ ~~e. Avoid boney prominences.~~ ~~f. Avoid the waistline area.~~
~~6. Insert butterfly at a 25 degree angle, or a soft catheter with metal stylet at 90 degree angle.~~	~~The subcutaneous site will be changed every 3-4 days, unless otherwise ordered.~~

Department Review	Pharmacy & Therapeutics Committee	Medical Executive Committee	Administration	Professional Affairs Committee	Board of Directors
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7. Apply op-site/tegaderm over subcutaneous set. Window tape.

Tubing changes will be done with every site change. Infusions will not exceed 2cc/hour.

8. Make small loop with tubing and secure with tape.
9. Date, time, and initial dressing.

B. DOCUMENTATION:

- Document the following in the Nursing Clinical Note, and/or the Infusion Therapy Flow Sheet.

    1. Appearance of old site.
    2. Removal of needle.
    3. Prep of pump and insertion in new site.
        a. As per Procedure and Equipment Manual handout.
        b. Location of new site.
    4. Dressing of site.
    5. Medication resumed.
    6. Any boluses given.

- Document appropriate nursing problems and interventions on Plan of Treatment.

REFERENCES: 1. Wolff, Weitzel, Fuerst, Fundamentals of Nursing, 1979, p. 162.
2. McCaffery, Oncology Nursing: Basic Concepts in Pain Relief, p. 124.
3. Miser, A. W., Miser, J. S. and Clark, B. S., Continuous Subcutaneous Infusion of Morphine in Children with Cancer. Am. J. Disease, Child, 137:383-385, April 1985.

Issued:	Reviewed:	Revised:	Approved:
	11/94, 06/95, 08/00, 05/03, 6/10	06/97, 07/12	

Tri-City Homecare

Distribution: RN

DELETE – not needed in Home Health

PROCEDURE:

VITAMIN/ADDITIVES ADDITION TO TPN BAG

~~PURPOSE: To ensure safe addition of vitamins/additives to TPN bag using safe/aseptic technique~~

~~SUPPORTIVE DATA:~~

~~Injectable vitamins/certain additives are not stable in TPN solution of >24 hours. Thus need to be added daily to TPN solution bags.~~

~~EQUIPMENT:~~

- ~~Syringe 10-12 ml~~
- ~~1" needle, 20-22 g. or needleless system~~
- ~~Alcohol prep pads~~
- ~~Vitamin/Electrolyte Vial (should be stored in refrigerator)~~
- ~~TPN bag~~
- ~~Sanicloth~~
- ~~Paper Towel~~
- ~~Needle Discard Container~~
- ~~*Additive(s), i.e. insulin as ordered requires another needle and syringe~~

~~A. VITAMINS/ADDITIVES/ELECTROLYTES ADDITION TO TPN BAG~~

1. ~~Clean working area with Sanicloth and paper towel.~~
2. ~~Hand Hygiene.~~
3. ~~Push rubber stopper down on top of vitamin vial.~~
4. ~~Prep vial with alcohol prep pad.~~
5. ~~Draw up the vitamins:~~
   a. ~~Using the 10-12 cc syringe and needle, pull plunger to 10ml mark on syringe, then inject 10ml air into the vial.~~
   b. ~~Draw up the 10ml of vitamins and save.~~
   c. ~~Draw up additive with another syringe and needle.~~
6. ~~Prep injection port on TPN bag with alcohol prep pads.~~
7. ~~Insert vitamin filled syringe into the TPN bag port.~~
   - ~~Insert additive if needed~~
8. ~~Inject the 10ml of vitamins into the TPN bag and gently mix vitamins into the TPN solution.~~
9. ~~Discard needle(s) and syringe(s) into needle discard container.~~
   - ~~For additives if indicated.~~
10. ~~Complete medication label including drug, dose, amount, date and time and document in the medical record.~~

Department Review	Pharmacy & Therapeutics Committee	Medical Executive Committee	Administration	Professional Affairs Committee	Board of Directors
06/20	07/20	08/20	09/20	n/a	07/12

Tri-City Homecare

Distribution: RN

PROCEDURE:

VITAMIN/ADDITIVES ADDITION TO TPN BAG

PURPOSE: To ensure safe addition of vitamins/additives to TPN bag using safe/aseptic technique

REFERENCES: 1. Perry, et.al. Clinical Nursing Skills and Techniques. Mosby, Inc.: St.Louis, 2002
2. Phillips, L. Manual of IV Therapeutics. FA Davis Company: Philadelphia,2001
3. Zastocki,et.al. Home Care Patient and Family Instructions. W.B.Saunders Company Philadelphia, 2000
4. Hankins, J. et.al. Infusion Therapy in Clinical Practice. W.B.Saunders Company Philadelphia, 2001

Issued:	Reviewed:	Revised:	Approved:
	3/04, 6/06, 6/09	6/03,3/04, 7/12	

Tri-City Health Care District
Oceanside, California

INFECTION CONTROL

ISSUE DATE: 09/95

SUBJECT: Aerosol Transmissible Diseases and Tuberculosis Control Plan

REVISION DATE(S): 09/01, 09/02, 10/03, 10/06, 10/08, 07/09, 10/09, 07/11, 08/14, 01/16 01/17, 02/18, 09/18

Infection Control Department Approval:	~~06/19~~05/20
Infection Control Committee Approval:	~~07/19~~05/20
Pharmacy & Therapeutics Committee Approval:	n/a
Medical Executive Committee Approval:	~~07/19~~08/20
Administration Approval:	~~08/19~~09/20
Professional Affairs Committee Approval:	n/a
Board of Directors Approval:	08/19

A. **TUBERCULOSIS AND AEROSOL TRANSMISSIBLE EXPOSURE CONTROL PLAN INTRODUCTION:**

1. Legal mandates and regulatory agencies such as California Code of Regulation Title 8, Occupational Safety and Health Administration (OSHA) and the Centers for Disease Control and Prevention (CDC) have set the standards for the implementation of an Aerosol Transmissible Diseases (ATD) including Tuberculosis Exposure Control Plan.

B. **PURPOSE AND POLICY:**

1. It is the policy of Tri-City Healthcare District (TCHD) to provide care to patients with ATDs with a minimum risk of transmission to others. The Infection Control Committee will provide assistance in ensuring compliance with the policy. The plan includes:
   a. Source Control Procedures including cough etiquette / respiratory hygiene.
   b. Implementation of an effective triage system and early identification of suspects and active cases
   c. Engineering control measures
   d. Respiratory protection programs
   e. Education and training of employees
   f. Evaluation and treatment of employees exposed to ATDs
   g. Protection of patients, employees and visitors from exposure to ATDs. These include:
      i. Pathogens requiring Airborne Precautions;
      ~~ii.~~ See Type and Duration of Precautions - Disease Specific (formerly Short Sheet)
      ~~iii.~~ii. Diseases requiring Droplet Precautions;
      ~~iv.~~ See Type and Duration of Precautions - Disease Specific (formerly Short Sheet)
      ~~v.~~iii. Ebola disease: **Requires** ~~S~~special considerations: Please ~~see~~refer to ~~Tri City Medical Center~~ Infection Control Ebola Plan ~~P~~policy for management of a patient with ~~confirmed or~~ suspected **or confirmed** Ebola. ***Requires a negative pressure room.**
      ~~1) Patients are screened at Triage and/or admission to the facility~~
      ~~2) Place patient in negative pressure room C26~~
      ~~3) Patients without symptoms of bleeding, vomiting, diarrhea or clinical condition that may warrant invasive or aerosol generating procedures must wear extended personal protective equipment (PPE) (Covers all surfaces of the body including head and neck, coverings for the eyes,~~

~~mouth, nose and skin). The hair must be completely enclosed. Full face shield with N95 respirator or higher.~~

~~4) Patients with symptoms of bleeding, vomiting, diarrhea or clinical condition that may warrant invasive or aerosol generating procedures or overall worsening of symptoms: must wear Extended PPE (Covers all surfaces of the body including head and neck, coverings for the eyes, mouth, nose and skin). The hair must be completely enclosed. PAPR with full cowl or hood.~~

~~5) PAPR with extended PPE must be used prior to entering a patient's room with suspected or confirmed Ebola.~~

C. **SCOPE:**

1. The Tuberculosis Control and Aerosol Transmissible Diseases Plan applies to all inpatient and outpatient services

D. **RESPONSIBILITY:**

1. The Tuberculosis Control and Aerosol Transmissible Disease Program will require the participation of the following personnel:
   a. The Infection Control Officer and the Infection Preventionist are responsible for overseeing the plan. This includes, but is not limited to implementation of the plan for the facility; development of policies and procedures to support the implementation of the plan; reporting of suspected and diagnosed cases of ATDs and Tuberculosis as defined in under CA title 22 to the Infection Control Committee and county department of health. It is also the responsibility of the Infection Preventionist to evaluate the risk assessment at least annually.
   b. The Environment of Care Officer is responsible for implementation and maintenance of current standards to meet the requirements of the California Code of Regulation Title 8, Title 24 and the guidelines from the Centers for Disease Control and Prevention.
   c. Employee Health Services is responsible for employee TB skin testing and interpretations; conducting investigation regarding employee exposure to ATDs and TB; maintaining employee TB skin test conversion data; reporting employee conversion and diagnosed cases to the Infection Control and Safety committees annually; and managing and counseling staff who have active ATDs. Employee Health is responsible for developing and implementing policies and procedures related to the respiratory protection program. Employee Health is also responsible for screening, testing, and provision of immunizations as indicated and seasonal influenza vaccination administration and declination statement documentation.
   d. Department Directors **and Managers** are responsible for implementation of the TB and ATD Control Plan in their respective areas, providing educational training to all employees before exposure to a source case; maintaining documentation of personnel training; ~~notification of the Infection Preventionist and Facilities Management when active TB patients or patients with other ATDs are admitted to their area~~.
   e. Administrative Supervisor is responsible for **patient placement in a negative pressure room.** ~~implementation of the TB control plan in the hospital during the hours of 1600-0800 and on weekends and holidays; and overseeing the reporting and discharge of suspected or confirmed cases of ATD or Tuberculosis on weekends and holidays.~~
   f. **Case Management reports to the County TB Control for suspected and confirmed TB cases, during the weekdays, weekends and holidays.**
   ~~f.~~g. The Director of Education is responsible for including TB and ATD control plan in orientation of new employees and annual OSHA required training related to ATDs.
   ~~g.~~h. The **Manager** ~~Director~~ of Environmental Services is responsible for developing, implementing and monitoring procedures for cleaning rooms occupied by a patient with ATDs.
   ~~h.~~i. The Facilities **Manager**~~Director~~ is responsible for monitoring and verifying air pressures daily on Airborne Infection Isolation Rooms (AIIR), when in use, and reporting of air

changes and air pressures to the Infection Ceontrol and Safety committees annually.

~~i.~~**j.** The ~~Director~~**Manager** of Pulmonary Services is responsible for training, implementing and monitoring respiratory staffs' adherence to the ATD and TB Control plan including protection for high-hazard procedures.

~~j.~~**k.** The Facilities **Manager**~~Director~~ is responsible for maintaining and cleaning of portable HEPA recirculators and providing portable HEPA recirculators to units as needed.

~~k.~~**l.** Microbiology Supervisor is responsible for the notification **to**~~of~~ the local health authority according to California and Federal regulations of ATDs and TB.

~~l.~~**m.** The Employees are responsible for early identification of suspects and active cases of ATDs and TB; early implementation of Airborne Precautions; knowledge of Tuberculosis and ATD control plan; ~~reporting of cases to the Infection Preventionist and/or the Public Health Nurse;~~ compliance with all protective practices; attendance of New Employee Orientation Program and annual OSHA required education; and reporting noncompliance and unusual occurrences using a quality review report.

~~m.~~**n.** The Physicians play an important part in TB and ATD Control by maintaining a high index of clinical suspicion.

i. Physicians should place all HIV positive patients with infiltrates in Airborne Precautions until three sputum concentrated smears are negative for AFB or until a diagnosis other than tuberculosis is clearly established.

ii. Place all new admits with a history of fever, weight loss and cough or pneumonia greater than 2-3 weeks in Airborne Precautions if no clear etiologic agent is identified.

iii. Treat all highly suspected tuberculosis cases with anti-tuberculosis medications pending sputum results.

iv. Consider ATD in patients with temperature greater than 100 degrees F and cough. ATD may also be considered in the presence of rash with fever.

v. Implement control measures when ATD is suspected.

E. **AVAILABILITY OF THE PLAN:**

1. The Tuberculosis and ATD Control Plan will be available via the Intranet in the Infection Control Manual ~~in~~**for all staff.** ~~every department~~. OSHA required education will be conducted at the new employee orientation program and all other employees are required to complete an annual review. The written plan will be reviewed and updated annually and as indicated by regulations.

F. **FUNDAMENTALS OF TUBERCULOSIS INFECTION CONTROL:**

1. Some segments of the U.S. population have a higher risk for TB because they are more likely to have been exposed or because their infection is more likely to progress to active TB after infection. TB is carried in the air after being generated when persons with pulmonary or laryngeal TB sneeze, cough, speak or sing. These particles are carried on air currents and stay afloat for a long time. Infection occurs when a person inhales the germs into their lungs. Usually within 2-10 weeks after infection, the immune response limits further multiplication and spread but some bacteria can remain dormant for years (latent infection). People with normal immune systems have a 5-10% lifetime risk of the latent infection progressing to active disease. Factors that influence infection include the concentration (number) of the bacteria in the air and duration of exposure. Exposure in a relatively small space with inadequate ventilation can increase the risk of infection. Persons who are immunocompromised are more likely to become infected and to also develop active disease. The transmission, epidemiology and pathogenesis of TB were all considered in our plan. An effective program requires early identification, isolation and effective treatment of persons who have active disease.

a. The most effective control measure is to ensure rapid identification, isolation, diagnostic evaluation and treatment of persons likely to have TB.

b. The next level of effective control is the use of engineering controls (i.e. airflow, dilution, filtration and exhaust of air)

c. The final and least effective control is the use of respiratory protection.

G. **TUBERCULOSIS RISK ASSESSMENT:**

1. Risks assessment will be performed annually by the Infection Preventionist and reviewed by the Infection Control and Environment of Care Committees. The purpose of this assessment is to evaluate the risk of transmission of Tuberculosis so that appropriate interventions can be developed. The assessment will include:
   a. Community TB profile from public health department data
   b. Number of infectious TB patients treated in outpatient and inpatient areas.
   c. Drug susceptibility patterns of TB patients
   d. Analysis of staff PPD test results by area
   e. Review medical records for appropriate precautions, timing of specimens, duration of precautions and timely communication with public health.
   f. Observation of practice and review of engineering controls.
2. Considerations for determining the hospital's risk classification will be based on the following:

VERY LOW RISK	There are no TB patients admitted to the facility during the preceding year
LOW RISK	The employee PPD conversion rate in an area is not higher than in areas with increased occupation exposure to Tuberculosis Fewer than 6 patients were admitted to area during the preceding year There is no evidence of person-to-person transmission No clusters of staff PPD conversion
INTERMEDIATE RISK	Same as Low Risk with the addition of six or more TB patients admitted to the area during the preceding year.
HIGH RISK	PPD conversion rate is higher in areas without occupational exposure to Tuberculosis. Clusters of staff PPD conversion. Evidence of person-to-person transmission. More than 6 patients admitted to an area.

3. Early identification of suspected and active TB patients can initiate prompt treatment and prevent transmission of the disease. This is the most effective method for controlling the spread of tuberculosis, an Administrative Control. A suspected case of TB is defined as:
   a. A patient with unexplained cough, cough with bloody sputum, and/or a cough lasting longer than 3 weeks
   b. A patient with unexplained fever, night sweats, weight loss and anorexia
   c. Readmission of patients recently diagnosed with Tuberculosis
4. A high index of suspicion for Tuberculosis should be maintained for the following
   a. Patients requiring high-risk procedures such as aerosolized pentamidine and sputum induction for Acid Fast Bacilli (AFB)
   b. Patients who belong to a group with a higher prevalence of TB infection: medically under-served, foreign born from a developing country, homeless, current or past justice involved , alcoholic, injecting drug-user, elderly, or extended contact with an active TB case.
   c. Patients who belong to a group with a higher risk to progress from latent TB to active disease: immunocompromised (HIV, organ transplant, or on high dose steroids), silicosis, status post gastrectomy or jejuno-ileal bypass surgery, >10% below body weight, chronic renal failure, diabetes mellitus, infected within past two years, or child >5 years old.
5. In outpatient areas where patients with undiagnosed Tuberculosis may be present, precautions must be taken to minimize the risk of transmission.
   a. Instruct patients to cover their mouths with a handkerchief or tissue, and give them a surgical mask to wear. Tissues and masks must be readily available in the waiting areas.
   b. Questionnaires will be utilized in all outpatient areas and Emergency Department to assist in the early identification of suspected cases.
   c. Patients with symptoms suggestive of Tuberculosis will be removed from the common area and placed in a designated waiting area.

d. Patients unable to wear a mask can be placed outside with appropriate supervision until an appropriate room is available.

6. For departments in main hospital building without a built in negative pressure room, staff ~~shall~~**can** obtain a HEPA **filter** (recirculator) from the Engineering department to enhance circulation in the exam or treatment room.~~ to be used by the patient.~~ Contact Engineering for placement assistance. Please note: The patient must be placed in an AIIR room within 5 hours of identification.
   a. Staff wear N95 particulate respirators and visitors wear surgical masks when entering this area.
   b. If the patient is suspected or known to have infectious TB, the room must remain vacant per **Section M: Room Shut Down Time.** The door is to remain closed and the filter running.
   c. Personnel may enter the area but must continue to wear respiratory protection until the time has lapsed.
7. For off-site areas, the patient will be asked to wear a surgical mask while inside the building.
8. Any possibility of TB as a diagnosis should be communicated by telephone to other departments, prior to transporting the patient to those areas.
9. Patients seen in the ED with confirmed or suspected ~~P~~**p**ulmonary ~~or Laryngeal~~ TB **are masked and placed in C-26, a negative pressure room. Staff must wear an N95 respirator when entering the room.**
   a. **These patients** might require hospitalization to control the spread of infection. **Patients confirmed or suspected with pulmonary TB, will be masked if transporting throughout the facility.**
   ~~b. Emergency Department rooms should remain closed per Section M: Room Shut Down Time.. Personnel may enter the room before this time has lapsed but must wear an appropriate respirator.~~

H. MANAGEMENT OF HOSPITALIZED PATIENTS WHO MAY HAVE ACTIVE TB:

1. Staff who are the first points of contact should ask questions that will facilitate identification of patients with signs and symptoms suggestive of TB. See the Admission Assessment Patient History form>TB Screening form>to assess for TB risk factors and symptoms.
2. Upon identification of a patient with active or suspected Tuberculosis, the nurse must place the patient in an AIIR (i.e. negative pressure room: C-26, 143, 243, 287, 387, 443, 487, Maternal Child room 200, 201and Progressive Care Unit (PCU) Rooms 301, 312 and 326,) The door must be closed ~~and the HEPA filter running~~. Post the Airborne Precautions sign outside the room.

~~a.~~3. If a ~~designated~~**negative pressure** room is not available, ~~notify the charge nurse and the bed coordinator~~**Administrative Supervisor** of the need for an Airborne Precautions room. ~~Remove any roommates and call~~**Contact** Engineering for ~~the~~**a** HEPA filter **for the current room, until a negative pressure room is available.**. Keep the door closed and post the Airborne Precautions sign. Staff wear N95 particulate respirators and visitors wear surgical masks when entering this room. **Please note: The patient must be placed in an AIIR room within 5 hours of identification.**

4. **Cohorting TB patients:**

~~b.~~ **a.** Patients with TB must not be placed together in the same room unless they have culture- confirmed TB, have drug susceptibility test available on current specimens obtained during the present hospitalization, have identical drug susceptibility patterns on these specimens and are on effective therapy.

~~3.~~ **5.** Reporting:
   a. The Unit Secretary notifies Engineering (by placing a worker order) that an Airborne Precautions room is in use for tuberculosis.
   b. On weekends and holidays, the ~~charge nurse or the primary nurse~~**Case Manager** will notify the **County Public Health TB Control** ~~Public Health Nurse~~ by calling ~~cell~~ phone number (619) 540-0194. Go to http://www.sdcounty.ca.gov/hhsa/programs/phs/documents/TB-

216TBSuspectCaseReport.pdf for a copy of the report.

c. Laboratory Results: Hospitals and staff are required by law to report TB to protect the public. This must be done within one day of identification of the case or suspected case.

d. The Microbiology department will notify the nursing unit and the Infection Preventionist of a positive AFB smear or culture results. A fax report of all positive AFB smears and cultures ~~is~~**are** sent to ~~the~~ Public Health **TB Control**.

e. The Infection Preventionist (~~x-7410 or~~ x 5696) or designee is responsible for reporting to public health. **County Public Health TB**~~Tuberculosis (TB) P~~**p**rogram ~~N~~**n**urses are available 8:00am to 5:00pm, 7 days a week and all holidays ~~on~~**at** ~~cell phone number~~ (619) 540-0194. TB ~~c~~**C**ontrol does not have personnel available between the hours of 5:00 pm and 8:00 am. Persons with routine questions ~~or questions~~ about TB exposure should call ~~phone number~~ (619) 692-8610 after 8:00am on the following day.

f. ~~Person wanting to~~**To** report a case of TB after 5:00pm ~~should~~ do one of the following:
   i. Call pager (619) 540-0194 after 8:00 am the following day to report directly to TB **Control** RN if they feel there is urgency about reporting; or
   ii. Leave a message on the ~~Tuberculosis~~**TB Control** RN voice mail (619) 692-8610 and their call will be returned on the next working week day. Message should include patient's name, date of birth, facility name, reporter's name and phone number, and contact person at facility who will be available for more patient information.

g. Persons requesting Discharge Approval should:
   i. Contact TB **Control** RN between 8:00am and 5:00pm

h. Physicians from emergency rooms requesting recommendations regarding patients they suspect may be infectious after 5:00pm, should do the following:
   i. If patient is homeless or from congregate setting (SNF, school dormitory, etc.) and has clinical picture consistent with TB, we recommend to admit and rule out infectiousness.
   ii. If patient has a home and is otherwise medically stable (not in need of admission) patient can be sent home, obtain one sputum for AFB smear and culture prior to release, start on medication if indicated. Direct caller to contact TB **Control** RN on phone number (619) 692-8610 after 8:00am on the following day.

i. Persons calling about patients who are leaving against medical advice (AMA):
   i. Have facility get as much locating information as possible on patient (including address/phone of relatives or friends)
   ii. Call intake RN between 8:00am and 5:00pm; after hours call 8:00am the next day
      ~~1) Go to http://www.sdcounty.ca.gov/hhsa/programs/phs/documents/TB-216TBSuspectCaseReport.pdf for the report form.~~

4. Staff (fit-tested and approved for use) will wear an N95 respirator when entering the patient's room. See the Respiratory Protection Program under the Employee Health & Wellness Policy Manual.
5. Pediatric patients with suspected or confirmed TB must be evaluated for potential TB according to the same criteria, as adults. Parents and other visitors of pediatric patients must be evaluated for TB as soon as possible. Until they are evaluated, they must wear surgical masks when in areas of the facility outside of the child's room.
6. Diagnostic and treatment procedures must be performed in the Airborne Precautions rooms to prevent transporting to other areas of the facility. If the procedure cannot be done in the isolation room, the patient must wear a surgical mask during transport. Procedures should be scheduled at times when they can be performed rapidly and when the areas are less crowded.
7. Limit the number of persons entering an isolation room to a minimum. All visitors (except staff who have been fit-tested for an N95 respiratory) wear a surgical mask when entering an Airborne Precautions room.
8. Facilities will verify airflow rates and negative pressures at the time the negative pressure room is established. Negative pressures will be verified daily and a log maintained by Facilities

department.

9. Cough-inducing procedures will not be performed on patients who have or may have active Tuberculosis unless the procedures are absolutely necessary and can be performed with appropriate precautions.
   a. The patient is in an Airborne Precautions room.
   b. The portable air filtration system has been set-up in a regular room.
10. Staff must wear respiratory protection (N95 respiratory or Powered Air Purifying Respirator-PAPR) when present in rooms or enclosures in which cough-inducing procedures are being performed on patients who are being ruled out for Tuberculosis. See High Hazard Procedures.
11. After completion of the cough-inducing procedures, patients who may have infectious Tuberculosis will remain in the Airborne Precautions room until the coughing subsides. (If transport is necessary, patient will be provided with a surgical mask to wear.) Outpatients will wear surgical masks until they are outside of the hospital.
12. Before the Pulmonary Function Testing room is used again, after the booth has been in use, the HEPA filter is kept on and the door to the room closed for 1.5 hours. Staff entering the room before the 1.5 hours are over will wear an N95 respirator. See High Hazard Procedures.
13. Bronchoscopy considerations
    a. The bronchoscopy room for all inpatient and outpatient procedures will be a negative pressure room. The air filtration system will remain in use whenever performed on a suspect TB patient. Respiratory protection must be worn. An N95 Respirator or Powered Air Purifying Respirator-PAPR must be worn by staff performing a Bronchoscopy on a suspect TB patient. The patient waiting for bronchoscopy will be provided a surgical mask and escorted to a non-communal waiting room.

I. ADDITIONAL CONSIDERATIONS FOR SELECTED AREAS:

1. Surgery/Peri-Anesthesia Nursing Services
   a. Postpone non-urgent or elective procedures on suspected/confirmed TB patients until the patient is no longer infectious.
   b. If procedures must be performed, they should be done in OR rooms with door closed and traffic at a minimum.
   c. Procedures should be done when other patients are not present in the operating suite e.g., end of day) and when minimum number of personnel are present. This applies to pulmonary and non-pulmonary surgical sites.
   d. Utilize the portable HEPA unit in the operating room during intubation and extubation. Turn off the HEPA unit during the procedure.
   e. For patients with known or suspected airborne infectious diseases staff must wear a N95 Respirator or Positive Air Purifying Respirator (PAPR). Order PAPRs from SPD (xt 7728)
      i. PAPRs cannot be used near the sterile field, wear N95 mask in place of PAPR.
   f. For additional information see Surgery Protocol for Active/Rule Out Tuberculosis (TB).
   g. Airborne Precautions are maintained in the Post Anesthesia Care Unit. Post-operative patients are placed in a private recovery room with a portable HEPA unit.

~~2. Autopsy Room~~
   ~~a. Due to the probability of the presence of infectious aerosols, autopsy rooms should be at negative pressure with respect to adjacent areas, with room air exhausted directly to the outside of the building. ASHRAE recommends that autopsy rooms have ventilation that provides 12 total air changes per hour (ACH).~~
   ~~b. Personnel performing autopsies on patients who may have had tuberculosis should wear respiratory protection (see high hazard procedures)~~
   ~~c. In-duct HEPA filtered air re-circulation or UVGI may be used as a supplement to the recommended ventilation.~~
   ~~d. The autopsy room should remain closed for one hour after the patient leaves to ensure 99.9% removal of contaminants. Personnel may enter the room before this time has lapsed but must wear an appropriate respirator.~~
   ~~Deaths caused by a known or suspected contagious disease constituting a public health hazard are reportable to the Medical Examiner's Office. Autopsy performed on these~~

~~cases will be performed by the Medical Examiner~~

~~3.~~2. Home Health Services
   a. Staff entering the home of a patient with confirmed or suspected TB or ATD should wear appropriate respiratory protection.
   b. The patient should be taught to cover mouth and nose with a tissue when coughing or sneezing.
   c. Educate patient regarding importance of taking medication (and administering directly observed therapy).
   d. Immunocompromised persons or young children living in home with TB patient should be temporarily relocated until patient is no longer infectious.
   e. Cough-inducing procedures should be performed on patients with infectious tuberculosis only if absolutely necessary. If their performance is required a well-ventilated area away from other household members should be used (for example, go outside or open a window). Staff will wear respiratory protection during the procedure
   f. Specific processes and procedures pertaining to ATDs in the home are found in the Home Health Care policy manual.

J. **DIAGNOSTIC EVALUATION:**
1. Diagnostic evaluation should include the following:
   a. Medical history and evaluation - The probability of TB is greater among patients who have positive PPD test results or a history of positive PPD results, who have previously had TB or who have been exposed to someone with TB, or who belong to a group at high risk for TB.
   b. Mantoux skin test (PPD skin test) – is placed by the specially trained staff and read at 48- 72 hours after injection. Results are to be documented in the Medical Record.
   c. QuantiFERON-TB Gold (QFT-G) test can be used in any situation a Mantoux PPD skin test is indicated. A positive result has the same significance as a positive PPD skin test, and neither a positive PPD nor a positive QFT-G by itself warrants Airborne Precautions.
   d. Chest radiograph - radiographic abnormalities that strongly suggest active TB include upper lobe infiltrates, particularly if the cavitations are seen, and patchy or nodular infiltrates in the apical or sub apical posterior upper lobes or the superior segment of the lower lobe. The MD may include the words "cavitary lesion", "granuloma disease" or "suspected tuberculosis" in the results.
   e. Microscopic examination and culture of sputum or other appropriate specimen. Three sputum specimens should be collected 8–24 hours apart, and at least one should be an early morning specimen, induced, or bronchoalveolar lavage (BAL).Although direct AFB smears are available in house, concentrated smears performed by our reference laboratory are preferred and are included with orders for a TB culture. Since neither a direct nor a concentrated smear has sufficient sensitivity to exclude a diagnosis of tuberculosis, cultures must also be ordered.
   f. Initiating Treatment: Patients who have confirmed active TB or who are considered highly likely to have active TB should be started promptly on appropriate treatment in accordance with the current guidelines.
   g. Drug susceptibility should be performed on all initial isolates from patients with TB.
   h. Contact Infection Prevention at Ext. 5696 ~~or 7410~~ for the latest recommendations.

K. **AIRBORNE PRECAUTIONS:**
1. Airborne Precautions can be discontinued as soon as the diagnosis of TB has been ruled out, when another diagnosis is confirmed, or when the patient is no longer infectious.
   a. Airborne Precautions can be discontinued:
      i. In a patient with active tuberculosis when the patient is on effective therapy, improving clinically, and has had three consecutive negative concentrate sputum AFB smears
      ii. In a patient with suspect tuberculosis as soon as the diagnosis of TB has been excluded by three negative AFB sputum smears taken 8-24 hours apart with at

least one from an early morning specimen, induced specimen, or BAL or when another diagnosis is confirmed

2. Continued isolation throughout the hospitalization should be considered for patients who have multi-drug resistant tuberculosis (MDR-TB) because of the tendency for treatment failure or relapse.

L. **DISCHARGE:**

1. Before leaving the hospital, TB patients must be approved for discharge by the Public Health Department. A discharge plan must include all of the following prior to approval from the TB Control Officer. TB Control can be contacted at: 619-692-8610 or 619-540-0194. ~~The Tuberculosis Discharge Care Plan form can be accessed at: http://www.sandiegocounty.gov/hhsa/programs/phs/documents/TB-273TuberculosisDischargeCarePlan2014.pdf Accessed 2/20/19~~
   a. Patients in the Progressive Care Unit (PCU): Specific notification(s) must be obtained prior to discharging justice involved patients:
      i. The Department of Health TB Control to the specific county in which the justice involved patient is residing.
      ii. The Public Health Department of the prison.
   b. For all other inpatient units:
      i. Three consecutive negative sputum smears from concentrate or approved living arrangements so that TB isolation can be maintained. For example, the accepting facility has an airborne precautions room available or the house and household contacts have been evaluated and cleared by the TB County public health nurse.
      ii. A confirmed outpatient appointment (date/time/place) with a provider (name and phone number) who will manage the patient's care until cured.
      iii. Sufficient medication to take until the outpatient appointment. Contact Pharmacy for assistance with take-home medications.
      iv. Placement into case management (e.g. DOT) or outreach programs of the public health department.
      v. The charge nurse, patients nurse or Case Manager, will notify the Public Health **TB Control** Department at (619) 692-8610 prior to the anticipated discharge and obtain approval.
      vi. Public Health requires at least two days prior to discharge to review the case. On weekends and holidays, obtain approval from the on-call TB County public health nurse at cell phone number (619) 540-0194
2. Cleaning of the room after a known or suspected TB patient is moved or discharged:
   a. If the suspected or confirmed TB patient was NOT in a negative pressure and HEPA filtered room:
      i. Post the Airborne Precautions sign and keep the door closed.
      ii. Call Engineering for a HEPA filter. To enter the room staff must wear an appropriate respirator (i.e. N95 or PAPR). Plug in the filter, turn it on and close the door. Post a sign that specifies the appropriate time period from the table below. Staff may enter the room during this time (i.e. to clean) but must wear an N95 respirator until the time period has elapsed. After the time period has ended, discontinue Airborne Precautions and return the HEPA filter to Engineering.

M. **ROOM SHUT DOWN TIME:**

1. Keep the Airborne Precautions sign posted
2. Leave the HEPA filter running with door closed for specified time. Post a sign that specifies this time period.
   a. AIIR Negative Pressure Room

AIIR/Negative Pressure Rooms	Length of Time AIIR Negative Pressure Room is Closed

ED-C26, 143, 243, 443, 287, 387, 487, NICU	30 min
Bronchoscopy, 200, 201	1 hour
PCU 301, 312, 326	2 hrs

b. Non-Negative Pressure room

Location in Non-Negative Pressure Rooms	Length of Time Non-Negative Pressure Room is Closed
Surgery	30 min
1N/S, MCH, Pavillion, East/West Tower, Radiology/MRI/CT, ED	1 hour
PCU 3N/S	2 hours

3. Staff may enter the room during this time (i.e. to clean) but must wear an N95 respirator until the time period has elapsed.
4. After the time period has ended, discontinue Airborne Precautions.
5. If the patient is no longer infectious or TB has been ruled out: No special precautions needed. The door may be immediately opened and the room cleaned as usual.

N. **ANNUAL TUBERCULOSIS SCREENING:**

1. Auxiliary and Employees: See the Employee Health & Wellness Policy Manual: TB Surveillance and Respiratory Protection policies.
2. Physicians: the Medical Staff Office sends an annual screening survey to each physician on staff. PPD testing for physicians is required and available in Work Partners. It is highly recommended that all active medical staff be fit-tested upon hire and annually.

O. **AEROSOL TRANSMISSIBLE DISEASE CONTROL EXPOSURE DETERMINATION:**

1. A list of all job classifications in which employees have occupational exposure is available in the Employee Health & Wellness Policy Manual: Respiratory Protection Program (see Appendix C).

P. **ISOLATION PRECAUTIONS:**

1. Standard Precautions and Transmission based precautions including cough etiquette, Airborne Precautions, Droplet Precautions and Contact Precautions are outlined in the Infection Control Manual: Standard and Transmission based Precautions (IC.5), Type and Duration of Precautions for Selected Infections and Conditions (IC.5.1); Pregnant staff (IC.5.2).

Q. **HIGH HAZARD PROCEDURES:**

1. High hazard procedures include but not limited to
   a. Intubation and Extubation
   b. Sputum Induction
   c. Endotracheal & Tracheostomy Tube Care
   d. Bronchoscopy
   e. Pulmonary Function Tests
   f. Aerosolized administration of pentamidine or other medication
   g. Autopsy
2. For patients with known or suspected Droplet infectious diseases staff must wear an N95 respirator.
3. For patients with known or suspected airborne infectious diseases staff must wear a N95 Respirator or Positive Air Purifying Respirator (PAPR) except in an operating room or procedure room during an invasive procedure where there is a sterile field wear a N95 mask.
   a. **Contact Materials for~~Order~~** PAPRs **supplies ~~from SPD (x7728)~~**
4. Although Cal OSHA requires PAPRs for high hazard procedures on suspect/confirmed airborne

disease patients, CDPH does allow the use of N95 Respirators instead of PAPRs if it interferes with the successful performance of the task or the procedure is performed with the patient in a ventilated enclosure.

R. **SOURCE CONTROLS AND ENGINEERING CONTROLS IN SPECIFIC HOSPITAL AREAS:**

1. Throughout the facility cough etiquette is used in waiting areas. Signs with instructions are posted in these areas in Spanish and English. Patients are provided tissues and are asked to wear surgical masks to prevent droplets from disseminating into the environment. Alcohol hand hygiene solutions are made available for patient use. Bilingual signs are posted in waiting areas instructing patients to "Cover your cough."
2. Emergency Department
   a. Engineering Controls during a surge of patients with ATD is addressed in the TCHD Infection Control Policy IC15.0 Influx of Infectious Patients: *Epidemic Influenza or other respiratory transmitted disease.*
   b. At the point of triage, ED staff shall screen and identify patients with symptoms of ATD and implement source control by placing a surgical mask on the patient and asking the patient to keep the mask on during their visit. If the patient cannot tolerate a surgical mask, tissues shall be provided and patients shall be instructed to cover their cough.
   c. Staff wears PAPRs or N95 Respirator during high hazard procedures (listed above) for disease spread by the airborne route.
   d. N95 respirators or PAPRs are used during patient contact for diseases spread by airborne route.
   e. Surgical masks are used during patient contact for diseases spread by the droplet route. N95 mask is used by staff during high hazard procedures for disease spread by the droplet route.
   f. Patients with diseases known to be transmitted by the airborne route, including novel viral infections, will be prioritized for AIIR C-26.
   g. When room C-26 is not available a private room is used.
   h. When there are no private rooms available, patients are asked to keep their mask in place and use tissues to prevent droplet aerosolization.
   i. Patients may be cohorted in designated rooms or bays when indicated.
   j. Patients suspected of having ATDs are provided with disposable nebulizer units with expiratory filters or multi-dose inhalers as clinically indicated.
   k. There are no special environmental cleaning recommendations for TB or r/o TB patients.
   l. Rooms shall be cleaned between patients using the hospital approved disinfectant.
   m. When used for a patient with ATD, room C-26 shall remain empty with Airborne Precautions sign posted and door closed for 30 minutes prior to being used by another patient.
3. Nursing Units
   a. Patients who are admitted with airborne transmissible diseases are admitted to AIIRs on nursing units.
   b. Airborne Precautions are initiated and followed in accordance with CDC recommendations for Transmission Based Precautions. ~~A TB quicklook is posted outside each AIIR for step by step instructions on initiating and maintaining proper airflow.~~
   c. Doors are kept closed.
   d. Patients in Droplet precautions do not need AIIRs for routine care. However, high hazard and cough inducing procedures performed as part of the clinical care of patients in both Airborne and Droplet Precautions will be done in AIIR. See chart above for selection on type of respirator.
   ~~e. Portable HEPA filtration units can be used to facilitate AIIR. Engineering installs and maintains these devices. Place a work order for installation and monitoring.~~
   ~~f.~~e. AIIRs shall remain empty with Airborne Precautions sign posted and door closed for designated time when a patient with airborne transmissible disease has occupied the room. (See Room Shut Down Time)

4. Pulmonary Services
   a. Bronchoscopy for patients in Airborne or Droplet Precautions will be performed in an AIIR.
   b. N95 respirators or PAPRs are used during Bronchoscopy.
   c. In areas where AIIR is not available, aerosolized medications are administered using disposable nebulizer units with expiratory filters or multi-dose inhalers as clinically indicated.
   d. Aerosolized medications may be administered using traditional routes while the patient is in an AIIR. The staff should wear an N95 or PAPR during this treatment (see High Hazard Procedures).
   e. Bronchoscopy suite will remain closed for the designated time when procedure is performed on a patient with known or suspected ATD.
   f. Expiratory filters are used for intubated patients with known or suspected ATD during transport.
5. **Women and Newborn**~~Maternal Child Health~~ Services (**WNS**~~MCH~~)
   a. Neonatal Intensive Care Unit (NICU)
      i. The NICU has a dedicated AIIR.
      ii. Neonates born to mothers with diseases known to be spread by airborne route are placed in the AIIR until the neonate is found to be non-infectious.
      iii. Prior to entering the unit, visitors are screened for signs of ADT and immunization history. Visitors are asked not to visit for duration of illness.
   b. Labor and Delivery~~ and Maternal Child Health~~
      i. **Operating Room Suites**~~Labor rooms~~ may have portable HEPA units installed for mothers who have suspected ATD.
      ii. Staff **are to** follow Standard and Transmission based Precautions as indicated using the appropriate N-95 respirators or PAPRs for Airborne Precautions.
      ~~iii. Rooms 200 and 201 are an AIIR and are used for MCH patients who require Airborne Precautions or need high hazard procedures.~~
6. Laboratory Services
   a. Methods of implementation for ATD exposure control in are found in the Laboratory Medicine Biosafety Plan.
   b. For respiratory protection in Laboratory Services: See Employee Health & Wellness Policy: Respiratory Protection Program Policy
7. Facilities Management Staff
   a. Facilities Management staff will wear N-95 respirators when entering an AIIR housing patient(s) with known or suspected ATD.
   b. N95 respirators are required when repairing, replacing, or maintaining air systems or equipment that may contain or generate aerosolized pathogens.
8. Personal Protective Equipment
   a. The respiratory protection program policy (Employee Health and Wellness Manual) describes requirements of PPE used for ATD protection in accordance with 29CFR1910.134 and CCR Title 8, section 5144.
   b. Respiratory Protection including N95 respirators or PAPRs is required in any hospital location in the following circumstances:
      i. Entering an Airborne Precaution Room that is occupied or has been recently occupied (refer to Section M: Room Shutdown Time) by a patient with suspected or known Airborne transmitted ATD.
      ii. Attending high hazard procedure
   c. Respirator Shortages
      i. In the event of reported shortages of N95 respirators the following is recommended (notification received from supplier but still able to meet historic usage):
         1) TCHD will maintain a cache of N95 respirators in accordance with the disaster plan.
         2) Materials Distribution staff will perform in-house inventory to determine

available stock and develop a timeline for inventory depletion.

3) According to available stock, N95 respirators will be prioritized for distribution to **areas**~~Pulmonary Services, ICU, and Emergency Department for use in~~**where** high hazard procedures **are performed**.
4) Re-use of N95 respirators **is acceptable** for known or suspected Tuberculosis patients over a 12 hour shift unless the respirator is contaminated (e.g. visibly soiled) or the integrity of the respirator is disrupted (e.g. torn, cracked nose piece).
5) Reuse of N95 respirators is acceptable during the care of patients with other ATD's under the following circumstances:
   a) A protective face shield (no surgical mask) is donned over the respirator to protect the respirator from contamination of ATD.
   b) The respirator integrity remains intact
   c) During the care of intubated and ventilated patients (closed circuit suction systems).

ii. In severe respirator shortages (less than 30 days of stock available in house, when supplier cannot meet the demand or can only supply an alternative N95) the following steps may be considered:
1) Prioritize available N95 for high hazard procedures.
2) Provide surgical grade masks for employees who are not provided a respirator due to the implementation of prioritized respirator use.
3) Contact Local Public Health Officer for possible acquisition of N95 respirators from local or state stockpiles.
4) Alternate manufacturer's respirators may be used in cases of tuberculosis and other airborne illnesses. Fit testing will be waived in a declared state of emergency.
5) Except during high hazard procedures, surgical masks may be used for H1N1 influenza.
6) PAPRs may be used.
7) The Infection Control Officer, Infection Preventionist, and the Safety Officer will determine if Internal Disaster Code Orange is warranted based on patient surge, physical and staffing resources.
8) When there is no option for providing N95 respirators, surgical masks will be provided to the employee.

iii. Positive Air Purifying Respirators (PAPRs)
1) PAPRs used for bronchoscopy are maintained in Respiratory Care Department.
2) SPD stores and maintains all other PAPRs.
3) Units are cleaned; disinfected using a hospital approved disinfectant and tested after each use.
4) Disposable hoods are used.

9. Admissions and transfers of patients with known or suspected airborne transmissible ATD:
   a. Airborne transmissible ATD suspect cases shall be identified, and the individuals shall be given disposable tissues, hand hygiene materials and the patient will be masked until an AIIR is available. Transfer to an AIIR shall be facilitated within five (5) hours of identification.
   b. If an AIIR is not available, patients shall be transferred to a facility with AIIR availability.
   c. If the physician determines that transfer to another facility AIIR would be detrimental to the patient's condition the patient need not be transferred. In this case, employees will use N95 respirators when entering the room or area housing the individual. The patient's condition will be reassessed every 24 hours to determine if transfer is safe and the determination shall be documented.
10. Influenza Season
   a. From November 1 to March 31, all employees, volunteers, contract workers or others covered under the ATD standard must wear a standard surgical mask while on duty ~~in~~

~~the hospital~~ **as directed by the facility**. This requirement does not apply to anyone who has received the current influenza vaccine as recommended by the County of San Diego Public Health and Centers for Disease Control and Prevention.

b. The enforcement dates are subject to change based on the recommendations of the hospital's Infection Control Committee.

c. Non-compliance with this requirement is subject to discipline as outlined in the hospital's Human Resources policy.

S. **MEDICAL SERVICES:**

1. Vaccinations are offered to employees free of charge (Employee Health and Wellness Manual: Immunization Policy).
2. Medical Services shall be provided to employees who have occupational exposure to ATDs.
3. Medical Services may include vaccinations, tests, examinations, evaluations, determinations, procedures and medical management and follow-up.
4. Medical Services shall be conducted in accordance with EHS policies.

T. **TRAINING:**

1. Training is provided during the New Employee Orientation Process and annually through computer based education modules.
2. Opportunity is provided for questions to be answered by an infection control professional.
3. Respirator Fit testing
   a. Medical screening and training is performed in accordance with Employee Health and Wellness Manual: Respiratory Protection Program.

U. **REVIEW SCHEDULE:**

1. The ATD plan will be reviewed annually by the Infection Control Committee.
2. Employees will assess the effectiveness of the program in their respective areas annually during the Annual Work Survey and deficiencies will be corrected

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

1. Active/Rule Out Tuberculosis (TB) Surgery Protocol
2. Criteria for Infectiousness and Placement In High Risk Setting Table (PCU Unit Only)
3. Employee Health and Wellness Policy: Immunization
4. Employee Health and Wellness Policy: Respiratory Protection
5. Infection Control Policy: Risk Assessment and Surveillance Plan
6. Infection Control Policy: Epidemiologic Investigation of a Suspected Outbreak
7. Infection Control Policy: Healthcare Associated Infections, Defined
8. Infection Control Policy: Standard and Transmission-Based Precautions
9. Type and Duration of Precautions - Disease Specific
~~9.~~**10. Infection Control Policy: Ebola Plan**

W. **REFERENCE(S):**

1. Centers for Disease Control & Prevention, Guidelines for Preventing the Transmission of Mycobacterium Tuberculosis In Health Care Settings, 2005. MMWR 2005; 54 (No RR-17). .
2. Centers for Disease Control & Prevention, Guideline for Environmental Infection Control in Health Care Facilities, 2003 (last updated 02/15/2017)
3. Centers for Disease Control & Prevention H1N1 guidance, Seasonal Influenza and vaccine Guidance https://www.cdc.gov/flu/professionals/index.htm, Accessed 2/14/19
4. California Department of Public Health, Occupational Health Branch. (2015, August). Respirator Selection Guide for Aerosol Transmissible Disease. https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/OHB/CDPH%20Document%20Library/HCResp-ATD-RespSelectGuide.pdf ~~Accessed 2/14/19~~
5. **CDPH Ebola Virus Disease for Healthcare Professionals https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/EbolaHealthProfessi**

onals.aspx
~~4.~~
~~5. California Department of Public Health: January 20, 2015 Interim Guidance on Personal Protective Equipment (PPE) to be used by Healthcare Workers in the Inpatient Hospital Setting during Management of Patients with Suspected or Confirmed Ebola Virus Disease in California.~~
6. ~~https://www.calhospital.org/sites/main/files/file-attachments/cdph---ppe-guidance-for-management-of-ebola-patients-in-an-inpatient-setting--final-1-20-2015-posted.pdf Accessed 2/14/19~~
7. Respiratory Hygiene/Cough Etiquette in Healthcare Settings www.cdc.gov/flu/professionals/infectioncontrol/resphygiene.htm ~~Accessed 2/14/19~~
~~8. OSHA Directive CPL 02-02-078 dated June 30, 2015: Enforcement Procedures & Scheduling for Occupational Exposure to Tuberculosis. https://www.osha.gov/sites/default/files/enforcement/directives/CPL_02-02-078.pdf Accessed 2/14/19~~
~~9.~~**8.** CDPH: Cal-OSHA Aerosol Transmissible Diseases Standard, Title 8 CCR Section 5199 August 5, 2009 https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/OHB/Pages/ATDStd.aspx ~~Accessed 2/14/19~~
~~10.~~**9.** CDC: Tuberculin Skin Testing for TB dated May 11, 2016. https://www.cdc.gov/tb/publications/factsheets/testing/skintesting.htm ~~Accessed 2/14/19~~
~~11.~~**10.** Cadena, J. (2014) Tuberculosis and other Mycobacteria. In P. Grota (Ed.), *APIC Text of Infection Control and Epidemiology 4th Ed.*, 95:1-20.
~~12.~~**11.** Hospital Respiratory Protection Program Toolkit: U.S. Dept of Labor/CDC/OSHA/NIOSH. Dated May 2015. https://www.osha.gov/Publications/OSHA3767.pdf ~~Accessed 2/14/19~~
~~13.~~**12.** CDPH/CTCA: California **Adult**Tuberculosis Risk Assessment: **September 2018** ~~Adults June 2017~~ https://www.cdph.ca.gov/Programs/CID/DCDC/CDPH%20Document%20Library/TBCB-CA-TB-Risk-Assessment-and-Fact-Sheet.pdf ~~Accessed 2/14/19~~
~~14.~~**13.** CDPH Respirator Toolkit August 2015 (CDC, OSHA, NIOSH May 2015) page 16 https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/OHB/CDPH%20Document%20Library/HCResp-CARPPGuide.pdf ~~Accessed 2/14/19~~

ACTIVE/RULE OUT TUBERCULOSIS (TB)

Surgery Protocol

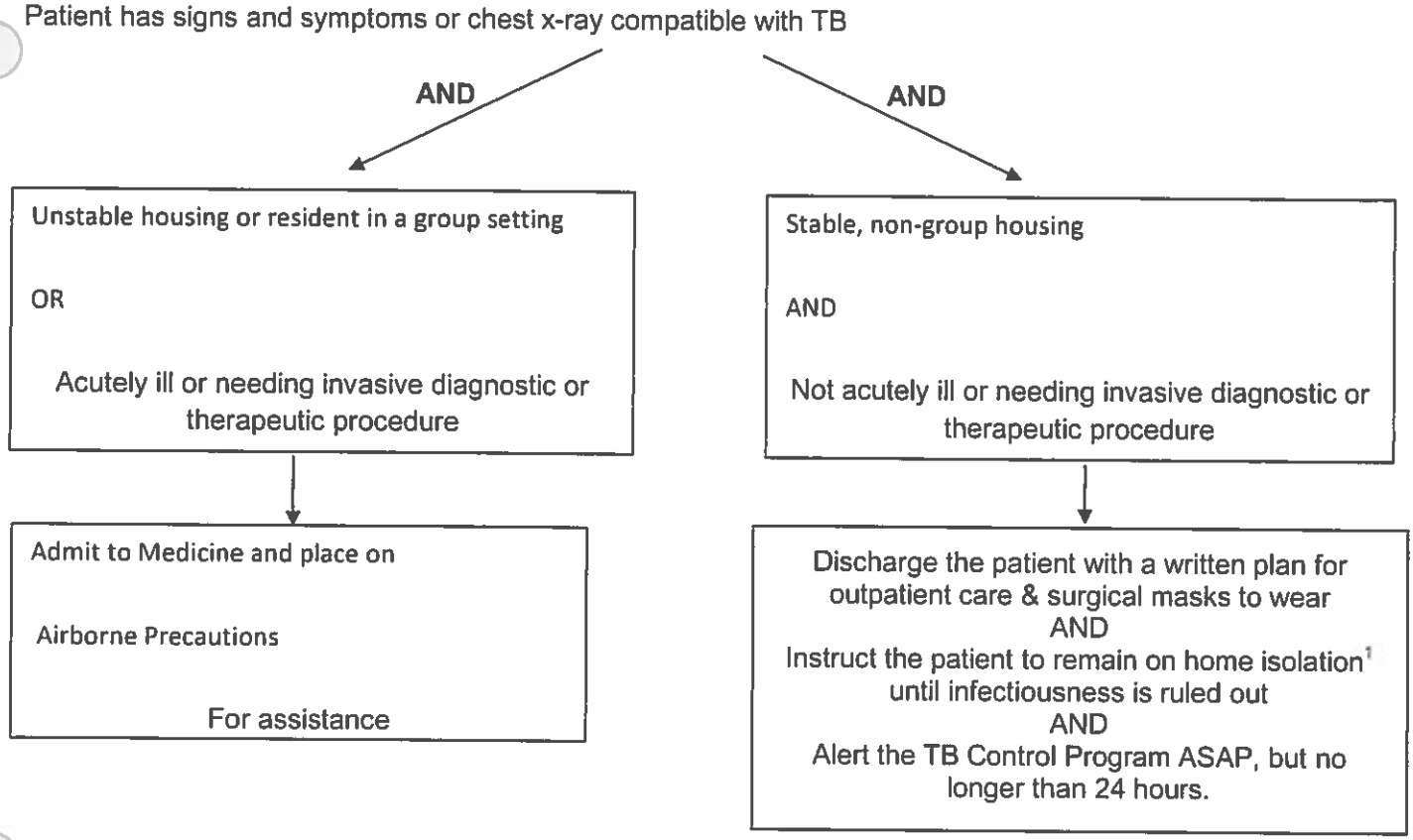
ADMINISTRATIVE CONTROLS	ENVIRONMENTAL CONTROLS	RESPIRATORY PROTECTION
• Postpone non-urgent procedures on suspected/confirmed TB patients until known to be non-infectious. • If necessary to proceed, schedule procedure as last case of the day, at low traffic times, whenever possible. **WHEN THE CASE IS SCHEDULED NOTIFY:** • Infection Control- (Lisa Mattia x5696) • POH (x5452) • PACU (x7264) • Engineering (x7148) of date/time of procedure to set up HEPA filters in OR and PACU • Anesthesia Charge to assure anesthesiologist has been fit tested and knows N95 size • Notify SPD to have five (5) PAPR units available • Notify pathology lab if TB specimens will be sent to lab. ***DAY BEFORE PROCEDURE, IF POSSIBLE:*** Assign staff and assure fit testing is completed and individuals know their N95 mask size. **DAY OF SURGERY:** • Obtain 3 Airborne Precaution Signs • Obtain five PAPR Units or N95 • Prior to transporting the patient to the OR, send OR RN to the patient's unit to pre-op patient and complete handoff report.	**PRE-OP:** • Admit patient directly to the OR from the floor/unit. Do not stop in POH. **OR:** • Notify Engineering (x7148) to place portable HEPA unit in OR, positioned near the patient's head. • Utilize the portable HEPA unit in the OR during intubation and extubation. Turn the unit OFF during the procedure. • Keep OR doors closed, minimize traffic in/out of room and in surrounding areas. • Display Airborne Precautions signs on all doors to OR. • Close all doors after leaving the OR and keep room vacant with HEPA filter running for **ONE (1) HOUR** after patient leaves room, then perform normal room turnover. • Notify Engineering (x7148) to remove HEPA unit. **POST-OP:** • Notify Engineering (x7148) to place portable HEPA unit in PACU cubicle. • Post Airborne Precautions signs on cubicle door. • Place patient in cubicle post-Op and keep cubicle door closed. • Close cubicle door after patient leaves and keep room vacant with HEPA filter running for **ONE (1) HOUR,** then perform normal room turnover. • Notify Engineering (x7148) to remove HEPA unit.	**PATIENT:** • Provide surgical mask for patient during transport. • Intubated patients: Anesthesiologist to place expiratory filter (from Anesthesia Workroom) on the ambu bag (at PEEP valve) during transport. **HEALTH CARE PROVIDERS:** • N95 Respirator or Powered Air Purifying Respirator (PAPR) required during intubation and extubation for the anesthesiologist and anyone assisting anesthesia at the head of the table. Order PAPR's from SPD (x7728). • *PAPR's are not to be used near the sterile field.* • Once the patient is intubated, all staff should wear N95 mask until the procedure is complete. • Fit testing for N95 mask must be completed each year. Healthcare providers who failed fit testing may not be scheduled in a sterile procedure with Airborne Precautions.

Criteria for Infectiousness and Placement In High Risk Setting Table (PCU Unit Only)

CATEGORY	SETTING	CRITERIA
TB suspect - Not on treatment for suspect active TB	PCU	3 consecutive respiratory specimens, including one early AM or induced sputum, or BAL, collected at least 8 hours apart, are AFB smear negative
TB case or suspect on treatment for active TB -AFB smear positive -No risk factor for MDR-TB	PCU	1. 3 consecutive respiratory specimens, including one early AM or induced sputum, or BAL, collected at least 8 hours apart, are AFB smear negative 2. At least 14 daily doses of treatment for TB, preferably by directly observed therapy (DOT), taken and tolerated; and 3. Clinical improvement
TB case or suspect on treatment for TB -AFB smear negative X3 -No risk factor for MDR-TB	PCU	At least 5 daily doses of treatment for TB taken and tolerated
TB case or suspect on treatment for TB -At increased risk for MDR-TB	PCU	1. Obtain direct genetic test, if available, for Rifampin resistance 2. If direct genetic test not available, while phenotypic DST for Rifampin is pending, other criteria for patients with known MDR-TB, or criteria for patients not at increased risk of MDR-TB, or criteria for patients not at increased risk of MRD-TB may be applied, at the discretion of the local TB controller
Known MDR-TB case	PCU	1. 3 consecutive respiratory specimens, including one early AM or induced sputum, or BAL, collected at least 8 hours apart, are AFB smear negative 2. At least 14 daily doses of treatment for TB, preferably by directly observed therapy (DOT), taken and tolerated; and 3. Clinical improvement 4. At least 2 consecutive negative sputum cultures without a subsequent positive culture

Reference: CDPH/CTCA (2005). Guidelines for the assessment of tuberculosis patient infectiousness and placement in high and low risk settings. California Department of Public Health and California Tuberculosis Controllers Association.

Criteria for Infectiousness and Placement In High Risk Setting Table (PCU Unit Only)



[1]Home isolation: Stay alone in a separate room with the door closed, as much as possible. Keep a window slightly open at all times. When alone in this room, you do not need to wear a mask. Please be sure to sleep and eat while alone in this room. Persons entering this room need to wear a mask. If you leave the room, you need to wear a mask. For example, when you use a shared bathroom or go to the doctor's office wear a mask.

TB Control in San Diego County is available 7 days a week from 0800 to 1700 only. Weekdays call TB Control at (619) 692-8610 and on Weekends and holidays call cell phone number (619) 540-0194 OR Leave a message on the Tuberculosis RN voice mail (619) 692-8610 and your call will be returned on the next working week day. Messages should include patient's name, date of birth, facility name, reporter's name and phone number, and contact person at facility who will be available for more patient information. Also leave a message at TCHD Infection Control: call ext. ~~7410 or~~ 5696

Tri-City Health Care District
Oceanside, California

Infection Control

ISSUE DATE: 10/07

SUBJECT: Mold Abatement

STANDARD NUMBER: IC. 13.3

REVISED DATE(S): 08/14, 08/17

Department Approval:	~~06/17~~05/20
Infection Control Committee Approval:	~~07/17~~05/20
Pharmacy and Therapeutics Approval:	n/a
Medical Executive Committee Approval:	~~07/17~~08/20
Administration Approval:	09/20
Professional Affairs Committee Approval:	~~08/17~~ n/a
Board of Directors Approval:	08/17

A. **INTRODUCTION:**

1. Molds and fungi can be found anywhere inside or outside throughout the year. About 1000 species of mold can be found in the United States with more than 100,000 known species worldwide. ~~Outdoors, molds play an important role in nature by breaking down organic matter such as toppled trees, fallen leaves, and dead animals. We would not have food and medicines, like cheese and penicillin, without mold.~~ When excessive moisture or water accumulates indoors, mold growth often will occur, particularly if the moisture problem remains uncorrected. While it is impossible to eliminate all molds and mold spores, controlling moisture can control indoor mold growth. Moisture control is the key to mold control. When water leaks or spills occur indoors - act promptly. Any initial water infiltration should be stopped and cleaned promptly. A prompt response (within 24-48 hours) and thorough clean- up, drying, and/or removal of water-damaged materials will prevent or limit mold growth.
2. Delayed or insufficient maintenance may contribute to moisture problems in buildings. Molds may cause localized skin or mucosal infections but, in general, do not cause systemic infections in humans, except for persons with impaired immunity, AIDS, uncontrolled diabetes, or those taking immune suppressive drugs.

B. **PURPOSE:**

1. The purpose of mold remediation is to correct the moisture problem and to remove moldy and contaminated materials to prevent human exposure and further damage to building materials and furnishings. Porous materials that are wet and have mold growing on them may have to be discarded because molds can infiltrate porous substances and grow on or fill in empty spaces or crevices.

C. **PROCEDURE:**

1. Infection Preventionist ~~and Environment of Care~~**Safety** Officer **and Manager of Facilities** will:
   a. Provide consultation during water damage remediation and mold abatement.
   b. Inspect abatement areas for compliance with recommended practices.
   c. Review indication for environmental cultures or volumetric air sampling.
2. **Facility** Engineering staff will:
   a. Participate in training process for mold remediation activities and construction barrier containment.
   b. Follow remediation precautions as outlined in this plan.
   c. Notify Infection Preventionist and Safety Officer about water intrusion and remediation.
   d. Follow procedure for containment found in Infection Control Construction Permit: **ICRA**
   e. Coordinate the remediation of the mold by trained staff,

f. Wear the appropriate PPE during remediation.
g. Assess the extent of mold contamination for appropriate remediation activity level.

3. Mold Remediation/Cleanup Methods
   a. A variety of cleanup methods are available for remediating damage to building materials and furnishings caused by moisture control problems and mold growth. The specific method or group of methods used will depend on the type of material affected. Water damaged areas should be dried within 48-72 hours of water exposure. It is recommended that dehumidifiers be used for this purpose because fans can cause aerosolization of mold spores. Some methods that may be used include the following:
   b. Wet Vacuum - can be used to remove water from floors, carpets, and hard surfaces where water has accumulated. They should not be used to vacuum porous materials, such as gypsum board. Wet vacuums should be used only on wet materials, as spores may be exhausted into the indoor environment if insufficient liquid is present. The tanks, hoses, and attachments of these vacuums should be thoroughly cleaned and dried after use since mold and mold spores may adhere to equipment surfaces.
   c. Damp Wipe - Mold can be removed from nonporous surfaces by wiping or scrubbing with a hospital approved disinfectant. It is important to dry these surfaces quickly and thoroughly to discourage further mold growth.
   d. HEPA Vacuum - HEPA (High-Efficiency Particulate Air) vacuums are used for final cleanup of remediation areas after materials have been thoroughly dried and contaminated materials removed. HEPA vacuums also are used for cleanup of dust that may have settled on surfaces outside the remediation area. Care is taken to assure that the filter is properly seated in the vacuum so that all the air passes through the filter. When changing the vacuum filter, wear N-95 respirators, appropriate personal protective clothing, gloves, and eye protection to prevent exposure to any captured mold and other contaminants. The filter and contents of the HEPA vacuum must be disposed of in impermeable bags or containers in such a way as to prevent release of the debris.
   e. Disposal of Damaged Materials - Building materials and furnishings contaminated with mold growth that are not salvageable should be placed in sealed impermeable bags or closed containers while in the remediation area. These materials can usually be discarded as ordinary construction waste. Large items with heavy mold growth are covered with polyethylene sheeting and sealed with duct tape before being removed from the remediation area.
   f. Use of Biocides - The use of a biocide, such as chlorine bleach, is indicated when immuno-compromised individuals are present. A dilution of 500 ppm is recommended for this purpose (dilution to attain this concentration is 1 part bleach to 100 parts water). Containers shall be labeled appropriately and discarded after use. When you use biocides as a disinfectant or fungicide, always ventilate the area well and apply appropriate PPE, including respirators.
   g. Never mix chlorine bleach solution with other cleaning solutions or detergents that contain ammonia because this produces highly toxic vapors and create a hazard to workers.

4. Mold Remediation Guidelines
   a. Level I: Small Isolated Areas (10 sq. ft or less) - e.g., ceiling tiles, small areas on walls.
      i. Install Infection Control Containment. Containment level to be determined by the ~~infection control officer~~ **Infection Preventionist** and Eengineering supervisor.
      ii. Trained workers conduct remediation, coordinated and supervised by the Engineering department. The staff is trained on proper clean-up methods, personal protection, and potential health hazards.
      iii. N-95 disposable respirators are used. Gloves and eye protection are worn.
      iv. Contaminated materials that cannot be cleaned are removed from the building in a sealed impermeable plastic bag. These materials are disposed of as ordinary waste.
      v. The work area and egress area are cleaned with a damp cloth or mop and a hospital approved disinfectant.

vi. ~~v~~All areas are left dry and visibly free from contamination and debris.

b. Level II: Mid-Sized Isolated Areas (10-30 sq. ft.) – e.g., individual wallboard panels.
   i. Install Infection Control Containment. Containment level to be determined by the **Infection Preventionist**~~infection control officer~~ and **E**engineering supervisor.
   ii. Trained workers conduct remediation, coordinated and supervised by the Engineering department. The staff is trained on proper clean-up methods, personal protection, and potential health hazards.
   iii. N-95 disposable respirators are used. Gloves and eye protection are worn.
   iv. Surfaces in the work area that could become contaminated are covered with a secured plastic sheet(s) before remediation to contain dust/debris and prevent further contamination.
   v. Dust suppression methods, such as misting (not soaking) surfaces prior to remediation, are used.
   vi. Contaminated materials that cannot be cleaned are removed from the building in a sealed impermeable plastic bag. These materials are disposed of as ordinary waste.
   vii. The work area and egress areas are HEPA vacuumed and cleaned with a damp cloth or mop and a detergent solution.
   viii. All areas are left dry and visibly free from contamination and debris.

c. Level III: Large Isolated Areas (30 –100 square feet) – e.g., several wallboard panels.
   i. The following procedures may be implemented depending upon the severity of the contamination:
      1) Install Infection Control Containment. Containment level to be determined by the **Infection Preventionist**~~infection control officer~~ and **E**engineering supervisor.
      2) Trained workers conduct remediation, coordinated and supervised by the Engineering department. The staff is trained on proper clean-up methods, personal protection, and potential health hazards.
      3) N-95 disposable respirators are used. Gloves and eye protection are worn.
      4) Surfaces in the work area and areas directly adjacent that could become contaminated should be covered with a secured plastic sheet(s) before remediation to contain dust/ debris and prevent further contamination.
      5) Seal ventilation ducts/grills in the work area and areas directly adjacent with plastic sheeting.
      6) Dust suppression methods, such as misting (not soaking) surfaces prior to mediation, are used.
      7) Contaminated materials that cannot be cleaned are removed from the building in sealed impermeable plastic bags. These materials may be disposed of as ordinary waste.
      8) The work area and surrounding areas should be HEPA vacuumed and cleaned with a damp cloth or mop and a detergent solution.
      9) All areas should be left dry and visibly free from contamination and debris.
      10) Note: If abatement procedures are expected to generate a lot of dust (e.g., abrasive cleaning of contaminated surfaces, demolition of plaster walls) or the visible concentration of the mold is heavy (blanket coverage as opposed to patchy), it is recommended that the remediation procedures for Level IV be followed.

d. Level IV: Extensive Contamination (greater than 100 contiguous square feet in an area).
   i. Industrial hygienists or other environmental health and safety professionals with experience performing microbial investigations and/or mold remediation should be consulted prior to remediation activities to provide oversight for the project. The following procedures may be implemented depending upon the severity of the contamination:

1) Personnel trained in the handling of hazardous materials and equipped with:
   a) Full face piece respirators with HEPA cartridges, disposable protective clothing covering entire body including both head and shoes and gloves.
2) Containment of the affected area: Complete isolation of work area from occupied spaces using plastic sheeting and sealed with duct tape (including ventilation ducts/grills, fixtures, and other openings). The use of exhaust fan with HEPA filter to generate negative pressurization. Airlocks and decontamination room.
3) Removal of infants, persons having undergone recent surgery, immune-suppressed people, or people with chronic lung disease ie: asthma, hypersensitivity pneumonitis and severe allergies is recommended from surrounding work areas. All others may not need to be moved if contaminant practices effectively prevented mold from migrating from affected area.
4) Contaminated materials that cannot be cleaned should be removed from the building in sealed impermeable plastic bags. The outside of the bags should be cleaned with a damp cloth and a detergent solution or HEPA vacuumed in the decontamination chamber prior to their transport to uncontaminated areas of the building. These materials may be disposed of as ordinary waste.
5) The contained area and decontamination room should be HEPA vacuumed and cleaned with a damp cloth or mopped with a detergent solution and be visibly clean prior to the removal of isolation barriers.

5. Personal Protective Equipment (PPE)
   a. Gloves are used to protect the skin from contact with mold and disinfecting agents. Long gloves that extend to the middle of the forearm are recommended.
   b. Eye Protection:
      To protect your eyes, use properly fitted goggles or a full face piece respirator. Goggles must be designed to prevent the entry of dust and small particles. Safety glasses or goggles with open vent holes are not appropriate in mold remediation.
   c. Respiratory Protection - N-95 disposable respirators are available for use during Level I through Level III remediation procedures. It is recommended that during Level IV remediation procedures utilize PAPR units.
   d. Protective Clothing
   e. Disposable PPE should be discarded after it is used. They should be placed into impermeable bags, and usually can be discarded as ordinary construction waste.
6. Sampling for Mold - Air sampling is not a necessary part of a routine assessment because decisions about appropriate remediation strategies often can be made on the basis of a visual inspection. The Medical Director of Infection Prevention and Control will be consulted when air sampling is considered.
7. Moisture Meters - Moisture meters measure/monitor moisture levels in building materials, and may be helpful for measuring the moisture content in a variety of building materials following water damage. Moisture content ≤ 20% as determined by moisture meter readings is considered to be acceptable.

D. **REFERENCE(S)**:

1. Centers for Disease Control and Prevention, Healthcare Infection Control Practices Advisory Committee (HICPAP) Guideline for Environmental Infection Control in Healthcare Facilities, 2003.**(Updated July 2019)**
2. **CDC: Mold https://www.cdc.gov/mold/default.htm (accessed 5-6-2020)**~~U.S. Department of Labor Occupational Safety and Health Administration, A Brief Guide to Mold in the Workplace (SHIB 03-10-10) updated August 13, 2011.~~
~~2.~~3. **ASHRAE: Position Document on Limiting Indoor Mold & Dampness in Buildings: June**

27, 2018

Tri-City Medical Center	Women and Newborn Services Manual - NICU
PROCEDURE:	**PERIPHERALLY INSERTED CENTRAL CATHETERS AND MIDLINE CATHETERS, INSERTION OF**
Purpose:	To outline the procedure for the placement of p (PICC) in the neonate by a qualified PICC Reg
Equipment:	1. PICC kit 2. Appropriately sized catheter 3. 26-gauge autoguard introducer 4. Mask, cap, sterile gown, and sterile gloves 5. 1:1 heparinized normal saline 6. Transfer set
Issue date:	09/07

DELETE – incorporated into WNS NICU Procedure: PICC and Midline Catheters, Dressing Change, Maintenance, and Removal of

~~A. **POLICY:** **DELETE**~~

~~1. RN Requirements/Experience~~

~~a. There is an application and interview process for new PICC team members.~~

~~b. Must have a minimum of 2 years experience as a NICU RN at Tri-City Medical Center.~~

~~c. Must be a benefitted TCMC employee.~~

~~d. Must demonstrate proficiency in peripheral IV skills.~~

~~e. Must successfully complete a PICC Insertion didactic and laboratory practical course every 2 years.~~

~~f. Must schedule at least one 4 hour PICC on call shift per pay period~~

~~g. RNC NIC preferred.~~

~~2. Initial and Ongoing Competency Evaluation~~

~~a. Initial Competency Evaluation includes completion of three successful PICC placements under the direct supervision of PICC team coordinator or designee, within 6 months of didactic training completion.~~

~~b. Annual Competency Evaluation includes the completion of 4 successful PICC insertions per year (1 per quarter), one of which will be proctored. If the PICC RN is unable to achieve 4 successful PICC insertions per year (1 per quarter), then demonstration of a PICC insertion will either be performed in a lab setting or through the completion of one successful PICC placement under the direct supervision of the PICC team coordinator or designee.~~

~~3. The medical team in collaboration with the PICC qualified RNs will determine the need for a PICC and discuss any special considerations/ contraindications including septicemia, thrombocytopenia or coagulopathy, decreased venous return, cardiac malformations or the presence of fractures or other musculoskeletal abnormalities prior to insertion.~~

~~a. Indications for PICC placement include but are not limited to:~~

~~i. Infants requiring venous access for long term (≥7 days) intravenous fluid/hyperalimentation or medications.~~

~~ii. Infants with poor vascular access.~~

~~iii. Caustic drug therapy.~~

~~iv. Infants less than 32weeks gestation or less than 1500 grams birth weight.~~

~~4. An informational handout will be provided to the parent or legal guardian. Questions will be answered or forwarded to the infant's physician or allied health professional (AHP).~~

~~5. The PICC qualified RN will notify the physician if complications occur during insertion including excessive bleeding from the site, bradycardia or cardiac arrhythmia, catheter embolism, or a failed PICC attempt.~~

Department Review	Perinatal Collaborative Practice~~Division of Neonatology~~	Pharmacy and Therapeutics	Medical Executive Committee	Administration	Professional Affairs Committee	Board of Directors
06/09, 06/16, **03/20**	10/16, **03/20**	02/17, **05/20**	03/17, **08/20**	**09/20**	04/14, 04/17, **n/a**	11/09, 06/11, 08/12, 04/14, 04/17

6. Maximal Barrier Precautions and sterile technique will be used at all times. Staff within 3 feet of the sterile field will wear a hat and mask.
7. Catheter placement will be verified by chest and/or abdominal x-ray immediately after the procedure. The PICC RN will make any necessary adjustments in catheter placement. Line placement will be verified on all subsequent x-rays.
8. PICC placement will be verified a minimum of every 2 weeks by X-ray.

B. **PICC PLACEMENT:**
1. Procedure:
   a. Verify informed consent has been obtained from parent or legal guardian and review PICC placement orders in EMR.
   b. Ensure that comfort is provided for the infant during the procedure. Refer to NICU "Pain Management" policy.
   c. Perform hand hygiene.
   d. Perform "time out" to verify patient and procedure. Confirm patient identity using two-identifier system. Refer to Patient Care Services "Identification, Patient" policy.
   e. Select vein to be cannulated for procedure.
   f. Measure the desired length of the catheter.
      i. For arm placement, measure from the insertion site up to the shoulder, across the chest to the top of the sternum and then down to the midpoint of the sternum (the third intercostal space).
      ii. For leg placement, measure from insertion site following vein track up to the xyphoid process.
   g. Position patient using developmentally supportive methods and immobilize the infant securely.
      i. Position patient with desired insertion site accessible.
      ii. For arm insertion, position the patient's head facing toward the insertion side with chin down, to prevent catheter insertion into the jugular vein.
   h. Restrict traffic near the sterile field.
   i. Don a mask, cap, and sterile gown. If assistant will enter the sterile field or reach over it, they will perform hand hygiene and also wear maximal barrier precautions (sterile gown, mask, cap, and sterile gloves).
   j. Open the PICC kit. Put on sterile gloves, set up, and drape a sterile work area. Cover the infant with a full-body sterile drape with only the involved skin area exposed.
   k. Prepare the involved skin area with three 2% chlorhexidine gluconate swabs per manufacturer's guidelines.
   l. Do not touch the part of the catheter to be inserted; use forceps to manipulate it. Check the catheter and insertion needle for defects.
   m. Fill two 10 mL syringes with 1:1 heparinized flush solution.
   n. Attach syringe and flush catheter with heparinized saline solution.
   o. Insert the introducer bevel up at a 15 °-30 ° angle into the skin a few millimeters before anticipated entry into the vein. Observe for blood return. Advance slightly then retract needle.
   p. Advance the catheter through the introducer with small forceps to thread it into the vessel to the pre-measured length. Apply pressure well above the tip of the introducer to stabilize the catheter during the removal of the introducer. Remove the introducer and pull the wings apart to break and remove them.
   q. Aspirate to verify blood return and flush with heparinized normal saline.
   r. Secure catheter at insertion site with sterile adhesive skin closure strip.
   s. Obtain an order for x-rays. Catheter placement is to be confirmed by x-ray and read by a physician or AHP prior to infusing fluids. It is optimal to have the infant's arms in a neutral, flexed position for the x-ray, (not raised above shoulder level).
   t. If catheter tip is not in the desired location, adjust catheter placement to desired location and confirm with follow-up x-ray.

u. Cleanse extremity of residual chlorhexidine gluconate with sterile water or normal saline.
v. Apply dressing by removing the skin prep with sterile water or normal saline and allowing to dry.
   i. Secure catheter at insertion site with sterile adhesive skin closure strip (if not already done).
   ii. Coil the external catheter in small concentric circles (avoid kinks) and secure with a second steri-strip.
   iii. Secure hub with sterile adhesive skin closure strip.
   iv. Place transparent dressing(s) over the insertion site, length of catheter and hub
w. Secure the exit site:
   i. Apply sterile adhesive skin closure strip using chevron technique (v-shaped pattern) and secure to skin above transparent dressing.
x. Begin infusion of IV fluids after proper placement is confirmed.
y. Document the procedure in the patient's medical record, including the Central Line Insertion Procedure (CLIP) form.

C. **REFERENCES:**

1. Gorski, L. et al. (2016). *Journal of Infusion Nursing: Infusion Therapy Standards of Practice.* Norwood, MA: Infusion Nurses Society
2. Verklan, T., Waldon, M. (2015). Core curriculum for neonatal intensive care nursing (5th ed.,pp. 290-299). St Louis, MO: Saunders
3. Wyckoff, M., Sharpe, E. (2015). Peripherally inserted central catheters: guidelines for practice (3rd ed.). Chicago, IL: National Association of Neonatal Nurses.
4.1. CPQCC quality improvement toolkit, hospital acquired infection prevention

PROCEDURE:	~~PERIPHERALLY INSERTED CENTRAL CATHETERS AND MIDLINE CATHETERS: DRESSING CHANGE, MAINTENANCE, AND REMOVAL OF~~ **CENTRAL LINE: INSERTION, MANAGEMENT, AND DISCONTINUATION OF**
Purpose:	~~To provide guidelines for dressing change, maintenance, blood sampling from, and removal of peripherally inserted central catheters (PICC) and midline catheters (MLC) in neonates.~~ **To provide a consistent approach to the insertion, use and management of central lines in the NICU.**
Equipment:	See each section for required equipment

A. INSERTION

1. UMBILICAL CATHETERS- Umbilical Artery Catheter (UAC) & Umbilical Venous Catheter (UVC)

a. EQUIPMENT

i. Umbilical catheter tray (check expiration date)
ii. 2% chlorhexidine gluconate swabs (for infants greater than or equal to 30wks)
iii. Povidone-Iodine swabs (for infants less than 30 weeks)
iv. Limb restraints
v. Umbilical catheter of appropriate size
vi. 0.45% Normal saline with heparin (1 unit/ml)
vii. A mask, hat and sterile gown and gloves for the physician and assistant
viii. Light source
ix. Transparent dressing to secure lines

b. PROCEDURE:

i. Ensure physician has obtained informed consent from parent or legal guardian.
ii. Perform hand hygiene and assemble equipment.
iii. Assess patient before procedure. Document any bruising or discoloration found before procedure begins.
iv. Place on radiant warmer, cardio-respiratory monitor and pulse oximeter.
v. Immobilize patient's extremities using developmental principles in a supine position.
vi. Position light source to illuminate umbilical area.
vii. Universal protocol: everyone involved participates in "time out" to verify patient and procedure.
viii. Monitor, patient's condition and vital signs throughout entire procedure. Notify physician of areas of blanching, dusky toes or legs, or change in temperature, color and pulse.
ix. During the procedure, *verify proper procedural practice by monitoring for appropriate hand hygiene, maximal sterile barriers, and skin preparation. Document this on the Central Line Insertion Practices Adherence Monitoring Tool (CLIP Form).*
x. Proper catheter tip placement must be verified by x-ray prior to use unless ordered by physician.
xi. Maintain sterility of area until notified by the physician that line placement is correct.
xii. Wipe off 2% chlorhexidine gluconate solution from skin using sterile normal saline wipes.
xiii. Note centimeter markings at the umbilicus before securing.

Department Review	Perinatal Collaborative Practice~~Division of Neonatology~~	Pharmacy and Therapeutics	Medical Executive Committee	Administration	Professional Affairs Committee	Board of Directors
06/09; 11/09; 06/11; 8/12; 12/14	12/14, 03/20	05/20	03/15, 08/20	09/20	04/15, n/a	04/15

xiv. Secure umbilical line by applying a hydrocolloid skin barrier to the side of the umbilicus, coil line with measurement markings visible on top of hydrocolloid dressing then secure in place with transparent dressing.
xv. Thirty minutes after procedure is complete, loosen the umbilical tie and observe for bleeding. The tie may be removed once hemostasis is ensured. Umbilical tie should be removed within four (4) hours of catheter insertion. Notify the physician/AHP if hemostasis is not achieved within 4 hours.
xvi. Document the procedure in the patient's medical record. Documentation of the procedure includes:
1) Date and time of insertion.
2) Size of the catheter.
3) Length of the catheter from insertion site to catheter tip.
4) X-ray reading of tip location
5) Completion of CLIP form.

~~A.~~2. PICC (Peripherally Inserted Central Catheter) Line/ ~~OR~~ MLC (Mid-Line Catheter)~~DRESSING CHANGE:~~

a. ~~Policy:~~ EQUIPMENT
i. PICC kit
ii. Appropriately sized catheter
iii. 26-gauge autoguard introducer
iv. Mask, cap, sterile gown, and sterile gloves
v. 1:1 heparinized normal saline
vi. Transfer set
vii. Transilluminator

b. PROCEDURE
i. Verify informed consent has been obtained from parent or legal guardian and review PICC placement orders in EMR.
ii. Ensure patient is comfortable during procedure. Refer to NICU "Pain Management" policy.
iii. Perform hand hygiene.
iv. Universal protocol: everyone involved participates in "time out" to verify patient and procedure.
v. Select vein to be cannulated for procedure.
vi. Measure the desired length of the catheter.
1) For arm placement, measure from the insertion site up to the shoulder, across the chest to the top of the sternum and then down to the midpoint of the sternum (the third intercostal space).
2) For leg placement, measure from insertion site following vein track up to the xiphoid process.
vii. Position patient using developmentally supportive methods and immobilize the infant securely.
1) Position patient with desired insertion site accessible.
2) For arm insertion, position the patient's head facing toward the insertion side with chin down, to prevent catheter insertion into the jugular vein.
viii. Restrict traffic near the sterile field.
ix. Don a mask, cap, and sterile gown. If assistant will enter the sterile field or reach over it, they will perform hand hygiene and also wear maximal barrier precautions (sterile gown, mask, cap, and sterile gloves).
x. Open the PICC kit. Put on sterile gloves, set up, and drape a sterile work area. Do not touch the part of the catheter to be inserted; use forceps to manipulate it. Check the catheter and insertion needle for defects.
xi. Fill two 10 mL syringes with 1:1 heparinized flush solution.
xii. Attach syringe and flush catheter with heparinized saline solution.

xiii. Cover the infant with a full-body sterile drape with only the involved skin area exposed.
xiv. Prepare the involved skin area with three 2% chlorhexidine gluconate swabs per manufacturer's guidelines.
xv. Insert the introducer bevel up at a 15 ° - 30 ° angle into the skin a few millimeters before anticipated entry into the vein. Observe for blood return. Advance slightly then retract needle.
xvi. Advance the catheter through the introducer with small forceps to thread it into the vessel to the pre-measured length. Apply pressure well above the tip of the introducer to stabilize the catheter during the removal of the introducer. Remove the introducer and pull the wings apart to break and remove them.
xvii. Aspirate to verify blood return and flush with heparinized normal saline.
xviii. Secure catheter at insertion site with sterile adhesive skin closure strip.
xix. MD to confirm catheter placement on x-ray prior to infusing fluids. It is optimal to have the infant's arms in a neutral, flexed position for the x-ray (not raised above shoulder level).
xx. If catheter tip is not in the desired location, adjust catheter placement to desired location and confirm with follow-up x-ray.
xxi. Cleanse extremity of residual chlorhexidine gluconate with sterile water or normal saline.
xxii. Apply dressing.
1) Secure catheter at insertion site with sterile adhesive skin closure strip (if not already done).
2) Coil the external catheter in small concentric circles (avoid kinks) and secure with a second steri-strip.
3) Secure hub with sterile adhesive skin closure strip.
4) Place transparent dressing(s) over the insertion site, length of catheter and hub
xxiii. Secure the exit site:
1) Apply sterile adhesive skin closure strip using chevron technique (v-shaped pattern) and secure to skin above transparent dressing.
xxiv. Document the procedure in the patient's medical record, including CLIP form.

B. CARE AND MAINTENANCE:

1. UMBILICAL CATHETERS:

a. EQUIPMENT
i. IV administration set and solutions
ii. Pressure transducer system (UAC only)
iii. Split septum T-connector , 3-way stopcock and neutral displacement connector (only if UVC secondary lumen is to be utilized for blood sampling)
iv. Mask, cap, sterile gloves
v. Padded hemostat

b. PROCEDURE
i. After verification of correct line placement, prime IV fluids and connect to the appropriate umbilical catheters using sterile technique (see central line tubing change below).
ii. Arterial catheters must be connected to a transducer at all times with the pressure waveform continuously displayed and appropriate alarm limits set (See attachment A for instructions on priming transducer set up).
1) Zero transducer at least once per shift & PRN.
2) The transducer should be kept at the level of the heart to maintain an accurate reading.

3) Monitor waveforms and blood pressure.
4) Correlate transducer blood pressure with peripheral blood pressure 1x/shift and PRN.

iii. If the secondary port of the UVC is to be utilized for blood sampling, attach a split septum T-connector to the catheter hub then place a three way stopcock between the split septum T-connector and the IV infusion set with a needleless adapter (neutral displacement connector) attached to the 3rd open hub to produce a closed system for blood sampling.

iv. Position and protect the administration set and the catheter to prevent accidental dislocation or removal of the catheter.

v. MD to assess line necessity daily and document in medical record (Central Line Justification Form).

vi. Observe:
1) That the hub is secure and that bending or twisting is not possible.
2) The site for redness, swelling, or drainage.
3) Perfusion of lower body, including the buttocks, presence and quality of lower extremity pulses, and any bleeding from umbilicus hourly while the umbilical catheter(s) remain in place.
4) Patient's skin color (noting any blanching, mottling, or dusky changes), temperature, and peripheral pulses distal to the catheter insertion site. If the skin discoloration is thought to be catheter related, apply warm compress to opposite extremity for fifteen (15) minutes and notify physician.
5) Entire IV setup, ensuring all connections are luer locked and tightened.

vii. Maintain an airtight system and do not allow air bubbles to infuse into the infant.

viii. Hourly site checks should be documented in the medical record and should include the following (notify MD as appropriate):
1) Description of site; any edema or circulatory compromise
2) Cm mark at umbilicus.
3) Description of dressing and occlusiveness.
4) Infusion rate and product
5) Clinical status of patient.

2. <u>PICC OR MLC:</u>

a. All primary fluids infusing through a PICC should be heparinized.
i. On double lumen PICC lines, the medication port is infused with normal saline/1u Heparin/mL or TPN at minimum of 0.5 mL per hour.
ii. Check all infusates for precipitates to reduce the risk of occlusion.

b. PROCEDURE:
i. Verify appropriate dextrose concentration is infusing (based on tip location) at the correct rate.
1) Central Catheter: up to 25% dextrose.
2) Midline Catheter: up to 12.5% dextrose.
ii. MD to assess line necessity daily and document in medical record (Central Line Justification Form).
iii. Assess, document and notify MD of (as appropriate) the following:
1) The hub is secure and bending or twisting is not possible.
2) The extremity has no redness, swelling, drainage, palpable cord, or blanching below the insertion site.
3) The tip location for signs of edema. For central placement, assess the chest and back, and for peripheral placement, assess the extremity or neck.

4) Entire IV setup, ensuring all connections are luer locked and tightened. Catheter intact without leaks.
5) The internal lumen of the IV tubing closest to the patient for evidence of fungal growth (white fluffy material).
6) Signs of increasing respiratory distress
7) Pallor, faint heart sounds, bradycardia, or progressive hypotension

iv. Hourly site checks should be documented in the medical record and should include the following (notify MD as appropriate):
1) Description of site, including any edema or circulatory compromise of the extremity.
2) Description of the area at tip location.
3) Description of dressing and occlusiveness.
4) Infusion rate and product, if not heparin locked.
5) Clinical status of patient.

c. Routines of Care:
i. The following routines of care may only be deviated from with a written physician's order.
1) Administration of medications following aseptic procedure through PICC or MLC.
~~2)~~ Blood products should not be infused through a PICC or MLC.
3) Never use a 1 mL syringe for IV push with a PICC or MLC. The pressure generated by a 1 mL syringe is excessive and may rupture the catheter.
4) Connect all lines with luer-locking devices to prevent accidental disconnection.

d. Suspected Occlusion:
i. Examine the entire length of the catheter and tubing for kinking, patency, or occlusion in isolette doors or other bedside equipment.
ii. Consider other causes:
1) A kink of the catheter under the dressing.
2) A leak in the catheter
3) Blood backing up.
4) Precipitate of infusate.
5) Fungal occlusion.
iii. For unexplained occlusions requiring removal of the catheter, send the catheter tip for culture per physician's/AHP order.
iv. Observe for leaks by checking the dressing for dampness or drainage of blood or IV fluid.
~~i.~~v. Clear a blood occlusion by infusing heparinized saline directly into the catheter with a 5 mL or larger syringe.

~~b.~~e. PICC or MLC Dressing Change:
i. The PICC or MLC dressing only needs to be changed when it has become excessively soiled, damp, loose, or non-occlusive. Give special attention when removing the old dressing to ~~Once any opening on the dressing exposes the site, sterility has been violated and the dressing must be replaced with a new occlusive dressing. Because the excess catheter is coiled and secured with transparent dressing, special attention must be given when removing the old dressing to avoid~~ dislodging the catheter as excess catheter is coiled and secured by transparent dressing.
ii. EQUIPMENT
1) PICC dressing change kit
~~a.~~2) Cap (2)
~~b.~~3) Mask (2)
~~c.~~4) Non-sterile gloves

~~d.~~5) Sterile gloves
~~e.~~6) Sterile towels
~~f.~~7) Adhesive skin closure strips
~~g.~~8) Transparent dressings (2)
~~h.~~9) 2% chlorhexidine gluconate swabs

iii. **PROCEDURE**:

1) **Perform hand hygiene.**
2) Perform hand hygiene.
3) Don mask, cap, and non-sterile gloves. Assistant also dons mask, cap, and gloves.
~~2)~~4) Organize supplies ~~utilizing dressing change kit as~~**on** sterile field.
5) Position patient using developmentally supportive methods and immobilize the infant securely. Have a second person hold the infant, if necessary.
~~3)~~6) Place the extremity with the PICC onto a sterile towel.
~~4)~~7) Remove **old dressing,** ~~the old transparent dressing carefully~~ taking care not to dislodge or tear the catheter. Peel the edges from the periphery to the insertion site. **Place one finger** ~~You should have a finger~~ over the insertion site (on top of the transparent dressing) at all times **while peeling up the dressing** to prevent the catheter from dislodging.
~~5)~~8) Change to sterile gloves.
9) Remove the adhesive skin closures carefully **only if soiled or no longer completely adhered to the skin.**~~.~~
~~6)~~10) Use chlorhexidine gluconate swabs to clean the area and remove any blood, allowing it to air dry for 30 seconds. Wipe skin with saline or sterile water and let dry.
~~7)~~11) Assess site for presence of erythema, edema, tenderness and/or drainage; assess integrity of catheter.
~~8)~~12) Note measurement at insertion site
~~9)~~13) Apply dressing:
   ~~a.~~a) Secure catheter at insertion site with sterile adhesive skin closure strip (if not already done).
   ~~b.~~b) Coil the external catheter in small concentric circles (avoid kinks) and secure with a second sterile adhesive skin closure strip.
   ~~c.~~c) ~~Cut sterile gauze to fit and place under hub to avoid skin irritation/breakdown.~~ Secure hub with sterile adhesive skin closure strip.
   ~~d.~~d) Place transparent dressing over the insertion site, length of catheter and hub
   ~~10) Secure the exit site:~~
~~11)~~14) Apply sterile adhesive skin closure strip using chevron technique (v-shaped pattern) and secure to skin above transparent dressing. Document the dressing change on PICC line documentation sheet and in the patient's medical record.
~~12)~~15) If **concerned that PICC catheter moved** ~~there is any question of PICC catheter movement~~ with the dressing change notify the MD **and obtain**~~,~~ AP and lateral chest x-rays ~~may be necessary~~ to confirm placement.

C. **OBTAINING BLOOD SPECIMENS:**

1. **UAC with VAMP Jr. transducer**
   a. **Confirm patient identity using two-identifier system.**
   b. **Perform hand hygiene.**
   c. **Don clean gloves.**

d. Close the distal shut off valve by turning the handle perpendicular to the tubing.
e. Slowly, smoothly and evenly pull up on the reservoir plunger to draw the required amount of clearing volume consistent with the patient's clinical condition and patient's size (approx. 1-2ml at a rate of 1ml every 10-15 seconds).
f. Close the proximal shut off valve.
g. Swab proximal sample site with 2% chlorhexidine gluconate.
h. Using 1 mL or 3 mL syringe with needleless blunt attachment, (ensure plunger is fully depressed) push blunt attachment into the proximal sample site.
i. Slowly withdraw amount of blood required for performance of ordered lab tests.
j. Remove the syringe from the sampling site by pulling straight out.
k. Open the proximal shut-off valve by turning handle parallel to tubing.
l. Slowly, smoothly and evenly, push down on reservoir plunger until it is fully closed. (Recommended rate is 1ml every 10-15 seconds.)
m. Swab distal access port with 2% chlorhexidine gluconate.
n. To flush the line after the blood sample is obtained, use a pre-filled 1:1 heparinized flush syringe with needleless blunt attachment. Ensure the syringe and cannula are free of air bubbles then insert blunt attachment into the distal access port.
o. Slowly flush the line with solution while monitoring for air bubbles.
p. Remove flush syringe from the distal port by pulling straight out then open the distal shut-off valve.
q. Place blood for laboratory testing into the appropriate blood collection devices and label correctly per hospital policy.
r. Discard syringes, gloves, and supplies in the appropriate receptacles.

2. <u>UVC with Closed Needleless (CN) Micro-Draw Device</u>
   a. EQUIPMENT:
      i. CN Micro-Draw device
      ii. Aspiration syringe or specimen collection syringes
      iii. Non-Sterile gloves
      iv. Labels
      v. 2% chlorhexidine gluconate (CHG) swabs
   b. Identify correct neonate using two patient identifiers.
   c. Verify lab orders and labels.
   d. Perform hand hygiene and don non-sterile gloves.
   e. Prepare rubber injection port using CHG for 30 seconds.
   f. Open and inspect CN Micro-draw device. Make sure vent plug is in place on the extension lines with the blue and red clamps. The protective cover should be on the CN Micro-draw blunt tube.
   g. Clamp both extension tubing clamps on the CN Micro-draw device.
   h. Remove white vent plug from extension line with blue clamp. Pre-attach an aspirating syringe of desired size to the female luer lock for collection of holding/clearance blood.
   i. Remove white vent plug from extension line with red clamp. Pre-attach an aspirating syringe of desired size to the female luer lock for collection of blood sample for testing.
   j. Using the T-Connector slide clamp, clamp the T-connector tubing closed.
   k. Remove the protective cover on the CN micro-draw device blunt tube. Fully insert CN Micro-draw blunt tube into the center of the split septum T-connector hub until it is entirely inserted through the septum and rests with its tip inside the catheter hub. Stop inserting when resistance is met.
   l. Unclamp the blue clamp on the extension tube and holding the syringe in an upright position, aspirate the desired volume of clearance blood into the syringe (0.5ml to 1.0ml is sufficient to clear the umbilical catheter). Immediately close the blue clamp.

m. Unclamp the red clamp and slowly aspirate the desired blood sample volume into the syringe. Close the red clamp after blood sample is drawn.
n. Unclamp the blue clamp on the waste/hold extension tubing. While holding the syringe in an upright position, slowly return the clearance blood to the patient. Close the blue clamp.
o. Holding the T-connector hub securely, slowly remove the CN Micro-draw device with both the waste and blood sample syringe attached.
p. Remove sample syringe from the microdraw device and set aside for testing.
q. Flush the UVC catheter with 0.5ml of ordered flush solution administered through a stopcock attached to the T-connector.
r. Unclamp the slide clamp from the T-connector tubing and resume normal venous line flow.
s. Dispose of the CN Micro-draw device in a sharps container.
t. See attachment B for step by step pictorial.

3. PICC Line – Physician/AHP ordered Blood Culture ONLY
   a. Lab draws from a PICC line are done only with a written physician/AHP order. Routine labs are not drawn from the PICC Line.
   b. Perform hand hygiene
   c. Confirm patient identity using two-identifier system per policy.
   d. Position patient using developmentally supportive methods and immobilize the patient securely.
   e. Pause the infusion pump
   f. Don sterile gloves and place a sterile 4x4 under the injection port and prep with 2% chlorhexidine gluconate swabs using vigorous friction prior to each entry.
   g. Detach IV infusion set from catheter hub and set aside on sterile filed maintaining sterility of the connection tip.
   h. Flush PICC catheter with at least 0.5 mL of normal saline using a 5ml or 10ml syringe to clear the line.
   i. Using a sterile 3mL syringe, withdraw one mL of blood.
   j. After obtaining the blood sample, use a 5mL or 10mL syringe with 1:1 heparinized normal saline to flush the catheter well using a pulsatile method.
   k. Reconnect the IV infusion set to the PICC catheter and resume infusion.
   l. Perform hand hygiene.
   m. Document in patient's medical record.

~~B. MAINTENANCE OF THE PICC OR MLC:~~
~~1) All mainline fluids infusing through a PICC should be heparinized.~~
~~a. On double lumen PICC lines, the medication port is infused with normal saline/1u Heparin/mL or TPN at minimum of 0.5 mL per hour.~~
~~b. PICC's placed to heparin lock will be flushed with 0.5 mL (10 units per mL) flush every 4 hrs using a pulsatile method. Excessive pressure should never be applied when manually flushing the catheter. Use of 1 mL and 3 mL syringes may cause excessive pressure; use of a 5 mL syringe or greater is required.~~
~~2) Assessment:~~
~~a. There is a daily assessment and documentation by the physician of necessity to continue using a PICC catheter.~~
~~b. Check that the fluid being administered through the line is appropriate for the tip location (up to 25% dextrose for central placement and up to 12.5% for a midline catheter).~~
~~c. Examine the dressing for adherence of occlusive, non restrictive, transparent dressing and security of the catheter. Confirm that the hub is secure and that bending or twisting is not possible. All PICC dressings that become non occlusive should be changed not reinforced.~~
~~d. Observe the extremity for redness, swelling, drainage, palpable cord, or blanching of the patient's hand or fingers.~~

~~e. Examine the tip location for signs of edema; for central placement, assess the chest and back, and for peripheral placement, assess the extremity or neck.~~
~~f. Assess the entire IV setup for security of connections.~~
~~g. Examine the internal lumen of the IV tubing closest to the patient for evidence of fungal growth (white fluffy material).~~
~~h. Confirm the rate of infusion or that a heparin lock is ordered.~~

~~3) Hourly site checks should be documented in the medical record and should include the following:~~
~~a. Description of site; any edema or circulatory compromise of the extremity.~~
~~b. Description of the area of tip location (chest or back with central placement, extremity or neck with peripheral placement).~~
~~c. Description of dressing and occlusiveness.~~
~~d. Infusion rate and product, if not heparin locked.~~
~~e. Clinical status of patient.~~

~~4) Reportable Conditions:~~
~~a. Leak in catheter or tubing~~
~~b. Breakage or accidental removal of catheter~~
~~c. Drainage, swelling, altered circulation, or redness at the insertion site, the extremity or the area of the tip location.~~
~~d. A red, palpable cord.~~
~~e. Signs of increasing respiratory distress~~
~~f. Pallor, faint heart sounds, bradycardia, or progressive hypotension~~
~~g. Signs of fungal growth in any portion of the catheter~~

~~B.~~D. ~~PICC~~ CENTRAL LINE TUBING CHANGE:

1. Equipment:
   a. Mask
   b. Cap
   c. Non-sterile gloves
   d. Sterile gloves
   e. IV ~~tubing, filter, medication tubing (as needed)~~**Administration Set**
   f. Sterile **3x3 or 4x4** ~~-~~ gauze sponges
   g. 1:1 heparinized normal saline **flush (PICC only)**
   h. Transfer set
   i. 5ml or 10ml **sterile** syringes
2. Procedure:
   a. Perform hand hygiene.
   b. Don mask, cap, and non-sterile gloves.
   c. Prime new IV tubing **using aseptic technique. Ensure that the connection ends of the IV tubing remain sterile.**
   d. ~~Change to~~**Don** sterile gloves.
   e. Set up sterile field. ~~utilizing glove wrapper.~~ Place gauze sponges, 2% chlorhexidine gluconate swabs and 10 ml syringe on field.
   f. **PICC Only**: Using sterile technique, ~~draw up~~**transfer** 1:1 heparinized normal saline into syringe.
   g. Use sterile gauze sponges to hold tubing.
   h. Swab connection sites with 2% chlorhexidine gluconate using friction for 30 seconds, and then let dry for 30 seconds.
   i. Disconnect old IV tubing.
   j. **PICC only: Attach prepared flush syringe and perform a turbulent flush with 1 ml of the 1:1 heparinized normal saline using a start-stop motion.**
   ~~h. Flush each lumen of PICC using a pulsatile method with 1 ml of 1:1 heparinized normal saline in a 5 ml or 10 ml syringe.~~
   ~~j.~~**k.** Connect new IV tubing keeping all connections sterile.

~~k.~~l. Ensure IV fluids are running at proper rate.
~~l.~~m. Place appropriate date-change stickers on IV tubing.
~~m.~~n. Document tubing change in the patient's medical record.

~~C. **TO DRAW BLOOD CULTURE:**~~
~~1) Procedure:~~
~~a. Perform hand hygiene.~~
~~b. Verify written order from physician to obtain blood culture.~~
~~c. Confirm patient identity using two identifier system. Refer to Patient Care Services "Identification, Patient" (IV.A) policy.~~
~~d. Position patient using developmentally supportive methods and immobilize the patient securely.~~
~~e. Pause the infusion pump~~
~~f. Don sterile gloves and place a sterile 4x4 under the injection port and prep with chlorhexidine gluconate swabs using vigorous friction prior to each entry. (The inside sleeve of the sterile glove package can also be used to create a sterile field).~~
~~g. Flush with at least 0.5 mL of normal saline.~~
~~h. Using a 3mL syringe, withdraw one mL to obtain specimen. This will culture the entire system, not just the blood.~~
~~i. Put specimen in blood culture bottle.~~
~~j. Using a 5mL or 10mL syringe, flush the catheter well using a pulsatile method with 1:1 heparinized normal saline using at least twice the volume of the catheter and extension set (approximately 1 mL).~~
~~k. Resume infusion.~~
~~l. Perform hand hygiene.~~
~~m. Document in patient's medical record.~~

~~D. **ROUTINES OF CARE:**~~
~~1) The following routines of care may only be deviated from with a written physician's order.~~
~~a. The PICC or MLC (midline catheter) may be used for administering medications following aseptic procedure, with the exception of phenytoin sodium (Dilantin™).~~
~~b. Blood products should not be infused through a PICC or MLC without a written order.~~
~~c. PICC or MLC caps are changed only when it is necessary to remove the cap in order to obtain a blood culture from the line.~~
~~d. Never use a 1 mL syringe for IV push with a PICC or MLC. The pressure generated by a 1 mL syringe is excessive and may rupture the catheter.~~
~~e. Connect all lines with Luer locking devices to prevent accidental disconnection.~~
~~f. Check all infusates for precipitates to reduce the risk of occlusion.~~

~~E. **SUSPECTED OCCLUSION:**~~
~~1) Examine the entire length of the IV and tubing for kinking, patency, or occlusion in isolette doors or other bedside equipment.~~
~~2) Consider other causes:~~
~~a. A kink of the catheter under the dressing.~~
~~b. A leak in the catheter~~
~~c. Blood backing up.~~
~~d. Precipitate of infusate.~~
~~e. Fungal occlusion.~~
~~3) With unexplained occlusions requiring removal of the catheter, send the catheter tip for culture per physician's order.~~
~~4) Observe for leaks by checking the dressing for dampness or drainage of blood or IV fluid.~~
~~5) Clear a blood occlusion by infusing heparinized saline directly into the catheter with a 5 mL or larger syringe.~~

E. ~~REMOVAL OF A PICC~~DISCONTINUATION OF CENTRAL LINES:

1. UMBILICAL LINES

a. EQUIPMENT:

i. Suture removal kit
ii. Padded hemostat
iii. Umbilical tape
iv. Sterile 4x4 gauze
v. Sterile gloves

b. PROCEDURE:

i. Verify physician's order to remove the catheter.
ii. Perform hand hygiene and gather supplies.
iii. Confirm patient identity using two-identifier system per policy.
iv. Turn off infusions or move the infusions to alternate catheters.
v. UAC: Disconnect transducer from the monitor.
vi. Verify centimeter marking at umbilicus with those previously documented.
vii. Open suture removal set and sterile gauze.
viii. Remove dressing.
ix. Don sterile gloves.
x. Cut sutures, being careful not to cut catheter.
xi. UACs: Grasp catheter firmly with one hand – use other hand to stabilize cord – gently pull until 5 cm mark is reached. Stop and observe for 5 – 15 minutes. The artery will usually spasm and close, but have hemostat and gauze ready in case needed. Gently withdraw remaining catheter, 1 cm/minute. If pulsations are present, delay withdrawal until they stop.
xii. UVCs: slowly withdraw in one motion.
xiii. If bleeding occurs, clamp the artery with a thumb and forefinger or hemostat. Umbilical tape may also be tightened around the umbilical stump. If unable to grasp the artery, apply pressure with sterile 4x4 gauze. Pressure should be applied for 3 – 5 minutes until bleeding stops.
xiv. Check that catheter is intact.
xv. Position the infant to allow for observation of the umbilical area. Oozing or recurrence of bleeding may occur.
xvi. Do not cover the artery or place the patient prone for 1hr after removing the catheter.
xvii. Discard gloves and supplies in appropriate receptacle.
xviii. Perform hand hygiene.
~~F.~~xix. Document removal, patient's tolerance of procedure, any blood loss or oozing, and evaluation of extremities and umbilicus after the procedure in the patient's medical record.

2. PICC Line

~~1)~~a. Equipment:

~~a.~~i. Cap
~~b.~~ii. Mask
~~c.~~iii. Non-sterile gloves
~~d.~~iv. Sterile gloves
~~e.~~v. 2% chlorhexidine gluconate swabs
~~f.~~vi. Sterile gauze
~~g.~~vii. Hemostat

~~2)~~b. Procedure:

~~a.~~i. Perform hand hygiene.
~~b.~~ii. Verify written order from physician to remove PICC.
~~c.~~ Confirm patient identity using two-identifier system. ~~Refer to Patient Care Services "Identification, Patient" (IV.A) policy~~

~~d.~~iii. Position patient using developmentally supportive methods and immobilize the patient securely.
~~e.~~iv. Put on cap, mask, and non-sterile gloves.
~~f.~~v. Remove transparent dressing by peeling the edges from the periphery to the insertion site.
~~g.~~vi. Put on sterile gloves and ~~use the glove wrapper as a~~**create** sterile field.
~~h.~~vii. While applying chlorhexidine gluconate swabs apply gentle traction on the catheter and remove it.
~~i.~~viii. If the catheter becomes stuck, apply a warm compress for 30 minutes and then firmly massage the catheter along the vein track and attempt to remove the catheter. Notify the ~~attending physician~~**MD** if still having difficulty removing the catheter.
~~j.~~ix. If the catheter is severed during removal, use a hemostat to grasp any visible catheter to prevent loss. Immediately apply a tourniquet to the extremity and check the patient's circulation frequently. Notify the ~~attending physician~~**MD** and obtain an order for an x-ray of the appropriate body part to determine where the severed portion of the catheter is located.
~~k.~~x. Refer to the PICC insertion documentation for the measurement of total catheter length and measure the length of catheter removed.
~~l.~~xi. Apply pressure with sterile gauze to control any bleeding.
~~m.~~xii. Once bleeding has stopped, clean the area with chlorhexidine gluconate swabs and allow to air dry for 30 seconds. **Then wipe clean** ~~It is then removed~~ with saline wipes.
~~n.~~xiii. Document the removal of the PICC line in the patient's medical record.

F. **ATTACHMENT(S):**

1. **Attachment A - In Line Blood Sampling, Venous Arterial Blood Management and Protection (VAMP) Jr**
2. **Attachment B – Hummi Micro Draw UVC Blood Draw Guidelines with Aspirating Syringes**

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~~**APPROVAL PROCESS:**~~
~~**Clinical Policies & Procedures Committee**~~
~~**Nurse Executive Council**~~
~~**Medical Executive Committee**~~
~~**Professional Affairs Committee**~~
~~**Board of Directors**~~

Attachment A - In Line Blood Sampling System, Vamp Jr.

DEFINITIONS:

A. Reservoir plunger: a component of the Vamp Jr. blood sampling system, used for drawing and retaining diluted blood from the umbilical catheter and proximal segment of the connecting tubing for the purpose of obtaining undiluted blood samples from an in-line sampling site..
B. Vamp In-line blood sampling site: an in-line needle-less sampling site proximal to the reservoir plunger used for drawing blood samples.
C. Vamp In-line Access/Flush site: an in-line needle-less access site distal to the reservoir plunger used to clear the line after blood sample has been drawn.
D. Vamp Needle-less cannula: an access device that is attached to a luer lock syringe which can be used to obtain blood samples from Vamp in-line blood sampling site or to clear the line from the Vamp access/flush site.

PROCEDURE:

A. Equipment

1. Heparinized IV fluid for priming tubing.
2. 0.45% Normal saline flushing solution with 1 unit/ml pf heparin added (standard flushing solution)
3. IV tubing, filter, luer/Lock stop cock, nonvented caps
4. Infusion pump
5. Padded hemostats (at bedside)
6. Transducer pressure monitoring device
7. Vamp Jr. blood sampling system with one 3 ml Vamp Jr. reservoir, two shut-off valves, one Vamp needle-less sampling site, and one Vamp needle-less access/flush site.

The use of lipids with the Vamp Jr. blood sampling system is not recommended.

B. Setup

1. Using aseptic technique, remove Vamp Jr. sampling kit from sterile package.
2. Attach distal end of Vamp Jr. kit with female luer-lock connector to transducer stopcock. (Preprime transducer, transducer stopcock and vented cap prior to connecting).
3. Ensure all connections are secure.
4. Open reservoir plunger to approximately ½ ml
5. Fill Vamp Jr. sampling kit with the shut-off valves in the open position, indicated by the shut off valve handle in a position parallel to the tubing.
6. Hold the Vamp Jr. kit vertically and deliver IV priming solution slowly to fill the reservoir, while pulling on yellow priming "pig tail" on transducer.
7. Push reservoir plunger down and continue filing the remainder of the kit.
8. Remove all air bubbles to prevent emboli.

9. Connect the proximal(patient end) of the Vamp kit with the male luer-lock connector to the preflushed umbilical catheter.
10. There should be a fluid to fluid-to-fluid connection between the umbilical catheter and Vamp Jr. kit, with no air bubbles.
11. To remove air bubbles in line between the patient connection and the proximal sampling site once connected:
    a. Close proximal shut-off valve by turning handle perpendicular to the line.
    b. Prep needle-less sampling site with an alcohol swab using back and forth friction motion 15 seconds. Allow port to dry before entering.
    c. Insert needle-less cannula with syringe attached into proximal sampling site.
    d. Invert Vamp kit
    e. Aspirate bubbles from sampling site into syringe.
    f. Turn Vamp kit upright.
    g. Tap side of syringe so that bubbles rise to the top of the syringe.
    h. Reinfuse blood from syringe, taking care not to pushback in the bubbles at the plunger. Remove cannula/syringe by holding cannula and pulling cannula and syringe straight out. do not twist when removing and discard.
    i. Open proximal shut-off valve by turning handle parallel to the IV tubing.
    j. Calibrate transducer with line placement, every shift and prn when BP is questioned or wave is dampened for an unknown reason:
        1. Open transducer stopcock to air by turning if OFF to the baby
        2. Remove non-vented cap from transducer stopcock while maintaining sterility
        3. Maintain transducer at the level of the infant's right atrium
        4. Press zero button on monitor
        5. Replace non-vented cap on transducer stopcock
        6. Close stopcock to air by OPENING stopcock to infant

Attachment B – Hummi Micro Draw UVC Blood Draw Guidelines with Aspirating Syringes

Hummi Micro-Draw **UAC** & **UVC** Blood Draw Guidelines with Aspirating Syringes

Step 1 Prep Split-septum T-connector

Wearing appropriate protective attire, prep the split-septum T-connector according to institutional policy

Step 2 Open and inspect Hummi-Micro Draw Device

Open the Hummi Micro-Draw device and inspect. Make sure vent plug is in place on extension with **Blue** clamp. Make sure vent plug is in place on extension with **Red** clamp.

The protective cover should be on the Hummi Micro-Draw blunt tube

Step 3 Close Both Red and Blue Clamps

Clamp both extension tubing clamps on the Hummi Micro-Draw.

Close **Red** Clamp.

Close **Blue** clamp.

Step 4 Attach Blood Holding Syringe and Blood Sample Syringes to Appropriate Extension

Remove the white vent plug and attach Aspirating Syringe for collection of holding/clearance blood to the **Blue** clamp extension.

Remove white vent plug on **Red** Clamp extension and attach Aspirating Syringe for collection of blood sample.

Step 5 Close T-connector with Slide Clamp

Clamp the split-septum T-connector tubing at this time using the attached slide clamp.

This will stop the line flow into the arterial catheter and T-connector.

Step 6 Fully Insert Blunt Tube to Catheter Hub

Remove the protective cover on the Hummi blunt tube.

Hold the T-connector hub securely and SLOWLY insert the blunt tube into the T-connector split-septum at a 90 degree angle to the septum.
(Keep straight on insertion)

Step 7 Unclamp Blue Clamp and Aspirate Required Volume of Clearance Blood

Unclamp the **Blue** clamp on the extension tubing and aspirate the required holding /clearance blood volume (**minimum 0.5mL**) and re-clamp / close the **Blue** clamp.

Step 8 Unclamp Red Clamp and Aspirate Required Blood Sample Volume

Unclamp the **Red** clamp with the blood sample syringe and aspirate the required appropriate blood sample volume, then re-clamp / close the **Red** clamp.

Step 9 Return Holding / Clearance Blood to Patient

Go to Holding /clearance extension with **Blue** clamp. Holding the syringe in an upright position, open the **Blue** camp and Slowly return the holding /clearance blood to the patient over a 15 second period and re-clamp/close **Blue** clamp.

Step 10 Remove Hummi Device From T-connector

Hold the T-connector hub securely and remove Hummi micro-Draw device slowly from T-connector.(picture top)

Unclamp the T-connector and flush the line with **0.3mL** of flush solution to clear the catheter. (picture bottom)

Step 11 Remove Sample Syringe from Hummi Extension

Remove sample syringe from extension tubing with **Red** clamp.

Cap the blood sample syringe and set aside for testing.

Step 12 Clean T-connector Split-septum

Clean the T-connector split-septum with appropriate anti-microbial and resume normal arterial monitoring.

Discard the Hummi-Micro Draw device in appropriate sharps container.

Tri-City Medical Center
Oceanside, California

OUTPATIENT ~~FORENSIC CLINIC~~SPECIALTY SERVICES CLINIC

ISSUE DATE: 3/11

SUBJECT: Adverse Reaction (Medication Event)

REVISION DATE(S): 03/20/2020

Department Approval:	**03/20**
Medical Staff Department or Division:	**n/a**
Pharmacy and Therapeutics Approval:	**05/20**
Medical Executive Committee Approval:	**08/20**
Administration Approval;	**09/20**
Professional Affairs Committee Approval:	**n/a**
Board of Directors Approval:	

A. **PURPOSE:**

1. Patient medication events including adverse reactions must be reported appropriately and acted upon in a timely manner. This policy defines the procedure to be followed by the Clinic when a medication error/reaction/event occurs.

B. **POLICY:**

1. The Clinic will adhere to the hospital's pharmacy policy(s) related to medication events/adverse reaction and utilize appropriate hospital reporting forms.
2. All adverse drug reactions/medication events will be reported immediately and will include notification to the practitioner who ordered the drug, the California Department of Corrections **or San Diego Sheriff's Department,** and Rehabilitation Officers, and the Primary Care Physician at the institution where the patient came from.
3. Appropriate documentation will be recorded in the medical record and RL Solutions.
4. The pharmacy will report serious adverse drug reactions to the Food and Drug Administration, as required.

C. **PROCEDURE:**

1. The RN, Medical Assistant, or Manager shall:
   a. Notify the attending physician of the medication event/reaction.
   b. Notify the ~~California Department of Corrections and Rehabilitation (CDCR)~~ Officer who accompanied the patient and the institution where the patient came from regarding the incident.
   c. Notify the **Primary Care Physician**~~CDCR PCP~~ at the institution **where the patient came from**.
   d. Document the event/reaction, the orders received, and the effect/condition of the patient in the patient's medical record.
   e. Document the adverse reaction in RL Solutions.

Tri-City Medical Center
Oceanside, California

OUTPATIENT SPECIALITY SERVICES ~~FORENSIC~~ CLINIC

ISSUE DATE: 05/11

SUBJECT: Medical Administration and Pharmacy Monthly Inspections

REVISION DATE(S):

Outpatient Specialty Services Clinica~~Department~~ Approval:	**03/20**
Medical Staff Department or Division:	**n/a**
Pharmacy and Therapeutics Approval:	**07/20**
Medical Executive Committee Approval:	**08/20**
Administration Approval;	**09/20**
Professional Affairs Committee Approval:	**n/a**
Board of Directors Approval:	

A. **PURPOSE:**

1. To ensure proper medication administration procedures are followed when medications are administered to patients in the Clinic.

B. **POLICY:**

1. The Clinic will adhere to **Tri-City** ~~the~~ Medical Center's standards, protocols, procedures, and state laws when administering medications to the patients.
   - **a. See Patient Care Service Policy: Physician/Allied Health Professional (AHP) Orders, Outpatient Services**
   - ~~1.~~**b. See Patient Care Service Policy: Medication Administration Policy**

~~1.~~**2.** Explanations of the medications and how they are administered will be explained to the patient prior to administration.

~~2.~~**3.** Documentation of the medication given will be recorded in the medical record on the **health record** ~~Clinical Care Notes~~.

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

~~1. Medications will be administered in compliance with Tri-City Medical Center standards, protocols, procedures and state laws.~~
   - ~~a. Only medications ordered by a California Licensed **Practitioner or** Physician will be administered.~~

~~b.~~**4.** The following department personnel may administer medications (see ~~below for~~**Administration** ~~specific~~ ~~m~~**Medication Specific** ~~r~~**Routes**) **per their Scope of Practice**:
   - ~~i.~~**a.** Registered Nurse
   - ~~ii.~~**b.** Licensed Vocational Nurse
   - ~~iii.~~**c.** Medical Assistant under physician guidance

~~2. The professional caregiver will promote safe administration of medications.~~
   - ~~a. A complete medication order contains the following information:~~
     - ~~i. Patient~~
     - ~~ii. Drug name~~
     - ~~iii. Dose/route~~
     - ~~iv. Rate/frequency~~
     - ~~v. Date and time~~
     - ~~vi. Ordering Physician~~
     - ~~vii. Legibility~~

~~3. Prior to administering a medication the clinical practice professional will check:~~
   - ~~a. Right patient utilizing two patient identifiers (DOB and patient name)~~
   - ~~b. Right medication~~
   - ~~c. Right dose~~
   - ~~d. Right route~~

~~e. Right time~~

~~4. Patient allergies will be checked before giving any medications **and documented.**~~

~~5. Drug incompatibilities and expiration dates will be checked before administration.~~

~~6. The professional caregiver will document medication administration accurately and timely.~~

~~a. Documentation of medication administration is done the Clinical Care Notes.~~

~~b. Administration of medication will be documented after the dose is given.~~

~~c. All adverse drug reactions will be reported to the Physician.~~

~~d. All medication errors will be reported immediately to the Physician, RN, and the Clinic Manager~~

~~e. Any medication errors or adverse reactions will be documented in RL Solutions.~~

~~7.~~5. Delivery System

a. Obtaining Medication Orders: Medication orders are obtained from the Physician or Physician Assistant in the form of written orders documented on the Physician Notes **per. Patient Care Service Policy: Physician/Allied Health Professional (AHP) Orders, Outpatient Services**

b. Stock Medications: Stock medications are maintained within the department in a locked medication cart in the locked medication room.. Content is determined by the physicians working in the clinic according to the procedures they will be performing.

~~8. Administration~~

~~a. Personnel: Registered Nurses and Licensed Vocational Nurse administer medication in accordance with their state practice act. Medical Assistants administers medication under the supervision of the Physician. Medical Assistants are required to verify all parenteral medications with a second clinical person (MA, Registered Nurse, Licensed Vocational Nurse or Physician) before administering parenteral medications to the patient.~~

~~b. Medication Procedures: The actual technique for giving medications via different routes is defined in three (3) major nursing procedures: IV, parenteral, and non-parenteral. These are found in the Patient Care Services Policy Manual.~~

~~c.~~6. Special Safety Concerns: Access to medications, needles, and syringes are limited to appropriate staff via locked access.

~~9.~~7. Waste/Unusables

a. Disposal of partial tablets or wasted medications (not the vial or bottle) shall be disposed of in PharmaSafety Waste Medication Container **per Administrative Policy: Handling of Pharmaceutical Waste, Expired Medications and Expired IV Solutions 276.**. Exceptions are epinephrine, nitroglycerine ointments, pourable flammables or inhalers. ~~These are to be disposed of in the RCRA Waste Bin. Expired medications and empty vials or bottles from wasted medications are to be disposed of in the PharmaSafety Waste Medication Container.~~

~~10.~~8. Outpatient Forensic Clinic Weekly Inspections

a. The RN or Medical Assistant shall conduct weekly inspections of the medications that are stored in the refrigerator and medication cart.

b. The review of the medications will be documented on the medication checklist (attachment) to note the quantity of each medication, signature and date of the clinician who is conducting the inspection.

c. The medication checklist will be used to determine if any medications need to be ordered.

d. Any medications that are expired will be disposed of in the PharmaSafety Waste Medication Container, with the exception of epinephrine, nitroglycerine ointments, pourable flammables or inhalers. Those will be disposed of in the RCRA Waste Bin.

~~11.~~9. Pharmacy Monthly Inspections

a. The pharmacy department will conduct unannounced monthly inspections and document any deficiencies within the following:

i. Disinfectants and drug for external use are stored separately from internal and injectable medications.

ii. Biologicals and other thermotabile medications for dating and correct storage requirements, (e.g. insulin).
iii. Medication refrigerator contains no non medication items.
iv. Date opended note on High/Low control Solution/Strips.
v. Any outdated drugs.
vi. All medication floorstock for correct content, quantity, and security checked.
vii. Floorstock items are properly labeled and clearly marked.
viii. Metric-apothecary conversion charts are posted on each unit.

b. Any expired medications found during the inspection will be taken back by the Pharmacist to the Pharmacy for proper disposal.
c. Any other corrections identified must be corrected right away.
d. A signed copy of the Pharmacy Coordinated Nursing Inspection Report from the Pharmacist conducting the inspection will be given to the Manager of the Clinic to be kept on file.

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

1. **Administrative Policy: Handling of Pharmaceutical Waste, Expired Medications and Expired IV Solutions 276**
2. **Patient Care Service Policy: Physician/Allied Health Professional (AHP) Orders, Outpatient Services**
~~1.~~3. **Patient Care Service Policy: Medication Administration Policy**

ADMINISTERING MEDICATION
SPECIFIC ROUTES

X = indicates who may administer	IV	IV PUSH	IV PB	PO	SQ	IM	SL	Intra-dermal	Topical	Inhalant Aerosol
Registered Nurse	X	X	X	X	X	X	X	X	X	X
Licensed Vocational Nurse	X		X	X	X	X	X	X	X	X
Medical Assistant under physician guidance				X	X	X		X	X	

~~**CROSS- REFERENCE(S):**~~

~~**Patient Care Services policy**~~

~~**CROSS- REFERENCE(S):**~~

~~**Medication checklist**~~

Tri-City Medical Center
Oceanside, California

OUTPATIENT SPECIALITY SERVICES~~FORENSIC~~ CLINIC

ISSUE DATE: 05/11

SUBJECT: Removal of Skin Lesions using Liquid Nitrogen

REVISION DATE(S):

Department Approval:	03/20
Medical Staff Department or Division:	n/a
Pharmacy and Therapeutics Approval:	05/20
Medical Executive Committee Approval:	08/20
Administration Approval;	09/20
Professional Affairs Committee Approval:	n/a
Board of Directors Approval:	

A. **PURPOSE:**

1. Treatment for benign skin lesions which are suitable for freezing using Liquid Nitrogen (LN2):
   a. Actinic Keratosis
   b. Solar Lentigo
   c. Seborrheic Keratosis
   d. Viral Warts
   e. Verrucae
   f. Molluscum Contagiosum
   g. Dermatofibroma

B. **POLICY:**

1. Removal of skin lesions using a controlled dispensing unit CRY-AC3 of Liquid Nitrogen (LN2) – via open spray or contact probe techniques performed only by a Licensed Physician.

C. **EQUIPMENT:**

1. CRY-AC 3 Liquid Nitrogen Dispenser filled with at least 40% of liquid nitrogen (LN2) and no more than 70% of liquid nitrogen.
2. Large Cotton-Tip Applicators
3. Cryoplate
4. Face shields
5. Gloves
6. Alcohol wipes

D. **PROCEDURE:**

1. Explanation of the procedure will be explained by the physician.
~~2. Informed consent will be given and signed by the patient prior to the procedure.~~
~~3. Time out will be performed before the procedure is started.~~
~~4.~~2. Physician will administer the Liquid Nitrogen directly to the skin lesion he/she is removing.
~~5. Potential side effects include bleeding, blister formation, headache, hair loss, and hyperpigmentation, but rarely scarring.~~
~~6. Lesions are typically treated in a single session, although some require several treatments.~~
~~7.~~3. Any liquid nitrogen left over in the dispenser will be returned to the Dewar.
~~8.~~4. Liquid Nitrogen will be refilled /replaced every 4-5 weeks per product policy.

E. **DOCUMENTATION:**

~~1. Time out will be documented on the Time Out Form.~~
~~2.~~1. RN will document all information on the Clinical Care Notes.

~~3.~~2. MD will document on the Physician Notes.
~~4.~~3. MD will document the procedure and any recommendations on the Request for Service RFS form that will accompany the patient back to the institution.
~~5.~~4. All documents, including any medical records, will be sent to Medical Records for scanning into the encounter for that visit.

Tri-City Medical Center
Oceanside, California

SURGICAL SERVICES
SURGERY

ISSUE DATE: 04/94 **SUBJECT: Medications in Surgery**

REVISION DATE(S): 02/05; 07/11; ~~11/12~~01/13

Surgical Services Department Approval:	**02/20**
Operating Room Committee Approval:	**03/20**
Department of Anesthesiology Approval:	**n/a**
Pharmacy & Therapeutics Committee Approval:	**05/20**
Medical Executive Committee Approval:	**08/20**
Administration Approval:	**09/20**
Professional Affairs Committee Approval:	**n/a**
Board of Directors Approval:	**01/13**

A. **PURPOSE:**
1. To outline the access to medications in surgery.

B. **POLICY:**
1. OR STOCK DRUGS:
   - a. ~~Drugs~~ **Medications** used in ~~the Operating Room~~**Surgery** are dispensed from a PYXIS Medstation. ~~Unit.~~ This computerized Medstation~~s~~ system is linked to the Hospitals' main ~~p~~**P**harmacy. It provides a control system for dispensing ~~narcotics~~ **medications** and contains an approved menu of ~~non-controlled drugs, ointments, and externally used~~ medications prescribed by a surgeon or used by an anesthesiologist.
   - ~~a.~~**b. Emergency medications are stored in the Crash Cart, Difficult Airway Cart, and Malignant Hyperthermia Cart. Medications are stocked in these carts by Pharmacy and a yellow numbered lock is applied to the medication drawer by the Pharmacist. Daily checks are performed for lock integrity and verification of lock number.**
   - ~~b. Non-controlled substances in the Operating Room may be stored in locked refrigerators, located in sub-sterile rooms, or in locked cabinets in Open Heart rooms (OR 5&6). These drugs are stocked through direct Pharmacy order and are checked for outdates by OR nursing staff and pharmacy.~~
2. AUTHORIZED ACCESS:
   - a. ~~Regular~~ Nursing staff and ~~a~~**A**nesthesiologists are assigned an access code for the PYXIS Medstation Unit by pharmacy.
   - ~~b. Temporary authorized Nursing staff are given assigned an access codes for the PYXIS by pharmacy.~~
   - ~~c.~~**b.** ~~Technical~~ **Surgical and Anesthesia Technicians** ~~staff have~~**are issued PYXIS Medstation access** codes allowing access to non-narcotic med**ications** ~~that are used~~**to be removed** for **surgical procedures**~~cases~~ and room stocking.
   - ~~d.~~**c.** Ancillary personnel (including, but not limited to, Perioperative Aides, Environmental Service workers, and Maintenance workers) are not granted codes for PYXIS Medstation ~~or medication refrigerators/cabinets,~~ and do not have access to medications in ~~the~~ **Surgery**~~Operating Room~~.
   - ~~e. Individual passwords may be changed at any time for security reasons.~~
   - ~~f. All personnel with assigned codes are responsible for their own code.~~
3. PROCUREMENT:
   - a. ~~Minimum~~ **Medication inventory** levels in PYXIS Medstation are maintained by the Pharmacy. ~~Pharmacy personnel will review the inventory of the Unit daily, and restock~~

~~each station Unit as needed. If a nurse or anesthesiologist requires additional drugs, a request to the~~ Pharmacy is **to be notified of the need for additional medication stock.** ~~made out and the Pharmacy restocks it.~~

~~4. CONTROL MECHANISM:~~

~~a. Controlled substances are kept in a carrousel type drawer of PYXIS. A list of these drugs which are stored in the PYXIS can be reviewed on the Medstation screen or may be printed at the Medstation.~~

~~i. Anesthesiologist Narcotic Control System: Anesthesiologist have individual identification number and passwords for the PYXIS Medstation. All anesthesiologist are required to know how to operate the Medstation System. Controlled medications for anesthesiologist's use will be provided through the Surgery and PACU PYXIS Medstation Unit. There is a Controlled Drug Form that is used once daily to document controlled drug use. The form contains the Patient's Name, Medical record number, quantities given, wasted, and quantity returned. Upon completion of a procedure or at the end of the day, this Controlled Drug Form is dropped into a locked drawer for Pharmacy pickup.~~

~~ii. Count: Discrepancy reports may be generated by the PYXIS. Discrepancies in the count are investigated and rectified or are reported to the Pharmacy. The Charge Nurse will print a discrepancy report as well as complete an incident report.~~

~~5. NON-CONTROLLED DRUGS~~

~~a. There is a standard menu of antibiotics, anticoagulants, antagomists, anti-inflammatory, anti-convulsants, vasoactive cardiovasculars, dyes, diuretics, oxytoxics and local anesthetics, ointments and externally used pastes, and bronchodilators. They are alphabetically arranged and placed in a number designated matrix drawers. List of all drugs can be reviewed on the PYXIS Medstation screen or may be printed at the Medstation Unit.~~

~~6. DRUG ADMINISTRATION:~~

~~a. The RN follows Medstation procedures for removing items from the PYXIS. The RN verifies inventory count when accessing the medication.~~

~~7. REFERENCE MANUALS~~

~~a. Generic drug reference is available through Micromedex (located on TCMC Intranet) and through drug reference books located in the department library. PYXIS manufacturer assistance is readily available via the toll free number, as needed.~~

~~8.~~4. DOCUMENTATION:

a. Administration of narcotics by the anesthesiologist is documented in the anesthesia record and in the Anesthesia Pyxis.

b. Non-Controlled drugs obtained by a nurse and used by a surgeon will be documented on the Perioperative Nursing Record.

~~c. Administration of narcotics by an RN for moderate sedation will be documented on the Moderate Sedation flow sheet and Perioperative Nursing Records.~~

~~9.~~5. OTHER:

a. Each PYXIS unit will be connected to the hospital's Emergency Power Source generator, for backup power, in the event of a power outage.

Tri-City Health Care District
Oceanside, California

DELETE – covered by Physician Orders

Women and Newborn Services

ISSUE DATE: 02/10

SUBJECT: Neonatal Abstinence Syndrome, Pharmacological Treatment of

REVISION DATE(S): 02/10

POLICY NUMBER: 8710-559

Medical Staff Department Approval:	~~01/17~~10/19
Perinatal Collaborative Practice:	~~04/17~~11/19
Department of Pediatrics Approval:	~~05/17~~05/20
Pharmacy and Therapeutics Approval:	~~05/17~~05/20
Medical Executive Committee Approval:	~~06/17~~08/20
Administration Approval:	09/20
Professional Affairs Committee Approval:	~~07/17~~ n/a
Board of Directors Approval:	07/17

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

~~1. To stabilize clinical manifestations of neonatal withdrawal and restore normal newborn activity.~~

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

~~1. Neonatal Abstinence Syndrome (NAS) shall be monitored per WNS policy "Management of Neonatal Abstinence Syndrome."~~

~~2. The following recommended pharmacologic agents may be used solely or in combination:~~

~~a. Morphine 0.05 -0.1 mg/kg/dose IV if NPO, or PO every 3 hours. Recommended maximum dose is 0.2mg/kg/dose.~~

~~i. For NAS scores greater than 8, increase the morphine dose in increments of 10% until the score is below 8. The infant shall be maintained on the morphine dose that controls symptoms for 48 hours.~~

~~ii. If the infant is excessively sleepy or unable to feed on this morphine dose, decrease the dose in increments of 10% until the infant is stable, awake and scores less than 8.~~

~~iii. This morphine dose shall be maintained for 48 hours provided NAS scores remain less than 8 prior to weaning.~~

~~iv. Once stable on the same morphine dose for 48 hours, the infant may start to wean from the morphine. The dose should be weaned by 10% to 20% of the original dose daily providing scores remain less than or equal to 8. Once the infant has reached a morphine dose of 0.1mg or less (total dose amount, NOT mg/kg) every 3 hours, the recommended tapering schedule is as follows:~~

~~1) Guided by Finnegan Scores of less than or equal to 8, wean frequency every 24-48 hours to q4hrs, q6hrs, q8hrs, q12hrs, q24hrs, and then discontinue.~~

~~v. Observe infant off morphine for 48-72 hours prior to discharge.~~

~~b. If Finnegan scores are not stabilized on Morphine, consider starting an adjunct therapy of either:~~

~~i. Phenobarbital:~~

~~1) Loading dose: 16mg/kg PO on day 1~~

~~2) Maintenance: 1 to 4 mg/kg/dose PO every 12 hours~~

~~3) Once stable for 48 hours (scores less 8), wean dose by 20% every other day, alternating with morphine weaning schedule.~~

ii. Clonidine:
   1) 0.5-1 mcg/kg PO every 4-6 hours.
   2) Only to be used for infants 35 weeks gestation or greater.
   3) Clonidine must be tapered off over 10-14 days and can be monitored in the outpatient setting.

iii. Infant may be discharged home on phenobarbital and/or clonidine if unable to effectively wean to off.

Tri-City Health Care District
Oceanside, California

~~CENTER FOR~~ WOUND CARE CENTER~~&~~
HYPERBARIC CENTER~~MEDICINE~~
~~POLICY MANUAL~~

ISSUE DATE: 06/07

SUBJECT: Physician Orders

REVISION DATE(S):

Wound Care Department Approval:	**02/20**
Medical Staff Department/Division Approval:	**n/a**
Pharmacy and Therapeutics Approval:	**05/20**
Medical Executive Committee Approval:	**08/20**
Administration Approval:	**09/20**
Professional Affairs Committee Approval:	**n/a**
Board of Directors Approval:	

A. **PURPOSE**

1. This policy defines the circumstances in which a physician's orders – verbal, telephone or written – will be accepted and implemented by the clinical staff.

B. **POLICY**

1. Only physicians/healthcare professionals granted hospital and wound care & hyperbaric medicine medical staff privileges may provide written, telephone or verbal orders for patients being seen at the Center.
2. The clinical staff will take orders only from the Center staff physician.
3. Any treatment/procedure may not be performed without the physician's written, verbal or telephone instruction unless defined by policy and/or falls within the scope of nursing practice, as mandated by the State of California.
4. Orders for patients not being seen by the physicians at the Center may not be accepted or implemented by the clinical staff.
5. Hospital policy will be followed when implementing physician's orders.

C. **PROCEDURE**

1. When the physician is on site, orders will be written and signed by the physician after each clinic visit.
2. Verbal orders are discouraged but may be taken by the licensed clinical staff at the direction of the clinic physician caring for the patient.
3. Physicians must sign telephone or verbal orders within the timeframe specified in the hospital Medical Staff Bylaws and application regulations/standards.
4. All physician orders will be noted by a registered nurse/PT according to hospital policy.

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

~~4.~~1. **Patient Care Services Policy: Physician / Allied Health Professionals (AHP) Orders for Outpatient Services**

Community Healthcare & Alliance Committee (No meeting held in September, 2020)

Finance, Operations & Planning Committee (No meeting held in September, 2020)

Audit, Compliance & Ethics Committee
(No meeting held in September, 2020)

TRI-CITY HEALTHCARE DISTRICT
MINUTES FOR A SPECIAL MEETING
OF THE BOARD OF DIRECTORS

August 27, 2020 – 2:30 o'clock p.m.
Via Teleconference

A Special Meeting of the Board of Directors of Tri-City Healthcare District was held via teleconference at 2:30 p.m. on August 27, 2020.

The following Directors constituting a quorum of the Board of Directors were present via teleconference:

Director George W. Coulter
Director Rocky J. Chavez
Director Leigh Anne Grass
Director Julie Nygaard
Director RoseMarie V. Reno
Director Larry W. Schallock
Director Tracy Younger

Also present via teleconference were:

Steve Dietlin, Chief Executive Officer
Scott Livingstone, Chief Operations Officer
Ray Rivas, Chief Financial Officer
Candice Parras, Chief Nurse Executive
Dr. Gene Ma, Chief Medical Officer
Roger Cortez, Chief Compliance Officer
Jeremy Raimo, Senior Director, Business Development
Jeff Scott, Board Counsel
Susan Bond, General Counsel
Teri Donnellan, Executive Assistant
Rick Crooks, Executive Protection Agent

1. The Board Chairperson, Director Grass, called the meeting to order at 2:30 p.m. via teleconference with attendance as listed above. Director Chavez led the Pledge of Allegiance.

2. Public Comments – Announcement

   Chairperson Grass read the Public Comments section listed on the Board Agenda. There were no public comments.

   There were no members of the public wishing to speak.

3. Approval of agenda

   It was moved by Director Nygaard to approve the agenda as presented. Director Chavez seconded the motion. The motion passed unanimously (7-0) by a roll call vote.

4. Oral Announcement of Items to be discussed during Closed Session

Chairperson Grass made an oral announcement of the items listed on the August 27, 2020 Special Board of Directors Meeting Agenda to be discussed during Closed Session which included Reports Involving Trade Secrets with various disclosure dates,

5. Motion to go into Closed Session

It was moved by Director Chavez and seconded by Director Schallock to go into Closed Session at 2:35 p.m. The motion passed unanimously (7-0) by a roll call vote.

6. At 3:00 p.m. the Board returned to Open Session with attendance as previously noted.

7. Report from Chairperson on any action taken in Closed Session.

Chairperson Grass reported the Board in Closed Session received a report and discussed new programs and services in the District. The Board took no action.

8. New Business

a) Consideration for approval to execute a lease agreement for 6185 Paseo Del Norte

The Chairperson opened the floor for discussion regarding any questions on the proposed transaction.

It was moved by Director Nygaard that the Tri-City Healthcare District Board of Directors approve execution of a lease agreement between NextMed III Owner, LLC and Tri-City Healthcare District for 6185 Paseo del Norte, Suite 100, Carlsbad, CA. Director Schallock seconded the motion.

The vote on the motion was as follows:

AYES:	**Directors:**	**Chavez, Coulter, Grass, Nygaard, Reno, Schallock and Younger**
NOES:	**Directors:**	**None**
ABSTAIN:	**Directors:**	**None**
ABSENT:	**Directors:**	**None**

b) Consideration for approval to execute a lease agreement for 2095 W. Vista Way.

The Chairperson opened the floor for discussion regarding any questions on the proposed transaction.

It was moved by Director Schallock that the Tri-City Healthcare District Board of Directors approve execution of a lease agreement between Tri-City Healthcare District and San Ysidro Health, Inc. at 2095 W. Vista Way, Vista, CA. Director Chavez seconded the motion.

The vote on the motion was as follows:

AYES:	**Directors:**	**Chavez, Coulter, Grass, Nygaard, Reno, Schallock and Younger**
NOES:	**Directors:**	**None**
ABSTAIN:	**Directors:**	**None**
ABSENT:	**Directors:**	**None**

9. Adjournment

There being no further business, the meeting adjourned at 3:09 p.m.

Leigh Anne Grass
Chairperson

ATTEST:

Julie Nygaard
Secretary

TRI-CITY HEALTHCARE DISTRICT
MINUTES FOR A REGULAR MEETING
OF THE BOARD OF DIRECTORS

August 27, 2020 – 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 August 27, 2020.

The following Directors constituting a quorum of the Board of Directors were present via teleconference:

Director Rocky J. Chavez
Director George W. Coulter
Director Leigh Anne Grass
Director Julie Nygaard
Director RoseMarie V. Reno
Director Larry W. Schallock
Director Tracy M. Younger

Also present were:

Steven Dietlin, Chief Executive Officer
Scott Livingstone, Chief Operations Officer
Candice Parras, Chief, Patient Care Services
Dr. Gene Ma, Chief Medical Officer
Susan Bond, General Counsel
Anna Aguilar, Vice President/Human Resources
Dr. Mark Yamanaka, Chief of Staff
Jeffrey Scott, Board Counsel
Teri Donnellan, Executive Assistant
Richard Crooks, Executive Protection Agent

1. The Board Chairperson, Leigh Anne Grass, called the meeting to order at 3:35 p.m. via teleconference with attendance as listed above.

2. Approval of Agenda

   It was moved by Director Reno to approve the agenda as presented. Director Chavez seconded the motion. The motion passed unanimously (7-0) via roll call vote.

3. Pledge of Allegiance

   Director Chavez led the Pledge of Allegiance.

4. Public Comments – Announcement

   Chairperson Grass read the Public Comments section listed on the August 27, 2020 Regular Board of Directors Meeting Agenda.

5. July, 2020 Financial Statement Results – Mr. Ray Rivas, Chief Financial Officer

Mr. Rivas reported on the current month financials as follows (Dollars in Thousands): First month of this fiscal year.

- Net Operating Revenue - $24,343
- Operating Expense - $26,532
- EBITDA – ($191)
- EROE – ($1,489)

Mr. Rivas reported on current month Key Indicators as follows:

- Average Daily Census – 143
- Adjusted Patient Days – 8,305
- Surgery Cases – 453
- ED Visits – 3,762

- Net Patient Accounts Receivable - $34.8
- Days in Net A/R – 51.1

Mr. Rivas stated we are doing a good job at managing our liquidity at $52 million.

Chairperson Grass questioned if elective surgery volume is back to normal. Mr. Rivas responded that we are seeing a high percentage of outpatient surgeries however inpatient surgery volume is still down by approximately 30%.

6. New Business - None

7. Old Business – None

8. Chief of Staff

a) Consideration of August 2020 Credentialing Actions Involving the Medical Staff as recommended by the Medical Executive Committee on August 24, 2020.

Dr. Yamanaka, Chief of Staff presented the August 2020 Credentialing actions for the Board's consideration which included 10 initial appointments.

There were no questions or comments by Board members.

It was moved by Director Chavez to approve the August 2020 Credentialing Actions Involving the Medical Staff as recommended by the Medical Executive Committee on August 24, 2020. Director Nygaard seconded the motion.

The vote on the motion via a roll call vote was as follows:

AYES:	**Directors:**	**Chavez, Coulter, Grass, Nygaard, Reno, Schallock and Younger**
NOES:	**Directors:**	**None**
ABSTAIN:	**Directors:**	**None**

ABSENT: Directors: None

b) Consideration of Rules & Regulations:

1) Department of Emergency Medicine

Dr. Yamanaka also presented the Department of Emergency Medicine Rules and Regulations for the Board's consideration.

It was moved by Director Reno to approve the Department of Emergency Medicine Rules & Regulations as recommended by the Medical Executive Committee on August 24, 2020. Director Chavez seconded the motion.

The vote on the motion via a roll call vote was as follows:

AYES:	**Directors:**	**Chavez, Coulter, Grass, Nygaard, Reno, Schallock and Younger**
NOES:	**Directors:**	**None**
ABSTAIN:	**Directors:**	**None**
ABSENT:	**Directors:**	**None**

c) Consideration of Privilege Card:

1) Urology

Dr. Yamanaka presented the Urology Card for the Board's consideration.

It was moved by Director Reno to approve the Urology Privilege Card as recommended by the Medical Executive Committee on August 24, 2020. Director Nygaard seconded the motion.

The vote on the motion via a roll call vote was as follows:

AYES:	**Directors:**	**Chavez, Coulter, Grass, Nygaard, Reno, Schallock and Younger**
NOES:	**Directors:**	**None**
ABSTAIN:	**Directors:**	**None**
ABSENT:	**Directors:**	**None**

d) Consideration of Allied Health Professionals (AHPs) Eligible to Apply for Clinical Privileges

Lastly, Dr. Yamanaka presented the AHP's Eligible to Apply for Clinical Privileges for the Board's consideration.

It was moved by Director Reno to approve the Allied Health Professionals Eligible to Apply for Clinical Privileges as recommended by the Medical Executive Committee on August 24, 2020. Director Younger seconded the motion.

The vote on the motion via a roll call vote was as follows:

AYES:	**Directors:**	**Chavez, Coulter, Grass, Nygaard, Reno, Schallock and Younger**
NOES:	**Directors:**	**None**
ABSTAIN:	**Directors:**	**None**
ABSENT:	**Directors:**	**None**

Dr. Yamanaka reported the July Credentialing Actions and Reappointments, as well as the Department of Medicine and Division of General Vascular Surgery and General & Vascular Surgery Privilege Card were also included in the agenda packet for information only as they were previously approved by the Board Chair, CEO and Chief of Staff through e-mail communication due to the cancellation of the July Board meeting.

On behalf of the Medical Staff, Dr. Yamanaka expressed his appreciation for all the Board member's character, work ethic and support over the past four years and stated those who will be leaving the Board in November will be missed.

9. Consideration of Consent Calendar

It was moved by Director Chavez to approve the Consent Agenda. Director Reno seconded the motion.

The vote on the motion via a roll call vote was as follows:

AYES:	**Directors:**	**Chavez, Coulter, Grass, Nygaard, Reno, Schallock and Younger**
NOES:	**Directors:**	**None**
ABSTAIN:	**Directors:**	**None**
ABSENT:	**Directors:**	**None**

10. Discussion of items pulled from Consent Calendar

There were no items pulled from the Consent Calendar however Director Reno abstained from the July Regular and Special Meeting minutes.

11. Comments by Members of the Public

There were no comments by members of the public

12. Comments by Chief Executive Officer

Mr. Steve Dietlin, CEO presented a brief report related to COVID-19. He reported the following:

- 6,000 patients have been tested with a positive rate of 3.5%;
- The hospital has had 240 positive inpatients, many with very good outcomes; and
- Currently there are 14 COVID-19 positive inpatients.

Mr. Dietlin thanked the entire TCMC Team, the Medical Staff, Nursing, Board of Directors, Foundation, Auxiliary and the community for their support and diligent efforts during this pandemic.

Mr. Dietlin reminded the public that Tri-City Hospital is a safe environment to get care. We have a dedicated team and every surgical patient is tested prior to surgery.

In closing, Mr. Dietlin recognized long-time Emergency Department physician, Dr. Stephen Karras who was acknowledged at a Retirement Celebration held earlier today honoring is 45 years of service.

13. Board Communications

Director Younger expressed her appreciation to the Tri-City family and their efforts every single day.

Director Chavez expressed his appreciation to staff and physicians for their professionalism during this COVID environment. He commented on the fact that Tri-City appears to be well prepared and have adequate PPE.

Director Coulter echoed Director Chavez's comments and stated he believes we are in good hands thanks to leadership and tremendous collaboration of our Tri-City staff and physicians.

Director Reno expressed her appreciation to all the employees for their loyalty, dedication and quality care.

Director Nygaard expressed her thanks to staff for doing a "yeoman's job". She also stated that it is encouraging to see more people wearing masks.

Director Schallock reiterated fellow Board members comments regarding the handling of the COVID-19 pandemic and extended his appreciation as well.

14. Report from Chairperson

Chairperson Grass expressed her appreciation to all employees and physicians for their service.

15. Move to adjourn

It was moved by Director Schallock and seconded by Director Chavez to adjourn the meeting. The motion passed unanimously (7-0) by a roll call vote.

16. There being no further business Chairperson Grass adjourned the meeting at 4:00 p.m.

_____
Leigh Anne Grass, Chairperson

ATTEST:

_____
Julie Nygaard, Secretary

Volume

Performance compared to prior year: Better | Same | Worse

Spine Surgery Cases

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	C/M YTD
FY20	16	25											41
FY19	16	19	18	31	30	15	20	19	24	15	18	24	35

Mazor Robotic Spine Surgery Cases

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	C/M YTD
FY20	13	9											22
FY19	9	8	9	12	7	5	11	9	11	5	8	11	17

Inpatient DaVinci Robotic Surgery Cases

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	C/M YTD
FY20	9	8											17
FY19	9	16	11	11	12	13	10	8	6	7	7	5	25

Outpatient DaVinci Robotic Surgery Cases

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	C/M YTD
FY20	30	24											54
FY19	19	23	27	33	31	24	27	29	21	14	18	34	42

Major Joint Replacement Surgery Cases (Lower Extremities)

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	C/M YTD
FY20	13	19											32
FY19	33	33	23	31	35	31	26	29	20	12	18	12	66

Performance compared to prior year: Better | Same | Worse

Inpatient Behavioral Health - Average Daily Census (ADC)

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	C/M YTD
FY20	-	-	-	-	-	-	-	-	-	-	-	-	-
FY19	-	-	-	-	-	-	-	-	-	-	-	-	-

Acute Rehab Unit - Average Daily Census (ADC)

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	C/M YTD
FY20	12.9	12.3											12.6
FY19	6.2	4.5	7.7	7.0	5.0	3.0	7.1	7.7	9.0	7.0	9.3	11.5	5.3

Neonatal Intensive Care Unit (NICU) - Average Daily Census (ADC)

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	C/M YTD
FY20	12.2	9.0											10.6
FY19	9.4	10.3	13.4	9.7	9.5	9.4	7.8	10.7	10.0	6.3	8.8	7.4	9.9

Hospital - Average Daily Census (ADC)

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	C/M YTD
FY20	142.5	139.5											141.0
FY19	143.4	143.6	150.6	143.2	144.0	160.2	153.9	149.3	137.6	124.0	132.0	139.3	143.5

Deliveries

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	C/M YTD
FY20	161	175											336
FY19	168	171	156	159	146	159	153	136	124	113	133	139	339

Inpatient Cardiac Interventions

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	C/M YTD
FY20	10	4											14
FY19	7	8	7	17	14	10	13	10	7	5	10	0	15

Performance compared to prior year: Better | Same | Worse

Outpatient Cardiac Interventions

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	C/M YTD
FY20	9	9											18
FY19	7	5	12	6	11	9	14	8	13	5	4	0	12

Open Heart Surgery Cases

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	C/M YTD
FY20	2	3											5
FY19	9	5	2	8	5	5	4	8	5	4	4	2	14

TCMC Adjusted Factor (Total Revenue/IP Revenue)

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	C/M YTD
FY20	1.88	1.81											1.85
FY19	1.85	1.89	1.91	1.86	1.86	1.79	1.80	1.80	1.81	1.69	1.81	1.84	1.87

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
FY21	51.1	50.9											51.0	48-52
FY20	52.8	56.4	59.2	61.2	61.9	62.6	61.5	58.7	53.1	50.5	56.4		54.6	

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
FY21	107.1	103.1											105.1	75-100
FY20	93.0	89.9	90.8	98.4	92.8	85.5	88.5	94.3	88.9	97.3	105.5		91.4	

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
FY21	($1,489)	($923)											($2,412)	$ (5,090)
FY20	($476)	($494)	($759)	($311)	($1,036)	($1,040)	($860)	($735)	($4,467)	$1,921	($2,982)		($970)	

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
FY21	-6.12%	-3.74%											-4.92%	-10.80%
FY20	-1.65%	-1.66%	-2.71%	-1.08%	-3.91%	-3.75%	-2.85%	-2.69%	-17.32%	9.94%	-14.31%		-1.66%	

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	($191)	$353											$162	$ (2,714)
FY20	$686	$681	$412	$683	$62	$128	$367	$551	($3,164)	$3,159	($1,774)		$1,367	

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
FY21	-0.78%	1.43%											0.30%	-5.76%
FY20	2.38%	2.30%	1.47%	2.36%	0.24%	0.46%	1.22%	2.02%	-12.27%	16.35%	-8.51%		2.34%	

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
FY21	5.38	5.66											5.52	6.94
FY20	7.04	6.80	6.21	6.90	6.58	6.44	6.71	6.82	7.02	7.27	5.61		6.92	

TCHD Liquidity $ in Millions (Cash + Available Revolving Line of Credit)

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
FY21	$59.5	$57.4										
FY20	$52.4	$44.8	$43.7	$45.6	$38.2	$31.9	$35.2	$35.8	$34.8	$51.2	$62.3	

Tri-City Medical Center

ADVANCED HEALTH CARE FOR YOU

Building Operating Leases
Month Ending Aug 31, 2020

Lessor	Sq. Ft.	Base Rate per Sq. Ft.		Total Rent per current month	LeaseTerm Beginning	LeaseTerm 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)	47,421.57	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)	35,388.70	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	03/31/21	La Costa Urology 3907 Waring Road, Suite 4 Oceanside, CA 92056	7082
JDS FINCO LLC 499 N EL Camino Real Encinitas, CA 92024 V#83694	Approx 2,172	$2.15	(a)	6,330.29	07/01/20	04/30/21	TCMC Cardiology Clinic 3907 Waring Road, Suite 3 Oceanside, CA 92056	7590
Melrose Plaza Complex, LP c/o Five K Management, Inc P O Box 2522 La Jolla, CA 92038 V#43849	Approx 7,347	$1.35	(a)	10,707.03	07/01/16	06/30/21	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)	40,182.00	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	08/08/19	05/31/21	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	08/31/20	Pulmonary Specialists of NC 3231 Waring Court Suit D Oceanside, CA 92056	7088
Total				$ 200,553.76				

(a) Total Rent includes Base Rent plus property taxes, association fees, insurance, CAM expenses, etc.

Tri-City Medical Center

ADVANCED HEALTH CARE FOR YOU

Education & Travel Expense
Month Ending August 2020

Cost Centers	Description	Invoice #	Amount	Vendor #	Attendees
6185	ONS/ONCC CHEMO RENEWAL	61720 EDU	103.00	83250	CHRISTINE BWAMBOK
7500	LEADERSHIP COMMUNICATION STRATEGIES	80820 EDU	726.25	82866	TARA EAGLE
8381	CRCST SPD CERTIFICATE	31120 EDU	125.00	83690	DONNA FELKINS
8631	ICHCSMM SPD CERTIFICATION	80520 EDU	125.00	83751	ARIEL BALUBAR
8754	HEALTHCARE RISK MANAGEMENT ASHRM	80420 EDU	135.00	83312	MICHAEL D LEVINE

**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.