AMA STATEMENT

E-8.19 Self-Treatment or Treatment of Immediate Family Members.

Physicians generally should not treat themselves or members of their immediate families. Professional objectivity may be compromised when an immediate family member or the physician is the patient; the physician's personal feelings may unduly influence his or her professional medical judgment, thereby interfering with the care being delivered. Physicians may fail to probe sensitive areas when taking the medical history or may fail to perform intimate parts of the physical examination. Similarly, patients may feel uncomfortable disclosing sensitive information or undergoing an intimate examination when the physician is an immediate family member. This discomfort is particularly the case when the patient is a minor child, and sensitive or intimate care should especially be avoided for such patients. When treating themselves or immediate family members, physicians may be inclined to treat problems that are beyond their expertise or training. If tensions develop in a physician's professional relationship with a family member, perhaps as a result of a negative medical outcome, such difficulties may be carried over into the family member's personal relationship with the physician.

Concerns regarding patient autonomy and informed consent are also relevant when physicians attempt to treat members of their immediate family. Family members may be reluctant to state their preference for another physician or decline a recommendation for fear of offending the physician. In particular, minor children will generally not feel free to refuse care from their parents. Likewise, physicians may feel obligated to provide care to immediate family members even if they feel uncomfortable providing care.

It would not always be inappropriate to undertake self-treatment or treatment of immediate family members. In emergency settings or isolated settings where there is no other qualified physician available, physicians should not hesitate to treat themselves or family members until another physician becomes available. In addition, while physicians should not serve as a primary or regular care provider for immediate family members, there are situations in which routine care is acceptable for short-term, minor problems.

Except in emergencies, it is not appropriate for physicians to write prescriptions for controlled substances for themselves or immediate family members. (I, II, IV) Issued June 1993.

Tri-City Medical Center
Oceanside, California

MEDICAL STAFF POLICY MANUAL

ISSUE DATE: 10/05	**SUBJECT: Physician/Podiatrist Surgical Assistant**
REVISION DATE(S): 03/08, 11/14	**POLICY NUMBER: 8710 – 536**

Department Approval Date:	**03/17**
Credentials Committee Approval Date:	**03/17**
Pharmacy and Therapeutics Approval Date:	**n/a**
Medical Executive Committee Approval Date:	**~~10/14~~03/17**
Professional Affairs Committee Approval Date:	
Board of Directors Approval Date:	**11/14**

A. **PURPOSE:**
1. To provide credentialing criteria for non surgeon physicians and podiatrists in non-podiatric cases to act as surgical first assistants.

B. **SCOPE OF PRIVILEGES:**
1. Provides aid in exposure, hemostasis, use of surgical instruments on tissues, and other technical functions to help the surgeon carry out a safe operation.

C. **CREDENTIALING CRITERIA:**
1. Letter(s) of reference from individual responsible for formal training and/or a surgeon who is familiar with the physician's experience as a surgical first assistant; **and**
   a. Completion of a surgical residency from a program accredited by the Accreditation Council for Graduate Medical Education (ACGME); **or**
   b. Completion of a surgical rotation during internship training of at least (six weeks) in duration; **or**
   c. A licensed Doctor of Podiatric Medicine, licensed after 1984.

D. **PROCTORING:**
1. A minimum of three (3) cases in which the physician acts as the surgical first assistant shall be proctored by the primary surgeon. There should be at least two (2) different primary surgeons.

E. **REAPPOINTMENT:**
1. A minimum of three (3) cases as a surgical first assistant shall be performed per two-year reappointment cycle. Quality assurance mechanisms will be applied and considered in the reappointment process.

~~**Approvals:**~~
~~Credentials Committee Approval: 10/14~~
~~Medical Executive Committee Approval: 10/14~~
~~Governance Committee Approval: 11/14~~
~~Board of Directors Approval: 03/08; 11/14~~

Tri-City Medical Center
Oceanside, California

MEDICAL STAFF POLICY MANUAL

ISSUE DATE: 06/04	**SUBJECT: Physicians' Well-Being Committee Policy**
REVISION DATE(S): 09/07, 03/12	**POLICY NUMBER: 8710 – 511**

Department Approval Date:	**03/17**
Medical Staff Committee Approval Date:	**n/a**
Pharmacy and Therapeutics Approval Date:	**n/a**
Medical Executive Committee Approval Date:	**~~03/12~~03/17**
Professional Affairs Committee Approval Date:	
Board of Directors Approval Date:	**03/12**

A. **POLICY:**

1. It is the policy of Tri-City ~~Medical Center~~**Healthcare District** (~~TCMC~~**TCHD**) Medical Staff to offer assistance to those physicians who are physically or emotionally impaired or under the influence of alcohol or drugs and who may benefit from rehabilitation or hospitalization. Furthermore, ~~TCMC's~~ **TCHD's** policy is to enhance the safety and security of patients, physicians, and employees and to prevent impaired physicians who may harm patients from practicing medicine.
2. In this regard, this process provides education about physician health; addresses prevention of physical, psychiatric, or emotional illness; and facilitates confidential diagnosis, treatment, and rehabilitation of physicians who suffer from a potentially impairing condition.

B. **PURPOSE:**

1. The Physicians' Well-Being Committee is established to provide a process for assistance and rehabilitation, rather than discipline, to aid a physician in retaining or regaining optimal professional functioning, consistent with protection of patients, staff and physicians. If at any time during the diagnosis, treatment, or rehabilitation phase of the process it is determined that a physician is unable to safely perform the privileges he or she has been granted, the matter is forwarded for appropriate corrective action that includes strict adherence to any state or federally mandated reporting requirements.

C. **PROCESS:**

1. The process design includes but is not limited to the mechanisms for the following:
   a. Evaluate the credibility of a complaint, allegation, or concern; communicate with the referred physician.
   b. Provide annual education to the medical staff and other ~~TCMC~~ **TCHD** staff about illnesses and impairment recognition issues specific to physicians, (at-risk criteria), and to take steps to promote wellness.
   c. Establish a self-referral process by a physician or other ~~TCMC~~ **TCHD** staff.
      i. Self-referrals shall be made directly to the Chairman of the Physicians' Well-Being Committee when possible.
      ii. Issues identified through the hospital's Quality Review Reporting process should be routed directly to the Medical Staff Office and forwarded to the Chairman of the Physicians' Well-Being Committee.
   d. Referral of the affected physician to the appropriate professional internal or external resources for evaluation, diagnosis, and treatment of the condition or concern.

e. Assure and maintain the confidentiality of the physician who is seeking referral or being referred for assistance, and/or the informant if applicable, except as limited by applicable law, ethical obligation, or when the health and safety of a patient, staff, or other physician is threatened.
   i. Any retaliation against the informant will not be tolerated and will be referred to the Professional Behavior Committee for appropriate action.

f. Monitor the affected physician and the safety of patients until rehabilitation is complete and if applicable periodically thereafter.

g. Report to the Medical Staff leadership instances in which a physician is providing unsafe treatment or engaging in behavior that undermines the culture of safety.

D. **SPECIAL CONSIDERATION:**

1. It is the physician's responsibility to comply with the Physicians' Well-Being Committee's assistance and recommendations.
2. Noncompliance with completion of the required rehabilitation program will be reported to the Medical Executive Committee for appropriate action.
3. Unsafe treatment provided by an impaired physician will be reported to the Medical Executive Committee for appropriate action or referral.

E. **REPORTING:**

1. A report will be provided to the Medical Executive Committee and to the Board on a quarterly basis.

F. **DOCUMENTATION:**

1. While the Physicians' Well-Being Committee records are ultimately the property of ~~TCMC~~ **TCHD** Medical Staff, active records will be retained by the Chair of the Physician Well Being Committee.
2. Information, as applicable, will be maintained in a locked file in the Medical Staff Office with access only to the Chief of Staff and the Chair of the Physicians' Well-Being Committee.

G. **REFERENCES:**

1. The Joint Commission Medical Staff Standards
2. Medical Staff Bylaws, Section 10.20

~~**Approvals:**~~
~~**Medical Executive Committee Approval: 03/12**~~
~~**Board of Directors Approval: 09/07, 03/12**~~

Tri-City Medical Center
Oceanside, California

MEDICAL STAFF POLICY MANUAL

ISSUE DATE: 02/01	**SUBJECT: Professional Behavior Policy & Committee**
REVISION DATE(S): 08/17, 01/13	**POLICY NUMBER: 8710 – 570**

Department Approval Date:	**03/17**
Medical Staff Committee Approval Date:	**n/a**
Pharmacy and Therapeutics Approval Date:	**n/a**
Medical Executive Committee Approval Date:	**~~01/13~~03/17**
Professional Affairs Committee Approval Date:	
Board of Directors Approval Date:	**01/13**

A. **POLICY:**

1. It is the policy of Tri-City ~~Medical Center~~**Healthcare District** (~~TCMC~~**TCHD**) Medical Staff to support and encourage appropriate professional behavior and a safe working environment at all times, and to evaluate allegations of behavior that undermines the culture of safety by physicians and to intervene when appropriate. The Medical Staff of ~~TCMC~~ **TCHD** recognizes the right of all individuals within the ~~TCMC~~ **TCHD** organization to be treated with dignity, courtesy and respect. Behavior that undermines the culture of safety compromises the ability of the healthcare team to perform effectively and may create a hostile work environment inhibiting optimal communication and performance.

B. **PURPOSE:**

1. To promote a professional atmosphere and a safe work environment where all Medical Staff members and Allied Health Professionals (AHP) shall conduct themselves in a professional manner when interacting with colleagues, hospital staff, patients, and guests. The Medical Staff, via the Medical Executive Committee (MEC) and in accordance with the Medical Staff Bylaws, shall be responsible for implementing and maintaining standards of behavior to promote and maintain a professional atmosphere.

C. **DEFINITION(S):**

1. Complainant: Any individual who witnesses a behavior and perceives it to be significant and worthy of intervention based on the Guidelines below.
2. Attributed Individual: Any Medical Staff member or AHP about whom a behavior concern has been reported.
3. Direct Supervisor: Hospital staff member (Director or Service Line Leader) who is responsible for initially investigating the alleged unprofessional behavior and initiating the process as defined below.

D. **POLICY:**

1. Acceptable behavior may include, but is not limited to the following attributes and behavior patterns:
   a. Consistent adherence to hospital and/or Medical Staff policies and procedures.
   b. Treatment of all persons with courtesy, respect, and dignity
   c. Appropriate response to inquiries
   d. Timely response to pages and staff requests
   e. Civil communication – i.e. well-mannered responses, appropriate language and tone, and a team-centered approach
   f. Utilization of chain of command to express concerns or to report issues

2. Unacceptable behavior may include, but is not limited to, the following attributes and behavior patterns:
   a. Disregard of hospital and/or Medical Staff policies and procedures
   b. Verbal or physical threats against anyone
   c. The use of demeaning or insulting remarks
   d. Aggressive or violent actions
   e. The use of profanity or excessive sarcasm
   f. Sexual or ethnic innuendos or harassment
   g. Inappropriate critiquing of hospital and/or Medical Staff members in public
   h. Inappropriate delay in responding to concerns and issues from hospital staff members
   i. Retaliation
3. The Professional Behavior Form provides a suggested sequence of procedural steps that creates a framework to document and resolve issues.

E. SPECIAL CONSIDERATIONS:

1. Communication:
   a. All parties involved, except when mandatory reporting is required by State or Federal regulations, will maintain confidentiality.
   b. Involved parties will limit discussion of the alleged issue to appropriate and/or formal venues.
   c. When there is suspicion the behavior is related to chemical dependency, or physical, psychological, or emotional impairment refer to Physician Well-Being policy, 8710-511.
   d. Education of Medical Staff and ~~TCMC~~ **TCHD** organization members will be provided to promote awareness of the policy.
   e. All new Medical Staff applicants will be informed about the policy
2. Flexibility:
   a. The Medical Staff leadership retains the prerogative to respond in an alternative manner other than by the Procedural Guidelines set forth below. In its discretion, leadership may direct a more immediate approach to an instance or a pattern of unacceptable behavior. Such a response may not utilize some or all of the elements of the Procedural Guidelines, or may use them in a different order. A situation may also necessitate a non-programmed response. Within the framework of the Medical Staff Bylaws and the operation of law, this policy is not intended to limit the responses of the Medical Staff to any prescribed formula or sequence of action.

F. PROCEDURE GUIDELINES:

1. This guideline is a suggested course of action, subject to deviation, based upon unique circumstances.
   a. Alleged unacceptable behavior occurs and is identified by the Complainant. (Box 1 of Professional Behavior Form)
   b. Complainant and Attributed Individual will attempt to resolve the issue in an amicable and timely manner. Direct communication between the Attributed Individual and the Complainant may be encouraged. If the issue is resolved then no further action will be needed.
   c. If Complainant is unable or unwilling to resolve the incident directly with the Attributed Individual, then the Direct Supervisor will become involved.
   d. The Direct Supervisor will investigate the perceived unacceptable behavior and document the findings on the Professional Behavior (PB) Form and assesses whether further intervention is required. (Box 2 of Professional Behavior Form)
   e. If the Direct Supervisor determines further intervention is not required, the completed Professional Behavior form will be forwarded to the Medical Staff Office for review by the Chief of Staff and for filing. Professional Behavior form will be labeled "No Intervention Required" and process will end.
   f. If the Direct Supervisor determines that further intervention is warranted, the Direct Supervisor and the Attributed Individual will meet to discuss the incident (Complainant

may be present).

g. If the issue is resolved, then an action plan, with identified goals for all involved parties, will be documented on the Professional Behavior Form and forwarded to the Medical Staff Office for review by the Chief of Staff and placement in the Professional Behavior Chair file.

h. If the issue is not resolved, the Director of the Direct Supervisor will contact the Director of the Medical Staff Office and relevant Hospital Administration (CEO, COO/CNE, and VP of Human Resources) if appropriate. The Chief of Staff will be notified.

i. The Chief of Staff will notify and confer with the Chair of the Professional Behavior Committee. An action plan will be developed that is tailored to the circumstances of the situation. The Authority of the Professional Behavior Committee Chair will be the following:
   i. Attempt further mediation and resolution by counseling the Attributed Individual.
   ii. Arrange meetings of relevant parties, at which he may attend or preside.
   iii. If voluntary measures fail to resolve the situation satisfactorily, the Chair, after consulting with the Professional Behavior Committee, may make any recommendations to the MEC, including:
      1) Mandatory psychological/medical evaluation and treatment,
      2) Restriction of privileges by the MEC and the Board of Directors,
      3) Suspension and/or termination of membership by the MEC and the Board of Directors.

j. All Professional Behavior Forms will be maintained in the Attributed Individual's Professional Behavior Committee file for confidential review by the Chief of Staff, Professional Behavior Committee Chair, and the Director of Medical Staff Services. The information contained therein will be considered at the time of reappointment of Attributed Individual, and may be shared on a strict-need-know basis with the Credentials Committee, the MEC, or ad-hoc committees, all meeting in executive session. The pertinent Department Chair or Division Chief may be invited to those sessions.

k. Non-confidential feedback may be provided to the Complainant regarding resolution of the issue, but only from the Chief of Staff, the Professional Behavior Committee Chair, or their designees.

l. This statement is included in #10

G. **DOCUMENTATION:**
1. Documentation will be prepared as objectively as possible, utilizing factual information.
2. Completion of the Professional Behavior Form (PB form).

H. **REFERENCES:**
1. The Joint Commission Standards, 2012

I. **ATTACHMENT(S):**
1. Professional Behavior (PB) Form (see attached)

~~**Approvals:**~~
~~**Medical Executive Committee Approval: 01/13**~~
~~**Board of Directors Approval: 08/07; 01/13**~~

Tri-City Medical Center

Professional Behavioral Form
(PB Form)
Confidential Report

Abbreviations Used:

PBC:	Professional Behavior Committee
MSO:	Medical Staff Office
COS:	Chief of Staff
AI:	Attributed Individual
MEC:	Medical Executive Committee

Box 1 (refers to step 1 of Procedural Guidelines)

I. Complainant will describe issues of concern:

_____

_____

_____

_____

_____

_____

_____

Signature: _____ Date: _____

Complainant Printed Name: _____

Box 2 (refers to step 4 of Procedural Guidelines)

II. Direct Supervisor Investigation and Documentation:

_____

_____

_____

_____

_____

_____

_____

_____

A. Is intervention with the AI necessary? ☐ Yes ☐ No

If **NO**, forward this completed form to the MSO for review by the COS and the PBC Chair, and filing.

If **YES**, proceed with meeting the AI.

B. Did the meeting with the AI resolve the issue(s)? ☐ Yes ☐ No

If **Yes**, forward this completed form with an action plan and goals for all involved parties to the MSO for review and filing.

If **No**, COS and PBC Chair shall be informed immediately. Refer to step 8 of the Procedural Guidelines.

Documentation and narrative of meeting between AI and Direct Supervisor. Include Action Plan/Goals/and Resolution if they were achieved.

_____

_____

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_____

_____

Signatures

Direct Supervisor:_____ Date:_____

Direct Supervisor Printed Name:_____

AI:_____ Date:_____

AI Printed Name:_____

Tri-City Medical Center
Oceanside, California

MEDICAL STAFF POLICY MANUAL

ISSUE DATE: 10/03	**SUBJECT:** Requests for New Privileges/Technologies New to TCHD~~TCMC~~
REVISION DATE(S): 03/08, 08/12	**POLICY NUMBER:** 8710 – 526

Department Approval Date:	02/17
Credentials Committee Approval Date:	03/17
Pharmacy and Therapeutics Approval Date:	n/a
Medical Executive Committee Approval Date:	~~08/12~~03/17
Professional Affairs Committee Approval Date:	
Board of Directors Approval Date:	08/12

A. **POLICY:**
1. The Tri-City **Healthcare District**~~Medical Center~~ (**TCHD**~~TCMC~~) Medical Staff shall review requests for new procedures/technologies.

B. **PURPOSE:**
1. To provide a mechanism to evaluate requests for new procedures/technologies, to determine if criteria must be developed, and whether the resources necessary to support the request are available.

C. **PROCEDURE:**
1. Practitioners requesting new procedures/technologies must submit a request in writing along with supporting documentation and proposed criteria to the Medical Staff Office.
2. Upon receipt of a new procedure/technology request, the Medical Staff Office shall evaluate to determine the following:
   a. Is the procedure/technology new to ~~TCMC~~**TCHD: https://www.nlm.nih.gov/services/ctconsent.html**~~?~~
      i. If no, refer to appropriate department/division rules and regulations for criteria.
      ii. If yes, submit request and supporting documentation to the appropriate Department/Division to determine if it is similar to an existing procedure.– If there is a similar procedure/technology, are there additional qualifications?
         1) If no, add to the appropriate Rules and Regulations and process for approval.– Upon Board approval, add the procedures to the appropriate privilege list.
         2) If yes, assess resource availability.
            a) Submit request to the appropriate department director to determine; if there is sufficient space, equipment, staffing, and financial resources either in place or available within the specified time frame to support each requested privilege.
            b) If resources are available, the Medical Staff Office shall contact the appropriate Division and/or Department to review the request and develop criteria in collaboration.
               i) If the request involves more than one Division and/or Department, the criteria should be outlined in policy format.
               ii) If the request involves a single Division and/or Department, the criteria shall be outlined in the appropriate rules and

regulations.

c) Develop criteria based on current standards.– Resources to consider include, but are not limited to:
   i) Clinical White Papers
   ii) Clinical resources
   iii) Community standards.

d) Criteria shall address as applicable:
   i) Board certification or equivalent training
   ii) Procedure-specific certification/training
   iii) Documentation of Current Competency – i.e. case logs
   iv) Initial Criteria
   v) Proctoring Criteria
   vi) Reappointment Criteria.

e) If resources are not available, request shall be denied.
   i) Such denial is not considered practice specific and is not subject to procedural rights of the Medical Staff Bylaws.

3. Upon finalization of proposed criteria, the Medical Staff Office shall submit the proposed criteria to the appropriate Division and/or Department, and the clinical director (as applicable) for review.
4. Upon Division and/or Department approval, the request shall be forwarded to:
   a. Credentials Committee along with the appropriate Division/Department's recommendation, if the criteria involve one or more Divisions and/or Departments, then to the Medical Executive Committee (MEC).
   b. Medical Executive Committee (MEC) along with the appropriate Division/Department's recommendation, if the criteria involve a single Division and/or Department..
5. Favorable recommendations from the MEC shall be submitted to the Board of Directors for approval.
6. Upon approval, the criteria shall be incorporated into the appropriate privilege forms and made available to Medical Staff members.

D. **ONGOING EVALUATION**:
1. The Medical Staff works in collaboration with administration to consistently review the resources needed to perform the requested privileges.

E. **REFERENCES:**
1. Joint Commission Medical Staff Standards (MS.06.01.01)
2. The Compliance Guide to the Joint Commission Medical Staff Standards

~~**Approvals:**~~
~~**Credentials Committee Approval: 08/12**~~
~~**Medical Executive Committee Approval: 08/12**~~
~~**Board of Directors Approval: 03/08; 08/12**~~

Tri-City Medical Center
Oceanside, California

MEDICAL STAFF POLICY MANUAL

ISSUE DATE: 02/01	**SUBJECT:** Standards for Endovascular Repair of Aortic Aneurysms
REVISION DATE(S): 09/07	**POLICY NUMBER:** 8710 – 503
Department Approval Date:	03/17
Division of GVS Approval Date:	03/17
Medical Executive Committee Approval Date:	~~09/07~~03/17
Professional Affairs Committee Approval Date:	
Board of Directors Approval Date:	09/07

A. **STANDARDS:**

1. All cases involving endovascular repair of aortic aneurysms must meet the following minimum criteria for adequate facilities and physician skills.
   a. The minimum criterion for the facility is:
      i. Digital subtraction angiography with roadmap capabilities.
      ii. A large Field of View image intensifier (15 or 16 inches) * with a 1024 matrix.
      iii. Power injector for contrast administration.
      iv. Appropriate supply of balloons, guidewires, stents, coils and other embolic materials.
      v. Appropriate level of sterility.
      vi. Adequate space and facilities for anesthesia
      vii. Interventional Physician and Surgical Registered Nurses.
      viii. Interventional technologist.

      *When combined intraoperative access and endoluminal graft is performed in the operating room, a smaller image intensifier may be acceptable when agreed upon by the involved physicians.
   b. The criterion for physician skills is:
      i. Interventional Physician must have current independent (has been released from proctoring) ~~TCMC~~ **Tri-City Healthcare District (TCHD)** privileges for catheter-based peripheral vascular interventional procedures.
      ii. Interventional Physician must have met the minimum criteria for device- specific training/certification as defined by the manufactures of the device.
      iii. Vascular Surgeons must have current independent (has been released from proctoring) ~~TCMC~~ **TCHD** privileges for open repair of abdominal and/or thoracic aortic aneurysm repair.
2. During all cases, at least one physician credentialed in Interventional Radiology and one physician credentialed in Vascular Surgery must be present.
3. Proctoring Criteria:
   a. Five cases performed during the first six months after granting of the privilege will be proctored.– The proctor must be privileged for the procedure that he/she is proctoring.
4. Reappointment Criteria:
   a. Maintenance of Endovascular Repair of Aortic Aneurysm requires ongoing experience in performing these procedures with acceptable success and complication rates.
   b. In order to qualify for reappointment, the minimum number of cases (5) to be performed in a two-year period.

~~**Approvals:**~~
~~**Division of Imaging Approval:**~~ _____
~~**Division of General Vascular Surgery Approval:**~~ _____

~~**Division of Cardiothoracic Surgery Approval:**~~
~~**Medical Executive Committee Approval: 9/07**~~
~~**Board of Directors Approval: 9/07**~~

Tri-City Medical Center
Oceanside, California

MEDICAL STAFF POLICY MANUAL

ISSUE DATE:	**1/01**	**SUBJECT:**	**Supervision of Residents/ Fellows/Medical Students**
REVISION DATE:	**8/02, 8/04, 6/06, 3/08; 10/11; 9/13 1/15**	**POLICY NUMBER:**	**8710 – 513**

Department Approval:	**12/16**
Graduate Medical Education Approval:	**~~01/15~~12/16**
Pharmacy and Therapeutics Committee Approval:	**n/a**
Medical Executive Committee Approval:	**~~02/15~~03/17**
Governance Committee Approval:	**04/15**
Board of Directors Approval:	**04/15**

A. **POLICY:**

1. All Emergency Medicine, Family Medicine, and/or Internal Medicine residents and Sports Medicine Fellows and activities of Residents, Fellows and Students are under the supervision of the Director of the Residency Program(s) and a designated Medical Staff member(s) who are member(s) of Tri-City ~~Medical Center~~**Healthcare District** (~~TCMC~~**TCHD**) Medical Staff. Each person is expected to follow the ~~Tri-City Healthcare District~~**TCHD** standards of service excellence and applicable policies.

B. **JOB DESCRIPTION BY PROGRAM**

1. Internal Medicine Family Medicine Rotation:
   a. Attitudes: The resident should develop attitudes that encompass:
      i. Awareness that Internal Medicine is a major portion of the fund of knowledge of a family physician.
      ii. Assessment of the patient's and family's understanding of the medical disorder. This should also include the value of non-intervention and when to use it.
      iii. Assessment of the impact of the medical disorder, its evaluation, and its treatment on the patient and the family.
      iv. Enlistment of the family support systems in patient treatment and compliance.
      v. Recognition of limitations and when to seek appropriate consultation and referral.
   b. Knowledge: The resident should develop knowledge of the pathophysiology, recognition, and management of the following common problems in adult medicine, **of the following but not limited to:**
      i. Hypertension
      ii. Type 1 Diabetes Mellitus
      iii. Type 2 Diabetes Mellitus
      iv. Myocardial Infarction
      v. Coronary Artery Disease
      vi. Stable and unstable angina
      vii. Congestive heart failure
      viii. Lipid disorders
      ix. Obesity
      x. Common Arrhythmias
      xi. Asthma
      xii. COPD
      xiii. GI Bleeding
      xiv. Gastroesophageal reflex / Peptic ulcer disease

xv. Irritable bowel syndrome
xvi. Anemia
xvii. Drug ingestions and overdoes
xviii. Thrombophlebitis
xix. Alcoholism and detoxification
xx. Hepatitis
xxi. Mononucleosis
xxii. Pneumonia
xxiii. Sepsis
xxiv. Meningitis
xxv. Tuberculosis
xxvi. Chronic bronchitis
xxvii. Arthritis (Osteoarthritis and Osteoporosis)
xxviii. Pulmonary embolism
xxix. Renal disease
xxx. Fever of unknown origin
xxxi. Stroke
xxxii. Fluid and electrolyte abnormalities
xxxiii. Envenomation
xxxiv. Abnormal liver function tests
xxxv. Syncope
xxxvi. Smoking cessation
xxxvii. Pre-operative evaluation

c. Skills: The resident should demonstrate the ability to:
   i. Evaluate the patient with a medical illness, including performance of adequate history and physical examination.
   ii. Learn more complex diagnostic and therapeutic skills.
   iii. Demonstrate proficiency in performing arterial puncture and arterial line placement, lumbar puncture, bone marrow biopsy, paracentesis, thoracentesis, arthrocentesis.
   iv. Perform and interpret exercise tolerance testing.
   v. Perform central vein catheterization including Swan – Ganz catheter insertion, (w/supervision)
   vi. Manage patients requiring ventilatory assistance.
   vii. Interpret EKGs.
   viii. Interpret X-rays.
   ix. Order and properly utilize laboratory and radiological studies.
   x. Appropriately use anticoagulants.
   xi. Know personal limitations.
   xii. Request appropriate consultation.

d. Implementation: Training in Adult Medicine is accomplished as follows –

PGY I (4 wk block)	**Med Ward**	**Med Ward**	**ICU**	**FP Inpatient Service**
PGY II	**Med Ward / ICU**	**Med Clinic**	**Cardiology**	**Hosp / Geri**
PGY III	**Med Ward (Tri-City)**	**HIV/Endocrine**	**Neurology**	**FP Inpatient Service**

   i. Residents are advised to use their elective time wisely in selecting other areas of subspecialty medicine for which they have an interest. Longitudinal experience is maintained through the resident's family practice continuity patients as well as through attendance at morning and noon conferences.

2. Emergency Department Rotation: (refer to Medical Staff Policy & Procedure #8710-513E)
3. Sports Medicine Fellow Rotation:
   a. San Diego Sports Medicine (SDSM) also hosts a nationally respected Orthopaedic Fellowship program that provides advanced training for new Orthopaedic Surgeons, while

conducting high-level research.

4. Medical Student Rotation:
   a. Medical Students are unlicensed persons prohibited from making a diagnosis, treatment or operating upon a patient except when prescribed as part of their course of study in an approved medical school.
   b. ~~Tri-City Medical Center~~**TCHD** has become part of an approved teaching program by means of an affiliation agreement with various medical schools. Preceptor rotations within the scope of this policy are periods of observation and do not constitute part of the course of study.
   c. Each Medical Student must have an identified preceptor who is a member of the Medical Staff. The preceptor(s) shall direct and supervise the Medical Student at all times.

C. **ROTATION DESCRIPTION:**

1. Family Medicine and Internal Medicine Rotation:
   a. Third year residents shall spend 4 weeks on the Internal Medicine service at ~~Tri-City Medical Center~~**TCHD**.
   b. The residents shall be supervised either directly or indirectly by the attending physicians responsible for the Internal Medicine service. The level of supervision shall be determined by the responsible attending physician.
   c. The resident shall be present Monday to Friday during the assigned 4-week block. Work hours should be arranged by the attending staff, but should generally involve daytime shifts without over night call.
   d. The resident duties should include performing history and physicals, daily rounds and routine ward care including discharge planning of patients admitted to the Internal Medicine service. Residents should be given opportunities to perform typical inpatient procedures under the supervision of the attending staff. These procedures would include, but are not limited to, arterial line placement, paracentesis, thoracentesis, exercise stress testing, endotracheal intubation, and cardioversion.
   e. Resident evaluation should be an ongoing process throughout the four weeks. For residents performing below standards, written notification to the resident and the Director for Residency Training should be done at the two week point. A written evaluation shall be completed in a timely manner using the standard form provided on all residents.
2. Emergency Department Rotation (Refer to Medical Staff Policy & Procedure #8710-571)
3. Sports Medicine Rotation:
   a. All orders, history and physical, discharge summaries and progress notes written by Sports Medicine Fellows shall be reviewed by the Medical Staff member(s).
   b. The medical care provided by the Sports Medicine Fellow shall be discussed with the designated Medical Staff member(s) on a frequent basis. The Fellow must document this in the medical record.
   c. The scope of activities shall be the same as that of the supervising physicians. Sports Medicine Fellows may be the first assist at surgery, consistent with appropriate departmental rules and regulations.
4. Medical Student Rotation ($3^{rd}/4^{th}$ year):
   a. Prior to a surgical rotation, the Medical Student shall complete an orientation to include a Sterile Technique and Surgical Safety Module (including Fire Prevention). Prior to an Emergency Medicine Rotation, the Medical Student shall complete an orientation to include introduction to the ER environment, overview of EHR, introduction of HIPAA, role in the department, and general policies of the ED. Prior to an Ob/Gyn rotation, the medical students shall complete the OR orientation as well as a Labor and Delivery orientation.
   b. Medical Students may perform and document written histories, physical examinations, and progress notes with the patient's permission and under the direct supervision of the attending physician. These must be countersigned by the attending physician.
   c. Medical Students cannot write orders, enter electronic orders, or give any verbal orders to RNs.

d. Medical Students may make rounds with the preceptor and participate in the examination of that medical staff member's patients. Protocols for examining female patients with a chaperone present must be followed.

e. Students on a surgical rotation may scrub and participate in surgery under the direct supervision of a preceptor surgeon to aid in learning surgical disease and principles. This includes placing and holding retractors, suctioning, suturing (above the fascia), and dissecting. Students on an emergency medicine rotation may participate in ED procedures under the direct supervision of a preceptor to aid in learning. This includes simple suturing, assisting with reductions and splinting, simple incision and drainage, lumbar puncture, ultrasound techniques, assist with central lines, assist with para/thora/arthrocentesis.

f. Medical students on an Ob/Gyn rotation may evaluate obstetric and gynecologic patients. They may perform breast and pelvic exams; obstetrical exams and cervical exams in labor; and write notes in the medical record. The students may be present in the operating room and are able to assist in major or minor gynecological surgical procedures under the direct supervision of a preceptor surgeon to aid in learning Ob/Gyn disease and principles. This includes placing and holding retractors, suctioning, suturing (above the fascia), and dissecting. The students may also participate in vaginal and cesarean deliveries.

g. Patients shall be informed and sign consent of their knowledge of presence of Medical Students in the hospital caring for them under attending physician.

h. Medical Students are not authorized to dictate or access the EMR.

D. **SUPERVISION DESCRIPTION:**

1. First Year Residents:

a. First year residents are unlicensed physicians, and the mechanism for their supervision is more direct than for second and third year residents.

i. Orders:

1) First year residents may write orders, however they must be countersigned by a supervising licensed independent practitioner prior to implementation.

2) Staff member(s) shall review all orders written by first year residents. If a nurse or other hospital employee has any question about an order written by a first year resident, the supervising higher level resident or Medical Staff member(s) may be contacted directly.

ii. Other Care:

1) History and physical, discharge summary, and progress notes may be written or dictated by first year residents and shall be countersigned by a supervising licensed independent practitioner.

2) All medical care provided by a first year resident shall be discussed with the designated Medical Staff member(s).

3) The resident must document in the progress notes that the patient was seen and/or discussed with the attending Medical Staff member(s).

4) The scope of activities shall be the same as that of the supervising physicians. Residents may be the first assistant at surgery, consistent with departmental rules and regulations.

2. Second and Third and Fourth Year Residents:

a. All orders, history and physical, discharge summaries and progress notes written by second, third and fourth year residents shall be reviewed and countersigned by the Medical Staff member(s).

b. If a nurse or other hospital employee has any question about an order written by a second, third and fourth year resident, the supervising higher level resident, or Medical Staff member(s) may be contacted directly.

c. The medical care provided by residents shall be discussed with the designated Medical Staff member(s) on a frequent basis. The resident must document this in the medical

record.

d. Second, third and fourth year residents shall supervise such care depending upon the judgment of the Medical Staff member(s). The scope of activities shall be the same as that of the supervising physicians. Residents may be the first assist at surgery, consistent with appropriate departmental rules and regulations.

3. Sports Medicine Fellows:
   a. All orders, history and physical, discharge summaries and progress notes written by Sports Medicine Fellows shall be reviewed by the Medical Staff member(s).
   b. If a nurse or other hospital employee has any question about an order written by a sports medicine fellow the supervising Medical Staff member(s) may be contacted directly.
   c. The medical care provided by the Sports Medicine Fellow shall be discussed with the designated Medical Staff member(s) on a frequent basis. The Fellow must document this in the medical record.
   d. The scope of activities shall be the same as that of the supervising physicians. Sports Medicine Fellow may be the first assist at surgery, consistent with appropriate departmental rules and regulations.
4. Emergency Department Residents: (Refer to Medical Staff Policy & Procedure #8710-571)
5. Medical Students:
   a. All activities of 3rd and 4th year Medical Students including documentation of histories, physicals, and progress notes shall be under the direct supervision of an identified preceptor who is a member of the Hospital Medical Staff and shall be co-signed.
6. Medical Staff Attending:
   a. The designated Medical Staff member(s) shall be ultimately responsible for all care provided by Medical Students, Residents, and Sports Medicine Fellows and making decisions regarding each resident's progressive involvement and independence with specific patient care activities in accordance with this Policy and Procedure.
   b. Medical Staff member(s) shall write a daily progress note on each patient for which they are responsible. The note should reflect physical examination of the patient and include the physical assessment of current status, diagnostic and therapeutic plan.
   c. Documentation requirement(s) for Emergency Department Residents refer to Administration policy and procedure #351.
   d. Documentation requirement(s) for the Sports Medicine Fellow, the Medical Staff member(s) shall supervise the dictation of the Operative Report within the required time frame and Medical Staff member(s) shall co-sign Operative Report and all other Medical Record documentation including History and Physicals, Discharge Summaries and physician orders.

E. **GENERAL OVERSIGHT:**

1. Information regarding the safety and quality of patient care, treatment, and services provided to patients by a resident shall be discussed at the Graduate Medical Education (GME) Committee.
2. Reports shall be presented to the Medical Executive Committee and the Board at least annually.
3. The Medical Staff Director/Supervisor of each resident/student/fellowship program shall be responsible for communicating directly with the affiliated training institution regarding medical student/resident/fellow activities (as well as for reporting to GME committee) regarding quality of care, treatment, services and education needs of the participants. **(See notes below stating mechanism used to gather this information.)**

F. **REFERENCES:**

1. The Joint Commission Hospital Accreditation Standards

Note: Mechanism used to gather information noted in E-3 of this policy includes: Hospital's Risk Assessment program (RL) and the Spotlight for Success "Applause Card" program both of which allow for submission of comments from the community as well as internal staff.

Tri-City Medical Center
Medical Staff Office
4002 Vista Way
Oceanside, CA 92056
(760) 940-3071 (phone) * (760) 940-3486 (fax) plantsm@tcmc.com (e-mail) *

ANNUAL ASSESSMENT "EFFECTIVENESS OF GENERAL MEDICAL EDUCATION PROGRAM"

The Medical Executive Committee is interested in your comments regarding the GME program held at TCMC. Your feedback is vital to the continued success of the program.

ANNUAL ASSESSMENT "Effectiveness of GME Program"	Yes	No
1. Do you feel that the GME Program meets your needs? Comments:_____		
2. Have the medical students/residents/fellows been well received by the patients and staff? Comments:_____		
3. Are the medical students/resident's/fellows rotations sufficient to enable them to experience all acuity levels of the patients? Comments: _____		
4. Has the supervision of the medical students/residents/fellows been consistent with the standards? Comments: _____		
5. Was this program successful in meeting the needs of the hospital, patients and participants, and should the program be continued? Comments: _____		
6. During peer review, have there been any identified outliers that have not been consistent with the standard of care within the department? Comments:_____		
7. Has the clinical decision making process been appropriate and dependable? Comments: _____		
8. Were all safety precautions/protocols identified/followed? Comments: _____		
9. Any additional comments/suggestions or educational needs suggestions:_____		
10. Future Goals and Actions for following year: _____		

Thank-you for participating in the evaluation of TCMC's GME Program.

_____ _____ _____ _____ _____ _____ _____

Signature *Date*

Please return completed form to the Medical Staff Office: Attn: Sarah Plant

Tri-City Medical Center
Oceanside, California

MEDICAL STAFF POLICY MANUAL

ISSUE DATE: 03/07 **SUBJECT:** Surgical Assistance

REVISION DATE(S): 11/11, 07/12 **POLICY NUMBER:** 8710 – 545

Department Approval Date: 03/17
Division of GVS Approval Date: 03/17
Pharmacy and Therapeutics Approval Date: n/a
Medical Executive Committee Approval Date: ~~07/12~~03/17
Professional Affairs Committee Approval Date:
Board of Directors Approval Date: 07/12

A. **PURPOSE:**
1. To identify Amount and Level of Assistance required in Surgical Cases.

SURGICAL CASES	AMOUNT OF ASSISTANCE		LEVEL OF ASSISTANCE		
	1ST	2ND	MD	MD/PA/RNFA	OTHER
GENERAL					
Abdominal Perineal	X			X	
Bowel Resections (Major, as determined by surgeon)	X			X	
Gastric Procedures (Major, as determined by surgeon)	X			X	
Bariatric Procedures (Major, as determined by the surgeon)	**X**			**X**	
Biliary Procedures (Major, as determined by surgeon)	X			X	
Robotic Procedures (Major, as determined by the surgeon)	**X**			**X**	
Hepatic/Pancreatic Procedures	X			X	
Mastectomy Radical	X			X	
~~Omentectomy~~	~~X~~			~~X~~	
Pelvic Exenteration	X			X	
Thyroid Procedures	X			X	
VASCULAR					

SURGICAL CASES	AMOUNT OF ASSISTANCE		LEVEL OF ASSISTANCE		
	1ST	2ND	MD	MD/PA/RNFA	OTHER
Aortic Procedures	X			X	
Carotid Procedures	X			X	
Peripheral Vascular Bypass	X			X	
THORACIC					
Open Esophageal Procedures	X			X	
Thoracoscopy Procedures	X			X	
Thoracotomy Procedures	X			X	
UROLOGIC					
Open Prostatectomy Procedures	X			X	
Open Renal Procedures	X			X	
Open Ureteral Procedures	X			X	
Cystectomies	X			X	
ORTHOPEDIC					
Total Large Joint Procedures	X			X	
Spinal fusion/rodding procedures	X			X	
OB/GYN					
Hysterectomy Procedures	X			X	
Cesarean Sections	X			X CNM	X Emergency
NEUROSURGERY					
Craniotomies (except burr holes)	X			X	
Spinal fusion/rodding procedures	X			X	
ENT					
Radical Neck Procedures	X			X	
Thyroid Procedures	X			X	
Parotidectomy	X			X	
ORAL/MAXILLOFACIAL					
Cranial/Facial Procedures	X			X	X DDS

SURGICAL CASES	AMOUNT OF ASSISTANCE		LEVEL OF ASSISTANCE		
	1ST	2ND	MD	MD/PA/RNFA	OTHER
CV					
Open Heart Procedures	X	X	X	X*	
Carotid Procedures	X			X	

2. Amount and level of assistance for all other procedures are at the discretion of the operating surgeon.
3. For emergent surgical cases, the amount and level of assistance for procedure may be waived at the discretion of the ~~Department Chair or Chief of Staff~~**surgeon.**

B. **Open Heart Procedures**:
1. 1st Assistant must be another cardiac/thoracic surgeon or surgeon
2. 2nd Assistant may be MD or PA/RNFA

~~**Approvals:**~~
~~**General & Vascular Surgery Division Approval: 07/11**~~
~~**Cardiothoracic Surgery Division Approval: 10/11**~~
~~**Orthopedic Division Approval: 02/12**~~
~~**Neurosurgery Division Approval: 03/12**~~
~~**Subspecialty Surgery Division Approval: 02/12**~~
~~**Urology Division Approval: 05/12**~~
~~**Surgery Department Approval: 04/12**~~
~~**Ob/Gyn Department Approval: 10/11**~~
~~**Medical Executive Committee Approval: 07/12**~~
~~**Board of Directors Approval: 11/11; 07/12**~~

Tri-City Medical Center
Oceanside, California

MEDICAL STAFF POLICY MANUAL

ISSUE DATE:	**7/01**	**SUBJECT:**	**Suspension for Delinquent Medical Records & Fine Process**
REVISION DATE:	**3/05, 4/06, 3/07, 7/07, 3/08, 9/09, 10/14; 3/15; 2/16**	**POLICY NUMBER:**	**8710 – 519**

Department Approval Date:	**03/17**
Medical Staff Committee Approval Date:	**n/a**
Pharmacy and Therapeutics Approval Date:	**n/a**
Medical Executive Committee Approval:	**~~02/16~~03/17**
Professional Affairs Committee Approval:	**04/16**
Board of Directors Approval:	**04/16**

A. **POLICY:**

1. It is the policy of Tri-City ~~Medical Center~~**Healthcare District (TCHD)** and its Medical Staff that all medical records are completed in a timely manner, in accordance with Medical Staff Policy 8710-518, Medical Record Documentation Requirements, applicable laws, and accreditation standards.

B. **PROCEDURE:**

1. Applicable ~~TCMC~~ **TCHD** departments shall enforce pre-procedure requirements for History and Physical exam, as outlined in Medical Staff Policy 8710-518, Medical Record Documentation Requirements.
2. In order to facilitate timely medical record completion and appropriate practitioner notification, the ~~TCMC~~ **TCHD** IT Department shall develop and implement such automated notification mechanisms as requested by the Medical Records/HIM Department.
3. The Medical Records/HIM Department is responsible for reviewing medical records and identifying deficiencies of dictations and signatures, as outlined in Medical Record Documentation Requirements.
4. The practitioner is responsible for identifying any error(s) in assigned dictations/signatures by "refusing" the item within the Cerner Message Center, and indicating the appropriate practitioner if possible.
5. The Medical Records/HIM Department will run a weekly report to identify dictations and signatures that are not complete following patient discharge.
   a. A letter under the Chief of Staff's signature will be initiated to each practitioner weekly when the practitioner has any deficiencies aged 7 days from discharge. A second communication will be sent at 10 days post discharge.
6. Each week the Medical Records/HIM Department will submit to the Chief of Staff (via the Medical Staff Office) a list of verified deficiencies.
7. The Medical Staff Office shall:
   a. Call the physician to give verbal notice of the impending suspension.
   b. Prepare and send a written Notice of Automatic Limited Suspension to the physician.
8. Limited suspension shall apply to the practitioner's right to admit, treat or to provide services to new patients in the hospital, but shall not affect the right to continue to care for a patient the practitioner has already admitted or has scheduled to treat or to perform any invasive procedure. Obligations to fulfill ED On-Call duties as per existing schedule shall remain in effect.

9. Practitioners whose privileges have been suspended for delinquent records may admit patients only in life threatening situations, when no other physician of the appropriate specialty is available.
10. In the case of a patient care emergency, the suspension may be lifted by the Chief of Staff or his/her designee, otherwise the suspension shall continue until the medical records are complete.
11. If the physician is on vacation or has an illness when his or her records become delinquent, with Chief of Staff approval, such physician shall have five (5) days of returning to practice from vacation or illness to complete the records.

C. **MEDICAL STAFF FINES FOR DELINQUENT MEDICAL RECORD DICTATION:**

1. Purpose:
   a. To provide a Policy and Procedure for implementation and ongoing enforcement of fines for Medical Staff members with delinquent medical record dictation.
2. Definition Of Terms For Fine Process:
   a. Delinquent Dictation: A medical record is considered "delinquent" 14 calendar days after discharge, however, for this purpose fines will only be imposed for "dictations only", i.e. H&P, Op Reports, and Discharge Summary.
   b. Limited Suspension: A Limited Suspension permits the practitioner to continue to care for a patient he/she is already treating in the hospital or has scheduled to treat prior to the date of the imposed suspension.
   c. Fines: A fine of $10.00 will be imposed and billed to any practitioner who appears on the suspension list for each delinquent dictation. The $10.00 fine will be compounded weekly if not completed.
3. Policy And Procedure:
   a. Each Monday, prior to suspension, Medical Records sends Medical Staff office a list of physicians with delinquent dictation(s). Medical Staff office notifies the practitioner of the delinquent dictations indicating that the delinquent dictation(s) must be completed by the following Wednesday or a $10 per each delinquent dictation will be assessed.
   b. Medical Staff suspends each Wednesday. Physicians with delinquent dictation(s) will be billed $10 per delinquent report via the Medical Staff Department.
   c. Fines are due and payable when the practitioner receives a bill. (Physicians must notify Medical Records prior to leaving on vacation in order to be considered "exempt" from the fining process during their absence from the facility.)
   d. Loss of privileges/membership will result in the following circumstances:
      i. If, at the time of reappointment, the practitioner is found to owe outstanding fines, the application for reappointment will be considered "incomplete";
      ii. If the physician is found owing a fine for delinquent medical records for a period of 6 months or more;
         1) The practitioner will be sent a certified letter, including a copy of this Policy/ Procedure, which states that "failure to pay the outstanding fine, within twenty-one days of the date of the final notice, will result in the automatic relinquishment of his/her membership".
         2) The letter will give the practitioner an opportunity to forward a written response, within seven days of the date of the final notice, to be considered at the Medical Executive Committee meeting.
         3) The outcome of the deliberations/decision determined at the Medical Executive Committee meeting will be forwarded to the practitioner in question via certified mail. Should the practitioner fail to submit a letter for consideration at the Medical Executive Committee meeting or after consideration of such a letter, if it is determined at the Medical Executive Committee meeting that the practitioner does owe the fine, the payment of such fine is due and payable on the date identified in the first notice. A practitioner who has failed to pay the outstanding fine(s) within the

timelines as defined in this policy will be considered to have automatically relinquished his/her medical staff privileges and membership at ~~Tri-City Medical Center~~**TCHD** and therefore will not be entitled to a hearing as set forth in Article VII of the Medical Staff Bylaws. If the practitioner wishes to reapply to the staff he/she will be required to pay the full application fee plus the total of any outstanding fines owed for delinquent medical record dictation.

e. The monies collected from this process will be added to the Medical Staff Checking account and used as determined by the Medical Executive Committee on behalf and in support of the Medical Staff.

D. **MEDICAL STAFF SUSPENSION MONITORING:**

1. The Medical Staff Office shall notify Medical Records/HIM, IT, Surgery, Administration, Admitting, Cardiology and Radiology of the automatic suspension.
   a. Each of these departments is responsible for enforcing the suspension.
   b. Any questions shall be directed to the Chief of Staff via the Medical Staff Office.
2. The Medical Records/HIM Department shall notify the Medical Staff Office when a suspended practitioner has completed all deficiencies.
3. The Medical Staff Office shall notify the practitioner and applicable departments that the suspension has been lifted.
4. Days on suspension shall be tracked in the Medical Staff's credentialing database and considered at the time of OPPE and reappointment.
5. The Medical Executive Committee will serve as the intermediary in resolving suspension/delinquency status questions from physicians and will assist the Medical Records Department in communications with practitioners who have disputes regarding the actions of this policy.
6. Practitioners indicating an intent to resign will be advised to complete all outstanding dictations and signatures before departure, as failure to do so will make them ineligible for "good standing" affiliation verifications.

E. **REFERENCES:**

1. Medical Staff P&P 8710-518: Medical Record Documentation Requirements
2. Medical Staff Bylaws: Article VI, § 6.4-4

Tri-City Medical Center
Oceanside, California

MEDICAL STAFF POLICY MANUAL

ISSUE DATE: 05/01	**SUBJECT: Temporary Privileges/Temporary Medical Staff Membership**
REVISION DATE(S): 03/08, 04/09, 09/13	**POLICY NUMBER: 8710-515**

Department Approval Date:	**~~09/13~~02/17**
Credentials Committee Approval Date:	**~~09/13~~03/17**
Pharmacy and Therapeutics Approval Date:	**n/a**
Medical Executive Committee Approval Date:	**~~09/13~~03/17**
Professional Affairs Committee Approval Date:	
Board of Directors Approval Date:	**09/13**

A. **POLICY:**

1. Temporary privileges may be granted for circumstances and in accordance with procedures as outlined in the Tri-City ~~Medical Center~~**Healthcare District (TCHD)** Medical Staff Bylaws, Section 5.5.
2. Temporary Medical Staff membership may be granted to physicians to act as proctors consistent with Section 3.9 of the Medical Staff Bylaws.

B. **DEFINITION(S):**

1. Temporary Privileges: May be granted to a physician who has a particular skill that is needed or desired in the organization for a period of time but not related to a disaster or emergency procedure.

C. **PROCEDURE:**

1. Temporary Privileges for Medical Staff Applicants:
   a. Refer to Medical Staff Policy #8710-543, Credentialing Policy, Processing Medical Staff Applications, for medical staff applicant credentialing criteria.
   b. In accordance with the Medical Staff Bylaws, Section 5.5-2.
2. Temporary Privileges –Important Care Need and Locum Tenens
   a. The Medical Staff Office shall verify, at a minimum, the following information when temporary privileges are requested for an important patient care need and/or locum tenens:
      i. Current California license to practice
      ii. Drug Enforcement Administration registration
      iii. Current malpractice insurance and claims history
      iv. Current Competence
      v. NPDB
      vi. Peer References (at least one)
      vii. Letter(s) of Hospital Affiliation (at least one)
   b. Other verification may include:
      i. Positive identification
      ii. AMA or AOA Profile (Medicare/Medicaid exclusions)
      iii. Board Certification (Certifacts)
3. Temporary Medical Staff Membership for Proctors:
   a. The temporary Medical Staff member shall submit an application on the approved application form.
   b. The Medical Staff Office shall verify, at a minimum when temporary membership is requested:

i. Licensure
ii. Current competence (generally will consists of current affiliation where he/she currently holds/exercises the privilege being proctored)

c. Other verification may include:
i. Positive identification
ii. Such other information as may be available as directed by the Credentials Committee

d. The verifications remain valid for six (6) months; renewals of temporary membership beyond that time require submission of an application update and attestation.

~~**Approvals:**~~
~~**Credentials Committee Approval: 09/13**~~
~~**Medical Executive Committee Approval: 09/13**~~
~~**Board of Directors Approval: 03/08; 04/09; 09/13**~~

Tri-City Medical Center
Oceanside, California

MEDICAL STAFF POLICY MANUAL

ISSUE DATE: 9/07	**SUBJECT: Unintended Intraoperative Awareness during General Anesthesia**
REVISION DATE(S):	**POLICY NUMBER: 8710 – 546**
Department Approval Date:	**02/17**
Department of Anesthesiology Approval Date:	**~~09/09~~03/17**
Pharmacy and Therapeutics Approval Date:	**n/a**
Medical Executive Committee Approval Date:	**~~09/07~~03/17**
Professional Affairs Committee Approval Date:	
Board of Directors Approval Date:	**09/07**

A. **PURPOSE:**
1. To establish a process for preventing and dealing with unintended intraoperative awareness during general anesthesia.

B. **DEFINITION(S):**
1. Anesthesia Awareness: Unintended intraoperative awareness occurs when a patient receiving general anesthesia as the primary anesthetic becomes cognizant of some or all events during surgery, or other procedure. Anesthesia awareness does not include the time before the complete induction of anesthesia, or during intended emergence.
2. Background:
   i. The incidence of awareness during general anesthesia is reported to be greater in patients, for whom a smaller-than-usual dose of general anesthetic is necessary to decrease dangerous side effects (e.g., hemodynamic instability). Procedures identified as typically failing into this category are some cardiac, obstetric, and major trauma cases. Because unintended intraoperative awareness during general anesthesia is not always preventable, health care practitioners should be prepared to anticipate, acknowledge, and manage this occurrence with compassion and diligence.
   ii. Monitoring patients during general anesthesia to prevent intraoperative awareness can be challenging. Despite a variety of available monitoring methods, awareness is difficult to recognize while it is occurring. Typical indicators of physiologic and motor response, such as hypertension, tachycardia, or movement are often masked by the use of neuromuscular blocking agents to achieve necessary muscle relaxation during the procedure, as well as the concurrent administration of other drugs necessary to the patient's management, such as beta-blockers or calcium channel blockers.

C. **GUIDELINES:**
1. Prevention:
   a. Equipment Maintenance:
      i. Periodic maintenance of the anesthesia machines and its vaporizers will be performed and documented.
2. Preoperative Identification:
   a. Certain procedures may entail a higher risk of unintended intraoperative awareness and some patients with certain characteristics may be at an increased risk for the occurrence of intraoperative awareness. These include:
      i. Cardiac surgery patients
      ii. Acute trauma patients with hypovolemia
      iii. Cesarean section patients under general anesthesia

iv. Patients undergoing emergency surgery
v. ASA Physical Status 4 and 5 patients
vi. Patients with impaired cardiovascular status
vii. Patients with anticipated difficult intubation
viii. Patients with a history of awareness
ix. Patients with a history of heavy alcohol intake
x. Patients with a history of chronic use of benzodiazepines, opioids or both.
1) Patients considered by the anesthesiologist to present significantly higher risk for an awareness experience should be informed of the potential for awareness in preoperative discussions with their anesthesiologists.

3. Reducing the risk of intraoperative awareness during general anesthesia:
a. The appropriate anesthesia techniques and medications are determined by clinical judgment based on each patient's unique circumstances.
b. The anesthesia provider should consider pre-medication with an agent that may reduce the incidence of awareness (e.g. a benzodiazepine or scopolamine) when deemed appropriate.
c. If intubation of the trachea is difficult, consideration should be given to the administration of additional dosages of the induction or amnesic agent.
d. Anesthesia practitioners should realize that certain medications (e.g. beta-blockers, calcium channel blockers, alpha-2 agonists) and neuromuscular blocking agents may mask the homodynamic and physiologic responses to inadequate anesthesia.

4. Managing an Episode of Unintended Intraoperative Awareness During General Anesthesia:
a. When an anesthesiologist learns that a patient may have had unintended intraoperative awareness of surgical or procedural events during general anesthesia, the anesthesiologist should explore, document, and report the experience and provide for any necessary follow-up care. When other personnel learn that a patient may have experienced unintended intraoperative awareness during general anesthesia, the personnel should inform the anesthesiologist of record about the suspected occurrence.
b. If an episode of unintended intraoperative awareness during general anesthesia occurs or is suspected, the anesthesiologist who was responsible for the patient's care, or a qualified designee, should interview the patient and document the details of the patient's experience. If the anesthesiologist determines that unintended intraoperative awareness during general anesthesia has occurred the following steps may serve mitigate serious patient sequelae:
i. Assure the patient of the credibility of his or account and sympathize with the patient's experience;
ii. Explain what happened and why, if a reason can be given (e.g., the necessity to administer light anesthesia in the presence of significant cardiovascular instability);
iii. Offer the patient support, including referral of the patient to a psychiatrist, psychologist, or the Hospital Counseling Services if appropriate;
iv. Document any referrals or treatment provided to the patient;
v. Notify the patient's surgeon and nurse;
vi. Complete an occurrence report concerning the event for the purpose of quality management.

D. **REFERENCES:**

1. ASA. (2004, Dec. 17). Sample of a policy on unintended anesthesia awareness. Retrieved May 10, 2005 from http://www.asawebapps.org/docs/SampleAwarenessPolicy.pdf
2. JCAHO (2004, Oct. 6). Preventing and managing the impact of anesthesia awareness. Joint Commission on Accreditation of Health Care Organizations Sentinel Alert, Issue 32. Retrieved May 10, 2005 from http://www.jcaho.org/about+us/news+letters/sentinel+event+alert/sea32.htm.

~~**Approvals:**~~
~~**Department of Anesthesia Approval: 09/09**~~
~~**Medical Executive Committee Approval: 09/07**~~

~~**Board of Directors Approval: 09/07**~~

Tri-City Medical Center	Women's and **Newborn**~~Children's~~ Services Manual - NICU
PROCEDURE:	**PERIPHERALLY INSERTED CENTRAL CATHETERS AND MIDLINE CATHETERS, INSERTION OF**
Purpose:	To outline the procedure for the placement of peripherally inserted central catheters (PICC) in the neonate by a qualified PICC Registered Nurse.
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: 9/07	Revision date(s): 6/09, 11/09, 6/11, 8/12, 4/14

A. **POLICY:**

1. RN Requirements/Experience

~~1.~~**a.** **There is an application and interview process for new PICC team members.**

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

~~b.~~**c.** Must be a benefitted TCMC employee~~, preferably full-time FTE~~.

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

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

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

~~e.~~**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 RN**s** ~~and Assistant Nurse Manager (ANM) or designee~~ 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**~~Very low 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.

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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. ~~The physician will verify placement of the c~~**C**atheter **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~~th~~ be verified a minimum of every 2 weeks by X-ray.
9. ~~An informational handout will be provided to the parent or legal guardian. Questions will be answered or forwarded to the infant's physician.~~

B. **PICC PLACEMENT:**

1. Procedure:
   a. Verify ~~order from physician to place PICC and that~~ 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**~~used~~ 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**~~hair covering~~, 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. ~~Use foam tape to fit and place under hub to avoid skin irritation/breakdown.~~ 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. ~~Cleanse extremity of residual chlorhexidine gluconate with sterile water or normal saline.~~
z. 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**
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10. ~~Petit, J. (2003). Assessment of the infant with a peripherally inserted device. *Advances in Neonatal Care*, 3, 230-240.~~
11. ~~Pettit, J. & Wyckoff, M. (2001). *Peripherally inserted central catheters: Guidelines for practice*. Glenview, IL: National Association of Neonatal Nurses.~~

~~12. Trotter, C. (2004). Why are we trimming peripherally inserted central venous catheters? *Neonatal Network*, 23, 82-83.~~

~~13.~~**4.** ~~Wall, J., & Kierstead, V. (1995). Peripherally inserted central catheters: Resistance to removal: A rare complication. *Journal of Intravenous Nursing*, 18(5), 251-254.~~

~~14.~~**5.** CPQCC quality improvement toolkit, hospital-acquired infection prevention.

Tri-City Medical Center
Oceanside, California

SURGICAL SERVICES

SUBJECT: ANESTHESIA: TYPE, LOCATION AND MONITORING OF

ISSUE DATE: 6/09
REVISION DATE(S): 5/15; 11/15

Department Approval Date(s):	**10/16**
Department of Anesthesiology Approval Date(s):	**10/16**
Operating Room Committee Approval Date(s):	**10/16**
Pharmacy and Therapeutics Approval Date(s):	**02/17**
Medical Executive Committee Approval Date(s):	**03/17**
Professional Affairs Committee Approval Date(s):	
Board of Directors Approval Date(s):	

A. **PURPOSE:**
1. To provide guidelines for type, location and monitoring of Anesthesia Services throughout Tri-City Medical Center under various forms of anesthesia.

B. **DEFINITION(S):**
1. **General Anesthesia:** ~~Loss of consciousness induced by anesthetic administration. Drug induced d~~**Depression of consciousness caused by the administration of anesthetic agents during which the patient is not arousable.**
~~1.~~**2. Spinal Anesthesia:** Injection of anesthetic substances in the spinal fluid.
~~2.~~**3. Epidural Anesthesia:** Injection of anesthesia substances in the epidural space.
~~3.~~**4. Regional Anesthesia:** A region of the body anesthetized with local anesthesia.
~~2.~~**5. MAC:** Monitored Anesthesia Care- ~~Patient sedated but awake~~**Anesthesia provider present during a procedure and includes varying levels of sedation, analgesia and anxiolysis as necessary**.
~~3.~~**6. IV Sedation:** ~~Conscious Sedation~~**-Depressed level of consciousness induced by the administration fof** sedatives **in which** patients retain **the ability to maintain an open airway and respond to physical stimulation or verbal commands**.
~~4.~~**7. PACU:** Post Anesthesia Care Unit.

C. **POLICY:**
1. General Guidelines:
   a. A pre-anesthesia assessment is performed for each patient before anesthesia induction.
   b. Each patient's anesthesia care is planned.
   c. Anesthesia options and risks are discussed with the patient and family, if appropriate, prior to administration.
   d. Each patient's physiological status is monitored during anesthesia administration.
   e. The patient's post-procedure status is assessed on admission to and before discharge from the PACU.
   f. Patients are discharged by a qualified licensed independent practitioner or according to criteria approved by the medical staff.
2. Type and Location:
   a. General, spinal and epidural procedures are conducted in the Operating Rooms (OR), Radiology **Suite, Cardiac** Cath**eterization** Lab **(Cath Lab),** Labor & Delivery, and **in other designated monitored units** (e.g., **PACU)**.

b. MAC may be performed in Endoscopy, ~~**Cardiac Catheterization** Lab~~**Cath Lab**, ~~Operating Rooms~~**OR**, Radiology **Suite**, **Intensive Care Unit (ICU),** and in **other** designated monitored units.

c. IV sedation procedures may be performed in **the** Emergency Department **(by non-anesthesia providers)**, Endoscopy, ~~**Operating Room**~~**OR,** PACU, Radiology **Suite**, ~~Intensive Care Unit (~~ICU~~)~~, and in **other** designated monitored units.

D. **REFERENCES:**

1. Title XXII §70233 & 70235.
2. JCAHO TX.2.2.

Tri-City Medical Center	Surgical Services
PROCEDURE:	**ANTICOAGULATION MANAGEMENT DURING CARDIOPULMONARY BYPASS**
Purpose:	To outline perfusionist's responsibilities related to • Monitoring anticoagulation status for cardiopu • Heparinization for CPB • Reversal of anticoagulation • ACT controls • Quality Assurance/Preventive Maintenance
Supportive Data:	The standard of practice for heparinization of patients requiring CPB at Tri-City Medical Center is 350 USP/kg administered either by surgeon (directly into the right atrium), or anesthesiologist (via a central IV line). Activated clotting times (ACTs **and Heparin Dose Response (HDR)** are used to monitor the patient's overall coagulation status prior to heparinization (baseline ACT), two to three minutes after the initial heparin dose (post-heparin ACT / **Heparin Protamine Titration (HPT)**, and a minimum of every 30 minutes while on CPB. A post-protamine ACT/**HPT will** may or may not be checked approximately 10 minutes after protamine administration (depending on clinical situation/physician preference). Controls are performed for each ACT/**HMS** machine in use on a given day as well as for each lot number of ACT cartridges to verify the performance of same.
Equipment:	• **Medtronic Hepcon HMS Plus** • High range ACT cartridges (located oin shelves**cart** in heart room) • Heparin Assay Cartridges • Non-heparinized syringes with large bore needles (3mL) (located on perfusion cart or anesthesia workroom)Heparin (1000U/ml)
Issue Date: 06/94	Revision Date(s): 04/00; 03/03; 07/04; 02/08; 10/09; 08/10

DELETE

Keep as Perfusion Practice Guidelines for reference – maintained in Surgery department files

A.MEASURING ACTs

1.Verify the **HMS** machine isis plugged in and warmed up to a temperature of 37 +/- 0.5º□ C.
   a. Machine should be left on 24 hours/day to assure readiness for emergencies.
2. **Refer to Medtronic HMS Plus Operator's Manual for step-by-step instructions** on performing **ACT and Heparin Assay (HPT) measurement.**
4.Verify that baseline is within normal limits (WNL) (90-120 seconds), and notify anesthesiologist of abnormal results. Repeat if indicated.
   a.Baseline ACT **and Heparin Dose Response (HDR) test**s should be drawn prior to sternal incision whenever possible.
5.Ensure that post-heparinization ACT is >400 seconds prior to commencing CPB.
   a.Before commencing CPB, it is imperative that circuit be carefully observed for evidence of fibrin formation (i.e. by visualization of suction/vent lines and cardiotomy reservoir with institution of cardiotomy suction).
6.Maintain ACTs ≥ >400 seconds at all times during CPB.
   a.Frequency of sampling may need to be increased with warming or if ACT/**HPT** results are consistently low or erratic.
7.Anesthesiologist may or may not **R**request a post-protamine ACT/**HPT from the Anesthesiologist.**

a.Sample should be checked as clinical situation dictates (e.g., excessive oozing/ chest tube output.

B.HEPARINIZATION

1.Calculate the loading dose of Heparin based on patient weight and inform circulating and scrub RN's.
2.Verify that loading dose has been given before turning cardiotomy suction on.
   a. Verbalize correct dose of Heparin and time as it is given.

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3.In addition to loading dose, add 10,000USP of Heparin to prime during recirculation.
a.Heparin (1000U/ml) should be utilized.
4.If post-heparinization ACT is <>480 seconds, have anesthesiologist administer additional Heparin according to the following protocol and/or HMS calculation:
a. Reassess ACTs as time allows and clinical situation dictates.

ACT (SECONDS)	ADDITIONAL HEPARIN (USP)
400-479	50/kg
350-399	100/kg
300-349	150/kg
250-299	200/kg
200-249	250/kg
<199	300/kg

5.If ACTs/**HPT** do not increase with administration of additional Heparin, suspect:
a.Bad lot of Heparin
i.Change lot numbers.
b.Antithrombin III deficiency (especially in patients who have been on Heparin pre-operatively or have a history of thromboembolic events).
i.Administer 1-3 Units of fresh frozen plasma (FFP) (as ordered by physician).

C.HEPARIN REVERSAL

1.Protamine dose will be determined **calculated** by anesthesiologist **the HMS Plus** based on the total amount of Heparin given during the case. **Notify the Anesthesiologist** of **the protamine dose**.
a.All coronary suction should be turned off as soon as protamine administration commences.
2.Should emergent resumption of CPB become necessary, loading dose of Heparin must be repeated, and 20,000 USP should be added to prime.

D.ACT CONTROLS

1. Obtain necessary equipment:
a. CLOTrac controls (one normal and one abnormal) with deionized water vials
b. HR ACT cartridges
c. **Medtronic HMS Plus machine**
d. Non-Heparinized 3cc syringe with large bore needle
1.Refer to ACT Plus**Medtronic's** Operator Manuals and CLOTrac control package inserts for manufacturer's instructions for performing controls.
a.Electronic QC is done prior to each case.

E.QUALITY ASSURANCE/PREVENTIVE MAINTENANCE

1. Obtain necessary equipment:
a. Medtronic ACT Plus **Hepcon HMS Plus** Cleaning Kit (located in bottom drawer of Digital perfusion cart)
b. Thermometer
c. ACT Cartridge
d. Deionized water
1.Wipe up blood spills on outside of machine with hospital approved solution as they occur.
2.Clean actuator according to manufacturer's instructions utilizing the Medtronic ACT cleaning kit (Liquinox solution and applicators).
a. Cleaning should be performed monthly and as needed.

3.Perform temperature verification by following the steps listed below (monthly and as needed):
a.Turn machine on and allow to warm up for at least ten minutes.
b.Verify heat block temperature with electric thermometer.
i.Heat block must be at 37 +/- 0.5º C to ensure accurate test results.
c. Follow manufacturer's instructions for correction if heat block temperature is out of range or a discrepancy exists between the measured temperature and that displayed on the machine.
5. Perform Volume Verification (monthly and PRN).
a. Select QC menu.
b. Select "Verify and dispenser volume delivery" and follow instructions per machine.

F.DOCUMENTATION:

1.Record Heparin loading dose amount and time of administration; amount of Heparin in prime; any additional doses of Heparin/times; all ACT/**HPT** results; and total amounts of Heparin and protamine administered on perfusion record as indicated in "Guidelines For Filling Out Perfusion Record."
2.Record ACT control results, temperature verification (displayed/measured), and documentation of cleaning on log sheet entitled "Automated Coagulation Timer Maintenance and Quality Control Record" (kept in third drawer of perfusion cart).

G.REFERENCES:

1.Hensley F.A. and Martin D.E., et.al. *Bulletin:* "The Practice of Cardiac Anesthesia," p.552, Brown and Co.
2.CLOTrac HR Control package insert, Medtronic Hemotec, Inc.
3.Operator's Manual ACT Medtronic, Inc.
4.1. **Operator's Manual HMS Plus Medtronic, Inc.**

Tri-City Medical Center	Surgical Services
PROCEDURE:	**DISINFECTION OF STOCKERT® HEATER-COOLER SYSTEM 3T TANKS**
Purpose:	To outline the necessary steps for disinfecting the Stockert® Heater-Cooler System 3T tanks and describe the safety measures to process.
Supportive Data:	To prevent germ growth, the Stockert® Heate disinfected at routine intervals. Disinfection of the tanks requires using Clorox®, a bleach containing 6.15% sodium hypochlorite. The Clorox® solution is corrosive and may cause severe irritation or damage to eyes, skin and respiratory tract. Proper personal protective equipment (PPE) must be worn while handling the Clorox® solution.

Equipment:	• Stockert® Heater-Cooler System 3T Unit
	• Clorox Commercial Solutions® Ultra Clorox® Germicidal Bleach, 200mL
	• Graduated beaker
	• Personal Protective Equipment (PPE):
	  • Gloves
	  • Face splash shield

Issue Date: 06/10	Revision Date(s):

DELETE
Refer to manufacturer's IFU's

A. POLICY

1. The water tanks must be disinfected prior to operating the heater-cooler for the first time.
2. The water tanks shall be disinfected every 14 days, independent of the device's frequency of use.
3. Proper PPE, including gloves and face splash shields, shall be worn by all personnel while handling the Clorox® solution.
4. The Clorox® solution shall be stored in an anti-corrosive container in the laboratory.
5. The Clorox® solution must only be used pre- and postoperatively, never intraoperatively.

B. PROCEDURE

1. Bring the heater-cooler to the OR dirty utility room, where the disinfection process shall be performed.
2. Obtain the Clorox® solution in the anti-corrosive container from the laboratory.
3. Don PPE:
   a. Gloves
   b. Face splash shield
4. Plug in the heater-cooler and press the main power switch to power up the unit.
5. Unscrew the cover of the filler neck.
6. Fill the water tanks with sterile or tap water.
   a. Maximum filling is ensured as soon as both green LED's of the bar graph display for the patient circuit light up or water flows into the overflow bottle.
7. Utilize the included graduated beaker to pour 200mL of Clorox® solution into the tanks.
   a. To ensure a homogeneous solution in the tanks:
      i. Replace the cover of the filler neck.
      ii. Close the three venting valves at the rear of the heater-cooler.
      iii. Establish a connection between the inlet of the cardioplegia circuit and the inlet of one of the patient circuits.
      iv. Note: A temperature alarm can be triggered if the temperature deviates in the individual tanks. To avoid this alarm, adjust the set temperature values of both cardioplegia circuits and the patient circuit to approximately 20°C.
8. Start the cardioplegia circuit.

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a. Press the "Circuit Start/Stop" key on the heater-cooler to start the cooling circuit (cooling tank=blue dot).
b. The green LED's on the heater-cooler flash alternatively.

9. The water flow changes the fill level in the tanks.
   a. One or both green LED's of the bar graph display for the patient circuit go out (no effects).
   b. As soon as the orange LED flashes, fill 0.2 to 0.5L of water as quickly as possible.
      i. The alarm is triggered if the level drops any further.
10. Stop the cardioplegia circuit.
    a. After 10 minutes, press the "Circuit Start/Stop" again to stop the circuit.
    b. The water flow is stopped.
    c. The green key LED's go out.
11. Empty the water tanks.
    a. Open the drain valves.
    b. Empty the water containing the Clorox® solution and pour into hopper.
    c. Thoroughly rinse once by filling the tanks with water and emptying.
12. Disinfection is complete. Close the drain valves and re-fill the tanks with water.
13. Remove PPE and discard in trash.
14. Return the heater-cooler to its proper location and return the Clorox® solution to the lab for storage.

C. REFERENCES

1. Manufacturer's Operating Instructions: Stockert® Heater-Cooler System 3T (2009).
2.1. Material Safety Data Sheet: Clorox Professional Products Company- Clorox Commercial Solutions® Ultra Clorox® Germicidal Bleach (2004).

Tri-City Medical Center	Surgical Services
PROCEDURE:	**DONOR CORNEAS, TRANSPLANT PREPARATION**
Purpose:	To outline the nursing responsibilities in handling and preparation of donor corneas for implantation.
Supportive Data:	To ensure proper transplantation of donor cor
Equipment:	• Donor cornea • Sterile trephines, sizes 7.0 to 9.0 inches, in increments of 0.25 inches • Sterile balanced salt solution 15mL • Sterile basin • Sterile Teflon block • Sterile specimen container • Microbiology lab slips • Corneal transplant instrument tray
Issue Date: 04/94	Revision Date(s): 01/97; 04/00; 03/03; 11/07; 7/09; 09/12

DELETE
Keep as Practice Guideline

A. **DONOR CORNEAS, TRANSPLANT PREPARATION**

1. Complete Tissue Request Form and send with courier to Lab to retrieve cornea.
   a. Donor cornea is requested by the surgeon from San Diego Eye bank, delivered in the morning of Surgery and stored in the tissue bank until requested.
   b. Donor cornea must be stored in a monitored temperature refrigerator at 2-8ºC.
2. Remove the vial containing the cornea from the refrigerator and allow it to warm to room temperature (at least 30 minutes).
3. Verify donor information with label on vial.
   a. Donor cornea must be verified by physician prior to scrubbing in.
4. Circulator:
   a. Remove seal from tissue container.
   b. Rotate or shake the container to dislodge the tissue from the bottom or side.
   c. Open the tissue container close to the sterile field and pour the tissue into a dish/basin under sterile conditions.
   d. Save the solution for cultures.
5. Scrub person:
   a. Receive donor cornea soaked in media solution in a basin, until ready to implant.
   b. Media button is punched out on Teflon block. Cover block with specimen, with media covering button.
      i. Trephine is used to cut appropriate size button from donor cornea
      ii. Protect implant from light after cutting.
6. Send donor rim and media in a sterile container to lab for routine cultures, anaerobic and fungus.
   a. Note on Microbiology Request Form to culture specimen and discard.

B. **DOCUMENTATION**

1. The Eye Bank is to be notified immediately if surgery is cancelled, to facilitate redistribution of the cornea.
2. Donor cornea is to be noted on the Implant Record with all pertinent information.
   a. Listed under "cornea" in implant list.
3. Culture is to be noted in the Specimen section of the OR Record and accompanied to the Lab by a Microbiology Request Form.
4. Send patients cornea to pathology as permanent specimen.
5. Record all information needed on form from the Eye Bank
   a. Return necessary forms to the Eye Bank

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6. Adverse reaction form goes with surgeon for post-op if needed.

C. **REFERENCE**

1. Eye Bank, Cornea Manufacturer's Recommendations

Tri-City Medical Center	Surgical Services
PROCEDURE:	**EYE LASER PATIENT MANAGEMENT**
Purpose:	To outline the nursing management of adult patients undergoing eye laser procedures.
Supportive Data:	Laser is an accepted form of treatment in nur... retinal vascular disease, capsular fibrosis pos... iridotomies for narrow angle glaucoma.
Equipment:	**Argon/Yag Lasers** • Laser safety goggles for all personnel • Eye medications • Eye room keys • Tissues • Site marking pen **Diode Laser** • Flame retardant drapes • Laser sign outside room • Laser safety goggles for all personnel • G-probe • Alcohol swabs • Goniosol or BSS • Eye pad and eye shield
Issue Date: 06/07	Revision Date(s): 12/09; 09/12

DELETE
No longer have eye laser clinic

A. ARGON/YAG LASERS

1. Indication
   a. For all patients scheduled for Argon or Yag laser procedures.
2. Pre-Laser Management
   a. Prepare the following and send to Eye Laser Room with the patient
      i. Chart with completed and signed patient consent form
      ii. Keys for laser room (located in SPRA and OR)
      iii. Eye medications as ordered
3. Special Considerations
   a. Assess and document blood pressure, heart rate and temperature prior to installation of eye drops.
   b. Notify physician of patient admission and hypertension, if applicable.
   c. Administer eye drops as ordered by physician.
   d. When done on emergency basis or on PM shift or night shift, PACU staff are designated to attend to the patient.
      i. If PACU staff are not available and OR staff are available, they shall follow the above protocol.
   e. Portable blood pressure equipment is available in the anesthesia workroom and PACU.
4. Management during procedure
   a. All personnel must wear specified laser safety goggles during the procedure.
   b. Door of procedural area must remain closed during the laser procedure.
   c. After the procedure, turn off the Yag laser and cover it.
   d. Clean and re-stock room.
   e. Return laser room keys to SPRA/OR.
5. Transportation
   a. An RN is to accompany the patient to the eye room.

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6. Documentation
   a. Include patient teaching to reinforce the physician's instructions to patient and sign orders.
7. Discharge
   a. Discharge the patient per physician's orders when discharge criteria are met.

B. DIODE LASER

1. Indication
   a. For all patients scheduled for Diode laser procedures.
2. Pre-Laser Management
   a. Patient will be admitted in SPRA/POH and ordered eye drops will be instilled.
   b. No IV is required
   c. Patient is to undress from waist up and don hospital gown
   d. Prepare the chart with completed and signed patient consent form
   e. Document blood pressure, pulse, temperature and oxygen saturation on nursing record
   f. Notify physician of patient admission
3. Management During Procedure
   a. Procedure to be done in PACU cubicle
   b. OR staff shall obtain necessary equipment
   c. For patients admitted in SPRA, notify SPRA personnel when ready for the patient in the PACU cubicle
   d. RN remains with the patient during the procedure to monitor vital signs every 5 minutes during the procedure
   e. Room should be isolated with flame retardant drapes
   f. Hang laser signs outside room
   g. Laser safety goggles must be worn by all personnel during the procedure
   h. The laser must remain in standby when not in use
   i. Open the G-probe to the MD and offer to clean the tip with alcohol swabs at intervals to prevent scleral burn.
   j. Keep operative site moist with Goniosol or BSS.
   k. Dispose of G-probe after procedure.
   l. Apply eye pad and eye shield after treatment
4. Special Considerations
   a. Emergency basis or on PM or night shift, PACU staff are designated to be with patient. If they are not available and OR staff is available, they should follow above procedure. Diode laser is in portable black case in OR Storage Room 2. Laser keys are kept in Eye Cabinet in OR 7.
5. Transportation
   a. After registration, accompany patient to procedure room.
6. Documentation
   a. OR Nursing Record, reinforce and review physicians instructions and sign orders.
7. Discharge
   a. Discharge patient per physician's orders, documenting vital sings and patient status comparable to pre-procedure.

C. REFERENCES

1. Coherent 7901 Yag Laser Operator's Manual
2.1. Coherent Argon Dye Laser Operator's Manual

Tri-City Medical Center	Surgical Services
PROCEDURE:	**HEART LUNG MACHINE**
Purpose:	To outline the perfusionist's responsibilitie • Setting up the heart lung machine • Priming the heart lung machine
Supportive Data:	Must be performed by a perfusionist. NO times. Set up should be completed as soon as a case is finished.

Equipment:	**Nondisposables:**
	• Heart lung machine with 2 pressure manometers and the following holders:
	  • Oxygenator/Venous Reservoir (VR)
	  • Arterial line filter (ALF)
	  • Hemofilter
	• Sterile and Non-sterile scissors
	• Tie straps/gun
	
	Disposables:
	• On case cart outside of heart room or from Materials Distribution (MDC)
	• Tubing pack
	• Oxygenator with integrated venous reservoir
	• Cell Saver aspiration line
	• Sterile 60mL bulb syringe
	• Sterile suction line
	*Primary equipment is in heart room or in/on perfusion cart or shelves in heart room.

Issue Date: 04/94	Revision Date(s): 06/96; 01/00; 03/03; 10/09; 08/10; 09/12

DELETE
Keep as Perfusion Practice Guidelines for reference – maintained in Surgery department files

A. **SETTING UP HEART LUNG MACHINE (STERILE DRY SETUP)**

1. Ensure power supply to pump and heater cooler are intact and that all lights/switches are functional.
   a. Pump and heater cooler should each have their own isolated power supply.
2. Gather equipment from case cart and bring to room where cardiopulmonary bypass (CPB) is to be performed.
   a. Masked personnel should open sterile disposables in a sterile environment.
3. Verify package integrity, assemble remaining circuit components as follows: (Oxygenator and AV loop should be set up first to enable emergent establishment of CPB if needed)
   a. Oxygenator/Venous Reservoir:
      i. Remove caps from gas ports and place in holder.
      ii. Attach gas line from blender to gas filter and then to oxygenator.
   b. AV Loop:
      i. Attach tapered ½" tubing to VR outlet and through arterial pumphead raceway.
      ii. Attach distal end of tapered tubing to inlet at bottom of oxygenator.
      iii. Place ALF in holder.
      iv. With AV loop hanging on pump mast, attach ½" venous tubing to VR inlet.
      v. Attach ⅜" arterial line to oxygenator.
         1) Arterial pumphead should be unoccluded at this point.
         2) Ensure there are no kinks between oxygenator and ALF.
         3) Ensure all connections are secure and tight.
         4) Circuit could now be easily prepared for emergency CPB.
   c. Cardioplegia system:

Department Review	Department of Anesthesiology	Operating Room Committee	Pharmacy & Therapeutics Committee	Medical Executive Committee	Professional Affairs Committee	Board of Directors
06/96; 01/00; 03/03; 10/09; 08/10; 09/12; 06/15; 11/16	n/a	12/16	n/a	03/17		

i. Secure heat exchanger in holder.
ii. Attach pressure veil line to manometer only at this point.
iii. Attach ¼" tubing to ¼" Y at oxygenator outlet and then through plegia pump raceway along with tubing from cardioplegia bag.
1) ¼" portion of Y connector should be oriented downward.
2) Plegia tubing should be out of raceway at this point.

d. Suction/vent lines:
i. Place aortic root, PA vent and coronary suction lines through color coded pumpheads
ii. Attach to VR.
1) Ensure one-way valves are properly oriented.
2) If second case is not pending, leave tubing out of raceway.

e. Cooling jacket:
i. Place coil in bucket near fifth pump head.
ii. Ask surgeon before opening sterile jacket.

f. Hemofilter (HF):
i. Located in cabinet.

g. Other:
i. Attach bulb syringe to piece of sterile ¼" tubing and attach this to VR at extra suction inlet port.
ii. Attach short gas filter to arterial filter for $C0_2$ flush.
iii. Attach distal end of ALF purge line to VR.
iv. Pass wrapped table lines, cardioplegia line, and cooling jacket to circulator or scrub nurse.
v. Attach venous and arterial temperature probes to port on VR.
1) Ensure one-way valve is correctly oriented.
2) If no case is pending keep these on top of the perfusion cart.
3) Keep connector from cell saver line package for bottom of cell saver cardiotomy.

4. Documentation:
a. Document lot numbers of oxygenator, tubing pack, and cardioplegia unit on pump record (if second case is not pending, save insert from tubing pack displaying lot number and place in perfusion cart).

B. PRIMING THE HEART LUNG MACHINE

1. Equipment:
a. Heart lung machine
b. Terumo heater cooler with water
c. Extracorporeal circuit (as described in Procedure, Setting up Heart Lung Machine)
d. Wall suction sources (x2)
e. IV fluids to include:
i. PLA or Isolyte 2L
ii. 0.9% NaCl 1L and 0.5L
iii. Cardioplegia 2L
f. 100% CO_2 tank
g. 100% O_2 tank (as back-up)
h. Tubing clamps (x7)
i. Flashlight and hand cranks
j. O_2 air supply

2. Drugs:
a. 25% Albumin, 100mL
b. 25% Mannitol, 100mL
c. Amicar, 5grams

d. NaHCO3, 50mEq
e. Heparin, 10,000USP for circuit, and 40,000USP for Cell Saver
f. Neo-Synephrine

3. Procedure
a. Preparation for CO_2 flush:
i. Apply tubing clamps (2) to the following:
1) ALF inlet and distal to ALF, leaving ALF bypass open
2) May be eliminated in an emergency.
ii. Attach 100% CO_2 source to filtered, sterile gas tubing on arterial filter to allow gas through ALF to oxygenator.
1) All other stopcocks/caps should be closed.
iii. With tubing in unoccluded raceways of arterial and plegia pumpheads, flush circuit with 100% CO_2 at 3-5LPM for approximately 5 minutes, venting through oxygenator.
1) Continue to flush the remainder of circuit with CO_2.
iv. At the completion of the CO_2 flush, turn the CO_2 tank off, close all stopcocks to air, and remove the gas filter from the arterial filter.
1) Now is a good time to attach purge line to ALF.
v. Place tubing in the raceway.
b. Testing for water leaks:
i. During CO_2 flush, test oxygenator heat exchanger for water leaks by connecting H_2O inlet and outlet lines to each, and running H_2O through them for 5-10 minutes. Repeat procedure for cardioplegia unit PRN.
1) H_2O inlet and outlet ports are labeled on oxygenator and cardioplegia heat exchangers.
2) And H_2O leak would be indicated by the presence of moisture in the blood pathway, and would necessitate changing out the component that leaked, as well as any parts of the circuit potentially contaminated with tap H_2O.
3) Ensure proper cardioplegia H_2O temperature at this time, add H_2O to heater/cooler minimum level PRN.
c. Priming the circuit:
i. Drop 1.4L of Isolyte into VR. The circuit should be primed and recirculating prior to the induction of the patient.
ii. Allow circuit to fill by gravity, venting air out through stopcock on top of VR.
iii. Clamp ALF out of system and prime remainder of circuit through filter bypass line by running pump at approximately 2LPM. Delete pre-bypass filter and replace with HCT/SaO2 cuvette. Continue priming rest of circuit at 4LPM.
1) NOTE: THE ARTERIAL PUMPHEAD WILL NOT RUN UNLESS THE AIR BUBBLE DETECTION (ABD) MODULE IS TURNED ON.
iv. To prime ALF, open purge line partially, unclamp filter outlet, and allow to fill slowly retrograde. Once fluid level has cleared level of ALF inlet, unclamp it as well, and place clamp on filter bypass line.
v. Fill pressure veil line by connecting 60mL syringe to distal stopcock and aspirating prime through line. Fill veil with this fluid keeping diaphragm compressed.
vi. De-air ALF by inverting and tapping gently.
d. Priming the cardioplegia delivery system:
i. With the IV tubing clamped, spike a 1L bag of premixed cardioplegia with additives (added by perfusionist and expiration date checked just before use). Set occlusion on cardioplegia pump, and fill unit.

ii. De-air the heat exchanger by tapping with the heater cooler still running in cardioplegia mode and large tank mode.
1) Can be done after initiation of bypass in emergency
iii. Connect blood outlet line to table line (passed off of field when patient is draped).
1) Ensure aortic root line is connected and on before starting cardioplegia pump.
iv. Prime remainder of table line by unclamping blood outlet and slowly running plegia pump forward, checking for leaks at connections site (with arterial pump running).
v. Arterial pumphead must be rotating at a rate faster than the cardioplegia pump to avoid pulling air across membrane.

e. Aerating the circuit:
i. Flush CO_2 out of the system by running room air sweep at 2LPM for approximately 5 minutes.
ii. Be sure to turn sweep off before stopping fluid circulation to prevent pressure build-up on gas side of membrane and bubble formation.

f. Addition of drugs to circuit:
i. Once debubbling and aeration of circuit are complete, turn off gas, then blood flow, and clamp venous line.
ii. Lower prime line with attached IV bags to clean towel on floor; clamp end of prime line distal to Y connector and unclamp recirc line. Remove excess prime as desired via recirc line up to IV bag.
1) Do not allow VR to empty completely.
iii. Add the following additives to the isolated VR through the bulb syringe: 25% Albumin 100mL; Mannitol 25grams; $NaHCO_3$ 50mEq; and *Amicar 5grams; Heparin 10,000Units.
iv. Once completed, clamp prime line to IV solution and recirc line and unclamp distal prime line beyond Y connector.

g. Set arterial pumphead occlusion:
i. Zero press transducers and check alerts and alarms.
ii. With sampling manifold stopcock and ALF purge line still closed, set occlusion of arterial pumphead by clamping distal to the ALF and slowly turning the pumphead so that both rollers are perpendicular to the side of the pump.
iii. While observing the manometer, tighten or loosen the occlusion until the manometer drops 10mmHg in a minute.
iv. Repeat this procedure for the other roller.
v. Ensure press alerts and alarms are functioning properly.

h. Recirculate prime (warm if needed, check with surgeon for re-do operation prime temperature):
i. After occlusion is set, open both stopcocks listed above, and recirculate prime with heater cooler set at 27°C, and gas flow on at about 1LPM at 21%.
1) Continue to recirculate until just prior to the administration of Heparin.
ii. Check circuit integrity and all connectors for leaks.
1) At low blood flow rates (less than 2LPM), gas flow should not exceed 1LPM (per manufacturer's instructions).
iii. Ensure that circuit is bubble free and bubble detector/level sensors are functioning properly.

i. Other:

i. Check cardiotomy suckers, PA and Aortic vents for correct occlusion and direction of one-way valves.
ii. Attach CDI 500 sensor to appropriate cuvettes (if not previously done).
1) Check for battery life and proper functioning.
2) Place in standby until initiating bypass.
iii. Ensure that venous and arterial temperature probe is connected to oxygenator and module is functional with correct channel selected.
iv. Attach ¼" tubing from hemofilter to suction canister and clamp (PRN).

j. Prepare Cell Saver:
i. Add 30,000USP of Heparin to 1L bag of 0.9% NaCl.
ii. Ensure suction source is functional and accessible.
iii. Attach aspiration and anticoagulation line to CR (passed off from field after patient is draped).
iv. Adjust suction before priming line with the Heparin drip.

k. Prepare the cooling jacket:
i. Place tubing in pumphead (if surgeon requests one).
ii. Tighten occlusion (if needed). Occlusion is usually preset from previous case.
iii. Spike 500mL bag of 0.9% NaCl at uncovered spike port.
iv. Slowly pump saline through coil and out vented end cap. Ensure all caps are tight.
v. Fill bucket containing coil with ice.
vi. Attach coil to jacket via tubing passed off from field (once surgeons/ assistants are in place at table). Spike remaining end into covered port of NaCl, and hang bag on pump.
vii. Circulate at approximately 20RPMs.

l. Prepare paperwork, lab supplies, drugs:
i. Paperwork may be completed after the initiation of CPB.
ii. Paperwork to be completed by perfusionist will come in a packet from the front desk and includes:
1) CVS STAT Lab Requests
2) Bypass Drugs charge document
3) Surgeon's dictation green sheet.
4) National Cardiac Surgery Database. Perfusionist to complete section entitled "Cardioplumonary Bypass and Support Data"
5) Pre-bypass Check List
iii. Label purple top tubes (perfusion cart) and 12mL luer lock syringes (with needles) with patient labels.
iv. Draw up and/or prepare the following drugs:
1) Lidocaine 100mg
2) Neosynephrine 10mg (prepared as 1mg/mL concentration)
3) Calcium Chloride 1gram
4) Magnesium Sulfate 2grams
v. Ensure that appropriate, type specific blood products are available.
vi. Check availability of extra solutions, drugs, syringes, lab tubes, needles, and other supplies.
vii. NOTE: Circuit is now ready in the event it is needed emergently. The following steps should be completed just prior to initiating CPB.

m. Prepare Heater/Cooler
i. Ensure adequate ice and H_2O level.
1) Heater/cooler should be kept "ON" with ice maker on at all times.
ii. Turn plegia mode to large tank at 3RPMs and turn "OFF" until use.
iii. Set heater/cooler temperature to 27°C.

n. Prepare to pass lines to table
   i. Turn off sweep gas and clamp arterial and venous lines as surgeon administers heparin.
   ii. Turn off purge and manifold stopcocks.
   iii. Connect suction and vent lines. Pay particular attention to AV connection (tap gently while observing for bubbles). Set blender to proper FiO_2 for bypass.
   iv. Turn suckers on once Heparin is in and circulated (please see Surgical Services Procedure, Anticoagulation Management During Cardiopulmonary Bypass).
      1) Surgeon will heparinize just prior to cannulation.
      2) Monitor ACT results prior to start of CPB.
   v. Detach tape from each end of blue sterile wrap, over AV loop and remove outer wrap only. On surgeon's direction, hand AV loop to table by peeling back sterile wrap, and holding loop horizontally.
   vi. Surgeon will grab sterile portion, and perfusionist removes wrap.
   vii. On surgeon's request, advance roller pump slowly by hand to allow prime to aid in a bubble-free connection to arterial cannula.
      1) Unclamp arterial line before advancing pump.
   viii. Verify arterial fluctuation on manometer and correlate mean with mean arterial pressure on monitor and CPC.
      1) Reclamp arterial line at ALF inlet.
   ix. With ALF stopcock turned off to purge line, place hemofilter inlet line to stopcock/purge line, and attach hemofilter outlet line to filtered port on CR (PRN).
   x. Don gloves and goggles (if not previously done), and prepare to initiate bypass.

4. Documentation
   a. Record lot numbers of disposables, priming fluids, drugs and blood products (when available) on Perfusion Record.

C. REFERENCES

1. The Affinity Membrane Oxygenation Module Instructions for Use; Medtronic Corporation, Sorin.
2.1. Blood Cardioplegia Delivery System Instructions for Use; Sorin Vanguard BCD package insert.

Tri-City Medical Center	Surgical Services
PROCEDURE:	**HEART VALVES THAWING (CRYOPRESERVED)**
Purpose:	To outline the nursing responsibilities in the [illegible] allograft heart valves.
Supportive Data:	Homograft valves are used to repla[illegible] valve.
Equipment:	**Sterile:** • 1 Large Basin • 1 Liter 5% Dextrose and Lactated Ringers at room temperature (D5/LR) • 1 pair of scissors • 1 Kelly clamp or Sponge forceps **Non-sterile:** • 1 Large Basin • 3 Liters or more of Normal Saline or Water at 37°-42°C (98°-108°F) • 1 pair of scissors • 1 Kelly clamp or Sponge forceps
Issue Date: 08/95	Revision Date(s): 09/96; 12/99; 03/03; 09/08; 09/12

DELETE

Keep as Practice Guidelines for reference – maintained in Surgery department files

A. UNPACKING INSTRUCTIONS

1. Read these instructions in their entirety before opening the CryoPak.
   a. The CryoPak shipper contains a Cryoguard thermal indicator to monitor the shipping environment.
   b. The donor valve must be stored and shipped at Nitrogen vapor temperatures (-196°C).
      i. The donor valve must be maintained in this environment until surgery.
      ii. If excessive thermal exposure occurs and the inside of the shipping container becomes warmer than -70°C, the thermal indicator turns an irreversible red color.
2. Open the pouch in the following manner to avoid false readings:
   a. Remove the envelope containing the package insert and Certificate of Assurance from the top of the shipping box.
      i. Ensure there is sufficient space in the freezer for the allograft to be immediately placed in the freezer after removal from the box.
   b. Don a pair of insulated gloves.
   c. Remove the foam plugs which seal the inner chamber.
   d. Open the box labeled "Allograft Contained Within This Protective Sleeve".
   e. With gloved hands, remove the inner box containing the allograft.
      i. The Cryoguard indicator will be in the inner box.
      ii. In the case of a multiple shipment, the indicator will be found in the box furthest to the rear.
   f. Hold the indicator with the label facing you, and observe the color in the clear area below the seal.
      i. If the vial has **any visible green color** the allograft may be safely placed into a liquid nitrogen freezer or thawed and implanted.
      ii. If the vial is **completely red**, the allograft must be maintained between -70°C and -80°C and implanted within 72 hours (NOTE: Dry ice temperature is -77°C).

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09/96; 12/99; 03/03; 09/08; 09/12; 06/15;	n/a	12/16	n/a	03/17	.	

iii. If the vial has **some visible pink, or a combination of red and green color,** the allograft has been maintained at a suitable temperature and can be placed in a liquid nitrogen freezer or thawed and implanted.

iv. If the vial has turned **any color other than green, pink, or red,** call CryoLife, Inc.

B. THAWING INSTRUCTIONS

1. On a separate non-sterile table, remove the Cryo-Safe pouch containing the allograft from the cardboard sleeve and carefully place on the table next to the thawing basin.
2. Allow the allograft to air thaw at room temperature for 3 minutes before immersing in the basin of solution.
3. After the 3 minutes air thaw, completely immerse the Cryo-Safe pouch containing the allograft in at least 3 liters of saline or water at 37-42°C (98°-108°F).
   a. Ensure that the pouch remains completely submerged until all ice crystals are dissolved as determined by visual inspection of the pouch.
   b. DO NOT allow the pouch to remain in the water after the ice has dissolved.
   c. Thawing time averages 15-22 minutes.
   d. Continuous agitation will shorten thawing time.
   e. Do not squeeze or otherwise manipulate the allograft until thawing is complete.
   f. **CAUTION: The Cryoprotectant becomes cytotoxic as the solution approaches room temperature.**
4. Remove the Cryo-Safe pouch from the saline or water solution after complete dissolution of ice.
5. Carefully dry the Cryo-Safe pouch and take the pouch to the table containing the large sterile basin.
   a. Pour one liter of D5/LR into the large sterile basin.
6. Using scissors, cut the outer pouch, taking care to avoid the peel pouch.
   a. The Cryo-Safe packaging system allows direct visualization of the two inner pouches.
7. Carefully remove the peel pouch from the outer pouch.
8. Open the peel pouch aseptically and pass the innermost pouch to the scrub nurse or surgical technologist.

C. RINSING INSTRUCTIONS

1. On the sterile field, open the inner pouch using sterile scissors and gently remove the allograft.
2. Place the allograft into the larger sterile basin containing D5/LR.
3. Allow the allograft to passively dilute in this solution for a minimum of 5 minutes.
   a. At the end of 5 minutes, the allograft is ready for transplantation.
   b. If more than 30 minutes is expected to elapse before the allograft is used, place the basin containing the allograft on sterile ice and cover with a sterile drape.
   c. DO NOT leave the allograft at room temperature or allow it to dry out.

D. DOCUMENTATION

1. Document the information and numbers from the valve company on the implant section of the OR Record.
2. Document the valve information and numbers in the Open Heart Valve Log Book.
3. Document on OR Record under "Operative Procedure" with "Homograft Valve".
4. Complete the Implant Summary card and place in the designated box at the Surgery desk.

E. REFERENCE

1. CryoLife Corporation Manufacturer's Instructions

Tri-City Medical Center	Surgical Services
PROCEDURE:	**LASER SAFETY MANAGEMENT**
Purpose:	To outline the nursing management e
Supportive Data:	Safety is the most important compone related to laser powers high enough t eyes and skin of patient or staff.
Equipment:	See below.
Issue Date: 11/04	Revision Date(s): 12/96; 04/99; 09/01; 1/06; 09/08; 10/09; 09/12

DELETE
Info from this procedure added to the Surgical Services "Laser Safety" Policy

A. MANAGEMENT/STAFFING

1. Provide a laser-trained nurse or technician to operate the laser.
   a. The nurse or technician will not leave the operating room while laser is in use.
   b. If an RN is operating the laser, a second RN will assume the circulating role.
2. Obtain all accessories prior to case and ensure that they are ready for use.

B. SAFETY/ALL LASERS

1. Place American National Standards Institute (ANSI) approved laser warning signs at all entrances to laser treatment area.
2. Doors in the laser treatment area should remain closed during the laser procedure, and windows (including door windows) should be covered with a barrier that blocks transmission of the laser beam being used, with the exception of CO2 lasers (windows do not need covering).
3. Provide adequate eye protection for patient, staff, physician and all personnel in the laser treatment area throughout procedure
   a. Eye protection of appropriate optical density for the wavelength of the laser and having peripheral protection, shall be worn by all personnel in the room when the laser is in use.
   b. In case of accident or injury during surgery, a post-incident eye exam shall be performed.
   c. **Do not put any kind of tape under or over the laser eyeshields.**
   d. Protect the patient's eyes with the equivalent material required for laser wavelength:
      i. CO_2: **laser AID eyeshields**, wet eye pads.
      ii. Appropriate eye wear for Argon, Holmium & ND:Yag
4. Provide laser specified masks for all personnel in the laser treatment area.
5. Set-up and test laser before patient is brought into room. Test on wet tongue blade placed on wet blue towel. Use hand piece with lens inside or connect to microscope with micromanipulator to test. Test according to how it will be used during procedure. Be careful not to drop the lens, which is a separate piece inside the hand piece. Test on continuous mode at 10 watts.
6. Keep a basin of water close to the operative field during the procedure in case of laser induced fire
7. Use only non-flammable or non-explosive gases in the presence of laser
8. Return laser to "standby" mode when not actively being used.
9. Turn off laser in case of accident or fire. Red button on laser is emergency shut-off.
10. Remove key from laser after use and return to Main Pyxis by the OR desk.
11. Remove laser warning signs from entrances to laser treatment area after case.

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~~C. SAFETY SPECIFIC FOR CO2 LASERS~~

~~1. Dampen all combustible materials that will be used close to the CO2 laser field. This includes drapes, towels, raytec, laps, and Q-tips. Check frequently to ensure that they remain damp throughout the procedure.~~

~~2. Use instrumentation appropriate for the CO2 laser such as blackened or dulled equipment to avoid reflection of laser beam on shiny surfaces. Do not use glass, quartz, or plastic near laser beam.~~

~~3. Use smoke evacuators on all laser procedures:~~

~~a. In-line filter for procedures involving only a small amount of plume or laparoscopic procedures.~~

~~b. External evacuators for larger amount of plume~~

~~4. Provide laser safe endotracheal tubes for all laser procedures of the mouth and throat.~~

~~5. Use anesthesia machines with compressed air for procedures of the mouth, throat, and airway.~~

~~D. PRE-OPERATIVE ASSESSMENT~~

~~1. Assess patient's skin integrity~~

~~E. POST-OPERATIVE ASSESSMENT~~

~~1. Assess patient skin integrity.~~

~~a. Patient should be free of reddened areas and burns in immediate surgical area.~~

~~F. DOCUMENTATION~~

~~1. Record use of laser in the OR Record.~~

~~2. Record patient skin and eye pre-operative assessment and post-operative evaluation in the OR Record.~~

~~G. REFERENCES~~

~~1. TCMC Laser Program Manual~~

~~2. K. Ball. Laser, The Perioperative Challenge, AORN, Denver, CO (2004).~~

~~3. AORN Perioperative Standards and Recommended Practices, 2010 edition, "Recommended Practices for Laser Safety in Practice Settings", AORN, Denver, CO.~~

~~4. American National Standards Institute, Z136.3-2007~~

Tri-City Medical Center	Surgical Services
PROCEDURE:	**MIRA CRYO UNIT SET-UP**
Purpose:	To provide a basic understanding and seque Unit.
Supportive Data:	The Mira Cryo unit is a machine designed to meet the cryosurgical needs of the ophthalmologist. It is non-electric and can be used with medical grade CO_2 or N_2O. The cryo probe provides instantaneous freezing at the tip only while the shaft and handle of the probe remain warm.
Equipment:	• Mira Cryo Unit (Storage Room 2) • N_2O tank (at the side of Accurus Machine Cart) • Cryo probe (Eye Cart)
Issue Date: 11/94	Revision Date(s): 06/00; 12/05; 5/08; 10/09; 09/12

DELETE
Follow manufacturer's IFU's

A. CIRCULATING NURSE

1. Attach the cylinder connector (at the end of the high-pressure hose from the back of the machine) to the N_2O gas tank, make sure tank is at the green level.
2. Connect a scavenger hose (suction tubing) to the rear panel exit port. Make sure scavenger hose is not kinked.
3. Do not connect to suction, leave tubing free (connecting to suction creates negative pressure on suction canister)
   a. This will help to make operation extremely quiet and prevent nitrous leak into room air.
4. Ensure the ON/OFF valve on the front panel is in the OFF position.
5. Open the valve on the top of the gas tank by turning the valve counterclockwise.
6. Listen for leaks at either end of the high-pressure hose.
   a. An audible hiss or any amount of frost visible on a fitting will identify a leak.
   b. If a leak is noted tighten connectors until leak disappears.
7. Select Cryo probe and open to the sterile field.
8. Take connector end from scrub nurse and remove protective cap from probe jack.
9. Insert jack all the way into the receptacle on the front panel.
10. Turn ON/OFF valve on front panel to ON position.
    a. The pressure gauge should read 680PSI or higher. If under 680PSI Cryo will not freeze.

B. PRE-COOL PROBE

1. Select the -25°C temperature setting.
2. Depress the foot pedal for 10 seconds, then release.
   a. The air must be flushed from the probe prior to use.
   b. Care should be taken as this procedure ensures proper operation of the probe.
3. Wait 60 seconds.

C. ICEBALL TEST

1. Select the -85°C temperature setting.
2. Submerge probe tip in sterile water or saline.
3. Depress the foot pedal for 10 seconds, keeping the probe tip in the liquid.
4. Remove probe tip from liquid while the foot pedal is still depressed.
   a. An iceball of 4-7mm should have formed.
5. Release the foot pedal.
   a. Within 2 seconds the iceball should be free to move.
   b. If proper function is not seen:
      i. Turn off machine and unplug probe.

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06/00; 12/05; 5/08; 10/09; 09/12; 06/15; 11/16 **DELETE**	n/a	12/16	n/a	03/17		

ii. Plug probe in again, turn on machine.
iii. Repeat iceball test.

c. If proper function is still not seen:
i. Obtain a second probe and repeat pre-cool and iceball tests.
ii. Send first probe for repair.
iii. The system is now ready.

6. Remove probe by turning ON/OFF valve to OFF while depressing the foot pedal.
a. This action depressurizes the system instantly.
b. Ensure the N_2O gas tank is turned OFF.

D. PROBE CARE

1. Clean probe with mild soap and water.
a. Do not immerse in solution.
2. Store probe in natural coil of not less than 6 inches in diameter, in two peel packs.
a. Tighter coil will break internal fibers.

1.

3. Attach probe jack protective cap when not in use.
a. Prevents moisture and foreign particles from entering probe lines.
b. The cover must be in place during sterilization cycles.
c. Moisture from steam media will freeze and clog Cryo probe during set-up and operation.

E. DOCUMENTATION

1. Document Equipment and Procedure on OR Record.

F. REFERENCE

1. Mira Cryo Unit Equipment Manual

Tri-City Medical Center	Surgical Services
PROCEDURE:	**PATIENT TRANSPORTATION IN THE PERIOPERATIVE ENVIRONMENT**
Purpose:	To outline responsibilities in transfe…al suite: • OR Assistant Nurse Manager/de… • Perioperative Aide/Transporter …
Supportive Data:	None
Equipment:	• SBAR Report worksheet • Clean gurney with IV pole • Oxygen tank with holder
Issue Date: 11/04	Revised Date(s): 12/96; 04/99; 09/01; 1/06; 09/08; 10/09; 08/10; 09/12

DELETE
Combine with Surgical Services Policy "Patient Transport in the Perioperative Environment"

A. INPATIENT SURGICAL PROCEDURES (NON-ICU PATIENTS)

1. OR Assistant Nurse Manager (ANM)/designee duties:
   a. Call nursing unit at least 30 minutes prior to transfer and obtain SBAR hand-off report from the nurse caring for the patient.
   b. Complete the SBAR report worksheet and Transporter patient information ticket; provide to the transporter.
   c. Send Perioperative Aide/Transporter to pick up the patient 45 minutes-1 hour before the surgical procedure.
   d. NOTE: For ICU patients, the perioperative nurse assigned to the case is to go to the ICU and obtain bedside SBAR hand-off report in-person from the ICU RN prior to transporting the patient to surgery.

B. PERIOPERATIVE AIDE/TRANSPORTER

1. Obtain SBAR report worksheet and Transporter patient information ticket from ANM/designee.
2. Obtain clean gurney (if required) from PACU, with a sheet, blanket and pillow.
   a. Patients unable to move to the gurney, due to traction, fracture or general condition, will be transported in their bed.
   b. Patients on a cardiac monitor must be transported with a transport monitor and RN, unless the physician writes and order that the patient may be transported without monitoring.
   c. Pediatric patients under 4 years of age will be transported to Surgery in a crib. If the patient's condition permits, a parent may hold the child while sitting in a wheelchair.
   d. NICU patients will be transported in an incubator and will be accompanied by a NICU RN.
   e. Intubated patients from ICU will be accompanied by the Perioperative RN and Anesthesiologist or Respiratory Technician.
   f. High-acuity, non-intubated patients will be accompanied by an RN.
3. Obtain oxygen tank in safety holder, if necessary per report worksheet.
4. Proceed to appropriate nursing unit.
5. Obtain patient's chart on the nursing unit.
6. Follow appropriate isolation precautions if applicable (See Infection Control Manual).
7. Proceed to patient's room; introduce self.
8. Verify patient's identification, using two patient identifiers (name and medical record number).
   a. Cross check patient's identification band with the chart, confirming with the patient.
9. Draw curtain and place blanket over patient prior to removing bed linen.
   a. Always ensure patient privacy.

Department Review	Department of Anesthesiology	Operating Room Committee	Pharmacy & Therapeutics Committee	Medical Executive Committee	Professional Affairs Committee	Board of Directors
12/96; 04/99; 09/01; 1/06; 09/08; 10/09; 08/10; 09/12; 11/16 DELETE	n/a	12/16	n/a	03/17		

10. Position gurney next to bed.
11. Lock wheels on gurney and bed.
12. Assist patient to gurney.
    a. Assistance from the patient's nurse may be required.
    b. Ensure IV and drainage bags are moved with the patient.
        i. Hang the IV bag from the IV pole.
13. Raise and secure the gurney side rails, ensuring the patient's arms and legs are well inside the side rails.
14. Remain at the head of the gurney.
15. Transport feet first, at an appropriate speed. Enter elevators head first.
16. Upon arrival to PreOperative Holding area, give the patient a warm blanket and surgical hat.
17. Place a blood pressure cuff on the patient's bed or gurney.
18. If dropping patient off in a cubicle or in PACU:
    a. Place a pulse oximeter on the patient's finger.
        i. Use a disposable pulse oximeter for patients in isolation.
    b. Give the patient the call bell and instruct on use.
19. Lock the bed or gurney and place in the lowest position with side rails up.
20. Notify PreOp Hold (RN or Secretary) and OR ANM/designee of arrival to PreOp Hold area.
21. Remain with patient until nurse arrives to assume care of patient.

C. POST SURGERY

1. Position gurney/bed next to the OR table, at the appropriate level.
    a. Ensure OR table is locked.
    b. Lock wheels on gurney/bed.
2. Cover roller with a draw sheet/chux.
    a. A minimum of 4 people is required to transfer the patient:
        i. Anesthesiologist at the patient's head
        ii. 1 person at the patient's feet
        iii. 1 person on each side of the patient
3. Turn patient slightly away from gurney/bed, to place the roller with draw sheet under the patient.
    a. Ensure Anesthesiologist is ready- wait for Anesthesia to signal ready to move.
    b. Ensure IV, monitoring lines, drainage bags, etc. are free and able to move with the patient.
4. Pull draw sheet with roller toward the gurney/bed, causing the roller to transfer the patient to the gurney/bed.
    a. Ensure all personnel are ready for the transfer; check with Anesthesiologist before moving.
5. Check all lines and drainage bags.
6. Raise and secure the side rails.
    a. Ensure patient's legs and arms are within the side rails.
7. Transfer the patient to the appropriate post-surgical area.
    a. Anesthesiologist at the patient's head and Perioperative RN at the foot.

D. DOCUMENTATION

1. Document on the OR Record:
    a. Area patient discharged to after surgery
    b. Level of alertness
    c. Mode of transfer
    d. Any equipment utilized during transport
    e. Condition of the patient

E. REFERENCE

1. AORN Perioperative Standards and Recommended Practices, 2011.

Tri-City Medical Center	Distribution: ~~Women and Newborn Services~~ **DELETE – no longer required**
PROCEDURE:	~~**AMNIOINFUSION**~~
Purpose:	~~Amnioinfusion is a procedure used during the intrapartum period for pregnancies complicated by oligohydramnios to eliminate repetitive variable decelerations by augmenting the amniotic fluid volume to prevent or relieve umbilical cord compression during labor.~~
Supportive Data:	~~Amnioinfusion has been shown to decrease the occurrence and severity of variable and prolonged decelerations by providing "cushioning" for the umbilical cord when utilized in labor. Note: Prophylactic amnioinfusion for oligohydramnious (≤ 50 mm) does not appear to confer any advantage over therapeutic amnioinfusion after the development of an abnormal FHR pattern (Spong, 2009). Amnioinfusion does not significantly reduce the risk of meconium aspiration syndrome and is not indicated for prophylactic use for meconium-stained amniotic fluid in the absence of repetitive decelerations (AAP & ACOG, 2007; Spong, et Ross, 2009~~
Equipment:	~~1. Infusion pump and tubing~~ ~~2. Normal Saline 500ml bag – room temperature~~ ~~3. Intrauterine pressure catheter (IUPC), double lumen~~ ~~4. Electronic Fetal Monitor~~

Procedure exists in Mosby nursing procedure and is equivocal. Remove as a unit specific procedure.

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

~~1. Indications for the use of amnioinfusion in labor include:~~

~~a. Less than 32 weeks gestation:~~

~~i. Intermittent or recurrent variable decelerations with a documented amniotic fluid index of ≤ 7.0cm.~~

~~b. Greater than or equal to 32 weeks gestation:~~

~~i. Intermittent or recurrent variable decelerations~~

~~c. Oligohydramnios~~

~~2. Contraindications:~~

~~a. Vaginal bleeding~~

~~b. Thick meconium and/or meconium stained amniotic fluid without variable decelerations~~

~~c. Uterine anomalies~~

~~d. Active infection such as human immunodeficiency virus (HIV) or herpes~~

~~e. Impending delivery~~

~~f. Anomalous fetus~~

~~B. **DEFINITIONS:**~~

~~1. Recurrent decelerations – decelerations that occur with > 50% of uterine contractions in any 20 minute window.~~

~~2. Intermittent decelerations – decelerations that occur with < 50% of uterine contractions in any 30 minute window.~~

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

~~1. Requires ruptured membranes to proceed.~~

~~2. Verify provider order.~~

~~3. Explain procedure to patient and obtain verbal consent.~~

~~4. Position patient for insertion and assist provider in placement of an Intra Uterine Pressure Catheter (IUPC). Double lumen allows for continuous measurement of intrauterine pressure during infusion.~~

Department Review/Revision Date	Department of OB/GYN	Pharmacy & Therapeutics Committee	Medical Executive Committee	Professional Affairs Committee	Board of Directors Approval
4/97; 6/99; 5/03; 5/09, 02/15, **11/16**	06/09, 06/15, **12/16**	12/15, **02/17**	02/16, **03/17**	03/16	6/03, 03/16

5. An external tocodynamometer or manual palpation may also be used during infusion to assess for increased intrauterine pressure.
6. An infusion pump is recommended to prevent a rapid rate of infusion, and to limit the volume of fluids infused. Set up Alaris infusion pump, and attach in the following order:
a. Prime tubing with normal saline or lactated ringers.
b. Insert tubing into Alaris infusion pump.
c. Attach to IUPC.
7. Administer 250 - 500 mL of normal saline or lactated ringers via infusion pump over 30 minutes per provider's orders.
8. After initial infusion, if recurrent variable decelerations persist continue infusion of 150 mL per hour up to a maximum infusion of 1000 mL can be given.
a. Notify provider if recurrent variable decelerations remain unresolved.
9. DO NOT heat fluid in the microwave or blanket warmer. Infuse at room temperature.
a. Warming of the fluids may be appropriate for preterm or growth restricted fetuses via blood warmer or IV fluid warmer if temperatures are regulated, acceptable temperatures are 93-96° F (34-37°C).
10. Monitor fetus continuously for improvement of FHR pattern or aberrant changes.
11. Monitor uterine contractions for hypertonus and tachysystole and uterine baseline for unrest or increased tone secondary to over-distension.
12. Assess for:
a. Fluid return by weighing underpads (1mL of fluid equals= 1g of weight)
i. As a general consideration, if 250mL has infused with no return, the infusion should be discontinued until fluid return is noted.
b. Over distention, notify provider.

D. **REFERENCES:**

1. AWHONN. (2006). Fetal Heart Monitoring Principles & Practices, 4th Edition.
2. Simpson, K. R. and Creehan, P. A. (2014). Perinatal Nursing (4th Ed). Philadelphia: Lippincott Williams and Wilkins
3. Spong, C.Y., & Ross, M.G., (2009). Amnioinfusion: Indications and outcome. ©2009 *UpToDate®*. Retrieved February 5, 2009 from http://www.uptodate.com

Tri-City Medical Center	Distribution: Women and Newborn Services
PROCEDURE:	**CORD GAS COLLECTON**
Purpose:	To outline the **process for** ~~nursing responsibilities in~~ assisting the physician/ **Allied Health Professional (AHP)** with cord gas collection at delivery.
Supportive Data:	Obtaining a cord gas specimen provides useful information regarding blood pH levels of the neonate at delivery. The intrapartum acid-base status of the fetus is an important component in establishing the link between intrapartum events and neonatal condition. The analysis of cord blood gases from the umbilical artery is believed to be the best representation of the fetal acid-base status immediately before birth.
Equipment:	1. Personal protective equipment 2. Disposable umbilical cord clamps, 2 3. Plastic specimen bags, 2 **(One must be a Biohazard labeled bag for transport)** 4. **Newborn's**~~Mother's~~ Identification label ~~5. Ice~~

A. **PROCEDURE:**

1. Don personal protective equipment.
2. **Obtain** ~~Receive~~ a section of the umbilical cord from the physician/ **AHP**.
3. If the physician/**AHP** -has not placed a disposable cord clamp at each end of the umbilical cord specimen, then do so at this time.
   ~~4.~~**a.** Remove the surgical clamps from each end of the umbilical cord specimen **and replace with the disposable clamps,** .
~~5.~~**4.** Place **the** umbilical cord specimen in first plastic bag **with ice, close the bag, and label the outside of the bag with the newborn's identification label.**
~~6. Cover umbilical cord specimen with ice and close bag.~~
~~7. Label specimen bag with maternal identification label .~~
   a. Write delivery date and time of birth on the label.
      i. Date and time of birth is essential to processing the test within the defined **30-60** ~~60~~-minute window.
~~8.~~**5. Next, put** ~~Place~~ **the** specimen bag in -**the** second **biohazardous labeled** plastic bag, **in preparation for transport.** ~~,~~
~~9.~~**6. Call the Neonatal Intensive Care Unit (NICU) Respiratory Care Provider and indicate there is cord gas specimen sample that needs to be retrieved and processed.** ~~Specimen is to be sent to pulmonary section of the Neonatal Intensive Care Unit (NICU).~~

~~B. INTERPRETATION:~~

~~Table B-1~~

~~Single-Digit Value Guideline for Initial Assessment of Normal and Abnormal Umbilical Cord Blood Acid-Base Values*~~

	~~Normal Values~~	~~Metabolic Acidemia~~	~~Respiratory Acidemia~~
~~pH~~	~~> 7.10~~	~~< 7.10~~	~~< 7.10~~
~~pO_2 (mm Hg)~~	~~>20~~	~~< 20~~	~~Variable~~
~~pCO_2 (mm Hg)~~	~~< 60~~	~~< 60~~	~~> 60~~
~~Bicarbonate (mEq/L)~~	~~> 22~~	~~< 22~~	~~>22~~
~~Base deficit (mEq/L)~~	~~< 12~~	~~> 12~~	~~< 12~~
~~Base excess (mEq/L)~~	~~> -12~~	~~< -12~~	~~> -12~~

~~*Values above are suggested as a guide for evaluating acid-base status; arterial cord blood gases are more reflective of fetal status (Lyndon et al, 2008)~~

Review Revision Date	Division of Neonatology	Department of Pediatrics	Department of OB/GYN	Pharmacy & Therapeutics Committee	Medical Executive Committee	Professional Affairs Committee	Board of Directors Approval
3/97, 5/03, 7/09 01/16	08/16	11/16	01/13, 02/17	n/a	05/13, 03/17	06/13	06/13

~~Table B-2~~

~~Significance of Deviation from Normal Values for Acidosis (Freeman et al., 2003; King & Parer, 2000)~~

~~Types of Acidosis~~	~~*PH~~	~~PO_2~~	~~*PCO_2~~	~~HCO_3~~	~~*Base Deficit~~
~~Respiratory~~	~~Decreased~~	~~Variable~~	~~Increased~~	~~Normal~~	~~Normal~~
~~Metabolic~~	~~Decreased~~	~~Decreased~~	~~Normal~~	~~Decreased~~	~~Increased~~
~~Mixed~~	~~Decreased~~	~~Decreased~~	~~Increased~~	~~Decreased~~	~~Increased~~

~~C.~~ ~~**DOCUMENTATION:**~~

~~1. Document in the infant cord blood results, including the sample source (arterial or venous) information of the labor and delivery summary and on obstetrics surgical record, if applicable.~~

~~D.~~**B. REFERENCES:**

1. Lyndon, A., Usher-Ali, L. (201~~509~~). *Fetal heart rate monitoring principles and Practice (* **5th** 4th Ed.). Dubuque, IA: Kendall Hunt.
2. Blickstein, Isaac, MD., Clinics in Perinatology, vol 34, Issue 3, 09/2007, *Umbilical Cord Gases*, W.B. Saunders and Company.

Tri-City Medical Center
Oceanside, California

Women and Newborn Services (WNS)

SUBJECT: ELECTIVE DELIVERY UNDER 39 WEEKS

ISSUE DATE:
REVISION DATE(S): 06/14

Department Approval Date(s):	**12/16**
Department of OB/GYN Approval Date(s):	**~~04/13~~02/17**
Department of Pediatrics Approval Date(s):	**n/a**
Pharmacy and Therapeutics Approval Date(s):	**n/a**
Medical Executive Committee Approval Date(s):	**~~05/14~~03/17**
Professional Affairs Committee Approval Date(s):	**06/14**
Board of Directors Approval Date(s):	**06/14**

A. **PURPOSE:**

1. The purpose of this policy is to eliminate non-medically indicated (ELECTIVE) deliveries prior to 39 weeks Estimated Gestational Age (EGA).

B. **POLICY:**

1. Non-medically elective Cesarean Section (C-Section) or induction of labor prior to 39 weeks EGA requires approval of the Obstetrics and Gynecology Department Chairperson or Designee.
2. Amniocentesis and documentation of fetal lung maturity is NOT an indication to deliver a less than 39 week EGA pregnancy.
3. Medical and/or obstetric indications that may require delivery before 39 weeks, via C-Section or induction which DO NOT require approval from the OB/GYN Department Chair or designee include:

Medical and Obstetric Indications	
☐ Abruption	☐ Chronic Hypertension
☐ Coagulation Defects (Antiphospholipid Syndrome)	☐ Cardiovascular Disorders/Diseases
☐ Fetal Demise (Current)	☐ Diabetes (Type I or II)
☐ Fetal Distress/Abnormal FHR	☐ Fetal Demise (Prior)
☐ Fetal CNS Malformation or Chromosomal Abnormality, Suspected Damage to Fetus from Viral or other Diseases in Mother,, Drugs, Radiation	☐ Gestational Diabetes (GDM with Insulin)
☐ Gestational Hypertension	☐ Heart Disease
☐ HIV Infection	☐ IUGR
☐ Isoimmunization/Fetal-Maternal Hemorrhage	☐ Liver Disease (Cholestasis of Pregnancy)
☐ Multiple Gestation	☐ Oligohydramnios
☐ Placenta Previa	☐ Polyhydramnios
☐ Post Dates	☐ Preeclampsia
☐ Unstable Lie	☐ PROM
	☐ Renal Disease
	☐ Other _____ (Perinatology Consult Obtained/Agrees with Plan. Name: _____)

C. **PROCEDURE:**

1. Confirmation of Gestational Age: Gestational age needs to be confirmed using one of the American College of Obstetrics & Gynecology (ACOG) criteria:

a. An ultrasound measurement at less than 20 weeks of gestation that supports an EGA of 39 weeks or greater.
b. Fetal heart tones that have been documented as present for 30 weeks by Doppler ultrasonography.
c. It has been 36 weeks since a positive serum or urine human chorionic gonadotropin pregnancy test result.
d. NOTE: If the patient does not meet ACOG's criteria for confirmation of EGA, an amniocentesis to confirm lung maturity should be discussed.

2. Scheduling an Induction: When a provider or designee contacts the L&D charge nurse, these items will be provided:
   a. Woman's name and other patient identifiers, as necessary.
   b. Woman's due date and her EGA at the time of the scheduled procedure and indication for the procedure (induction or C-Section reason).
   c. If the patient's EGA is greater than >39 weeks, the procedure is scheduled.
   d. If the patient's EGA is less than <39 weeks, the pre-screening form for induction and C-Section shall be completed.
      i. The L&D charge nurse compares the indications to the pre-determined/approved list of medical and obstetric reasons for C-Section and induction. If the indication is on the list, the procedure is "medically indicated" and scheduled.
      ii. If the indication provided DOES NOT appear on the approved list, the L&D charge nurse will inform the provider/designee and offer an alternate date selection.
      iii. If the provider continues to request that the non-medically indicated procedure be scheduled prior to 39 weeks, the L&D charge nurse will inform the provider that documented approval from the OB/GYN department chair or designee is required.
3. Scheduling a C-Section: When a provider or designee contacts the surgery scheduler, information is obtained based on the pre-operative questionnaire.
   a. If the patient's EGA is greater than >39 weeks, the C-Section is scheduled.
   b. If a patient's EGA is less than <39 weeks at the time of the desired surgery date, the surgery scheduler will contact the L&D charge nurse to complete and review the pre-screening request form for induction/C-Section BEFORE the surgery is scheduled.
      i. The L&D charge nurse compares the indications to the pre-determined/approved list and if medically indicated, will notify the OR scheduler to schedule the C-Section.
      ii. If the indication provided DOES NOT appear on the approved list, the L&D charge nurse will inform the OR scheduler the procedure CANNOT be scheduled and physician notification required.
      iii. If the physician continues to request that the non-medically indicated procedure be scheduled, the OR scheduler will inform the provider that documented approval from the OB/GYN department chair or designee is required.
4. **Informed Consent:** Any woman with a scheduled non-medically indicated (elective) procedure (either by C-Section or induction) prior to 39 weeks EGA, will have an informed consent discussion documented in the medical record.
   a. The informed consent will include the usual discussion of risks and benefits of induction of labor/C-Section AND also include a discussion of the risks to the baby being born electively,prior to 39 weeks.

D. **FORM(S):**
1. Pre-Screening Form for Induction and (C-Section) Requests.

E. **REFERENCES:**

1. ACOG, (2009). Induction of Labor. American College of Obstetricians and Gynecologists (ACOG) Practice Bulletin No. 107. Obstetrics and Gynecology, 114(2), pp. 386-97.
2. Elimination of Non-Medically Indicated (Elective) Deliveries before 39 Weeks Gestational Age. www.marchofdimes.com, CMQCC.org.

Tri-City Medical Center ADVANCE

PRE-SCREENING FORM FOR INDUCTION AND CESAREAN SECTION (C-Section) REQUESTS
Call TCMC Labor & Delivery to Schedule (Induction/ C-Section): 760-940-7453
Call TCMC Surgery Scheduler to Schedule (C-Section): 760-940-3888

PATIENT/PROVIDER INFORMATION
Name: _____ Date of Birth: _____ Phone Number: _____
G/P_____ OB Provider: _____
Type of Procedure Planned: ☐ Induction ☐ C-Section Desired Date/ Time: _____

EDC: _____ Gestational Age at Date of Induction/ C-Section:_____

DATING CONFIRMED BY:
EDC Based on: ☐ US @10-20 weeks ☐ Doppler w/ Fetal Heart Tones for 30 weeks
☐ (+) hCG result for 36 weeks ☐ Other dating criteria: _____

Fetal Lung Maturity Test Results, as indicated: _____ Date: _____

INDICATIONS: Obstetric and Medical Conditions (If marked, OK to schedule if < 39 weeks EGA)

☐ Abruption	☐ Chronic Hypertension
☐ Coagulation Defects (Antiphospholipid Syndrome)	☐ Cardiovascular Disorders/Diseases
☐ Fetal Demise (Current)	☐ Diabetes (Type I or II)
☐ Fetal Distress/Abnormal FHR	☐ Fetal Demise (Prior)
☐ Fetal CNS Malformation or Chromosomal abnormality, suspected damage to fetus from viral or other diseases in mother, drugs, radiation	☐ Gestational Diabetes (GDM with Insulin)
☐ Gestational Hypertension	☐ Heart Disease
☐ HIV Infection	☐ IUGR
☐ Isoimmunization/Fetal-Maternal Hemorrhage	☐ Liver Disease (Cholestasis of pregnancy)
☐ Multiple Gestation	☐ Oligohydramnios
☐ Placenta Previa	☐ Polyhydramnios
☐ Post Dates	☐ Preeclampsia/Eclampsia
☐ Unstable Lie	☐ PROM
	☐ Renal Disease
	☐ Other_____ (Perinatology consult obtained/ agrees with plan. Name:_____)

RESULTS:

☐ Procedure is Medically Indicated or EGA is > 39 weeks.
Scheduled by_____ Confirmed Date/ Time:_____
☐ Procedure is NOT Scheduled Reason: _____
☐ Case referred to OB/GYN Department Chair:
Date/ Time_____ Result:_____

Tri-City Medical Center	Distribution: Women and Newborn Services
PROCEDURE:	**HUMAN IMMONUDEFIECIENCY VIRUS (HIV) INTRAPARTUM, POSTPARTUM AND NEWBORN MANAGEMENT**
Purpose:	To provide nursing guidelines for the administration of antiretroviral medications to reduce the risk of mother to child transmission of HIV.
Supportive Data:	HIV~~uman immunodeficiency virus~~ may be transmitted from mother to infant during the perinatal period. The risk of infection for a neonate born **from**~~te~~ a~~n~~ HIV-positive mother has been reduced from 25% to less than 2% by the use of currently recommended prenatal antiretroviral therapy and obstetric interventions for women who are aware of HIV infection early in pregnancy. It has been found that HIV prophylaxis, even when begun during labor ~~and delivery~~ can reduce mother to child HIV transmission by 50%.
Equipment:	1. Alaris pump, (2) tubing sets, and **(2) Intravenous (IV) Lines** ~~3 lead extension set~~ 2. **Normal Saline (NS)** 500 mL for dedicated infusion line **for antiretroviral medication.** 3. Premixed antiretroviral medication **per** ~~in 250 mL D5W or as ordered my~~ physician/**Allied Health Professional (AHP) order**

A. POLICY:

1. **Every pregnant woman shall be tested for HIV during pregnancy unless she refuses testing.**
   a. **If she declines a HIV test, this decision should be documented in her medical record.**
2. **Women admitted to the hospital without receiving prenatal care will be screened with a rapid HIV test(ordered as HIV 1/ 2 Screen) and will be counseled about reducing the risk of mother to infant HIV transmission if indicated.**
3. **Women who do not have a documented prenatal HIV result available on admission to Labor and Delivery (L&D) shall be offered a rapid HIV test (ordered as HIV 1/ 2 Screen).**
4. **Women who are identified as being HIV positive during prenatal screening will be referred to the University of California San Diego (UCSD) Mother, Child and Adlolescent HIV program as soon as possible for prenatal management.**
5. **Patient's receiving antiretroviral prophylaxis, will need to have two IV lines. (One dedicated for antiretroviral medication and a second line for any labor management needs.**
6. **Infants born to HIV positive mothers at Tri City Medical Center shall receive treatment and screening for mother to infant transmission within 6- 12 hours post delivery.**
   a. ~~Provider~~**Physicians/Allied Healthcare Professionals (AHP) caring for infants can consult a Neonatologist as needed.**
7. **Any patient with HIV findings shall be referred to social services for needs assessment, resource referral,and discharge planning anticipations.**

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

1. Intrapartum treatment **for positive HIV findings in labor and not receiving HIV treatment**:
   a. **Discuss the use of antiretroviral prophylaxis to reduce HIV transmission during labor and prepare to administer the antiretroviral therapy a minimum of four hours prior to delivery.**
   b. **Method of delivery considerations include:**
      i. **If the amniotic fluid membranes have not ruptured, the patient shall be offered a Cesarean-Section (C-Section) as a method to reduce HIV transmission.**

Review/Revision Date	~~Clinical Policies & Procedures~~	~~Nurse Executive Committee~~	Department of OB/GYN	Department of Pediatrics	Pharmacy & Therapeutics	Medical Executive Committee	Professional Affairs Committee	Board of Directors Approval
1/10, 03/16	~~02/13~~	~~02/13~~	1/13, 08/16	11/16	02/17	05/13, 03/17	06/13	06/13

ii. **If the amniotic fluid membranes have ruptured less than four hours, start antiretroviral medications and ~~ready~~prepare the patient for C-Section per ~~provider~~physician/AHP orders.**

iii. **If the amniotic fluid membranes have ruptured more than four hours, give antiretroviral treatment and avoid performing any procedure that may increase the risk of fetal contact with maternal blood or vaginal secretions such as:**

1) **Fetal scalp electrode placement**
2) **Intrauterine pressure catheter placement**
3) **Episiotomy, if possible**
~~a.~~4) **Forceps or vacuum assisted birth** ~~If the results are positive and the woman is in labor, prepare to administer the antiretroviral therapy within a timely manner~~

~~i. 4 hours prior to delivery is preferred length of time~~

~~b.~~c. Obtain and verify ~~physician~~ order for antiretroviral treatment **from ~~provider~~physician/AHP STAT**

~~i. Refer to PPO: "WCS HIV Intrapartum Treatment Order Set"~~

~~c.~~d. **Weigh the patient and** ~~Obtain actual body weight (to~~ convert lbs to kg 2.2lbs = 1kg)

e. **Begin administration of intravenous antiviral infusion of Zidovudine (Retrovir/ ZIDOVUDINE) in a dedicated line and via an infusion pump per ~~provider~~physician/AHP order.**

~~d.~~i. **An initial loading dose of 2mg/kg over one hour followed by a continuous infusion of 1 mg/kg until delivery may be initiated by ~~provider~~physician/AHP.** ~~Administer the mainline infusion solution (NS) and rate as specified and ordered by the physician.~~

~~i. Maintain this line as a dedicated line for the administration of the antiretroviral treatment~~

ii. Zidovudine does not mix well with **Lactated Ringers** and other medications

~~e. Begin administration of IV antiviral infusion via continuous infusion pump during labor~~

~~i. Attach pre-mixed antiretroviral solution via IV pump tubing into nearest IV port (using the 3-lead extension set) to the patient and label tubing~~

~~ii. Continuous IV infusion until delivery~~

iii. ~~Refer to PPO: "HIV Intrapartum Treatment Order Set"~~**Zidovudine infusion should be administered for 3 hours pre-delivery.**

~~iii.~~iv. **Discontinue Zidovudine after delivery**

~~2. Method of delivery for women with positive HIV results:~~

~~a. Refer to physician order (PPO)~~

~~i. If the woman presents in active labor and she is progressing rapidly, provide intrapartum treatment and delivery vaginally.~~

~~ii. If admitted in labor with intact membranes, may labor.~~

~~iii. If membranes intact, may be offered a c-section as a potential strategy to reduce HIV transmission.~~

~~b. Women who have had a rupture of membranes for >4 hours, may be offered a c-section (rupture of membranes ≥ four hours increases the risk of perinatal transmission and should be avoided)~~

~~i. Page physician ASAP if ROM ≥ 4 hours.~~

~~c. Notify neonatologist to allow the NICU team to prepare for attendance at delivery and to initiate admission and treatment plans for the exposed neonate~~

~~i. Refer to Refer to WCS/NICU Procedure: "HIV Exposed Infant, Management of"; and PPO: "NICU Order Set: Treatment for HIV Exposed Infant"~~

~~3. Precautions:~~

~~a. If labor progresses and membranes are intact, avoid performing any procedure that may increase risk of fetal contact with maternal blood or vaginal secretions such as:~~

~~i. Artificial rupture of membranes~~

~~ii. Fetal scalp electrode~~
~~iii. Intrauterine pressure catheter~~
~~iv. Fetal scalp pH sampling~~
~~v. Episiotomy (if possible)~~
~~vi. Forceps or vacuum extraction~~

f. No breastfeeding. Prepare and educate mother about the risk of mother to child transmission that occurs with breastfeeding.

2. Intrapartum treatment for positive HIV findings in labor who are taking antiretroviral therapy

a. Method of delivery considerations include:

i. The delivery plan may be individualized according to HIV plasma viral load (RNA PCR) obtained in the third trimester or the most recent RNA PCR results. If the patient has a RNA PCR <1000 copies, a C-Section provides no additional reduction in HIV transmission.

ii. Patients who have a HIV (RNA PCR) >1000 copies should be scheduled for an elective C-Section at 38 weeks gestation.

1) This patient should have IV Zidovudine administered 3 hours before surgery

2) If the patient presents in active labor and is progressing rapidly, provide intrapartum treatment and deliver vaginally.

3) If cervical dilation is minimal and a long labor anticipated, the ~~provider~~physician/AHP may begin a loading dose of ZIDOVUDINE and proceed with C-Section to minimize duration of ROM and avoid vaginal delivery.

iii. Patients who are admitted in labor with intact membranes, may labor

b. ROM considerations:

i. ROM > 4 hours increased the risk of perinatal HIV transmission, avoid artificial rupture of membranes (AROM).

ii. ROM .> 4 hours when patient has a viral load (HIV RNA PCR) <1000 copies is unlikely to increase the risk of mother to child HIV transmission

iii. ROM is not an indication for a C-Section when the HIV RNA PCR is <1000 copies.

c. If a preterm patient presents with SROM, request immediate Perinatology consult.

d. If labor progresses and membranes are intact, avoid performing any procedure that may increase risk of fetal contact with maternal blood or vaginal secretions such as:

i. AROM
ii. Fetal scalp electrode placement
iii. Intrauterine pressure catheter placement
iv. Episiotomy
v. Forceps or vacuum assisted birth

e. Medication considerations should include administration of ZIDOVUDINE via a dedicated line.

i. Once order received by ~~provider~~physician/AHP, stat loading dose of ZIDOVUDINE, 2mg/kg IV over one hour, followed by a continuous infusion of 1mg/kg/ hour untill delivery.

ii. Ideally, ZIDOVUDINE infusion should be given for 3 hours pre-delivery

iii. Discontinue ZIDOVUDINE after delivery

iv. Continue other HIV medications as prescribed through the patients intrapartum and postpartum periods.

~~b.~~1) Medications containing ZIDOVUDINE like (Combivir/ Trizivir) can be held until ZIDOVUDINE infusion is discontinued.

~~4.~~**3.** Care of the HIV exposed newborn:

a. The newborn will **have**~~be cleaned off of~~ blood and body fluids immediately **cleaned off** after **delivery and be bathed as soon as possible after birth.**
b. **The newborn can be placed skin to skin with the mother. The mother shall wear her bra to prevent the infant from latching and should NOT breastfeed.**
c. **Place bottle feeding only identification on newborn crib so medical team is aware of infant feeding method.**
d. **Evaluate the newborn for maternal co-infections. Review maternal history for syphilis, toxoplasmosis, Hepatitis B and C, Herpes, cytomegalis virus and tuberculosis and pursue newborn testing per** ~~provider~~**physician/AHP order.**
e. **Obtain the following labs before the infant is discharged per** ~~provider~~**physician/AHP order.(These do not have to be drawn prior to the start of Zidovudine) Labs can be drawn with the routine California Newborn Screen and include:**
   i. **CBC with differential and platelets**
   ii. **HIV DNA PCR**
f. **Complete a social worker consult to assist newborn with California Children Services (CCS) qualifying process for the CCS HIV screening program at UCSD**
   i. **This program should cover costs of HIV testing, medications, and follow-up.**

4. **Treatment considerations for the newborn:**
   a. **All newborns born to HIV infected mothers should receive Zidovudine at gestational age appropriate doses for six weeks. This should be initiated as close to the time of birth as possible, preferably within 6-12 hours of delivery.**
   b. **For newborns born to the HIV infected mother who has received standard combination antiretroviral therapy during pregnancy with consistent viral suppression and there are no concerns to maternal adherence, a 4 week dose of Zidovudine may be considered.**
   c. **Dosing considerations are per** ~~provider~~**physician/AHP order and if infant is unable to tolerate oral agents, the newborn will need NICU admission for IV administration.**
5. **Treatment considerations to reduce the risk of HIV infections in newborns at greatest risk, can include a combination antiretroviral prophylaxis.**
   a. **Newborns at greatest risk include:**
      i. **When there is no maternal antiretroviral antepartum or intrapartum treatment**
      ii. **The mother only received intrapartum treatment**
      iii. **The mother's last HIV RNA PCR is > 10,000 copies**
      iv. **Suboptimal maternal viral suppression and known maternal ARV drug resistant virus**
      v. **When the newborn rapid HIV test is positive**
   b. **Newborn** ~~provider~~**physician/AHP should consult with a USCD Pediatric HIV Specialist to discuss medication options.**
      ~~i. Delivery~~
~~b. The neonatologist/NICU team working in the NICU will be called to attend the delivery and will initiate orders and assume care for treatment of the exposed infant~~
      ~~i. Refer to the WCS/NICU procedure: "HIV Exposed Infant, Management of"~~
      ~~ii. Refer to WCS/NICU PPO: "NICU Order Set: Treatment for HIV Exposed Infant"~~

~~5.~~**6.** Postpartum Treatment:
~~a. Obtain and verify physician order set~~
   ~~i. Refer to PPO: "Postpartum HIV Treatment Order Set"~~
   a. Administer antiretroviral medication as ordered by the ~~provider~~**physician/AHP.**~~hysician~~
      i. **In women who are receiving a cytochrome P(CYP) 3A4 "enzyme inhibitor" such as protease inhibitor, methergine should be used only if no**

alternative treatments for postpartum hemorrhage (PPH) are available and the need for medication treatment outweighs the risks.

1) If methergine is used it should be at the lowest effective dose for the shortest possible duration.

~~b.~~**ii. In women who are receiving a CYP 3A4 "enzyme inducer" such as nevirapine, efavirenz or etravirine, additional uterotonics agents may be needed because of the potential for decreased methergine levels and inadequate treatment effect.**

~~c. If HIV test confirmation is negative~~

~~i. Notify physician and discontinue treatment per order~~

~~ii. Patient may initiate breastfeeding~~

~~d.~~**b.** ~~If HIV test is confirmed positive,~~**~~Provider~~Physician/AHP** ~~MD~~ may review treatment **plan** with UCSD Mother-Child**, and Adolescent** HIV team

~~e. Refer patient to the UCSD Mother, Child & Adolescent HIV Program as soon as possible to review therapy for follow up. (Andrew Hull, M.D. (619)-290-3807, or Mary Caffery, RN, MSN, pager (619)- 290-3118 or (619)-543-8089.)~~

~~i. Mother's name, medical record number and telephone number~~

~~ii. Fax any lab tests information to pediatric nurse practitioner, Pediatric Infectious Diseases~~

~~B.~~C. DOCUMENTATION:

1. In addition to usual unit standard documentation:
   a. Document antiretroviral treatment administered, including dose and time per unit
   b. Document any side effects to medication
   c. Document instruction and education given to patient in medical record

~~C.~~D. DISCHARGE:

1. ~~Check with physician to~~ Ensure prescription for home medication is written early in hospitalization to allow time for patient to fill prescription prior to discharge. Most outside pharmacies need >48 hours to obtain zidovudine and fill the prescription.
2. ~~Provide patient with ongoing treatment plan as ordered by physician~~
2. **Review and verify that the family has the medication and knows how to administer it to the infant prior to discharge home.**
3. Ensure that mother and her infant ha**ves** been referred to and ha**ves** ~~an~~ appointment**s** with UCSD Mother, Child & Adolescent HIV Program **in** ~~for~~ 4-6 weeks **for follow-up** ~~postpartum or~~ as directed by the UCSD HIV program staff. **Call 619-543-8089 for an appointment.**
~~3.~~**4. Families shall be referred to a primary care ~~provider~~physician/AHP for well infant care and should have a copy of the discharge summary prepared to give to the infant's ~~provider~~physician/AHP.**

~~D.~~E. REFERENCES:

1. American Academy of Pediatrics **(AAP)** and American College of Obstetricians and Gynecologists **(ACOG)**. 2012~~07~~. *Guidelines for Perinatal Care* ***Seventh~~Sixth~~*** *Edition.* Washington, DC
~~1.~~**2. National Institutes of Health (Aug 6, 2015) Recommendations for Use of Antiretroviral Drugs in Pregnant HIV-1 Infected Women for Maternal Health and Interventions to Reduce Perinatal HIV Transmission in the United States. Available online at http//aidsinfo.nih.gov/contentfiles/PerinatalGL.pdf**
3. AAP Policy Statement:~~,~~ **Evaluation and Management of the Infant exposed to HIV-1 in the United States Pediatrics 2012; 130-64: http//pediatrics.aappublications.org/content/130/6/64.full.pdf+html**
4. **AAP Policy Statement: Infant Feeding and Transmission of HIV in the United States.** Committee on Pediatric AIDS **Pediatrics 2013: 131:391. http//pediatrics.aappublications.org/content/131/2391.full.pdf+html**

~~2. 120(6) e1547. *Diagnosis of HIV-1 Infection in children younger than 18 months in the United States*. Washington, DC~~
~~3. AB 682 Assembly Bill - CHAPTERED~~
~~4.~~**5.** ACOG Committee Opinion: ~~# 418 (9/08),~~ Prenatal and Perinatal Human Immunodeficiency Virus Testing: Expanded Recommendations **includes College recommendations for prenatal testing, rapid testing in labor and delivery and repeat testing in the third trimester. # 418 (9/08, Reaffirmed 2011),**. ~~November, 2004~~
~~5. ACOG Committee Opinion #389, Human Immunodeficiency Virus*, December, 2007~~
~~6. California Law: Assembly Bill No. 1676~~
~~7. California Perinatal Quality Care Collaborative, 2008 Standards of Care for the Prevention of Perinatal Transmission (HIV Toolkit)~~
~~8. Pickering LK, ed. *2009 Red Book: Report of the Committee on Infectious Diseases*. 28th ed. Elk Grove Village, IL: American Academy of Pediatrics.~~
~~9. Public Health Service Task Force. Recommendations for Use of Antiretroviral Drugs in Pregnant HIV-1-Infected Women for Maternal Health and Interventions to Reduce Perinatal HIV-1 Transmission in the United States, April 29, 2009, http://aidsinfo.nih.gov/guidelines/perinatal\perinatal Updated yearly.~~
~~10. Revised Recommendations for HIV Testing of Adults, Adolescents and Pregnant Women in Health-Care Settings. MMWR Recommendations and Reports, September 22, 2006/55 (RR14); 1-17.~~
~~11. Revised CDPH Perinatal Policy (2008)~~
~~12.~~**6.** National HIV/AIDS Perinatal HIV Consultation and Referral Service 24 hr Hotline: 1-888-448-8765
~~13. UCSD Medical Center, Woman's and Infant's Department Policy/Procedure: "HUMAN IMMUNODEFICIENCY VIRUS PREVENTION OF PERINATAL TRANSMISSION" (8/15/09).~~

Tri-City Medical Center	Distribution: Women and Newborn Services
PROCEDURE:	**HIV NEWBORN MANAGEMENT**
Purpose:	To outline the steps necessary to screen and
Supportive Data:	Human immunodeficiency virus may be transr perinatal period. The risk of infection for a neo been reduced from 25% to less than 2% by th antiretroviral therapy and obstetric interventior infection early in pregnancy. It has been found during labor and delivery can reduce mother to child HIV transmission by 50%.

DELETE - replace HIV Newborn Management with HIV Intrapartum, Postpartum and Newborn Management. Procedures were combined because information was similar.

A. **POLICY:**

1. Infants born to HIV positive mothers at Tri-City Medical Center shall receive treatment and screening for mother to child transmission as soon after birth as possible, within 6 hours post delivery.
2. Transmission of HIV to the fetus can be significantly reduced if the mother is treated during her pregnancy and intrapartum period, with antiretroviral drugs. Postpartum treatment of the newborn with antiretroviral drugs further reduces transmission risk and infection.
2. A variety of tests are available for determining the HIV infection. Both the ELISA (enzyme-linked immunosorbant assay) and the western blot tests detect HIV antibodies, not the HIV virus. In the neonate, the presence of these antibodies may result from passive placental transfer from mother and not necessarily indicative of active neonatal disease. Specific tests, such as the HIV DNA PCR (polymerase chain reaction) detect the presence of the HIV virus.

B. **PRIOR TO DELIVERY:**

1. See "TCMC PCS Standardized Procedure: "HIV SCREENING & IDENTIFICATION FOR THE PREVENTION OF PERINATAL TRANSMISSION" for care of the mother.
2. Standard infection precautions are used during delivery.
3. Carry out care practices in the normal manner, regardless of HIV status of infant.
4. Refer to the WCS/NICU PPO/HIV Order Set: Treatment for HIV Exposed Infant.
   a. Scan completed neonatologist's PPO order set to the pharmacy ASAP.

C. **ONCE INFANT DELIVERED:**

1. Verify mother's HIV status and document status of mother's HIV serology on neonatal chart.
2. Verify physician's order for treatment as soon after birth as possible.
3. Administer antiretroviral meds per physician order.
   a. Refer to PPO: HIV Treatment Plan for HIV Exposed Infant.
4. No special care practices or standards are required for the HIV exposed newborn.
5. Verify feeding order set.
   a. Infant will be formula fed only. DO NOT breastfeed. Discuss and reinforce this with infant's mother.
6. Obtain labs per order set.
   a. Call lab prior to drawing the test: verify proper drawing and processing technique.
7. Place social worker consult order in Cerner to implement/or assist with CCS qualifying process for the CCS HIV screening program at UCSD.
   a. Social worker shall ensure mother receives information regarding CCS HIV Screening Program. This program will cover costs of HIV testing, medications and follow up. Parents may call CCS at (619) 528-4000, to start the process.

Review/Revision Date	Clinical Policies & Procedures	Nurse Executive Committee	Department of OB/GYN	Department of Pediatrics	Pharmacy & Therapeutics Committee	Medical Executive Committee	Professional Affairs Committee	Board of Directors Approval
1/10, 03/16	02/13	02/13	08/16	11/16	02/17	05/13, 03/17	06/13	06/13

D. **DOCUMENTATION:**

1. In addition to usual unit standard documentation:
   a. Document zidovudine (Retrovir) dose and time per unit standards.
   b. Document any side effects to medication.
   c. Document instruction and education given to mother or primary caregiver in medical record.

E. **DISCHARGE:**

1. *Check with physician to ensure prescription for home medication is written early in hospitalization to allow time for parents to fill prescription prior to discharge. Most outside pharmacies need >48 hours to obtain zidovudine and fill the prescription.
2. Provide maternal or primary care giver information as follows:
   a. Instruct mother or primary caregiver on the following medication issues:
      i. Review procedure for accurately drawing up and administering zidovudine
      ii. Zidovudine may be kept at room temperature.
      iii. Importance of the drug is given every 6 hours or as ordered by physician to maintain adequate drug levels.
      iv. Zidovudine must be given for 6 weeks.
      v. Fill prescription for zidovudine as soon as it is received.
      vi. Pharmacies may take 48 - 72 hours to fill a prescription for zidovudine if they do not have it in stock.
3. Ensure infant has an appointment with UCSD Mother, Child & Adolescent HIV Program for 4-6 weeks of age, call (619) 543-8089; leave a message for pediatric nurse practioner with the following information:
   a. Mother's name, medical record number and telephone number.
   b. Infant's name, medical record number and date of birth, and primary pediatrician, if available.
   c. Fax any lab tests information to pediatric nurse practitioner, Pediatric Infectious Diseases.

F. **REFERENCES:**

1. California Perinatal Quality Care Collaborative, 2008 Standards of Care for the Prevention of Perinatal Transmission (HIV Toolkit).
2. Public Health Service Task Force Recommendation for Use of Antiretroviral Drugs in Pregnant HIV-1-Infected Women for Maternal Health and Interventions to Reduce Perinatal HIV-1 Transmission in the United States, April 29, 2009 Web site (http://AIDSinfo.nih.gov).
3. TCMC PCS Standardized Procedure: "HIV SCREENING, IDENTIFICATION/TREATMENT OF HIV POSITIVE WOMEN IN LABOR TO PREVENT PERINATAL TRANSMISSION.
4. TCMC PCS Policy: "HIV PREVENTION OF PERINATAL TRANSMISSION".
5. Red Book Pickering LK, ed. *2009 Red Book: Report of the Committee on Infectious Diseases.* 28th ed. Elk Grove Village, IL: American Academy of Pediatrics.
6. Young, T.E., Mangum, B. Pharm D, NEOFAX® 2009 (22nd ED). © 2009 Thomas Reuters.

Tri-City Medical Center	Distribution: Women and Newborn Services
PROCEDURE:	**MISOPROSTOL (CYTOTEC)**
Purpose:	Misoprostol may be used for ripening of the cervix, induction of labor, and postpartum hemorrhage. Cervical ripening may be used when induction of labor is indicated and the cervix is unfavorable. Misoprostol can be used in the third stage of labor to treat severe postpartum hemorrhage secondary to uterine atony.
Supportive Data:	Cervical ripening is considered after evaluation of maternal-fetal status, cervical status, gestational age and other relevant factors. Misoprostol is a PGE_1 analog (synthetic) that has been shown to be safe and effective for cervical ripening. Misoprostol is indicated for ripening of the cervix and/or induction of labor in pregnant women at or near term with a live fetus. It is also indicated for cervical ripening and/or induction of labor for a non-viable fetal demise. Insertion of Misoprostol is appropriate with ruptured membranes.
Equipment:	1. Sterile examination glove 2. Ordered dose of misoprostol 3. Sterile lubricant

A. POLICY:

1. The initial dosage of misoprostol is administered by the ~~provider~~**physician/Allied Health Provider (AHP)** when placed vaginally.
2. Oral administration may be given initially by the Registered Nurse (RN), after a vaginal examination is done to confirm fetal position (presentation), station and cervical status (dilation, effacement, consistency and position).
3. If any examination of the cervical status is in question, it is the ~~provider~~**physician/AHP**'s responsibility to verify the assessment prior to the induction/augmentation.

B. INDICATIONS/ELIGIBILITY CRITERIA FOR USE (Includes but are not limited to the following):

1. Singleton pregnancy
2. Normal fetal lie and documented presentation
3. Unfavorable cervix with indications for induction
4. Obstetrical or medical indication for induction of labor
5. Nulliparous OR Multiparous with < 7 term pregnancies
6. Category I fetal monitoring tracing
7. Premature rupture of membranes
8. Fetal Demise

C. GENERAL PRECAUTIONS:

1. Non-vertex presentation
2. History of:
   a. Hypertonic uterus
   b. Glaucoma
   c. Childhood asthma, even though no adult episodes
   d. Cardiac Disease
   e. Pulmonary Disease
   f. Renal Disease
   g. Hepatic Disease
3. Oligohydramnios - ≤ 5.0 cm
4. Category II fetal heart rate tracing- requires ~~provider~~**physician/AHP** evaluation with documentation of the order to continue with the procedure
5. Preeclampsia

Review/Revision Date	Department of OB/GYN ~~Committee~~	~~Clinical Policies & Procedures~~	~~Nursing Executive Committee~~	Pharmacy & Therapeutics Committee	Medical Executive Committee	Professional Affairs Committee	Board of Directors Approval
3/03; 2/06; 3/09, 12/12, 05/16	01/13, 08/16	~~2/13~~	~~2/13~~	02/17	5/13, 03/17	6/13	6/13

D. CONTRAINDICATIONS (include but are not limited to the following):

1. Previous Cesarean Section or Uterine Surgery
2. Patients with known hypersensitivity to prostaglandins
3. Category II Fetal Monitoring (FM) tracing, progressing to a Category III OR Category III FM strip tracing.
4. Breech presentation or transverse fetal lie
5. Placenta previa/ vasa previa
6. Simultaneous use of oxytocin
7. Maternal fever (≥ 101˚ F)
8. Active herpes
9. Multiparous, > 6 previous pregnancies at viability

E. PROCEDURE for CERVICAL RIPENING/ INDUCTION OF LABOR:

1. Admit patient to Labor and Delivery and review induction plan with the patient/ family.
2. Confirm informed consent was provided by the ~~provider~~**physician/AHP** and consent signed by the patient.
3. Obtain baseline assessment of maternal vital signs
4. Obtain a 20 minute Fetal Monitoring Strip, per department Fetal Heart Rate Surveillance Policy, to determine fetal well-being and uterine activity.
5. Establish IV access with a 16/18 g IV catheter or place a ~~Heplock~~**saline lock per physician/AHP order**.
6. Have the patient void
7. A cervical exam should be completed by the RN or ~~provider~~**physician/AHP** (Clinical Nurse Midwife (CNM) or Obstetrician) prior to administering Misoprostol to obtain a baseline BISHOPS Score.
   a. An exam should also be performed prior to giving subsequent doses.
   b. Misoprostol should be discontinued once a Bishop score of greater than 8 has been achieved or a cervical exam of 80% effacement and 3 cm dilation, the patient enters active labor or the FHR demonstrates a Category II progressing to a Category III tracing or Category III tracing.
8. Oral / **Buccal** Administration:
   a. Usual dosing schedule is 50 micrograms (mcg) by mouth every four hours, per ~~provider~~**physician/AHP** order. DO NOT exceed a total of 300 mcg of oral Misoprostol or six doses.
9. Vaginal Administration:
   a. Intra-vaginal misoprostol shall be inserted by a ~~provider~~**physician/AHP** initially; subsequent doses may be inserted by the RN.
   b. Usual dosing schedule is 25 mcg intra-vaginally initially; followed by 25- 50 mcg every four hours intra-vaginally, per ~~provider~~**physician/AHP** order.
   c. Avoid the use of lubricating gel (only a small amount or use water if necessary) and place Misoprostol tablet high into the posterior vaginal fornix.
   d. Maintain lateral supine tilt position for 60 minutes after insertion of Misoprostol.
10. Vital Signs: Blood Pressure, pulse, respiratory rate and temperature are taken every 30 minutes times two after each dose, then every FOUR hours if stable and not in active labor. Once active labor is established, follow vital sign guidelines for intrapartum management or if an epidural is placed per epidural procedure.
11. Assess and document FHR and uterine activity via continuous external electronic fetal monitoring after insertion of Misoprostol and per ~~provider~~**physician/AHP** order.
    a. Actions for uterine tachysystole:
       i. Tachysystole is defined as > 5 contractions in 10 minutes, averaged over 30 minutes.
       ii. If tachysystole occurs and FHR tracing indicates Category II, progressing to Category III or III finding, notify the ~~provider~~**physician/AHP** and institute

measures to remove the Misoprostol tablet and improve fetal oxygenation **per physician/AHP order(s)**:

1) Position laterally
2) Provide O_2 8-10 liters/minute via non-rebreather mask
3) Hydrate with 400-500 mL bolus of non-dextrose solution
4) Administer 0.25 mg terbutaline subcutaneously ~~per provider order~~

iii. Evaluate maternal/fetal responses to interventions and prepare for emergency **Cesarean Section**~~/s~~ if indicated

iv. Patient assessment must be performed by the ~~provider~~**physician/AHP** prior to resuming misoprostol induction.

1) Allow patient to rest at minimum 4 hours prior to resumption of misoprostol induction (normal dosing interval)

12. Reassessment of the clinical situation by the ~~provider~~**physician/AHP** is necessary after 12 hours or two RN administered doses. Further administration requires a note by the ~~provider~~**physician/AHP**.
13. Oxytocin (Pitocin) may be initiated no sooner than four (4) hours after the last Misoprostol dose **per physician/AHP order**.

F. MISOPROSTOL USE FOR (IUFD) INDUCTION/ PREGNANCY TERMINIATION:

1. For Estimated Gestational Ages (EGA) LESS THAN 22 weeks:
   a. Apply tocodynamometor (toco) to assess uterine activity, per ~~provider~~**physician/AHP** order.
   b. Perform vaginal examination for cervical assessment (effacement and dilatation) and fetal station evaluation prior to insertion of each dose of misoprostol.
   c. Administer 400 micrograms (mcg) vaginally every THREE to SIX hours for a maximum of FIVE doses or 600 mcg vaginally every 12 hours **per physician/AHP order**. (Either protocol may be repeated after 24 hours if induction is not complete)
   d. Women with a prior Cesarean Section who undergo labor induction for miscarriage/ fetal demise with prostaglandin (including misoprostol) have been shown to have outcomes that are similar to those women with an unscarred uterus so its use can be considered a reasonable option in this gestation.
2. For EGA BETWEEN 23-26 weeks:
   a. Apply toco to assess uterine activity, per ~~provider~~**physician/AHP** order
   b. Perform vaginal examination for cervical assessment (effacement and dilatation) and fetal station evaluation prior to insertion of each dose of misoprostol
   c. Since the potency of Misoprostol varies with gestational age the following dosage regime may be considered: 100 mcg vaginally ~~q~~**every** 6 hours **per physician/AHP order**.
   d. Women with a prior cesarean section who undergo labor induction for miscarriage/ fetal demise with prostaglandin (including misoprostol) have been shown to have outcomes that are similar to those women with an unscarred uterus so its use can be considered a reasonable option for use in this gestation.
3. For EGA GREATER THAN 27 weeks:
   a. Apply the toco to assess uterine activity, per ~~provider~~**physician/AHP** order
   b. Perform vaginal examination for cervical assessment (effacement and dilatation) and fetal station evaluation prior to insertion of each dose of misoprostol.
   c. Administer 50 mcg Misoprostol, vaginally every FOUR hours for a total of SIX doses **per physician/AHP order**.
   d. For patients with a prior cesarean scar who undergo labor induction for fetal demise greater than 27 weeks EGA, cervical ripening with a "transcervical Foley catheter" has been associated with uterine rupture rates comparable with spontaneous labor and should be considered a helpful adjunct in patients with an unfavorable cervical examination.

G. USE IN POSTPARTUM HEMORRHAGE (PPH):

1. Administer Misoprostol per ~~provider~~**physician/AHP**'s order. Usual range is 800- 1000 mcg X1 rectally (PR)
2. Monitor vital signs q 15 min x one hour or until stable per ~~provider~~**physician/AHP** order.
3. Reassessment of the clinical situation by the ~~provider~~**physician/AHP** is necessary after 12-24 hours or prn. Further administration requires a note by the ~~provider~~**physician/AHP**.

H. DOCUMENTATION:

1. Document patient assessment, misoprostol insertion, fetal monitoring, nursing actions and interventions, and maternal/fetal responses in the patient record as needed.

I. REFERENCES:

1. AAP & ACOG. (201~~0~~). Guidelines for Perinatal Care, **7~~6~~**th Edition
2. American College of Obstetrics & Gynecology (2009). Induction of Labor. ACOG Practice Bulletin, No. 107.
3. Wildschut, H., Both, M., Medema, S., et al. Medical methods for mid-trimester termination of pregnancy. Cochrane Data Base System Rev 2011; CD005216.
4. ~~Gilbert, E.S. (2007). Manual of High Risk Pregnancy & Delivery, (4th Edition), Mosby~~
5. **~~4~~.** Gomez Ponce de Leon, R., Wing, D. A., Fiala, ~~C.C.~~ Misoprostol for **termination of pregnancy with** Intrauterine Fetal **demise**~~Death~~ **in second and theird trimester of pregnancy – a systematic review**. ~~International Obstetrics & Gynecology~~ (200**9**~~7~~) **Contraception 79, 259-271**~~99, S190- S193~~.
5. Simpson, K.R. & Creehan, P.A. (201**4**~~08~~). Perinatal Nursing, (**4**~~3~~rd Edition), Philadelphia, PA: Lippincott, Wilkins & Williams.
6. **Carlan, S.J., Blust, D., and O' Brien, W. F. (2002) Buccal verses instravaginal misoprostol administration for cervical ripening. American Journal of Obstetrics and Gynecology, 186: 229-233.**
7. ~~Wing, D.A. (2008) Induction of labor in women with prior cesarean delivery. Retrieved from www.uptodate.com 4/06/09.~~
8. ~~Wing, D.A. (2008) Induction of labor. Retrieved from www.uptodate.com 4/06/09.~~

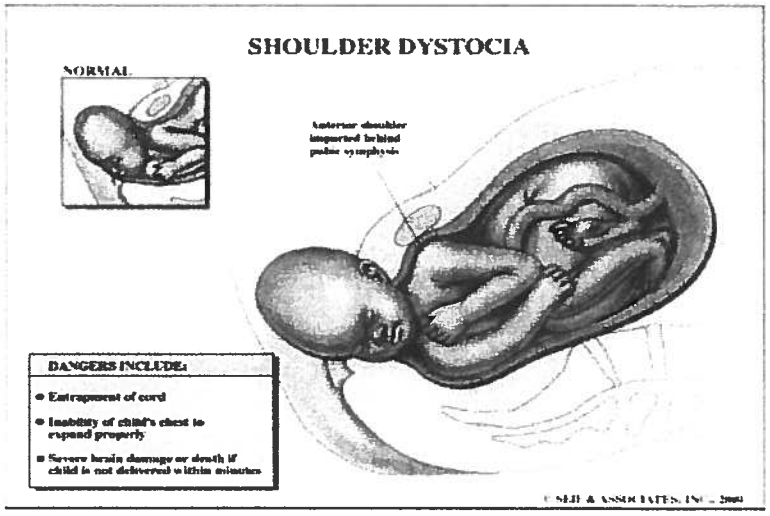
Tri-City Medical Center	Distributi

DELETE – Online Clinical Skills (Mosby's) Resource has a Shoulder Dystocia Procedure. Remove from Unit Specific Manual 12/2016

PROCEDURE:	**SHOULDER DYSTOCIA**
Purpose:	Shoulder Dystocia is defined as the impaction maternal symphis pubis after the baby's head shoulders exceeds the diameter of the pelvic occur in the normal birth weight baby, making this an unpredictable obstetrical emergency. Nursing knowledge of prenatal risk factors, intrapartum warning signs, and specific interventions using the HELPERR pneumonic, is essential to ensure the best possible outcomes for the laboring woman and her baby.
Supportive Data:	There is no evidence that any one maneuver is superior in releasing an impacted shoulder; however, the McRoberts maneuver and suprapubic pressure are easily implemented without an associated risk of injury to the baby. Excess traction and fundal pressure should be avoided because of increased risk of injuries to the baby (ACOG, 2002b). Key interventions include calling for additional help, calm supportive actions, and working in sync with the provider who is directing maneuvers to deliver the impacted shoulder.
Equipment:	Foot stool

A. **RISK FACTORS**

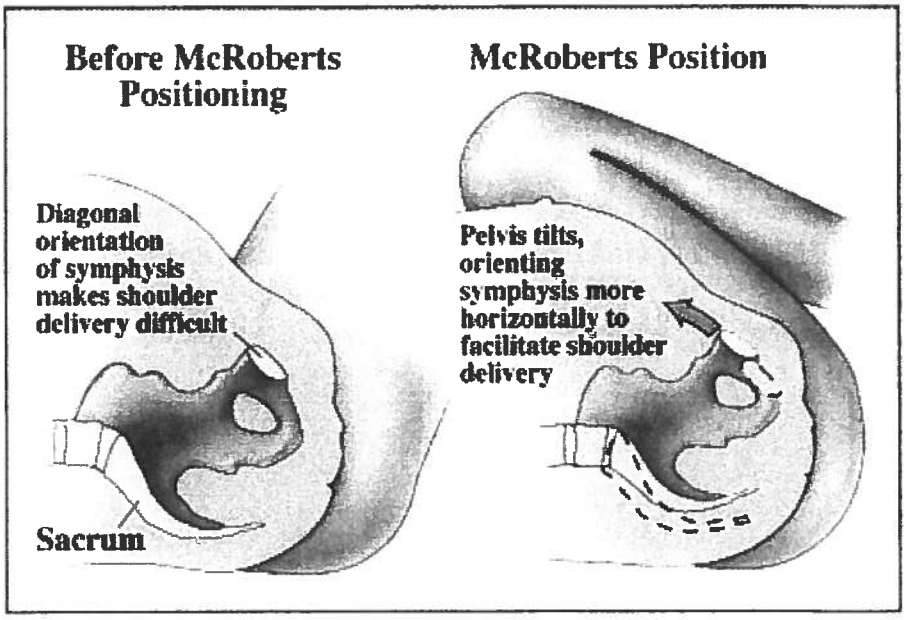
1. Maternal risk factors associated with shoulder dystocia include
   a. Abnormal pelvic anatomy
   b. Gestational diabetes
   c. Post-dates pregnancy
   d. Previous shoulder dystocia
   e. Short stature
2. Fetal risk factors associated with shoulder dystocia include:
   a. Suspected macrosomia
   b. Labor related
   c. Assisted vaginal delivery (forceps or vacuum)
   d. Protracted active phase of first-stage labor
   e. Protracted second-stage labor with "head bobbing" or "turtling" (head emerges and then retracts up against perineum)



Revision Date	Department of OB/GYN	Department of Pediatrics	Pharmacy & Therapeutics Committee	Medical Executive Committee	Professional Affairs Committee	Board of Directors Approval
07/14, 12/16	06/13, 02/17	n/a	n/a	6/14, 03/17	6/14	07/14

B. **PROCEDURE:**

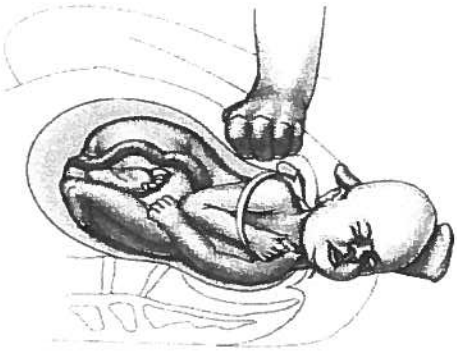
1. Nursing staff should be aware of Antepartum and Intrapartum risk factors/warning signs that could indicate a potential shoulder dystocia, so it can be anticipated and interventions provided quickly, if necessary.
2. Educate patient and family on the possibility of a potentially difficult delivery and show them what they may be asked to do in that event.
3. Review the role and responsibilities with all key personnel to ensure someone is assigned to record the events and others to provide the intervention
4. Ensure the delivery room is free of clutter and step stools are available at the patient's bedside.
5. Assure the patient's bladder is empty prior to delivery.
6. Anticipate that the provider may "deliver through" the anterior shoulder and not use bulb suction in a patient with a known risk factor.
7. If shoulder dystocia occurs, the delivering provider announces he/she has a "shoulder dystocia" and needs HELP!
8. Staff should immediately initiate **HELPERR**
   a. **H- CALL FOR HELP**
      i. Provider should notify delivery room personnel of shoulder dystocia and need for immediate assistance
      ii. **E- EVALUATE FOR EPISIOTOMY (Provider Intervention**
      iii. This may be considered by provider, but may also be performed after the next two steps since most shoulder dystocia's are resolved with McRoberts Maneuver and/or suprapubic pressure
   b. **LEGS (MCROBERTS MANUEVER)**
      i. Enlisting the help of a staff member, flex the maternal hips to position the maternal thighs up onto the maternal abdomen to stimulate a squatting position and increasing the pelvic inlet diameter.



   c. **P- EXTERNAL SUPRAPUBIC PRESSURE**
      i. Use step stool to reach height of mother in bed or kneel next to the patient in the bed. The hand should be placed over the fetus' anterior shoulder, or slightly above the maternal syphilis pubis, and apply pressure with palm of hand from the side of the mother that will allow the hand to move in a downward and lateral motion to adduct the fetal shoulder.
      ii. Initially the pressure may be continuous, but depending on effectiveness, a rocking motion may be recommended to dislodge the shoulder.

iii. The delivering provider should inform the assistant of the correct direction to apply the pressure base on baby's position.

d. **E- ENTER INTERNAL MANUEVERS (Provider Interventions)**



i. These maneuvers are intended to manipulate the fetus to rotate the anterior shoulder into an oblique plane under the symphysis pubis

ii. **RUBIN II MANUEVER**- Insert the fingers of one hand vaginally behind the anterior shoulder and push the shoulder towards the baby's chest, while maintaining suprapubic pressure. If unsuccessful, the wood screw maneuver is the next step.

iii. **RUBIN II with WOOD SCREW MANUEVER**- This is used in combination with the Rubin II maneuver. The provider now uses the opposite hand to approach the posterior shoulder from the front of the baby, maintains two fingers behind anterior shoulder, and rotates the shoulder toward the syphilis pubis in the same direction as the Rubin maneuver

iv. **REVERSE WOOD SCREW MANUEVER**- If the above is unsuccessful; the provider may attempt to rotate the baby the opposite direction, with fingers on the posterior shoulder from behind.

e. **R- REMOVE POSTERIOR ARM (Provider Intervention)**

i. The posterior arm is removed by the provider in which he locates the arm, flexes the elbow in that the forearm sweeps across the chest, and is then removed from the birth canal creating room for the anterior shoulder to collapse.

f. **R- ROLL THE PATEINT (Provider Initiated)**

i. The "all fours" or "Gaskin" maneuver is a safe, rapid and effective technique for shoulder reduction. The baby's shoulder often dislodges during the act of turning. The precise mechanism by which this works is unknown, but is thought that the pelvic diameter increases with this movement.

9. If the above is unsuccessful, the methods of last resort are considered by the provider:
   a. Deliberate clavicle fracture.
   b. Zavanelli maneuver: (This is the cephalic replacement followed by an **EMERGENCY C-SECTION**. Continuous upward pressure on fetal head once replaced should be maintained and tocolysis anticipated) **A clamped and cut cord is contraindicated** for this maneuver.
   c. Muscle or uterine relaxation, induced with general anesthetic.
   d. Abdominal surgery and Hysterotomy.
   e. Symphysiotomy,performed within 5-6 minutes of delivery of the head when all other efforts have failed, and cesarean delivery is not available
   f. Post-delivery, complications for mother and baby are listed below and should be considered when performing ongoing assessments.
10. MATERNAL:
   a. Postpartum hemorrhage
   b. Third- or fourth-degree episiotomy or tear
   c. Uterine rupture
   d. Recto-vaginal fistula
   e. Symphyseal separation or diathesis, with or without transient femoral neuropathy
11. FETAL:
   a. Brachial plexus palsy
   b. Clavicle fracture
   c. Fetal hypoxia, with or without permanent neurological damage
   d. Fracture of the humerus

e. Fetal death

C. **DOCUMENTATION:**

1. Document events and maneuvers performed in a logical step-by-step sequence with clear and precise terms, noting the duration of the interventions, when performed and result/s of the interventions.
2. Document fetal heart rate assessment.
3. Document any instructions given to patient/family.
4. Avoid late entries, and document as soon as possible after delivery secondary to patient care.

D. **REFERENCES:**

1. Simpson, K. R. & Creehan, P.A. (2008). Perinatal Nursing. (3rd ed.). Philadelphia: Lippincott.
2. Gobbo, B. & Baxley, E. Advanced Life Support in Obstetrics: Shoulder Dystocia.
3. Tucker, S.M., Miller, D.A. (2009). Fetal Monitoring and Assessment (5th Ed), Mosby: Elsevier.
4.1. Sokol, R. & Blackwell, S. (2002) ACOG Practice Bulletin #40, Shoulder Dystocia.

Tri-City Medical Center
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WOMEN'S AND ~~CHILDREN'S~~ NEWBORN'S SERVICES

SUBJECT: STANDARDS OF CARE – ANTEPARTUM

ISSUE DATE: 06/14
REVISION DATE(S):

Department Approval Date(s):	**12/16**
Department of OB/GYN Approval Date(s):	**~~04/13~~02/17**
Department of Pediatrics Approval Date(s):	**n/a**
Pharmacy and Therapeutics Approval Date(s):	**n/a**
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Professional Affairs Committee Approval Date(s):	**06/14**
Board of Directors Approval Date(s):	**06/14**

A. **PREAMBLE:**

1. Nursing practice in the care of **w~~W~~omen** and **n~~N~~ewborns** is delivered in an environment that respects the goals, preferences, and patient rights of ~~the unique dyad of the maternal-fetal unit and/or mother-baby couplet and~~ the family from admission, through the episode of care, to discharge. The Women's and ~~Children's~~ **Newborn Services (WNS)** nursing staff shall use established **Tri City Medical Center (TCMC)** and unit specific policies and procedures, and ~~shall~~ adhere to the standards and guidelines set forth by the California Nurse Practice Act, American Nurses Association (ANA), Association of Women's Health, Obstetrics and Neonatal Nurses (AWHONN), and National Association of Neonatal Nurses (NANN). ~~Couplet care is based on a philosophy that embraces the family's spiritual and cultural values, is ethically relevant and is grounded on evidence-based practice.~~

B. **DEFINITION(S):**

1. ~~Standards of~~**Standards of ~~Care~~ Professional Nursing Practice**: "Authoritative statements ~~by which the nursing profession describes the responsibilities for which its practitioners are accountable (ANA, p.77)". "Standards of care describe a competent level of nursing care as demonstrated by the nursing process (ANA, p.78) and are examples of the nursing professional expected roles and responsibilities for providing patient care~~ **of the duties that all registered nurses, regardless of role, population or specialty are expected to perform competently (American Nurses Association (ANA) 2010, p.2)"**.
2. **Scope of Nursing Practice: "Describes the who, what, where, when, why and how of nursing practice. Each of these questions must be answered to provide a complete picture of the dynamic and complex practice of nursing and its evolving boundaries and membership (ANA, 2010)".**
3. **Standards: "~~Authoriative~~Authoritative statements defined and promoted by the profession by which the quality of practice, service or education can be evaluated" (ANA, 2010, p. 67).**
   a. **"Standards of care are Standards of Professional Nursing Practice."**

~~2.~~4. Nursing Process: **"The essential core of practice for the Registered Nurse (RN) to deliver holistic, patient-focused care. The practice as outlined by the ANA (2016) includes the following:** ~~Encompasses all significant actions taken by nurses in providing care to all clients, and forms the foundation of clinical decision-making. The nursing process also defines additional nursing responsibilities for providing cultural and ethnic relevant care, education to the woman and for her fetus or newborn, caregivers, maintaining a patient safe environment,~~

~~and patient health care promotion and the planning for continuity of care. The nursing process includes the following.~~

a. Assessment: A systematic, dynamic **way to collect and analyze data about a ~~client~~patient i.e., patient. Assessment includes not only physiological data, but also psychological, sociocultural, spiritual, economic and life-style factors". An assessment includes subjective and objective data**

i. Subjective-what the patient says.

~~1.~~**ii. Objective-observation based on assessment findings**~~process by which the registered nurse, through interaction with the patient, significant others, and health care providers, collects comprehensive data with the priority of data collection determined by the immediate condition of the woman, the fetus or newborn and their needs for health promotion, maintenance and restoration.~~

~~i.~~**iii.** ~~Obstetrical Technicians (OB Techs) and OB Advanced Care Technicians (ACTs) collect patient data.~~**Focused Assessment/Reassessment: A more specific generalized assessment that focuses on the main items need to be ~~ed~~ reassessed. This may be documented as no change since last assessment. The items that may be assessed are not all inclusive, but not limited to: orientation assessment, level of consciousness, affect/behavior, respiratory symptoms, respirations, respiratory pattern, and skin color and skin temperature.**

~~a. Only RNs perform admission, transfer, and and/ or discharge assessments.~~

b. Diagnosis: A **nurse's'** clinical judgment about the ~~client~~**patient**'s response to actual or potential health conditions or needs.

c. Outcomes/**Planning: "Based on the assessment and diagnosis. Outcomes ~~are :~~are: m**~~M~~easurable~~, expected, client focused goals~~ **and achievable short and long-range goals".**

~~2.~~**i.** Planning: ~~(~~**Care Plan i.e.,** Plan of Care~~)~~: A comprehensive outline of care to be delivered to attain expected outcomes

d. Implementation: ~~Includes any or all of these activities: intervening, delegating, and/or coordinating the plan of care.~~ **"Nursing care is implemented to the care plan. This is "continuity of care from the patient during hospitalization and in preparation for discharge needs".**

~~b. TCMC's, Mosby's, and Unit Specific Procedures shall be used to implement nursing interventions when appropriate.~~

e. Evaluation: The process of determining both the **"patient's status and the effectiveness of nursing care. It is a process that involves continuously ~~y~~ evaluation of the patient and the modifications to the Plan of Care**~~client's progress toward the attainment of expected outcomes and the effectiveness of nursing care~~.

~~3.~~**5.** Patient: Recipient of nursing care.

~~4.~~**6.** Health Care Providers: Individuals with special expertise who provide health care services or assistance to ~~client~~**patients**

~~5.~~**7.** Significant Others: Family members and/or those significant to the ~~client~~**patient**

~~6.~~**8.** Reasonable and a timely manner: Defined as within 4 hours after completion of assessments or care provided.

~~7.~~**9.** Registered nurses use the nursing process to plan and provide individualized care to their patients. Nurses use the theoretical and evidence-based knowledge of human experiences and responses to collaborate with **the** patient and her fetus or newborn to assess, diagnose, identify outcomes, plan, implement and evaluate care. Nursing interventions are intended to produce beneficial effects, contribute to quality outcomes, and above all, do no harm. Nurses evaluate the effectiveness of their care in relation to identified outcomes and use evidence-based practice to improve care (ANA, 2010)".

C. **~~WCS~~WNS-WNS STANDARDS OF PRACTICE:**

1. The results of care provided to the patient shall be continuously evaluated by the health care team, while looking for opportunities to improve delivery and quality of care given.
2. A comprehensive and dynamic data-base shall be maintained on all patients admitted to the hospital.
3. The patient can expect to have appropriate confidentiality maintained at all times.
4. The patient can expect that the RN shall ensure the optimal desired level of privacy.
5. The patient can expect that the RN shall collect initial objective data within established time frames that reflect the gravity of his/her condition.
6. The patient can expect that the RN shall facilitate the availability of pertinent data and collaborate with other members of the health care team to establish an integrated plan of care.
7. The identification and prioritization of the patient's problems/needs shall be based on collected data obtained from assessments, patient/parent interviews, patient medical records, and from other members of the health care team.
8. The patient can expect that the RN shall utilize collected data to individualize the plan of care.
9. The patient can expect that the RN shall establish the priority of problems/needs on an ongoing basis according to the gravity of the patient's condition.
10. An appropriate plan of care shall be formulated for each patient.
11. The plan of care will be implemented according **to** the priority of identified problems or needs.
12. The plan of care shall be developed with an understanding of the psychosocial needs of the patient.
13. The patient can expect that there will be documentation of interventions related to the plan of care and that this documentation will be part of the patient's permanent medical record.

D. **NURSING PROCESS:**

1. Standards Of Care: Assessment
   a. RN shall ensure all maternal and infant patients have a general system review in all systems completed. Detailed system assessments shall be completed as indicated by the patient's condition.
2. Standards Of Care: Diagnosis
   a. RN shall review the data obtained from each patient's assessment, history, and information documented by the interdisciplinary team to identify outcomes to develop the patient's plan of care (POC) every shift and PRN.
3. Standards Of Care: Outcome Identification
   a. RN shall use the information obtained from Standards of Care: Assessment and Standards of Care: Diagnosis to identify appropriate patient outcomes every shift and PRN.
4. Standards Of Care: Planning
   a. RN shall use the outcomes identified in Standards of Care: Outcome Identification and the provider orders to develop an individualized patient POC. The POC shall prescribe interventions, which may be implemented to attain expected outcomes.
5. Standards Of Care: Implementation
   a. RN shall implement the interventions identified in the POC and/or ensure unlicensed assistant personnel are assigned task**s** appropriately.
6. Standards Of Care: Evaluation
   a. RN shall evaluate the patient's progress toward obtaining their outcomes in the POC per TCMC policy.
   b. Emergent and urgent changes in the patient's assessment shall be communicated to providers as soon as possible per TCMC policy.
   c. Non-emergent and/or not urgent changes in patient's assessment shall be communicated during provider rounds, or as soon as possible within the shift the changes were identified
7. Standards Of Care: Documentation
   a. It is recommended that all shift assessments, reassessments, PRN assessments and/or care provided be documented after completion of the care in a timely manner.

b. When it is not possible to document ~~shift assessments, reassessments, PRN assessments and/or care provided~~ due to unforeseen circumstances such as urgent or emergent situations, changes in assignment, or increased patient acuity, document the nursing care and assessment as soon as reasonably able to do so.

c. Reasonable and a timely manner may be defined as within 4 hours after completion of assessments or care provided.

E. **GENERAL OB NURSING ASSESSMENT:**

~~I.~~**1.** Standards Of Care: Vital Signs:

2. Maternal vital signs shall include:

~~A.~~**a.** -Temperature, documented in Celsius (preferred)

~~a.~~**b.** Blood Pressure (BP)

~~b.~~**c.** Heart Rate (HR)

~~c.~~**d.** Respiratory Rate (RR)

~~d.~~**e.** SpO2 **prn**

~~e.~~**f.** Pain Level

~~2.~~**3.** Vital~~s~~ signs shall be obtained on admission, transfer to a unit, at discharge per Patient Care Services (PCS) procedure: Discharge of Patients, per provider's orders, and as follows:

a. Antepartum:

i. **Approximately**~~At minimum~~ every 6 hours, ~~or~~ as ordered by provider, ~~or~~ as clinically indicated, or per procedure, i.e., PCS procedure: Magnesium Sulfate Administration for Obstetric Patient.

ii. ~~Notify~~ If **premature rupture of membranes (PROM)** or **prolonged** PROM, temperature every ~~2 hrs~~ **4 hrs.** if afebrile ~~every hour until resolved~~ **or per provider orders. Notify** provider if:

1) Temperature greater than or equal to 100.4° F or 38° C

2) BP~~lood pressure~~ greater than or equal to ~~systolic~~ 140 **Systolic** and/or d~~iastolic~~ **greater than or equal to** 90 **diastolic.**

~~i.~~**a)** **If patient has hypertension or preeclampsia history, a BP**; greater than or equal to **a** ~~systolic~~ 160 **systolic** and/or 110 diastolic **is known as a hypertensive emergency and may require IV anti-hypertensive medications per provider order.** ~~if known preeclamptic~~

~~2)~~**3)** Pulse greater than or equal to 120 bpm

~~3)~~**4)** Respirations greater than 28 or less than 12

b. Fetal Monitoring (per Fetal Heart Surveillance procedure):

i. The antepartum patient:

1) Document the fetal heart rate **(FHR)** tracing and uterine activity every hour or as ordered by provider.

2) Palpate the uterus (goal soft without a contraction and if felt during a contraction document if palpates mild, moderate or firm)

3) Assess uterine tenderness

4) Assess for fetal movement once a shift

~~B. Reference: Women's and Children's **Newborn's** Services Policy: "FHR Surveillance~~

~~I.~~**4.** Standards Of Care: Pain Assessment:

~~A.~~**a.** Assessment: Pain per Pain Management Policy

~~1.~~**i.** Acceptable level of intensity

~~2.~~**ii.** Pain scale

~~3.~~**iii.** Current pain intensity

~~4.~~**iv.** If patient complains of pain, assess the following:

~~a.~~**1)** Location, intensity, and duration/onset

~~b.~~**2)** Quality/type

~~c.~~**3)** Aggravating factors

~~d.~~**4)** Alleviating factors

~~B.~~**b.** Assess for presence of pain/discomfort with vital signs and PRN

~~C.~~**c.** Perform a pain assessment with each patient report of new or different pain.

~~D.~~**d.** Perform a pain reassessment as follows:

~~1.~~**i.** Thirty (30) minutes after intravenous medications, intramuscular, or subcutaneous intervention

~~2.~~**ii.** One (1) hour after **oral medication**~~PO~~ intervention

~~II.~~**5.** Standards Of Care: Intake And Output:

~~A.~~**a.** Intake and output shall be monitored as ordered and as follows:

~~1.~~**i.** Antepartum:

~~a.~~**1)** I&O totals every shift with 24 hour totals when patient has Intravenous (IV) Fluids ordered

~~b.~~**2)** Assess bladder every 4-6 hours ~~when sleeping~~, or as ordered by provider.

~~c.~~**3)** Notify provider if patient is not voiding and/or measured output is less than or equal to 30 mL per hour or less than or equal to 120 mL in 4 hours.

~~d.~~**4)** Bleeding

~~i.~~**a)** Patients shall be screened for risk of obstetrical hemorrhage upon admission, and as part of the ongoing reassessment throughout antepartum and/or intrapartum admission.

~~ii.~~**b)** Patients will be screened who present to labor and delivery with placenta previa accreta and its variants, possible placental abruption with or without vaginal bleeding.

~~1)~~**i)** Assess and document quantity (# of pads/chux, degree of saturation and/or weigh as needed), color, associated symptoms and frequency of bleeding.

~~2)~~**ii)** Notify provider for active bleeding, and report above findings.

~~3)~~**iii)** Refer to ~~WCS~~**WNS-WNS** procedure: Obstetrical Hemorrhage.

~~III.~~**6.** Standards Of Care: Height And Weight/Other Measurements:

~~A.~~**a.** Height and weight will be self-reported and/or transcribed from prenatal record with information from last office visit prior to admission. If the situation permits, it is preferred that the patient be weighed upon admission.

~~1.~~**i.** Weights shall be documented in kilograms (kg) and height in centimeters (cm)

~~B. Antepartum patients shall be weighed on admission if not contraindicated and every seven days thereafter until discharge or delivery~~.

~~C.~~**b.** Medications shall be calculated using the patient's admission weight unless ordered otherwise by a provider.

~~IV.~~**7.** Standards Of Care: Aspiration Assessment:

~~A.~~**a.** Maintain aspiration precautions for maternal patients identified at risk.

~~1.~~**i.** Maintain head of bead (HOB) at 30 degrees at all times.

~~a.~~**1)** If eclamptic seizure, lower head of bed, open airway, roll patient to side and suction secretions as necessary.

~~b.~~**2)** Avoid attempts to insert suctioning device when patient's teeth are clenched.

~~2.~~**ii.** Maintain suction equipment at bedside at all times.

~~V.~~**8.** Standards Of Care: Patient Safety:

~~A.~~**a.** The health care team shall provide measures to ensure patient safety for the unique maternal-fetal dyad and/or mother baby couplet. This includes the bed in the lowest position, wheels locked, and room free of clutter.

~~B.~~**b.** Patient safety shall be assessed per the following:

~~1.~~**i.** The RN shall observe the patient's physical condition on admission and/or transfer to their unit, prior to and after epidural placement and/or other procedures, and as needed.

~~2.~~**ii.** Patients shall be identified per Patient Care Services (PCS): Identification, Patient Policy.

~~3.~~**iii.** Allergies will be monitored and documented upon admission

~~a.~~**1)** Any known medication or food allergy shall be documented as follows:

~~i.~~**a)** The patient allergy band

~~ii.~~**b)** Allergy sticker placed on the front of the chart

~~iii.~~**c)** **In the patient's Electronic Medical Record (EMR)**~~Medication Administration Record~~

~~4.~~**iv.** Orders shall be obtained, reviewed, and implemented per PCS: Physician Orders Policy.

~~5.~~**v.** Critical test values shall be reported per PCS Procedure: Critical Results and Critical Test/Diagnostic Procedures.

~~6.~~**vi.** Patient's specimens shall be handled per PCS: Specimen Handling Procedure, or by selecting the appropriate Mosby's Online Specimen Collection Procedure.

~~7.~~**vii.** Electronic or medical equipment brought to TCMC shall be evaluated, used, and stored per PCS: Medical Equipment Brought into the Facility Policy.

~~8.~~**viii.** Patients shall be assessed for falls per PCS: Falls Risk Procedure.

~~9.~~**ix.** Hand-off Communication shall be provided per PCS: Hand-off Communication Policy and unit specific hand-off policies.

~~10.~~**x.** Medication shall be reconciled per PCS: Medication Reconciliation Policy.

~~11.~~**xi.** All alarms shall be reviewed for appropriateness based on patient's status and maintained in the ON position with the volume at an audible level.

F. **SYSTEM REVIEW:**

1. All maternal, fetal/or newborn patients will have a general system review **of**~~in~~ all systems completed and documented **at least once a shift. A focused**~~Detailed system~~ assessment,~~s~~ **or any** ~~shall~~**reassessment, shall** be completed and documented as indicated by the patient's condition.
2. Standard Of Care I: Assessment:
   a. All patients admitted to ~~WCS~~**WNS** nursing units shall be assessed by a Registered Nurse**(RN)** per the following:
   b. Admission and/or Transfer: Assessment
      i. All patients admitted or transferred to a higher level of care shall have a head to toe assessment initiated **as soon as possible**~~within 15 minutes~~**3 hours** upon arrival to unit, a detailed or disease specific assessment shall be documen**ted** as needed.
      ii. The assessment shall be completed in a timely manner.
   c. Admission Assessment- Patient History:
      i. All inpatients shall have the Admission Assessment-Patient History completed and documented within 24 hours of admission to the unit.
         1) This assessment-patient history shall include an assessment for obstetric hemorrhage
   d. Medication Patient History Form
      i. All patients shall have a Medication Patient History completed ~~as soon as possible~~ upon arrival to the unit per the Medication Reconciliation Policy.
   e. Initial Shift Assessment
      i. RN shall initiate an ongoing head to toe assessment **at the beginning of each shift.** ~~as follows: within 2 hours of the start of the shift~~
   f. Reassessment/**Focused Assessment may be documented as no change since last assessment.**

i. After completion of an Admission or an ~~i~~**I**nitial shift assessment, patients shall have a focused reassessment performed and documented during the shift, **when clinically** ~~every 6 hrs or more frequently as clinically~~ indicated:
   1) If the patient refuses a reassessment, document **her**~~their~~ refusal in the medical record.
ii. System Specific Assessment (Focus assessment) shall be completed as follows:
   1) Change in patient's condition from the initial shift assessment or reassessment.
   2) Response to treatment provided to a patient.

3. Standards Of Care I.1: Assessment Neurological System Review:
   a. Neurological: System Review
      ~~i.~~ Assess the ~~following:~~
      ~~1.~~**i.** ~~Level~~**following: Level** of consciousness
      ii. Orientation
      iii. Presence of:
         1) Headache
         2) Visual disturbances, e.g. blurred vision or scotoma
      iv. Deep Tendon Reflexes
         1) Patellar or brachial
         2) Clonus
4. Standards Of Care I.2: Assessment Cardiovascular System Review:
   a. Cardiovascular System Review
      i. Assess heart sounds ~~in all auscultatory areas~~; note regular or irregular
      ii. ~~-~~Check capillary refill
      iii. Check edema location and grade
      ~~iv. Palpate bilateral peripheral pulses: radial and dorsalis pedis~~
      ~~v.~~**iv.** Assess peripheral perfusion; skin warm and dry

~~A. Assess Homan's sign for presence of thrombophlebitis.~~

5. Standards Of Care I.3: Assessment Pulmonary System Review:
   a. Pulmonary: System Review
      i. Check oxygen delivery devices if applicable
      ii. Check amount **of** oxygen flow if applicable
      iii. Assess pulse oximetry prn ~~or per~~
      ~~a.~~**iv.** PCS procedure: "Magnesium Sulfate Administration in Obstetric Patients"
      ~~iv.~~**v.** Assess respiratory effort **(pattern, symptoms)**
      ~~v.~~**vi.** Auscultate breath sounds **in** all lobes
      ~~vi.~~**vii.** Assess sputum amount, color, and consistency if applicable
      ~~vii.~~**viii.** Assess for presence of cough
      ~~viii.~~**ix.** Assess for presence of artificial airway, tubes, and drains if applicable
      ~~ix.~~**x.** Assess chest expansion for symmetry
6. Standards Of Care1.4: Assessment Gastrointestinal (Gi) System Review:
   a. GI: System Review
      i. Assess abdomen
         1) Round, gravid, distention
         2) Soft, firm, distended, non-distended
         ~~2~~**3) Pain in upper right quadrant**
      ii. Assess for nausea and/or vomiting
      iii. Auscultate for presence of bowel sounds in all four quadrants
      iv. Assess bowel function including passing flatus or last stool
7. Standards Of Care 1.5: Assessment Genitoutinary System Review:
   a. Genitourinary (GU) System Review
      i. Assess urine color and clarity, frequency and dysuria.
      ii. Assess for bladder distension.
      iii. Assess external anatomy/perineum as applicable.

~~1.~~ ~~Assess risk for obstetric hemorrhage.~~
~~2.~~**iv.** Assess for leaking of amniotic fluid. ~~(if applicable).~~
1) Color, amount, and/or odor
~~iv.~~**v.** Assess vaginal discharge. ~~if applicable.~~
1) Color, amount, and/or odor~~.~~

8. Standards Of Care 1.6: Assessment Musculoskeletal System Review:
   a. Musculoskeletal System Review
      i. Presence of assistive devices~~.~~
      ii. Presence of joint or musculoskeletal abnormalities~~.~~
      iii. Full range of motion against gravity, some to full resistance of all extremities~~.~~
      iv. Mobility appropriate for age~~.~~
9. Standards Of Care 1.7: Assessment Integumentary System Review:
   a. Integumentary System Review
      i. Assess mucous membranes and skin color; consistent with person's ethnicity~~.~~
      ii. Palpate skin for temperature and moisture~~.~~
      iii. Assess skin turgor~~.~~
      iv. Assess skin integrity, temperature, and condition of any dressings
      v. Complete Braden Scale~~.~~
      vi. ~~Assess for presence of specialty mattress/bed or overlays~~Assess for the presence of skin abnormalities~~.~~
      vii. Assess for the presence of pressure ulcers
10. Standards Of Care 1.8: Assessment Psycho/Social:
   ~~B.~~**a.** Psychosocial assessment shall consist of the following:
      i. Coping
      ii. Affect/Behavior
      iii. Social Service (SS) Referral Reason
         1) Distress
      iv. Stressors
      v. Support/Coping Interventions
      vi. Psycho/Social: Nursing Interventions
      vii. In ordered to promote family centered care, the nurse shall:
         ~~1.~~**1)** Introduce bedside health care providers to the patient/family.
         ~~1)~~**2)** Review visitation and unit policies to patient/family on admission and as needed.
         ~~2)~~**3)** Assess and then verify with patient/family age appropriate needs.
         ~~3)~~**4)** Assess and then verify patient/family's ability to understand and participate in the plan of care.
         ~~4)~~**5)** Encourage the family to have periods of uninterrupted sleep when appropriate.
      viii. Promote patient/family centered care
         1) Discuss expectations and collaborate with patient/family
         2) Encourage patient/family to ask questions
         3) Promote patient independence in Activities of Daily Living (ADL)
      ix. Promote comfort measures (if ordered or request order) by:
         1) Music therapy
         2) Therapeutic recreation
         3) Spiritual comfort
            a) Guided imagery
         4) Reminiscence therapy
         5) Encourage family/friend to visit
         6) Arrange for a child's visitation
         7) Arrange for pet therapy
         8) Arrange for physical or occupational therapy

~~x. Patients shall be informed of their responsibilities upon admission and as necessary thereafter.~~
~~xi. These responsibilities include:~~
~~xii. Providing information~~
~~xiii. Asking questions~~
~~xiv. Following instructions~~
~~xv. Accepting consequences~~
~~xvi. Following rules and regulations~~
~~xvii. Showing respect and consideration~~
~~xviii. Meeting financial commitments.~~
~~xix. See TCMC Patient Handbook.~~
~~xx. Encourage patient and/or their family to participate in their plan of care.~~
~~xxi.~~**x.** Assess for history of domestic violence/safety in home.
~~xxii.~~**xi.** Request social services as appropriate.
1) Initiate social services referrals for the following (including, but not limited to):
a) Adoptions
b) Infants going to foster care
c) Patients with no prenatal care
d) Teen moms
e) Positive toxicology results
f) Mothers of infants in Neonatal Intensive Care or in another facility
g) All mothers and families experiencing Perinatal loss.
h) High risk mother and/or newborn, as defined by their provider.

11. Standards Of Care: Infusion Therapy:
a. Central venous (i.e. PICC) lines shall be assessed per PCS Central Venous Access Devices Procedure
~~A.~~**i. Note date and time of next central venous dressing change**
~~a.~~**b.** Peripheral IV site shall be assessed on admission, ongoing and transfer from other nursing unit.
i. The following shall be assessed:
a) IV insertion date
b) IV access type
c) IV site and condition
2) Patency
a) Dressing type and condition
~~a.~~**b)** Date infusion changed ~~Date central venous dressing changed~~
~~b.~~**c.** Saline lock insertion site(s) shall be assessed every shift, with flushes, prior to the administration of medications and PRN **per provider order**.
~~c.~~**d.** Maintenance or continuous infusion shall be assessed **and documented** every **shift** ~~2 hours~~ and PRN.
~~d.~~**e.** Infusion Therapy: Nursing Interventions
i. Peripheral IV sites shall be changed every 4 days unless otherwise ordered.
ii. Document initials and date IV started directly on the dressing.
iii. Pre-hospital IV starts shall be discontinued and restarted within 48 hours of admission.
iv. IV site shall be discontinued and restarted with complaint of persistent discomfort not relieved by comfort measures, the presence of an infiltration, inflammation, pallor, phlebitis, bleeding at insertion site, or leaking of IV solution at insertion site.
v. IV solutions and tubing shall be changed as follows:
1) Change every 4 days
a) All IV tubing

b) Add-on devices (neutral displacement connector MicroClave~~),~~ antireflux, extension set, etc) and with tubing change.
c) Rotate IV insertion sites.
d) Commercially prepared solutions, if the bag is spiked once with initial start.
e) Piggyback tubing (back flush with a minimum of 10 mL before and after each piggyback).

2) Change every 24 hours
a) All IV solutions mixed by pharmacy or nursing, unless manufacturer's expiration recommends less than 24 hours
b) Lipids or lipid containing products
c) Neutral displacement connector (MicroClave, anti-reflux, extension set, etc) and with tubing change

vi. Label IV tubing and/or neutral displacement connector (MicroClave) with *change date sticker* indicating date tubing is to be changed using numerical day and month.
vii. Label IV solutions with date and time IV solution hung.
viii. Dressings shall be changed when damp, loose, soiled, or whenever dressing prevents direct visualization of the site.
1) Infusion pumps shall be used per TCMC Infusion Pump-Infusion System with Guardrails.
ix. A separate site shall be used for research study drugs per TCMC Investigational Drugs Policy
x. Needleless components added to IV administration sets shall be changed every 4 days unless contaminated or a catheter related infection is suspected or documented.
xi. Swab Cap**s should be used:**
1) When a Central Venous line injection port is not in use, place ~~an orange~~ Swab Cap on the ~~unused port~~**unused port**(s)
2) When a peripheral line, if injection port is not in use, place a swab cap on the port closest to the IV insertion site.~~patient~~.
~~1)~~**3) When a saline lock is not in use**
~~2)~~**4)** Apply a new Swab Cap
a) Every time the cap is removed.
b) Every 8 hours with routine IV flushing.

12. ~~PRN IV flushin~~**On a saline lock.**Standards Of Care: Immunizations/Other:
a. Rhogam will be administered if indicated
b. During flu season: all patients will be screened for influenza and vaccination will be administered if indicated per the Standardized Procedure Pneumococcal and Influenza Vaccine Screening Administration
c. All patients will be screened for Tetanus, Diphtheria, Pertussis (Tdap) and vaccination will be administered if indicated per the Standardized Procedure Tetanus, Diphtheria, Pertussis (Tdap) Vaccine Administration for Postpartum Patients

G. **REFERENCES:**

1. American Academy of Pediatrics and American College of Obstetricians and Gynecologists. 201~~4~~2. *Guidelines for Perinatal Care Seventh Edition.* Washington, DC
2. ~~American Academy of Pediatrics (2010). *Policy Statement -- Hospital Stay for Healthy Term Newborns.* Retrieved on 01/12/2011: http://aappolicy.aappublications.org/cgi/reprint/pediatrics;125/2/405.pdf~~ **American Nurses Association (ANA). (2010). *Nursing scope and standards of practice.* Silver Spring, MD: Nursesbooks.org.**
3. **American Nurses Association (ANA). (2016). The nursing process. Retrieved from http://www.nursingworld.org**

4. Association of Women's Health, Obstetric and Neonatal Nurses (AWHONN). *Standards for Professional Nursing Practice in the Care of Women and Newborns*, Sixth Edition.
5. **Association of Women's Health, Obstetric and Neonatal Nurses (AWHONN). Perinatal Nursing. (2014). 4th edition.**
6. Besuner, P. AWHONN Templates for Protocols and Procedures for Maternity Services, 2nd Edition (2007). Washington, D.C.
7. California Board of Registered Nursing. (2010). Nursing practice act business and professions code. Chapter 6 Nursing: Section 2725. Retrieved March 2010 from http://www.rn.ca.gov/regulations/rn.shtml
8. California Board of Registered Nursing. (2010). Standards of competent performance, California code of regulations, title 16, section 1443.5. Retrieved March 2010 from http://www.rn.ca.gov/regulations/rn.shtml
9. California Board of Registered Nursing. (2010). California code of regulations, title 22, section 70125. Retrieved March 2010 from http://www.rn.ca.gov/regulations/rn.shtml
10. Mattson, S., & Smith, J.E. (Eds.) (2011) *Core Curriculum for Maternal-Newborn Nursing (4th Ed.)* Philadelphia, PA: Saunders

Tri-City Medical Center
Oceanside, California

Women and Newborn Services (WNS)

SUBJECT: UMBILICAL CORD BLOOD BANKING: PRIVATE COLLECTION

ISSUE DATE: 06/14
REVISION DATE(S):

Department Approval Date(s):	**01/16**
Department of OB/GYN Approval Date(s):	**~~06/13~~02/17**
Department of Pediatrics Approval Date(s):	**n/a**
Pharmacy and Therapeutics Approval Date(s):	**n/a**
Medical Executive Committee Approval Date(s):	**~~05/14~~03/17**
Professional Affairs Committee Approval Date(s):	**07/14**
Board of Directors Approval Date(s):	**07/14**

A. **PURPOSE:**

1. Once considered a waste product that was discarded with the placenta, umbilical cord blood is now known to contain potentially life-saving hematopoietic stem cells. When used in hematopoietic stem cell transplantation (HSCT), umbilical cord blood (UCB) offers several distinct advantages over bone marrow or peripheral stem cells, which may be the reason the use of UBC for HSCT has grown exponentially.
2. According to the American Society for Blood and Marrow Transplantation's Position Statement in 2008, expectant parents are encouraged to donate their newborn's UBC for public banking when that option is available. Donation makes the cord blood, which is rich in hematopoietic stem cells available for life-saving treatments for others in need when there is a suitable match.
3. According to the American College of Obstetricians and Gynecologists Committee Opinion in February 2008, if a patient request information on UCB banking, balanced and accurate information regarding the advantages and disadvantages of public versus private UCB banking should be provided.
4. In lieu of these considerations, patients who report to Labor and Delivery with the intent to have UCB collected for private banking (have brought a collection kit), shall be supported by the hospital staff, when possible. The collection process shall not impede routine practice for the timing of umbilical cord clamping and specimen may be uncollectable if unexpected medical conditions arise.

B. **PROCEDURE:**

1. Upon admission to the unit and before the birth of her baby, the patient is required to have a cord blood collection kit from a resource organization that is Food and Drug Administration (FDA) registered, which is given to a staff member to review.
2. Once received, the staff member shall notify the patient's provider and give the patient the hospital's checklist and consent form to sign (enclosure 1).
3. The nurse and/or provider shall open the cord blood collection kit before delivery to review the collection requirements and obtain the required sample collection, per collection kit instruction, when indicated.
   a. Since the collection of UBC for HSCT is an elective request, the hospital staff will do what it can to facilitate this collection process, but will NOT compromise the safety of the patient or newborn.
   b. There may also be instances where the unit census, acuity level, and staffing availability prohibits accommodating the request to obtain a specimen.
4. Once the samples are obtained and labeled, these will be returned to the patient who then becomes responsible for the specimens transport to an appropriate agency.

5. Staff members can assist the patient with these arrangements by allowing her to utilize the phone to make any necessary transport arrangements.

C. **FORM(S):**

1. Umbilical Cord Blood Sample Collection Consent - **Sample**

D. **REFERENCES:**

1. American Society for Blood and Marrow Transplantation (ASBMT) Board of Directors. Position Statement 2008. Collection and Preservation of Cord Blood for Personal Use, Biology of Blood and Marrow Transplantation 14:364.
2. American College of Obstetricians and Gynecologists (ACOG) Committee Opinion #399 (02/2008). Umbilical Cord Blood Banking.

Umbilical Cord Blood Sample Collection Consent – Sample

Women and Children's Services Department

1. I _____ request the assistance of Tri City Medical Center's
(Patient Name)
staff to obtain an umbilical cord blood (UCB) sample after the birth of my child for private storage with
_____.
(Name of Company)

2. I have discussed and researched the advantages and disadvantages of UCB banking during my prenatal period with my provider and have brought a Cord Blood Collection Kit, with a Company that is registered with the Food and Drug Administration (FDA), with me for the staff to utilize.

3. I understand that although I have brought the collection kit for use, the staff may not be able to obtain the sample due to other medical priorities. The hospital staff, as a courtesy, will do what it can to support this request, when possible.

4. I understand that blood samples should be handled as if potentially infectious and I will not tamper with the samples in the kit once the staff returns them to me.

5. I agree to send the collected samples directly to the private UCB banking company for proper processing and storage. These samples will not be sold or distributed to third parties.

6. To the extent allowed by law, I further agree to indemnify and hold harmless Tri City Medical Center from any claims, costs, damages or expenses resulting from any collection complications, damages or loss that may arise during the specimen collection or transport processes.

By my signature below, I agree to the statements set above:

_____

Signature Date / Time

CHECKLIST

- ☐ Unopened, FDA registered, Umbilical Cord Collection Kit brought by patient
- ☐ A signed UCB Sample Collection Consent Form (current form)
- ☐ Samples are obtained, labeled, and returned to the patient for inclusion in the Kit
- ☐ Pick up arrangements for the Kit is made by the patient/family. Plan includes:

_____

Expected Date / Time By what Company / Service

Tri-City Medical Center
4002 Vista Way • Oceanside • CA • 92056

7400-1072

UMBILICAL CORD BLOOD
SAMPLE COLLECTION CONSENT

White - Chart Yellow - Patient

Affix Patient Label

Acetaminophen Maximum Daily Dose: Practice Change Recommendation

Requestor: Oska Lawrence, PharmD, BCPS, BCCCP (Pharmacy Clinical Manager)

Declared conflicts of interest: None

Situation: As an institution, TCMC currently limits the maximum daily exposure to acetaminophen at 3 grams.

Background: In 2011 following concerns regarding possible liver injury secondary to acetaminophen overdose, the FDA mandated drug manufacturers to incorporate no more than 325mg of acetaminophen in prescription combination products such as hydrocodone/acetaminophen. Secondary to this, the manufacturer for Tylenol® voluntarily modified their package insert to indicate a maximum over-the-counter daily dose of 3 grams on its labeling. Following this change, several healthcare institutions adopted this language and set their institutional limits for inpatients to the same standard of a daily maximum of 3 grams.

Assessment: The purpose of the changes implemented by drug manufacturers and the FDA was to mitigate the risk of outpatient acetaminophen overdose. The accepted daily limit of 4 grams has never been changed by the FDA. Additionally, the package insert for the OTC acetaminophen product does include guidance to patients that their dose may be increased to a maximum of 4 grams by their physician under appropriate monitoring conditions. The self-imposed 3 gram limit set at TCMC is based on outpatient standards and should not apply to admitted patients under direct physician care. This lower limit has been a large dissatisfier for nursing and physicians, particularly in the post-surgical setting when minimizing opiate exposure is a shared institutional objective.

Recommendation(s):

- The Pharmacy Service recommends that the TCMC accepted maximum dose of acetaminophen be raised from 3 grams, back to the FDA recognized maximum of 4 grams
    - Pharmacists will continue to recommend lower total daily doses (<3 grams) for any patient with identified hepatic impairment
- If this change in practice is approved by the P&T Committee, the Pharmacy Service would take the immediate following actions:
    - Modification of all Power Plans to revise order comments instructing providers not to exceed 3 grams of acetaminophen within 24 hours (raise limit to 4 grams)
    - Change default dosing interval for intravenous acetaminophen from Q8H to Q6H (standard adult dose is 1000 mg Q6H)

Artifical Saliva (Biotene ®)

Requesting Provider: Oska Lawrence, PharmD

Requesting provider conflicts of interest: None

Drug class[1]**:** GI agent, miscellaneous

FDA Approval: None (OTC product)

Indications[1]**:** Mucositis, xerostomia

Manufacturer: GSK

Formulations[1]**:** Oral gel, mouth spray

Background:

Patients with xerostomia are generally managed non-pharmacologically using a combination of dryness prevention (hydration, avoidance of oral irritants, avoidance of anticholinergic drugs, use of humidifiers) and topical stimulation (gums, lozenges). If response to these modalities is insufficient, the use of saliva substitutes is recommended. It is only after failure of saliva substitutes that sialogogues such as pilocarpine or cevimeline should be considered.

Mechanism of Action:
Protein or electrolyte mixture which restores/replaces saliva, lubricates, moistens, cleans, and/or provides a coating on oral mucosa.

Dosing:

Gel: Apply half inch of gel on tongue and spread as often as needed for dry mouth

Spray: 2 sprays orally 3-4 times daily as needed for dry mouth

CONTRAINDICATIONS:

- Hypersensitivity to any component

Cost Considerations:

Biotene® Gel 42 gram tube: $5.44 per tube (TCMC acquisition cost as of 3/6/17)

Summary:

- No artificial saliva products currently on the TCMC formulary (2nd line therapy after non-pharmacologic treatment options have failed)
- No sialogogues currently on the TCMC formulary

Recommendations:
The use of saliva substitutes can provide a low-cost treatment option for xerostomia and is recommended after basic non-pharmacologic options have failed. It should be trialed before more expensive, systemic agents such as pilocarpine or cevimelene are used. At this time, the TCMC Pharmacy Service recommends the addition of artificial saliva to the formulary.

References

1. Lexicomp Online®, Hudson, Ohio: Lexi-Comp, Inc.; March 6, 2017

Meperidine oral tablets: Recommendation for formulary removal

Requestor: Oska Lawrence, PharmD, BCPS, BCCCP (Pharmacy Clinical Manager)

Declared conflicts of interest: None

Situation: The use of meperidine as an analgesic has largely fallen out of favor due to safer alternatives and recommendations from several organizations including the American Pain Society and ISMP advocating against its use for this indication.

Background: Meperidine is a synthetic opioid that was originally marketed for its antispasmodic effects. It is available in both oral and intravenous formulations. Due to significant number of reports and studies concerning adverse events in patients given meperidine, opinion shifted regarding its appropriateness. The most concerning risk involves the accumulation of a neuro-excitatory metabolite which can trigger anxiety, hallucinations, tremors, and seizures. While patients with impaired renal function are at highest risk, no patient is absolved of these risks even when renal function is normal. In 2017, Tri-City Medical Center formally halted the practice of compounding meperidine for PCA analgesia.

Assessment: Nationwide, institutions have taken steps to limit the use of meperidine, restricting its availability to the procedural settings where it is mainly intravenously used to mitigate shivering. Meperidine tablets remain on the TCMC formulary at this time. A usage assessment was conducted which determined that meperidine tablets were not dispensed during the year 2016.

Recommendation(s):

- Given strong institutional guidance from ISMP/Pain Society and general lack of use, the Pharmacy Service recommends the removal of meperidine oral tablets from the TCMC
- The Pharmacy Service recommends keeping the intravenous formulation of meperidine available for use in all procedural areas

Tobramycin Nebulized Solution (Tobi®): Recommendation for formulary removal

Requestor: Oska Lawrence, PharmD, BCPS, BCCCP (Pharmacy Clinical Manager)

Declared conflicts of interest: None

Situation: The commercially available pre-mixed tobramycin nebulized solution (300mg/5mL) is expensive and rarely used at TCMC.

Background: Inhaled tobramycin is indicated for patients with cystic fibrosis (CF) or non-cystic fibrosis bronchiectasis. While mainly used in these patient groups for suppressive therapy, it has also been used in an off-label fashion in the setting of a gram-negative pulmonary infection where there is concern for kidney insult resulting from systemic aminoglycoside administration. Due to the high cost of Tobi®, several institutions have explored administering intravenous tobramycin via nebulizer. Several reports have demonstrated that this is a safe, tolerated, efficacious, and cost-effective alternative to dispensing the commercial product.

Assessment: At TCMC inhaled tobramycin has been administered to 4 patients between January 2016 and March 2017 for a total of 15 doses. Tobi® must be purchased in a box of 56 ampules which costs approximately $6900 ($120 per dose). Due to low use, the majority of ampules expire on a regular basis. By comparison, compounding all 56 doses using the intravenous solution would cost only $224 (~$6680 cost avoidance). This conversion has been discussed at length with Respiratory Therapy. They have indicated that while the conversion would result in an increase in the nebulized volume (from 5ml to 7.5mL) that this would not be an issue with the equipment they currently use.

Recommendation(s):

- The Pharmacy Service recommends the removal of the commercially available pre-mixed tobramycin 300mg/5mL formulation from the formulary
- With P&T approval, the Pharmacy Service will implement the following process to fulfill orders for Tobramycin 300mg per nebulizer
  - Compound patient specific doses in the Pharmacy using intravenous tobramycin solution (300mg/7.5 mL sterile water)
  - Mark these doses for nebulizer use only and deliver to the appropriate care area for administration by a Respiratory Care Practitioner

MARK EACH SERVICE THAT THE PATIENT WILL REQUIRE UPON DISCHARGE. THIS ORDER WILL INITIATE FOLLOW-UP WITH THE SPECIFIC CLINICAL SERVICE AREA.

Form approved for deletion and retirement. All DELETE- all orders exist in Cerner now. Approved by PPO committee 2/13/17. Approved by MEC 3/27/17.

INPATIENT SERVICES:

- ☐ Acute Rehabilitation Unit
  - ☐ Evaluate for Treatment
  - ☐ Transfer to Acute Rehab Unit if patient meets criteria

HOME HEALTH SERVICES:

- ☐ Tri-City Home Health 760-94
  2095 W. Vista Way, Suite 101, Vista, CA 92083
- ☐ Care South Home Health of San Diego 619-258-1223
  1870 Cordell Court, Ste. 106, El Cajon, CA 92020
- ☐ We Care 619-220-3800
  4636 Mission Gorge Place, Suite 200A, San Diego, Ca 92120

HOSPICE SERVICES:

- ☐ Tri-City Hospice 760-940-5801
  2095 W. Vista Way, Suite 220, Vista, CA 92083

OUTPATIENT REHABILITATION SERVICES:

- ☐ Cardiac Rehabilitation 760-940-3096
  - ☐ Evaluate
  - ☐ Evaluate and Treat
- ☐ Occupational Therapy 760-940-7278
  - ☐ Evaluate
  - ☐ Evaluate and Treat
- ☐ Physical Therapy 760-940-7278
  - ☐ Evaluate
  - ☐ Evaluate and Treat
- ☐ Pulmonary Rehabilitation 760-940-3055
  - ☐ Evaluate
  - ☐ Evaluate and Treat
- ☐ Speech Therapy 760-940-7272
  - ☐ Evaluate
  - ☐ Evaluate and Treat

WOUND CARE SERVICES:

- ☐ Tri-City Wound Care Center 760-940-5600

Diagnosis: _____

Special Instructions: _____

☐ Read Back all T.O./V.O orders

Nurse's Signature Date Time

Physician's Signature Date Time

Affix Patient Label

Tri-City Medical Center
4002 Vista Way • Oceanside • CA • 92056

DISCHARGE REFERRAL SERVICES ORDERS

8711-4010

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