PATIENT SUPPLIED EQUIPMENT WAIVER SAMPLE

This Patient Supplied Equipment Waiver between Tri-City Healthcare District (Tri-City) and _____ (Patient) is entered into on _____, 20__. Patient or legal representative must initial each statement in order to use Patient Supplied Equipment in Tri-City Healthcare District facility.

Type of Device used: _____ (Do not use for Insulin Pump, refer to Insulin Pump Policy)

_____ I understand that I have voluntarily brought my equipment into a Tri-City facility for my use during my stay at a Tri-City facility.

_____ I certify that I have been trained on how to use and repair this equipment, and that I am fully capable of using and repairing the equipment.

_____ I understand that Tri-City performed an inspection of my equipment. This inspection is not a warranty that the device is safe or free from defects. I am not relying on Tri-City's inspection of the equipment to ensure its safety or my proper use.

_____ I understand that Tri-City may unilaterally determine without warning to me that I may no longer use my equipment. Tri-City may replace my equipment with its own equipment.

_____ I understand that by signing this document, I hereby waive any claim or right of action against Tri-City related to my use of my equipment. I release Tri-City and its employees, agents, and assigns from any and all liability resulting from the use, operation, damage to, and repair of my equipment by myself, Tri-City, and any of its employees.

By agreeing to the above terms and conditions, I expressly assume the risks that may result from bringing personal medical equipment into a Tri-City facility. I release Tri-City from any damages, and agree to indemnify, hold harmless, and defend Tri-City, its employees, affiliates, directors, officers, subsidiaries, and agents against any and all liability arising out of the negligent operation of use of the medical equipment by me or my family or visitors. I acknowledge and agree that in no event shall Tri-City be liable for any indirect, special, consequential, incidental, or punitive damages, loss, or expense associated with the use of personal medical equipment by me or my family and/or visitors. This agreement shall be legally binding on me and my designated family member(s) and/or visitors operating my personal medical equipment. My signature below indicates I have read this agreement, understand it, and agree to be bound by its terms.

_____ _____
Patient or Legal Surrogate Date

_____ _____
Witness Date

STANDARDIZED PROCEDURE: ~~ORDERING 12 LEAD ECG FOR~~ DROPERIDOL ADMINISTRATION, MONITORING, ~~OF DROPERIDOL~~ AND/OR DISCONTINUING DRUG

I. **POLICY:**

A. Function: To provide direction for the use and monitoring of droperidol at Tri-City Medical Center **(TCMC)**.

B. Circumstances:

1. Setting: Cardiac Cath Lab, cardiac monitoring nursing units (Intensive Care Unit **(ICU)** or Telemetry) Tri-City Medical Center
2. Supervision: None
3. Patient Contraindications: 12 Lead **electrocardiogram** (ECG) QTc greater than 440 milliseconds

C. Definitions:

1. The safe administration of droperidol requires the QTc interval on the 12 Lead ECG be less than 440 milliseconds.
2. The safe administration of droperidol requires that the patient be monitored continuously for cardiac dysrhythmia for three (3) hours after the drug is given.
3. Current is defined as during the present hospitalization.
4. QTc is the corrected QT interval that is independent of a heart rate.

II. **PROCEDURE:**

A. The attending physician initiates the process by ordering droperidol for the patient.

B. The **Registered Nurse (RN)** checks the chart for the most recent 12 Lead ECG.

1. RN shall order a 12 Lead ECG, if there is not a **recent** ~~n~~ ECG ~~that is done~~ **completed** during this hospitalization available on the chart.

C. RN or physician shall check the QTc interval ~~that is~~ electronically measured and printed on the 12 Lead ECG

1. Do not administer droperidol if QTc interval is greater than 440 milliseconds.
2. Discontinue droperidol and notify the physician for alternative medication.
3. If physician specifically orders droperidol despite QTc greater than 440, document QTc and physicians awareness of QTc.

D. The RN shall document the QTc interval on the medication record as soon as possible after the order is transcribed.

1. Right click 'Comments' and document the QTc interval.

E. The patient shall be monitored for the following for 3 hours after the droperidol has been administered:

1. Cardiac effects (new onset tachycardia, orthostatic hypotension, hypertension, abnormal T waves, prolongation of the QT from baseline and ventricular tachycardia.)
   i. If prolongation of the QT from baseline is noted, obtain a 12 lead ECG and check the QTc.
2. Extrapyramidal reactions, seizures or any of the following:
   i. Dystonic reactions (neck rigidity, swollen tongue, and oculogyric crisis)
   ii. Tardive dyskinesia (repetitive, involuntary, purposeless movements, grimacing, tongue protrusion, lip smacking, puckering and pursing, rapid eye blinking, rapid movements of the arms, legs, and trunk may also occur. Involuntary movements

Department Review	Clinical Policies & Procedures	Nurse Executive Committee	Division of Cardiology	Pharmacy and Therapeutics	Interdisciplinary Committee	Medical Executive Committee	Professional Affairs Committee	Board of Directors
6/06,8/04,3/08 11/10,2/13, **9/15**	12/10, 2/13, **10/15**	12/10, 2/13, **10/15**	**1/16**	1/11, 7/13, **01/16**	1/11, 10/13, **07/16**	2/11, 10/13, **09/16**		8/04,7/03,9/06, 12/08, 4/09,2/11, 10/13

of the fingers may appear as though the patient is playing an invisible guitar or piano.)

iii. Pseudoparkinsonian signs and symptoms

3. Increased drowsiness and sedation

~~4. Notify the physician and document symptomatic dysrhythmias or changes from the patient's baseline rhythm in the medical record.~~

F. The RN shall recheck the QTc interval if giving repeated doses of droperidol using the most recent ECG.

1. Repeat process outlined in steps A - E when administering subsequent doses of droperidol.

G. Documentation

1. Notify the physician and document in the medical record the presence of the following:

i. Cardiac effects

ii. Extrapyramidal reactions~~, seizures and any of the following~~:

iii. Pseudoparkinsonian signs and symptoms

2. When administering medications or implementing orders from a standardized procedure, the RN shall enter the medication/order into the electronic health record as a standardized procedure.

i. Not required if a screening process triggers the order.

III. **REQUIREMENTS FOR CLINICIANS INITIATING STANDARDIZED PROCEDURE:**

A. Current California RN license.

B. Current Advanced Cardiac Life Support card.

C. ~~Core~~ **Primary** RN staff ~~of a unit~~**on** with continuous cardiac monitoring at T**CMC**~~ri-City Medical Center~~.

D. Initial Evaluation: During Department Orientation.

~~C.~~**E. Ongoing Evaluation: Annually during Skills Lab.**

IV. **DEVELOPMENT AND APPROVAL OF THE STANDARDIZED PROCEDURE:**

A. Method: This Standardized Procedure was developed through collaboration with Nursing, Medicine, and Administration.

B. Review: Every two (2) years.

V. **CLINICIANS AUTHORIZED TO PERFORM THIS STANDARDIZED PROCEDURE:**

A. All R**Ns** ~~egistered Nurses~~ who have successfully completed requirements as outlined above are authorized to direct and perform **this standardized procedure.** ~~Ordering 12 Lead ECG for Administration of Droperidol and/or Discontinuing Drug Standardized Procedure.~~

Tri-City Medical Center
Oceanside, California

PATIENT CARE SERVICES

STANDARDIZED PROCEDURE: PNEUMOCOCCAL AND INFLUENZA VACCINE SCREENING AND ADMINISTRATION

I. **POLICY:**

A. Function:

1. To provide guidelines to the Registered Nurse (RN) when administering Pneumococcal and/or Influenza Vaccine(s) to the appropriate patient(s) as indicated per criteria set forth by the Pharmacy and Therapeutics Committee and the Medical Executive Committee.
2. To provide guidelines when a physician does not want the patient to receive the vaccine(s).

B. Circumstances for Pneumococcal Vaccine:

1. Setting: Tri-City Medical Center
2. Supervision: None required
3. Exclusions: Immunization in ~~Labor and Delivery~~**the laboring patient** and women currently pregnant will be according to physician orders and not this standardized procedure
4. Patient indications:
   a. Pneumococcal Vaccine Risk Assessment for all patients ~~6~~ **65** years and older.
   b. ~~The~~ **Prevnar 13**~~Pneumococcal Vaccine~~ should be given ~~if any of the following indications are met:~~**to patients age 65 and older who have never received Prevnar 13, Pneumovax 23 or have unknown vaccination history**
      ~~i. Age 65 or older and never received Pneumococcal vaccine or is unsure~~
      ~~ii. Age 6 to 64 and have never been vaccinated:~~
         ~~1) Chronic cardiovascular disease~~
         ~~2) Chronic renal failure, or nephrotic syndrome~~
         ~~3) Chronic pulmonary disease~~
         ~~4) Diabetes mellitus~~
         ~~5) Sickle cell~~
         ~~6) Alcoholism~~
         ~~7) Cirrhosis~~
         ~~8) Chronic liver disease~~
         ~~9) Cerebrospinal fluid leaks~~
         ~~10) Splenic dysfunction or absence~~
         ~~11) Cochlear implants~~
         ~~12) Immunocompromised, including those with HIV infections, leukemia, lymphoma, Hodgkin's disease, multiple myeloma, malignancy~~
         ~~13) Immunosuppressive therapy (including long term systemic corticosteroids)~~
         ~~14) Age 19 through 64 years who is a smoker or has asthma.~~
   c. If the patient does not meet ~~any of the above indications, patient is NOT at high risk. Do~~**criteria above, do** not immunize.
5. The Pneumococcal Vaccine should NOT be routinely given without a physician's order if the patient:
   a. Has a contraindication:

Department Review	Clinical Policies & Procedures	Nurse Executive Committee	Infection Control Committee	Pharmacy & Therapeutics Committee	Interdisciplinary Committee	Medical Executive Committee	Professional Affairs Committee	Board of Directors
3/06, 1/15	12/11, 2/15, 06/15, **01/16**	12/1, 07/15, **01/16**	07/15, **03/16**	1/12, 07/15, **01/16**	1/12, 09/15, **07/16**	2/12, 09/15, **09/16**	10/15	2/12; 10/15

~~i. Less than 6 years of age~~
~~ii.~~**i.** Had a previous reaction to the Pneumococcal vaccine
~~iii. Age 6 – 18 and have received a conjugate vaccine within last 8 weeks~~
~~iv.~~**ii.** Received a bone marrow transplant within the past ~~12~~ **6** months
iii. ~~Is currently receiving a scheduled course of chemotherapy or radiation therapy~~**Has received chemotherapy or radiation within the last 2 weeks**
~~v.~~**iv. Has received the shingles vaccine (Zostavax) within the last 4 weeks**

b. Ordered not to have vaccine by physician
c. Refuses or advocate refuses

6. If no exclusion criteria identified, then immunize

C. Circumstances for Influenza Vaccine:
1. Setting: Tri-City Medical Center
2. Supervision: None required
3. Exclusions: Immunization in ~~Labor and Delivery~~**the laboring patient** will be according to physician orders and not this standardized procedure
4. Patient indications
   a. Influenza Vaccine Risk Assessment for all patients 6 months of age and older:
   b. The Influenza Vaccine should be given to patients admitted and/or discharged during the normal flu season until the vaccine is no longer available, if any of the following indications are met:
      i. Age 6 months and older
      ii. Women who will be pregnant during the influenza season (October through March) NOTE: Influenza vaccine is not contraindicated at any stage of pregnancy
      iii. Women who are knowingly pregnant shall receive single-dose preservative free* vaccine (*Not to exceed 1mcg of Thimerosal per 0.5mL dose.)
         1) Pharmacy to provide single-dose syringe/vial for knowingly pregnant women if available
      iv. Influenza immunization history is unknown by patient or advocate
5. The Influenza Vaccine should NOT be given if the patient:
   a. Has contraindication
      i. Has allergy to eggs or reaction to prior influenza vaccine (i.e., anaphylactic allergic reaction)
      ii. Had diagnosis of Guillian-Barre Syndrome within six (6) weeks of vaccination (will be left up to the individual healthcare provider to decide if recommended)
      iii. Received bone marrow transplant within past six (6) months
      iv. Had a previous influenza immunization this flu season~~)~~
   b. Ordered not to have vaccine by physician
   c. Refuses or advocate refuses
6. If no exclusion criteria identified, then immunize

II. **PROCEDURE:**
A. During the initial assessment, the RN will complete the Pneumococcal /Influenza Vaccination Adult Immunization Assessment Screen in Cerner to determine whether or not the vaccinations are indicated according to the following criteria:
1. If the patient meets any inclusion criteria and no exclusion criteria, the RN will inform the patient/advocate that they are eligible for the vaccination(s), give the patient/advocate the vaccination information sheet(s), and plan to administer the vaccination(s).
2. If the RN is unsure of whether the patient is a candidate for the vaccine(s), the physician should be contacted for specific orders.

B. Unless the physician has signed an order to withhold the Pneumococcal and/or Influenza vaccine, remove the age appropriate dose assigned by pharmacy from the Pyxis Medication station and administer the vaccine(s).
C. For patients in the Emergency Department, the Pneumococcal and/or Influenza vaccine should be administered at the time the physician order is received.

III. **DOCUMENTATION**:
A. Document the vaccine administration in the medical record.
B. Document vaccine lot number and site of administration.
C. Document that the Vaccination Information Sheet was given to the patient.
D. Document refusal of immunizations.
E. When administering medications or implementing orders from a standardized procedure, the Registered Nurse shall enter the medication/order into the electronic health record
1. Not required if a screening process triggers the order

IV. **PATIENT EDUCATION:**
A. If the patient meets inclusion criteria, the RN will review the Pneumococcal and Influenza Vaccine Information sheet(s) with the patient and give the patient a copy.
B. For transfers to skilled nursing facilities and other hospitals, print and send a copy of the Immunization Tab indicating vaccine(s) administered, with a copy of the Medical Record.

V. **REQUIREMENTS FOR R.N. INITIATING STANDARDIZED PROCEDURE:**
A. Current California RN license
B. Initial evaluation: Orientation
C. Ongoing evaluation: **Annually with Skills Lab/Skills Validation**~~Ongoing~~

VI. **DEVELOPMENT AND APPROVAL OF THE STANDARDIZED PROCEDURE:**
A. Method: This Standardized Procedure was developed through collaboration with Nursing, Medicine, and Administration.
B. Review: Every 2 years or review procedure per Hospital policy.

VII. **CLINICIANS AUTHORIZED TO PERFORM STANDARDIZED PROCEDURE:**
A. All RNs who have successfully completed requirements as outlined above are authorized to direct and perform Administration of Pneumococcal and/or Influenza Vaccine.

Tracked Changes Copy

Tri-City Medical Center	Distribution: Patient Care Services

PROCEDURE:	**SPONGE,SHARPS & INSTRUMENT COUNTS, PREVENTION OF RETAINED SURGICAL ~~OBJECTS~~ ITEMS**
Purpose:	To outline nursing responsibilities and accountability regarding ~~sponges,~~**sponges** sharps, and instrument counts in the surgical/**procedural** areas.
Supportive Data:	Sponges, sharps, and instrument counts are ~~done~~**performed** ~~in~~**during** surgery/**invasive procedures** to provide for safe patient care **and prevent retained surgical items.** ~~as an avenue of accountability and legal responsibility.~~ **Counts for sponges/soft goods, sharps, and instruments are performed to account for all items used on the surgical field and to lessen the potential for injury to the patient as a result of a retained surgical item.** All items are to be counted except those used for storage or disposal of items.
Equipment:	White Board, White Board Marker, Count Sheet(s), Sponge holders ~~Countable items include, but are not limited to:~~ ~~Blades~~ ~~Rubber shods~~ ~~Yankauer Tips~~ ~~Bulldogs~~ ~~Suture Needles~~ ~~Staple re-load cartridges~~ ~~Cotton balls~~ ~~Vessel loops~~ ~~Cottonoids~~ ~~Umbilical tape~~ ~~Detachable portions of equipment~~ ~~Wingnuts~~ ~~X-ray 4x4's~~ ~~Instruments~~ ~~Penrose drain~~ ~~Lap sponges~~ ~~Cautery tips~~ ~~Ligaclip boats~~ ~~Hypodermic needles~~ ~~Packing~~ ~~Peanuts (Kittners /Dissectors)~~ ~~X-ray detectable towels~~ ~~Defogger solution bottle, cap and sponge~~

A. **POLICY:**

1. Sponges, sharps and miscellaneous items **counts are required** ~~shall be counted~~ on all procedures **except eyes and cystoscopies.** ~~in which the possibility exists that these items can be retained.~~
   ~~a. Sponge counts are exempt on eyes, minor ENT cases and cystoscopies.~~
   ~~b. Needle counts may be omitted on minor eye procedures.~~
2. All counts shall be conducted **both** audibly and visually.
   a. Counted items shall be visualized by both the scrub person and **circulator/designee, one of whom must be a Registered Nurse (RN).** ~~the circulating Registered Nurse (RN) or designee (one of whom shall be an RN).~~
   b. At time of permanent relief of either the scrub or circulating RN, direct visualization may not be possible**; the team shall account for all items**.
3. A count may be initiated by any member of the perioperative team. ~~involved in the counting process.~~
4. Unnecessary activity and distractions should be omitted during the counting process.
4~~.~~**5. To the extent possible, the initial count shall be completed before the patient is brought into the OR.**
6. Counts may be omitted in an ~~extreme~~ emergency.
   a. The emergent nature of a procedure or an unexpected change in the condition of the patient may necessitate omission of counts to preserve patient life or limb. In such cases, counts may be waived on order of the surgeon. The surgeon will document the omission of the count and rationale for the practice variation in the medical record.
   b. If counts were omitted due to ~~extreme~~an emergency, x-ray shall be performed and read prior to the ~~beginning of wound closure~~completion of skin closure.
   ~~Ensure X-ray is read prior to the completion of wound closure.~~

Revision Dates	Clinical Policies & Procedures	Nursing Executive Council	Operating Room Committee	Medical Executive Committee	Professional Affairs Committee	Board of Directors
3/03, 4/06, 08/09; 05/12;01/13;05/14; **4/15; 09/15**	06/12; 7/13: 5/14, **11/15; 02/16**	06/12; 2/13; 5/14; **02/16**	**6/14, 01/16**	07/12;7/14; **09/16**	08/12;10/14	08/12;11/14

i. **Document events regarding the nature of the emergency.**
ii. **Document the name of physician reading the x-ray and the x-ray results.**
~~2.~~iii. **Complete an incident report.**

~~3.~~7. ~~**Procedures may have multiple parts and/or multiple tables or set-ups. Procedures with multiple incisions require closing counts for closure of each incision, and all countable items (from all tables/set-ups) must be included in the closing counts.**~~

8. **If a patient is transferred to another department for completion of the procedure (i.e., transferred from OR to Interventional Radiology or transferred from Labor and Delivery to OR), an x-ray must be performed and read for retained surgical items prior to the completion of ~~wound~~skin closure.**

~~5.~~9. **Sponge, sharps and miscellaneous item** ~~C~~counts shall be written on the white board. **Instrument counts shall be recorded on the instrument count sheet(s).**

~~4. Items added by a circulator other than the primary circulator, require the item to be initialed by the secondary circulator.~~

~~5. **Sponges shall be counted in order from largest sponge to smallest sponge (eg, laps to baby laps to raytex).**~~

~~6. Sharps shall be documented as part of the count:~~

~~a. Multi-packed needles shall be counted according to the number marked on the outer package for counts until they are opened for use.~~

~~i. When opened for use, multi-packed needles shall be verified by the scrub person and the circulating RN.~~

~~Counting number of needle packages may not be used to reconcile an incorrect needle count.~~

~~**All used needles are to be placed in a puncture-proof needle counter box.**~~

~~**Place one needle in each numbered slot; do not double-up needles in a numbered slot.**~~

~~b. **Obtain an additional needle counter box if the initial needle counter box is full.**~~

B. PROCEDURE:

~~6.~~1. ~~The sponge, sharps, and miscellaneous item count shall be performed as follows~~**Surgical counts are classified as**:

a. Baseline count: **Count** ~~B~~**b**efore the procedure **begins** to establish the baseline and identify manufacturer packaging errors.

b. New item count: ~~When~~**Count** new items ~~are~~ added to the field **after the baseline count is complete**.

c. Relief count: **Count** ~~A~~**a**t the time of permanent relief of the scrub or RN circulator.

~~c.~~**i. The relief count is performed by the incoming scrub and/or circulator who are assuming responsibility for the count as it stands at the time of relief.**

~~c.~~**d.** Cavity count: **Count** ~~B~~**b**efore closure of a cavity ~~within a cavity~~ (eg. Uterus, bladder, **stomach,** peritoneum**, placement of mesh to close a space**)

~~d.~~**e.** Closing count: ~~When~~ **Count before** wound closure begins

f. Final count: **Count** ~~A~~**a**fter skin closure or end of procedure, when surgical items are no longer in use and all sponges (used ~~or~~**and** unused) are passed off the field**,** separated into sponge holders and confirmed by the surgical team.

2. **Count in the following order:**
   a. **Sponges**
   b. **Needles**
   c. **Other sharps and miscellaneous items**
   d. **Instruments**
3. **Count items in the following sequence:**
   a. **Operative field**
   b. **Mayo stand**
   c. **Back table**

~~e.~~d. Items off field

~~7. Instruments shall be documented on the instrument count sheet:~~

4. Items passed off or dropped from the sterile field shall be retrieved by the circulating nurse, isolated from the field and included in the final count. **Countable items must never be subtracted from the count or removed from the operating room.**
5. Members of the surgical team shall account for broken or separated instruments**/items** within the surgical field.
~~7.~~**6. Multi-part items shall be counted as one unit (eg, hypo and cap is counted as one unit), unless otherwise specified on the count sheet/whiteboard. Account for all individual pieces of multi-part items.**
~~8.~~**7.** Items added to the field need to be recorded at the time they are added.
   a. Once the count has begun, recalled memory and/or counting packages cannot be used to reconcile a count.
   b. The number on the whiteboard/count sheets must match the number of items on the field at the time of the count, or the count is considered incorrect.
8. **The count is to be recorded on the count board using a horizontal superscript running total format (i.e., $10^{10}20^{10}30^{10}40$). No additional slashes, initials, equal signs or extraneous marks are to be made.**
9. **The person adding countable items to the field is responsible for recording the items on the count board.**
   a. If items are added by anyone other than the primary RN circulator, the person adding the items shall verbally report the additions to the primary RN circulator.
10. **Inform primary surgeon of the count outcomes.**
11. **Incorrect Counts:**
   a. Inform primary surgeon of count discrepancies
   b. The surgeon should perform a methodical wound examination and a thorough search of all areas should be completed by the surgical scrub and circulating nurse.
   c. Search the total room including floor, trash and linen:
      i. If item is not found, an X-ray of the patient must be taken prior to patient leaving the operating room.
         1) X-ray is not required if the missing item is not X-ray detectable.
      ii. If item missing is micro or CV needle (C-1 or smaller), X-ray is not needed.
      iii. Complete an incident report.
   d. Ensure sterile field remains sterile until item is found or x-ray is read
   e. Inform Assistant Nurse Manager (ANM)/charge nurse/designee of count discrepancies
12. **X-ray interpretation for incorrect counts, emergencies, and X-ray in lieu instrument counts:**
   a. When possible, it is highly recommended that a radiologist read the X-ray before the ~~wound~~skin is closed and the results of the reading, along with the name of the person who read the X-ray, are documented.
   b. At a minimum, the surgeon must interpret the film intraoperatively.
13. **If an item is used to occlude the colpotomy during a da Vinci hysterectomy (i.e., asepto or glove), it becomes a countable item and must be accounted for at the end of the case.**

C. <u>SPONGES/SOFT GOODS COUNT</u>:

1. Sponges (laps, baby laps, raytex) are issued in groups of ten.
2. **The following counts are required for sponges/soft goods:**
   a. Baseline count
   b. New item count
   c. Relief count
   d. Cavity count
   e. Closing count

f. Final count

~~9.~~**3. Baseline sponge counts shall be performed in the quantity as packaged by the manufacturer in order to identify manufacturer packaging errors (i.e., laps are counted in multiples of five and raytex are counted in multiples of ten), total count in multiples of ten.**

4. If a package of sponges/soft goods is found to be defective when opened (e.g. wrong number, damaged, contaminated) the package and its contents will be removed immediately from the field, placed in a plastic bag, labeled and removed from the operating room.

5. Sponges shall be counted in order from largest sponge to smallest sponge (eg, laps then baby laps, then raytex).

6. All sponges shall be X-ray detectable.

a. Never use X-ray detectable sponges for wound dressings

7. Count each sponge and separate from other sponges during the count

8. Remove all packing and wrapping materials and promptly discard in the trash

~~a.~~**9.** All sponges must be opened and visualized during closing counts and separated into sponge holders.

~~i.~~**a.** At the end of skin closure ALL sponges are passed off the field, separated, opened to full length and placed in sponge holders.

~~ii.~~**b.** Use a separate sponge holder for each sponge type (i.e. one for laps, one for raytex).

~~iii.~~**c.** Only one sponge should be placed in each pocket of the sponge holder.

~~iv.~~**d.** Load the sponge holder horizontally from the bottom row to the top row, filling first the bottom two pockets and continuing upwards. This process will make visual determination of the filled holder easier to see from the OR table so empty pockets will be clearly visible to all in the room.

~~v.~~**e.** Place the sponge inside the pocket with the blue tag or blue stripe visible.

~~vi.~~**f.** Place one sponge per pocket, two sponges per ~~pouch (or~~ row~~)~~, and 10 sponges per sponge holder.

~~vii.~~**g.** When a holder has 10 sponges, there will be no empty pockets.

~~viii.~~**h.** The final sponge count ~~cannot~~ **CANNOT** be considered completed until ALL sponges opened during the case are bagged and visualized by the surgical team.

~~ix.~~**i.** The sponge holders are not disposed of until the patient leaves the OR.

10. Towels used in an open wound shall be x-ray detectable and shall be included in the count as miscellaneous items.

a. Scrub person ~~to~~shall notify the circulating RN when ~~the~~ a towel is placed in a wound/cavity and when it has been removed ~~from the abdomen~~

~~B.~~

D. <u>SHARPS AND MISCELLANEOUS ITEMS COUNTS</u>:

1. The following counts are required for sharps and miscellaneous items:

a. Baseline count
b. New item count
c. Relief count
d. Cavity count
e. Closing count
f. Final count

2. Packaged needles containing an incorrect number shall be removed from the room.

3. All used needles are to be placed in a puncture-proof needle counter box.

a. Place one needle in each numbered slot; do not double-up needles in a numbered slot.

b. Obtain an additional needle counter box if the initial needle counter box is full.

4. Counting number of needle packages may not be used to reconcile an incorrect needle count.

~~B.~~**E. <u>INSTRUMENT COUNTS</u>:**

1. **The following counts are required for instruments:**
   - **a. Baseline count**
   - **b. Relief count**
   - **c. Closing count**
2. **The instrument count is driven by the instrument count sheet, used as a checklist. The circulating nurse/designee directs the instrument count by reading off the instrument count sheet and visualizing the counted instruments with the scrub.**
   - a. All instruments shall remain within the OR during the procedure until all counts are completed and resolved
     - i. Individual pieces of assembled instruments shall be accounted for within the instrument count~~,~~ (e.g., suction tips, wingnuts, blades, sheaths).

~~2.~~**3.** Instruments~~ shall be counted on all procedures in which the likelihood exists that an instrument can be retained.~~ **counts are required for cases entering the abdominal, thoracic, mediastinal, and retroperitoneal cavities.**

- **a.** Instrument counts ~~is~~**are** required for any procedure where the ~~chest or peritoneum is entered and the~~ incision is large enough for an instrument **(including instrumentation, such as screws)** to pass through.
- ~~a.~~**b.** Instruments shall be counted at the start of all **hernia repairs,** laparoscopy, thoracoscopy and robotic procedures since the possibility of converting to an open procedure **or extending the incision** exists.
  - i. If the procedure does not convert to an open procedure **or the incision is not extended to be larger than the smallest instrument used on the case,** the **closing** instrument count ~~does not need to be verified at the end of the case~~**may be waived**.
- **c. Closing Iinstrument counts are required for ~~V~~vaginal ~~H~~hysterectomies and ~~L~~laparoscopic ~~A~~assisted ~~V~~vaginal ~~H~~hysterectomies. For all other vaginal procedures the surgeon is to perform a ~~sweep~~methodical wound examination of the vaginal cavity at the conclusion of the procedure to ensure items are not retained in the vagina.**
- **d.** ~~Instrument counts may be omitted in~~**Instrument counts may be omitted in certain cases with numerous and/or complex instruments or instrumentation. An X-ray is taken before the ~~start of wound~~completion of skin closure to confirm instruments are not left in the wound. The following cases shall use an X-ray in lieu of instrument count:**
  - **i. All** anterior, posterior, and lateral spine cases
  - **ii. Cervical spine cases**
  - **iii. Total joint replacements (hips, knees and shoulders)**
  - **iv. Any orthopedic case using trays of screws, wires, or other complex instrumentation**
  - **v. Any case using loaner trays or large numbers of instruments which is prohibitive of completing an accurate instrument count.**
  - **vi.** ~~. At the end of the procedure, an X-ray is completed.~~ **If fluoroscopy is being used on the case, a fluoroscopic image may substitute for an X-ray if a permanent copy of the image can be recorded and retained.**
  - **vii.** ~~The surgeon or~~ **When possible, it is highly recommended that a** radiologist ~~may~~ read the X-ray **before the patient leaves the OR** and the results of the reading, along with the name of the person who read the X-ray, are documented. **At a minimum, the surgeon must interpret the film intraoperatively.**
- ~~i.~~**e. Reverse total shoulder replacements: the surgeon shall announce when the humeral protector is placed into the wound and when it is removed and the RN circulator shall record it on the whiteboard.**

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

~~1. Pre-incision: RN Circulator and Scrub Person~~

~~a. Performs a baseline count of sponges, sharps and miscellaneous items. Use a marker to write the numbers per category on the white board. (Refer to policy statement). **The count board is used to rectify closing counts.**~~

~~b. Ensure the sponges included in the count have their x-ray detectable strings and/or markings.~~

~~i. Count each sponge and separate from other sponges during the count~~

~~ii. Remove all packing and wrapping materials~~

~~iii. Remove pre-packaged laps or 4 X 4's containing an incorrect count from the room~~

~~iv. X-ray detectable towels shall be included in the count~~

~~c. Ensure multi-pack needles are counted according to the number marked on the outer package until they are opened for use.~~

~~d. Remove packaged needles containing an incorrect number from the room~~

~~i. For cases requiring an instrument count, perform a baseline count of the instruments and document this number on the instrument count sheet. Document extra instruments on the count sheet.~~

~~1. Post-incision: RN Circulator and Scrub Person~~

~~a. Added Sponges, Needles, and Small Items: RN Circulator and Scrub Person~~

~~b. Count additional sponges, needles and small miscellaneous items as they are added to the field.~~

~~i. If items are added by a circulator**anyone** other than the primary RN circulator, the item shall be initialed on the count board.~~

~~c. Count added instruments and the RN circulator shall document the number and items on the instrument count sheet.~~

~~d. Verify s**S**ponge, sharps, miscellaneous items, and instruments counts are**must be** completed prior to the relief of the primary RN circulator or primary scrub person.~~

~~ii.~~**i.** ~~**The relief count is performed by the incoming scrub and/or circulator who are assuming responsibility for the count as it stands at the time of relief.**The count shall be performed prior to the primary RN circulator or scrub person leaving the room.~~

~~2. Closure: RN Circulator and Scrub Person~~

~~a. Count the sponges, sharps, miscellaneous items and instruments at the beginning of closure of body cavities (such as uterus, bladder, pericardium, anterior/posterior vaginal mucosa**, insertion of mesh**).~~

~~b. Count in the following order**:**~~

~~i. Sponges~~

~~ii. Needles~~

~~iii. Other sharps and miscellaneous items~~

~~iv. Instruments~~

~~c. Count items in the following sequence :~~

~~i. Operative field~~

~~ii. Mayo stand~~

~~iii. Back table~~

~~iv. Items off field~~

~~d. Count all sponges, needles other sharps, and miscellaneous items, followed by instruments at closure of the pleura or peritoneum.**the beginning of wound closure.**~~

~~e. Count at subcuticular closure of the wound**/skin closure**.~~

~~i. All items except instruments are counted~~

~~ii. Inform primary surgeon of the preliminary count outcome~~

~~1) It is the legal responsibility of the RN circulator to ensure the primary surgeon is notified~~

~~f. All sponges must be opened and visualized during closing counts and separated into sponge holders.~~

~~i. At the end of skin closure ALL sponges are passed off the field, separated, opened to full length and placed in sponge holders.~~
~~ii. Use a separate sponge holder for each sponge type (i.e. one for laps, one for raytex).~~
~~iii. Only one sponge should be placed in each pocket of the sponge holder.~~
~~iv. Load the sponge holder horizontally from the bottom row to the top row, filling first the bottom two pockets and continuing upwards. This process will make visual determination of the filled holder easier to see from the OR table so empty pockets will be clearly visible to all in the room.~~
~~v. Place the sponge inside the pocket with the blue tag or blue stripe visible.~~
~~vi. Place one sponge per pocket, two sponges per pouch (or row), and 10 sponges per sponge holder.~~
~~vii. When a holder has 10 sponges, there will be no empty pockets.~~
~~viii. The final sponge count cannot be considered completed until ALL sponges opened during the case are bagged and visualized by the surgical team.~~
~~ix. The sponge holders are not disposed of until the patient leaves the OR.~~
~~g. Broken sharps or instruments must be accounted for in their entirety during closing counts.~~
~~h. Incorrect Counts:~~
~~i. Inform primary surgeon of any discrepancies~~
~~ii. Search the total room including floor, trash and linen:~~
~~1) If item is not found, an X-ray of the patient must be taken prior to patient leaving the OR suite~~
~~2) If item missing is micro or CV needle (C-1 or smaller), X-ray is not needed~~
~~3) A quality review report (QRR) must be completed.~~
~~i. Ensure sterile field remains sterile until item is found or x-ray is read~~
~~j. Inform Assistant Nurse Manager (ANM)/charge nurse/designee of any discrepancies~~
~~i. If counts were omitted due to extreme emergency, x-ray shall be performed per primary surgeon prior to patient leaving the OR suite.~~
~~1) Ensure X-ray is read prior to patient leaving the OR suite~~
~~2) Document pre and post events regarding the nature of the emergency. Documentation of the events is mandatory~~
~~3) Document the name of physician reading the x-ray and the x-ray results~~

~~C.~~F. DOCUMENTATION:

1. Document verification of all counts in the OR record.
   a. Types of counts (sponges, sharps, and instruments)
   b. Cavity count must be written as a count
   c. The number of counts
   d. Names and titles of persons performing counts
   e. Results of counts
      ~~i. Notification of primary surgeon~~
      i. Actions taken if count discrepancies occur
      ii. Rationale if counts are not performed or completed

~~ii.~~**f.** Complete an incident report for all incorrect counts **or waiver of counts in the event of an emergency**.

~~D.~~G. REFERENCES:

1. ~~AORN Perioperative Standards and Recommended Practices (2013). "Recommended Practices for Prevention of Retained Surgical Items". Denver: Association of periOperative Registered Nurses, Inc.~~ **AORN Guidelines for Perioperative Practice, 2015 Edition.**

~~1.~~**2. Verna Gibbs, MD. NoThing Left Behind®: Prevention of Retained Surgical Items Multi-Stakeholder Policy (2015).**

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Tri-City Medical Center	Distribution: Patient Care Services
PROCEDURE:	**SPONGE,SHARPS & INSTRUMENT COUNTS, PREVENTION OF RETAINED SURGICAL ITEMS**
Purpose:	To outline nursing responsibilities and accountability regarding sponges sharps, and instrument counts in the surgical/procedural areas.
Supportive Data:	Sponges, sharps, and instrument counts are performed during surgery/invasive procedures to provide for safe patient care and prevent retained surgical items. Counts for sponges/soft goods, sharps, and instruments are performed to account for all items used on the surgical field and to lessen the potential for injury to the patient as a result of a retained surgical item. All items are to be counted except those used for storage or disposal of items.
Equipment:	White Board, White Board Marker, Count Sheet(s), Sponge holders

A. **POLICY:**

1. Sponges, sharps and miscellaneous item counts are required on all procedures except eyes and cystoscopies.
2. All counts shall be conducted both audibly and visually.
   a. Counted items shall be visualized by both the scrub person and circulator/designee, one of whom must be a Registered Nurse (RN).
   b. At time of permanent relief of either the scrub or circulating RN, direct visualization may not be possible; the team shall account for all items.
3. A count may be initiated by any member of the perioperative team.
4. Unnecessary activity and distractions should be omitted during the counting process.
5. To the extent possible, the initial count shall be completed before the patient is brought into the OR.
6. Counts may be omitted in an emergency.
   a. The emergent nature of a procedure or an unexpected change in the condition of the patient may necessitate omission of counts to preserve patient life or limb. In such cases, counts may be waived on order of the surgeon. The surgeon will document the omission of the count and rationale for the practice variation in the medical record.
   b. If counts were omitted due to an emergency, x-ray shall be performed and read prior to the completion of skin closure.
      i. Document events regarding the nature of the emergency.
      ii. Document the name of physician reading the x-ray and the x-ray results.
      iii. Complete an incident report.
7. If a patient is transferred to another department for completion of the procedure (i.e., transferred from OR to Interventional Radiology or transferred from Labor and Delivery to OR), an x-ray must be performed and read for retained surgical items prior to the completion of skin closure.
8. Sponge, sharps and miscellaneous item counts shall be written on the white board. Instrument counts shall be recorded on the instrument count sheet(s).

B. **PROCEDURE:**

1. Surgical counts are classified as:
   a. Baseline count: Count before the procedure begins to establish the baseline and identify manufacturer packaging errors.
   b. New item count: Count new items added to the field after the baseline count is complete.
   c. Relief count: Count at the time of permanent relief of the scrub or RN circulator.
      i. The relief count is performed by the incoming scrub and/or circulator who are assuming responsibility for the count as it stands at the time of relief.
   d. Cavity count: Count before closure of a cavity (eg. Uterus, bladder, stomach, peritoneum,

Revision Dates	Clinical Policies & Procedures	Nursing Executive Council	Operating Room Committee	Medical Executive Committee	Professional Affairs Committee	Board of Directors
3/03, 4/06, 08/09; 05/12;01/13;05/14; 4/15; 09/15	06/12; 7/13: 5/14, 11/15; 02/16	06/12; 2/13; 5/14; 02/16	**6/14, 01/16**	07/12;7/14; 09/16	08/12;10/14	08/12;11/14

placement of mesh to close a space)

e. Closing count: Count before wound closure begins
f. Final count: Count after skin closure or end of procedure, when surgical items are no longer in use and all sponges (used and unused) are passed off the field, separated into sponge holders and confirmed by the surgical team.

2. Count in the following order:
   a. Sponges
   b. Needles
   c. Other sharps and miscellaneous items
   d. Instruments
3. Count items in the following sequence:
   a. Operative field
   b. Mayo stand
   c. Back table
   d. Items off field
4. Items passed off or dropped from the sterile field shall be retrieved by the circulating nurse, isolated from the field and included in the final count. Countable items must never be subtracted from the count or removed from the operating room.
5. Members of the surgical team shall account for broken or separated instruments/items within the surgical field.
6. Multi-part items shall be counted as one unit (eg, hypo and cap is counted as one unit), unless otherwise specified on the count sheet/whiteboard. Account for all individual pieces of multi-part items.
7. Items added to the field need to be recorded at the time they are added.
   a. Once the count has begun, recalled memory and/or counting packages cannot be used to reconcile a count.
   b. The number on the whiteboard/count sheets must match the number of items on the field at the time of the count, or the count is considered incorrect.
8. The count is to be recorded on the count board using a horizontal superscript running total format (i.e., $10^{10}20^{10}30^{10}40$). No additional slashes, initials, equal signs or extraneous marks are to be made.
9. The person adding countable items to the field is responsible for recording the items on the count board.
   a. If items are added by anyone other than the primary RN circulator, the person adding the items shall verbally report the additions to the primary RN circulator.
10. Inform primary surgeon of the count outcomes.
11. Incorrect Counts:
    a. Inform primary surgeon of count discrepancies
    b. The surgeon should perform a methodical wound examination and a thorough search of all areas should be completed by the surgical scrub and circulating nurse.
    c. Search the total room including floor, trash and linen:
       i. If item is not found, an X-ray of the patient must be taken prior to patient leaving the operating room.
          1) X-ray is not required if the missing item is not X-ray detectable.
       ii. If item missing is micro or CV needle (C-1 or smaller), X-ray is not needed.
       iii. Complete an incident report.
    d. Ensure sterile field remains sterile until item is found or x-ray is read
    e. Inform Assistant Nurse Manager (ANM)/charge nurse/designee of count discrepancies
12. X-ray interpretation for incorrect counts, emergencies, and X-ray in lieu instrument counts:
    a. When possible, it is highly recommended that a radiologist read the X-ray before the skin is closed and the results of the reading, along with the name of the person who read the X-ray, are documented.
    b. At a minimum, the surgeon must interpret the film intraoperatively.
13. If an item is used to occlude the colpotomy during a da Vinci hysterectomy (i.e., asepto or glove), it becomes a countable item and must be accounted for at the end of the case.

C. **SPONGES/SOFT GOODS COUNT:**

1. Sponges (laps, baby laps, raytex) are issued in groups of ten.
2. The following counts are required for sponges/soft goods:
   a. Baseline count
   b. New item count
   c. Relief count
   d. Cavity count
   e. Closing count
   f. Final count
3. Baseline sponge counts shall be performed in the quantity as packaged by the manufacturer in order to identify manufacturer packaging errors (i.e., laps are counted in multiples of five and raytex are counted in multiples of ten), total count in multiples of ten.
4. If a package of sponges/soft goods is found to be defective when opened (e.g. wrong number, damaged, contaminated) the package and its contents will be removed immediately from the field, placed in a plastic bag, labeled and removed from the operating room.
5. Sponges shall be counted in order from largest sponge to smallest sponge (eg, laps then baby laps, then raytex).
6. All sponges shall be X-ray detectable.
   a. Never use X-ray detectable sponges for wound dressings
7. Count each sponge and separate from other sponges during the count
8. Remove all packing and wrapping materials and promptly discard in the trash
9. All sponges must be opened and visualized during closing counts and separated into sponge holders.
   a. At the end of skin closure ALL sponges are passed off the field, separated, opened to full length and placed in sponge holders.
   b. Use a separate sponge holder for each sponge type (i.e. one for laps, one for raytex).
   c. Only one sponge should be placed in each pocket of the sponge holder.
   d. Load the sponge holder horizontally from the bottom row to the top row, filling first the bottom two pockets and continuing upwards. This process will make visual determination of the filled holder easier to see from the OR table so empty pockets will be clearly visible to all in the room.
   e. Place the sponge inside the pocket with the blue tag or blue stripe visible.
   f. Place one sponge per pocket, two sponges per row, and 10 sponges per sponge holder.
   g. When a holder has 10 sponges, there will be no empty pockets.
   h. The final sponge count CANNOT be considered completed until ALL sponges opened during the case are bagged and visualized by the surgical team.
   i. The sponge holders are not disposed of until the patient leaves the OR.
10. Towels used in an open wound shall be x-ray detectable and shall be included in the count as miscellaneous items.
    a. Scrub person shall notify the circulating RN when a towel is placed in a wound/cavity and when it has been removed

D. **SHARPS AND MISCELLANEOUS ITEMS COUNTS:**

1. The following counts are required for sharps and miscellaneous items:
   a. Baseline count
   b. New item count
   c. Relief count
   d. Cavity count
   e. Closing count
   f. Final count
2. Packaged needles containing an incorrect number shall be removed from the room.
3. All used needles are to be placed in a puncture-proof needle counter box.
   a. Place one needle in each numbered slot; do not double-up needles in a numbered slot.
   b. Obtain an additional needle counter box if the initial needle counter box is full.

4. Counting number of needle packages may not be used to reconcile an incorrect needle count.

E. **INSTRUMENT COUNTS:**

1. The following counts are required for instruments:
   a. Baseline count
   b. Relief count
   c. Closing count
2. The instrument count is driven by the instrument count sheet, used as a checklist. The circulating nurse/designee directs the instrument count by reading off the instrument count sheet and visualizing the counted instruments with the scrub.
   a. All instruments shall remain within the OR during the procedure until all counts are completed and resolved
      i. Individual pieces of assembled instruments shall be accounted for within the instrument count (e.g., suction tips, wingnuts, blades, sheaths).
3. Instrument counts are required for cases entering the abdominal, thoracic, mediastinal, and retroperitoneal cavities.
   a. Instrument counts are required for any procedure where the incision is large enough for an instrument (including instrumentation, such as screws) to pass through.
   b. Instruments shall be counted at the start of all hernia repairs, laparoscopy, thoracoscopy and robotic procedures since the possibility of converting to an open procedure or extending the incision exists.
      i. If the procedure does not convert to an open procedure or the incision is not extended to be larger than the smallest instrument used on the case, the closing instrument count may be waived.
   c. Closing instrument counts are required for vaginal hysterectomies and laparoscopic assisted vaginal hysterectomies. For all other vaginal procedures the surgeon is to perform a methodical wound examination of the vaginal cavity at the conclusion of the procedure to ensure items are not retained in the vagina.
   d. Instrument counts may be omitted in certain cases with numerous and/or complex instruments or instrumentation. An X-ray is taken before the completion of skin closure to confirm instruments are not left in the wound. The following cases shall use an X-ray in lieu of instrument count:
      i. All anterior, posterior, and lateral spine cases
      ii. Cervical spine cases
      iii. Total joint replacements (hips, knees and shoulders)
      iv. Any orthopedic case using trays of screws, wires, or other complex instrumentation
      v. Any case using loaner trays or large numbers of instruments which is prohibitive of completing an accurate instrument count.
      vi. If fluoroscopy is being used on the case, a fluoroscopic image may substitute for an X-ray if a permanent copy of the image can be recorded and retained.
      vii. When possible, it is highly recommended that a radiologist read the X-ray before the patient leaves the OR and the results of the reading, along with the name of the person who read the X-ray, are documented. At a minimum, the surgeon must interpret the film intraoperatively.
   e. Reverse total shoulder replacements: the surgeon shall announce when the humeral protector is placed into the wound and when it is removed and the RN circulator shall record it on the whiteboard.

F. **DOCUMENTATION:**

1. Document verification of all counts in the OR record.
   a. Types of counts (sponges, sharps, and instruments)
   b. Cavity count must be written as a count
   c. The number of counts
   d. Names and titles of persons performing counts
   e. Results of counts

i. Actions taken if count discrepancies occur
ii. Rationale if counts are not performed or completed

f. Complete an incident report for all incorrect counts or waiver of counts in the event of an emergency.

G. **REFERENCES:**

1. AORN Guidelines for Perioperative Practice, 2015 Edition.
2. Verna Gibbs, MD. NoThing Left Behind®: Prevention of Retained Surgical Items Multi-Stakeholder Policy (2015).

ISSUE DATE: 3/02	**SUBJECT: Utilization of Staff, Staffing Patterns**
REVISION DATE: 6/03; 8/05; 5/06; 8/08; 6/09; 3/12	**POLICY NUMBER: VIII.A**

Department Approval:	**09/16**
Clinical Policies & Procedures Committee Approval:	**~~04/12~~09/16**
Nursing Executive Committee Approval:	**~~04/12~~09/16**
Medical Staff Department or Division Approval:	**n/a**
Pharmacy & Therapeutics Committee Approval:	**n/a**
Medical Executive Committee Approval:	**n/a**
Professional Affairs Committee Approval:	**07/12**
Board of Directors Approval:	**07/12**

A. **POLICY:**

1. Staffing patterns shall follow mandatory state regulations. In addition, patient acuity shall be assessed to ensure appropriate staffing levels.
2. The Director/ Manager have accountability for staffing and work schedules.
3. Nursing staff to assist the Registered Nurse (RN) in the provision of patient care may be utilized as follows:
   a. Administrative Supervisor (AS):
      i. Assumes responsibility for supervision of staff as a representative of Administration.
      ii. Assumes administrative authority for the level of patient care and standards of care.
      iii. Acts as liaison between all hospital staff, patients, families, physicians, directors and administration for routine administrative decisions for their shift.
      iv. Manages internal and external supplemental staff in the absence of the ~~Operations Manager of Staffing Resource~~ **Director, Education, Clinical Informatics and Staffing.**
   b. Assistant Nurse Manager (ANM)/designee:
      i. Works under the direction of the Clinical/Operations Manager and/or Director.
      ii. Oversees direct and indirect patient care assignments.
      iii. Ensures patient care assignments are in writing and based on the following:
         1) Patient – Level of care (intensity of care needs, treatments, and medications, as determined by the Patient Classification System)
         2) Environment: unit geography; location of assigned patients in relation to each other; and safety
         3) Technology: hemodynamic equipment, respiratory support equipment, and frequency of required monitoring activities
         4) Supervision: staff competence, skills/abilities; staff mix and workload ability
         5) Competency of delegating RN to carry out clinical and managerial responsibilities
         6) Availability of delegating RN for appropriate supervision of assigned staff in relation to activity of unit and patient assignment of charge personnel
         7) Regular staff members are responsible for overseeing students, per diem, registry staff, and orientees
      iv. Document patient assignments each shift and include the following:

1) Name of Assistant Nurse Manager/designee
2) Name of RN responsible to supervise and/or orient any RN or non-RN personnel performing patient care, students, registry or traveler staff, or private duty nurses.
3) Name of each caregiver by licensure category and specific assignments listed by individual patient
4) Assigned break coverage for each licensed staff member to ensure minimum staffing ratios are maintained at all times.
   a) Documentation of break coverage shall include specific time of break relief.
   b) The same licensure or higher is required for break relief coverage.

v. Cerner staff assignment information will be electronically maintained in the "Staffing Acuity" shared drive folder.

c. Registered Nurse (RN):
   i. Works under the direct supervision of the Assistant Nurse Manager/designee.
   ii. Plans, supervise, and evaluate the care of all patients by using the nursing process.

d. **Procedural**~~Interventional Radiology~~ Nurse:
   i. RN whose primary responsibility is to assist with ~~inpatient Interventional Radiology~~ **invasive** procedures.
      1) Additional duties may be assigned by the Clinical Manager/designee based on the hospital needs.
      ~~ii. The Interventional Radiology nurse shall be utilized as scheduled even during a low census to ensure coverage of unscheduled bronchoscopies.~~
   ~~1)~~**ii.** If census and activity is low throughout the day, **staff**~~the Interventional Radiology nurse~~ may be flexed.

~~e. Admission Nurse:~~
~~i. RN who assists with inpatient admissions in the Emergency Department~~
~~ii. Shall be utilized as scheduled even during a low census to ensure support with patient flow.~~

~~f.~~**e.** Unit Secretary **(US)**:
   i. A clerical worker who enters information into the computer system and assists with reception duties.
   ii. The ~~ANM/Designee~~ **US** works under the direction of the RN and is supervised by a charge nurse or clinical manager on duty.

~~g.~~**f.** Monitor Technician:
   i. A trained person who has demonstrated competency in recognition of cardiac arrhythmias.
   ii. Works under the direction of the RN and is supervised by a**n** ANM or designee on duty.

~~h.~~**g.** CNA/ACT/Nursing Assistant/Mental Health Worker (MHW):
   i. A trained person who has been taught to perform tasks involving direct care services for patients.
   ii. Works under the direction of the RN and is supervised by a ANM or designee on duty.

~~i.~~**h.** Technicians:
   i. A trained person who demonstrates competency in caring for patients in designated area of specialty.
   ii. Works under the direction of the RN and is supervised by the ANM or designee on duty.

i. Psychiatric Liaison:
   i. A trained person (licensed MFT/LCSW) who is primarily responsible to complete LPS patient assessments and provides complete crisis

intervention, including admission/transfer to a Crisis House and or inpatient Behavioral Health Unit if necessary.

~~j.~~**ii. Works under the direction of the Psychiatric Liaison Supervisor who reports directly to the Behavior Health Unit Manager.**

4. Volunteers, student nurses, patient-acquired private duty staff, externs, and patient safety technicians may be utilized per policies.
5. Shift-To-Shift Staffing (if applicable)
   a. Acuity Measurement - A Patient Classification assessment is conducted once per shift for patients in all nursing units.
      i. Labor & Delivery & Emergency Department are excluded and utilize census only numbers.
   b. The Assistant Nurse Manager/designee ensures all Patient Classification are completed for their units by 1400 and 0200.
   c. The Assistant Nurse Manager/designee then completes the **staffing needed for the next shift based on the acuity of the patients, minimum staffing ratios and the expected patient volume.** ~~Staffing Calculator which encompasses minimum staffing ratios and the acuity of the patients to determine the number of staff needed for the next shift.~~
   d. This information is communicated to the Staffing Office.
   e. Staffing Office **R**~~r~~epresentatives shall place calls as requested by the Administrative Supervisor or designee.
   f. After all TCMC available resources have been effectively utilized, the Assistant Nurse Manager/designee shall evaluate staffing the units using the TCMC tool.
      i. Staffing needs or staffing reductions due to periods of decreased census and patient requirements shall be coordinated by the Staffing Office, Managers, Directors, and/or Administrative Supervisors. This includes ensuring rotations are fair and equitable and specialized unit needs are covered.

B. **RELATED DOCUMENTS:**

1. **Patient Care Services (PCS) Policy: Allied Health Students in the Patient Care Areas**
2. **PCS Policy: Nursing Students in Patient Care Areas**
3. ~~1.~~**PCS Policy: Volunteers, Patient Care Services Departments**

Tri-City Medical Center
Oceanside, California

INFECTION CONTROL MANUAL

SUBJECT: Influx of Infectious Patients: Epidemic Influenza or Other Respiratory Transmitted Disease

ISSUE DATE: **POLICY NUMBER: IC15.0**

REVIEW DATE(S): 10/12
REVISION DATE(S): 10/09

Department Approval Date(s):	~~10/12~~04/16
Infection Control Committee Approval Date(s):	~~10/12~~04/16
Pharmacy and Therapeutics Approval Date(s):	n/a
Medical Executive Committee Approval Date(s):	~~11/12~~09/16
Professional Affairs Committee Approval Date(s):	
Board of Directors Approval Date(s):	11/12

~~TRI-CITY MEDICAL CENTER DISTRICT~~ ~~Infection Control~~ ~~Infection Control Committee 10/12~~ ~~Reviewed 10/12~~ ~~Revised 10/09~~ ~~MEC and Board: 11/2012~~	~~Section:~~ ~~Infection Control~~ ~~Subject:~~ ~~Influx of Infectious Patients: *Epidemic Influenza or other respiratory transmitted disease*~~ ~~Policy Number: IC 15.0~~

A. **PURPOSE**:
1. Provide a plan to manage patients requiring Droplet or Airborne Precautions when the availability of rooms, staff, supplies or other recourses are limited. This plan is intended to provide a decision pathway for initiating Code Triage and Code Orange status.

B. **SUPPORTIVE DATA:**
1. Influenza epidemic or pandemic are different from many threats for which public health and the health-care system are currently planning[1,2,3]:
   a. A pandemic will last much longer than most other emergency events and may include "waves" of influenza activity separated by months (in 20th century pandemics, a second wave of influenza activity occurred 3 to 12 months after the first wave).
   b. The numbers of health-care workers and first responders available to work can be expected to be reduced; they will be at high risk of illness through exposure in the community and in health-care settings, and some may have to miss work to care for ill family members.
   c. Because of how widespread an influenza pandemic may turn out, resources in many locations could be limited.

[1] Preparing for an Influx of Infectious Patients, Joint Commission:The Source, **June 2009, Volume 7, Issue 6**~~August 2004~~
[2] Influenza Pandemic Response Plan. California Department of Health Services, September 2001
3 California Department of Public Health Standards and Guidelines for Healthcare Surge During Emergencies, 2008

C. **POLICY**:

1. Most likely scenarios that would result in an influx of infectious patients include, but are not limited to:
   a. Epidemic influenza
   b. Epidemic gastroenteritis
   c. Epidemic exposure to suspected biological agent
   d. Epidemic biological agent (such as smallpox)

D. **PROCEDURE**:

1. Influx is localized to **the Emergency Department** (ED) due to:
   a. Worried well seeking information or prophylaxis
   b. Necessity for treatment of influenza symptoms which will result in discharge from ED:
      i. Initiate Code Triage- during code triage implement limited command center during business hours.
      ii. Notify Shift Supervisor, Administrator On Call, ED Clinical Manager, Safety Officer, Director of Engineering, and Infection Preventionist as directed- Administrative Coordinator
      iii. Refer to Disaster Lockdown policy in the event of uncontrolled access.
2. **Level 1: 1-5** patients waiting for bed placement requiring isolation precautions
   a. Notify Administrative Supervisor - ED ~~lead~~ **Charge Nurse**
   b. Notify Shift Supervisor, Administrator On Call, ED Clinical Manager, Safety Officer, Director of Engineering, and Infection Preventionist as directed- Administrative Coordinator
   c. Notify Pulmonary lead (760) 802-1974 perform ventilator inventory
   d. Assess all current inpatients for discharge or transfer potential- Bed Coordinator
   e. Contact local skilled nursing facilities for bed availability- Case manager
   f. Contact Public Health Department for coordination of patient placement- Infection Control
   g. Exceed the state mandated nurse-patient ratio, if needed- Chief Nurse Executive
   h. Post security at ED entrances
   i. Refer to Disaster Lockdown policy in the event of uncontrolled access.
3. **Level 2: 6-10** patients waiting for bed placement requiring isolation precautions
   a. Implement Patient Care Procedure, Code Triage Alert, Emergency Department
   b. Assess all current inpatients for discharge or transfer potential- Bed Coordinator
   c. Consider contacting local skilled nursing facilities for bed availability- Case manager
   d. Consider contact**ing the** Public Health Department for coordination of patient placement- Infection Preventionist/Safety Officer
   e. Refer to Disaster Lockdown policy in the even of uncontrolled access.
4. **Level 3: More than 11 patients** waiting for bed placement requiring isolation precautions
   a. Activate Code Orange- Chief Executive Officer (See Emergency Operations Plan)
      i. An internal disaster is declared when surge progresses beyond the ability of an initial localized response to contain or suppress the event.
      ii. In the event of an incident occurring outside of the Hospital, the need for mass casualty support will be identified by the **C**county Office of Emergency Services and a **"Annex D"** notification will be transmitted by County Communications System to the Emergency Department (ED). An "Annex D" indicates an event has occurred somewhere and that patients with epidemic influenza or respiratory transmissible disease may be sent to the hospital. The ED will notify the Administrator-on-Call or Operations Supervisor of the Annex D notification, who will in turn advise the other members of the Emergency Command Staff. See Appendix A for Pandemic Alert Phases.

1) **Contact the County of** San Diego **Public Health:** ~~County Contact point- Station M-~~**at** 858-565-5255**. Ask for Station M. - This is available 24/7 and to be utilized for emergencies only.**~~(24/7 availability)~~
2) Activate Code Orange (if not already activated)

iii. Consider isolating a section of ED (Contact Engineering to facilitate)

b. For Novel viruses - Patients with oral temperatures >101˚F on two successive readings will require Standard and Droplet Precautions. If the suspect pathogen is found to be transmitted via airborne route, than Standard and Airborne Precautions will be initiated, if available. If the suspect pathogen is found to be transmitted via direct/indirect (fomite) routes, then Contact Precautions will be added.

c. Use Airborne Illness Isolation Rooms for admissions: 143, 243, 443, 287, 387, 487 and MCH rooms 200, 201

d. When AIIR's are fully utilized, use **a** private room with portable HEPA filter (call Engineering)

e. Expedite discharge of inpatients who are able – Case Management

f. Consider available options for designating an inpatient isolation precautions unit or clinical area.

g. Consult with Staffing Department for staff resource management.

h. In the event of Epidemic gastroenteritis
   i. Assess need for:
      1) Contact Precautions
      2) Inventory private rooms available
      3) When necessary cohort with like condition
      4) Create a cohort patient care area using available facilities and considering all options (e.g. in the Assembly Rooms 1-3 move Child Care off site)
      5) Create patient care areas in the parking lot

i. Supplies
   i. MDC to perform daily inventory of medical supplies, and isolation supplies and report
   ii. Supplies maintained on a three tier level
   iii. Local inventor of stock (floor stock) will be maintained at higher levels
   iv. When depleted utilize central storage (in-house) of critical supplies including PPE, and strategic medical supplies will be maintained
   v. When central storage is depleted distributer will maintain supply of inventory readily available for distribution when needed.

j. Quarantine - Tri City Medical Center would most likely be a Type C Quarantine facility. Type C facilities care for actual and suspect cases. This would include individuals with:
   i. Compatible symptoms and laboratory confirmation of the specific pandemic strain of influenza (**confirmed case**)
   ii. Compatible symptoms following suspected/known exposure with pending laboratory confirmation (**probable case**)
   iii. Atypical clinical symptoms following suspected or known exposure (**suspect case**)
   iv. Contacts under surveillance that become febrile with oral temperatures > 101° F (38°C) on two successive readings.
   v. Individuals with other associated symptoms such as coughing and fever
   vi. Ill persons requiring specialized health care may be isolated in a hospital, but, depending on their medical needs, persons may also be isolated at home or in a designated health care facility or community-based facility.

vii. For non-hospital isolation, home/personal residence isolation is preferred and will be utilized first unless a contraindication exists such as homelessness, non-compliance with isolation or at-risk persons in the home with inability to maintain separation.

viii. Transportation to an isolation facility will be coordinated with the EMS DOC.

k. Bed availability

i. If there **are**~~is~~ no hospital bed**s** available, contact **the County of San Diego Public Health** Station M **for guidance** ~~.~~**858-565-5255.**

l. Prophylaxis Immunization requirements:

i. Implement mass prophylaxis protocols.

ii. Required for entry to facility if vaccine is available. NOTE: Prophylaxis may not be available.

iii. If no prophylaxis is available, individuals working with confirmed and suspect cases must use Standard, and Airborne Precautions.

iv. Strict respiratory hygiene to include frequent hand hygiene and masks must also be enforced.

v. The **Safety and Security Officer** or designee will ensure that all personnel who enter the facility have been recently prophylaxed with vaccine or antivirals if available and are on the list of individuals who may enter the facility

m. Staffing:

i. Maintain pre-epidemic staffing levels, if possible

ii. If the number and types of staff are insufficient to meet the needs of the number of people being contained, additional staff may be requested through the County Emergency Operations Center (EOC)

iii. **Planning Chief** will compile a list of individuals who can enter the facility. This should be established in collaboration with the Public Health Officer and/or the authorized designee.

iv. The list will include the smallest possible number of people required for patient care, disease investigation, and facility maintenance (physicians, nurses or aides, laboratory personnel, housekeeping, dietary, and maintenance personnel, etc.)

v. This list will be kept by the **Personnel Pool Unit Leader** or designee.

vi. Consider cross training of staff to facilitate work flow

vii. If isolation unit is established consider ancillary staffing including on-unit Radiology, Lab and Respiratory Care staffing.

viii. If child care is provided**,** screening for signs of illness including temperature reading and recording may be indicated.

n. The **Employee Health Director** or designee will:

i. Ensure that employees monitor and report their temperature and any symptoms every 12 hours until-

1) 14 days after they are vaccinated or
2) 14 days after they completed their antiviral prophylaxis or
3) 5 days after the date of last patient contact

ii. Those personnel on the list to enter the facility that are not vaccinated or on prophylaxis drugs will also monitor and report their temperature and any symptoms every 12 hours and use personal protective equipment (PPE) while in the facility until 14 days after they have been vaccinated, placed on antiviral therapy when it becomes available or 5 days from date of last contact.

iii. This access monitoring system will include a confidential log of all persons who enter and leave, including staff, and will include each person's vaccination, antiviral treatment status, temperature and any symptoms reported.

iv. Until 14 days after immunization, once vaccine is available, or completion of antiviral therapy, all personnel will check their temperature every 12 hours. At the beginning of each shift, they are to report their temperatures or any illness to the person assigned to monitor employees' health. On off days, they are required to be in telephone contact each morning to report their temperatures. Once the waiting period is over, personnel are not required to routinely check their temperatures. They are still required to report any illness.

v. Staff with febrile oral temperatures >101°F on two successive readings will not be able to work.

o. **Medical Staff Office**

i. Refer to Medical Staff Disaster Plan (See Med**ical Staff Policy #8710-553)** ~~Staff Policy # 4045)~~

p. Extended Epidemic- PRIORITIES

i. Sustained staffing
ii. Vaccine acquisition and distribution
iii. Antiviral medication acquisition and distribution
iv. Mask supply and reuse
v. Bed availability
vi. Security

	2 weeks	4 weeks	2 months	6 months
Staffing and possible quarantine	Consider housing staff at hospital	Request staff from outside effected areas	Train additional staff to perform non-critical functions	
Medication supply	Request additional vaccine and antiviral medications	Reprioritize vaccination and antiviral distribution strategies		
Supplies	Request additional masks tissues, disposal bags and hand sanitizer	Consider changes to infection control practice related to reuse of supplies	Consider making gauze masks, if supply of disposables is nearly exhausted	
Bed availability	Use available private rooms; cohort with like illness	Consider transfer to another facility		
Security	24 hour restricted access to essential staff only			

Appendix A -

World Health Organization (WHO) Stages of Alert Phases of a Pandemic
Pandemic Stage Definition

Novel (new) Virus Alert
- Novel virus detected in one or more humans
- Little or no immunity in the general population
- Potential, but not inevitable precursor to a pandemic

Pandemic Alert
- Novel virus demonstrates sustained person-to-person transmission and causes multiple cases in the same geographic area

Pandemic Imminent
- Novel virus causing unusually high rates of morbidity and mortality in widespread geographic areas

Pandemic
- Further spread with involvement of multiple continents

Second Wave
- After the number of cases falls and the pandemic appears to be ending, typically a second wave of cases occurs within several months

Pandemic Over
- Cessation of successive pandemic "waves", accompanied by the return (in the U.S.) of the more typical wintertime "epidemic" cycle

Tri-City Medical Center
Oceanside, California

MEDICAL STAFF POLICY MANUAL

ISSUE DATE: 4/09	**SUBJECT:** Disaster Privileges
REVISION DATE: 9/09	**POLICY NUMBER:** 8710-553

Medical Staff Department Approval:	08/16
Credentials Committee Approval:	08/16
Pharmacy and Therapeutics Approval Date(s):	n/a
Medical Executive Committee Approval:	08/16
Professional Affairs Committee Approval Date(s):	
Board of Directors Approval:	

A. **PURPOSE:**

1. To provide a process to credential and grant Disaster Clinical Privileges or Practice Prerogatives to Volunteer Practitioners and/or Allied Health Professionals (AHP's), as appropriate, in the event of a disaster when the HICS plan has been activated and the hospital is unable to meet immediate patient care needs.

~~1.~~2. SCOPE and RESPONSIBILITY includes the Medical Staff Services Department of Tri-City Medical Center or Designee and the designated Disaster Coordinator.

~~2. To identify criteria for granting disaster privileges to non-members of Tri-City Medical Staff when the TCMC Emergency Management Plan has been activated and/or the immediate needs of the organization are unable to meet immediate patient needs.~~

B. **DEFINITIONS AND TERMS:**

~~1. Disaster Privileges: Disaster Privileges are time-limited privileges, which may be granted to physicians and allied health professionals (AHP) when the emergency management plan has been activated and the organization is in need of additional resources and appropriate expertise to handle the immediate patient needs during a disaster. The Chief Executive Officer (CEO), chief of staff, or designee may grant such privileges (also refer to Medical Staff Policy #4045: Emergency Preparedness Management).~~

1. The following definitions shall apply for purposes of this policy and procedure only.
   a. Practitioner: A physician (M.D., D.O.), podiatrist (D.P.M.), dentist or oral maxillofacial surgeon (D.D.S., D.M.D.)
   b. Allied Health Professional (AHP): All health care professionals other than Practitioners, as defined above, who are classified as Dependent practitioners to work as a physician extender under the direction of a supervising physician and required by law and regulation to have a license, certificate or registration to practice their profession and.
   c. Surgical Tech, Orthopedic Tech shall be credentialed as follows:
      i. If a "tech" is employed by another hospital, they will be sent to Human Resources for appropriate credentialing.
      ii. Any "tech" who is not employed by another hospital will be credentialed per this policy.
   d. Volunteer Practitioner or AHP: A Practitioner who is not currently a member of the medical staff of Tri-City Medical Center, or an AHP who has not been credentialed as an AHP by the facility.
   e. Disaster Clinical Privileges: Clinical Privileges granted to a Practitioner, as defined above, pursuant to this policy and procedure.
   ~~a.~~f. Disaster Practice Prerogatives: Practice prerogatives granted to an AHP, as

defined above, pursuant to this policy and procedure.

~~C. POLICY:~~

~~1. In the case of a disaster in which the disaster plan has been activated and the hospital is unable to handle the immediate patient needs, the Chief of Staff, or in the absence of Chief of Staff, the Vice-Chief of Staff, may grant disaster privileges.~~

~~a. In the absence of the Chief of Staff and Vice-Chief of Staff and Department Chair(s), the CEO or designee may grant the disaster privileges consistent with this policy.~~

~~b. The grant of privileges shall be on a case-by-case basis at the sole discretion of the individual authorized to grant disaster privileges within 72 hours to determine whether the disaster privileges shall be continued.~~

~~2. The verification process of the credentials and privileges of individuals who receive disaster privileges, shall be developed in advance of a disaster situation. This process shall begin as soon as the immediate disaster situation is under control, and shall meet the following requirements in order to fulfill important patient care needs:~~

~~a. Identifies in writing the individual(s) responsible for granting disaster privileges.~~

~~b. Describes in writing the responsibilities of the individual(s) responsible for granting disaster privileges.~~

~~c. Describes in writing a mechanism to manage the activities of individuals who receive disaster privileges. There is a mechanism to allow staff to readily identify these individuals.~~

~~d. Addresses the verification process as a high priority.~~

~~e. Ensures the verification process of the credentials and privileges of individuals who receive disaster privileges begins as soon as the immediate situation is under control.~~

~~3. The process for disaster privileges is identical to the process established under the medical staff bylaws for granting temporary privileges to fulfill an important patient care need.~~

~~4. Members of the medical staff shall oversee those granted disaster privileges.~~

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

1. **Upon presentation to the hospital, Volunteer Practitioners and/or AHPs shall be directed to the Hospital Representative responsible for disaster credentialing under the HICS plan.**
   a. **Volunteer Practitioners and/or AHPs must sign in and present required identification as follows:**
      i. **A valid government-issued photo identification issued by a state or federal agency (e.g., driver's license or passport), and at least one of the following:**
         1) **A current hospital photo ID badge that clearly identifies professional designation;**
         2) **A current license, certificate or registration to practice, as appropriate;**
         3) **Identification indicating the individual is a member of a Disaster Medical Assistance Team (*DMAT*), or Medical Reserve Corps (*MRC*), Emergency System for Advanced Registration of Volunteer Health Professionals (*ESAR-VHP*), or other recognized state or federal organizations or groups;**
         4) **Identification indicating that the individual has been granted authority to render patient care, treatment and services in disaster circumstances (such authority having been granted by a deferral state, or municipal entity); or**
         5) **Identification of Volunteer Practitioners by current hospital or medical staff members(s) who possess personal knowledge regarding the Practitioner's ability to act as a licensed independent practitioner during a disaster and of Volunteer AHPs by current hospital member(s) who possess personal knowledge regarding the**

AHP's qualifications.

b. Required Documentation on the Disaster Privileges/Prerogative Approval Form:
   i. Name of Practitioner or AHP (printed and signed)
   ii. Specialty or AHP Category
   iii. Office Address and Phone Number
   iv. Professional License/Certificate/Registration Number and Expiration Date
   v. Driver's License or Passport Number and Expiration Date
   vi. Date of Birth
   vii. Name of Professional Liability Insurance Carrier and Limits of Liability
   viii. Name of Professional School and Year of Graduation
   ix. Hospital Affiliation(s) and Staff Status

c. Verification Process:
   i. The hospital Representative shall verify professional licenses/certificates/ registrations as follows:
      1) Primary Source Verification:
         a) Query the appropriate licensing/certification/registration board on-line, e.g.= Medical Board of California website = *www.medbd.ca.gov* – use for M.D.s, D.P.Ms and PAs; California Osteopathic Medical Board = *www.ombc.ca.gov* – use for D.O.s, California Board of Registered Nursing = www.rn.ca.gov – use for R.N.F.A.s, N.P.s, C.N.M.s and other R.N.s; Board of Behavioral Sciences = www.bbs.ca.gov --- use for M.F.C.C.s and L.C.S.W.s; California Psychology Board = www.psychboard.ca.gov –use for clinical psychologists, and print verification if possible.
      2) If computer access is not available, a copy (if possible) of the Practitioner's or AHP's professional license/certificate/registration and driver's license or other identification shall be made and attached to the Disaster Privilege/Prerogative Approval Form. If a copier is not available, the Hospital Representative shall perform a visual verification of the above documents, and document such verification.
      3) If primary source verification of professional licensure/certification/ registration cannot be accomplished at the time of initial credentialing, it must be performed as soon as the immediate situation is under control and completed no later than seventy-two (72) hours from the time the Volunteer Practitioner or AHP presented to the campus. In extraordinary circumstances when primary source verification cannot be completed within seventy-two (72) hours (e.g., no means of communication or lack of resources) it shall be accomplished as soon as possible. In this extraordinary circumstance, the following must be documented:
         a) Why primary source verification could not be performed in the required timeframe;
         b) Evidence of the Practitioner's or AHP's demonstrated ability to continue to provide adequate care, treatment, and services;
         c) Attempt(s) to rectify the situation as soon as possible.
      4) The Medical Staff Services Representative or designee shall query the National Practitioner Data Bank (NPDB) and other sources as needed as soon as the emergency situation has been contained.
      5) Primary source verification shall not be required if the Volunteer Practitioner or AHP has not provided care, treatment and services under the Disaster Clinical Privileges or Practice Prerogatives, as

appropriate.

d. Who May Grant Disaster Clinical Privileges/Practice Prerogatives:
   i. As described in the Medical Staff Bylaws, the Chief Executive Officer (CEO) or Chief of Staff or their designees may grant Disaster Clinical Privileges or Practice Prerogatives. The option to grant Disaster Clinical Privileges or Practice Prerogatives to Volunteer Practitioners and/or AHPs shall be made on a case-by-case basis in accordance with the immediate needs of the hospital's patients, based on the qualifications of the Volunteer Practitioners and/or AHPs.

e. Temporary Badges:
   i. So that they may be readily identified, Volunteer Practitioners and/or AHPs shall be issued badges containing the following information:
      1) Name
      2) Specialty or AHP category
      3) Practicing with Disaster Clinical Privileges or Practice Prerogatives, as appropriate.

f. Oversight:
   i. The Medical Staff shall oversee the care, treatment, and services provided by a Volunteer Practitioner or AHP who has been granted Disaster Clinical Privileges or Practice Prerogatives. Oversight shall be accomplished whenever possible by partnering the Practitioner or AHP with a current credentialed medical staff member or AHP, as appropriate, to observe or mentor the Volunteer Practitioner or AHP. If partnering is not possible, oversight shall be by clinical record review. A Volunteer Practitioner or AHP may be assigned additional responsibilities by the Medical Staff Officer designated under the *HICS* plan.

g. Termination of Disaster Clinical Privileges/Practice Prerogatives:
   i. A Practitioner's or AHP's Disaster Clinical Privileges or Practice Prerogatives shall be terminated immediately in the event that any information received through the verification process or otherwise indicates adverse information or suggests the Practitioner or AHP is not capable of exercising Disaster Clinical Privileges or Practice Prerogatives. Disaster Clinical Privileges and Practice Prerogatives are time-limited and shall expire automatically at the time the CEO or designee declares the disaster to be over, or that the services of Volunteer practitioners or AHPs are no longer required.

~~E. PROCEDURE:~~

~~1. Disaster privileges may be granted to volunteers eligible to be Licensed Independent Practitioners and Allied Health Professionals upon presentation of a valid picture identification issued by the state, federal, or regulatory agency and at least one of the following:~~

~~a. A current picture hospital identification card clearly identifying professional designation.~~

~~b. A current license to practice.~~

~~c. Identification indicating that the individual is a member of a Disaster Medical Assistance Team (DMAT) or MRC, ESAR-VHP, or other recognized state or federal organizations or groups.~~

~~d. Identification indicating that the individual has been granted authority by a federal, state, or municipal entity to render patient care in disaster circumstances.~~

~~e. Identification by current hospital or medical staff member(s) with personal knowledge regarding the volunteer's ability to act as a licensed independent practitioner during a disaster.~~

~~2. Disaster Response:~~

~~a. All non-Medical Staff who are granted disaster privileges will respond to the Physician Labor Pool in Physicians Dining Room and appropriate name badge provided (appropriate name badge is defined by Medical Staff Policy #8710-521, *Name Tags for*~~

~~*Health Practitioners*).~~

~~3. Pending Verifications Process:~~

~~a. Current professional licensure of those providing care under disaster privileges is verified from the primary source as soon as the immediate emergency situation is under control or within 72 hours.~~

~~i. If primary source verification cannot be completed within 72 hours of the practitioner's arrival due to extraordinary circumstances, the hospital documents all of the following:~~

~~1) The reason(s) verification could not be performed within 72 hours of the practitioner's arrival.~~

~~2) Evidence of the licensed independent practitioner's demonstrated ability to continue to provide adequate care, treatment, and services.~~

~~3) Evidence of an attempt to perform primary source verification as soon as possible.~~

~~4. Oversight of Volunteer Practitioner:~~

~~a. The Medical Director or designee will provide oversight of the care, treatment and services provided by the volunteer practitioner, by either direct observation, mentoring or chart review and will determine whether the volunteer practitioner's disaster privileges will be continued for the duration of the disaster situation. Within 72 hours, the organization will make a decision on information that is obtained from the Medical Director or designee to continue the volunteer practitioner's practice.~~

~~i. When the disaster situation no longer exists, these disaster privileges terminate.~~

~~F.~~D. REFERENCES:

1. The Joint Commission Standards

~~1. Inside the Joint Commission, Vol. 13 No. 4, March 3, 2008.~~

~~2. The Joint Commission Standards EM.02.02.13 and EM.02.02.15~~

APPLICATION FOR DISASTER PRIVILEGES

To be completed by the Volunteer Licensed Independent Practitioner/Volunteer Practitioner

Full Name:_____
Cell Phone Number:_____
Social Security Number:_____
Date of Birth:_____
Office Address, City, State, Zip Code:_____
_____
Office Telephone:_____
Photo Identification Type (i.e., driver's license, government I.D.)
_____
Identifying Number:_____
Issuing State/Agency:_____
(If copy not obtained, list other information):_____
_____
License (certification or registration) Number:_____
Issuing State:_____
Expiration Date:_____
(If copy not obtained, list issuing agency name/address/phone/other information)
_____
Malpractice Insurance Carrier Name:_____
Telephone Number (if available):_____

Current Hospital Affiliation(s) – Facility(s) Name(s)
Address(s), City(s), State(s), Zip Code(s)
Telephone Number(s)
_____
_____
_____

LIP/Volunteer Practitioner's Signature:_____

VERIFICATIONS/APPROVAL

Review all documents and attach copies if possible. Conduct verification of information as possible

License/Certification/Registration:_____

Affiliation(s):_____

Insurance:_____ NPDB:_____OIG:_____Other:_____

On Site Medical Staff Member's Name:_____

Responsibilities (following interview with volunteer Health Care Practitioner):_____

_____

_____

Assigned Partner:_____

Approved by: (print name, signature, title):_____

CONSENT, ACKNOWLEDGEMENT & RELEASE OF INFORMATION FOR DISASTER PRIVILEGES

I, the undersigned, hereby apply for disaster privileges as requested on this application. I acknowledge and agree to abide by the Medical Staff Bylaws, Rules and Regulations and applicable hospital policies. By applying for disaster privileges, I accept the following conditions during the processing and consideration of my application and for the duration of my privileges, regardless of whether or not I am granted the privilege requested:

1. I agree the information provided in conjunction with this application is accurate and represents the current level of my training, experience, capability, health status and competence to practice the disaster privileges requested.

2. I fully understand and agree that any significant misrepresentation, misstatement or omission from this application, whether intentional or not, shall constitute cause for denial of requested disaster privileges. In the event that disaster privileges have been granted prior to the discovery of such misrepresentation, misstatement or omission, such discovery may result in summary termination of disaster privileges.

3. I hereby authorize my professional liability insurance carrier to notify the Chief of Staff or his agent, in the event that my insurance coverage is terminated, canceled, modified or otherwise acted upon.

4. I understand and agree that as an applicant for disaster privileges that I have the burden of producing adequate information for the proper evaluation of my professional competence, character, ethics, health status, and other qualifications and for resolving any doubts about such qualifications. I agree to make myself available for interviews with regard to my application and any peer review related matters during the time that I hold disaster privileges.

5. I agree to provide continuous care for my patients either personally or through an identified qualified member of the medical staff.

6. Immunity is extended to the fullest extent permitted by law and I release from liability all persons, organizations, committees and their agents from participating in good faith in requesting or supplying information relative, but not limited to: (a) applications for appointment and/or clinical privileges; (b) periodic reappraisals undertaken as part of the peer review process; (c) investigations, reprimands, corrective action, suspension or reduction of clinical privileges, or other disciplinary action; (d) hearings and appellate reviews: (e) reviews before the governing board; (f) case evaluations; (g) utilization reviews: (h) other hospital, medical staff or departmental, service or committees activities relating to the quality of patient care or my professional conduct; (i) inquiries concerning my professional qualifications, character, ethics, physical or mental health status, or behavior; and (j) any other matter that may affect patient care, or the orderly operation of this or any other hospital, and I hereby authorize and consent to the release of such information.

7. I understand and agree that after I submit this application it is my sole obligation to promptly report to the Chief of Staff or his designee of any: (1) change in the contents of this application; (2) change in my physical or mental health that could impair my ability to practice; (3) change in my staff membership or privileges at any other health care facility; (4) investigation or accusation with regard to my license or DEA; or (5) conviction of, or plea of guilty or no contest, or its equivalent, to a felony in any jurisdiction; (6) sanction and/or exclusion from participation in any Federal health care program; or (7) change in the status of my professional liability insurance coverage.

8. I present this application and arrange for the submission of other information with the understanding: (1) that such information is requested by the peer review committee(s) of this hospital as part of the credentialing process; (2) that the confidentiality and privacy of this information will be preserved; and (3) that this information and materials will only be released or disclosed as part of current or future credentialing, peer review or quality improvement processes as described above and in the medical staff bylaws, rules and regulations.

9. I understand that the completion of this application is my sole responsibility. I declare that the information on this application is true and without omission to the best of my knowledge. I hereby apply for disaster privileges.

SIGNATURE: _____ DATE: _____

SUBJECT: GUIDELINE FOR CARE OF THE EXTREMELY LOW BIRTHWEIGHT INFANT (ELBW) AND VERY LOW BIRTHWEIGHT INFANT (VLBW) SPECIAL CARE/MINIMAL STIMULATION

ISSUE DATE: 12/07 REVISION DATE: 04/09, 06/11, 8/12

Department Approval Date(s):	**06/16**
Perinatal Collaborative Practice Approval Date(s):	**08/16**
Division of Neonatology Approval Date(s):	**08/16**
Pharmacy and Therapeutics Approval Date(s):	**n/a**
Medical Executive Committee Approval Date(s):	**09/16**
Professional Affairs Committee Approval Date(s):	
Board of Directors Approval Date(s):	

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

~~1. To minimize the negative impact of care giving interventions on the very low birth weight/extremely low birth weight infant during the period of greatest vulnerability.~~

~~2. To provide a safe, supported means of parental interaction with the very low birth weight/extremely low birth weight infant.~~

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

~~1. Extremely Low Birth Weight (ELBW) patients are defined as having a birth weight less than 1000 grams and/or born at less than 28 weeks.~~

~~2. Very Low Birth Weight (VLBW) patients are defined as having a birth weight less than 1500 grams.~~

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

~~1. All patients admitted to the NICU with birth weight less than 1000 grams and/or born at 28 weeks gestational age or less are placed on minimal stimulation care for the first two weeks of life (minimum duration). Nursing discretion will determine if patients larger than 1000 grams require minimal stimulation care.~~

~~2. This policy applies to all caregivers, consultants, and other persons within the NICU.~~

~~3. This guideline defines the usual routines for practice with this population. Physician/Nursing discretion may require modification based upon individual patient needs.~~

~~4. Initiate ELBW/VLBW guidelines in process intervention.~~

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

~~1. At birth or upon admission (at first contact with NICU team), include minimal stimulation in care planning.~~

~~a. Hands-on (full) assessment every 4 - 6hours.~~

~~i. The first assessment of the shift will be a full hands-on assessment, correlating the vital signs with the monitor vital signs.~~

~~ii. Initiate exam by gentle vocalization and touch to improve infant's readiness for handling.~~

~~iii. Prioritize assessment to ensure most important parameters assessed first.~~

~~b. Minimal stimulation (non-contact) vital signs every 1 to 2 hours and prn. PRN includes, but is not limited to, recent history of instability of given parameter and/or alteration in clinical status.~~

~~i. Obtain heart rate from monitor.~~

~~ii. Observe respiratory rate.~~

~~iii. Axillary temperature with full assessments and prn.~~

iv. Blood pressure via arterial catheter transducer. If arterial catheter not present, with full assessment and prn (remove external BP cuff after each BP taken).

2. Optimize thermal stability per "Thermoregulation for VLBW Infants <32 weeks and/or 1500 grams."
   a. For those with birth weight less than 750 grams use a chemical blanket set at 38.9 to 40.6 degrees C only if a hybrid warmer/incubator is not available.
   b. Wean Chemical blanket before ambient heat. Remove Chemical blanket at 37.8 degrees C.
   c. Consider use of humidity (per physician's order), for infants < 30 weeks.
      i. Infants <30 weeks shall be admitted to giraffes and placed in humidity of 70% - 90% for first seven days. Petrolatum is not used during this time unless otherwise ordered by neonatologist or on a localized skin breakdown.
      ii. Use only sterile water in humidifier reservoir and check level each shift.
      iii. Decrease humidity to 50% after first seven days of life and continue until infant reaches 28 days of life. Petrolatum may be used at this level of humidity if there is evidence of skin breakdown.
      iv. If rainout occurs, decrease humidity by 5% until no further rainout is present.
   d. Maintain infant on servo mode.
   e. Alter above regimen based on infant's response to maintain stable temperature of 36.6° to 37.5° C.
   f. Use petrolatum sparingly every 8 to 12 hours, per physician order if **not in humidity**.
3. Coordinate exams with physician.
   a. Exam time ideally occurs at time of scheduled full nursing exam.
   b. Use physician findings for scheduled nursing exam, as applicable.
   c. Support infant during exam.
4. Monitor patient tolerance of assessment.
   a. Stop exam and provide supported time-out for signs of stress (apnea, desaturation, bradycardia, color changes, decreased blood pressure, etc.).
   b. Allow recovery before continuing, including full recovery of heart rate, oxygen saturation, and breathing.
5. Position to promote rest and appropriate flexion of extremities.
   a. Head of bed elevated 30°.
   b. Avoid hyperextension of neck.
   c. Minimize endotracheal tube movement.
   d. If in supine position, maintain positioning as close to midline as possible, but without direct pressure on the back of the head.
   e. Use positioning aides to promote slight adduction of shoulders and hips – minimize diaper bulk between legs.
   f. Nest infant with developmentally supportive devices. .
   g. Use other supportive devices – gel mattresses, beanbags, etc., as indicated (do not use gel or water-filled devices under head or torso if high-frequency ventilator in use).
   h. Keep extremities in slight flexion.
6. Minimize hand-ventilation. If necessary for resuscitation, use minimum amount of pressure and rate possible. If available, have T-piece respirator at bedside.
7. Suctioning: In collaboration with Respiratory Care Practitioner:
   a. Use extreme caution with suctioning, due to high risk of negative impact (de-compensation, pneumothorax, etc.).
   b. Only for clinical indications:
      i. Audible or visible ETT secretions with:
         1) increasing oxygen requirement, hypoxia, hypercapnia, etc.
         2) signs listed in b. may be due to other causes – judge carefully before choosing to suction.
   c. Minimize loss of functional residual capacity (FRC).
      i. Use in-line suction catheters.
      ii. Use maximum vacuum pressure of 60mmHg.
      iii. Support via ventilator (with settings changed as per suctioning policy), rather than manual ventilation whenever possible.

iv. Minimize suction time per catheter pass and number of catheter passes.
d. Do not use lavage, unless secretions are thick and/or occlusive.
e. Do not suction nares, nasopharynx.
f. Minimize suctioning of oropharynx.

8. Minimize environmental stimuli.
   a. Ideally, infant will be stabilized and admitted per Thermoregulation Procedure in a hybrid warmer/incubator. If this is not possible, move the infant to incubator on day one or two of life.
      i. Maintain incubator on "servo" or "skin" mode at 36.6 – 37.5° C.
   b. Limit conversation at bedside (quantity and volume).
   c. Minimize other auditory stimuli.
      i. No radios, tape players, etc. in warmer/isolette/hybrid.
      ii. Bed positioned away from admission bed and other high traffic areas, if possible.
      iii. Silence alarms prior to interventions known to trigger alarms.
      iv. Close incubator doors softly.
      v. Do not set objects down on top of incubators.
      vi. Do not tap on sides of incubator.
      vii. Do not chart on isolette.
      viii. Heartbeat simulator may be used, if tolerated.
   d. Minimize olfactory stimuli.
      i. Avoid personal used of scented soaps, lotions, and perfumes.
      ii. Minimize the use of scented products on the patient.
      iii. Provide unscented pacifiers.
      iv. Breast milk scent is not contraindicated.
   e. Minimize visual stimuli.
      i. Keep light exposure low.
         1) Use incubator cover when possible (leave corner of incubator uncovered so that the infant can be viewed at all times).
         2) Minimize ambient lighting as much as safe and practical.
         3) When necessary to use procedure lights, or when incubator cover not in use in high ambient lighting, cover eyes (but maintain head exposure to radiant heat, if in use).
      ii. Avoid leaving objects in infant's sight line, especially those with bright colors or black and white.
      iii. Avoid extended eye contact.
   f. Minimize vestibular and tactile stimuli.
      i. Use facilitated tucking and stabilizing touch – no stroking or patting.
      ii. Use slow, gentle position changing techniques, maintain flexion and boundaries.
      iii. Use pre-warmed linens, diapers, and equipment.
      iv. Utilize bed scale.
      v. Minimize bed transfers during first two weeks of life.
9. Support consultants and other NICU workers to comply with minimal stimulation concepts.
10. Do not apply pressure to the abdomen or bladder.
11. Minimize procedure-related stimuli.
   a. Group procedure and exam components for same time, as much as possible.
   b. Utilize facilitated tucking techniques to support infant throughout.
   c. Provide rest periods for infant indications of stress.
   d. Signs of stress include:
      i. Color change: cyanosis, mottling, pallor
      ii. Desaturations
      iii. Apnea
      iv. Hiccoughs
      v. Bradycardia
      vi. Sudden state change, especially "shutting down"
      vii. "Halt-hand", eye aversion, or other "time-out" signs
      viii. Facial grimace
   e. Allow full recovery of heart rate, oxygen saturation, and breathing before continuing.

f. Maintain arterial catheter for blood specimens, as possible.
g. Minimize labs and procedures.
i. Use least invasive techniques available.
ii. Unless labs are indicated emergently, limit cutaneous access (arterial, venous, or heel puncture) to no more frequently than every eight hours.
iii. When teaching is accomplished with infant, allow only demonstration (i.e., instructor demonstrates) – no handling of infant by student.
iv. Transition to standing scale when stable or per physician order.
1) Use in-bed scale, if available.
2) Zero/weigh on external scale with warmed blankets in use (pre-warm in isolette).
h. Use x-ray cassette tray for AP imaging, if available.

12. Support parents in positive interaction with infant.
a. Educate parents regarding minimal stimulation concepts.
b. Demonstrate/support/provide feedback regarding facilitated tucking and stabilizing touch techniques.
c. Reinforce importance of parental interactions within the framework of minimal stimulation.
d. Explain rationale prohibiting holding during initial two weeks of life (i.e., extreme postural changes result in extreme changes in cerebral blood flow, increasing risk of IVH) – offer alternatives as appropriate.

E. ANATOMIC AND PHYSIOLOGIC DIFFERENCES IN NEONATAL SKIN:

1. Underdevelopment of the stratum corneum: There are ten to twenty layers of stratum corneum in the adult and full-term infants, which provide control of evaporative heat loss and trans-epidermal water loss. Premature infants have fewer layers of stratum corneum – at 30 weeks they may have only two to three layers and at 24 weeks, they may have virtually none, thus the protective functions of the stratum corneum are deficient. Although the barrier function of the stratum corneum does mature at an accelerated rate during the first 14 days of life, skin barrier function is immature for 6 to 8 weeks in the premature, (25 weeks or less).
2. Diminished cohesion between epidermis and dermis: The fibrils which connect the epidermis to the dermis are widely spaced and fewer in the premature infant. They are at higher risk for injury from adhesive removal and for blistering from friction and thermal injury. Certain adhesives may have a stronger bond to the epidermis that that of the epidermis to the dermis, and epidermal stripping may result during adhesive removal.
3. Dermal instability: Collagen is deposited in the dermis during the last trimester and prevents the accumulation of fluid in this layer. Premature infants therefore, exhibit more edema, which puts them at risk for ischemic injury because of reduced blood flow. Protection from pressure and injury includes routine turning and the use of sheepskin.
4. Skin pH: An acid skin surface (pH <5), seen in adults has protective qualities against microorganisms. ("Acid Mantle"). If there is a shift in pH to neutral there may be an increase in numbers of bacteria and a shift in species. At birth, full term newborns have an alkaline skin surface (pH 6) but within four days, the pH falls to 4.95. It can take four weeks for premature infants' pH to fall below 5.

F. SKIN CARE:

1. Measures will be taken to prevent the skin breakdown of all infants at risk.
2. Adhesives will be used sparingly to promote skin integrity. No bonding agents or band-aids shall be used.
3. Emollients will be used to protect or restore skin integrity.
4. A combination of techniques to reduce transepidermal water loss and minimize evaporative heat loss in premature infants ≤ 30 weeks gestation will be used in the NICU.
5. Moist healing will be provided for all areas of breakdown/wounds.
6. Assess the neonatal skin at least every 12 hours with careful attention to skin folds, observing for any sign of skin breakdown. Skin folds are to be wiped with sterile water every shift.

G. BATHING:

1. Skin should be cleansed only using warm sterile water during the first two weeks of life. Use soft materials such as gauze pad or cotton balls. Rubbing should be avoided and if areas of breakdown are evident use warm sterile water. Water can be squeezed onto the skin during rinsing.

H. EMOLLIENTS:

1. Use of petrolatum (aquaphor):
   a. Requires a physician's order.
   b. At the first sign of dryness, fissures, flaking or skin breakdown, apply petrolatum every 12 hours, (or as needed to provide moist healing of any areas of breakdown) if no humidity used.
   c. Observe carefully for the development of systemic infections, such as coagulase negative staphylococcus infections, especially in neonates <750 grams.
   d. Emollients may be used during phototherapy or while under radiant warmer.

I. TRANS-EPIDERMAL WATER LOSS (TEWL), HEAT LOSS IN INFANT <32 WEEKS GESTATION

1. Pre-heated polyurethane wrap covering the body, torso and extremities is to be used immediately after delivery during stabilization to reduce the postnatal temperature decrease caused by excessive evaporative heat loss. If wrap needs to be removed for life saving measures, dry the infant with a pre-heated towel to prevent evaporative heat loss. The wrapping should be removed after the neonate has been admitted to the NICU.
2. Port-a-warm mattresses are to be used in the delivery room and transport to NICU from L&D with the very low birth weight infants to help prevent excessive heat loss.
3. A knitted cap will be placed on the head of the infant immediately after delivery.
4. Infants <32 weeks shall be admitted to giraffes.
5. Infants < 30weeks shall be placed in humidity of 70% - 90% for first seven days, decrease to 50% until 28 days of life. **Petrolatum is not used during this time unless otherwise ordered by the neonatologist or on a localized area of skin breakdown.**

J. SKIN BREAKDOWN PREVENTION

1. To prevent pressure sores, place any infant <32 weeks gestation or any vented infant on memory foam mattress. Infants <30 weeks gestation may be placed on a memory foam mattress or a combination of gel pillows/memory foam mattresses so that the infant's entire body is upon gel/memory foam.
2. Petrolatum may be applied to the groin and creases of very low birth weight infants.
3. Infants will be turned every 3 to 6 hours, as condition tolerates.
4. Oximetry probe sites shall be changed every 8 hrs and prn.
5. Those infants on a paralytic medication shall have lacrilube put in their eyes a minimum of once per shift. If needed, paper tape may be used sparingly to ensure the eyes remain closed.
6. Commercial heel warmers only will be used for warming extremities.
7. Cannulaides will be used to protect the nasal septum of infants on nasal CPAP.

K. DOCUMENTATION

1. Document skin care assessment on the NICU assessment form in the electronic medical record (EMR). Indicate any variance from normal and any intervention required.
2. Document completion of initial bath in the EMR.
3. Assessment of skin breakdown will be documented on the EMR.
4. Document in the care plan the humidity order with the initiation and discontinuance dates.

L. EXTERNAL LINKS:

M. REFERENCES

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3. Edwards, E., Conner, J., & Soll, R. (2004). The Effect of Prophylactic Ointment Therapy on Nosocomial Sepsis Rates and Skin Integrity in Infants with Birth Weights of 501 to 1000 grams. *Pediatrics,* 113(5).
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8. Nurses Society Position Statements (1996). Pressure Ulcers, WOCN: Wound Ostomy and Continence.

N. APPROVAL PROCESS

1. Clinical Policies & Procedures Committee
2. Nurse Executive Council
3. Medical Executive Committee
4. Professional Affairs Committee
5. Board of Directors

DELETE — Procedure is obsolete and is no longer needed.

Tri-City Medical Center	Women's an - NICU

PROCEDURE: NON-EMERGENT NEONATAL ENDOTRACHEAL INTUBATION

Equipment:

~~1. Laryngoscope~~
~~2. Blades and suggest weight range:~~
~~a. Size "OO" <700 gms~~
~~b. Size "0" Miller <700-3500 gms~~
~~c. Size "1" Miller >3500 gms~~
~~3. Endotracheal Tubes (ETT) and Suction Catheter Size:~~
~~a. 2.5mm 5-6 Fr~~
~~b. 3.0mm 8 Fr~~
~~c. 3.5mm 8 Fr~~
~~d. 4.0mm 8 or 10 Fr~~
~~4. Stylet (if necessary)~~
~~5. Anesthesia bag connected to 100% oxygen source to keep saturations ≥95%~~
~~6. Face masks~~
~~a. Large~~
~~b. Small~~
~~7. Skin prep/ETT adapter~~
~~8. Suction equipment~~
~~9. Pedi-cap end tidal CO_2 detector~~
~~10. Pulse oximeter and audible heart rate monitor~~
~~11. Meconium aspirator (optional)~~
~~12.~~**1.** ~~Shoulder roll (optional)~~

~~Issue Date: 8/12~~ ~~Revision Date:~~

A. ~~**Rationale:**~~

1. ~~Endotracheal intubation involves passing an endotracheal tube (ETT) through either the nares or the mouth to the mid trachea. This painful procedure is routinely performed in the NICU and without premedication is associated with adverse physiological effects, including bradycardia, changes in blood pressure, hypoxia, increased pulmonary hypertension and increases in intracranial pressure (ICP). Indications for endotracheal intubation include resuscitation at delivery, obstructive lesions of the airway, inter-operative airway management, prolonged apnea, diaphragmatic hernia, and respiratory failure.~~
2. ~~The American Academy of Pediatrics (AAP) consensus statement on prevention and management of pain and stress in the neonate recommends use of appropriate environmental, non-pharmacologic and pharmacologic interventions to prevent, reduce or eliminate stress and pain in neonates.~~
3. ~~Multiple trials have concluded that premedication for endotracheal intubation "significantly improve intubating conditions, decreases the time and number of attempts needed to complete the intubation procedure, and minimizes the potential for intubation-related airway trauma." A recent study by Roberts et al. concluded that premedication in combination with a short-acting muscle relaxant should be considered for all non-emergent intubations in the NICU. They also concluded that intubation was successfully completed in ≤ 2 attempts more than twice as often when a muscle relaxant was administered.~~
4. ~~A recent consensus statement from the International evidence-based group for neonatal pain concluded, "tracheal intubation without the use of analgesia or sedation should be performed only for resuscitation in the delivery room or for life threatening situations associated with the unavailability of intravenous access."~~

Department Review	Perinatal Collaborative Practice	Division of Neonatology	Pharmacy and Therapeutics	Medical Executive Committee	Professional Affairs Committee	Board of Directors
05/16	08/16	08/16	n/a	09/16		

5. Intubation without premedication is acceptable in the delivery room, during resuscitation or if there is sufficient risk/benefit ratio not to use premedication such as in newborns with difficult airways anomalies such as Pierre Robin sequence.
6. Current recommendations are to administer supplemental oxygen as needed via properly sized face mask followed by a vagolytic agent then analgesic and/or hypnotic medication before infusion of a muscle relaxant. A vagolytic such as Atropine prevents bradycardia. The analgesia such as Morphine or Fentanyl will provide pain relief and finally a muscle relaxant such as Cisatracurium or Vecuronium.

B. POLICY:

Intubations must be performed by healthcare workers with additional training who have successfully completed NRP training. All patients will be assessed prior to intubation for pre-medication needs by attending physician. Medications for planned non-emergent neonatal intubations include Atropine, Fentanyl or Morphine, and Cisatricurium or Vecuronium. Intubations will be documented as per TCMC documentation standards in the EMR.

C. RESPONSIBLE PARTIES:

1. All Neonatologists, WCS RNs and respiratory care practitioners.

D. PROCEDURE:

1. All responsible staff are present and responsibilities assigned prior to and during the procedure.
2. Infants undergoing the procedure receive continuous cardiorespiratory monitoring, oxygen saturation, blood pressure monitoring.. Intravenous access is established prior to the procedure. An end tidal carbon dioxide detector is readily available at the bedside.
3. An oxygen source with appropriate sized face mask, endotracheal tubes, stylet, laryngoscope and wall suction are available for use throughout the procedure.
4. Pre-medications for planned neonatal intubation should be available and checked by the intubation physician prior to administration.
5. Medications and dosages are as follows:
   a. Atropine 20mcg/kg IV followed in 1-2 minutes by Fentanyl 2-4mg/kg IV given slowly over 2 minutes OR Morphine 0.05-0.1 mg/kg IV followed in 1-2 minutes by Vecuronium 0.1 mg/kg/dose or Cisatricurium 0.1 mg/kg/dose.
      i. ***Precautions:*** *Fentanyl can cause chest wall rigidity and make it difficult to effectively oxygenate. This can be reduced by slow administration and can be treated with either naloxone or muscle relaxants.*
6. Confirmation of endotracheal intubation is required via auscultation of chest, end tidal dioxide detector and follow-up of chest x-ray to confirm ETT placement.

E. EXTERNAL LINKS:

F. REFERENCES:

1. American Heart Association (AHA) & American Academy of Pediatrics (AAP). (2010) *Neonatal Resuscitation Textbook, 6th ed.*
2. American Academy of Pediatrics (AAP). (2000). Prevention and Management of Pain and Stress in th Neonate. *Pediatrics,* 105(2), 454-461.
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4. Barrington, K.J., Finner, N.N., & Etches, P.C. (1989). Succinylcholine and atropine for premedication of the newborn before nasotracheal intubation; a randomized, control trial. *Critical Care Medicine*, 17(12), 1293-6.
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9. Millar, C, & Bissonnette, B. (1994). Awake intubation increases intracranial pressure without affecting cerebral blood flow velocity in infants. *Canadian Journal of Anaesthesia*, 41(4), 281-7.
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G. **APPROVAL PROCESS**

1. Clinical Policies & Procedures Committee
2. Nurse Executive Council
3. Medical Executive Committee
4. Professional Affairs Committee
5. Board of Directors

Tri-City Medical Center
Oceanside, California

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WOMEN AND NEWBORN SERVICES
NEONATAL INTENSIVE CARE UNIT (NICU)

SUBJECT: PALLIATIVE CARE OF THE NEONATE AT THE END OF LIFE

ISSUE DATE: 07/07
REVISION DATE: 05/08, 4/09, 6/11, 8/12

Department Approval Date(s):	05/16
Perinatal Collaborative Practice Approval Date(s):	08/16
Division of Neonatology Approval Date(s):	08/16
Pharmacy and Therapeutics Approval Date(s):	n/a
Medical Executive Committee Approval Date(s):	09/16
Professional Affairs Committee Approval Date(s):	
Board of Directors Approval Date(s):	

A. **PURPOSE**:

1. To provide a supportive atmosphere for grieving families who have experienced a newborn death. ~~and assist them in resolving their grief.~~
2. **To provide interventions in caring for the dying patient that is directed toward maximizing comfort and providing support for the patient/family/significant others**.
3. **To provide emotional, spiritual, and cultural support with respect for patient/family/significant others values and preferences.**

B. **POLICY:**

1. Palliative care focuses on relieving the newborn's pain and symptoms while extending emotional and spiritual support for the newborn and family. Palliative care provides non-curative interventions that address the physical, emotional, social, cultural, and spiritual needs of neonates and their families at the end of life.
   a. Palliative care seeks to ensure that bereaved families are able to remain functional and intact.
   b. Palliative care includes the control of pain and other symptoms and addresses the psychological, social or spiritual problems of the neonate and family.
   c. The needs and feeling of the parent (s) will be respected.
   d. The institution of palliative care should be prompt.
   e. Decisions should be collaborative and clearly communicated.
   f. The following guidelines apply to the care of neonates in either of three situations:
      i. Following the decision not to resuscitate (i.e. non-viability, conditions incompatible with life)
      ii. From the point at which resuscitative efforts/treatments are withdrawn
   g. The palliative care neonate is a 1:1 or no greater than a 1:2 assignments due to the needs of the family during the dying process.

C. **EQUIPMENT:**

1. Personal protective equipment
2. Infant scale
3. Disposable tape measure
4. Memory box
5. Baby clothes: hats, booties, blanket
6. Camera/film
7. Bathing supplies

D. **PROCEDURE:**

~~1. No Resuscitation~~

~~a. Before delivery:~~

~~i. Assess caregiver and family psychosocial status.~~

~~ii. Initiate checklist for newborn loss and palliative care.~~

~~iii. Request consultations as needed (neonatology, pastoral care, social work, parent support group).~~

~~iv. Offer spiritual/pastoral care (baptism, blessing, other family rituals)~~

~~b. After delivery (**with parental involvement**) – in no specific order:~~

~~i. Provide privacy for caregiver/family.~~

~~ii. Place hat on newborn's head and wrap in blanket~~

~~iii. Give newborn to caregiver/family to hold: when not held, place in isolette or crib.~~

~~iv. Request consultation as needed (neonatology, pastoral care, social services, parent support group) if not done before delivery.~~

~~v. Offer spiritual/pastoral care (baptism, blessing, other family rituals) if not done before delivery.~~

~~vi. Check newborn heart rate every 30 minutes.~~

~~vii. Provide mementos at the request of caregiver.~~

~~c. After delivery (**without parental involvement**) – in no specific order:~~

~~i. Place hat on newborn's head and wrap in blanket.~~

~~ii. Take the infant to the NICU if comfort care is not possible in Labor and Delivery.~~

1. **Process:** ~~Care of the infant in the NICU – in no specific order~~

~~d.~~**a. When a transition to palliative end-of-life care is made, a quiet and comforting environment is created**:

i. Alarms are turned off. Pagers/phones are turned to silent to avoid disturbing those in attendance.

ii. Routine vital sign measurement and lab analyses are ceased.

iii. Pain assessments should be continued and may need to be done more frequently to identify infant distress.

iv. No painful assessments (heel sticks, blood gases) are done.

~~i.~~**v.** Provide privacy for patient and family. If unable to provide a quiet area in NICU, a room on OB may be requested.

vi. Assist parent/family to hold newborn; when not held, place in isolette or crib.

~~ii.~~**vii. Visiting hours and sibling restrictions are waived.**

~~iii. Request consultation as needed if not done before delivery.~~

~~iv. Offer spiritual/pastoral care (baptism, blessing, family rituals).~~

~~v. Check newborn heart rate every 30 minutes.~~

~~Provide mementos as appropriate~~

b. Care of family is a central focus.

~~vi.~~**i. Physical, emotional, and spiritual comfort is provided**.

~~vii.~~**ii. Mothers may need normal postpartum nursing assessments and interventions and will need assistance with lactation cessation or milk donation.**

c. Making memories is an important part of palliative and end-of-life care.

i. Family photographs have been found helpful in many cultures. Many communities have photographers who specialize in this work. Photographs of the child can be kept on file for families who may not wish to have them at the time of death.

ii. Handprints, footprints, and locks of hair have been appreciated.

iii. Special spiritual or religious ceremonies can provide comfort.

iv. Introducing the child to the extended family can be important.

v. Kangaroo care has provided family comfort.

vi. There are occasions of multiple births in which some infants die and some infants live. These families will need special attention, such as photos of all

the infants together; there are special community support groups for this type of loss.

2. ~~Withdrawal of Life-Prolonging Therapies~~ **Palliative care may include removal of life-sustaining technology:**
   a. Ensure physician has confirmed decision to withdraw life-prolonging therapies.
   b. Offer family support as needed, allow for support personnel requested by family to be present with them.
   c. Stop all infusions except for pain and/or sedation; IV converted to saline lock.
   d. Administer analgesia as needed based on clinical signs.
   e. Place hat on newborn's head and wrap newborn in blanket.
   f. Allow parent/family to hold infant;
      i. When not held, place in isolette or crib.
   ~~g. Provide mementos: Picture of infant, footprints and handprints will be taken if requested by family and placed in memory box.~~
   ~~h.~~**g.** An RN will weigh, measure, and bathe infant if needed.
   ~~i.~~**h.** Patient and family will be allowed adequate time with infant prior to morgue or pathology.
3. **Removal of ventilatory support**
   a. Infants should be weaned off any neuromuscular-blocking agents.
   b. Vasopressors and antibiotics may be ceased.
   c. Parents can decide who should be present and how the process will go.
   d. Nurses should explain the process to parents, including as many details as the parent wishes to hear.
   e. Infants should be held in a parent's or staff member's arms. Some parents may not wish to hold a dying infant.
   f. Gentle suction of the endotracheal tube may be done and the endotracheal tube is removed.
   g. Tape and additional lines can be removed.
   h. Frequent pain and symptom assessment continues.
   i. If respiratory discomfort exists, medication such as morphine should be given. Oxygen usually is not given.
4. **Support services also should be offered to all members of the healthcare team. Facilitated debriefing after difficult deaths is essential.**

~~3.~~**5.** Complete the following after the family viewing (preparation for the morgue):
   ~~i. Take photos (if requested by family).~~
   ~~ii.~~**i.** Attach identification bracelet to arm of newborn. This allows correct identification for mortuary or correct disposition of fetal remains.
   ~~iii.~~**ii.** Place newborn on disposable drape, wrap in receiving blanket, and a second disposable drape and secure with tape.
   ~~iv.~~**iii.** Arrange for body to be taken to the Morgue.
   ~~v.~~**iv.** If the patient requests to see infant again notify the Unit or Administrative Supervisor who will call transport to retrieve the infant from the morgue or pathology.
   ~~vi.~~**v.** The infant will be re-dressed and taken to the mother's room or to a pre-arranged private area.

E. **DOCUMENTATION:**
1. Caregiver's psychosocial response to perinatal loss and interaction with infant in patient's medical record.
2. Complete unit log book with time of birth/delivery, time of expiration.
3. Comfort measures provided.

~~F. EXTERNAL LINKS:~~

~~G.~~**F.** **REFERENCES:**
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3. National Association of Neonatal Nurses (2011). Policy: Palliative Care. Policies, Procedures, and Competencies for Neonatal Nursing Care.
~~3.~~**4.** Stringer, M., Shaw, V., & Savani, R. (2004). Comfort care of neonates at the end of life. Neonatal Network; 23 (5): 41 - 45.

Tri-City Medical Center
Oceanside, California

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WOMEN AND NEWBORN SERVICES
NEONATAL INTENSIVE CARE UNIT (NICU)

SUBJECT: **PALLIATIVE CARE OF THE NEONATE AT THE END OF LIFE**

ISSUE DATE: **07/07**
REVISION DATE: **05/08, 4/09, 6/11, 8/12**

Department Approval Date(s):	**05/16**
Perinatal Collaborative Practice Approval Date(s):	**08/16**
Division of Neonatology Approval Date(s):	**08/16**
Pharmacy and Therapeutics Approval Date(s):	**n/a**
Medical Executive Committee Approval Date(s):	**09/16**
Professional Affairs Committee Approval Date(s):	
Board of Directors Approval Date(s):	

A. **PURPOSE**:
1. To provide a supportive atmosphere for grieving families who have experienced a newborn death.
2. To provide interventions in caring for the dying patient that is directed toward maximizing comfort and providing support for the patient/family/significant others.
3. To provide emotional, spiritual, and cultural support with respect for patient/family/significant others values and preferences.

B. **POLICY:**
1. Palliative care focuses on relieving the newborn's pain and symptoms while extending emotional and spiritual support for the newborn and family. Palliative care provides non-curative interventions that address the physical, emotional, social, cultural, and spiritual needs of neonates and their families at the end of life.
   a. Palliative care seeks to ensure that bereaved families are able to remain functional and intact.
   b. Palliative care includes the control of pain and other symptoms and addresses the psychological, social or spiritual problems of the neonate and family.
   c. The needs and feeling of the parent (s) will be respected.
   d. The institution of palliative care should be prompt.
   e. Decisions should be collaborative and clearly communicated.
   f. The following guidelines apply to the care of neonates in either of three situations:
      i. Following the decision not to resuscitate (i.e. non-viability, conditions incompatible with life)
      ii. From the point at which resuscitative efforts/treatments are withdrawn
   g. The palliative care neonate is a 1:1 or no greater than a 1:2 assignments due to the needs of the family during the dying process.

C. **EQUIPMENT:**
1. Personal protective equipment
2. Infant scale
3. Disposable tape measure
4. Memory box
5. Baby clothes: hats, booties, blanket
6. Camera/film
7. Bathing supplies

D. **PROCEDURE:**

1. Process:
   a. When a transition to palliative end-of-life care is made, a quiet and comforting environment is created:
      i. Alarms are turned off. Pagers/phones are turned to silent to avoid disturbing those in attendance.
      ii. Routine vital sign measurement and lab analyses are ceased.
      iii. Pain assessments should be continued and may need to be done more frequently to identify infant distress.
      iv. No painful assessments (heel sticks, blood gases) are done.
      v. Provide privacy for patient and family. If unable to provide a quiet area in NICU, a room on OB may be requested.
      vi. Assist parent/family to hold newborn; when not held, place in isolette or crib.
      vii. Visiting hours and sibling restrictions are waived.

   b. Care of family is a central focus.
      i. Physical, emotional, and spiritual comfort is provided.
      ii. Mothers may need normal postpartum nursing assessments and interventions and will need assistance with lactation cessation or milk donation.
   c. Making memories is an important part of palliative and end-of-life care.
      i. Family photographs have been found helpful in many cultures. Many communities have photographers who specialize in this work. Photographs of the child can be kept on file for families who may not wish to have them at the time of death.
      ii. Handprints, footprints, and locks of hair have been appreciated.
      iii. Special spiritual or religious ceremonies can provide comfort.
      iv. Introducing the child to the extended family can be important.
      v. Kangaroo care has provided family comfort.
      vi. There are occasions of multiple births in which some infants die and some infants live. These families will need special attention, such as photos of all the infants together; there are special community support groups for this type of loss.
2. Palliative care may include removal of life-sustaining technology:
   a. Ensure physician has confirmed decision to withdraw life-prolonging therapies.
   b. Offer family support as needed, allow for support personnel requested by family to be present with them.
   c. Stop all infusions except for pain and/or sedation; IV converted to saline lock.
   d. Administer analgesia as needed based on clinical signs.
   e. Place hat on newborn's head and wrap newborn in blanket.
   f. Allow parent/family to hold infant;
      i. When not held, place in isolette or crib.
   g. An RN will weigh, measure, and bathe infant if needed.
   h. Patient and family will be allowed adequate time with infant prior to morgue or pathology.
3. Removal of ventilatory support
   a. Infants should be weaned off any neuromuscular-blocking agents.
   b. Vasopressors and antibiotics may be ceased.
   c. Parents can decide who should be present and how the process will go.
   d. Nurses should explain the process to parents, including as many details as the parent wishes to hear.
   e. Infants should be held in a parent's or staff member's arms. Some parents may not wish to hold a dying infant.
   f. Gentle suction of the endotracheal tube may be done and the endotracheal tube is removed.
   g. Tape and additional lines can be removed.
   h. Frequent pain and symptom assessment continues.
   i. If respiratory discomfort exists, medication such as morphine should be given. Oxygen usually is not given.

4. Support services also should be offered to all members of the healthcare team. Facilitated debriefing after difficult deaths is essential.
5. Complete the following after the family viewing (preparation for the morgue):
    i. Attach identification bracelet to arm of newborn. This allows correct identification for mortuary or correct disposition of fetal remains.
    ii. Place newborn on disposable drape, wrap in receiving blanket, and a second disposable drape and secure with tape.
    iii. Arrange for body to be taken to the Morgue.
    iv. If the patient requests to see infant again notify the Unit or Administrative Supervisor who will call transport to retrieve the infant from the morgue or pathology.
    v. The infant will be re-dressed and taken to the mother's room or to a pre-arranged private area.

E. DOCUMENTATION:

1. Caregiver's psychosocial response to perinatal loss and interaction with infant in patient's medical record.
2. Complete unit log book with time of birth/delivery, time of expiration.
3. Comfort measures provided.

F. REFERENCES:

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PROCEDURE:	**PERIPHERAL ARTERIAL LINE (PAL): INSERTION, MAINTENANCE, AND REMOVAL OF**
Purpose:	To facilitate the efficient aseptic and complication free insertion of a peripheral arterial line for monitoring blood pressure and obtaining arterial blood samples.
~~Supportive Data:~~	
Equipment:	1. Non-sterile Gloves 2. ~~Cholrhexidine~~**2% chlorhexidine gluconate** swabs 3. Infusion solution 4. IV tubing 5. transducer 6. 3 ml syringe 7. Leur-lock ~~(preferred) or Slip-tip~~ t-connector 8. 22 or 24 gauge angiocath**eter** 9. Tape 10. Transparent dressing 11. IV infusion pump 12. Light source transilluminator 13. IV board 14. Cotton balls

A. **POLICY:**

1. Placement of a peripheral arterial line is done by a physician **or allied health professional (AHP)**.
2. Transparent dressing will be placed over the site for stabilization and to allow continuous visualization of skin around catheter insertion site.
3. Excessive extension of extremity is to be avoided to prevent occlusion of artery.
4. Fingertips or toes are to be exposed so that circulatory status can be monitored.
5. Usual infusion is ½ NS or NS with 1 ~~to 2~~ units heparin/ml at a rate of 0.5 to 1 ml/hour. Infusions into PALs should not exceed 1 ml/hour.
6. Infusion is to run continuously on an infusion pump with a transducer to monitor blood pressure.
7. No medications, glucose, blood products or any rapid bolus will be administered through a PAL.
8. The physician **or AHP** will be notified if there is blanching, cyanosis, circulatory compromise, bleeding, dampened waveform or difficulty drawing blood from the PAL.

B. **PROCEDURE (ASSISTING WITH PAL INSERTION):**

1. Perform hand hygiene.
2. Confirm patient identity using two-identifier system~~. Refer to Patient Care Services "Identification, Patient" (IV.A) policy~~
3. Immobilize patient with developmentally supportive methods, such as swaddling.
4. Attach syringe containing **heparinized** flush solution to leur-lock T-connector- **and flush the connector.** ~~(preferred) or slip-tip T-connector~~.
5. ~~Flush T-connector.~~
6. **5.** Dim lights if transilluminator is being used to visualize artery.
7. **6.** Provide pain management as indicated.
8. **7.** Don non-sterile gloves.
8. Assist with immobilizing the extremity during catheter insertion.
9. **Assist the physician or AHP as necessary with cleansing the area of insertion using 2% chlorahexidine gluconate for 30 seconds and allow to dry for 1 minute. .**
10. Assist physician **or AHP** as necessary with securing the line.

NICU Department Review	Perinatal Collaborative Practice	Division of Neonatology	Pharmacy and Therapeutics	Medical Executive Committee	Professional Affairs Committee	Board of Directors
05/14, **4/16**	06/14	06/14	**n/a**	**07/14, 08/16**	08/14	08/14

11. Connect the flushed tubing with the Luer-Lok adapter to the arterial catheter.

~~11.~~**12.** Assist with taping or placement of an occlusive dressing.

~~12.~~**13.** Apply an arm or foot board. Dressing is applied in a manner as to display all digits as much as possible.

~~13. Once artery is cannulated, attach t-connector firmly to cannula, gently flush and clamp. If slip-tip T-connector is used, make sure it is taped securely to prevent accidental disconnection and blood loss.~~

14. Attach T-connector to transducer and IV tubing. Unclamp the T-connector and begin fluid administration.

15. Discard used supplies in appropriate receptacles, remove gloves, and perform hand hygiene.

16. Documentation of insertion in patient's medical record:
    a. Cannula size and type
    b. Location of arterial site
    c. Date and time of procedure
    ~~d. How procedure was tolerated~~
    ~~e. Estimated blood loss~~
    ~~f.~~**d.** Characteristics of waveform on monitor
    ~~g.~~**e.** Perfusion of extremity

C. **MAINTENANCE:**

1. Assess the neurovascular and peripheral vascular status of the cannulated extremity immediately after catheter insertion and hourly or more often if warranted.
2. The transducer is calibrated once a shift and PRN:
    a. Open the transducer stopcock to air by turning it off to the patientand loosening the non-vented cap while maintaining sterility..
    b. Maintain transducer at the level of the infant's right atrium.
    c. Press "zero" on the monitor.
    d. Replace cap and close stopcock to air by opening stopcock to infant.
    e. If waveform dampens:
        i. Check connections.
        ii. Flush transducer if bubbles are present.
        iii. Check selected pressure scale on monitor.
        iv. Recalibrate transducer.
        v. Compare cuff blood pressure (BP) to arterial reading.
        vi. Change stopcock and transducer.
        vii. Notify physician if interventions do not correct waveform.
3. Daily Documentation:
    a. **Hourly invasive** ~~B~~**blood p**~~P~~**pressure** ~~and vitals~~ per Standards of Care.
    b. ~~Correlating c~~**C**uff BP once per shift **and prn**
    ~~c. Location~~
    ~~d.~~**c.** Hourly site checks including: **location,** site status, extremity color, waveform assessment

D. **BLOOD SAMPLING:**

1. Equipment:
    a. Non-sterile Gloves
    b. ~~Cholrhexidine~~**2% chlorhexidine gluconate** swabs
    c. ABG syringe sampling kit/lab tubes
    d. 22-25 gauge needle
    e. 2x2 gauze
2. Procedure:
    a. Perform hand hygiene.
    b. Confirm patient identity using two-identifier system.
    c. Don non-sterile gloves.

d. Place 2x2 gauze under t-connector port.
e. Clean diaphragm with ~~Cholrhexidine~~**2% chlorhexidine gluconate** swab for 30 seconds. Allow to dry for 30 seconds.
f. Clamp -t-connector close to the hub with attached clamp. Keep infusion pump running.
g. Insert needle into t-connector port.
h. Allow three drops of blood to flow onto 2x2 **gauze**.
i. Fill lab tubes directly from the needle hub by allowing the blood to drip directly into the lab tube.
j. For ABG sample, adjust plunger on the ABG syringe to the 0.2ml mark then insert the syringe into the needle hub and allow the syringe to fill.
k. Withdraw the needle carefully and activate the safety mechanism.
l. Release clamp on the t-connector, allowing backpressure from pump to flush line.
m. Dispose of needle in the sharps container.
n. Remove gloves and perform hand hygiene.
o. Label labs with the appropriate patient information.

E. CATHETER REMOVAL:

1. Perform hand hygiene.
2. Confirm patient identity using two-identifier system. ~~Refer to Patient Care Services "Identification, Patient" (IV.A) policy~~
3. Don non-sterile gloves.
4. Turn infusion pump off **and clamp the T-connector**.
5. Remove dressing and tape.
6. Pull catheter out**, applying pressure with a sterile gauze pad over the site while removing the catheter** and assess intactness of catheter.
7. Apply pressure over insertion site with sterile 2x2 gauze ~~,for a minimum of five minutes and re-evaluate every five minutes until bleeding stops.~~
8. Discard used supplies in appropriate receptacles.
9. Remove gloves and perform hand hygiene.
10. Document the procedure in the patient's medical record.

F. REFERENCES

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SUBJECT: STAFFING RATIOS FOR SOCIAL SERVICES IN THE NICU

ISSUE DATE: 8/06
REVISION DATE: 05/08, 4/09, 06/11, 8/12

Department Approval Date(s):
Division of Neonatology Approval Date(s): n/a
Pharmacy and Therapeutics Approval Date(s): n/a
Medical Executive Committee Approval Date(s): n/a
Professional Affairs Committee Approval Date(s):
Board of Directors Approval Date(s):

A. **PURPOSE:**

1. To ensure appropriate staffing of social workers in the neonatal intensive care unit (NICU), as well as maintaining compliance with California Children's Services (CCS) regulations.

B. **POLICY:**

1. **Social work services shall be provided in the NICU by a CCS-paneled medical social worker (MSW) holding a master's degree in social work that has expertise in psychosocial issues affecting the families of seriously ill neonates/infants.**
2. **For every 15 patients in the NICU, there shall be one full-time equivalent MSW.** ~~It is the policy of Tri-City Medical Center to assign a full-time social worker for every 15 babies in the NICU. The full-time social worker will be CCS paneled with experience in the NICU and have expertise in community resources and psychosocial issues affecting the families of ill neonates.~~
~~1.~~**3. There shall be 24-hour coverage by a MSW for the NICU, which includes on-call coverage.**

C. **PROCEDURE:**

1. When the NICU census is over fifteen (15), CCS standards will be maintained. Assistance will be provided by a CCS paneled social worker to ensure that staffing ratios are maintained.
2. If additional assistance is required, the NICU social worker will request assistance from other staff social workers through the Social Services Supervisor.
3. All social workers providing assistance in the NICU will be CCS paneled.
4. The NICU social worker will determine which cases the additional social worker will assist with during the high census.
   a. This decision is based on the complexity of the case, family's history, expected length of stay and current needs.
5. The social worker may be asked to assist with cases including: completing assessments on short-term admits with limited needs; a weekly follow-up with a family whose infant has an expected short-term stay; or a weekly follow-up with a family whose infant is experiencing a long-term stay, but infant is stable.
6. If there are no patients that meet the above criteria, the NICU social worker will need to assess which families have the least need at that time. The social worker may also be asked to assist with patients that are discharging.
7. When the NICU census returns to fifteen, the full-time NICU social worker will resume care of the patient/family.

D. **REFERENCES:**

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~~1.~~**2. California Department of Health Care Services (1999).** California Children's Services Manual **of Procedures~~,~~ Chapter 3.25** ~~1999~~.

Tri-City Medical Center
Oceanside, California

WOMEN'S AND NEWBORN'S SERVICES (WNS)
NEONATAL INTENSIVE CARE UNIT (NICU)

SUBJECT: STANDARDS OF NURSING CARE – NICU

ISSUE DATE: **NEW**
REVISION DATE(S):

Department Approval Date(s):	**08/16**
Perinatal Collaborative Practice Approval Date(s):	**08/16**
Division of Neonatology Approval Date(s):	**08/16**
Pharmacy and Therapeutics Approval Date(s):	**n/a**
Medical Executive Committee Approval Date(s):	**09/16**
Professional Affairs Committee Approval Date(s):	
Board of Directors Approval Date(s):	

A. **PREAMBLE:**

1. Neonatal nursing care is delivered in an environment that respects the goals, preferences, and patient rights of the neonate and their family from admission, through the continuum of care, to discharge. The specially trained nursing staff functions within established policies and procedures and adheres to the standards and guidelines set forth by the California Nurse Practice Act and the National Association of Neonatal Nurses. 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. **POLICY**:

1. To provide guidelines that describe the basic level of care all patients can expect to receive.
2. All nursing care is provided in collaboration with the multidisciplinary healthcare team and the family to implement an individualized plan of care. Neonatal nurses will assess, plan, implement, evaluate, and document the patient's plan of care to promote optimal outcomes.
3. Nursing staff in the neonatal care areas will be knowledgeable about and adhere to all applicable unit and hospital policies.
4. Nursing staff will be competent in the care of infants to whom they are assigned.

C. **DEFINITIONS:**

1. **Standards of Care:** "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.
2. **Nursing Process:** 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 patients and their caregivers, maintaining a patient safe environment, and patient health care promotion and the planning for continuity of care. "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 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).

a. The nursing process includes the following:
   i. **Assessment:** The neonatal nurse collects comprehensive data on the healthcare needs of the infant and family.
   ii. **Diagnosis:** The neonatal nurse analyzes the assessment data in determining nursing diagnosis.
   iii. **Outcomes Identification:** The neonatal nurse identifies expected individualized outcomes of care based on needs of the infant and infant's family.
   iv. **Planning:** The neonatal nurse develops a plan of care that prescribes interventions to attain expected outcomes.
   v. **Implementation:** The neonatal nurse implements the interventions identified in the plan of care.
   vi. **Coordination of Care:** The neonatal nurse coordinates care across the continuum by providing information to families.
   vii. **Health Teaching and Health Promotion:** The neonatal nurse employs strategies to promote a healthy, safe and nurturing environment.
   viii. **Evaluation:** The neonatal nurse evaluates the progress of the infant and family toward the attainment of established, expected outcomes.

3. **Patient:** Recipient of nursing care.
4. **Health Care Providers:** Individuals with special expertise who provide healthcare services or assistance to clients.
5. **Significant Others:** Family members and/or those significant to the patient.
6. **Reasonable and a Timely Manner:** Defined as within 4 hours after completion of assessments or care provided.
7. **Extremely Low Gestational Age Newborn (ELGAN):** defined as any neonate born at less than 28 completed weeks gestation.

D. PATIENT ADMISSION:

1. Outcome criteria:
   a. Neonatal nurses will provide ongoing nursing care in collaboration with the multidisciplinary team and family to implement an individualized plan of care. The plan of care is continuously evaluated and updated.
2. Process criteria: The admitting neonatal nurse will
   a. Perform an initial comprehensive, age-appropriate, physical assessment of all systems, including vital signs and pain, within 10-30 minutes and document within 2 hours of admission to the NICU
   b. Assess and record vital signs (HR, RR, T, BP) on admission and every 1hour until stabilized.
   c. Temperature on the Extremely Low Gestational Age Newborn (ELGAN) should be done more frequently (i.e. q15 mins for 1st hour) to ensure temperature stability.
   d. Measure and record length, weight, head circumference, and gestational age on the appropriate growth chart and in the medical record.
   e. Complete a blood glucose test upon admission (Critical Level = < 45 mg/dl, > 180 mg/dl).
   f. Complete a Ballard exam within 12 hours of delivery, if applicable.
   g. Ensure that an emergency medication reference is completed based on current weight within 2 hours and posted in designated area. The emergency medication reference is updated weekly with the current weight.
   h. Check that two identification bands are present on the infant.
   i. Initiate a computerized multidisciplinary plan of care upon admission.
   j. Ensure that the admission history is completed within 24 hours of admission.
   k. Orient parents/families to the unit and inform parents/families regarding hand-washing and visitation policies. Document parent orientation to unit.

E. ONGOING PATIENT CARE:

1. Outcome criteria:
   a. Neonatal nurses will provide ongoing care in collaboration with the multidisciplinary team and family to implement an individualized plan of care. The care plan update is documented a minimum of every 24 hours to reflect the patient's current needs.
   b. Maintain vital signs within parameters:
      i. RR 30-60
      ii. HR
         1) Term: 80-160
         2) Pre-term: 100-160
      iii. Axillary temperature should be maintained at
         1) 36.5 °C–37.5 °C (97.7 °F–99.5 °F) in full-term infants
         2) 36.5 °C–36.9 °C (97.3 °F–98.6 °F) in preterm infants.
2. Process criteria: The neonatal nurse will
   a. Perform an initial shift assessment on patients who are NPO within one hour from the beginning of the shift, to include complete systems assessment and update of the patient plan of care.
   b. Complete systems assessment at the time of first feeding during the shift on patients who are not NPO. If more than three hours will lapse before the next feeding, then monitor vital signs will be recorded within one hour of the start of the shift.
   c. Weigh patients nightly unless an order indicates otherwise, document weight in the patient's medical record and appropriate growth chart.
   d. Measure head circumference and length weekly (Sunday night) and document on the appropriate growth chart and in the patient's medical record.
   e. Document a complete physical assessment every 3-6 hours based on acuity
   f. Complete a visual assessment every 1 - 4 hours, based on acuity. Visual assessment will include state, color, work of breathing, and position.
   g. Skin and air temperatures should be recorded with visual assessments.
   h. Assess and record vital signs (HR = heart rate; RR = respiratory rate) as follows:
      i. Apical Pulse with first hands-on assessment
      ii. BP q shift minimum (see cardiovascular section)
      iii. HR/RR q 1-2 hour for 1:1 acuity
      iv. HR /RR q 2 hour for 1:2 acuity
      v. HR /RR q 3-4 hours for 1: 3 acuity
      vi. Axillary temperatures with full assessments and prn
   i. Assess pain using the NPASS tool with every routine vital sign and prn. Reassess and document patient's pain level 30 minutes after a score of > 3.
   j. Cluster care by coordinating touch times with necessary care team members (i.e. physician/allied health provider (AHP), RCP,OT/PT) to minimize procedure-related stimuli for any infant less than 34 weeks or that is medically unstable:
      i. Utilize facilitated tucking techniques to support infant throughout.
      ii. Provide rest periods for infant indications of stress.
   k. Complete blood glucose test as follows: (Critical Levels: < 45 mg/dl, > 180 mg/dl)
      i. Q 12 hours and prn while on IV fluids containing dextrose.
      ii. Q 12 hours and prn while on steroids.
      iii. 30 minutes after dextrose solution bolus or per physician/AHP order.
      iv. Within 2 hours of change in dextrose concentration or any new bag containing dextrose.
      v. Within 2 hours of changing the IV rate, if clinically indicated.
      vi. Discontinuation of IV fluids containing dextrose:
         1) For infants without a diagnosis of hypoglycemia, blood glucose testing will be done before feedings, times one. No further testing will be needed if glucose is > 45.
         2) For infants with a diagnosis of hypoglycemia, a blood glucose will be done before feedings, times two. If glucose is > 50, no further testing is needed.

If glucose is < 50, a third glucose test will be done before the next (third) feeding. If glucose remains <50, notify physician/AHP.

l. Reposition infant with every hands on assessment. If this is not possible due to a patient's condition, pressure-reducing measures should be implemented.
m. Replace monitor leads and the oxygen saturation probe during baths or when items become loose or soiled.
n. Reposition the pulse oximeter probe at minimum every 8 hours.
   i. Infants less 32 weeks or 1500gms, pulse oximeter may be repositioned with each hands-on assessment or PRN, as tolerates.
o. Provide oral care with colostrum/breastmilk or sterile water at least every 4 hours and as needed, per physician/AHP order.
p. Notify the physician/AHP and the charge nurse regarding significant changes in a patient's condition.
q. Document any physician/AHP notification in the patient's medical record, including any further assessment or treatment ordered.
r. Facilitate a patient care conference between the family and caregivers any time there is a change in the patient's health status and/or other needs arise or at the family's request.

F. NEUROLOGICAL ASSESSMENT:

a. Outcome criteria
   i. Neonatal nurses continually assess all data pertinent to the patient's neurological function and update the nursing care plan to promote optimal neurological status.
b. Process criteria: Neonatal nurses assess
   i. The anterior fontanel every shift and as needed
   ii. Level of consciousness/behavior with vital signs and as needed unless ordered otherwise
   iii. Muscle tone, cry, and symmetrical movement each shift
   iv. Suck, swallow reflex present upon admission and with feedings via nipple or breast.
   v. Midline positioning for the first 72 hours for all infants less than 32 weeks or less than 1500gms.

G. CARDIOVASCULAR ASSESSMENT:

1. Outcome criteria
   a. Neonatal nurses continually assess all data pertinent to the patient's cardiovascular system and update the nursing care plan to promote optimal cardiac function.
2. Process criteria: The neonatal nurse will
   a. Ensure that all patients are on cardio/respiratory monitor for the duration of their stay in the NICU.
   b. Document heart rate, respiratory rate, color, capillary refill time, perfusion, oxygen saturation, and any changes in heart sounds in the patient's medical record.
   c. Assess blood pressure at least every 12 hours:
      i. Infants with arterial lines in place will have a transducer in-line. Blood pressure should be documented at least every 2 hours for these patients.
      ii. Document blood pressure every 4 hours or per order for infants on steroids or anti-hypertensives.
      iii. Document blood pressure every hour if the infant is on vasopressors/ antihypertensive drips.
   d. Calibrate the blood pressure transducer with change of caregiver, change of IV tubing, and as indicated.
   e. Print monitor strips if an arrhythmia occurs.

H. RESPIRATORY ASSESSMENT:

1. Outcome criteria

a. Neonatal nurses continually assess all data pertinent to the patient's respiratory system and update the nursing care plan to promote optimal respiratory function.

2. Process criteria: Neonatal nurses assess
   a. Breath sounds at least every 4 hours and as needed
   b. Status of respiratory effort with each infant interaction (at least every 4 hours)
   c. Oxygenation saturation and document the values every 2 hours for infants on oxygen and at least every 4 hours for infants on room air. A pulse oximeter should be in use for every infant.
   d. Episodes of desaturation, whether on oxygen or room air, should be assessed; any action taken for recovery must be documented.
   e. Any necessary respiratory support at least every 2 hours. This may be done by the nurse or respiratory care practitioner (RCP).
   f. Ventilator Parameters:
      i. The RCP will be responsible to set up equipment.
      ii. Transcutaneous monitoring as needed per physician/AHP's order.
      iii. All ventilator settings are determined per physician/AHP's order with the exception of needed or necessary FiO2 changes by RN/RCP.
      iv. An RN and an RCP must transport mechanically ventilated patients.
   g. ETT
      i. Stabilization:
         1) Two licensed health care personnel are required for securing and/or changing the ETT holder.
         2) Two licensed health care personnel, inclusive of one RCP, are required for ETT adjustment. ETT adjustments require a physician/AHP's order.
      ii. Suctioning:
         1) All intubated patients will have an in-line suctioning device set up upon intubation.
         2) Suction depth should be posted at bedside.
         3) FIO2 requirements will be adjusted to maximize patient's tolerance of suctioning procedure.
         4) Frequency and duration of suctioning should be limited and only when needed based on clinical symptoms.
         5) Suction pressure to be no greater than 80 mmHg.
         6) For ELGAN infants, suction pressure to be no greater than 60 mm Hg.
   h. Oxygen saturation parameters:
      i. 23-30 weeks gestation:
         1) Target saturation goals: 88%-90%
         2) Alarm settings: 82%-92%
      ii. 30+1-35 weeks gestation:
         1) Target saturation goals: 90%-94%
         2) Alarm settings: 88%-96%
      iii. >35+1 weeks gestation
         1) Target saturation goals: 94%-98%
         2) Alarm settings: 92%-98%

I. GI/GU ASSESSMENT:

1. Outcome criteria
   a. Neonatal nurses continually assess all data pertinent to the patient's GI/GU system and update the nursing care plan to promote optimal GI/GU function.
2. Process criteria: Neonatal nurses will
   a. Measure abdominal girth, at the umbilicus, upon admission and as needed for feeding intolerance.
   b. Inspect and document abdominal abnormalities.

c. Auscultate all abdominal quadrants for presence and character of bowel sounds every shift and as needed if feeding intolerance, increased abdominal girth, or change in frequency or characteristics of stool occurs.
d. Notify Physician/AHP if no stools within 48 hours.

J. **SKIN AND TISSUE INTEGRITY:**

1. Outcome criteria:
   a. Neonatal nurses continually assess all data pertinent to the patient's skin and tissue integrity and update the nursing care plan to promote and maintain optimal skin and tissue integrity.
2. Process criteria: Neonatal nurses will
   a. Complete a "Neonatal skin condition scale" every shift.
   b. Complete a "Neonatal skin risk assessment" ad hoc form weekly (Sunday day shift).
   c. Perform baths using the following criteria:
      i. Initial bath will be given no sooner than 24 hours of life and only if the infant is stable including stable temperature and respiratory status. Infants visibly soiled with meconium or blood can be bathed once stable after 2-4 hrs of life.
      ii. Gloves should be worn when touching all infant's that have not been bathed.
      iii. Use mild non-alkaline cleanser for greater than or equal to 32 weeks.
      iv. Use warm sterile water for less than 32 weeks: avoid rubbing.
      v. Removal of vernix is not necessary.
      vi. Routine bathing two times weekly individualized to infant schedule and stability.
      vii. Immersion/swaddle bathing is the preferred method for stable infants without central lines.
   d. Perform eye care daily and prn with sterile water.
      i. Infants on a paralytic medication shall have lubricant eye oinment administered a minimum of once per shift, per physician/AHP orders.
   e. Disinfect skin surfaces with Chlorhexadine Gluconate (CHG) 2% or povidone-iodine 10% aqueous solution prior to invasive procedures such as insertion of central venous catheters, placement of PIV, umbilical line catheterization, chest tube insertion, injections, venipuncture, or heel sticks for laboratory samples. Wipe away all disinfectants (CHG, alcohol, betadine) with sterile water or saline wipes once procedure is complete.
   f. Use only commercial heel warmers for warming extremities, per manufacturer's guidelines.
   g. Avoid use of alcohol as primary disinfectant or for removing povidone-iodine or CHG. Isopropyl alcohol has been shown to be less effective in reducing infection and carries a risk of damage to the stratum corneum.
   h. Use semi-permeable dressings to anchor umbilical lines, PIVs, PICCs, nasal cannulas, nasal or oral gastric tubes.
   i. Use hydrocolloid barriers for skin protection when securing NG/OG tubes and cannulas.
   j. Minimize use of tape and minimize contact with skin by "backing" tape or applying cotton to adhesive
   k. Avoid use of solvents for adhesive removal. Remove adhesives slowly and carefully with water soaked cotton balls or gauze, saline wipes or petrolatum.
   l. Avoid use of enhanced bonding agents (Benzoin, Mastisol) as much as possible.
   m. Assist in reducing Transepidermal Water Loss in the infant less than or equal to 32 weeks or less than 1500gms by using the following :
      i. Infants <32 weeks shall be admitted to giraffes and placed in humidity of 70% for first seven days. Humidity may be increased up to 85% for infants <1000gms if needed, per physician/AHP orders. Emollients are not used during this time unless ordered by physician/AHP.
      ii. Use only sterile water in humidifier reservoir and check level each shift.
      iii. Humidity may be decreased to 50% after first seven days of life and continued until infant reaches 28 days of life per physician/AHP orders if needed. Petrolatum may be used at this level of humidity if there is evidence of skin breakdown.

iv. If rainout occurs, decrease humidity by 5% until no further rainout is present.

n. Use emollients for dry skin, cracking or fissures on skin surfaces:
   i. For infants less than 32 weeks, use a preservative-free topical ointment sparingly per physician/AHP order.
   ii. For infants greater than 32 weeks or after 30 days of age, petrolatum may be used at the discretion of the physician/AHP.

o. Use natural drying for umbilical cord care.
   i. Expose umbilical stump to air by keeping diaper folded off of umbilical stump.
   ii. If the umbilical cord stump becomes soiled with urine or stool, clean the area with water.
   iii. After cleansing with water, dry thoroughly with clean absorbent gauze to remove excess moisture, and then discard the gauze.

p. Notify Physician/AHP of IV infiltrates requiring medical evaluation and/or intervention.

q. Notify physician/AHP of any nasal or septum breakdown. Infants on NCPAP will need more frequent assessment of skin integrity around the nasal septum and behind the ears.

K. **NUTRITION**:

1. Outcome criteria:
   a. Neonatal nurses continually assess all data pertinent to the patient's nutrition and update the nursing care plan to promote optimal nutrition.
2. Process criteria: Neonatal nurses will
   a. Reconfirm tube placement prior to the first feeding of the shift by measuring the distance from the tip of the nose to base of the ear, then halfway between the xiphoid process and the umbilicus.
   b. Measure and record abdominal girth at umbilicus prior to feedings for infants at risk for or demonstrating signs of feeding intolerance.
   c. Adhere to the following residual protocol:
      i. Check residuals with all NG feedings on preterm infants. Residuals on continuous feeds are not checked.
      ii. Acceptable Findings:
         1) Residual volume of < 5ml regardless of infant's feeding volume.
         2) Residual volume of ≤ 30% of feeding volumes (if there are no additional signs of feeding intolerance and the clinical evaluation is normal.)
         3) Residuals ≤ 30% shall be refed and continue with feeding order without deducting residual from feeding volume.
         4) Residuals >30% shall be refed and subtracted from the feeding volume.
         5) Do not refeed residuals that are bloody, brown and/or dark green bilious.
         6) Residuals that appear light green or yellow are considered a normal gastric residual.
   d. Notify the physician/AHP for any of the following signs/symptoms:
      i. Residuals that are bloody, brown and/or dark green bilious.
      ii. Residuals greater than 50%.
      iii. Residuals that persist at 30-50% x 2 consecutive feedings of the current feeding volume.
      iv. Abnormal abdominal exam as evidenced by but not limited to:
         1) Increased distension: greater than 2 cm increase in abdominal girth
         2) Discoloration (ie. Red and/or grayish black/blue)
         3) New onset visible bowel loops
         4) Tenderness
      v. Repeated emesis
      vi. Change in characteristic of stool
      vii. The nurse may notify the physician/AHP at any time there is concern of feeding intolerance.
   e. Assist with establishing and maintaining milk supply by:
      i. Encourage pumping within 3-6 hours of delivery

ii. Pumping 8-12 time in 24 hours, including after breastfeeding with the goal of complete breast emptying at each pumping session.
iii. Promote breast massage and hand expression techniques used in conjunction with pumping.
iv. Encourage use of hospital grade pump.
v. Provide containers and labels to collect milk.
vi. Encourage skin to skin as often as possible.
vii. Monitor milk supply totals, initiate early intervention for decrease in milk supply (milk supply should increase by 3-5 days postpartum).
viii. Facilitate lactation consultations as needed.
ix. Utilize colostrum/breastmilk in the order pumped for the first two weeks of feeding.
x. Introduce breastfeeding before bottle feeding, bottle feeding is to be avoided for infant's less than 34 weeks unless otherwise ordered by physician/AHP.
xi. Initiate non-nutritive or "dry" breasfeeding when infant is 32 weeks PCA and physiologically stable when held.
xii. Initiate nutritive breastfeeding when infant is able to handle own secretions and shows sucking behavior on a finger, pacifier, or the emptied breast.

L. **FLUID AND ELECTROLYTE:**

1. Outcome criteria:
   a. Neonatal nurses continually assess all data pertinent to establish and maintain homeostasis as evidenced by:
      i. Weight gain 15-45 gms/day (average).
      ii. Soft, flat fontanel; sutures approximate
      iii. Urine output 1-5 ml/kg/hr
      iv. Good skin turgor
2. Process criteria: Neonatal nurses will
   a. Maintain strict I&O on all:
      i. Infants receiving steroids
      ii. Infants receiving diuretics
      iii. Infants receiving continuous IV therapy
      iv. Infants who are NPO
      v. Infants less than 1500 grams unless otherwise ordered by Physician/AHP.
   b. Notify the physician/AHP if urine output is <1 mL/kg/hr.
   c. Assess and document peripheral IV and PICC site status every hour. Assess and flush saline lock insertion sites with each hands-on assessment.
   d. Use birth weight until the infant surpasses this weight, then daily weight, to calculate I&O for previous 24 hours. A "NICU Calorie Count" ad hoc form is to be completed every morning in patient's medical record.
   e. Always physically trace each IV line from the solution, through the pump and into the patient and reconcile the accuracy of the solution and pump settings against a source document, e.g. order, medication record.

M. **PSYCHOSOCIAL SUPPORT:**

1. Outcome criteria
   a. Neonatal nurses continually assess all data pertinent to the patient and family's psychosocial needs in a supportive manner.
2. Process criteria: Neonatal nurses should
   a. Assess and document the patient and family's psychosocial status upon admission and daily in the patient's medical record.
   b. Listen to family concerns in a supportive manner.
   c. Encourage parents and families to participate in care as appropriate.
   d. Give emotional reassurance to families as needed.
   e. Identify family support systems upon admission and as needed.
   f. Enter appropriate consults/referrals into the patient's medical record as needed.

g. Refer to social work as needed.

N. **PATIENT EDUCATION:**

1. Outcome criteria
   a. The family/caregivers will have their educational needs regarding the patient's hospitalization addressed in a timely manner.
2. Process criteria: Neonatal nurses will
   a. Encourage families to be involved in the development of the plan of care from admission through discharge and whenever changes in the plan are needed at the level they choose.
   b. Include the family and/or caregiver in teaching to increase their understanding of the infant's needs during hospitalization and upon discharge.
   c. Orient parents and families to the unit guidelines/routines upon admission and throughout hospitalization.
   d. Explain all procedures and interventions and the plan of care and encourage questions and discussion.
   e. Assess learning needs upon admission and regularly thereafter. Document needs in the patient's medical record.
   f. Provide the family/caregiver with educational materials as needed regarding the ongoing care of the infant and discharge information.
   g. Begin discharge education as soon as the parents are able to participate in care and may include but is not limited to the follow topics:
      i. Hearing Screening (Ages and Stages)
      ii. Newborn Metabolic Screen
      iii. CPR
      iv. Car Seat Challenge (< 37 weeks gestation or < 2500gms)
      v. Safe Sleep Guidelines
      vi. Car Seat Safety
      vii. Shaken Baby Syndrome prevention
      viii. Breast feeding support/education/resources
   h. Document all teaching and response to learning in the patient's medical record.

O. **PATIENT SAFETY:**

1. Outcome criteria
   a. Neonatal nurses continually provide care in a safe manner.
2. Process criteria: Neonatal nurses will
   a. Complete environmental checks whenever a change of caregiver occurs. Environmental checks include ensuring that two infant identification bands are on the infant and that the cardiopulmonary/oxygen saturation monitor is attached to patient.
   b. Ensure that critical alarms include HR and apnea are set as follows unless otherwise ordered:
      i. HR: 80-220 if non-ventilated and 32 corrected weeks or greater or if 38 weeks or greater (on positive pressure or not)
      ii. 100-220 all other infants
      iii. Apnea: 20 second delay
      iv. Audibility of HR and apnea alarms on monitors will be validated by ensuring each is set as a crisis alarm (in alarm parameter levels) and 70% volume adjusted up or occasionally down as warranted for audibility in the pod.
      v. Critical alarms will be checked at the beginning of each 12 hour shift and more frequently as the patient condition warrants for alarm limits, function and audibility. This check will be validated and documented in the medical record when limits are recorded.
   c. Ensure that all continuous infusions are clearly labeled with the name of the medication that is infusing as close as possible to the medication infusion site.
   d. Ensure that the patient's emergency drug sheet is updated and the bedside.
   e. Not leave infants unattended on any scale or flat, unprotected surface.

f. Ensure that bed wheels are locked at all times except during transfer.
g. Ensure that side rails on radiant warmers and open cribs are up at all times unless a caregiver is next to the bedside.
h. Use locks on isolette doors, portholes, and warmer side rails all times.
i. Utilize appropriate shielding and protection with use of x-ray equipment.
j. Use volume control infusion pumps with all IVs. No more than 1 hour of fluid infusion should be set.
k. Use safety belts when infants are placed in swings, car seats, vibrating chairs, or strollers.
l. Scan all medications and breast milk per hospital policy prior to administration.

P. EMERGENCY EQUIPMENT:

1. Outcome criteria
   a. Neonatal nurses have appropriate emergency equipment available for patient use.
2. Process criterial:
   a. A neonatal crash cart will be available on the unit at all times and checked according to hospital policy.
   b. Admission bed supplies are checked at the beginning of each shift.
   c. Emergency equipment present at the bedside should include
      i. Mechanical suction with suction catheters
      ii. Oxygen
      iii. Resuscitation bag and appropriately sized mask
      iv. Bulb syringe

Q. TRANSFER OF CARE:

1. Outcome criteria
   a. Neonatal nurses assess all information pertinent to the transfer of care. They will communicate accurate and correct patient information to facilitate and support safe care, situational awareness, collaborative decision making, and continuity of care.
2. Process criteria: Neonatal nurses will
   a. Provide a report to the oncoming neonatal nurse, per hospital policy, including review of the patient's plan of care and outcome goals following the situation, background, assessment and recommendation format.
   b. Review all physician/AHP orders placed throughout the shift and verify status.
   c. Review the medication administration record.
   d. Assess the integrity of all vascular access sites, tubes, and drains.

R. REFERENCES:

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3. Furdon, S.A. & Benjamin, K. (2010). Physical assessment. In Verklan MT, Walden M. Core curriculum for neonatal intensive care nursing. Saunders: Philadelphia. p. 120-55.
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Tri-City Medical Center

DELETE – see new Standards of Care NICU 2016

STANDARDS OF CARE

CARE OF THE PATIENT IN THE NICU

I. SCOPE OF PRACTICE: Registered Nursing Staff

II. SUPPORTIVE DATA/DEFINITION OF TERMS:

NICU Patient Admission: Any premature or newborn infant less than 14 days of age or as otherwise directed by the Neonatologist.

III. COMPETENCIES:

Unit Based Competencies

IV. DESIRED PATIENT/FAMILY OUTCOME(S):

A. Through a partnership with the family, healthcare team and community, the infant will achieve optimal health and appropriate neurodevelopment.

B.A. The infant will be discharged to their family who are knowledgeable and comfortable with the care of their infant.

V. STANDARDS OF NEONATAL NURSING PRACTICE:

STANDARD 1 - ASSESSMENT: The neonatal nurse collects comprehensive data on the healthcare needs of the infant and family.

1. ASSESSMENT

- A focused physical assessment must be done within 30 minutes of admission to the NICU and documented in the patients' medical record.
- The admission history must be completed within 24 hours of admission, including psychosocial assessment, discharge planning and educational needs.
- Gestational age estimation utilizing the Ballard Score will be done within the first 12 hours of life.
- Weight on admission and daily
- Frontal occipital circumference (FOC) and length: on admission and weekly
- Chest circumference on admission.

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V. STANDARDS OF NEONATAL NURSING PRACTICE:

- Abdominal circumference on admission and prn feeding intolerance.
- Full, head-to-toe assessments will be done every 3 - 6 hours, based on acuity.

A. Visual assessments will be done every 1 - 4 hours, based on acuity. Visual assessment will include state, color, work of breathing, and position. Vital Signs: Continuous cardio-respiratory monitoring (*HR = heart rate; RR = respiratory rate*)

- Apical Pulse with first hands-on assessment
- HR/RR q 1-2 hour for 1:1 acuity
- HR /RR q 2 hour for 1:2 acuity
- HR /RR q 3-4 hours for 1: 3 and 1:4 acuity
- Axillary temperatures with full assessments every 3-6 hours and prn
- Skin and air temperatures should be recorded with visual assessments.

B. Continuous pulse oximetry on all patients or per physician order (utilize oxygen target saturation for all infants on oxygen).

C. Blood Pressure

- Blood pressure on admission
- Hourly while on inotropic support
- Every 4 hours while on steroids
- Q shift when stable unless otherwise ordered
- Zero arterial lines at first shift assessment, when accuracy of the pressure obtained is in question, and with IV tubing changes

D. Thermal Environment (refer to "Thermoregulation for VLBW Infants" and "Weaning from Thermal Support.")

- Individualized, developmentally appropriate education is provided to the family based on the desire for knowledge, readiness to learn, and overall psychosocial state.
  - Provide information about the mechanics of heat loss through evaporation, convection, conduction, and radiation in the high-risk neonate; assure the family that heat loss is an expected area of intervention in all neonates.
  - Explain the need to monitor regularly neonates' body temperature, and discuss how the need for heat production can affect energy reserves and oxygen consumption in neonates.
  - Explain the need to consider the environment and all objects that touch the neonate as potential avenues of heat loss.
  - Explain the possible need for equipment such as radiant warmers and double-walled isolettes to provide thermal support for the neonate.
  - Encourage the family to ask questions, and answer them as they arise.

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V. STANDARDS OF NEONATAL NURSING PRACTICE:

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E. Pain assessment using the NPASS tool is performed with every routine vital sign and prn. Reassess and document patient's pain level 30 minutes after a score of > 3.

F. Blood glucose test on admission (Critical Level = < 45 mg/dl, > 180 mg/dl Notify MD)

- Q 12 hours and prn while on IV fluids containing dextrose.
- Q 12 hours and prn while on steroids.
- 30 minutes after dextrose solution bolus or per physician order.
- within 2 hours of change in dextrose concentration or any new bag containing dextrose.
- within 2 hours of changing the IV rate, if clinically indicated
- Discontinuation of IV fluids containing dextrose:
    - For infants without a diagnosis of hypoglycemia, blood glucose testing will be done before feedings, times one. No further testing will be needed if glucose is > 45.
    - For infants with a diagnosis of hypoglycemia, a blood glucose will be done before feedings, times two. If glucose is > 50, no further testing is needed. If glucose is < 50, a third glucose test will be done before the next (third) feeding. If glucose remains <50, notify physician.

- Strict I&O is measured on all infants < 1500 gm, receiving IV fluids (exception for "to keep open" rate of 1ml/hr), on diuretics, or showing signs of fluid retention. In addition, all infants will remain on strict I&O until > 1500 gm and receiving full feeds.

STANDARD 2 – NURSING DIAGNOSIS: The neonatal nurse analyzes the assessment data in determining nursing diagnosis.

STANDARD 3 – OUTCOME IDENTIFICATION: The neonatal nurse identifies expected individualized outcomes of care based on needs of infant/family.

STANDARD 4 – PLANNING: The neonatal nurse develops a plan of care that prescribes interventions to attain expected outcomes.

- Interdisciplinary Plan of Care (IPOC) will be initiated on admission.

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V. STANDARDS OF NEONATAL NURSING PRACTICE:

- Families are encourage to be involved in the development of the plan of care from admission through discharge and whenever changes in the plan are needed at the level they choose.
- Interventions should support the transition from intensive care to home.
- Interventions should be evidenced based as well as supportive to the developmental, functional and cultural needs of the child and family.

STANDARD 5 – IMPLEMENTATION: The neonatal nurse implements the interventions identified in the plan of care.

- Ensures that implementation of care is systematic and ongoing.
- Utilizes interventions that are consistent with the established plan of care.
- Organizes interventions to provide an environment that supports the infant's physical and developmental wellbeing.
- Implements interventions in a manner that promotes family involvement and acquisition of progressive care giving skills.
- Implements interventions in a safe, timely, and appropriate manner.
- Documents interventions in a retrievable form.
- Individualizes interventions based on the specific needs of the infant and family.

5. CARE

A. Infection Prevention

- RN disinfects care area beginning each shift
- Gloves are worn for suctioning, diaper changes, anticipated contact with bodily fluids and prior to 1st bath.
- Disinfect all shared equipment between patient use i.e. scales.
- Soiled diapers should be placed in designated "dirty" area, avoid placing on clean surfaces.
- Isolettes/cribs/hybrid beds are to be wiped down with first assessment and changed every two weeks.

B. Developmental Care

- Maintain proper body alignment: flexed, midline and contained.
- Provide healing environment
  - Maintain decibel level ≤ 45 per AAP Recommendations
  - Maintain Light levels ≤ 60 ftc at infant eye level

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V. STANDARDS OF NEONATAL NURSING PRACTICE:

C. Assess IV and site hourly and document any changes.

D. Long-term enteral feeding tubes are to be labeled with date inserted and changed every 30 days and prn.

E. Skin Care

- Wipe away all disinfectants (CHG, alcohol, betadine) with sterile water or saline wipes.
- Cord Care: keep cord clean and dry, clean only with sterile water/saline wipe if soiled with urine or stool.
- Infants > 32 weeks may be bathed within 2-4 hours of birth if not in acute respiratory distress and VS stable, and then the infant may be bathed 2-3 times per week.
- Infants < 32 weeks should be bathed in the first [illegible] stable, then 2-3 times per week using pH-bala
- Rubbing/Scrubbing is not recommended when bathing, some vernix is recommended to provide antibacterial protection and promote healing.
- Swaddled Bathing is the preferred method for submersion baths.
- Provide septum protector for infants on NCPAP.
- Change temperature probe site daily.
- Change oximeter probe site every 8 hours and prn.
- Eye care q shift and prn (using sterile water or saline wipes)
- Eye assessment/care while under phototherapy with every full assessment.

Replacing with new format and new content

STANDARD 5A – COORDINATION OF CARE: The neonatal nurse coordinates care across the continuum be providing information to families on:

- Orient to NICU including procedure for hand hygiene, parent handbook, and visitation policy.
- Disease/diagnosis/medications including pathophysiology, signs and symptoms
- Treatment plan - expected course of events

STANDARD 5B – HEALTH TEACHING AND HEALTH PROMOTION: The neonatal nurse employs strategies to promote a healthy, safe and nurturing environment.

- Provides family/caregiver teaching that addresses healthy lifestyles, risk-reducing behaviors, developmental needs, and normal/specific infant care and safety.
- Use health promotion/health teaching methods appropriate to situation and family or caregiver's developmental level, learning needs, readiness, ability to learn, language preference and culture.
- Seeks opportunities for feedback and evaluation of the effectiveness of the strategies used.

STANDARD 6 - EVALUATION: The neonatal nurse evaluates the progress of the infant and family toward the attainment of established, expected outcomes.

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V. STANDARDS OF NEONATAL NURSING PRACTICE:

- Coordinates implementation of the plan involving resources that enhance delivery of care across continuum.
- Discharge teaching should begin as soon as parents are able to participate in care.

VI. DISCHARGE:

A. Discharge teaching to all parents will include education on the follow topics: (*V=Video, L=Literature*)
- Hearing Screening (L)
- CPR (V, L)
- Car Seat Challenge (≤ 37 weeks gestation or ≤ 2500gms)
- Back to Sleep (V, L)
- Car Seat Safety (V)
- Shaken Baby Syndrome prevention (V)

Other educational resources will be available in the NICU Parent Education Resource file cabinet.

B. Teaching to parents may also include but not limited to education on the following topics:
- Medications
- High Risk Infant Follow-up Clinic (HRIF) (L)
- ROP (L)
- RSV Prophylaxis (L, V)
- Special Needs Teaching
- Basic Infant Care

VII. SAFETY:

- Hand off communication
  - Shift change/change of responsibility report will be done in person with ability to ask and respond to questions.
  - The off-going and on-coming nurse will make IV site/line checks at the beginning of each shift and perform 12 hour chart check.
- Two Identification bands are to be on the patient at all times.
- Check connections and trace all patient tubes and catheters back to their source.
- Suction, ambu bag and mask at bedside, tested and functional at the beginning of each shift.
- Two patient identifiers (medical record # and patients name) will be used for lab draws, procedures, breast milk verification and medication administration, blood transfusion will include ID # and Blood Band #

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VII. ~~SAFETY:~~

- ~~Universal Protocol will be followed for invasive procedures.~~
- ~~Emergency drug sheet at all bedsides.~~
- ~~Bedsides securely up on warmers and cribs. Doors securely shut on isolette/hybrid beds.~~
- ~~Infants will not be left unattended on any scale or flat, unprotected surface.~~
- ~~Infants will not be left on any warmer unless the sides are up and locked in position, except when contraindicated by medical procedure/equipment in use.~~
- ~~Infants will not be left unattended in any isolette unless the doors and portholes are closed.~~
- ~~Bulb syringe placed at head of bed.~~
- ~~Stuffed toys are not permitted in infant bed~~
- ~~Appropriate shielding and protection will be utilized with use of x-ray equipment.~~
- ~~Volume control infusion pumps to be used with all IVs. No more than 1 hour of fluids set.~~
- ~~Intubation supplies, Umbilical catheter tray/supplies, Chest tube insertion tray/supplies and chest drainage system readily available.~~
- ~~Two licensed nurses to verify identification of breastmilk.~~
- ~~Back to sleep by week of discharge unless otherwise ordered.~~

VIII. ~~REPORTABLE CONDITIONS:~~

- ~~Significant change in vital signs or assessment.~~
- ~~Critical lab/test studies. (POC, labs. blood gases, xray)~~
- ~~New or increased apnea/brady or desaturation episodes.~~
- ~~Decreased urine output or output <1mL/kg/hr over 12 hours.~~
- ~~Weight loss or consistent inability to gain weight~~
- ~~Temperature instability (hypothermia and hyperthermia)~~

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IX. ~~REFERENCES:~~

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~~B. Merenstein, Gerald B. MD FAAP and Gardner, Sandra L. RN, MS, PNP, Handbook of Neonatal Intensive Care, 5th ed., Mosby, 2002.~~

~~C. Fanaroff, Avroy A. and Martin, Richard J., Neonatal-Perinatal Medicine Diseases of the Fetus and Infant, 7th ed., Mosby, 2001.~~

~~D. Wong, Donna L. RN, PhD, PNP, CPN, FAAN, Whaley and Wong□s Nursing Care of Infants and Children, 7th ed., Mosby, 2002.~~

~~E.~~**A.** ~~Neonatal Nursing: Scope and Standards of Practice, 2004. Published by ANA and NANN.~~

Department Review	Perinatal Collaborative Practice	Division of Neonatology	Pharmacy and Therapeutics	Medical Executive Committee	Professional Affairs Committee	Board of Directors
05/16	08/16	08/16	n/a	09/16		

SUBJECT: VISITATION IN THE NICU

ISSUE DATE: 7/07
REVISION DATE(S): 01/09, 04/09, 06/11, 8/12

Department Approval Date(s):	03/16
Division of Neonatology Approval Date(s):	03/16
Pharmacy and Therapeutics Approval Date(s):	n/a
Medical Executive Committee Approval Date(s):	09/16
Professional Affairs Committee Approval Date(s):	
Board of Directors Approval Date(s):	

A. **POLICY STATEMENT:**

1. **The following guidelines are intended to support** ~~To facilitate~~ family visiting in the neonatal intensive care unit (NICU) embracing the Family Centered Care concept while maintaining a safe, quiet environment.
   - **a. "Family" is defined as any person(s) who play a significant role in an individual's life inclusive of person(s) not legally related to the individual.**
   - ~~1.~~**b. Members of family include spouses, domestic partners, step-parents, both different-sex and same-sex significant others, and any other persons operating in a caretaker role.**
2. Only those visitors, including siblings, that are appropriate to visit in the NICU as defined in this policy, will be admitted past the first set of doors and be allowed to sit in the unit lounge.
3. ~~1.~~ **These guidelines are flexible to support the diverse needs of our families.**

B. **PROCEDURE:**

1. Staff shall greet **family and** visitors in the NICU entryway to identify who they are and whom they are visiting. Parents ID bands must be checked upon entrance. Take this opportunity to instruct families/visitors about the NICU visitation guidelines.
   - **a. Parents/banded individuals have 24-hour access to the NICU, inclusive of change of shift.**
   - **b. Visitors may visit with a parent/banded individual at any time except during change of shift (0645 to 0745 and 1845 to 1945).**
   - ~~a.~~**c.** ~~Parents may visit as often as they wish, any time., except during change of shift (0645 to 0745) and (1845 to 1945). Exceptions will be made for breast-feeding mothers. **Visitors accompanying banded individuals may be asked to move to the waiting room during change of shift (0645-0745 and 1845-1945).**~~ **Banded individuals who are in the unit at the beginning of change of shift may remain. Banded individuals requesting entrance into the unit during change of shift will be asked to wait in the waiting room until the conclusion of change of shift unless they have been requested to enter by the nurse for feeding purposes.**
   - ~~b.~~**d.** Visitors who are not parents or siblings may not visit unless they are 18 years or older.
   - ~~c.~~**e.** Visitors are limited to two (2) visitors per patient at the bedside at any one time.
     - i. One of the bedside visitors must be a banded parent/individual. (Please note this will include employees.)
       - ~~1) Adoptive parents must have an ID band and be a banded person.~~
       - 1) Foster parents as designated by Department of Health Services and with valid identification.

2) Each multiple may have up to two visitors; only one banded individual is required per family.

~~d.~~**f.** Siblings **must be** 12 years and older **to visit unless they are the previously discharged sibling of a multiple. They** are encouraged **to visit with the following conditions:**~~and are considered as visitors – see below for health status.~~

i. An adult must supervise siblings at all times.

ii. All siblings **12 years and older** must show proof of up-to-date immunizations before **entering the NICU**~~visiting~~.

iii. All siblings will be health screened each time they enter.

~~ii.~~**iv. All siblings under the age of 18 will be prohibited during RSV/Flu season, inclusive of the previously discharged sibling of a multiple.**

~~e.~~**g.** All Visitors will be interviewed including but not limited to the following for admittance to the NICU:

i. Exposures: visitors who have had exposure to chickenpox, measles, tuberculosis will not allowed to visit

ii. Fever: No admittance will be granted to the NICU if the visitor presents with a temperature greater that 100.4 degrees Fahrenheit. Re-admittance to the NICU will be allowed when the visitor is afebrile for 24-hours.

1) Exception: Mother's that are febrile as a result of infections of non transmissible concern may visit if:

a) The mother is afebrile times one

b) Fever is cleared by OB as being of a non-transmissible origin.

iii. Signs of infection: visitors with signs of infection including but not limited to nausea, vomiting, cough sneezing, sore throat ,conjunctivitis and draining wounds (does not include scrapes or small cuts that are scabbed over) will not be allowed to visit for the duration of the illness. e.g. the signs and symptoms are resolved.

iv. Skin Lesions/Herpes Simplex (Oral Herpes Lesion)

1) No admittance will be granted to the NICU if the visitor presents with: skin lesions, including open abscesses and oral herpes lesions (cold sore) that are open or draining,

2) Re-admittance to the NICU can occur when the neonatologist has examined the visitor and the herpes lesion is completely crusted over. The visitor will be instructed to wear a mask and not to allow the sore to touch the infant.

v. Shingles

1) No admittance will be granted to the NICU of the visitor presents with shingles that are blistered or weeping.

2) Re-admittance to the NICU can occur when the shingles are dry and crusted. Visitor is instructed to not touch the affected area and not allow the lesion to touch the infant.

vi. Rashes

1) No admittance will be granted to the NICU if the visitor presents with an undiagnosed rash. Visitors with undiagnosed rash will be instructed to see their personal physician for diagnosis of origin. No admittance will be allowed until confirmation of origin is obtained and a non-contagious diagnosis is made.

2) No admittance will be granted to the NICU for visitors who have not had chicken pox or been vaccinated and has been exposed to anyone with chicken pox in the past three weeks. No admittance will be allowed from day 8 to day 21 after exposure. ~~Authorized visitors who are non-immune to chicken pox or measles will wear a surgical mask during visitation.~~

3) Visitors who are diagnosed with measles or rubella will not be allowed to visit until 7 days after the onset of rash.

~~f.~~**h.** Instruct all family members/visitors to follow the hand washing procedure prior to handling the baby. Refer to Hand Hygiene in the NICU Policy.

~~g.~~**i.** Encourage patient/family confidentiality.

~~h.~~**j.** The RN staff reserves the right to monitor and/or restrict visitation based upon unit activity and critical status of any infant.

~~i.~~**k.** At any time, the unit may close for medical purposes.

~~j.~~**l.** During seasons where there are more colds and flu, the visiting policy may be restricted further. Changes will be posted outside the NICU.

~~B. **EXTERNAL LINKS:**~~

~~C. **REFERENCES:**~~

~~D. **APPROVAL PROCESS:**~~

~~1. Clinical Policies & Procedures Committee~~
~~2. Nurse Executive Council~~
~~3. Medical Executive Committee~~
~~4. Professional Affairs Committee~~
~~5. Board of Directors~~

SUBJECT: VISITATION IN THE NICU

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2. Only those visitors, including siblings, that are appropriate to visit in the NICU as defined in this policy, will be admitted past the first set of doors and be allowed to sit in the unit lounge.
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   d. Visitors who are not parents or siblings may not visit unless they are 18 years or older.
   e. Visitors are limited to two (2) visitors per patient at the bedside at any one time.
      i. One of the bedside visitors must be a banded parent/individual. (Please note this will include employees.)
         1) Foster parents as designated by Department of Health Services and with valid identification.
         2) Each multiple may have up to two visitors; only one banded individual is required per family.
   f. Siblings must be 12 years and older to visit unless they are the previously discharged sibling of a multiple. They are encouraged to visit with the following conditions:
      i. An adult must supervise siblings at all times.
      ii. All siblings 12 years and older must show proof of up-to-date immunizations before entering the NICU.

iii. All siblings will be health screened each time they enter.
iv. All siblings under the age of 18 will be prohibited during RSV/Flu season, inclusive of the previously discharged sibling of a multiple.

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   i. Exposures: visitors who have had exposure to chickenpox, measles, tuberculosis will not allowed to visit
   ii. Fever: No admittance will be granted to the NICU if the visitor presents with a temperature greater that 100.4 degrees Fahrenheit. Re-admittance to the NICU will be allowed when the visitor is afebrile for 24-hours.
      1) Exception: Mother's that are febrile as a result of infections of non-transmissible concern may visit if:
         a) The mother is afebrile times one
         b) Fever is cleared by OB as being of a non-transmissible origin.
   iii. Signs of infection: visitors with signs of infection including but not limited to nausea, vomiting, cough sneezing, sore throat ,conjunctivitis and draining wounds (does not include scrapes or small cuts that are scabbed over) will not be allowed to visit for the duration of the illness. e.g. the signs and symptoms are resolved.
   iv. Skin Lesions/Herpes Simplex (Oral Herpes Lesion)
      1) No admittance will be granted to the NICU if the visitor presents with: skin lesions, including open abscesses and oral herpes lesions (cold sore) that are open or draining,
      2) Re-admittance to the NICU can occur when the neonatologist has examined the visitor and the herpes lesion is completely crusted over. The visitor will be instructed to wear a mask and not to allow the sore to touch the infant.
   v. Shingles
      1) No admittance will be granted to the NICU of the visitor presents with shingles that are blistered or weeping.
      2) Re-admittance to the NICU can occur when the shingles are dry and crusted. Visitor is instructed to not touch the affected area and not allow the lesion to touch the infant.
   vi. Rashes
      1) No admittance will be granted to the NICU if the visitor presents with an undiagnosed rash. Visitors with undiagnosed rash will be instructed to see their personal physician for diagnosis of origin. No admittance will be allowed until confirmation of origin is obtained and a non-contagious diagnosis is made.
      2) No admittance will be granted to the NICU for visitors who have not had chicken pox or been vaccinated and has been exposed to anyone with chicken pox in the past three weeks. No admittance will be allowed from day 8 to day 21 after exposure.
      3) Visitors who are diagnosed with measles or rubella will not be allowed to visit until 7 days after the onset of rash.

h. Instruct all family members/visitors to follow the hand washing procedure prior to handling the baby. Refer to Hand Hygiene in the NICU Policy.
i. Encourage patient/family confidentiality.
j. The RN staff reserves the right to monitor and/or restrict visitation based upon unit activity and critical status of any infant.
k. At any time, the unit may close for medical purposes.
l. During seasons where there are more colds and flu, the visiting policy may be restricted further. Changes will be posted outside the NICU.

Tri-City Medical Center	Women and Newborn Services
PROCEDURE:	**NEWBORN SEPSIS CARE GUIDELINES**
Purpose:	To outline the nursing management of newborns demonstrating signs and symptoms of sepsis that may require further evaluation and management.
Supportive Data:	Any newborn with signs of sepsis should receive ~~a~~ **an initial** ~~full~~ diagnostic evaluation, **a review of maternal and newborn risk factors,** and receive antibiotic therapy pending the results of the evaluation. The evaluation should include a blood culture, a Complete Blood Count (CBC) including manual count differential and platelet count, a chest radiograph (X-ray) if any abnormal respiratory signs are present. Therapy should include antimicrobial agents active against Group B Streptococcus (GBS) as well as other organisms that might cause newborn sepsis such as E. coli.

A. **PURPOSE:**

1. To identify newborns with risk factors and **who develop** signs and symptoms **that may indicate neonatal** sepsis. ~~who may require treatment and possible Neonatal Intensive Care Unit (NICU) admission.~~
2. Newborns at risk for sepsis can include but are not limited to these indications:
   a. Positive maternal GBS status without receipt of Intrapartum Antibiotic Prophylaxis (IAP) within 4 hours of delivery
   b. Prolonged maternal rupture of membranes (ROM) greater than 18 hours
   c. Premature delivery, less than 37 weeks estimated gestational age (EGA)
   d. Unknown GBS status with ROM history greater than 18 hours ~~and/or prematurity~~
   e. **Maternal** Chorioamnionitis
   ~~f. History of maternal temperature of 101 F/ 38.3 C or higher, at any time during her current hospital stay~~
   ~~g.~~**f.** Maternal history of genital herpes
   ~~h.~~**g.** Newborn with traumatic delivery history
   ~~i. Newborn with 10 minute Apgar score less than 7~~
3. Signs and Symptoms of Newborn sepsis can include but are not limited to:
   a. Respiratory Distress
      i. Tachypnea
      ii. Grunting
      iii. Retractions
      iv. Nasal flaring
      v. Decreased breath sounds or adventitious breath sounds i.e.(wheezing, rhonchi, rales)
      vi. Apnea
      vii. Cyanosis
   b. Temperature instability
   c. Lethargy ~~or poor tone~~
   ~~c.~~**d.** **Hypertonia (poor tone)**
   ~~d.~~**e.** Irritability
   ~~e.~~**f.** ~~Consistent p~~**P**oor feeding
   ~~f.~~**g.** Hypoglycemia
   ~~g.~~**h.** **Poor perfusion (m**~~M~~ottled skin pattern**)**

~~h.~~**B.** **SPECIFIC SCENARIOS:**

1. **Positive or Unknown Maternal GBS Status and/or Prematurity:**

Department Review	Department of OB/GYN	Division of Neonatology	Department of Pediatrics	Pharmacy & Therapeutics	Medical Executive Committee	Professional Affairs Committee	Board of Directors
NEW	n/a	n/a	2/16	09/16	09/16		

a. Please refer to Unit Specific Procedure: GBS Prevention and Treatment in Labor and Newborn follow-up

~~4.~~**2. Maternal Chorioamnionitis:**

a. A maternal diagnosis of Chorioamnionitis requires immediate newborn evaluation and admission to the Neonatal Intensive Care Unit (NICU).

b. **The** Diagnos**is of** ~~ing~~ maternal chorioamnionitis is the responsibility of the Obstetrical (OB) provider and is defined by:

i. Maternal temperature greater than or equal to (100.4 F or 38 C) **AND** (2) other signs/ symptoms listed below:

1) Fetal tachycardia
2) Maternal tachycardia
3) Maternal White Blood Cell(WBC) Count greater than or equal to 15,000
4) Uterine tenderness
5) Foul smelling amniotic fluid

c. A ~~maternal~~ diagnosis of **Maternal** Chorioamnionitis requires immediate newborn evaluation and admission to the Neonatal Intensive Care Unit (NICU).

3. Maternal Fever:

a. If a maternal fever of 100.5 or higher is obtained, the newborn's provider should be called to determine if any further evaluation, monitoring or treatment is needed based on the condition of the newborn and any maternal or intrapartum risk factors.

b. A newborn that is asymptomatic may remain in couplet care to facilitate the opportunity for exclusive breastfeeding until symptoms and/or laboratory results indicate a reason for NICU admission.

4. Newborn with signs and symptoms of sepsis:

~~5)~~**a. The nurse shall contact the newborn's provider immediately to determine further evaluation, monitoring and treatment plans.**

~~B.~~C. PROCEDURE:

1. If a n**ewborn** presents with signs and symptoms of sepsis~~,~~ **or** ~~-~~has known maternal risk factors, the nurse should obtain an initial set of vital signs and consider a point of care glucose screening.
   a. Newborns with temperature instability shall be placed on a radiant warmer and warmer placed on servo mode for temperature regulation.
   b. Newborns with hypoglycemia shall be managed per the Blood Glucose Newborn Monitoring Standardized Procedure.
2. A pulse oximeter shall be placed on the newborn to obtain a baseline oxygen saturation value with an oxygen source nearby for use as indicated.
   a. For newborns with respiratory distress and/or cyanosis, apply supplemental oxygen for pulse ox readings of less than 95% and per provider order
3. Placement of cardiac leads for ongoing monitoring can be considered.
4. ~~The newborn's provider shall be called immediately and clinical concerns reported.~~ If lab work is requested, the provider orders may include~~: obtaining:~~
   a. Neonatal Complete Blood Count (CBC with manual differential)
   b. CRP
   c. Blood Culture
   d. Chest X-ray
5. The newborn, who has unresolved clinical symptoms and/or abnormal laboratory results, shall be prepared for transport to the NICU. ~~-~~
6. Document clinical findings, nursing interventions and provider notification.

~~C.~~D. REFERENCES:

1. American Academy of Pediatrics ~~(AAP)~~ and American College of Obstetricians and Gynecologists ~~(ACOG)~~ **(2012).** ~~-~~*Guidelines to Perinatal Nursing* **(7th ed.)**. Washington DC, ~~2012.~~

2. Simpson, K.~~,~~ ~~&~~ Creehan, P.**(2014)** *Perinatal Nursing (4th ed)*. Philadelphia, PA: Wolters/Kluwer/Lippincott Williams & Wilkins~~; 2014.~~

~~D.~~E. RELATED DOCUMENT(S):

1. Women and Newborn Services Procedure: Group B Strep Prevention and Treatment in Labor and Newborn follow-up.
2. Patient Care Services Standardized Procedure: **Blood Glucose Newborn Monitoring**~~Hypoglycemia Management in the Newborn~~

Epidural Administration of Corticosteroids by Interventional Radiology at TCMC

Situation: The epidural administration of corticosteroids including, but not limited to methylprednisolone, triamcinolone, and betamethasone is not approved by the FDA. Concerns were raised by pharmacists regarding verification of orders for steroids intended for epidural injection.

Background: Injection of corticosteroids into the epidural space has been commonplace for several decades, however the safety and effectiveness have not been established and thus has never been approved by the FDA. Concerns were raised in the medical community regarding the risk of serious neurologic adverse events secondary to epidural administration of corticosteroids. As a result, the FDA commissioned an expert panel to investigate this issue.

The conclusion of this investigation in November 2014 resulted in changes to the package inserts for all injectable corticosteroids indicating that epidural administration is not recommended. This recommendation was independent of the presence or absence of preservatives in the drug solution.

An FDA expert panel also produced clinical considerations in February of 2015 to provide guidance on appropriate epidural administration if corticosteroids if they are used in this off-label setting.

Assessment: In June of 2016, the Pharmacy Service issued concerns regarding the safety epidural administration of corticosteroids by IR physicians at TCMC. Clarification was requested from Risk Management to determine if pharmacists may approve these medication orders for this indication and/or if patient's needed an updated consent form addressing the risks associated with this specific procedure given the changes in the Package Insert for these agents.

A meeting between IR, Risk Management, and Pharmacy was held on August11th, 2016 to address these issues. IR has addressed the issue internally and currently follows all of of the FDA Expert Panel recommendations on best injection practices to minimize the risk of neurologic injury. Given that IR is following currently accepted best practice and has an extensive history of performing this procedure without incident, Risk Management felt that it was reasonable to continue this practice without changes. Furthermore, Risk Management has asked that the details of this meeting be discussed with the P&T Committee and Medical Executive Committee for informational purposes.

Recommendation(s):

- Epidural administration of corticosteroids may be performed by IR physicians following FDA recommended best-practice
- Details of meeting held between IR, Pharmacy, and Risk Management to be reviewed by P&T and MEC

References:

Rathmell JP, Benzon HT, Dreyfuss P, et al. Safeguards to prevent neurologic complications after epidural steroid injections: Consensus opinions from a multidisciplinary working group and national organizations. Anesthesiology. 2015;122:974-984

TRI-CITY MEDICAL CENTER
PHARMACY AND THERAPEUTICS COMMITTEE

Request for Formulary Status Evaluation:
Gadobutrol (Gadavist) **Admission { x }** **Deletion { }**

Date: 09/13/2016 **Requestor:** Dr. Donald Ponec

Trade Name: Gadavist **Generic Name:** Gadobutrol

Dosage form(s): 1 mmol/mL (2 mL, 7.5 mL, 10 mL, 15 mL, 30mL, 65mL vials), 1mmol/mL (7.5mL, 10mL, 15mL pre-filled syringes)

Indications:

1. Diagnostic imaging (Breast malignancy, CNS, supra-aortic, or renal artery angiography)

Efficacy:

Study	Study Design	Intervention	Outcomes
N=336 MRI of the CNS	Double-blind, cross-over Phase III study	Single dose of gadobutrol 0.1 mmol/kg then a single dose of gadoteridol 0.1 mmol/kg in randomized sequence 24 hours apart	Superiority seen in contrast enhancement, border delineation, internal morphology Non-inferiority demonstrated for gadobutrol vs gadoteridol for exact match diagnosis

Safety:

Propensity for medication error: Low

Abuse potential: None

Sentinel event potential:
Anaphylactic and other hypersensitivity reactions with cardiovascular, respiratory or cutaneous manifestations, ranging from mild to severe, including death, have occurred. Monitor patients closely during and after administration of Gadavist.

Cost comparison with similar Formulary products:

Gadoversetamide (Optimark)	Gadobutrol (Gadavist)
15 mL syringe ($26)	7.5 mL ($63)
20 mL syringe ($33)	10 mL ($84)

Recommendation:
Gadobutrol (Gadavist) as compared to the currently utilized contrast gadoversetamide (Optimark) may have reduced risk of NSF due to its macrocyclic structure. Gadoversitamide is among a small group of agents associated with the highest number of NSF cases historically speaking. As compared to the macrocyclic product gadobenate (MultiHance), gadobutrol is nonionic which in theory may pose less risk of tissue injury in the rare but serious event of extravasation. Another macrocylic product gadoteridol (ProHance) has lower relaxivity as compared to gadobutrol and in studies some evidence of this difference was apparent as gadobutrol produced improved image enhancement and border delineation. Of all the macrocyclic gadolinium agents, gadobutrol has the most FDA labeled indications demonstrating efficacy in breast, CNS, aortic, and renal artery imaging.

Whereas the current formulary product gadoversitamide is contraindicated in those patients with severe kidney disease (GFR <30 ml/min/1.73 m^2), the macrocyclic agents including gadobutrol are not, although this does not obviate the risk of NSF. Among the macrocyclic agents, costs are comparable however gadobutrol is the only product among this class which comes packaged as a pre-filled syringe.

The TCMC Pharmacy and Therapeutics Committee recommends the addition of gadobutrol (Gadavist) to the TCMC Formulary to replace gadoversetamide (Optimark). This recommendation is secondary to an improved safety profile with newer macrocyclic gadolinium-based contrast agents, comparable pricing against other macrocyclic agents, and compatibility with existing equipment and protocols.

References:

1. ACR Manual on Contrast media Version 10.2, 2016. ACR Committee on Drugs and Contrast Media
2. Gadavist™. Full Prescribing Information (Package insert). Bayer Health Care Pharmaceuticals, Inc. April 2016
3. Kanal, E, Maravilla K, Rowley, HA. Gadolinium Contrast Agents for CNS Imaging: Current Concepts and Clinical Evidence. American Journal of Neuroradiology, 2014;35(12):2215-26

Formulary Line Item Additions/Deletions

Additions:

- **Capsaicin 0.025% topical cream**
- **Ticagrelor 60mg tablets**

Deletions:

- **Capsaicin 0.075% topical cream**
- **Albuterol oral solution**
- **Potassium chloride 40 meq/30mL unit dose cups**
- **Vitamin K 5mg oral tablets**

Capsaicin 0.025% topical cream: Capsaicin 0.075% cream on formulary no longer available from local distributor. **P&T Committee recommends addition of capsaicin 0.025% cream to formulary. Capsaicin 0.075% cream will be removed as a line item from the formulary.**

Ticagrelor 60mg tablet: Ticagrelor 90mg tablets are currently on formulary. In 2015, a 60mg tablet strength was developed following approval for new dosing regimen of 60mg twice daily after 1 year of therapy on ticagrelor 90 mg twice daily. **The P&T Committee recommends adding the 60mg tablet strength as a formulary line item to facilitate continuity of outpatient care.**

Albuterol oral solution: Oral formulation is not the preferred route of therapy for this agent. The recommended route of administration is via metered-dose inhaler (MDI) or nebulizer for all indications. This recommendation is supported by the National Asthma Education and Prevention Program Expert Panel Report 3 Guidelines (2007). Due to the lack of orders for this agent, the bulk bottle routinely expires on the shelf. **The P&T Committee recommends deletion from the TCMC formulary given lack of use and availability of the recommended dosage forms (MDI, nebs).**

Potassium chloride 40 meq/30 ml unit dose cups: Ambiguous labeling by the manufacturer lead the Pharmacy Service to pull this dosage strength from all Pyxis machines in August 2016. The label read "20meq per 15mL" which could easily be misconstrued as 20meq total in the unit dose when in reality the nurse would be giving 40 meq. ISMP has been notified of this issue and the manufacturer is planning to correct their product label in the future. **The P&T Committee recommends removing this as a formulary line item. The 20 meq/15mL unit dose cups will remain available.**

Vitamin K 5 mg tablets: Tablets significantly increased in price, tripling over the last several years (currently $55 per tablet). Given this dramatic cost increase, several institutions have begun compounding an oral solution using the intravenous dosage form. The stability of a vitamin K oral preparation (1mg/mL) using intravenous vitamin K (10mg/mL) and sterile water for injection has been well documented. A compounded 5mg dose of vitamin K using this preparation will cost TCMC approximately $16 per dose (~$40 cost savings per dose). Oral ingestion of the intravenous solution is considered equivalent to oral tablets. **The P&T Committee has approved the deletion of vitamin K 5mg tablets from the formulary and approved the change in practice to provide oral doses using an oral solution compounded using the intravenous solution.**