ELEMENT I

SERVICE DESCRIPTION

The LAC+USC Medical Center Neonatal Intensive Care Unit (NICU) a 40-bed newborn critical care service located on the third floor of the Inpatient Tower in Los Angeles, California, 90033. This NICU provides Level IIIC Hospital based newborn services as defined by the American Academy of Pediatrics (AAP) in 2004. As such, this NICU can provide Levels I, II, and III care or basic, specialty, and sub-specialty neonatal care in any bed within the NICU complex:

- Provides neonatal resuscitation at every high-risk delivery
- Evaluates and provides postnatal care to healthy newborn infants who transition to extrauterine life with un-diagnosed signs/symptoms
- Provides care for infants who are convalescing after intensive care
- Comprehensive care for extremely low birth weight infants (≤ 1000 grams and ≤ 28 weeks' gestation)
- Conventional and advanced respiratory support such as high-frequency ventilation and inhaled nitric oxide
- On-site access to a full range of pediatric medical subspecialists
- Advanced imaging, with interpretation on an urgent basis including computed tomography, magnetic resonance imaging, and echocardiography
- Pediatric surgical specialists and pediatric anesthesiologists on site to perform major surgery

The NICU meets the criteria of a regional NICU as described by California Children's Services (CCS) in the 1999 Manual of Procedures, Chapter 3.25.1.

References:

AAP Policy Statement. (2004). Levels of Neonatal Care. Pediatrics, 114: 1341-1347.
CCS Manual of Procedures: Chapter 3.25.1.

ELEMENT II

PURPOSE

1. The NICU exists to provide family-centered specialized health care for neonates who are acutely ill requiring medical and/or surgical management and/or in varying stages of recuperation.

2. The NICU is a component of a teaching tertiary care hospital-based facility serving the economically and culturally diverse communities of Los Angeles County.

3. Philosophy:

   A. Patient-Focused Care:

      1) Each infant is viewed as a unique person with individual capacities, responses, and coping strategies in an environment, which is inherently stressful.

      2) Each infant's current level of behavioral capacities and coping strategies are instrumental in determining both the nature and timing of interventions.

   B. Family-Centered Care:

      1) Parent/significant other involvement with the planning, implementation and discharge planning of their infant's care is encouraged.

      2) A system of primary nursing is utilized to devise and modify, as needed, a plan of care to meet the specific needs of the hospitalized infant and his/her family's significant caregiver, with emphasis placed on discharge needs.

   C. End of Life/Comfort Care:

      1) The needs of the dying infant and his/her family will be identified and a plan of care developed to facilitate the grieving process.

      2) Access Palliative Care Team as a resource.

ELEMENT III

OBJECTIVES

1. Objectives for the NICU exist to direct the overall operation of the NICU.

2. Objectives are developed by the Nurse Manager with his/her staff and approved by the Clinical Nursing Director, Children's Services.

3. Objectives are developed, approved and used to orient new staff.

4. These objectives are:

   A. To provide an environment which facilitates prompt detection of emergency conditions and prevention of complications associated with congenital anomalies and perinatal complications. For those infants whose conditions cannot be treated, an environment will be provided conducive to demise with dignity for both infant and family.

   B. To provide a collaborative, multidisciplinary approach to nursing and medical managements in order to minimize the negative effects of disease processes and to optimize developmental potential of the infant and family.

   C. To provide an environment, which facilitates family-centered care via visiting policies and family or significant other involvement in multidisciplinary care conferences, care planning, direct infant care, accompany patient to procedures and discharge planning.

   D. To maintain an on-going systematic approach in assessing patient care delivery via monitoring Medical Center-wide and unit based clinical indicators for quality care improvement.

   E. To address safety priorities for our patients and their families by proactively seeking to set neonatal community standards of practice, practicing effective communication strategies and cultural competence.

5. For current short-term objectives, see Addendum entitled, "Unit Short-Term Objectives."

ELEMENT IV

ADMINISTRATION/ORGANIZATION OF UNIT

1. Unit Structure Standards: Unit Structure Standards (USS) are reviewed and revised as necessary every year by the Nurse Manager. The Clinical Nursing Director reviews and approves revisions as warranted.

2. Organizational Chart: The NICU is organized as a nursing unit within the Department of Nursing Services and Education in the LAC+USC Medical Center. Management of the unit is the responsibility of the NICU Nurse Manager with supervision, direction, and support from the Clinical Nursing Director of Children's Services or his/her designee. Collaboration with physicians and appropriate department heads takes place periodically through formal and informal channels.

   An organization chart is composed by the NICU Nurse Manager and approved by the Clinical Nursing Director of Children's Services. It reflects the levels of nursing employees in the NICU. The organization chart is discussed in new employee orientation to familiarize the newly hired employee with the lines of communication, organization, and accountability. (Refer to NICU Addendum "Organization Chart")

3. Policy Statement:

   A. Nursing Direction

      1) The NICU Nurse Manager:

         a) Is an RN with requisite clinical and managerial experience

         b) Is specially selected by the Nursing Administration to assume responsibility for the effective organization and management of the NICU complex

         c) Is responsible to the Clinical Nursing Director for the 24-hour operation of the NICU

         d) Is accountable for directing, assigning and evaluating the performance of personnel assigned to the NICU

         e) Reports problems and recommends changes necessary to maintain high quality nursing care

         f) Selects personnel and initiates corrective actions in collaboration with the Clinical Nursing Director.

ELEMENT IV (Cont'd)

ADMINISTRATION/ORGANIZATION OF UNIT (Cont'd)

2) The Supervising Staff Nurses:

   a) Are responsible to the NICU Nurse Manager for their shift

   b) Are responsible and accountable for assigning and directing personnel and for assuring that standards of care are maintained. These responsibilities include:

      - Assessment
      - Care planning
      - Evaluation of planning
      - Evaluation of patient care
      - Parent education
      - Documentation
      - Patient safety
      - Patient's Rights
      - Staff development
      - Performance appraisal and counseling
      - Quality assurance/improvement

   c) Are responsible for the fire, disaster, neonatal resuscitation, infection control, CPR, electrical safety, TB screening, blood born pathogens, domestic violence and health evaluation updates on his/herself and his/her assigned staff members

   d) Investigate problems

   e) Initiate counseling

   f) Provide input into performance appraisals

3) The Clinical Nurse Specialist is responsible for:

   a) Guiding the clinical practice in the NICU

   b) Coordination and assessment of critical care educational development and clinical competency of the nursing staff in the NICU; and for ensuring continued neonatal critical care nursing competency through educational programs for both the newly-hired and experienced nursing staff

   c) Consultation with staff on complex neonatal critical care nursing issues.

ELEMENT IV (Cont'd)

ADMINISTRATION/ORGANIZATION OF UNIT (Cont'd)

d) Oversight of comprehensive parent and/or primary caretaker education activities
e) Ensuring the implementation of a coordinated and effective discharge planning program

B. Medical Direction

1) The responsibility for directing medical care in the NICU is that of the Director of Neonatal Service. This responsibility may be delegated to a full-time staff physician who is certified by the American Board of Pediatrics and Neonatal-Perinatal Medicine and who has recognized special training, acquired experience and who has demonstrated competence in neonatology.

2) There are several different levels of physicians in the NICU, each responsible for different areas. They are:

a) Attending staff – responsible for supervision, teaching, and conducting rounds daily on all patients in the NICU, with ultimate responsibility for medical care of the patients

b) Fellow – in charge of all patients in the NICU. S/he assist the resident/intern teams, and neonatal nurse practitioners in making decisions for patient care and is responsible for the direct supervision and management of infants less than 1250 grams

c) Resident/intern – responsible for management of infants greater than 1250 grams

d) Nurse Practitioners (NNPs) - - work under direct supervision of physicians and are assigned to different areas of case management

3) Specific responsibilities of the NICU medical staff include:

a) Completing a history and physical examination on all patients within four hours of admission, and documenting the findings in the patient's chart

b) Writing clear orders on the medical care plans for all new patients

c) Administering those medications considered to be high-risk and the medications not approved for RNs to administer

ELEMENT IV (Cont'd)

ADMINISTRATION/ORGANIZATION OF UNIT (Cont'd)

d) Visiting NICU patients daily, updating the progress notes, and alerting the bedside staff to keep the NICU staff informed of changes in medical care plans

e) Collaborating daily with the NICU nursing staff in regards to the medical care plan, prognosis, and anticipated discharge(s)

f) Documenting all care provided by the medical staff on the patient's EMR

g) Co-signing all NNP orders prior to being carried out by nursing

h) Being available to the NICU nursing staff for questions and reports on patients' conditions 24-hours a day. Once the primary team leaves the In-Patient Tower, the on-call team is informed of changes in the patients' conditions. If away from the NICU, the team will indicate their exact location on the physicians' communication board in the NICU.

i) Helping to write, approve, and implement standards of care for patients in NICU

j) Contacting consultants and assuming responsibility for clarifying any conflicts that may arise between medical orders, including updating physicians who may be covering patient care.

k) Meeting regularly with the patient's family or significant others to keep them informed of his or her medical progress.

l) Participating in NICU Nursing staff development and care conferences.

m) Assisting in monitoring compliance with quality improvement activities in the NICU.

ELEMENT IV (Cont'd)

ADMINISTRATION/ORGANIZATION OF UNIT (Cont'd)

C. Integration of Nursing and Medical Practice

1) The Division of Neonatal-Perinatal Medicine Unit Meeting is an inter-disciplinary ad hoc group consisting of the NICU medical faculty, Clinical Nursing Director, Head respiratory therapist, NICU Nurse Manager, NICU Clinical Nurse Specialist, social services, NNPs, epidemiology nurse, pharmacy, medical center administration, and other allied services as warranted. The meeting is chaired by the NICU Medical Director (or in his/her absence by designated appointee) and meets the last Tuesday of each month. The agenda is set by all the members and the minutes are kept by the Newborn Services office staff. Goals of this ad hoc committee include:

   a) Collaborate on patient care and NICU issues

   b) Write and approve standards for patient care

   c) Facilitate quality assurance/improvement activities

2) Neonatal nursing personnel represent the NICU on the following committees/councils:

   a) Pediatric Services - Newborn

   b) NICU Discharge Planning Committee

      i) The purpose is to discuss and formulate discharge plans for individual infants on a weekly basis.

      ii) The membership includes representatives from California Children's Services, attending medical staff, discharge coordinator/planners, medical social services, Premature Follow-up Clinic, occupational therapy, patient financial services and other services as warranted.

ELEMENT IV (Cont'd)

ADMINISTRATION/ORGANIZATION OF UNIT (Cont'd)

c) Infection Control Committee

d) Fetal/Infant Bioethics Subcommittee of the Medical Center Bioethics Committee

I. This subcommittee meets monthly with representation from NICU attending physicians and NICU nurse management and staff.

ii. Any staff member can refer a case for review by the BioEthics Team 24 hours a day seven days a week. Monday through Friday during "business hours," telephone the pediatrics office, 323-226-3691. After hours, page [redacted].

iii. Refer to LAC+USC Healthcare Network Policy, #222.1, Forgoing Life-Sustaining Treatment for Children (Minor Patients) and LAC+USC Healthcare Network Department of Nursing Services Policy, #200, Professional Ethics Code for Nurses with Interpretive Statements.

e) Other committees/councils: NICU nursing personnel may participate in any other committee or council where NICU representation is required, such as:

i) Pediatric Clinical Council

ii) Nursing standards Committee

4. <u>Communication</u>

A. NICU nursing management and staff meetings are conducted monthly (or a minimum of at least ten times a year).

1) The staff meetings are held within the NICU complex and are based on the needs of the NICU

2) At least six out of the ten meetings must reflect the results of the quality improvement program's monitoring and evaluation

3) Minutes with sign-in rosters are maintained of all staff meetings

4) Each NICU nursing employee is expected to attend the staff meetings

ELEMENT IV (Cont'd)

ADMINISTRATION/ORGANIZATION OF UNIT (Cont'd)

5) If the NICU employee is unable to attend the staff meeting, s/he is responsible for reviewing the minutes and signing the roster

B. Information can also be communicated to and from staff members in educational conferences and classes, huddles, etc.

C. Documentation of attendance at the staff meeting is recorded on the individual Employee Educational Activity Records

ELEMENT V

HOURS OF OPERATION

The LAC+USC Medical Center NICU provides patient care 24 hours a day and 7 days a week.Staffing is based on the current patient census and is adjusted for changes in census and/or acuity levels. The staffing is based on standards set forth by department and regulatory agency requirements. Transfer of infants to outside facilities will be initiated, when a need for higher level of care is determined.

VI. UTILIZATION OF THE NICU

A. Admission

1. Admissions are arranged through consultation with in-house perinatal staff, the NICU fellow and/or NICU faculty, and the NICU Nurse Manager or designee.

2. Admissions from the community will be arranged through Medical Alert Center (MAC) with consultation provided by NICU staff physicians, the NICU Nurse Manager or designee and the referring community agency. Referrals may also be received directly from the referring hospital.

3. Circumstances of Admission

   a. Infants may be admitted directly from the LAC+USC Medical Center delivery rooms or normal nursery to the NICU for assessment, evaluation, and stabilization if necessary. The infant's condition will dictate where the infant should be admitted and to which level of care.

   b. If an infant recently discharged home from the NICU is in need of readmission, the infant may be admitted to the NICU as follows:

      1) With the approval of the Medical Director or his/her designee, infants less than or equal to 52 weeks, post-menstrual age before the proposed admission, may be admitted to the NICU if:
         a) There are available beds.

         b) The infant has been screened for potentially communicable disease. In particular, a careful history will be taken to ascertain whether the infant has been exposed to:
            - Varicella, RSV & Influenza
            - Other childhood contagious diseases
            - Infectious diarrhea

      2) All infants under 56 days of age (corrected gestational age) before the proposed readmission will be admitted to the NICU if:

         a) There are available beds.

VI. UTILIZATION OF THE NICU (Cont'd)

A. Admission (cont'd)

3. Circumstances of Admission (cont'd)

b) The infant has been screened for potentially communicable disease. In particular, a careful history will be taken to ascertain whether the child has not had:

- Varicella
- Other childhood contagious diseases
- Infectious diarrhea

c) Once these readmission conditions are met and with the approval of the Director of the Newborn Services or his designee, the infant may be admitted to the appropriate area of the NICU. Unit Isolation will be maintained utilizing the NICU isolation rooms as warranted.

3) NICU infants transferred to another hospital facility for a special procedure may be readmitted to the NICU from that facility.

4) Priority for admission is determined by the NICU Medical Director or designee based on individual assessment. In the event no bed space is available in the NICU, the critical newborn will be stabilized in the NICU until space can be located within the facility or at another NICU via Southern California Dispatch Center or MAC.

5) Admissions may not be refused without approval from the NICU Medical Director. In his/her absence, approval must come from the NICU Associate Medical Director. When both Medical Directors are unavailable, approval must come from the Newborn Attending.

6) Infants may be admitted to or discharged from the NICU at any time during a 24-hour period with the NICU fellow's or attending's approval.

7) Patients up to six months of age may be admitted for specific procedures with NICU Medical Director or designee approval.

VI. UTILIZATION OF THE NICU (Cont'd)

A. Admission (cont'd)

3. Circumstances of Admission (cont'd)

8) LAC+USC NICU transport team members will perform all interfacility transports (Refer to Addendum NICU Transport – Interfacility Program.) Children's Hospital Los Angeles' transport team may transport infants to and from LAC+USC NICU.

4. Admission Criteria

a. Maternal problems that require a newborn to be evaluated for admission include:

- Diabetes mellitus, especially, insulin-dependent
- Substance abuse
- Chronic urinary tract infections
- Severe anemia
- Cardiovascular, renal, collagen, pulmonary, infectious liver and sexually transmitted diseases
- Isoimmune thrombocytopenia
- Convulsive disorders
- Maternal viral, bacterial and protozoan infections
- Known Rh-negative mother with sensitization
- Thyroid anomalies

b. Neonatal indicators that require admission include:

- Asphyxiated infants – Apgar of 6 or less at 5 minutes
- Weight less than or equal to 2250 grams
- Weight greater than 4450 grams
- Small for gestational age (SGA): below the 10th percentile of birthweight for gestational age
- Less that 34 6/7 weeks gestation
- Respiratory distress: meconium aspiration, respiratory distress syndrome, transient tachypnea, or pneumonia
- Cardiac anomalies
- Congenital anomalies that require advanced neonatal nursing care

VI. UTILIZATION OF THE NICU (Cont'd)

A. Admission (cont'd)

4. Admission Criteria (cont'd)

- Blood group incompatibilities
  - Rh sensitized infants
  - ABO incompatibilities
  - Infants requiring exchange transfusions
- Metabolic instability (e.g., hypoglycemia, hypocalcemia)
- Hematological problems (e.g., anemia, sickle cell, hyperviscosity, etc.)
- Infants requiring pediatric surgery
- Body temperature instability
- Requiring total parenteral nutrition
- Requiring isolation
- Extreme prematurity for comfort care, confirmed gestated age less than 23 weeks or a birth wt of less than 400 gms (Refer to Addendum: Comfort Care Guidelines.)

c. Criteria for specific neonatal levels of care:

1) Criteria for admission to Neonatal Intensive Care:

a) Requiring oxygen via endotracheal (ET) tube, oxyhood or nasal cannula

b) All endotracheally intubated neonates

c) Infants receiving continuous positive airway pressure (CPAP)

d) Infants with thoracotomy tubes

e) Surgical/post-surgical infants

f) All newborns below 1250 grams

g) Central intravascular lines (umbilical lines, Broviac, percutaneous)

h) Newborns on cardiotonic medications, parenteral nutrition or paralytic agents

i) Requiring hypothermic body therapy

VI. UTILIZATION OF THE NICU (Cont'd)

A. Admission (cont'd)

4. Admission Criteria (cont'd)

c. Criteria for specific neonatal levels of care: (cont'd)

2) Criteria for admission to Neonatal Intermediate Care:

a) Continuing respiratory disease but no acute distress
b) Poor oral feeders
c) Occasional apnea with bradycardia spells
d) Rule-out sepsis
e) Growing preemie
f) Hyperbilirubinemia
g) Infants older than 30 days of life
h) Chronic lung disease
i) Infants requiring decreased environmental stimulation
j) Infants transferred from outside facilities
K) Failure to thrive
l) Weight loss of greater than 10%
M) Social issues referred by social worker or VIP clinic

3) Criteria for admission to Neonatal suspect/isolation rooms or incubators:

a) Infant of mothers with:
- Mumps
- Varicella
- Rubeola
- Rubella

b) Congenital rubella infection
c) Diarrhea
d) Herpes or suspected for herpes infection
e) Salmonella or shigella
f) Questionable contagious rash
g) Purulent lesions such as an abscess or conjunctivitis

VI. UTILIZATION OF THE NICU (Cont'd)

A. Admission (cont'd)

4. Admission Criteria (cont'd)

d. Medical orders at the initial evaluation:

1) Specific orders for NICU admission and care shall be entered within one hour of admission to the NICU or when the infant is stable. These "specific orders" must include all medical procedures that were performed upon admission (i.e., umbilical line placement, thoracotomy, ET intubation, etc.

2) All orders by consulting physicians (e.g., surgeon, ophthalmologist, etc.) must be counter-signed by the primary NICU physician before initiation.

3) All orders must be placed in E-HR

NNPs function under the supervision of a designated NICU faculty member of the Department of Newborn Services. All orders proposed by the NNP will be countersigned by the supervising NICU physician.

4) Newborns will receive hemolytic prevention in the form of vitamin K (phytonadione) upon admission to the NICU unless contraindicated. Vitamin K is administered as a prophylaxis for transient coagulation deficiency in the neonate. Refer to Addendum: Vitamin K Administration.

5) Newborns will receive ophthalmic infection prevention in the form of erythromycin ophthalmic ointment to each eye unless contraindicated.

VI. UTILIZATION OF THE NICU (Cont'd)

A. Admission (cont'd)

4. Admission Criteria (cont'd)

e. Interdisciplinary and Family Notifications:

1) The delivery room staff will contact the NICU for all deliveries. The NICU Response Team (physician, RN and respiratory care practitioner [RCP]) will respond and will notify the NICU directly:

- Of the imminent admission
- To ensure that proper arrangements can be made
- Specifics of location to be admitted, oxygen set-up, and special equipment needed, etc.
- To reduce APGARs for all deliveries

For all deliveries of ≤ 28 weeks gestation, the NICU Response Team will consist of a minimum of three trained NICU staff (physician, nurse, and RCP).

2) Normal Nursery staff shall:

- Notify the NICU Assistant Nurse Manager or designee of impending transfer or admission to the NICU and the condition of the infant so that arrangements can be promptly made
- Enter transfer note in E-HR
- Remove the Halo® tracking device
- Upon transfer to NICU, give the receiving NICU RN a detailed report which will include the maternal HBsAg status and NBS status
- Perform proper identification procedure of the infant
- Notify the mother or parents of the admission (transfer) of their infant
- Provide the mother or parents with the direct telephone number to the NICU
- Relay any special circumstances regarding visitation or social situations.

VI. UTILIZATION OF THE NICU (Cont'd)

A. Admission (cont'd)

4. Admission Criteria (cont'd)

e. Interdisciplinary and Family Notifications: (cont'd)

NICU Nursing Staff shall:

- Perform proper identification procedure of the infant (as above)
- Notify the NICU receiving physician, of the infant's arrival in the NICU
- Enter the summary note that recommends a plan of care

3) When the Department of Emergency Medicine (DEM) requests the admission of an infant to the NICU, the ER staff shall:

- Notify the NICU admitting physician
- Notify the NICU Assistant Nurse Manager or designee of the impending transfer or admission to the NICU and of the condition of infant, so that arrangements can be promptly made
- Enter transfer note E-HR
- Upon transfer to the NICU, give the receiving NICU RN a detailed report
- Perform proper identification procedure of the infant and documents in E-HR.

The NICU staff will:

- Perform proper identification procedure of the infant
- Receive the detailed report in the NICU from the ER staff
- Enter the summary note that recommends a plan of care

4) Further Family Notification

a) The NICU physician must notify the mother or parents of the infant's admission to the NICU and of any significant change in the infant's condition during this initial stabilization period.

NOTE: The LAC+USC Medical Center general consent signed by the biological mother or her designee must be obtained for all NICU infants on admission.VI.UTILIZATION OF THE NICU (Cont'd)

A. Admission (cont'd)

5. Documentation

a. The NICU has set standards for completion of the admission process by NICU medical and nursing staff. Regardless of the time period identified, the following four factors are to be considered:

1) Anticipated length of stay (LOS) for a similar patient population served

2) Complexity of the nursing care needs anticipated for that segment of the patient population

3) Dynamics of the identified condition(s)

4) Keeping parents/family informed.

b. A medical admission note, assessment, and orders must be completed as soon as possible upon admission to the NICU. Documentation must include:

1) History and physical

2) Clinical findings

3) Procedures performed

4) Plan of care

5) That the mother was notified of the infant's admission and condition

c. An assessment must be completed within one hour of admission to the NICU and documented in E-HR. The assessment shall include, but is not limited to:

- Head-to-toe physical, with skin assessment
- Parental interaction and orientation to the NICU
- Environmental description of all equipment and lines.

These items are documented on the Nursing Intensive Care Record – Neonatal and the Interdisciplinary Patient Care Plan Newborn forms.

1) A NICU RN must complete the initial physical assessment.

VI. UTILIZATION OF THE NICU (Cont'd)

C. Admission (cont'd)

5. Documentation (cont'd)

d. Except for comfort care, all infants will be placed on a cardiorespiratory monitor with alarm limits pre-set and engaged, unless otherwise ordered for extremely premature neonate.

e. Nursing formulates a patient plan of care within eight hours of admission to the NICU. Documentation of plan of care in E-HR.

f. Ongoing reassessment is performed and documented a minimum of every four hours and more often as the infant's condition/care plan dictates. Two-three hours based on acuity.

6. Limitations of Physical NICU Complex

a. All neonates that meet the admission criteria will be admitted to the NICU Service regardless of location within the Medical Center.

7. Demand for NICU Beds Beyond Capacity

a. When the census reaches unacceptable levels, whether due to staffing, space, or acuity, infant transfers will be initiated.

b. Guideline for Newborn Transfers:

1) NICU census is greater than 40.

2) The number of infants requiring ventilators is greater than available respiratory care capacity.

3) Licensed nursing staffing is mandated by Title 22.

4) A NICU infant cannot be managed by another Pediatric Service within the Medical Center.

8. Family Teaching

a. Teaching is an independent nursing function performed by the RNs in the NICU.

VI. UTILIZATION OF THE NICU (Cont'd)

A. Admission (cont'd)

8. Family Teaching (cont'd)

b. The following factors must be given consideration when planning teaching for parent/significant other:

1) Anticipated LOS of the infant.

2) Utilization of applicable Medical Center and community resources.

3) Parent's/significant other's ability to comprehend the education and to implement the learning into their skills sets. Health language screening of the mother and any primary caregiver in the home will be part of the initial and on-going discharge planning for the infant.

4) The nature and complexity of the learning needs.

5) Consideration given to infection control, safety, and available resources after discharge.

c. The effectiveness of parent's/significant other's teaching is documented on the Patient/Family Education section.

B. Length of Stay (LOS)

1. Generally, the LOS is determined by the infant's medical status.

2. An infant's LOS should be consistent with the average LOS for NICU infants with similar conditions and acuity levels. The NICU attending physician and the NICU staff will maintain quality care at all times so that the infant can be discharged as early as feasible.

3. All available resources should be used to facilitate a timely discharge (such as, social services, discharge weekly conferences, daily bedside communications and interaction between all NICU team members and the family).

4. Rationales for extended LOS will be documented in the medical record.

VI. UTILIZATION OF THE NICU (Cont'd)

C. Discharge via Transfer

1. Infants that can be transferred to the newborn nursery Service from the NICU including infants requiring border care. A written order by the Newborn Services faculty member is required.

2. An infant may be transferred to a pediatric floor based on the infant's condition, acuity, and availability of space. An order in placed by the Newborn Services Facility member is required after anticipating of admission by Rediatric Services.

3. Infants may be transferred to an outside NICU because of this NICU's lack of bed space, lack of personnel or to receive a specific type of treatment, or due to a specific situation. When transferring an infant to an outside facility, a written physician's order is required.

4. New NICU physician/NNP orders (including the order to transfer to Normal Nursery or pediatric floor) must accompany the infant. No order is required to move an infant from one area to another within the NICU complex.

5. Notification

   a. The pediatric unit or Newborn Nursery will be notified at least one hour in advance of the transfer. Notification is to include the condition and needs of the infant. Transfer of an infant from NICU to the Newborn Nursery should be based on the mother's location within the Medical Center to facilitate bonding, infant care needs, and available space. A hand off report is given to the receiving nurse on the pediatric unit or in the Newborn Nursery by the NICU nurse when the infant arrives on the receiving unit which includes:

      - History
      - Current medical and nursing diagnoses
      - Treatments
      - Parent interaction, etc.
      - Maternal HBsAg status and HBV prophylaxis measures
      - Completion of the identification procedure of the infant
      - NBS status

      The NICU physician will notify the Newborn Nursery or pediatric physician of the transfer

VI. UTILIZATION OF THE NICU (Cont'd)

C. Discharge via Transfer (cont'd)

b. Within the NICU complex, notification will be at least 30 minutes in advance of moving an infant to that new area. A brief report is given to the receiving nurse so the new area can make arrangements. An oral report is given to the RN upon the infant's arrival which includes:

- History
- Current medical and nursing diagnoses
- Treatments
- Parent interaction
- Maternal HBsAg status and HBV prophylaxis measures
- Equipment, etc.

c. The community health plan third party payor is notified of the need to transfer an infant to an outside hospital.

d. The NICU staff notifies the parents of an infant's transfer to the Normal Nursery or pediatric unit location and provides an updated report regarding the infant's condition. The NICU staff notifies the parents whenever their infant is relocated to another area within the NICU complex by giving the bedspace number and an updated report on the infant's condition.

e. The NICU physician notifies the mother or parents whenever there is a need to transfer their infant to an outside facility.

f. Documentation

1) The NICU attending physician or fellow writes a transfer note on all infants leaving the NICU. It must include:
   - a history
   - current problems
   - treatments
   - plan of care
   - assessment

2) Nursing completes a transfer note which states the destination of the infant.

3) Nursing ensures written prescription is obtained and sent with infant, HIV exposed, upon transfer.

4) When an infant is transferred to another facility, it is handles as a discharge from our NICU.

VI. UTILIZATION OF THE NICU (Cont'd)

D. Critical Status Change/Imminent Death

1. In the event of a critical status change, imminent death or death, every attempt will be made by the NICU primary physician or the on-call NICU physician to notify the parents and/or family of the infant.

2. End of life care will be provided for infants in need. Refer to Addendum Comfort Care.

3. Before the infant expires, NICU nursing notifies:
   a. MSW
   b. Chaplain Services
   c. One Legacy

4. Principles of treatment for disabled infant: It is the policy of the Medical Center, consistent with federal law, that nourishment and medically beneficial treatment (as determined with respect for pain management and reasonable medical judgment) should not be withheld from any handicapped infant solely on the basis of their present or anticipated mental and/or physical impairment.

5. The body of the expired infant will be placed in a crib/bassinet for pick up by the Decedent Affairs Office.

6. NICU physician's responsibilities include:
   a. Notification of the mother regarding the critical status change or death
   b. Attempting to obtain an autopsy consent
   c. Completing the Certificate of Death and all necessary documentation
   d. Documentation in the medical record of the time of death along with a note in the Progress Notes section.
   e. Sign his/her name and record his/her license number on the referral form for a grief and mourning visit.
   f. Evaluate for post-mortum body x-ray and for blood culture needs.

7. Nursing responsibility

   a. Prepare the body for the morgue according to standards. Identiband is to be securely placed on the infant's extremity (refer to Pediatric/Neonatal Bereavement Nursing Protocol and Perinatal Loss Nursing Protocol). Maintain all central lines and endotracheal tubes; peripheral IVs may be discontinued with application of spot Band-Aid to insertion site after removal of the catheter. Remove Halo® tag if present.

VI. UTILIZATION OF THE NICU (Cont'd)

D. Critical Status Change/Imminent Death (cont'd)

7. Nursing responsibility (cont'd)

b. Provide emotional support to the parents:

1) Parents may stay at the infant's bedside for as long as they desire.

2) If parents desire, they may hold their dying or deceased infant. Provide privacy out of the patient care area of the NICU complex to allow grief process.

c. Consult with the NICU physician for necessity of post-mortum x-rays and blood culture.

d. Complete and re-assemble the patient's medical chart. Complete the public health nurse referral with all necessary information for the follow-up visit.

e. Notify the Decedent Affairs Office and the Morgue.

f. Documentation -- NICU nursing notes should include:

1) Postmortem care
2) Cultures obtained (if any) and post mortum x--rays
3) Parental support
4) Referrals made
5) The time that the attendant from Decedent Affairs Office received the body
6) Other nursing interventions as warranted
7) Notification of One Legacy (see below)

g. The deceased infant will be transported to the Morgue by designated staff after the physician pronounces that the infant has expired, and the parents are done holding their infant.

8. Organ Donation

a. One Legacy is contacted (800-338-6112in the event of imminent death or death of any patient in the Medical Center. A confirmation number of this contact is obtained from One Legacy and documented on the patient's medical record.

VI. UTILIZATION OF THE NICU (Cont'd)

D. Critical Status Change/Imminent Death (cont'd)

8. Organ Donation (cont'd)

b. Any request by the family to donate organs or tissue from a patient is referred to One Legacy (800-338-6112).

c. One Legacy maintains offices in the Medical Center.

9. Comfort Care will be offered to all live births who do not meet resuscitation criteria as set out in the LAC+USC HEALTHCARE NETWORK POLICY, NEONATES AT THE THRESHOLD OF VIABILITY GUIDELINES FOR DECISION-MAKING.

E. Discharges to Home or Foster Placement

1. Criteria

a. Infants may be discharged when the following conditions have been met:

1) There is a written order from the NICU physician or NNP.

2) The NICU nursing staff has documented that the parents/caretakers are knowledgeable in the care of their infant.

3) The Newborn Genetic Screening and Newborn Hearing Screening have been completed and referrals made as needed. Hepatitis Immunization is given per CA state regulations.

4) The MSW has seen and interviewed the parents to evaluate and address any concerns/problems that may have arisen from the social aspects of the home situation. The MSW may also make referrals to outside agencies (such as, protective services or public health)

5) The family has been connected with an in-house or community clinic for follow-up care and well baby care. Refer to Addendum Recommended Referrals.

6) The infant's medical condition is stable, maintaining temperature, and gaining appropriate weight.

VI. UTILIZATION OF THE NICU (Cont'd)

E. Discharges to Home or Foster Placement (cont'd)

1. Criteria (cont'd)

a. Infants may be discharged when the following conditions have been met: (cont'd)

7) The infant is:

- Nippling and/or tolerating enteral feedings well
- Demonstrates a pattern of sustained weight gains
- Demonstrating no apnea/bradycardia episodes for 24 hours, if system free
- Cleared by the medical specialties involved itheir care

8) For those infants with special medical needs and will be managed at home, parents/caretakers must demonstrate all specific procedures needed for the care of their infant. A visiting nurse evaluation or public health nurse evaluation should be completed.

b. The parents/guardian should be prepared as the infant's primary caretaker while the infant is still hospitalized. This requires that the parent(s) or guardian spend time in the NICU on a regular basis to become involved in the care of the infant.

1) Well child care instruction and training prior to discharge must be taught and evaluated by NICU nursing staff. Parents/caretakers must feel comfortable assuming the role of primary caregiver. Care topics include:

a) Nutrition - - method, preparation, frequency, volume and storage

b) Physical care - - cord care, skin care, bathing, dressing, and age-appropriate behavior and activities

c) Safety - - prevention of falls and choking, electrical hazards, safety and car seat law

d) Signs of illness - - taking temperature, normal urine output, stool patterns, fussiness, feeding behavior changes, sleep disruptions, and awareness that any change in behavior may indicate illness

VI. UTILIZATION OF THE NICU (Cont'd)

E. Discharges to Home or Foster Placement (cont'd)

1. Criteria (cont'd)

e) Family dynamics and parenting skills

f) Newborn responses and interaction with others

g) Infant stimulation and development

h) Importance of compliance with vaccine scheduling

i) Parental responsibility for transportation of the infant to all prescribed follow-up appointments.

j) Assumption of the infant's plan of care as set forth in the discharge planning documentation

2) Special instructions and training may include:

a) Administration of medications

b) Tracheostomy care

c) Gavage or gastrostomy feeding

d) Use of equipment, i.e., suctioning and oxygen cylinder with bag and mask

e) Ostomy care

f) Emergency response strategies

g) Alterations resulting from the pathophysiological process(es)

c. Equipped with the proper supplies is available, such as:

1) Feeding tubes and syringes
2) Oxygen tanks
3) Ostomy care products/supplies
4) Suction machine and catheters

2. NICU physician's responsibilities:

a. Early collaboration and planning with the following team members regarding the discharge of the infant

1) Discharge Planning Nurse

VI. UTILIZATION OF THE NICU (Cont'd)

E. Discharges to Home or Foster Placement (cont'd)

2. NICU physician's responsibilities: (cont'd)

1) Discharge Planning Nurse (cont'd)

a) To identify and implement teaching needs of the parents/caretakers

b) To evaluate and order equipment and supplies needed for the infant's care at home

c) To collaborate with the DCFS when warranted for infant care needs in selecting a foster placement

d) To identify needs for referrals, i.e., clinic follow-up, visiting nurse, outside agency

2) MSW

a) To evaluate psychosocial readiness of the family

b) To contact the DCFS when warranted regarding discharge planning

3) NICU Nursing

a) To identify specific teaching needs in the family

b) To determine if teaching/learning has been completed

4) CNS

a) Oversee the discharge processing according to California Children's Services mandate

b) Initiate strategies to maximize family-centered care

b. Within the 24 hours prior to discharge, the NICU physician will:

1) Examine the infant

2) Record a discharge summary stating the infant's birth history, problem list, and current condition

3) Indicate the discharge instructions and follow-up arrangement for after discharge

c. At least five days prior to discharge, sign all paperwork necessary to order any equipment and/or supplies required.

VI. UTILIZATION OF THE NICU (Cont'd)

E. Discharges to Home or Foster Placement (cont'd)

2. NICU physician's responsibilities: (cont'd)

d. At least one day prior to discharge, write the prescriptions for home medications.

e. Write discharge orders that include:

1) Date of discharge

2) Out-patient clinic appointments required

3) Medications and/or treatments that will go home with the infant

4) Supplies and/or equipment that will be needed at home

5) Follow-up referrals to other agencies

3. NICU nursing responsibilities include:

a. Instruct parents/caretakers in infant's care and document this teaching.

b. Ensure that the Newborn (Genetic) Screening has been completed.

c. Ensure that the Newborn Hearing Screening has been completed.

d. Within 24 hours prior to discharge:

1) Weigh the infant

2) Measure the head circumference

3) Measure the length

4) Record these parameters in the E-HR

e. Complete the nursing portion of the Newborn Physical/Discharge (HS-2199) form:

1) Date and time left NICU

2) Two RN read tags and documents in E-HR

VI. UTILIZATION OF THE NICU (Cont'd)

E. Discharges to Home or Foster Placement (cont'd)

3. NICU nursing responsibilities include: (cont'd)

   f. At the time of discharge, two RNs verify identification of the infant and mother/guardian. If discharged to someone other than the mother, the person presents verification of identity. The details of the identification verification are documented in the NICU patient's record.

   g. The parents sign the Acknowledgment of California Vehicle Code 27360/27315 .

   h. The mother (or legal guardian) signs infant out of hospital on the patient discharge instruction form.

   i. Fill out the discharge form.

   j. Close out the Interdisciplinary Patient Care Plan Newborn form.

   k. Ensure Teaching Protocol is completed

   l Infant should be discharged to the front of the Medical Center via crib or bassinette.

4. Discharge Planning Nurse's responsibilities include:
   a. Provide support to NICU staff and parents
   b. Serve as liaison between NICU staff and parents
   c. Facilitate timely discharges
   d. Distribute education materials for parent education
   e. Serve as patient/family advocate
   f. Initiate Women-Infant-Children (WIC) program link-up
   g. Serve as a liaison between NICU staff and the parents with outside agencies and clinics
   h. Complete and forward referral papers to other agencies (i.e., visiting nurse, public health nurse) prior to discharge

VI. UTILIZATION OF THE NICU (Cont'd)

E. Discharges to Home or Foster Placement (cont'd)

4. Discharge Planning Nurse's responsibilities include: (cont'd)

i. Assist the parents in obtaining the medications and supplies needed to continue care at home. Explanations should be carried out in the days prior to discharge so that the parents do not have to absorb everything on the day of discharge.

j. Verify that the clinic and out-patient diagnostic testing appointments have been made. Explain the purpose of these appointments to the parents.

5. Weekly Multidisciplinary Discharge planning meetings take place to:

a. Establish an inter-disciplinary approach to ensure that all facets of discharge are addressed in a timely manner. The participants of these meetings include:

1) Discharge Planners
2) Attending physicians
3) Fellows and residents
4) MSW
5) Clinical Nurse Specialist
6) Occupational therapy
7) Respiratory therapy
8) Clinic representatives
9) Follow-up agency representatives
10) Utilization review
11) Other support services as warranted

b. All current NICU patients are discussed at these weekly meetings. Long-term cases are briefly reviewed. Shorter-term cases and those whose discharge is within two weeks are reviewed in detail. Follow-up care and teaching for parents is planned. Social agencies, medical resources, and nursing interventions are identified for each individual case.

VI. UTILIZATION OF THE NICU (Cont'd)

E. Discharges to Home or Foster Placement (cont'd)

5. Weekly Multidisciplinary Discharge planning meetings take place to: (cont'd)

c. High-risk infants are identified when they meet one of the following criteria:

1) Birth weight less than 1250 grams
2) Ventilator therapy over 24 hours
3) Apgar scores of 6 or less at five minutes
4) Congenital malformations which are correctable
5) Surgical cases
6) Infants of substance abusing mothers
7) Documented parenting problems
8) Any exceptional follow-up need

d. A master list of patients is prepared by the Discharge Planners before each meeting, and notes from the meeting are retained in the office of the Discharge Planners.

e. NICU staff role for the Discharge Planning meetings include:

1) Discharge Planners
   a) Collect medical information from charts and from the primary physician and nurses
   b) Assist residents, fellows and NNPs to present the information case by case at the meetings

2) MSW
   a) Obtain psychosocial history of each family
   b) Assess the family's functioning and structure
   c) Assess the economic and vocational situations
   d) Assess factors affecting participation at the bedside by the family
   e) Determine agencies that have been active with the family in the past and in the present
   f) Assess the family's strengths and weaknesses in coping with the infant's hospitalization
   g) Assess the parent-infant interaction and relationships

VI. UTILIZATION OF THE NICU (Cont'd)

E. Discharges to Home or Foster Placement (cont'd)

5. Weekly Multidisciplinary Discharge planning meetings take place to: (cont'd)

2) MSW (cont'd)

h) Develop a social treatment plan for each case

i) Assess the need for psychosocial referral (i.e., marriage/family counseling)

3) NICU attending physician

a) Assess all information presented

b) In collaboration with other members, develop a discharge plan including:

- Diagnostic work-up
- Psychosocial needs of the family
- Family teaching and conference needs
- Follow-up and referrals needed

f. The goal of the Discharge Planning meetings is to develop an individualized discharge plan for each infant/family under discussion.

6. Parent conferences take place with the goal of sending home an infant in the best possible condition to the most knowledgeable and equipped parents possible.

a. Participants in parent conferences include:

1) Parents/family/support persons
2) NICU primary physician
3) Primary NICU nurse
4) MSW
5) Discharge Planner/CNS

b. Objectives for the parent conferences are:

1) In the initial conference:

a) To discuss the infant's condition, anticipated outcome, and parental concerns

b) To assess parental involvement and attitudes toward their infant

VI. UTILIZATION OF THE NICU (Cont'd)

E. Discharges to Home or Foster Placement (cont'd)

2) In subsequent conference(s):
   a) To review the hospital course and current status of the infant and family
   b) To assess social and environmental factors which would preclude/delay the infant's discharge home
   c) To discuss any new concerns or needs

3) In the final conference:
   a) To discuss the infant's problems and prognosis
   b) To evaluate psychosocial intervention of problems and assess the need for out-patient follow-up
   c) To make the final evaluation of medical problems and identify the out-patient follow-up(s) required

7. Interventions for problems that may be encountered include:

a. Parents are reluctant to bond with the infant

1) Parent conferences are scheduled. Many times misconceptions can be dealt with in the conferences, and many parents change their minds and decide to take the infant home.

2) Placement options can include:
   a) Foster home
   b) County or private long-term care facility

b. Psychologically disturbed parent(s)
   1) Psychological counseling
   2) Assess the need for placement

c. Substance abusing parent(s)

1) MSW responsibilities:
   a) Contact Department of Children/Family Services if there is a positive toxicology screen on the infant and to effect a "Hospital Hold" on the infant while in the NICU

VI. UTILIZATION OF THE NICU (Cont'd)

E. Discharges to Home or Foster Placement (cont'd)

7. Interventions for problems that may be encountered include: (cont'd)

b) Psychosocial assessment and toxicology results will determine DCSF involvement

2) DCFS

a) Can make a home visit for psychosocial and environmental assessments

b) Send a "Hospital Hold" to be placed on the infant's chart

c) Placement decision is made only by DCFS pending the MSW recommendations, DCFS' evaluations of the case, and discharge planning needs.

3) Placement

a) Custody to the mother or to the immediate family:

- Negative toxicology screen on the infant and the mother with only a history of drug use; or
- Regardless of toxicology screen if the home environment and support system are adequate and the mother demonstrates the desire for rehabilitation.

b) Foster care:

- Positive toxicology screen with poor home environment and support system and/or the mother demonstrates no desire for rehabilitation.

4) Follow-up

a) If the mother or family obtain custody: DCFS, visiting nurse, and Continuity Clinic

b) If the foster home is selected: community clinic or visiting nurse

c) Abandonment by parent(s):
- Security Hold
- Foster placement

VI. UTILIZATION OF THE NICU (Cont'd)

E. Discharges to Home or Foster Placement (cont'd)

7. Interventions for problems that may be encountered include: (cont'd)

4) Follow-up (cont'd)

d) Known child abuse:
- May go home to parents pending evaluation from DCFS.
- Visiting nurse and/or other necessary referrals

e) Reluctant or nervous parents
- Parent conference(s)
- Public health nurse and/or other necessary referrals

REFERENCES:

American Academy of Pediatrics. (2008). Hospital discharge of the high risk neonate. Pediatrics: 122 (5): 1119-1126.

American Academy of Pediatrics and The American College of Obstetricians and Gynecologist. (2007). Guidelines for Perinatal Care, 6th edition.

LAC+USC Healthcare Network Policy, Neonates at the Threshold of Viability Guidelines for Decision-Making.

Ramanathan, Rangasamy. November 24, 2009. Memo to Faculty, Fellows and NICU Staff.

VII. GOVERNING RULES

1. General Safety

A. Visitor traffic control

1) 22-hour visiting is allowed for parents and identified significant others. Only two visitors may visit at a time (per NICU parents). All visitors must be verified through social worker. All family contact is documented on the Parent Interaction Record – NICU. Visitation is restricted between 0630 to 0730 and 1830 to 1930.

   a) Visitors must check in at the Information Desk in the main lobby of the Medical Center.

   b) The floor security officer will perform the following:

      i) Verify patient location and applicable restrictions for the visit.

      ii) Contact the NICU Charge Nurse if restrictions are identified.

   c) Upon arrival at the NICU door, the visitor must identify him/herself to the unit clerk or the Charge Nurse.

2) The NICU nursing management may alter the posted visiting hours and regulations at his/her discretion as warranted by the patient's condition or the activity within the NICU complex. Medical Center Safety Police personnel are available to help control visitors (ext. 3333).

3) Only parents, approved visitors, NICU physicians, NICU nurses and other health care workers engaged in NICU patient care should be in the NICU.

4) The NICU nursing management team will adhere to the Department of Nursing policy on affiliation with nursing schools as well as the specific roles of nursing students working in the NICU.

VII. GOVERNING RULES (Cont'd)

1. General Safety (cont'd)

A. Visitor traffic control (cont'd)

5) No cell phone use is permitted in the patient care areas of the NICU.

6) Parents are:

a) Invited to stay at their infant's bedside as long as desired, with respect to posted visiting times.

b) To be encouraged to telephone and/or visit the NICU as often as possible.

c) Limited to two visitors at a time at the infant's bedside multiple gestations may have two visitors permitted per infant.

7) Sibling visitation (applies to siblings of the NICU infants only) and is subject to DHS and/or CDC restrictions during infectious pandemics.

a) Visitation by siblings will be permitted every Sunday between the hours of 1200 and 1800.

b) Prior to visiting:

i) Initial screening will be completed by the Supervising Staff Nurse or designee in conjunction with the parent/primary caregiver (including immunization history, colds, flu symptoms, diarrhea and vomiting, skin rash or lesions, exposure to infections at school or in the home).

c) The parent's responsibility:

i) Prepare the sibling for the expected behaviors within the NICU

ii) Enforcing hand washing and gown procedures

iii) Keeping the sibling at the bedside with the parent at all times

VII. GOVERNING RULES (Cont'd)

1. General Safety (cont'd)

A. Visitor traffic control (cont'd)

c) The parent's responsibility:

iv) Direct observation to ensure that the sibling does not touch equipment or other infants' bed spaces while in the NICU

v) Terminating the sibling visit

- If the sibling becomes uncomfortable or tired or unmanageable
- If activity of the unit requires that the visit be temporarily interrupted as in an emergency

d) The recommended length of the sibling visit is ten minutes, depending upon the activity of the NICU and the behavior of the sibling and parent(s)

e) Siblings may visit accompanied by one parent

f) At the time of the sibling visit, the Supervising Staff Nurse or designee will:

i) Visually recheck the child for any signs or symptoms of infectious disease. If the nurse I in doubt, s/he may contact the NICU fellow on-call for consultation.

ii) Ensure that the child has scrubbed according to hand hygiene guidelines and gowned.

iii) Instruct that the sibling should not touch anything in the bed space area and reinforce expectations with parent.

iv) In the event of an emergency, the Supervising Staff Nurse or designee will escort the parent and sibling out of the area, with the understanding that when the emergency is resolved, the visit may resume

VII. GOVERNING RULES (Cont'd)

1. General Safety (cont'd)

A. Visitor traffic control (cont'd)

g) Parents are instructed to telephone the Supervising Staff Nurse and inform her if the sibling develops any problems within the week following each visit.

8) Authorized visitors

a) Guests of the Medical Center may visit the NICU as long as they have prior authorization from the appropriate Department Director (such as Nursing, Medicine or Administration).

b) Guests must adhere to NICU techniques of proper hand washing and gowning and be instructed as to the proper conduct while in the NICU.

c) Guests must be accompanied by member(s) of the authorizing department. Prior to accompanying a guest into the NICU, the Department member (who is accompanying the guest[s]) will check with the Supervising Staff Nurse of the NICU as to the circumstances in the area and activity to determine timeliness of the visit.

9) All visitors are to wash their hands (per posted protocol - - refer to Addendum Infection Control) and to wear a gown if it is anticipated that they will touch an infant or any equipment.

B. Bedside Precautions

1) Side rails of cribs and cribs and side walls of incubators are to remain securely up whenever staff leaves the bedside.

VII. GOVERNING RULES (Cont'd)

1. General Safety (cont'd)

B. Bedside Precautions (cont'd)

2) During portable x-rays at the bedside:

a) NICU personnel are to stay six feet or more away from the infant that is being radiographed and to avoid the direct beam when a lateral cross-table film is being obtained.

b) Lead aprons will be utilized for persons who must hold the infant during the x-ray procedure

c) A gonad shield in a clean plastic bag will be placed by the Radiology Tech over the infant's genital area for x-ray procedures unless the shield will obscure viewing of the path of the umbilical catheter. A gonad shield may be re-used by the same patient but not shared between patients.

3) Infants being weighed must be under constant observation and attendance during the weighing procedure.

a) Infants requiring oxygen therapy must have two licensed personnel in attendance during the weighing procedure.

4) Infants receiving phototherapy will have their eyes protected by eye shields.

b) Eye shields will be changed daily at the time of bathing.

5) Propping of feeding bottles is not allowed

6) Bassinettes and transport incubators will be pushed with both hands on the stand and in the longitudinal axis

7) Pacifiers:

a) Only proprietary pacifiers are to be used

b) At no time are pacifiers to be taped to an infant's mouth

8) Alarms are to be maintained on at all times for cardiorespiratory monitors

VII. GOVERNING RULES (Cont'd)

1. General Safety (cont'd)

B. Bedside Precautions (cont'd)

9) Refer to LAC+USC Department of Nursing Services Policy #601, Patient Safety

10) Refer to Addendum Security of the Infant/Code Pink

2. Electrical Safety and Preventive Maintenance

A. The NICU is considered an electrically sensitive area. (Refer to Maintenance and Power Division.) Only equipment with a current safety check sticker will be used in the NICU.

B. The Biomedical Department will perform regularly scheduled maintenance on portable equipment

C. When essential equipment malfunctions

1) The equipment is removed from service in the NICU

2) The equipment will be labeled as out of order and the details of the malfunction will be recorded on the label

3) It will be reported to be Biomedical Department immediately

3. Infection Control Mechanisms

A. Refer to Addendum Infection Control.

B. All NICU equipment will be hospital grade, as approved by Infection Control department.

4. Patient Valuables Control

A. In general, NICU patients do not have material valuables at their bedsides.

B. Parents/family are discouraged from bringing/leaving valuable items at the baby's bedside. Clothing, toys, and religious artifacts are left at the bedside with the parents' acknowledgement that the Medical Center is not responsible for the security of these items.

C. Any personal belonging left at the bedside will be labeled with patient name and MRUN and dedicated to the identified patient only.

VII. GOVERNING RULES (Cont'd)

5. Supplies/Special Equipment

A. The NICU shall have appropriate emergency equipment/supplies available and ready for use. The emergency care equipment must be checked daily at the beginning of each shift, and weekly to verify and document that emergency equipment and supplies are present, and in working order and with acceptable date. (Carts must be clean, stocked in an orderly manner, and locked when not in use.) The emergency drug supply shall be stored in a clearly marked portable container, with the contents and earliest expiration date of any drug listed. Opened carts will be exchanged after use. Refer to Addendum Code Blue CPR Cart, for contents and Addendum Unit Map, for location.

B. Code Blue and Staff Emergency are located at each bedside.

C. Emergency telephone line (extension 23290) is available for neonatal emergencies through out the Medical Center.

D. Bedside emergency equipment in the NICU include:

- Wall oxygen source, flow meter, tubing, bag/mask, and/or t-piece resuscitator.
- Wall suction equipment (may be bulb syringe).
- Cardiorespiratory monitors.

E. Cardiorespiratory monitor alarms (visual and auditory) are to remain on at all times.

F. Emergency transport bag are located within the NICU.

G. A defibrillator with pediatric paddles is located on each crash cart.

H. The NICU will not be left unattended at any time when patient is present.

I. Transport for surgical and/or diagnostic procedures:

1) For transport within the medical center:

a) A NICU RN will accompany the patient

VII. GOVERNING RULES (Cont'd)

5. Supplies/Special Equipment (cont'd)

I. Transport for surgical and/or diagnostic procedures: (cont'd)

1) For transport within the medical center: (cont'd)

b) A NICU RCP will accompany if the patient is receiving oxygen or has received sedation.

c) A MD/NNP will accompany the patient if the baby is not medically stable

d) Transport bag is taken along with the patient

2) Transport to another facility:

a) A NICU RN, RCP, and MD accompany the patient.

b) Transport bag is taken along with the patient.

c) Transport medication box is taken along with the patient

J. Neonatal patients who are being transported within the medical center or between facilities must be accompanied by at least one NICU employee whose identification badge has a pink background.

K. NICU supplies are stocked based on established quotas.

L. Sterilized equipment is stocked based on established quotas.

M. Medications are stored in Pyxis, oral medication carts and in the medication preparation areas. Medication stocks are obtained through the satellite Pharmacy. On an emergency basis medication can be obtained from the Medical Center's main Pharmacy.

6. Support Services

A. Refer to LAC+USC Department of Nursing Services Policy #943, Ancillary and Support Services.

B. One social worker is assigned to every 15 NICU infants.

VII. GOVERNING RULES (Cont'd)

6. Support Services (cont'd)

C. Any problems with support services in the NICU will be documented and discussed promptly for corrective action with the Nursing Director, responsible Service Chief, and responsible Department Manager.

D. Refer to NICU Addendum Respiratory and Ancillary Services Direction.

7. Fire/Disaster Plans

A. The Nursing Department participates in the Medical Center's Fire and Disaster Plan. Guidelines that are applicable to the nursing staff are reviewed and updated annually. Nursing staff shall be trained to the plan and shall participate in periodic documented drills to main knowledge and skills.

B. Refer to NICU Addendum Fire and Disaster Plan.

VIII. UTILIZATION OF STAFF

1. Staffing

The NICU is staffed with professional and non-professional staff. A staffing pattern exists which is in compliance with Departmental and regulatory agency requirements. Refer to NICU Addendum Acuity/Staffing.

A. Staff assigned to the NICU must meet the minimum competency requirement to provide care for the low to high neonatal patient. They must also have the following education and current training:

1) Current CCRN or RNC in neonatal intensive care (national certification), or

2) Completion of a LAC+USC approved critical care program with six months or more of recent NICU nursing experience, or

3) Meet the requirements for LAC+USC classification of RN I with six months or more of recent NICU nursing experience.

B. Supplemental nursing staff assigned to the NICU will receive the following orientation:

1) Modified unit orientation

2) Modified clinical orientation with an assigned preceptor. Refer to NICU Addendum Unit Orientation.

2. Delivery of Care Methodology

A. The method of delivering patient care in the NICU is consistent with the goals and philosophy of the Department of Nursing. A permanent record of current policies and procedures, nursing standards of patient care, and standards of nursing practice is available to all appropriate nursing staff members via the intranet.

B. No standardized procedures as defined by the State of California Board of Registered Nursing are performed by the NICU nursing staff.

C. There is one methods of delivering neonatal care in the NICU. It is primary nursing.

D. Refer to NICU Addendum Delivery of Care Methodology.

VIII. UTILIZATION OF STAFF (cont'd)

3. Preparation of Nursing Staff

A. Selection: Nursing staff will be hired for the NICU by the Nurse Manager or designee. Staff is selected based on current vacancies, education, and experience.

B. Orientation

1) All NICU nursing staff completes the Central Orientation through the Nursing Services' Department of Educational and Consulting Services. NICU orientation is accomplished under the immediate supervision of the NICU Nurse Manager, the CNS and the Educational and Consulting Services Department. Patient care orientation includes:

a) Basic concepts in neonatal care and high-risk neonatal care

b) Neonatal physiology and pathophysiology

c) Skills necessary in the care of the high-risk neonate

2) Upon successful completion of the NICU Nursing Orientation program, new nursing staff will demonstrate competence as outlined in the NICU Orientation Addendum. NICU specific orientation is completed according to NICU specific standards and criteria. Evidence of completion is documented by the NICU nursing preceptors and is placed in the employee's file in the nursing office of the Department of Nursing. Refer to NICU Addendum Unit Orientation.

3) All nursing staff is assessed for clinical competency using the NICU RN "Annual Validation of Standards Based Practice" form. It is initiated by the NICU Nurse Manger or designee and updated on an annual basis.

C. Continuing Education

1) All NICU staff will attend on-going educational events held within the Department of Nursing and by the NICU. These educational activities will be based on routine and new responsibilities of nursing staff, identified learning needs, and data from infant care review activities.

VIII. UTILIZATION OF STAFF (cont'd)

3. Preparation of Nursing Staff (cont'd)

C. Continuing Education (cont'd)

2) Staff will attend/read all mandatory events/rosters dealing with:

a) BLS and Emergency Measures

b) NRP

c) Safety, including

i) General
ii) Electrical
iii) Fire and Disaster
iv) Infection Control
v) TB Screening
vi) Blood borne pathogens
vii) Domestic violence
viii) Sexual Harassment
ix) CPOE
x) HIPAA

3) All RNs are expected to have two hours of education documented on their Educational Activity Record on a monthly basis or 24 hours on an annual basis.

4) Education Activity Records will be maintained in the NICU and sent to area file at the end of the calendar year.

D. Credentialing

All NICU RNs are encouraged to become nationally certified through American Nurses Credentialing Center or National Credentialing Corporation for Neonatal Intensive Care nursing.

References:

Verklan, M. T., & Walden, M. (2004). Core Curriculum for Neonatal Intensive Care Nursing, 5th edition. Elsevier Saunders.

IX. NURSING RESPONSIBILITIES

Refer to Addendum “Performance Standards.”

X. QUALITY CONTROL/QUALITY IMPROVEMENT

The Performance Improvement method used in the LAC+USC to guide Performance Improvement activities is the Plan, Do, Study, Act (PDSA) model.

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ADDENDUM A
ACUITY/STAFFING

PURPOSE:

To ensure the use of the patient classification system in order to evaluate patient care requirements and assign human resources to meet those requirements.

POLICY:

The NICU staff will utilize the *Evalysis*™ patient classification system to determine, validate, and monitor individual patient care requirements over time; in order to assist in determining unit staffing, patient assignments, and maintenance of quality-care and regulatory standards.

DEFINITION:

The patient classification system is a method for establishing staffing requirements by unit, patient, and shift that includes:

- A method to predict nursing care requirements for the each neonatal patient
- An established method by which staffing requirements are determined
- A method to determine human resources allocation, based on nursing care requirements

The staffing based on acuity guidelines categorizes each patient care needs into one of four levels (level 1 being the lowest acuity, and level 4 being the highest acuity). Definitions of each level in the NICU with examples follow:

Level 4 (1:1 nurse/patient ratio, *acuity score 4*): Newborns requiring multi-system support, complex critical care.

Examples include:

- Seizures not controlled by anti convulsant medications
- Unstable ventilated infants requiring frequent blood gases and ventilation changes every one to two hours
- Hemodynamically unstable patient with multiple IV infusions
- Intravenous insulin drip with unstable glucose

Level 3 (1:2 nurse/patient ratio, *acuity score 3*): Newborns requiring intensive care.

Examples include:

- Tracheostomy or endotracheally intubated stable infants requiring few ventilator parameter changes or blood gases
- Unstable nasal continuous postitive pressure airway modality with frequent oxygen changes
- Infant of a diabetic mother (IDM) with unstable blood glucose levels.
- Post-surgical patient
- Patient with complex wound care

ADDENDUM A (Cont'd)
ACUITY/STAFFING (Cont'd)

Level 2 (1:3 nurse/patient ratio, *acuity score 2*): Newborns requiring intermediate care

Examples include:

- Pulse oximeter with oxygen administration
- Continuous or intermittent intravenous infusion with three or less antibiotics per 12-hour shift
- IDM with stable blood glucose levels
- Chronically ill infants requiring more than one oral medications per 12-hour shift
- Feedings by nasogastric or gastric tube

Level 1 (1:4 nurse/patient ratio, *acuity score 1*): Newborns requiring continuing care

Examples include:

- Convalescing growing babies
- Infants may require oxygen and/or other respiratory treatments
- Infants awaiting placement

PROCEDURE:

1. Each patient's acuity will be assessed every eight hours, by a RN who has demonstrated competency using the *Evalisys*™ patient classification tool.

2. Assessment is completed and entered by 05:00, 13:00, 21:00.

3. The Medical Center's Nursing Office staff print census/acuity and calculated staffing requirements.

4. The NICU Nurse Manager/designee will review staffing requirements and make appropriate assignments.

5. Staffing variances will be documented on a shift-by-shift basis and resolved as necessary. Information requiring changes in staffing numbers are communicated to the Medical Center's on-duty Nursing Supervisor.

6. Additional nursing staffing adjustments may be made as necessary in order to meet changes in patients' acuities and/or admissions and discharges throughout the shift.

ADDENDUM A (Cont'd)
ACUITY/STAFFING (Cont'd)

NICU Nursing Management Responsibilities:

- Nurse Manager ensures that all RNs achieve a baseline patient classification system competency, with a bi-annual rater reliability
- Associate Nursing Director/Nurse Manager analyses data to detect trends and patterns of nursing care delivery for budget planning
- The Department of Nursing is responsible to ensure that there are sufficient numbers of qualified staff members available at all times, to meet the nursing care needs of patients in the NICU.

References:

JCAHO
California Title XXII
CATALYST: *Evalisys Patient Classification™*

ADDENDUM AA

IMMUNIZATION ADMINISTRATION

Purpose:

To establish guidelines by which staff will ensure that all Neonatal patients are screened for immunization status.

Policy:

Every Neonatal patient admitted to this facility shall have his/her immunization status evaluated prior to discharge home.

Procedures/Guidelines:

1. Authorization for Administration

   a. A physician nurse practitioner may order immunizations to be administered to a patient.

   b. The patient/parent/guardian is advised of the benefits, risks and possible side effects of immunization administration prior to receiving any immunization along with a copy of the most current Vaccine Information Statement (VIS) for the specific immunization. (Available via www.cdc.gov/vaccines/pubs/vis in English, Spanish and other languages.).

   c. Acknowledgment of receipt regarding the above information is evidenced by the signature of the parent/guardian on the Immunization Record Card (H-519) under the section entitled "Authorized Signature."

2. Administration of Immunizations

   a. A written order from the physician or NNP is required.

   b. Unless contraindicated by diagnoses, condition and/or patient/parent/guardian declination, the needed immunizations* maybe administered upon receipt of written order.

   c. For additional information (diagnosis specific) refer to the most current edition of the American Academy of Pediatrics Report of the Committee on Infectious Diseases (The Red Book).

   d. Parent/Guardians are referred to continuity/preemie clinic with the infant's primary health care provider for follow-up immunizations as indicated.

ADDENDUM AA

IMMUNIZATION ADMINISTRATION

Procedures/Guidelines: (Cont'd)

3. Administration Process

a. A NICU RN who has successfully completed the neonatal medication review with exams and has been oriented to the proper techniques in handling and administration of immunizations may administer immunizations.

b. Prior to administration, the patient must be screened for febrile illness that may contraindicate immunizations at the present time.

c. The NICU RN may administer the immunization after authorization is obtained from the parent/guardian, and after it is determined there is no contraindication.

d. Provide comfort measures (i.e., pacifier with sugar solutions, skin to skin or breastfeeding, snugly wraps baby's upper body and blankets and with upper things exposed.

*Most current schedule is updated yearly and available at
www.cdc.gov/vaccines/recs/schedules/index.html

4. Documentation of Immunizations

a. Nursing staff is required to document administration of immunizations on the following:
- Immunization Record Card (H-519)
- Medication Administration Record
- Yellow Immunizations Card

5. Adverse Events

a. Notify the attending neonatologist on duty and document the adverse events on the Nursing Intensive Care Record – Neonatal.

b. All clinically significant adverse events occurring after immunization are to be reported to the Vaccine Adverse Event Reporting System (VAERS). Reporting forms and information on completing the forms can be found at https://secure.vaers.org/VaersDataEntryintro.htm or by telephoning 1-800-822-7967 or faxing 1-877-721-0366 (both are toll-free).

c. Complete a Pharmacy Adverse Reaction form and fax to pharmacy.

ADDENDUM AA

IMMUNIZATION ADMINISTRATION

Procedures/Guidelines: (Cont'd)

6. Daily Immunization Report (H-551 for units that participate in the Immunization Program

   a. The NICU Pharmacy will log an entry for every vaccine administered in the NICU.

   b. The NICU Pharmacy will process log accordingly.

ADDENDUM AA
IMMUNIZATION ADMINISTRATION

The following are guidelines for "normal" vital signs for NICU infants.

VITAL SIGNS IN NEONATES AND INFANTS					
Age	HR	RR	Blood Pressure		Temp
			Systolic	Diastolic	
Birth (1st 12h of life)	100-160	30-70	50-70	25-45	36.3 – 36.9°C (97.3 – 98.5°F)
Neonate (1st 6 weeks of life)	90-180	30-60	60-90	20-60	36.3 – 36.9°C (97.3 – 98.5°F)
Infant (30 days – 1 year)	80-160	30-60	85-105	53-66	36.5 – 37.5°C (97.7 – 99.5°F)

Neonatal Infant Pain Scale (N PASS) will be used to assess each infant for pain.

References:

Karlsen, K. (2006). S.T.A.B.L.E. Program, 5th edition.

Lawrence, J., et al. (1993). The development of a tool to assess neonatal pain. Neonatal Network, 12(6): 59-66.

Verklan, M. T., & Walden, M. (1999). Core Curriculum for Neonatal Intensive Care Nursing, 3rd ed., pp. 378-384.

ADDENDUM AA

IMMUNIZATION ADMINISTRATION

Immunization Administration References:

Robinson, C. L., Bernstein, H., Romero, J. R., & Szilagyi, P. (2019). Advisory Committee on Immunization Practices Recommended Immunization Schedule for Children and Adolescents Aged 18 Years or Younger - United States, 2019. *MMWR: Morbidity & Mortality Weekly Report*, *68*(5), 112–114. https://doi-org.contentproxy.phoenix.edu/10.15585/mmwr.mm6805a4

Stevens, K. E. ., & Marvicsin, D. J. . (2016). Evidence-Based Recommendations For Reducing Pediatric Distress During Vaccination. *Pediatric Nursing*, *42*(6), 267–299. Retrieved from http://search.ebscohost.com.contentproxy.phoenix.edu/login.aspx?direct=true&db=eue&AN=120221561&site=eds-live

ADDENDUM AAA

SUCROSE SOLUTION FOR NEONATAUINFANT PAIN MANAGEMENT

PURPOSE

To provide appropriate levels of pain relief and reduce stress to infants undergoing minor invasive procedures, and non-invasive procedures that are presumed to be uncomfortable. Sucrose may be used as an adjunct to pharmacological intervention for more painful procedures.

SUPPORTAIVE DATA

The use of oral sucrose in conjunction with non-nutritive sucking prior to painful or invasive procedures has been shown to decrease both physiologic and behavioral indicators of pain in newborns and young infants. Research based evidence supports the usage of oral sucrose as a safe and effective intervention for mild to moderate pain in neonates and young infants to 3 months of age. (AAP, Prevention and Management of Pain in the Neonate: An Update, Nov 2006, p.2234).

POLICY

The use of oral sucrose 24% solution requires a written medical order. The use of oral sucrose 24% solution is a non-pharmacologic analgesia intervention that may be utilized for potentially painful procedures not requiring pain or sedation medications. To enhance prescribed medications, oral sucrose may be used during invasive procedures requiring pharmacological interventions. Sucrose does not replace opioids for the relief of moderate to severe pain. Sucrose is single use only and may not be shared between patients.

GUIDELINES

I. INDICATION FOR USE:

A. Use of sucrose as a non-pharmacologic intervention:
- Intravenous catheter insertion
- Phlebotomy sticks
- Arterial puncture
- Intramuscular (IM) injections
  Subcutaneous (SQ)
  injections Heel sticks
- NGT placement
- Urinary catheterization
- Adhesive tape removal
- Eye examination
- Dressing changes
- Suture removal
- Immunization injections/ multiple sticks

ADDENDUM AAA (Cont'd)

SUCROSE SOLUTION FOR NEONATLA/INFANT PAIN MANAGEMENT (Cont'd)

I. INDICATION FOR USE (Cont'd):

B. Sucrose can be used in conjunction with other pharmacologic agents:
- Percutaneous arterial catheter insertion
  Central venous line placement
- Peripheral central catheter placement
- Lumbar Puncture
  Chest tube insertion
- ROP surgery
- Circumcision

II. OTHER NONPHARMACOLOGIC INTERVENTIONS INCLUDE:

A. Modifying the environment:
- Turing down lights
- Quiet Area
- Decrease visual stimuli
- Soothing Voice
- Incubator cover

B. Positioning:
- Breastfeeding (during minor invasive procedures)
- Swaddling (defined as maintaining the arms and legs in a flexed position). The infant can be partially swaddled for comfort when an extremity/area needs to be available for the procedure.
- Infant's hand availability to the mouth
- Rhythmic rocking

C. Touching:
- Skin to skin (during minor invasive procedures)
- Gentle stroking of back or head
- Cuddling
- Warm blanket (if no fever)
- Gentle tape removal
- NNS (Non-Nutritive Sucking)
- Massage

D. Cluster nursing care activities

ADDENDUM AAA (Cont'd)

SUCROSE SOLUTION FOR NEONATLA/INFANT PAIN MANAGEMENT (Cont'd)

III. CONTRAINDICATIONS FOR USE OF ORAL SUCROSE SOLUTION:

- Oral sucrose should not be used as first-line interventions for moderate, severe or chronic pain relief for infants
- Infants less than or equal to < 26 weeks gestation
- Oral sucrose should not be used on infants who are intubated
- Infants with tracheoesophageal fistula (TEF) or esophageal atresia
- As a treatment for hypoglycemia
- Infant without bowel sounds
- Infants who are irritable and would respond to other nursing measures comfort measures
- Known fructose or sucrose intolerance

A. Anticipate painful or uncomfortable stimuli.

B. Obtain supplies:
   1. Prepared 24% Sucrose (Sweet-Ease®) package.
   2. Packaged pacifier
   3. Oral syringe

C. Only small volumes of oral sucrose solutions are required because it is the neonate's detection of a sweet substance, not the volume, which produces the analgesic effect.

   Dose: 0.1 ml to 1 ml or 0.2 to 0.5 ml/kg (Harrison, et. al., 2012). See Chart II.

D. Administer Solution:

   1. Administer approximately two (2) minutes prior to painful procedure for maximum effectiveness

      a. Infants able to suck a pacifier:
         - Dip pacifier in oral sucrose solution
         - Give pacifier to infant to suck
         - Allow infant to suck on pacifier as long as desired

      b. Infants unable to suck:
         -Draw up 0.2 ml into oral syringe
         -Apply drops to anterior portion of tongue or buccal surface

ADDENDUM AAA (Cont'd)

SUCROSE SOLUTION FOR NEONATLA/INFANT PAIN MANAGEMENT (Cont'd)

PROCEDURE (Cont'd):

D. Administer Solution (Cont'd):

Give sucrose solutions in aliquots over the duration of the procedure for prolonged procedures and evaluate infant's response (See NPASS Scale: Chart I). If calming does not occur other measures should be implemented.

E. Sucrose usage in healthy newborn infant:

1. Healthy term newborn may receive one (1) ml of oral sucrose solution per dose with a repeat of one (1) ml after two (2) minutes if pain scores have not decreased to zero (0).

2. Each Sucrose container is a single usage container and is to be discarded after use.

3. See Chart II.

F. The nurse will inform/educate the parent(s)/caregiver regarding use of non-pharmacological nursing interventions and use of sucrose for pain relief during uncomfortable procedures.

DOCUMENTATION:

A. Document each sucrose administration in the MAR

B. Document in e-HR infant's pain score using NPASS pain scale during and after procedures, interventions used, responses to interventions, and parental involvement if any.

ADDENDUM AAA (Cont'd)

SUCROSE SOLUTION FOR NEONATLA/INFANT PAIN MANAGEMENT (Cont'd)

CHART I: NAPSS SCALE

ADDENDUM AAA (Cont'd)

SUCROSE SOLUTION FOR NEONATLA/INFANT PAIN MANAGEMENT (Cont'd)

N-PASS:
Neonatal Pain, Agitation, & Sedation Scale

Pat Hummel, MA, RNC, NNP, PNP & Mary Puchalski, MS, RNC

Assessment Criteria	Sedation		Normal	Pain / Agitation	
	-2	-1	0	1	2
Crying Irritability	No cry with painful stimuli	Moans or cries minimally with painful stimuli	Appropriate crying Not irritable	Irritable or crying at intervals Consolable	High-pitched or silent-continuous cry Inconsolable
Behavior State	No arousal to any stimuli No spontaneous movement	Arouses minimally to stimuli Little spontaneous movement	Appropriate for gestational age	Restless, squirming Awakens frequently	Arching, kicking Constantly awake or Arouses minimally / no movement (not sedated)
Facial Expression	Mouth is lax No expression	Minimal expression with stimuli	Relaxed Appropriate	Any pain expression intermittent	Any pain expression continuous
Extremities Tone	No grasp reflex Flaccid tone	Weak grasp reflex ↓ muscle tone	Relaxed hands and feet Normal tone	Intermittent clenched toes, fists or finger splay Body is not tense	Continual clenched toes, fists, or finger splay Body is tense
Vital Signs HR, RR, BP, SaO_2	No variability with stimuli Hypoventilation or apnea	≤ 10% variability from baseline with stimuli	Within baseline or normal for gestational age	↑ 10-20% from baseline SaO_2 76-85% with stimulation - quick ↑	↑ > 20% from baseline SaO_2 ≤ 75% with stimulation - slow ↑ Out of sync with vent

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Loyola University Health System, Loyola University Chicago, 2000

Premature Pain Assessment
+ 3 if < 28 weeks gestation / corrected age
+ 2 if 28-31 weeks gestation / corrected age
+ 1 if 32-35 weeks gestation / corrected age

Assessment of Sedation
- Sedation is scored in addition to pain for each behavioral and physiological criteria to assess the infant's response to stimuli
- Sedation does not need to be assessed/scored with every pain assessment/score
- Sedation is scored from 0 → -2 for each behavioral and physiological criteria, then summed and noted as a negative score (0 → -10)
  - A score of 0 is given if the infant's response to stimuli is normal for their gestational age
- Desired levels of sedation vary according to the situation
  - "Deep sedation" → score of -10 to -5 as goal
  - "Light sedation" → score of -5 to -2 as goal
  - Deep sedation is not recommended unless an infant is receiving ventilatory support related to the high potential for apnea and hypoventilation
- A negative score without the administration of opioids/ sedatives may indicate:
  - The premature infant's response to prolonged or persistent pain/stress
  - Neurologic depression, sepsis, or other pathology

Assessment of Pain/Agitation
- Pain assessment is the fifth vital sign - assessment for pain should be included in every vital sign assessment
- Pain is scored from 0 → +2 for each behavioral and physiological criteria, then summed
  - Points are added to the premature infant's pain score based on their gestational age to compensate for their limited ability to behaviorally or physiologically communicate pain
  - Total pain score is documented as a positive number (0 → +10)
- Treatment/interventions are indicated for scores ≥ 3
  - Interventions for known pain/painful stimuli are indicated before the score reaches 3
- The goal of pain treatment/intervention is a score ≤ 3
- More frequent pain assessment indications:
  - Indwelling tubes or lines which may cause pain, especially with movement (e.g. chest tubes) → at least every 2-4 hours
  - Receiving analgesics and/or sedatives → at least every 2-4 hours
  - 30-60 minutes after an analgesic is given for pain behaviors to assess response to medication
  - Post-operative → at least every 2 hours for 24-48 hours, then every 4 hours until off medications

Paralytic/Paralysis
- It is impossible to behaviorally evaluate a paralyzed infant for pain
- Increases in heart rate and blood pressure may be the only indicator of a need for more analgesia
- Analgesics should be administered continuously by drip or around-the-clock dosing
  - Higher, more frequent doses may be required if the infant is post-op, has a chest tube, or other pathology (such as NEC) that would normally cause pain
  - Opioid doses should be increased by 10% every 3-5 days as tolerance will occur without symptoms of inadequate pain relief

ADDENDUM AAA (Cont'd)

SUCROSE SOLUTION FOR NEONATLA/INFANT PAIN MANAGEMENT (Cont'd)

Scoring Criteria

Crying / Irritability

-2 → No response to painful stimuli, e.g.:
- No cry with needle sticks
- No reaction to ETT or nares suctioning
- No response to care giving

-1 → Moans, sighs, or cries (audible or silent) minimally to painful stimuli, e.g. needle sticks, ETT or nares suctioning, care giving

0 → Not irritable – appropriate crying
- Cries briefly with normal stimuli
- Easily consoled
- Normal for gestational age

+1 → Infant is irritable/crying at intervals – but can be consoled
- If intubated – intermittent silent cry

+2 → Any of the following:
- Cry is high-pitched
- Infant cries inconsolably
- If intubated – silent continuous cry

Behavior / State

-2 → Does not arouse or react to any stimuli:
- Eyes continually shut or open
- No spontaneous movement

-1 → Little spontaneous movement, arouses briefly and/or minimally to any stimuli:
- Opens eyes briefly
- Reacts to suctioning
- Withdraws to pain

0 → Behavior and state are gestational age appropriate

+1 → Any of the following:
- Restless, squirming
- Awakens frequently/easily with minimal or no stimuli

+2 → Any of the following:
- Kicking
- Arching
- Constantly awake
- No movement or minimal arousal with stimulation (inappropriate for gestational age or clinical situation, i.e. post-operative)

Extremities / Tone

-2 → Any of the following:
- No palmar or planter grasp can be elicited
- Flaccid tone

-1 → Any of the following:
- Weak palmar or planter grasp can be elicited
- Decreased tone

0 → Relaxed hands and feet – normal palmar or sole grasp elicited – appropriate tone for gestational age

+1 → Intermittent (<30 seconds duration) observation of toes and/or hands as clenched or fingers splayed
- Body is *not* tense

+2 → Any of the following:
- Frequent (≥30 seconds duration) observation of toes and/or hands as clenched, or fingers splayed
- Body is tense/stiff

Vital Signs: HR, BP, RR, & O_2 Saturations

-2 → Any of the following:
- No variability in vital signs with stimuli
- Hypoventilation
- Apnea
- Ventilated infant – no spontaneous respiratory effort

-1 → Vital signs show little variability with stimuli – less than 10% from baseline

0 → Vital signs and/or oxygen saturations are within normal limits with normal variability – or normal for gestational age

+1 → Any of the following:
- HR, BP, and/or RR are 10-20% above baseline
- With care/stimuli infant desaturates minimally to moderately (SaO_2 76-85%) and recovers quickly (within 2 minutes)

+2 → Any of the following:
- HR, BP, and/or RR are > 20% above baseline
- With care/stimuli infant desaturates severely (SaO_2 < 75%) and recovers slowly (> 2 minutes)
- Infant is out of synchrony with the ventilator – fighting the ventilator

Facial Expression

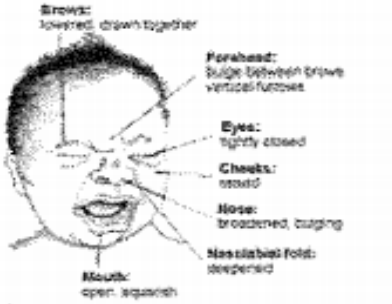
-2 → Any of the following:
- Mouth is lax
- Drooling
- No facial expression at rest or with stimuli

-1 → Minimal facial expression with stimuli

0 → Face is relaxed at rest but *not* lax – normal expression with stimuli

+1 → Any pain face expression observed intermittently

+2 → Any pain face expression is continual



Facial expression of physical distress and pain in the infant

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ADDENDUM AAA (Cont'd)

SUCROSE SOLUTION FOR NEONATLA/INFANT PAIN MANAGEMENT (Cont'd)

CHART II = SWEET-EASE® DOSING

METHOD OF DELIVERY	DROPS	APPROPRIATE VOLUME ADMINISTERED
Surcose cup with pacifier	One dip in sucrose solution	0.1 **ml**
Surcose cup with dropper	1 - 2 drops	0.2-0.5 **ml**

REFERENCES:

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Pasek, Tracy A. & Huber, Jessica M. (2012). Hospitalized infants who hurt: a sweet solution with oral sucrose. *Critical Care Nurses, 32(1*),61-68.

ADDENDUM B
AGE APPROPRIATE CARE

1. Characteristics

Infancy is defined as birth to 12 months. According to Erik Erikson the developmental stage of this life cycle is "Trust Versus Mistrust". The first year encompasses the time when confidence in having needs met and in feeling physically safe takes place. When needs are consistently met, anticipation of satisfaction occurs.

2. Physical Growth

A. Birth to 4 weeks

1) Weight - gains 5-7 ounces per week during first month
2) Height - grows approximately 1 inch during first month
3) Head - 13-15 inches (32-28 cm) generally 3/4 inch larger than chest
4) Fontanels - soft and flat
5) Mouth - clean, may have nipple blister on lip
6) Sleep - generally sleeps much of the time between feedings, wakes up to night feedings
7) Skin - clear without rash
8) Abdomen - soft and flat
9) Cord - umbilicus clean, non-irritated. Cord should dry and fall off during first or second week of life.
10) Urinary - voids at least 6 times per day
11) Stools - 2-6 per day
    a) Bottle fed - yellow and soft
    b) Breast fed - yellow, soft, runny, seedy
12) Feeding Pattern:
    a) Breast fed - every 2-3 hours
    b) Bottle fed - 3-4 ounces every 3-4 hours (120 mLs/kg/24 hours)

ADDENDUM B (Cont'd)
AGE APPROPRIATE CARE (Cont'd)

2. Physical Growth (Cont'd)

B. 2 Months to 4 Months:

1) Weight - gains 5-7 ounces per week during second and third months
2) Height - grows approximately 1 inch per month
3) Fontanel - posterior fontanel closed
4) Skin clear without rash
5) Urinary - voids at least 6 times per day
6) Stools - 2-6 times a day:
   a) Bottle fed - yellow and soft
   b) Breast fed - yellow, soft, runny, seedy
7) Feeding Pattern
   a) Bottle fed - 4-6 ounces 4 times/day (100 mLs/kg/day)
   b) Breast fed - every 3-4 hours
8) Sleep May give up night feeding; naps morning and afternoon; is awake longer periods of time

C. 4 Months to 6 Months:

1) Weight - Double birth weight. Gains 5-7 ounces per week.
2) Height - grown approximately 1 inch per month
3) Skin - Clear without rash
4) Urinary voids 4-6 times per day
5) Stool - 1-2 times per day. Soft, formed. Color and consistency varies with intake.
6) Feeding Pattern:
   a) Breast feed – on demand
   b) Bottle feed – on demand
7) Sleep – 9 hours at night with naps in the morning and afternoon
8) Miscellaneous – Smiles spontaneously; "chatting" begins

ADDENDUM B (Cont'd)
AGE APPROPRIATE CARE (Cont'd)

2. Physical Growth (Cont'd)

D. 6 Months to 8 Months

1) Weight – Gains 4-6 ounces per week
2) Height – Grows approximately ¾ inch per month
3) Skin - Clear without rash
4) Urinary – voids 4-6 times a day
5) Stool – soft, formed, color varies with intake, 1-2 times per day
6) Feeding Pattern:
   a) Breast fed - every 4-6 hours
   b) Bottle fed - 6-8 ounces, 4 times/day
   c) Begins solids (vegetables first) one at a time for a week at a time
   d) May have difficulty drinking from a cup. May take solids and finger foods.
7) Sleep - 10-12 hours at night; naps generally morning and afternoons
8) Miscellaneous - May begin teething

E. 8 Months to 10 Months:

1) Weight - Gains 3-5 ounces per week
2) Height - Grows ½ inch per month
3) Skin - clear without rash
4) Urinary - voids 4-6 times per day
5) Stools - soft, formed, color varies with intake 1-2 times per day.
6) Feeding Pattern:
   a) Breast fed - every 4-6 hours
   b) Bottle fed - 6 ounces 4 times per day
   c) May take solids and finger foods

ADDENDUM B (Cont'd)
AGE APPROPRIATE CARE (Cont'd)

2. Physical Growth (Cont'd)

E. 8 Months to 10 Months: (cont'd)

7) Sleep - sleeps 10-12 hours per night. May need only one nap.

8) Miscellaneous - has increased drooling with probable tooth eruption

F. 10 Months - 12 Months:

1) Weight - triples birth weight. Gains approximately 3-5 ounces per week.

2) Height - approximately 29 inches. Grows approximately 1/2 inch per month.

3) Skin - clear without rash.

4) Urinary - voids 4-6 times per day.

5) Stools - soft, formed, color varies with intake; 1-2 times per day

6) Feeding Pattern:

a) Breast fed - every 4-6 hours

b) Bottle fed - every 6-8 ounces 4 times per day

c) Uses cup and spoon with spilling. Lips close ground spoon. Tongue may be under cup. Takes 3 meals per day plus snacks. May begin weaning from breast or bottle.

7) Miscellaneous - May have several teeth. Head and chest circumference equal. Wailing begins, speech development may stop temporary.

3. Play and Safety

Familiar toys, soft sounds, bright objects, and gentle touch are likely to promote trust.

A. 0-6 Months

Play - rattles, easily grasped objects. Free motor play; rings, blocks, plastic keys, peek-a-boo.

B. 6-9 Months

Play - steel mirror, push and pull toys, busy boxes. Water play, bath toys, manipulative toys, noise making toys, sturdy cloth or cardboard picture books, water ball-heavy celluloid with floating objects inside.

ADDENDUM B (Cont'd)
AGE APPROPRIATE CARE (Cont'd)

3. Play and Safety (Cont'd)

C. 9-12 Months

Play - blocks, bright colored objects, music rhythm, busy boxes, likes manipulative toys and repetitive activities, i.e., toss and retrieve, patty cake and peek-a-boo. Stuffed animals or doll, ball or rubber toys and push and pull toys are also appropriate. Safety - puts small or sharp objects in mouth. Explores environment without fear and cannot differentiate harmful substances. Fall easily. Avoids dolls and animals with wire skeletons, pins, eyes easily pulled off and action toys with removable wheels.

4. Nursing Measures to Promote Growth and Development

A. Birth - 6 Months

1) Understand each parent's adjustment to newborn, especially mother's postpartal emotions.
2) Teach care of infant and assist parents to understand child's individual needs and that wants are expressed through crying
3) Reassure that infant cannot be spoiled by too much attention
4) Help parents understand infant's needs for stimulation in environment
5) Plan anticipatory guidance for safety, i.e., propping bottles for feeding and crib rails down
6) Stress need for artificial immunizations

B. 6 Months - 12 Months

1) Prepare parents for child's "stranger anxiety"
2) Teach dental care of new teeth
3) Guide parents concerning limit setting because of infant's increased mobility
4) Encourage use of negative voice and eye contact rather than physical punishment as a means of discipline
5) Teach injury prevention because of child's advancing motor skills and curiosity, i.e., chocking, suffocation, falls, poisoning and burns
6) Discuss readiness for weaning

ADDENDUM BB

INFECTION CONTROL

Responsibility, Identification and Reporting

1. The prevention and control of hospital acquired infections is everyone's responsibility. The Infection Control Program is under the guidance of the Hospital Infection Control Committee, Hospital Epidemiologist and the Nurse Epidemiologist.

2. The Nurse Epidemiologist collects and records data on hospital acquired infections (>72 hours) and congenital infection (<48 hours). The criteria to define a hospital acquired infection has been established by the Centers of Disease Control and Prevention (CDC) in Atlanta, Georgia, and approved by the Chief of Service and the Infection Control Committee.

3. The patient's physician, faculty member on service, and Infection Control Representative are to be notified of 2 or more infections with the same causative organism within 48 hours.

4. The problem will be discussed with the Chief of Service or the attending staff in the NICU and Nurse Manager. Appropriate isolation procedures and precautions will be instituted.

5. The Chief of the Service or designee and Nurse Manager are members of the Infection Control Committee.

6. Contact the Department of Epidemiology or the Nurse Epidemiologist to report to report possible infection. This can also be done after hours and on weekends. A message is left on the Epidemiology answer phone as to the name and beeper number of the Nurse Epidemiologist on call.

General Infection Control Practices

Hand Hygiene

1. Hand hygiene is the most effective method of preventing the spread of infection. Hand hygiene shall be carried out according to established policy.

2. Hand hygiene must be practiced by all persons who enter the NICU whether they intend to have infant contact or not, before and after patient contact, before and after procedures and before leaving the NICU.

3. Handwashing procedure:
   a. Initial scrub of two minutes with 2% chlorhexidine gluconate when entering the NICU.
   b. Fifteen-second hand wash with 2% chlorhexidine gluconate between infants.
   c. Alcohol based gel dispensers are available at each patient's bedside. Staff must wash their hands with soap and water after 5-10 applications of the alcohol gel.
   d. Staff/Visitor must wash hands when visibly soiled.

ADDENDUM BB (Cont'd)

INFECTION CONTROL (Cont'd)

General Infection Control Practices (Cont'd)

Hand Hygiene (Cont'd)

3. Handwashing procedure: (Cont'd)

    e. All jewelry must be removed, including watches and rings, prior to washing their hands when coming into the unit.

4. Use of gloves when having contact with infants:

    a. All healthcare personnel must wear gloves when handling infants. Hands should be washed or alcohol hand sanitizer used immediately after the gloves are removed. All personnel must carefully follow infection prevention and control techniques when having infant contact.

General Practices

1. Soiled linens are disposed of in covered linen hampers provided for infant linen only.

2. Linen hampers and trash containers are to remain closed. (Do not prop them open.)

3. All items falling to the floor are considered contaminated and are not to be used.

4. Dispose of used supplies immediately and properly.

5. Disposable diapers are weighed, and then discarded immediately into white, covered foot controlled containers.

6. Only disposable diapers may be used to collect urine/stool. Cloth diapers' may only be used as burp cloths, blanket-liners, to position infants, etc.

7. Flowers and plants are not permitted in the NICU.

8. Only Laboratory supplies needed for vascular access will be placed at infant's bedside. All other supplies will remain on phlebotomy cart.

9. Radiographic equipment used in the neonatal complex will be kept in the area adjacent to the NICU. Radiographic equipment will be cleaned with approved disinfectant prior to and post infant procedure by the Radiology Technologist.

10. Radiographic film cassettes will be placed in a plastic covering before being placed under an infant.

ADDENDUM BB (Cont'd)

INFECTION CONTROL (Cont'd)

Employee Health

1. Employees with infectious skin lesions of the hands or forearms, diarrhea, or other communicable diseases/infections may not be permitted to work in the NICU until cleared by their provider.

2. All personnel health policies of the Medical Center must be followed.

3. Personnel with a communicable disease must be reported to Employee Health Services. The Employee Health physician or the Nurse Manger or her designee will contact the Nurse Epidemiologist.

Attire

1. All personnel assigned regularly to the NICU will be required to wear clean county scrub dress/suit prior to entering the nursery. These personnel include but are not limited to, Nursing, Respiratory Therapists, and Environmental Services personnel. Employees may elect to wear their own scrub clothes if:
   a. Washed alone according to established home laundry instructions.
   b. Dried on hot cycle.

2. Attire in caring for all infants:
   a. A clean cover gown will be worn over scrubs when engaging in patient care activities involving direct contact, e.g., when feeding or holding an infant.
   b. Sterile long-sleeved cover gowns and sterile gloves, mask & hair cover are required for all personnel involved in specified surgical procedures.
   c. A clean gown must be worn for each infant.
   d. All personnel having direct patient contact will wear gloves.

Personnel Practices

1. Thorough handwashing or use of alcohol hand sanitizers must be practiced conscientiously according to procedure.

2. Only plain wedding bands maybe worn.

3. Fingernails are to be kept natural, trimmed short, without nail polish or covering of any sort. No artificial nails are to be worn by personnel.

4. Clean t-shirts or sweatshirt may be worn under scrub suit with sleeves above the elbows.

ADDENDUM BB (Cont'd)

INFECTION CONTROL (Cont'd)

Personnel Practices (Cont'd)

5. Feet are to remain on the floor and are not to be propped or placed on desks, chairs, receptacles, etc.

6. Eating and drinking by employees is to be restricted to designated areas only.

7. Leaning or sitting on nursery equipment; i.e., incubators, side tables, trash or linen hampers, etc., will not be permitted at any time.

8. Foot controls are to be utilized in opening covered hampers and trash receptacles. Do not open lid covers with bare hands.

9. *Standard Precautions* -- All health care workers who participate in direct patient care must use personal protective equipment to prevent their own skin and mucous membranes whenthere is likelihood of contact with blood and other body fluids of any patient. Gloves and surgical masks must be worn for all invasive procedures. Protective eyewear or face shields should be worn for procedures that commonly result in the generation of droplets, the splashing of blood or other body fluids, or the generation of bone chips. Fluid-resistant gowns should be worn during invasive procedures that are likely to result in the splashing of blood or other body fluids. Healthcare workers are in-serviced on infection prevention, control measures and standard precautions during their NICU orientation and in their annual infection control in-service.

Individual Bassinet Technique

1. Hand hygiene is to be done:
   a. Before entering NICU.
   b. In between babies and rooms.
   c. Before obtaining supplies from cupboards/clean storage.
   d. In between dirty and clean supplies, equipment, linens, formula, etc.
   e. After handling waste, i.e., solid diapers, dressings, etc.
   f. When leaving NICU.

2. All instruments involved in non-invasive procedures will be wiped off thoroughly with approved disinfectant agent after and before every infant unit contact.

3. Each infant's, its incubator or crib, bedside stand, all supplies and equipment at the bedside are considered to be an individual infant unit, and cannot be shared.

4. Each infant is to have his/her own bedside stand.

ADDENDUM BB (Cont'd)

INFECTION CONTROL (Cont'd)

Guidelines for Patient Care

1. GENERAL

   a. The isolation procedures will be as defined in the Network Infection and Control Plan, Generic Structure Standards or within this Addendum.

   b. Infant eye care (instillation of erythromycin ophthalmic ointment) –see Addendum E-2.

   c. Cutting cord at the time of delivery is to be performed under strict aseptic technique.

   d. Mothers will be instructed to not touch or care for other infants, to not share or interchange infant supplies, and to not walk around the nursery with infants in their arms.

   e. Nursing and ward clerks will assist visitors in adhering to handwashing and gowning policies and procedures.

   f. If the infant's condition permits, an admission bath with Chlorhexidine Gluconate Solution 2.0% and water is given within four hours of admission. If infant is unstable, the infant surface is gently wiped with sterile 4x4 gauze pad which has been moistened with sterile water and Chlorhexidine gluconate 2%.

   g. Routine baths are given on Monday, Wednesday, and Friday. The baths on Monday and Friday are with a Bag Bath™ product. The bath on Wednesday is with Chlorhexidine Gluconate Solution 2.0%

   h. Equipment (non-invasive):

      i. Incubators/bassinettes will be changed every seven days on night shift. This change will be documented in Orchid under Newborn ADL.

      ii. Terminal cleaning of the infant's bedspace and equipment will take place upon discharge or demise.

      iii. All supplies at the bedside will be given to the parents at the time of discharge or properly disposed of in the appropriate waste receptacles. Supplies must not be utilized for another infant.

      iv. Cables and tubings utilized in direct patient care must be kept clear from dirty areas, i.e., the floor.

      v. Cables and monitors must be clean with approved disinfecting wipes after patients discharge.

ADDENDUM BB (Cont'd)

INFECTION CONTROL (Cont'd)

Guidelines for Patient Care (Cont'd)

1. GENERAL (Cont'd)

h. Equipment (non-invasive): (Cont'd)

v. Porthole sleeves will not be used in the NICU.

vi. Pins are not to be inserted into mattresses.

vii. Cleaning of porthole openings will be part of routine NICU cleaning which is done every shift.

viii. Each infant is to have own blood pressure cuff.

ix. Plastic tent placed over infant, for thermoregulation, must be changed weekly. Tents may be changed more often if moisture accumulates inside of tent.

x. Equipment which is utilized between infants, i.e., the transilluminator (source light used for locating veins or for various medical diagnoses) or blood pressure machine cables must be cleaned with approved disinfectant solution prior to use. A general rule is that the distal portion (which comes in contact with the infant or the infant's bedside of such equipment) be cleansed a minimum of 24 inches.

xi. Suction canisters, tubing and in-line closed suction catheters are changed every 24 hours and PRN by the night shift.

xii. Saline bullet is a single use item at each time the infant's airway is suctioned.

xiii. Suction equipment for oral or nasal suctioning is to be kept in a clean plastic bag in the infant's bed and changed at lease every 12 hours and more often as needed.

xiv. Non in-line suction catheters and equipment will be changed after each use.

ADDENDUM BB (Cont'd)

INFECTION CONTROL (Cont'd)

Guidelines for Patient Care (Cont'd)

1. GENERAL (Cont'd)

   i. Equipment (invasive):

      i. Intravenous (IV) solutions and tubing are to be changed every 24 hours on the day shift (before 1900).

      ii. Disposable transducers are to be changed every 24 hours on the day shift (before 1900).

      iii. Registered Nurses (RNs) may obtain cultures of any wound drainage that appears abnormal in color, odor or other characteristics. Provider's order must be obtained within 24 hours.

      iv. Broviac dressing changes are performed every 72° and PRN on the day shift, following the house central venous catheter protocol.

      v. Phototherapy eye patches are changed every 24 hours by the night shift, and eye condition checked at least every shift.

      vi. Continuous nasal/oral feeding tubes are changed every Wednesday by the day shift with the date, time and initials of the person performing the procedure noted on EMR - Neonatal.

      vii. IV flush and endotracheal tube (ETT) suction solutions are one-time use items.

      viii. Powdered formula is not considered sterile and will not be used in the NICU.

      ix. Percutaneous dressings are to be changed prn by the Provider or PICC dressing team.

2. INSERTION AND CARE OF INTRAVASCULAR NEEDLES AND CATHETERS

   a. For umbilical catheterization (venous and/or arterial), the umbilicus and two (2) inches (radius) surrounding skin must be scrubbed with a povidone-iodine. The entire body is draped with sterile towels in preparation for the catheterization. Physicians/NNPs who perform this invasive procedure must wear hair cover, mask, sterile gowns, and sterile non-powdered gloves.

   b. After inserting a sterile towel must be placed under the transducer connected to the umbilical line to maintain a clean field.

ADDENDUM BB (Cont'd)

INFECTION CONTROL (Cont'd)

3. USE OF EQUIPMENT RELATED TO RESPIRATORY THERAPY

   a. Breathing Circuits/In-Use Equipment:

      i. Corrugated circuit tubing is changed once a week.

      ii. Only sterile water is used in humidifiers.

   b. External Patient "Interface" Devices for Administration of Positive Pressure or Free-Flow Oxygen (e.g., SiPAP nasal prongs or mask, nasal cannula, pharyngeal tubes):

      i. Will be changed out when blocked or minimally once a week.

4. PLACEMENT AND CARE OF URINARY CATHETERS AND BAGS

   a. Urinary catheters are to be inserted with a provider's order only.

   b. Urine collection bags are changed every 24 hours or whenever contaminated. The practice of placing urine bags on infants is discouraged whenever possible, due to the risk of skin breakdown.

5. THERMOMETERS

   a. An electronic axillary thermometer is used for routine temperature taking.

   b. Digital thermometers are cleansed between patient uses with approved disinfectant wipes.

6. INTRAVENOUS THERAPY

   a. Network policies are to be followed.

   b. Sterile dressings are applied over IV sites/insertion points.

   c. Central lines are maintained as long as needed and when no adverse signs are noted. Provider's discretion is used.

   d. Need for central lines used is assessed daily and documented by provider in Orchid under progress note required detail.

   e. Peripheral IV sites may also be maintained as long as needed and when no adverse signs are noted. Nurse must assess IV site patency q 1 hour.

ADDENDUM BB (Cont'd)

INFECTION CONTROL (Cont'd)

Handling and Storage of Infant Formula: (refer also to Addendum B-2 (Breast Milk Management and Storage)

1. Infant formula will be ordered by the provider. The order is to include:
   a. Type of formula
   b. Calories of formula
   c. Volume of feeding
   d. Frequency of feeding.
2. Pre-sterilized proprietary formulas in individual feeding units will be used. Sterile nipples are packaged separately.
3. Formula stock is to be delivered by LUM system daily.
4. Formula stock is rotated by Supply Chain personnel. Formula will be verified according to the expiration date on the individual feeding unit.
5. Doors to the formula storage areas are to remain closed at all times.
6. Formula bottles must be used and/or discarded within one (1) hour after the seal is broken.
7. Disposable nipple may not reused.
8. Formula bottles must be used and/or discarded within one (1) hour after the seal is broken.
9. Disposable nipples may not be reused.
10. Any remaining formula and the feeding unit/bottle are to be discarded after feeding.

ADDENDUM BB (Cont'd)

INFECTION CONTROL (Cont'd)

Housekeeping

1. GENERAL

    a. Phenolic disinfection is not to be used on equipment that comes in contact with the patient.

    b. All equipment at infant's bedside shall be damp dusted every shift with an approved quaternary ammonium solution. This solution is to be dated when opened and discarded within one month.

    c. Incubators and open cribs will be thoroughly washed (including stand, cabinets, etc.) with an approved quaternary ammonium solution between each patient.

    d. All ward equipment in the NICU shall be thoroughly cleaned with an approved disinfectant solution after each use and before applying to infant.

    e. Shelves and counter tops in the NICU are to be damp dusted each shift with an approved disinfectant solution.

    f. Shelves and counter tops in the NICU are to be damp dusted each shift with an approved disinfectant solution.

    g. Equipment and supplies as well as related activities of processing shall be separated into clean/sterile and "dirty" areas.

2. ENVIRONMENTAL SERVICES

    a. Prior to overhead damp dusting or mopping in the admitting area or NICU area, Environmental Services will check with Assistant Nurse Manager.

    b. Cleaning in these patient care areas should occur at times when patients are not being treated.

    c. Overhead damp dusting should be completed prior to mopping and or surface cleaning.

    d. No aerosols are used in the unit.

    e. All other environmental cleaning follows the general cleaning environmental guidelines.

ADDENDUM BB (Cont'd)

INFECTION CONTROL (Cont'd)

Limitation of Infant contact

1. All doors to the NICU are to remain closed at all times.

2. Traffic in and out of the NICU is to be kept at a minimum.

3. Visiting in isolation rooms shall be in accordance with established Medical Center policies.

4. All visitors, non-NICU staff, and consultants are to be instructed in the handwashing procedure and are to wear a cover gown when entering the NICU. They will discard the gown upon leaving the unit.

5. Family members with colds or respiratory infections are discouraged from visiting.

Provision for Outdated Check of Sterile Supplies

1. All hospital processed sterilized items are considered sterile until the package is opened or the integrity of the package has been compromised.

2. Commercially processed supplies will be rotated and checked for expiration date on a monthly basis.

3. Prior to use, each item will be checked for expiration date and whether package integrity has been compromised (tears in the packaging, water stains, or damp packaging).

Disposition of Sharps

1. Needles and syringes will be discarded into specifically designated containers (locked, stable and enclosed) which are located throughout the NICU according to Network Policy Manual.

2. All trash with blood, body fluid or secretions will be disposed in red biohazardous trash containers.

3. Biohazard containers will be clearly marked for type of waste and kept covered.

ADDENDUM BB (Cont'd)

INFECTION CONTROL (Cont'd)

ISOLATION

Philosophy of care

The quality of care shall not be compromised for any patient whose condition requires isolation.

Suspect and/or Isolation

1. Description:

   A separate NICU room/area for infants who require physical separation from other infants can be done within the unit or in a separate area/room depending on:

   a. Consultation with Epidemiology and provider is required to determine if infant can be isolated within the main NICU room or must be moved to separate isolation room.

   b. If the infant must be isolated in a separate room, transfer infant to the designated isolation room.

Physical Requirements

1. Isolation rooms are located within NICU separate infants from other infants in NICU.

2. The room doors are to be kept closed at all times.

3. Minimum and individual equipment in the isolation rooms will be provided. Other supplies and equipment are kept in assigned places.

4. The NCIU isolation rooms are stocked with supplies sufficient for a 24- hour use only.

5. Supply cupboard doors in the isolation rooms are to be kept closed.

6. Sinks in the isolation rooms are to be sensor or foot controlled, for water and skin cleaners.

ADDENDUM BB (Cont'd)

INFECTION CONTROL (Cont'd)

Infants with Infections Identified by Nurse Epidemiologist and/or Neonatologist Requiring Isolation. Refer to conditions requiring isolation in Network Infection Prevention and Control plan.

1. Infants of mothers with the following infections need to be separated from their mothers but can be left with other infants in the NICU.
    a. Pulmonary Tuberculosis not on effective therapy.
    b. Group A Streptococcal Disease
    c. Varicella
    d. Also consult current AAP Red Book.

2. While most infections requiring isolation can be effectively isolated within the NICU by placing infant in an incubator and separating him/her from other infants, the designated isolation rooms will be utilized first.

Responsibilities for transfer and discharge of infants

1. Either nursing or medical personnel may isolate an infant. Epidemiology must be notified.

2. Transfer or discharge to the NICU isolation rooms requires consultation with the provider with an appropriate progress note on the chart.

Nursery Closure

1. California State law mandates complete closure of the NICU in cases of infectious disease outbreak (two or more cases within 48 hours in same physical space) of Staphylococcus aureus, infectious diarrhea or Multiple Drug Resistant (MDR) organisms.

2. Infants can be cohorted onto one side of nursery admitting area is in a physically separate room within the NICU complex where infants can be stabilized and housed.

3. When an NICU room has been emptied of contact infants and once it has been terminally cleaned, it may be reopened to new admissions.

ADDENDUM BB (Cont'd)

INFECTION CONTROL (Cont'd)

Procedure for Management of Outbreak - Second Case of Same Clinical Disease Within Forty Eight (48) Hours

1. Transfer second infant to the NICU isolation room.

2. Reporting Responsibilities for the NICU Nurse Manager

    a. Documents suspect infection on infant's chart.

    b. Reports case by phone to:

        i. Newborn primary care physician.

        ii. The Newborn Faculty on Service On-Call will call within twenty-four (24) hours.

        iii. Nursing Office and/or Supervisor who will communicate with Nursing Director.

        iv. Nurse Epidemiologist and/or Hospital Epidemiologist who will then notify Local Health Officers.

        v. Administrator On-Call (call Operator for name).

        vi. Medical Center's Bacteriology Lab Supervisor regarding special specimens.

        vii. Complete Contact List (available from the Nursing Office) and send to Nursing Office before the end of the shift. Copy of contact list to be distributed to Nurse Epidemiologist, Newborn Office, Administration, and Nursing Director.

    c. State and Local Health Agencies require that a written report (five copies) will be submitted by Nursing to the Hospital Epidemiologist within 24 hours.

3. Cultures for Outbreak

    a. *Diarrhea* - All Index and Contact infants will have cultures and blood samples.

        i. Stool (one ml) specimens in a sterile sputum/urine cup or three (3) rectal swabs in transport media are submitted with lab slip labeled: SPECIAL EPIDEMIOLOGY SPECIMEN: DIARRHEA PROTOCOL.

ADDENDUM BB (Cont'd)

INFECTION CONTROL (Cont'd)

Procedure for Management of Outbreak - Second Case of Same Clinical Disease Within Forty Eight (48) Hours (Cont'd)

3. Cultures for Outbreak (Cont'd)

ii. Acute Blood Specimen: two-three mLs in small red-top tube should be collected and labeled for: Name, PF#, Date, Ward, DIARRHEA PROTOCOL – ACUTE. Refrigerate Immediately. Complete a pink lab slip for patient identifiers, unit, date, and "Save for Epidemiology," written on lab slip (so specimen is clearly flagged and correctly processed by Central Receiving). Department of Health Services (DHS) Microbiology Lab will be contacted, and specimens sent to them for processing.

iii. Convalescent Blood Specimens will be drawn two (2) weeks after acute blood specimen(s). If the infant is discharged before two (2) weeks has elapsed, a follow-up appointment is made with the Pediatric Out-patient.

b. Inflammatory Lesions or infected sites (skin, wounds and umbilicus)

i. Index: Take cultures of lesions, umbilicus, nasopharynx and blood. Other cultures are taken as clinically indicated.

ii. Contact: Take cultures of nasopharynx and umbilicus on Contact infants.

4. Contact Infants = All those babies who are adjacent to the Suspect Index infant and who share the same space and nursing staff.

a. Healthy Contacts are discharged from the NICU as rapidly as possible. Be certain that the infant's family is informed to observe for symptoms and how to return to the Emergency Room for Pediatrics for care and follow-up.

b. Outbreak Procedure for Management of Contact infants in NICU.

i. Cohort Contact Infants on side duty from infected infants. Outbreak: In a row(s) on the same side of room in intermediate or acute NICU rooms.

(a) These rows of Contact infants will be separated from non-Contact infants by a physical barrier/space.

(b) Separate medication supplies and linens will be used for contact infants. Separate cupboards will be identified for these items within the NICU room.

ADDENDUM BB (Cont'd)

INFECTION CONTROL (Cont'd)

4. Contact Infants = All those babies who are adjacent to the Suspect Index infant and who share the same space and nursing staff. (Cont'd)

b. Outbreak Procedure for Management of Contact infants in NICU. (Cont'd)

(c) Separate containers from laundry and refuse will be identified in the Contact infant area.

(d) Separate nursing staff will care for Contact infants.

ii. Discontinuation of Outbreak Contact Cohorting the designated NICU room when:

(a) All infants have been discharged to their homes, or

(b) Transferred to an available NICU isolation room, or

(c) Transferred to another hospital, and

(d) After terminal cleaning, the area can be reopened for new admissions.

NOTE: When there is a full report of cultures, colonization, and the incubation period has passed, the Newborn Faculty can request reopening of the Nursery from the Ad Hoc Outbreak Committee (Newborn Faculty, Administration, Nursing, Epidemiology.)

c. Procedure for Outbreak Management of NICU Infants:

i. Index infant: If the Index infant is acutely ill and receiving intensive care, it may not be possible to transfer that baby to the NICU isolation room. Strict Unit Isolation with separate medications, linens, supplies, and nursing staff will be identified by a temporary physical barrier.

ii. NICU (Acute care room) Contacts – Outbreak: The room will remain closed to new admissions, and new infants will be stabilized in the Admitting Area and transferred.

d. New Admissions to NICU during an Outbreak A separate NICU room may be opened as deemed necessary if appropriate staffing is available.

ADDENDUM BB (Cont'd)

INFECTION CONTROL (Cont'd)

Reopening NICU after Outbreak:

1. Index infant may be discharged to separate designated NICU room for isolation.

2. Contact infant may be discharged to NICU isolation room.

Definition:

A ***diarrhea outbreak*** is defined as two (2) or more patients with diarrhea confined to one area of the hospital within a twenty-four (24) hour period.

GENERAL PROCEDURE

1. When a diarrhea, staph or MDR organism outbreak is recognized or suspected the appropriate staff members have to be alerted:

    a. The Chief of Service, Physician on-call or staff Epidemiology Nurse, NursingSupervisor and Chief Resident are responsible for alerting the Hospital Epidemiologist and for initiating the collection of correct specimens (discussed below) by NICU staff.

    b. The Epidemiology Nurse is responsible for alerting the Bacteriology Lab of the special specimens which would be arriving. On weekends and evenings, whoever initiates the collection of specimens should alert the Lab.

2. One stool specimen will be collected from each baby with diarrhea symptoms and from each of the babies who have had contact with symptomatic patients. The stool specimens, a minimum of one mL in size, collected in sterile sputum cups or three (3) swabs placed in transport media should be sent to the Bacteriology lab, with a Lab slip clearly marked as follows: SPECIAL EPIDEMIOLOGY SPECIMEN, DIARRHEAL PROTOCOL. The Bacteriology Lab will process the stool specimens as follows:

    a. The specimen will be divided into three (3) portions.

    b. One portion will be processed for Salmonella specimen, Shigella specimen, E. coli, and Campylobacter sup. Any Salmonella, Shigella, or E. coli isolates will be grouped with polyvalent antisera and then sent to the L.A. County Public Health Labs for further typing.

ADDENDUM BB (Cont'd)

INFECTION CONTROL (Cont'd)

GENERAL PROCEDURE (Cont'd)

c. One stool portion will be frozen and kept in a freezer in the Medical Center's Bacteriology Lab for pick up by the Epidemiology group. The Epidemiology Department is responsible for transporting these to:

Virology Section
Preventive Health Services
Public Health Laboratories
Los Angeles County Health Department
12750 Erickson Ave.
Downey, CA 9242
Telephone (562-658-1450)

d. The last portion of stool will be put in a transport tube containing a transport media and held in the Bacteriology Lab until transported to Public Health Lab.

3. Acute Blood Specimens:

Acute and convalescent blood should be collected from as many patients as possible from whom stool specimens have been taken. Each blood specimen should be approximately 2-3 mLs. Do not centrifuge blood. The blood should be labeled and sent to Microbiology Lab.

4. Convalescent Blood Specimens:

Two (2) weeks after the acute blood specimen is drawn, patients will be requested to return for a follow-up blood specimen. The parents will be given a letter with instructions. The designated PROVIDER in the "Pediatric" E.R. will be given a list of names and PF#'s of those patients who have been requested to return for a convalescent blood specimen. This list will be prepared by the NICU Nurse Manager and the Epidemiology Nurse.

5. A summary of the various laboratory results will be presented to the Neonatology Division and to the Medical Center's Infectious Subcommittee within thirty (30) days of the outbreak.

INSERVICE AND CONTINUING EDUCATION

1. Infection control principles and procedures are taught to all new employees during the basic orientation program.

2. Continuing Education classes which reinforce principles and procedures are presented to all personnel on an annual basis. Additional topics will be discussed with staff throughout the year.

3. Refer to the Protocol on Staffing/Nursing and Quality/Improvement Program.

ADDENDUM BB (Cont'd)

INFECTION CONTROL (Cont'd)

MONITORING AND REVIEW

1. Infection Prevention and Control Protocol shall be reviewed and updated annually by the Nurse Epidemiologist and a Neonatologist.

2. Ongoing monitoring shall be conducted monthly by assigned NICU personnel in the form of Supply Rounds. Records of such rounds shall be maintained by the Nursing Director or designee.

3. Ongoing monitoring shall be conducted monthly by the Pharmacy Department in the form of Pharmacy Rounds. Records of such rounds shall be maintained by the Nursing Director or designee.

4. Ongoing monitoring shall be conducted quarterly by a multi-disciplinary committee, in the form of Joint Commission rounds. Participants shall be from Administration, Environmental Services, Medicine, Safety, Epidemiology, Facilities Management, and Nursing. Records of such rounds shall be maintained by the Nursing Manager or designee.

5. Refer to the Nursing Quality/Improvement Program.

ADDENDUM BB (Cont'd)

INFECTION CONTROL (Cont'd)

References:

Guidelines for Hand Hygiene in Health-Care Settings. (2002). Centers for Disease Control and Prevention. http://www.cdc.gov/mmwr/PDF/rr/rr5116.pdf

Guideline for infection control in health care personnel, 1998. Centers for Disease Control and Prevention. http://www.cdc.gov/ncidod/dhqp/pdf/guidelines/InfectControl98.pdf

Guideline for Prevention of Surgical Site Infection, 2006. Centers for Disease Control and Prevention. http://www.cdc.gov/ncidod/dhqp/pdf/guidelines/SSI.pdf

Guidelines for the Prevention of Intravascular Catheter-Related Infections. (2002). Centers for Disease Control and Prevention. http://www.cdc.gov/mmwr/PDF/rr/rr5110.pdf

Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings 2007. Centers for Disease Control and Prevention.
http://www.cdc.gov/ncidod/dhqp/pdf/guidelines/Isolation2007.pdf

Guidelines for Preventing Health-Care-Associated Pneumonia, 2006. Centers for Disease Control and Prevention. http://www.cdc.gov/ncidod/dhqp/pdf/guidelines/CDCpneumo_guidelines.pdf

Hospital Acquired Infection Prevention Quality Improvement Toolkit. (2007). California Perinatal Quality Care Collaborative.
http://www.cpqcc.org/quality_improvement/qi_ toolkits/hospital_acquired_infection_prevention

Infusion Nurses Society. (2006). Infusion Nursing Standards of Practice. Journal of Infusion Nursing, 29: 1533-1458.

Salminen, Carol, RN, LAC+USC Medical Center Epidemiologist. (2008).

ADDENDUM BBB

CRITICAL CONGENITAL HEART DISEASE (CCHD)

Purpose

The Critical Congenital Heart Disease (CCHD) is a group of congenital malformations that affect newborns. It is one of the leading causes of infant's death in the United States. To identify possible cases of CCHD, newborns are examined with a pulse oximetry screen to prevent late diagnosis of cardiac anomalies associated with significant morbidity resulting to permanent injury of vital organs, and in some cases, childhood deaths.

Policy

In accordance to the American Academy of Pediatrics (AAP) endorsement of the use of pulse oximetry screening for CCHD in newborns set forth by the Secretary's Advisory Committee on Heritable Disorders in Newborns and Children (SACHDNC) in December 2011, all newborns are screened for CCHD. See Chart I and Chart III for the AAP strategies for Implementing Screening for Critical Congenital Heart Disease (Kemper et. al., 2011). Should infant fail the CCHD screening, clinical findings, parental education, neonatologist's clinical input and recommendation for treatment are incorporated into permanent medical record and communicated in a manner that is compliant with rules of the Health Insurance Portability and Accountability Act (HIPAA). The neonatologist shall inform parent of abnormal CCHD screening results as well as provide written material explaining the results of the CCHD and the schedule and need for treatment, referral and follow-up, when indicated.

Definition

CCHD is associated with seven specific cardiac lesions that are life threatening if left undetected. The goal of the newborn screening is to identify those newborns with structural heart defects usually associated with hypoxia in the newborn period that could have significant morbidity or mortality early in life with the closing of the ductus arteriosus or other physiologic changes early in life. The primary targets for pulse oximetry screening are the hypoplastic left heart syndrome, pulmonary atresia, tetralogy of fallot , total anomalous pulmonary venous return, transposition of the great arteries, tricuspid atresia, and truncus arteriosus. Pulse oximetry screening is a safe, non-invasive and cost-effective measure in detecting CCHD in newborns.

Procedure

1. Assure that infant's skin is clean and dry before placing the probe on the infant.

2. Place the pulse oximeter on infant's right hand and foot.

    a. Ensure that there is no gap between the sensor and infant's skin.

    b. Place the light emitter portion of the probe on the top of the hand or foot.

ADDENDUM BBB (Cont'd)

CRITICAL CONGENITAL HEART DISEASE (CCHD) (Cont'd)

Procedure (Cont'd)

c. Place the photodetector directly opposite of light emitter, on the bottom of the hand or foot.

d. Secure the probe to the infant's hand or foot using the adhesive or foam tape recommended by the vendor.

e. Assess and ensure accuracy of the pulse oximetry reading through the confidence indicators on the monitor that is being used.

3. Swaddle infant to facilitate calm and quiet, awake state. Encourage family involvement to promote comfort while obtaining the reading.

4. Pulse oximeter may be covered with blanket to ensure that extraneous light does not affect the accuracy of the reading.

5. The pulse oximetry measure is complete once the waveform on the oximeter's plethysmograph is stable and there is another indication that the device is appropriately tracking the infant's pulse rate. See Chart III for pulse oximetry screening algorithm.

6. Promptly notify neonatologist of the newborn's CCHD pulse oximetry screening results.

Documentation

Document CCHD screening information/results in the nursing flowsheet. Documentation includes parental teaching, parental involvement during the procedure and written materials provided regarding CCHD screening.

ADDENDUM BBB (Cont'd)

CRITICAL CONGENITAL HEART DISEASE (CCHD) (Cont'd)

Chart 1: CCHD Screening Protocol

Screen newborn 24 hours after birth, prior to the newborn's discharge, or after oxygen therapy is finished
May use disposable or reusable motion-tolerant pulse oximeters approved by FDA for use in newborns that report functional oxygen saturation. Obtain oxygen saturation in the right hand and one foot.
Base screen on recommended screening algorithm developed by the SACHDNC (See Chart III)
Physician-led team educated in the screening algorithm and trained in pulse oximetry of newborns completes the CCHD screen
In the event of a positive screening result, CCHD and infectious and pulmonary causes need to be excluded with a diagnostic echocardiogram

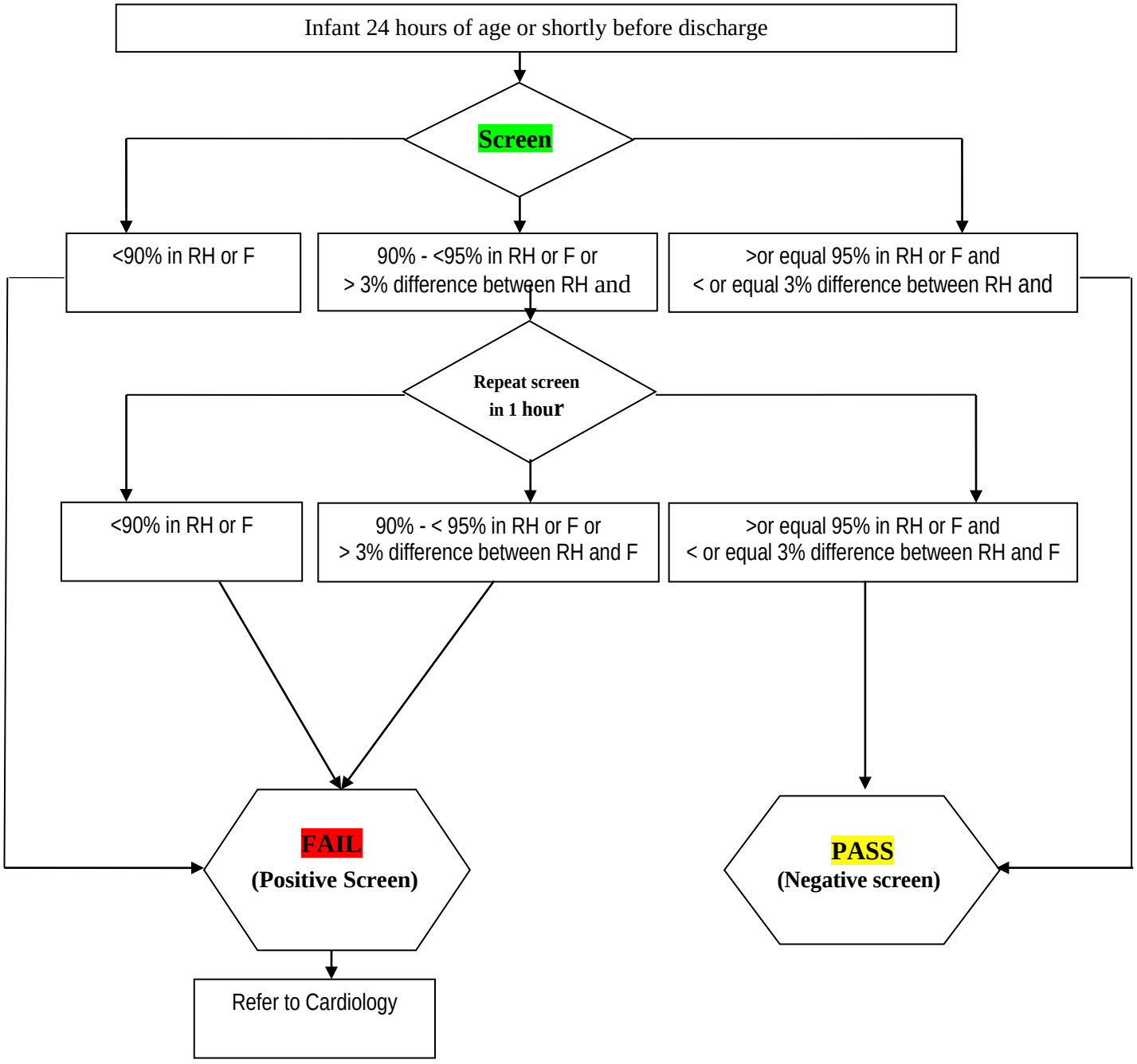
Chart II: Exception to CCHD Screening

Newborns whose parent or guardian objects to the test due to religious beliefs
Newborn who has been evaluated with a diagnostic echocardiogram before qualifying for pulse oximetry screening test unless CCHD screen or repeat echocardiogram is warranted prior to discharge as determined by attending neonatologist

ADDENDUM BBB (Cont'd)

CRITICAL CONGENITAL HEART DISEASE (CCHD) (Cont'd)

Chart III: Pulse-Oximetry Monitoring Algorithm
(Based on results from the right hand (RH), and either foot (F))



ADDENDUM BBB (Cont'd)

CRITICAL CONGENITAL HEART DISEASE (CCHD) (Cont'd)

References:

Kemper, A. R., Mahle, W.T., Martin, G.R., et. al. Strategies for implementing screening for congenital heart disease (2011). *Pediatrics.* Retrieved October 20, 2014 from: http://pediatrics.aappublications.org/content/early/2011/10/06/peds.2011-1317

Mahle, W.T., Martin, G.R., Beekman, R.H., et. al. Endorsement of health and human services recommendations for pulse oximetry screening for critical congenital heart disease (2011). *Pediatrics.* Retrieved October 20, 2014 from: http://pediatrics.aapublications.org/content/129/1/190.full.html

ADDENDUM C
EMERGENCY BLOOD TRANSFUSION

PURPOSE:

To ensure timely and coordinated delivery of blood products to a NICU patient in an emergency situation. The NICU fellow or attending staff present in the unit will determine the existence of "emergency" situation which requires the need for a transfusion. Uncross matched units of O negative PRBCs, in "baby" aliquots, are located in the Delivery Room's Blood Bank refrigerator for emergency transfusion (IPT C3B).

DEFINITION:

The "emergency" situation for which a blood transfusion would be needed is when a life-threatening condition, imminent death, shock, and/or cardiac arrest exists and volume replacement with red blood cells could prolong life or reverse the life-threatening condition.

PROCEDURE:

1. To obtain O negative, uncrossmatched blood, pick up telephone line nearest the Blood Bank refrigerator and contact Blood Bank (ext. 9-7134).
2. Inform Blood Bank technologist of the emergent need for blood product and provide the patient's name, MRUN, or mother's name, MRUN, physician's/NNP's name, your name, and your title.
3. The Blood Bank Technologist will then release lock on refrigerator door. YOU MUST INFORM THE TECHNOLOGIST EXACTLY WHICH UNIT YOU ARE TAKING; the blood unit number is located on the front of the bag.
4. Return to the NICU and follow the clinical standard for blood product administration, Blood and Blood Products Standard.
5. Two licensed personnel must verify information on Blood Bank/Transfusion/Medicine Blood Product Record against actual unit of blood to be given and Transfusion Order Form.
6. As soon as possible, draw and send an appropriately labeled specimen from the patient to the Blood Bank for type and cross.
7. Return signed Blood Bank Product Record (attached to unit of blood) to Blood Bank with patient's information.
8. Document this procedure on the current Nursing Intensive Care Record – Neonatal form for the involved patient.

References:

LAC+USC Healthcare Network, Attending Staff Guidelines, #ASA 103, Blood and Blood Products Transfusion Guidelines

LAC+USC Healthcare Network, Department of Health Services, Nursing Clinical Protocol, "Blood and Blood Products," 04/2009

ADDENDUM CC

VITAMIN K ADMINISTRATION

PURPOSE:

Newborns are risk for developing vitamin K-dependent hemorrhagic disease. The American Academy of Pediatrics recommends that all infants receive a single intramuscular dose of 0.5 to 1 mg vitamin K_1.

POLICY:

All newborns delivered at LAC+USC Medical Center shall receive IM Vitamin K within one hour of delivery or after the first breastfeeding.

DEFINITION:

Early vitamin K-deficiency bleeding of the newborn (VKDB) may appear in the first week of life. Late VKDB may occur between 2 and 12 weeks of life in infants who received inadequate dosing of vitamin K_1.

PROCEDURE:

Obtain a written physician's order based on the weight of the newborn infant: Vitamin K 1 mg IM for newborns whose birth weight greater than or equal to 1500 grams or Vitamin K 0.5 mg IM for newborns less than 1500 grams. The preferred intramuscular site is either vastus lateralis location after aseptic preparation of the skin.

DOCUMENTATION:

Medication administration to be documented on Medication Administration Record (MAR).

REFERENCES:

Controversies concerning vitamin K and the newborn. (2003). Pediatrics, 112: 191-192.

AAP publications reaffirmed, May 2006. Pediatrics, 118: 1266.

Guidelines for perinatal care, 6th edition. (2007) American Academy of Pediatrics and The American College of Obstetricians and Gynecologists.

ADDENDUM D

HUMAN MILK MANAGEMENT AND STORAGE

Purpose:

To provide guidelines for the collection, storage and handling of human milk to optimize nutritional and immunological protection while minimizing the change of contamination or error.

Policy:

Neonatal/Infant patients admitted to this facility shall have the opportunity to receive human milk for nutritional support. Mothers whose newborns are admitted to this facility shall be interviewed and assessed for her desire to provide human milk for her infant. LAC+USC Medical Center actively support the Baby Friendly Hospital Initiative to promote human milk as the best food for infants. A physician's order is necessary to use anything other than human milk.

Definition of Breastfeeding:

- Placing baby to breast for non-nutritive sucking
- Baby latching onto mother's breast for feeding
- Receiving breast milk via gavage tube feeding

Procedure:

1. Management of infants who are breast-fed.

    A. Discuss breast-feeding with each infant's mother.
        1) Breast engorgement
        2) Sore nipples

    B. Document on Patient Teaching Protocol – Newborn form mother's response, and need for follow-up if indicated.

    C. Handouts are given entitled "Bringing Breast Milk to the Hospital".

    D. Provide mother a quiet and private environment to breast-feed her infant.

    E. Assist mother with breast feeding positioning.

    F. If there is a concern about nutritional intake and breast-feeding is to be the sole method of providing nutrition, the infant may be weighed before and after each feeding.

ADDENDUM D (Cont'd)

HUMAN MILK MANAGEMENT AND STORAGE (Cont'd)

2. Management of infants who are unable to be breast-fed.

   A. The mother is instructed on use of the manual and electric breast pump or hand expression.

   B. Sterile hard plastic storage containers and labels.

   C. Provide mother a quiet and private place to express her milk.

   D. All personnel are to wash their hands prior to handling breast milk, breast pump, or human milk.

3. Human milk storage and handling:

   A. Human milk is refrigerated only in designated Human Milk refrigerator. Each patient's human milk will be clearly separated. Label will include: Name, MRUN, date and time of pumping, labeled container will be place into a patient labeled (Name and MRUN) resealed plastic bag and then into a bin to prevent misadministration of human milk/formula and to prevent cross-contamination of that milk with other feedings.

   B. Human milk should be rotated so that milk expressed early in lactation is consumed first.

   C. Human milk should be thawed rapidly in a warm water bath. Human milk can be thawed in the refrigerator over 12 hours. Human milk should <u>never</u> be thawed in a microwave oven.

   D. Labeled with the defrost date and time, defrosted human milk can be refrigerated, but not refrozen.

   E. Human milk should be gently agitated prior to the feeding to distribute the contents evenly.

   F. Human milk which requires an increase in caloric count should be prepared at room temperature right before feeding, in the preparation room.

   G. Discard any human milk taken to infant's bedside and not used.

   H. Human milk used for continuous feeding has a maximum hang life of four hours, after this time it should be discarded.

ADDENDUM D (Cont'd)

HUMAN MILK MANAGEMENT AND STORAGE (Cont'd)

3. Human milk storage and handling: (Cont'd)

I. Human milk may be given by a labled oral syringe via syringe pump if continuous feed is required.

J. Minimize exposure of milk to phototherapy lights and/or sunlight.

K. Mothers who wish to freeze breast milk can do so in the NICU freezer. Milk from other areas must be label as noted above.

L. See table below for timeframe and temperature human milk must be stored at, in the hospital.

Hospital Guidelines for Milk Storage

Liquid Milk	Hospital Use	Temperature to be Stored
Fresh, refrigerated	48 hours	35ºF to 39ºF
Thawed	24 hours	35°F to 39°F
Room temperature or continuous tube feeding	≤ 4 hours	
Deep Freeze	1 month	(-)20ºC or Below

4. Labeling

A. Mothers will be provided with individualized labels with the infant's name and medical record number, and clean milk storage containers. Mothers will verify that the labels correspond with her infant's name, date of birth and medical number.

B. Mother will be instructed to write the date and time of expression and place the label on the expressed milk container.

C. Labeling is completed by the mother; however in extenuating circumstances a staff member may label storage container.

ADDENDUM D (Cont'd)

HUMAN MILK MANAGEMENT AND STORAGE (Cont'd)

5. Verification process prior to storing human milk.

   A. The preprinted hospital label on the human milk container will be verified against the infant's identification band using the infant's name and medical record number.

   B. Verification will be completed by a staff member and:
      - Infant's parent or family member
      - Second staff member
      - Staff will document on E- HR.

6. Bringing milk from home

   A. Instruct mothers to wash their hands before expressing milk.

   B. Provided mother with individualized labels with her infant's name and medical record number, and clean milk storage containers.

   C. Instruct mother to write the date and time of expression and place it on the expressed milk bottle.

   D. Mothers are educated to transport human milk with cold gel packs in an insulated container.

   E. Freeze milk: Fill container ¾ full because milk will expand.

7. Refrigerator/freezers for storage of breast milk.

   A. Label refrigerators and freezers appropriately for storing human milk.

   B. Use individual, plastic bag to hold hard plastic storage bottle. Place plastic bag in hard storage container.

   C. Plug refrigerators and freezers used for human milk storage into emergency power circuits so power outages will not result in loss of milk.

   D. The temperature will be checked daily and a written record of temperatures will be maintained: Refrigerator: (35ºF-39ºF)
      Freezer: -18°C to 22°C

   E. If the temperature of either the refrigerator or freezer varies from the recommendations above contact facilities management during working hours. During off hours and during the weekend call the house supervisor.

ADDENDUM D (Cont'd)

HUMAN MILK MANAGEMENT AND STORAGE (Cont'd)

7. Refrigerator/freezers for storage of breast milk. (Cont'd)

F. Clean refrigerator weekly and record on Human Milk Refrigerator Maintenance log.

G. Defrost monthly as applicable and record on Human Milk Refrigerator Maintenance Log.

References:

American Academy of Pediatrics. (2005). Policy Statement: Breastfeeding and the Use of Human Milk. Pediatrics, 115: 496-506.

Baby Friendly Hospital Initiative in the US. UNICEF/WHO. http://www.babyfriendlyusa.org/eng

Bohr, B.R., et al. (2006). Beneficial Effects of Breast Milk in the Neonatal Intensive Care Unit on the Developmental Outcome of Extremely Low Birth Weight Infants at 18 months of Age.
Pediatrics, 118: e115-e123.

California Perinatal Quality Care Collaborative. Nutritional Support of the VLBW Infant (Toolkit), (2008).

Proper Handling and Storage of Human Milk (2010). Centers for Disease Control and Prevention.
http://www.cdc.gov/breastfeeding/recommendations/handling_breastmilk.htm

Jones, Frances (2011). Best practice for expressing, storing, and handling human milk in hospitals, homes, and child setting (3rd ed). Fort Worth, Tx: Human Milk Banking Association of Northern America.
Robbins, S.T & Meyers, R. (2011). Infant feedings: Guidelines for preparation of human milk and formula in health care facilities (2nd ed). Chicago, IL: Academy of Nutrition and Dietetics.

ADDENDUM DD

SKIN TO SKIN

Purpose:

Skin-to-Skin care integrates several goals of neonatal critical care for each patient and his/her family: thermoregulation, homeostasis maintenance, improved tolerance of enteral feedings, early and enhanced parental bonding, promotion of breast milk production and successful breastfeeding preliminary practices, improved infant weight gain, and shortened length of stay in the medical center environment. Clinically stable NICU patients (even on stable ventilator settings). Excluded infants are those on high frequency ventilation and those with peripheral arterial lines, chest tubes, or vasopressors. Skin to Skin care occurs at the bedside while the infant remains on monitoring equipment. Typical time periods of kangaroo care are one to two hours daily. No physician's written order is required for Skin to Skin care. Skin to Skin care is limited to the legal parent(s) and approved adoptive parents. For infants born @ a gestational age 27 weeks, decisions during the first week of life should be based on individual medical assessment.

Definition

Skin-to Skin contact with mother and baby, promoting physical and psychological connection between parent and infant.

Benefits of Skin to Skin

1. Improved vital signs
2. Improved maternal lactation
3. Promote relaxation
4. Decreased cortisol level
5. Promote Bonding
6. Shorter duration of hospital stay
7. Positive effects on infants perceptual, cognitive, emotional and physical development.

Common Cues of Infant Regulation and Organization

1. Stable vital signs: vital signs within acceptable range, per MD orders
2. Improved muscle tone: smooth and relaxed
3. Awake, alert state: calm and consoled

Common Cues of Infant Overstimulation and Stress

1. Deteriorating vital signs: increased oxygen requirement, change in vital signs.
2. Change in muscle tone: hypotonic, hypertonic, restlessness'
3. State: grimace, yawning

ADDENDUM DD (Cont'd)

SKIN TO SKIN (Cont'd)

Equipment:

- A comfortable chair, preferably one that reclines and has arm supports.
- Front-opening shirt, very loose t-shirt, or hospital gown for the parent, nursing-bra/no bra
- Optional pillows for support and foot stool.
- Optional privacy screen
- Blanket(s) as needed for maternal comfort
- Optional knit hat for infant

Procedure:

1. Review educational materials with parent(s). Review infant cues of tolerance and non-tolerance with the parent.

2. Ensure that parents needs are met before Skin to Skin (i.e., bathroom breaks, meds taken, pumped breast

3. Ensure that NICU MD, RN, RCP team are in agreement on the stability of the infant.

4. Reassess the infant's vital signs and parameters before each session of kangaroo care.

5. Bring all necessary equipment to the bedside. Enlist the assistance of the neonatal RCP for any respiratory therapy equipment placement.

6. Place the diapered infant on the bare upper chest of the parent maintaining airway patency and wrap in warmed blankets as warranted.

7. Assess parental comfort level and reassure parent that they (parent and infant) will continue to be observed by bedside staff throughout the session.

8. At the end of the session or when the infant develops any sign of decreasing tolerance, return the infant to the thermal environment of the warmer/incubator or bed and proceed to resettle the infant in his/her bed environment.

9. Document the session and tolerance as per NICU document standards.

ADDENDUM DD (Cont'd)

SKIN TO SKIN (Cont'd)

Kangaroo Care References:

Chan, G. J., Labar, A. S., Wall, S., & Atuna, R. (2016). Kangaroo mother care: a systematic review of barriers and enablers. *Bulletin of the World Health Organization*, *94*(2), 130–141. https://doi-org.contentproxy.phoenix.edu/10.2471/BLT.15.157818

Blomqvist, Y. T., Frölund, L., Rubertsson, C., & Nyqvist, K. H. (2013). Provision of Kangaroo Mother Care: supportive factors and barriers perceived by parents. *Scandinavian Journal of Caring Sciences*, *27*(2), 345–353. https://doi-org.contentproxy.phoenix.edu/10.1111/j.1471-6712.2012.01040

Lim, S. (2018). Neonatal nurses' perceptions of supportive factors and barriers to the implementation of skin-to-skin care in extremely low birth weight (ELBW) infants - A qualitative study. *Journal of Neonatal Nursing*, *24*(1), 39–43. https://doi-org.contentproxy.phoenix.edu/10.1016/j.jnn.2017.11.010

Nyqvist KH, Anderson GC, Bergman N, Cattaneo A, Charpak N, Davanzo R, … WistrÃ¶m A. (2010). State of the art and recommendations. Kangaroo mother care: application in a hightech environment. *Breastfeeding Review*, *18*(3), 21–28. Retrieved from http://search.ebscohost.com.contentproxy.phoenix.edu/login.aspx?direct=true&db=ccm&AN=104971868&site=eds-live

ADDENDUM E

BIOETHICAL REVIEW MECHANISM

Purpose: To outline the internal mechanism for bio-ethical review of any case/situation submitted by a NICU staff member or parent/guardian of a patient in the NICU.

Policy: The LAC+USC Medical Center maintains a standing Fetal/Infant Bioethics Committee which meets monthly and as needed with representation from administration, medicine, nursing, social services, chaplain services, and the outside community. Any staff member can refer a case for review to the Bioethics team 24 hours a day seven days a week.

Considerations for Bioethical Advisement:

- Parental refusal of treatment
- Parental demand for treatment of futile care
- Family request withdrawal
- Physician believes care is futile
- Physician considering withdrawal of care

Procedure:

1. Monday through Friday during "business hours," a telephone contact to the Pediatrics office, extension 9-2318, can be made. Outside of those hours, page [redacted] (medical director of Pediatrics) via [redacted].

2. The Bioethics team representative or the physician on-call will contact the NICU to perform an initial investigation and discussion with the bedside team.

3. If a case conference is warranted, the Bioethics team representative will arrange for the Bioethics team to come together to meet with bedside staff and/or the parent/guardian.

4. The monthly meeting automatically reviews any fetal or infant deaths.

References:

LAC+USC Healthcare Network Policy, #222.1, Forgoing Life-Sustaining Treatment for Children (Minor Patients) and LAC+USC Healthcare Network Department of Nursing Services Policy, #200, Professional Ethics Code for Nurses with Interpretive Statements.

ADDENDUM EE

HAZARD COMMUNICATION PROGRAM

PURPOSE:

To outline the Hazard Communication Program in compliance with the required Hazard Communication Regulation (T8 CCR 5194). Staff will receive information about hazardous substances in their workplace, the associated hazards, and the control of these hazards through this comprehensive hazard communication program.

POLICY:

The NICU Nurse Manager has the responsibility for implementing, coordinating, and maintaining this program. She will collaborate with and will receive guidance and support from LAC+USC Medical Center Safety Office as needed.

GENERAL PRACTICES

1. List of hazardous substances:
    - The Nurse Manager will prepare and maintain a current inventory list of all known hazardous substances present in the unit.
    - Specific information on each hazardous substance can be obtained by reviewing the Material Safety Data Sheet (MSDS) that is also available for each substance in the unit binder or via the Intranet.

2. Proposition 65 list of chemicals:
    - The Safety Office is responsible for obtaining updates of Proposition 65 listed chemicals and providing new information to affected employees.
    - In the case of newly added chemical to the Proposition 65 list, warning requirements take effect 12 months from the date of listing.

3. Material Safety Data Sheets (MSDSs)
    - The Nurse Manager is responsible for obtaining and maintaining current MSDSs for all the hazardous substances found in the unit in hard copy format in a binder.
    - If new and significant health/safety information becomes available, the new information is passed on immediately to all affected staff.
    - Training sessions/in-service, posting of memos, and discussion during staff meetings are all acceptable methods of communication.
    - Legible MSDS copies for all hazardous substance to which employees of this unit may be exposed are kept in the MSDS binder in NICU
    - MSDSs are readily available for review to all employees in their work area during each work shift either in hard copy binder or via the Intranet.

ADDENDUM EE

HAZARD COMMUNICATION PROGRAM

3. Material Safety Data Sheets (MSDSs) (Cont'd)

- Staff will report to the Nurse Manager if any MSDSs are missing, if any new hazardous substance(s) in use does not have an MSDS, or if the MSDS present is incomplete.
- Material Management is responsible for obtaining all MSDS needed and requested.
- If Material Management is not able to obtain the MSDS from the vendor within 25 calendar days of the request, the Nurse Manager will either call our local CAL/OSHA compliance office or write to:

Division of Occupational Safety and Health
Deputy Chief of Health and Engineering Services
P. O. Box 420603
San Francisco, CA 94142-0603

- If any staff has specific questions or needs information on an MSDS, they may call the CAL/OSHA Consultation Services at 1-800-963-9424 or the Occupational health Branch of Hazard Evaluation System and Information Service (HESIS) at (510) 3014.
- MSDSs are also available through the LAC+USC Intranet - Website. This *does not* replace the need to maintain a hard copy of the needed MSDs on the unit.

4. Labels and Other Forms of Warning

- Before hazardous substance containers are released to the work area, it is required that the Nurse Manager ensures that all primary and secondary containers are labeled as follows:

Label Information	*Primary Container*	*Secondary Container*
Identity of the hazardous substance(s)	X	X
Applicable hazard warning	X	X
Name and address of the Manufacturer	X	

- To address exposures to Proposition 65 chemicals, the Nurse Manager will provide clear and reasonable warning to individuals prior to exposure by any of the above means of communication.

5. Employee Information and Training:

- All employees will receive a health and safety training session during their orientation. This training session will provide information on the following:

A. The requirement of the hazardous communication regulation, including the employees' rights under the regulation.

ADDENDUM EE

HAZARD COMMUNICATION PROGRAM

5. Employee Information and Training: (Cont'd)

B. The location and availability of the written hazardous communication program.

C. Any operation in their work area, including non-routine tasks where hazardous substances or Proposition 65 carcinogens/reproductive toxins are present and exposures are likely to occur.

D. Methods and observation techniques used to determine the presence or release of hazardous substances in the work area.

E. How to read labels and review MSDSs to obtain hazard information.

F. Protective practices the unit has taken to minimize or prevent exposure to hazardous substances.

G. Physical and health effects from the hazardous substances.

H. Symptoms of overexposure.

I. Measures employees need to put into practice to reduce or prevent exposures to these hazardous substances by engineering controls, work practices, and use of personal protective equipment (PPE).

J. Emergency and first-aid procedures to follow if employees are exposed to hazardous substances.

K. The location and interpretation, if needed, of warning signs or placards to communicate that a chemical known to cause cancer or reproductive toxicity is used in the workplace.

- Employees will receive additional training annually when a new hazard is introduced into the workplace and/or whenever the employee might be exposed to hazards at another unit's work site.

ADDENDUM EE

HAZARD COMMUNICATION PROGRAM

HAZARDOUS MATERIAL RESPONSE – CODE ORANGE

Always follow these three (3) key steps:

1. Safety of Life
   - Remove all individuals from immediate danger
   - Block off contaminated area, deny entry

2. Report Incident
   - Dial x111 or (323) 409-0410 for non-Centrex telephones.
   - Give Operator your location, name, and identify the hazardous material and quantity if known.

     Don't hang up before the operator does. He or she may need additional information.

3. Obtain Material Safety Data Sheet (MSDS) for the spilled hazardous material and have it available for response personnel when they arrive. The MSDS (specific to the unit) are kept in a binder in the area.

4. Use a spill kit, if available and if safe to do so.
   The Telephone Operator will notify the Building Engineer, County Police, and the Safety Office. When necessary, the Fire Department and Hazardous Materials team will be notified.
   The Telephone Operator will page "CODE ORANGE" over the paging system, three times at 15-second intervals.

Chemotherapy Spills: See LAC+USC Healthcare Network Chemotherapy Safety and Health Plan.

Radiation Incident:

1. DEM and attending physician will notify Radiation Safety Office x6399 or x4096.

2. Set up decontamination area in the ED. Mark off and close the area.

3. If victim is seriously injured, give life saving assistance regardless of radiation contamination.

4. Radiation Safety staff will check for contamination. If contaminated, tag the victim "Radioactive" and follow specific decontamination procedures as outlined in Radiation Contamination Policy. If not contaminated treat as regular emergency.

ADDENDUM F

CHAIN OF COMMAND

Purpose: When an employee becomes aware of inappropriate or questionable practice, concern should be expressed to the party providing the care. This should not be done in front of the patient's family/visitors. If the issue is not resolved, it must be reported via the chain of command, involving whichever persons are appropriate (refer to attached diagram).

Policy: All employees are expected to act as a patient advocate and uphold the policies and standards of the institution.

1. The Nursing Practice Act of the State of California holds the registered nurse accountable for taking appropriate action when s/he is aware of inappropriate or questionable practice in the provision of health care, or when any action on the part of others places the rights or the best interests of the patient in jeopardy.

2. The registered nurse has the responsibility to immediately take action and report to the Nurse Manager/ on duty Supervisor when standards are not being followed. The Nurse Manager or on-duty Supervisor must report to the next higher link in the chain of supervisory nursing and to the appropriate supervising medical personnel. Written documentation from involved parties may be required and must be completed prior to reporting off duty.

3. The Nurse Manager/Supervisor will be responsible to review the information/situation and take appropriate action and follow-up.

References:

American Association of Nurse. (2004). Neonatal Nursing: Scope and Standards of Practice

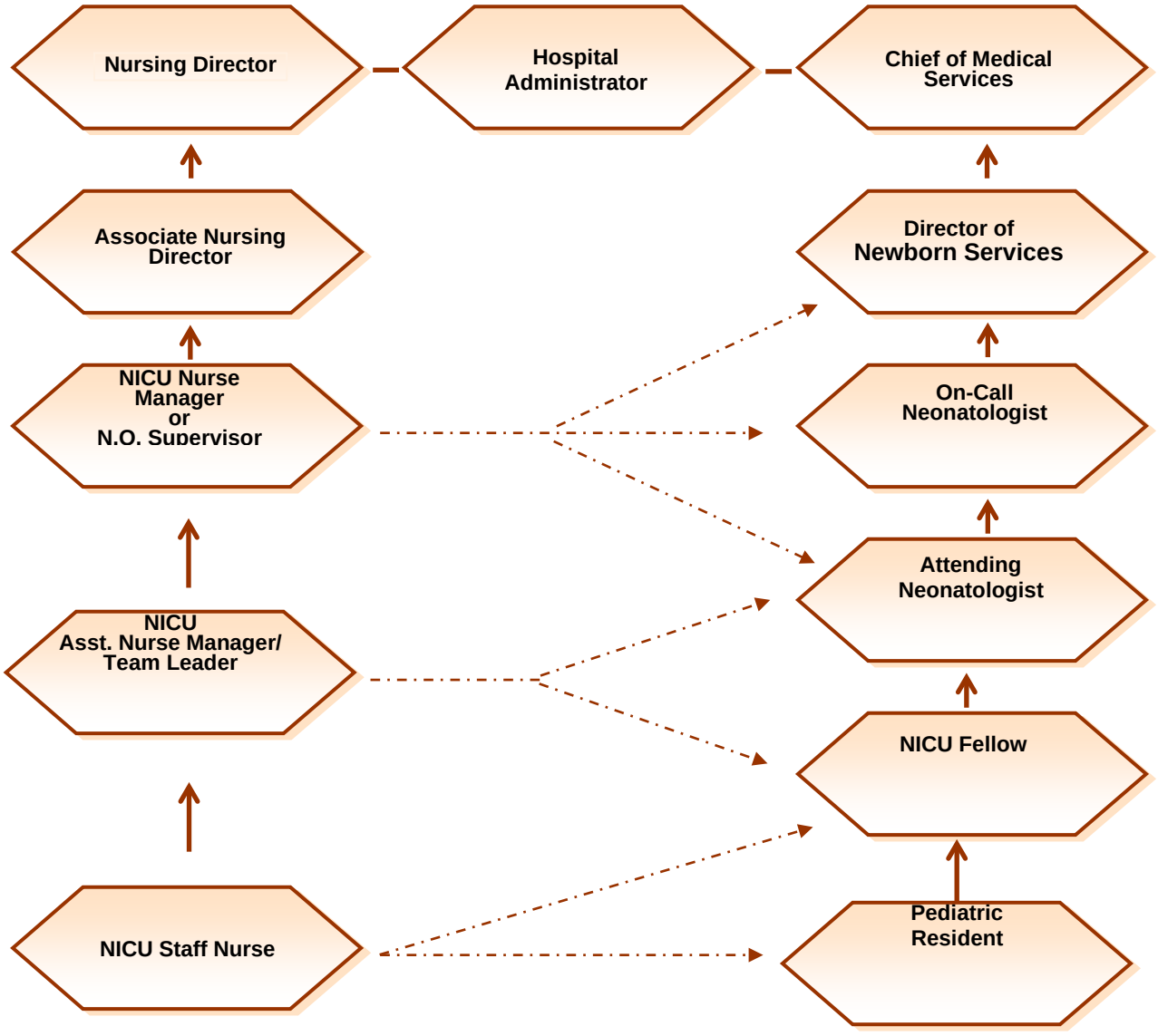
California State's Nursing Practice Act, http://www.rn.ca.gov/regulations/npa.shtml

LAC+USC Healthcare Network Policy, #103, Medican Chain of Command, from Department of Medical Administration.

LAC+USC Healthcare Network Policy, Department of Nursing Services Policy, #120, Chain of Command.

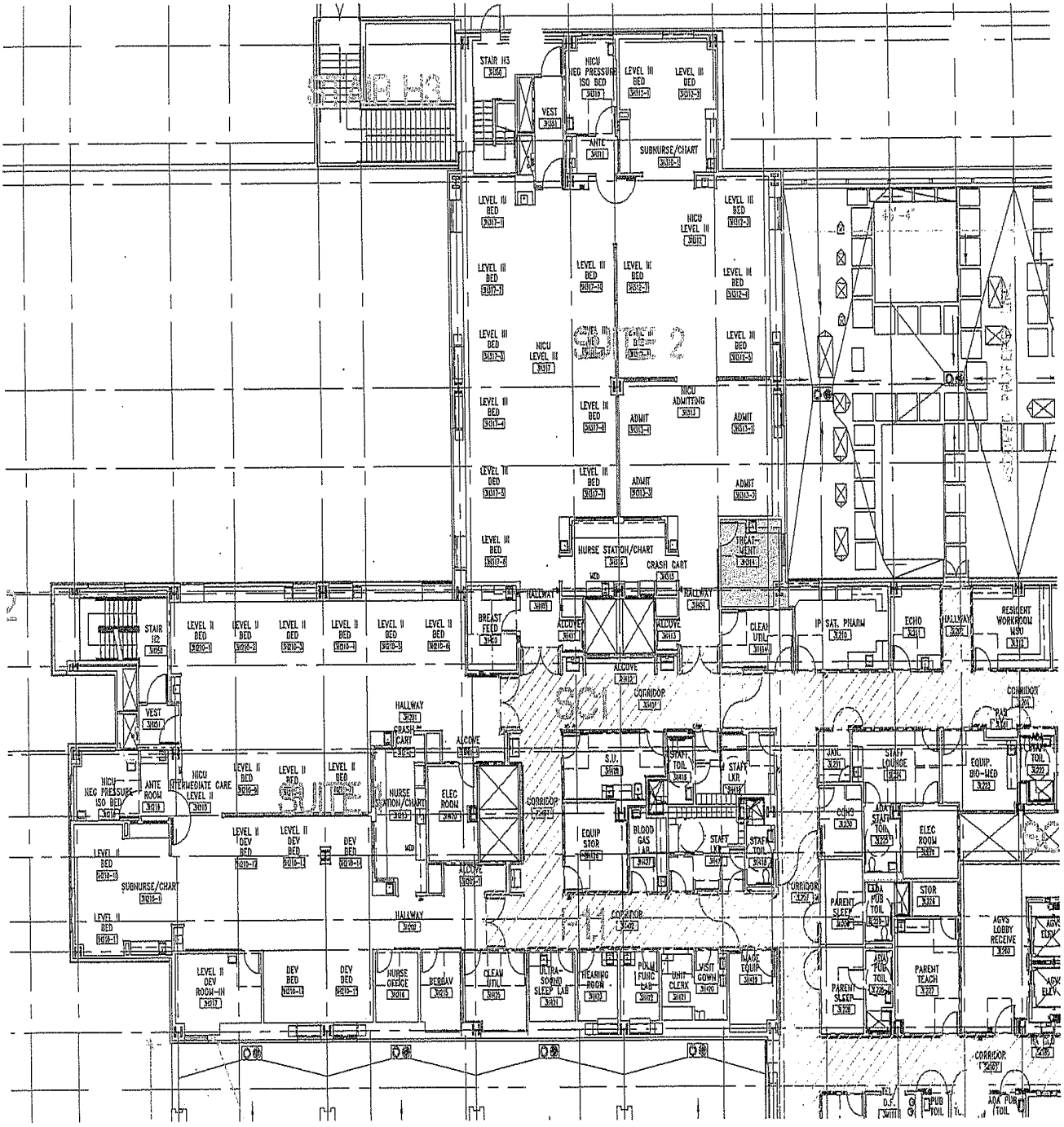
National Association of Neonatal Nurses. Code of Ethics of the National Association of Neonatal Nurses. http://www.nann.org/about_us/ethics.html

DIAGRAM


Nursing Director
Hospital Administrator
Chief of Medical Services
Associate Nursing Director
Director of Newborn Services
NICU Nurse Manager or N.O. Supervisor
On-Call Neonatologist
Attending Neonatologist
NICU Asst. Nurse Manager/ Team Leader
NICU Fellow
NICU Staff Nurse
Pediatric Resident

ADDENDUM FF

UNIT MAP



ADDENDUM G

CO-BEDDING OF TWINS/MULTIPLES

Policy:

The LAC+USC Medical Center NICU does not advocate co-bedding of twins or multiple gestation siblings as per current literature and evidenced-based practices in pediatrics.

References:

American Academy of Pediatrics. Policy Statement: The Changing Concept of Sudden Infant Death Syndrome: Diagnostic Coding Shifts, Controversies Regarding the Sleeping Environment, and New Variables to Consider in Reducing Risk. Pediatrics; 116: 1245-1255

National Institutes of Health. Curriculum for Nurses: Continuing Education Program on SIDS Risk Reduction. http://www.nichd.nih.gov/publications/pubs/upload/Cont_Ed_Prog_Nurses_SIDS.pdf

National Association of Neonatal Nurses. (2008). Position Statement #3045 CoBedding of Twins or Higher Multiples

Tomashek, K. M., Wallman, C. and the Committee on Fetus and Newborn. (2007). Cobedding Twins and Higher-Order Multiples in a Hospital Setting. Pediatrics;120;1359-1366

Tyrala, E., & Chung, E. K. (2008). Cobedding Twins and Higher-Order Multiples. Pediatrics, 121: 1073

ADDENDUM GG

MONITORING OF INFANTS

PURPOSE: To define the criteria for monitoring of infants in the NICU, as mandated by State regulations.

POLICY: All infants admitted to the NICU are placed on cardiorespiratory monitoring technology with pulse oximetry. When an intra-arterial line has been placed, this line is also continuously monitored for waveform and blood pressure reading. When an infant is transported within the medical center from the NICU for diagnostic testing or for interfacility transport, continuous monitoring is maintained.

EXCEPTION:

1. Monitoring of an infant for whom Comfort Care has been ordered (refer to Addendum Comfort Care Guidelines).

2. Monitoring of an infant with extremely premature skin, with an MD order, will be by pulse oximetry only.

ADDENDUM H

CODE BLUE CPR CART

Purpose:

To facilitate timely response to Code Blue situations involving neonatal patients by activating a multi-disciplinary team consisting of Medical, Nursing, and Respiratory Therapy staff. The defibrillator is tested minimally once a week. Intact Security Locks and Power Source are inspected every shift.

Supportive Data:

AHA-AAP 2006 recommendations for neonatal resuscitation will be followed.

Procedure:

1. In the event of severe bradycardia and/or respiratory arrest, initiate cardiopulmonary resuscitation and call for assistance.

2. Simultaneously, NICU staff will do the following:
   a) Obtain assistance from staff in the immediate vicinity
   b) Move the CPR Cart to the location of the patient

   *During a code, staffing will be re-allocated to meet patient care needs on the affected patient care areas.

3. Nursing staff's responsibility during an arrest includes:
   a) Administer CPR
   b) To monitor and record the patient's condition and response to treatment
   c) To prepare, administer, document medications given
   d) To locate other emergency equipment and supplies as needed
   e) Support Code Team

4. Following the resolution of the code, the CPR cart is replaced by contacting the Clinical Equipment Operation on extension 98570.

References:

American Academy of Pediatrics. (2010). Neonatal Resuscitation Textbook, 6th edition.
http://www.aap.org/nrp/pdf/25255revised.pdf

ADDENDUM HH

NEWBORN (METABOLIC) SCREENING

PURPOSE:

Newborns may be born with any one of a number of inborn errors of metabolism such as: galactosemia, hypothyroidism, phenylketonuria, and hemoglobinopathy. The State of California requires all infants born in California to be screened in the Genetic Disease Screening Program under the Department of Health Services. According to the Department of Public Health (2019), a negative Newborn Screen does not rule out possibility of a disorder. Therefore, health care provider's thorough assessment, evaluation and diagnosis are important in identifying infants at risk, which require intervention and follow-up.

POLICY:

All infants born at LAC+USC Medical Center will have a California Newborn Screen. All infants (re)admitted to the Medical Center before 30 days of age will have their medical history reviewed for the California Newborn Screen assessment. Collected between 12-48 hours of life prior to a red blood cell transfusion. For any reason the newborn screen is collected prior to 12 hours of life (i.e., transfusion. Discharge earlier than 12 hours) a sun- screen will be required.

PROCEDURE:

1. Fill in all blanks on the most recent version of the Test Request Form (TRF) according to the instruction on the back. (Please print legibly using all capital letters with one character per box.)

2. Ensure continuous flow of blood on the attached filter paper specimen collection card.
    a. Blood on the filter paper is evenly spread and not layered.
    b. Blood is soaked through to the back side of the filter paper card.
    c. Circles are completely filled.

3. After collection:

    a. Charge nurse/team leader will verify information on NBS forms for completeness then place a check in the corner of the goldenrod copy.

4. Tear out both the sender's copy and parents' copy which includes the privacy notification required by HIPAA. Give the pink and blue copy to the parent.

5. File the sender's copy (yellow striped) in the newborn's medical record.

6. Dry blood spots (lying flat) for at least three hours.

7. Send original TRF with the attached specimen collection card and completed transport log to the testing lab.

8. A RN will verify the NBS has been drawn prior to the NICU infant's discharge.

ADDENDUM HH (Cont'd)

NEWBORN (METABOLIC) SCREENING (Cont'd)

PROCEDURE: (Cont'd)

9. If the infant requires transfer to another facility before the NBS is obtained, the NICU RN must complete and send to the Genetic Disease Branch the form "Hospital Report of Newborn Specimen Not Obtained (NBS-NO)."

DOCUMENTATION:

The date of the NBS collection is documented on the Nursing Care Record – Neonatal, and on the NICU – Discharge Baby Care Notation and Instructions.

ADDENDUM HH (Cont'd)

NEWBORN (METABOLIC) SCREENING (Cont'd)

California Department of Health Services
Genetic Disease Branch
Newborn Screening Program

Disorders Detectable by NBS Program as of September 2018

I. Cystic Fibrosis

II. Endocrine Disorders
- Primary Congenital hypothyroidism
- Congenital Adrenal Hyperlasia

III. Metabolic Disorders

a. Amino Acids Disorders
- Argininosuccinic Aciduria
- Citrullinemia Urine Disease
- Homocystinria
- Classic Phenylketonuria
- Tyrosinemia Type I

- Argininemia
  - Biopterin Defect in Cofactor Biosynthesis
  - Biopterin Defect in Cofactor
  - Regeneration
  - Citrullinemia Type II
  - Benign Hyperphenylalainemia
  - Hypermethioninemia
  - Tyrosinemia Type II
  - Tyrosinemia Type III
- Carbamoylphosphate Synthetase Deficiency
  - Gyrate Atrophy of the Choroid And Retina
  - Hyperornithinemia-Hyperammonemia
  - Homocitrullinuria Syndrome

ADDENDUM HH (Cont'd)

NEWBORN (METABOLIC) SCREENING (Cont'd)

- Hyperprolinemia Type I
- Hyperprolinemia Type II
- Ornithine transcarbamylase Deficiency
- Remethyylation Defects (MTHFR, MTR, MTRR, Cbl D v1, Cbl G Deficiencies)
- Tyrosinemia,Transient

b. Organic Disorders
   - Propionic Acidemia
   - Methylmalonic Acidemia (Methymalonyl-CoA Mutase)
   - Mrthylmalonic Acidemia (Cobalain Disorders)
   - Isovaleric Acidemia
   - 3-Methylcrotonyl-CoA Carboxylase Deficiency
   - 3- Hydroxy-3 Methylgutaric Aciduria
   - Holocarboxylase Synthase Deficiency
   - B-Ketothiolase Deficiency
   - Glutaric Acidemia type I
   - 2 Methyl-3- Hydroxybutyric Aciduria
   - 2-Methybutyrylglycinuria
   - 3-Methylglutaconic Aciduria
   - Methylmalonic Acidemia with Homocystin
   - Isobutyrylglycinuria
   - Malonic Acidemia
   - Ethylmalonic Encephalopathy
   - Formiminoglutamic Acidemia

c. Fatty Acids Oxidation Disorders
   - Caritine Uptake Defect
   - Medium-chain Acyl-CoA Dehydrogenase Deficiency
   - Very Long Acyl-CoA Dehydrogenase Deficiency
   - Long- Chain L-3 Hydroxyacl-CoA Dehydrogenase Deficiency
   - Trifunctional Protein Deficiency

ADDENDUM HH (Cont'd)

NEWBORN (METABOLIC) SCREENING (Cont'd)

- Carnitine Acylcarnitine Translocase Deficiency
- Carnitine Palmitoyltransferase I Deficiency
- Carnitine Palitoyltransferase II Deficiency
- Medium/Short-Chain L-3 Hydroxyacyl-CoA Dehydrogenase Deficiency
- Glutaric Acidemia Type II
- Short Chain Acyl-CoA Dehydrogenase Deficiency

IV. Others Metabolic Disorders

- Biotinidase Deficiency
- Cystic Fibrosis
- Classic Galactosemia
- Glycogen Storage Disease Type II (Pompe)
- Mucopolysaccharidosis Type I
- Severe Combined Immunodeficiencies
- X-linked Adrenoleukodystrophy
- Critical Congenital Heart Disease
- Hearing Loss
- Spinal Muscular Atrophy
- T-Cell Related Lymphocyte Deficiencies
- Congentital Adrenal Hyperplasia (11b Monooxygenase Deficiency)
- Duarte Galactosemia

V. Hemoglobin Disorders

- S, S Disease (Sickle Cell Anemia)
- S, B-Thalassemia
- S,C Disease
- Various Other Hemoglobinopathies

ADDENDUM HH (Cont'd)

NEWBORN (METABOLIC) SCREENING (Cont'd)

REFERENCES:

California Department of Public Health (2019). Newborn Screening Program. List of Disorders Detectable by Newborn Screening. https://www.cdph.ca.gov/Programs/CFH/DGDS/Pages/nbs/NBS-Disorders-Detectable.aspx

ADDENDUM I

COMFORT CARE GUIDELINES FOR THE NEONATE AT THE END OF LIFE

PURPOSE

Recommendations for the comfort care of neonates at the end of life. The plan of care is to address expressed values, goals and needs of the patient/family and is intended to help support decision making at the end of life.

DEFINITION

Comfort care is defined as non-curative interventions that address the physical, emotional, social, cultural and spiritual stressors of patients and/or families at the end of life. The focus of care should be in providing peace and dignity throughout the dying process.

The guidelines apply to the care of neonates in either of two situations:

- Those who are not resuscitated for reasons such as non-viability and conditions incompatible with life.
- Those for whom further resuscitative efforts or treatments are withdrawn.

NO RESUSCIATION ("Do not intervene")

1. Before delivery
   - A. Consultation requested as needed (neonatology, pastoral care, social work, etc.).
   - B. Spiritual/pastoral care offered (e.g., baptism, prayer, and /or blessing).
2. After delivery - with parental involvement in Labor and Delivery.
   - A. Place hat on newborn's head and wrap in warmed blankets.
   - B. Allow parents/family to hold infant for as long as they desire.
   - C. Spiritual/pastoral care offered again or if not done before delivery.
   - D. Newborn heart rate checked per Labor & Delivery policy.
3. After delivery - without parental involvement or after parental involvement
   - A. Place hat on newborn's head and wrap in warmed blankets.
   - B. Transport to NICU via open crib or Panda® warmer.
   - C. Infant will be weighed, placed on NICU warmer, and put on a cardio-respiratory monitor. HR to be documented on admission, 15 minutes times two, 30 minutes times two, then every hour and PRN.

ADDENDUM I (Cont'd)

COMFORT CARE GUIDELINES FOR THE NEONATE AT THE END OF LIFE (Cont'd)

NO RESUSCIATION ("Do not intervene") (Cont'd)

3. After delivery - without parental involvement or after parental involvement. (Cont'd)
   D. Contact pastoral care if parents desire blessing or baptism after birth.
   E. Provide parents with mementos and grief packet.

4. Special consideration - If baby remains alive after 4 hours notify medical team for orders to provide nutrition as appropriate.

WITHDRAWL OF LIFE PROLONGING THERAPIES

1. Orders from attending physician stating:
   A. Removal of ETT.
   B. Discontinuation of all medications, intravenous fluids and drugs EXCEPT pain/sedation medications (e.g., Fentanyl drip).

2. Spiritual/pastoral care offered.

3. Baby will be wrapped in a blanket and a hat placed on his/her head.

4. Parents/family may hold baby:
   A. If parents remain in unit with baby, baby may remain connected to cardio-respiratory monitor for HR check.
   B. If parents chose to sit in "family room" with baby, then heart rate will be checked via portable cardiorespiratory monitor or auscultated every hour and PRN.

5. Provide parents with mementos and bereavement packet

6. Document interventions in E-HR.

REFERENCES:

Harris, L. L., & Douma, C. (2010). End-of-life care in the NICU: A family-centered approach. NeoReviews: 11(4): e194-e200.

Widger, K., & Picot, C. (2008). Parent's perceptions of the quality of pediatric and perinatal end-of-life care. *Pediatric Nursing*. 34 (1) 53-58.

National Consensus Project for Palliative Care (2004). Clinical practice guidelines for quality palliative care. Available at www.nationalconsensusproject.org.

ADDENDUM II

NUTRITIONAL SCREENING GUIDELINES

PURPOSE:

Critical care patients are at risk for nutritional deficiencies which impact their immunological ability to fight infection and heal optimally from surgery. The risk for nutritional deficiencies maximizes with decreased or absence enteral intake of nutrition which characterize critical care patients. Neonatal and critical care patients have the added need for "normal" growth and development. Therefore, all patients in the NICU are screened for nutritional risks within 24 hours of admission.

POLICY:

A NICU nutritional screening program has been implemented to identify patients who are particularly at nutritional risk according to their prematurity and medical condition. The LAC+USC Medical Center NICU adapts the four levels of nutritional risk identified by the 4th edition of the NANN Guidelines for Neonatal Nursing Policies, Procedures, Competencies, and Clinical Pathways:

LEVEL NUTRITION

Level 4

≤28 weeks postconceptional age
≤1,000 g
NPO
Hyperalimentation
Inability to start nutrition before 4 days of life due to medical instability
Metabolic, liver, or renal disease
Sepsis, shock, or unstable vital signs

Treatment Plan

Assess nutrition daily-Consider parental nutrition, breast milk, fortification
Participate in NICU and medical team rounds
Reassess nutrition acuity status
Consider specialized formula
Monitor daily growth and nutritional intake
Refer to pediatric Registered Dietician

Level 3

≤29–34 weeks postconceptional age
≤1,500 g
Feeding intolerance
Specialized formula recipe
Start of enteral feeds with hyperalimentation decreasing
Weight gain persistently less than expected for >1 wk

ADDENDUM II (Cont'd)

NUTRITIONAL SCREENING GUIDELINES (Cont'd)

LEVEL NUTRITION (Cont'd)

Level 3 (Cont'd)

Bronchopulmonary dysplasia
Neurological impairment
Tube fed
Former Level 4 transitioning to Level 3

Treatment Plan
Assess nutrition every two to three days- consider parental nutrition, breast milk, fortification
Participate in NICU and medical team rounds
Reassess nutrition acuity status
Consider specialized formula
Monitor daily growth and nutritional intake
Refer to pediatric Registered Dietician

Level 2

≥34 week postconceptional age
≥2,200 grams
PO feeder, maintains desired volume, growth
Ad lib feeding
Standard formula, adequate volume, growth
Former Level 3 transitioning to Level 2

Treatment Plan
Assess nutrition once per week.
Participate in NICU and medical team rounds
Monitor daily growth and nutritional intake

Level 1 (not at nutrition risk)

≤48 hour stay
No medical condition affecting nutrition

Treatment Plan
Assess as referred by medical team.

ADDENDUM II (Cont'd)

NUTRITIONAL SCREENING GUIDELINES (Cont'd)

PROCEDURE:

1. Make the nutritional risk identification.

2. Document the risk identification and referral for nutrition collaboration on the Patient Plan of Care.

3. Enter this referral into Order Management for the Registered Dietician's prompt implementation.

REFERENCES:

American Academy of Pediatrics and the American College of Obstetricians and Gynecologists. (2007). Guidelines for Perinatal Care, 6th edition. Pp. 235-246, 277-280.

Altimier, L., Brown, B., & Tedeschi, L. (2006). NANN Guidelines for Neonatal Nursing Policies, Procedures, Competencies, and Clinical Pathways, pp.127.

ADDENDUM J

CLINICAL PRIVILEGES GRANTED TO ATTENDING CCS-PANELED PHYSICIANS OTHER THAN NEONATOLOGISTS

PURPOSE:

To address State of California regulations for regional neonatal Intensive Care Units (NICU) to have a written policy for clinical privileges granted to attending California Children's Services (CCS) paneled physicians other than neonatologists.

POLICY:

Clinical privileges to the NICU at LAC+USC Medical Center are limited to CCS-paneled neonatology medical faculty of the University of Southern California's Keck School of Medicine.

ADDENDUM JJ

VENTILATOR ASSOCIATED PNEUMONIA (VAP) PREVENTION BUNDLE

Aim: To prevent the VAP rate in the NICU. This includes prevention of colonization of artificial airways.

Population: All neonates admitted to the NICU receiving mechanical ventilation (via tracheal or endotracheal tubes [ETT]).

Prevention process: NICU VAP prevention consists of seven overall care components: hand hygiene and gloves, general practice considerations, patient positioning, oral/ nasopharyngeal care, artificial airway clearance, and ventilator support.

Hand Hygiene and Gloves

1. Perform meticulous hand hygiene before and after contact with infant and when in contact with any respiratory support equipment.

2. Wear gloves while performing tracheal/endotracheal tube, oral or nasopharyngeal care.

General Practice Considerations

1. Assess the taping/ties/bar which hold(s) the ETT or trach tube in place for security/ adhesion; replace taping/ties/bar promptly as needed.

2. Assess daily the need for continued ETT intubation during morning medical rounds and document in the progress notes of the patient's medical record.

3. Ensure that wall suction set-up for oral/nasopharyngeal suctioning is separate from the wall suction set-up for the ETT/tracheal tube.

4. Replace wall suction canisters when visibly soiled and weekly Sunday night.

5. Inform parents and family about the VAP guidelines, the importance of hand washing, and the risk of micro-aspiration due to tube or patient movement.

6. Do not use bulb syringes on patients with endotracheal tubes.

7. Avoid skin care products with petroleum ingredients (e.g., lip balm).

8. Disinfect the work environment using a germicidal cleaning agent every shift.

9. Serial sputum cultures may be ordered on a ventilator patient for monitoring colonization.

ADDENDUM V-2 (Cont'd)

VENTILATOR ASSOCIATED PNEUMONIA (VAP) PREVENTION BUNDLE (Cont'd)

Patient Positioning

1. Elevate head of bed (HOB) to 12 to 15 degrees according to the physician's discretion or unless contraindicated by physician's order.

2. A linen neck/shoulder roll prevents tube kinking or obstruction in the airway. Excess linen should not be placed under the head or mattress.

3. Reposition patient (supine, lateral or prone) with every vital sign assessment or every 2 to 3 hours.

4. When the patient is in the supine position, maintain the rotation of his/her head/neck to <45 degrees from midline.

Oral/Nasopharyngeal Care

1. Provide oral/nasopharyngeal care every shift and as needed with sterile water or normal saline only.

2. Incorporate oral/nasopharyngeal care with routine care when possible and prior to:
   - Positioning the patient
   - Moving or re-securing the ETT or tracheal tube.
   - Changing the orogastric tube

3. Provide developmentally supportive mouth care:
   - Pay attention to infant's cues.
   - If infant becomes distressed, contain and comfort until stability is reestablished.
   - Encourage rooting reflex in older infants

4. Oral suction devices (e.g., Little Sucker®) are changed daily on nights and as needed.

5. Oral suction devices are rinsed after use with sterile water or saline and kept in a clean plastic bag in the bed.

Artificial Airway Clearance

1. Suction the ETT only as clinically indicated. Clinical indications include but are not limited to:
   - Visible secretions
   - Unexplained drop in pulse oximetry and/or transcutaneous oxygen monitoring
   - Unexplained rise in the transcutaneous carbon dioxide monitoring
   - When the ventilator graphic display reveals evidence of secretions

2. Utilize a closed, in-line suction system. Change the in-line suction system daily on night shift.

ADDENDUM V-2 (Cont'd)

VENTILATOR ASSOCIATED PNEUMONIA (VAP) PREVENTION BUNDLE (Cont'd)

Artificial Airway Clearance (Cont'd)

3. Suction pressure should remain between 80 and 100 mmHg.

4. Do not routinely instill normal saline during suctioning unless absolutely necessary.

5. Document the time of suctioning, the amount and quality obtained from the ETT or tracheal tube.

6. Limit the amount of sterile normal saline instilled into the artificial airway when the secretions are thick and tenacious. Suggested amounts include:
   - ≤ 0.2 mL when current weight is ≤ 1000 grams
   - ≤ 0.4 mL when current weight is 1001 to 2500 grams
   - ≤ 0.6 mL when current weight is > 2500 grams

Respiratory Equipment

1. Disposable respiratory equipment is never shared between patients. Re-usable equipment is disinfected and completely air-dried between patients. Observe manufacturer's directions for cleaning and disinfection.

2. Store the resuscitation device outside the incubator, warmer or bed in a clean, non-sealed bag when not in use.

ADDENDUM K

CAR SEAT CHALLENGE

PURPOSE:

Prior to discharge the ex-premature neonate is placed in an infant car seat and observed for adverse respiratory patterns on the cardiorespiratory monitor with pulse oximetry. This is referred to as a car seat challenge (CSC). Currently there is no clinical research evidence that establishes a predictive relationship between desaturations (<90%) with or without bradycardia spells (<80) in an infant car seat and the occurrence or frequency of acute life-threatening events or sudden infant death in an infant car seat.

POLICY:

The following guidelines will be followed in order to constitute a CSC in the NICU:

1. Parents or the legal guardian will be informed of the purpose of the CSC as part of the preparation for discharge from the NICU. They will also be encouraged to bring in the infant's car seat for the CSC. Written consent is not necessary.

   The RN will assess for = Bradycardia – Heart rate less than 80 beats per minute (unless low resting heart rate is documented previously.)

2. Oxygen desaturation, less than, 90% - Apnea greater than 20 seconds without breathing.

3. Candidates for the CSC will be:
   - Any infant less than 37 weeks gestation at birth and less than 2500 grams.
   - Have currently demonstrated thermoregulation without incubator or radiant warmer
   - Determined to be within one week of discharge to home or placement
   - Any infant with hypotonia, i.e. Down syndrome, congenital or neuromuscular disorder.

4. A written physician's/NNP's order is required for the CSC.

   - If the infant is stable without any vital sign changes during observation, has passed the car seat challenge.

5. Equipment will include
   - The infant's own car seat or the NICU's dedicated car seat (for CSC purposes) placed on the mattress in a large crib
   - Philips Cardiorespiratory Monitor with Pulse Oximetry with memory/printout capability along with cables, leads, and sensors
   - Nasal oxygen or room air (if it is determined that the child will be discharged on a nasal cannula)
   - Sleeper-type clothing
   - Knit cap
   - Blankets and rolls as necessary to maintain positioning

ADDENDUM K (Cont'd)

CAR SEAT CHALLENGE (Cont'd)

POLICY: (Cont'd)

6. A NICU bedside caregiver (RN or RCP) will remain in attendance throughout the CSC and document any abnormal readings on the medical record and provide intervention to reverse any untoward event.

7. The neonate will be placed in the infant car seat at the end of a scheduled feeding and observed for 60 minutes or 90 minutes if duration of travel home is longer than 1 hour.

8. At all times in the car seat, the infant's position will be maintained in a developmental correct manner, with car seat in a 45° degree angle.

9. In the event the infant fails the car seat challenge, the infant is re-tested daily with the passing requirement is met, or the infant fails the car seat challenge, the infant may be discharged, the same day in a car bed.

10. The NICU's infant car seat will be wiped down with antiseptic wipes between uses and maintained in the office of the discharge planners. Cloth car seat covers will be laundered between patients.

PROCEDURE:

1. The infant will be dressed in a diaper and sleeper (with long sleeves and leggings).

2. The car seat will have only a single (thinly padded) cover so that the infant does not contact any plastic surfaces when placed in it.

3. The infant will be strapped in securely as per use of the car seat so that one adult finger can be placed under the strap.

4. A single blanket will be placed over the infant (avoiding the face) and position supports of rolled linens can be tucked in at the sides of his/her torso and head.

5. At the end of 60 minutes the infant will be allowed to remain in the infant seat until the next feeding or until the infant spontaneously awakens and begins to fuss.

6. At the conclusion of the 60 minute observation, the neonatal fellow or attending will be informed of the infant's tolerance in detail by the NICU bedside caregiver.

7. Documentation will be made in the medical record by the bedside caregiver and the fellow or attending regarding the CSC.

8. NICU care and vital signs frequency will resume according to the previous acuity level of the patient.

ADDENDUM K (Cont'd)

CAR SEAT CHALLENGE (Cont'd)

REFERENCES:

Bass, J.L. (2010). The infant car seat challenge: Determining and managing an "abnormal" result. Pediatrics; 125(3): 597-598.

Bull, M. J., et al. (2009). Safe transportation of preterm and low birth weight infants at hospital discharge. Pediatrics; 123(5): 14251429.

Cerar, L.K., et al., (2009). A comparison of respiratory patterns in healthy term infants placed in car safety seats and beds. Pediatrics; 124(33): e396-6402.

DeGrazia, M., et al. (2010). Weight and age as predictors for passing the infant car seat challenge. Pediatrics; 125(3): 526-531.

ADDENDUM KK
BREASTFEEDING POLICY

Purpose:

To promote exclusive breastfeeding as the norm at LAC+USC Medical Center, both inpatient and outpatient maternal-child services in accordance with overwhelming scientific evidence that breastmilk is the optimal food for infants, and that breastfeeding has health benefits for the mother, as well as benefits for the family, the society and the environment. To provide breastfeeding management guidelines.

Scope:

Obstetrics and Pediatric Services Staff: Inpatient Maternal/Child services, pediatric ambulatory care and Obstetrics/Gynecology Ambulatory Care Department.

Policy:

Step 1 - Have a written breastfeeding policy that is routinely communicated to all health care staff.

a. The nursing management team consisting of OB/Peds and Outpatient OB clinics will be responsible for the development, updating, evaluation and revision of the breastfeeding policy.
b. The nurse managers of OB/Peds and Outpatient OB clinics will oversee the implementation of the breastfeeding policy and that professional staff training is identified. They will be responsible for assuring the implementation of the breastfeeding policy and that professional staff training is identified.
c. The Breastfeeding policy will be reviewed and updated at least every three years if not more frequently utilizing evidence-based guidance.
d. The policy will be communicated to all new pertinent employees during their orientation and at other times as determined by the facility.
e. LAC+USC Medical Center will monitor the effectiveness of the breastfeeding policy and all other related infant feeding policies and is incorporated as part of the OB/Peds quality improvement process.
f. LAC+USC Medical Center will maintain a Breastfeeding Task Force. This is an interdisciplinary team comprised of hospital administrators, medical staff, nursing staff, lactation staff, and dietary staff. The Breastfeeding Task Force will identify the barriers to breastfeeding that exist in the Hospital community. This team will meet quarterly to discuss breastfeeding policies and issues.
g. All staff of the hospital that potentially interact with childbearing women and infants and/or children will have access to a copy of the breastfeeding policy.
h. The Ten Steps and facility philosophy regarding purchase and promotion of formulas, nipples and pacifiers will be prominently displayed in all areas that serve mothers and infants and/or children.
i. Employees of manufacturers or distributors of breast milk substitutes, bottles, nipples and pacifiers have no direct communication with pregnant women and mothers
j. The facility does not receive free gifts, non-scientific literature, materials, equipment, money or support for breastfeeding education or events from manufacturers of breast milk substitutes, bottles, nipples and pacifiers.

ADDENDUM KK (Cont'd)

BREASTFEEDING POLICY (Cont'd)

Step 2 - Train all health care staff in skills necessary to implement this policy.

a. The management team of OB/Peds is responsible for assessing competency-based training needs related to breastfeeding.
b. They will plan, implement, evaluate and annually update this competency-based training in breastfeeding and parent teaching for formula preparation and feeding for all staff caring for mothers, infants and/or young children.
c. Training programs will vary in length and substance depending upon the level of competency required by the health care team member's function, responsibility and previously acquired training, and will include documentation that essential skills have been mastered.
d. All nursing staff coming in contact with mothers and infants will be required to participate in standardized breastfeeding education.
    i. Nursing staff will receive a total of 20 hours of training consisting of the 15 sessions identified by UNICEF/WHO plus 5-hours of supervised clinical training/experience.
    ii. Supervision will be the responsibility of designated lactation educators/educators.
    iii. Ongoing education will be provided annually with demonstrated competency.
    iv. Documentation of lactation education will be maintained in employee files.
e. Physician education – both faculty and residents and Advanced Practice Registered Nurses such as certified nurse midwives and nurse practitioners with privileges for labor, delivery, maternity and nursery/infant care should have a minimum of 3 hours of breastfeeding management education pertinent to their role.
f. The management team will determine the amount and content of training required by staff in other units and roles based on their exposure to mothers and infants.
g. Additional lactation education will be provided to staff members who demonstrate a desire for specialized training in lactation management. Clinical competency verification will be a focus of all staff training.
h. All new employees on L&D, Postpartum & NICU will be required to receive appropriate lactation training as a part of their orientation. Within 6 months of their arrival, all health care professionals who will be working with mothers and infants will receive the requisite amount of training in breastfeeding management.
i. Documented lactation education and training prior to employment will be evaluated and accepted if it adheres to the requirements set forth by Baby Friendly USA.
j. Lactation management will be included as part of the Competency and performance evaluations for the maternity nursing staff.
k. The facility does not receive free gifts, non-scientific literature, materials, equipment, money, or support for breastfeeding education or events from manufacturers of breast milk substitutes, bottles, nipples, and pacifiers.

Step 3 - Inform all pregnant women about the benefits and management of breastfeeding. (Refer to Policy # 02 – Education – Benefits and Management of Breastfeeding)

a. LAC+USC Medical Center nursing, physician and lactation staff will provide education, counseling and breastfeeding educational materials during the first trimester, whenever possible, for pregnant women at all prenatal clinics on campus and associated county clinics outside the hospital.

b. Mothers will be encouraged to utilize available breastfeeding resources, including classes, written materials and video presentations, as appropriate.

c. Topics addressed in classes and educational materials will include but are not limited to:
    - The benefits of breastfeeding for both the baby and mother

ADDENDUM KK (Cont'd)

BREASTFEEDING POLICY (Cont'd)

- The recommendation of exclusive breastfeeding for the first 6 months, as well as the continuation of breastfeeding after introduction of appropriate complimentary foods and throughout the first year of life
- Labor management techniques to allow for non-pharmacological pain relief
- Basic breastfeeding management, including proper positioning and latching techniques, and recognition of feeding cues
- Early initiation of breastfeeding
- Early skin-to-skin contact
- How to assure adequacy of milk supply, production and release
- Hand expression of breastmilk and use of pump if indicated
- Feeding on demand; infant –led feeding; no time limits for feeding, 8-12 times/24 hours
- Frequent feeding to assure optimal milk production
- How to assess if infant is adequately nourished
- The couplet care unit and the importance of rooming-in on a 24-hour basis
- Psychosocial factors and socio-cultural barriers or constraints influencing the decision to breastfeed
- Dietary concerns
- Indications for supplementing breastmilk
- Reasons for contacting the healthcare professional
- Individualized education when indicated on documented contraindications to breastfeeding and other medical conditions

ADDENDUM KK (Cont'd)

BREASTFEEDING POLICY (Cont'd)

Step 3 - Inform all pregnant women about the benefits and management of breastfeeding. (Refer to Policy # 02 – Education – Benefits and Management of Breastfeeding) (Cont'd)

d. Instruction about formula feeding by bottle will be provided in the HIV clinic on an individual basis as appropriate to:
   i. women who explicitly state they are choosing not to breastfeed
   ii. when breastfeeding is contraindicated
   iii. group instruction is discouraged

e. Required content for this counseling will be available for staff reference and will be shared with the practitioners and staff. Physicians are encouraged to support breastfeeding.

f. Any educational materials distributed to pregnant women and breastfeeding mothers will be free from messages that promote or advertise infant food or drinks other than breastmilk.

g. Feeding intention and education will be documented in the prenatal record and will be available at the time of delivery

h. Employees of manufacturers or distributers of breast milk substitutes, bottles, nipples, and pacifiers will have no direct communication with pregnant women and mothers.

Step 4 - Help mothers initiate breastfeeding within an hour of birth.

a. Maternity staff will place all infants in skin-to-skin contact with their mothers immediately following birth, if infant and mother are stable, until the completion of the first feeding (or at least one hour if not breastfeeding) and encourage mothers to recognize when their babies are ready to breastfeed, offering help as needed.
   i. Skin-to-skin involves placing the baby naked (or with a diaper on) prone on the mother's bare chest.
   ii. Infant and mother can be dried and remain together in this position with warm blankets covering them as appropriate.

b. Infants delivered by cesarean section will be shown to their mother prior to moving the mother to the recovery room unless medically contraindicated. Skin-to-skin will be initiated in the OR whenever possible. Skin-to-skin contact will be initiated and continue uninterrupted as soon as the mother is responsive and alert until the completion of the first feeding (or at least one hour if not breastfeeding) with staff support.
   i. If mother is incapacitated, another adult such as the baby's father or grandparent may hold the baby skin-to-skin.

Step 4 - Help mothers initiate breastfeeding within an hour of birth. (Cont'd)

c. Mothers will be encouraged to hold their babies skin-to-skin without interruption and continue until the completion of the first feeding, and as much as possible during the hospital stay unless medically and/or psychosocially contraindicated.
   i. Skin-to-skin is contraindicated for immediate NICU admissions
   ii. Mother admitted to the ICU
   iii. Mother or baby are unstable

d. The administration of vitamin K and prophylactic antibiotics should be delayed for the first hour after birth to allow uninterrupted mother-infant contact, bonding and breastfeeding.

ADDENDUM KK (Cont'd)

BREASTFEEDING POLICY (Cont'd)

e. Procedures requiring separation of mother and baby i.e. bathing should be delayed until after the initial skin-to-skin contact, and should be conducted at the mother's bedside whenever possible.

f. If mother and infant are separated for medical reasons, skin-to-skin contact will be initiated as soon as the mother and infant are reunited, and medical condition allows.

g. Mothers of infants who are being cared for in the nursery or neonatal intensive care unit will be instructed and encouraged to practice Kangaroo care as soon as the infant is considered ready for such contact.

h. Skin-to-skin care will be documented in the mother's chart including time skin-to-skin begins and ends.

ADDENDUM KK (Cont'd)

BREASTFEEDING POLICY (Cont'd)

Step 5 - Show mothers how to breastfeed and how to maintain lactation, even if they are separated from their infants.

a. Breastfeeding education will occur in Labor and Delivery, as soon as the baby goes to breast and continue throughout the hospital stay. Topics of education include but are not limited to:
- Techniques for proper positioning, latching and detaching
- Milk supply within the first 2 days – production and release
- Supply and demand principle of milk production
- Infant feeding, frequency and readiness cues
- Nutritive sucking and swallowing
- How to assess if infant is adequately nourished
- Manual expression of breast milk
- Importance of exclusive breastfeeding
- Sustaining milk supply if not exclusively breastfeeding

b. Maternity staff will assess the mother's breastfeeding techniques and assist with appropriate breastfeeding positioning and attachment as needed within 3 hours and no later than 6 hours after birth.

c. Mothers will be encouraged to feed according to infant cues, 8-12 times in 24 hours per AAP guidelines. Times at the breast for feeding will not be restricted. When satisfied, the infant will fall asleep or unlatch.

d. The primary nurse will provide initial lactation education.

e. The LAC+USC Medical Center will maintain lactation educators who will be available to advise staff and mothers during their hospital stay as well as in preparation for hospital discharge.

f. If the infant displays signs of inadequate intake, dysfunction or ineffective breastfeeding a referral for a lactation consultation and/or pediatric consultation will be at the discretion of the primary nurse.

g. If breastfeeding is ineffective, the mother will be instructed on hand expression and then to begin regular pumping until the infant is effectively breastfeeding.

h. Mothers of infants in the NICU will be encouraged to and assisted in establishing and maintaining lactation.
    a. Milk expression will be started within 6 hours of birth.
    b. Mothers will be encouraged to express their milk at least 8 times or more if possible, in 24 hours working towards a goal of 17 ounces/24 hours every day by the end of the 1st week and beyond.
    c. Expressed milk will be given to the infant as soon as the infant is able to tolerate feedings.
        i. Infants not receiving oral nutrition will be provided oral care with mother's breast milk every six hours based on infant's medical condition and stability.
    d. Mother's expressed milk will be used before any supplementation with formula.

Step 5 - Show mothers how to breastfeed and how to maintain lactation, even if they are separated from their infants. (Cont'd)

ADDENDUM KK (Cont'd)

BREASTFEEDING POLICY (Cont'd)

i. Mothers who are separated from their infants for medical reasons will receive education regarding pumping, handling and storage of breast milk. (Refer to separate policy on breastmilk collection storage)

j. Routine use of nipple creams, ointments, or other topical preparation will be avoided. Mothers with sore nipples will be observed for latch-on techniques and will be instructed to apply expressed colostrum or breast milk to the areola/nipple after each feeding. 100% pure lanolin can be used for nipple relief.

k. Breastfeeding assessment/evaluation will performed by the primary nurse, after the initial lactation education is provided, within 3 hours of delivery and then a minimum of at least once every shift thereafter; including assessment for adequate milk transfer (e.g., listening to swallows, normal urine/stool output, ect.) documented use of the LATCH tool, and the infant's I&O.

ADDENDUM KK (Cont'd)

BREASTFEEDING POLICY (Cont'd)

Those mothers who, after appropriate counseling, choose to formula feed their infants will be provided individual verbal instruction and receive written information about; infant-led feeding, safe preparation and feeding with type of infant formula the mother intends to use after discharge, demonstration and return demonstration method, and appropriate education documented.

Education to include:

1) Appropriate hygiene
2) Cleaning utensils and equipment
3) Appropriate reconstitution
4) Accuracy of measurement of ingredients
5) Safe handling
6) Proper storage
7) Appropriate feeding methods

Step 6 - Give newborns no food or drink other than breastmilk unless medically indicated.

a. Mothers will be encouraged to exclusively breastfeed their infants while in the hospital and to continue exclusive breastfeeding for six months.

b. Exclusive breastmilk feeding as defined by The Joint Commission's Perinatal Core Measure includes all liveborn newborns discharged from the hospital with the exception of those who:

- Were discharged from the NICU
- Diagnosed with galactosemia during the hospital stay
- Fed parenterally during the hospital stay
- Experienced death
- Had a length of stay greater than 120 days
- Were enrolled in clinical trials
- Documented reason for not exclusively feeding breastmilk

c. Medical indications when an infant will require formula

- Galactosemia
- Maple Syrup Urine Disease
- Maternal HIV+
- Maternal Active substance abuse
- Mother on Certain medications
- Active Tuberculosis in the mother: Women with tuberculosis who have been treated appropriately for 2 or more weeks and who are not considered contagious (negative sputum) may breastfeed. Women with tuberculosis disease suspected of being contagious should refrain from breastfeeding and from other close contact with the infant due to the potential spread of Mycobactacterium tuberculosis through respiratory tract droplets or airborne transmission. Breastmilk from these patients may be pumped and fed via bottle unless tuberculosis mastitis or breast abscess is present. Consult ID service with any questions.

d. Medical conditions when an infant may need supplementation

- VLBW infants <1500 g
- Infants born <32 weeks gestation
- Infants at risk of hypoglycemia – preterm, IDM, SGA, Asphyxiated or ill newborns
- Severe maternal Illness
- HSV lesion on the breast
- Phenylketonuria

ADDENDUM KK (Cont'd)

BREASTFEEDING POLICY (Cont'd)

e. Formula will not be placed in or around the breastfeeding infant's bassinet or in mother's room

f. Formulas will not be part of the standard orders for infant care and will only be given to infants per physician's order and with mother's knowledge of the reason why.

Step 6 - Give newborns no food or drink other than breastmilk unless medically indicated. (Cont'd)

g. When supplementation is medically indicated, artificial nipples will be avoided and an alternate feeding method will be utilized. Education regarding options, as well as appropriate use of the feeding device, will be provided to the mother by a nurse and/or a lactation educator trained in using that method to maintain mother-infant breastfeeding skills.
- If possible, the supplement should be fed to the infant by feeding tube device at the breast and will be no more than 10-15mL (per feeding) in a term infant (during the first day of life).
- Care should be taken not to exceed the physiologic capacity of the newborn stomach at each feeding.
- Day #1 of life; no more than 15cc per feeding
- Day #2 and #3 of life; no more than 30cc per feeding

h. If a mother requests that her baby be given formula, the heath care staff will address the mother's concerns, provide the mother with education on the risks of introducing formula, and the possible consequences to the health of her baby and the success of breastfeeding. If the mother still requests formula, her request should be granted and her informed decision documented.

i. All efforts will be made to supplement the infant with mother's milk. If the maternal milk supply is inadequate, formula will be used.

j. Reason for supplementation and education provided will be documented

k. Formula, nipples, bottles and pacifiers will be purchased by the medical center for patient use paying fair market value.

l. Formula will be stored in a secure location within each unit that uses it, and distribution will be monitored.

ADDENDUM KK (Cont'd)

BREASTFEEDING POLICY (Cont'd)

Step 7 - Practice "Rooming – In" by allowing mothers and infants to remain together 24 hours a day.

a. Accommodations for mothers and infants to remain together 24-hours a day is the standard for mother-infant care for healthy, full-term infants, regardless of infant feeding choice and assured throughout their hospital stay, unless contraindicated

b. Whenever possible, both mother and infant will be transported to the postpartum unit together.

c. For cesarean delivery, the infant may be initially brought to the Nursery and rooming-in will commence when the mother is transferred from the Recovery Room to Postpartum and the infant is assessed as stable.

d. Mother/infant dyad will be protected at all times from disruption that may impact their ability to bond or interfere with breastfeeding needs. Breastfeeding takes priority over tasks when possible. Nurses will advocate for the couplet including asking visitors to wait outside the room while mother is breastfeeding or during mother/infant bonding, or periods of rest if necessary.

e. Procedures will be performed at the mother's bedside with the focus of keeping the mother and newborn together, whenever possible, and should avoid separations and/or absences of the newborn from the mother for more than one hour per day.

f. If maternal/infant conditions preclude rooming-in all efforts will be made to return the infant to the mother for breastfeeding. The infant will return to the newborn nursery for care and returned to the mother when her condition stabilizes.

g. If the mother requests that her infant be cared for in the Nursery, the maternity staff will explore the reasons, encourage and educate about the advantages of rooming-in 24-hours/day. If the mother insists on the infant being care for in the Nursery then the education, process and decision will be documented in the medical record.

h. Whenever rooming-in is interrupted the reason for the interruption, the location of the infant during the interruption and the time the infant leaves and returns to the mother's room will be documented in the infant's medical record.

ADDENDUM KK (Cont'd)

BREASTFEEDING POLICY (Cont'd)

Step 8 - Encourage breastfeeding on demand.

a. Mothers will be encouraged to breastfeed on demand or when the baby exhibits hunger cues or signals. Mothers will be educated as to these feeding readiness cues (e.g., increased alertness or activity, mouthing, or rooting) to be used as indicators of the infant's readiness for feeding.

b. Education will be provided by the nurse and includes but is not limited to:
- Hunger cues
- Frequency of feeding (a minimum of 8-12 times/day)
- Sleep/feeding cycle or periods, and the possible necessity of awakening the infant for feeds if the breasts are full and/or baby is sleeping through feedings.
- Importance of physical contact when breastfeeding as well as for nourishment.

c. Time limits for breastfeeding will be avoided. Infants can be offered both breasts at each feeding but may be interested in feeding only on one side per feeding during the early days.

Step 9 – Counsel mothers on the use and risks of feeding bottle, teats (artificial nipples) and pacifiers.

a. Mothers are educated that the routine use of artificial nipples and use of pacifiers or other soothers should be delayed in breastfeeding infants until breastfeeding is well established, about one per AAP.

b. All staff that care for mothers and infants will be given education about how the use of bottles and/or pacifiers may interfere with the development of optimal breastfeeding and with babies' suckling or demonstration of hunger cues and this education will be documented.

c. Engage in conversation about reasons for the request and sensitively address her concerns when a mother requests that her breastfeeding infant be given an artificial nipple or pacifier. The nurse will;
- Inform her of AAP recommendation to avoid for 1 month.
- Teach alternative methods of pacification and encouraged to breastfeed frequently in response to baby's hunger cues.
- Instruct her regarding the possible negative consequences artificial nipples and pacifiers may have to breastfeeding.
- Document this education and outcomes in the baby's chart.

d. Infants with certain medical conditions and newborns undergoing procedures may be given a pacifier for comfort or pain management. The infant will not return to the mother with the pacifier.

e. The hospital encourages "pain-free newborn care," which may include breastfeeding during heel stick procedures.

f. Exceptions to this policy may occur when a mother must feed her newborn expressed breastmilk or a formula and chooses to use a bottle after being educated regarding alternative feeding devices.

ADDENDUM KK (Cont'd)

BREASTFEEDING POLICY (Cont'd)

g. Any fluid supplementation (whether medically indicated or following informed decision of the mother) should be given by tube, syringe, spoon, or cup in preference to an artificial nipple or bottle.

h. Artificial nipples, pacifiers, other soothers, bottles and breastmilk substitutes will not be included in any gift packs given to pregnant patient or breastfeeding mothers. Marketing materials and coupons for these items will be excluded as well.

Step 10 - Foster the establishment of breastfeeding support groups and refer mother to them on discharge.

a. Our multidisciplinary team includes representation from the County of Los Angeles Department of Public Health, WIC and the Breastfeeding Task Force of Great Los Angeles.

b. The designated maternity staff member will explore with the mother, significant other and other family members or support persons the plans for infant feeding after discharge.

Discharge planning and teaching will include:

- Information on the importance of exclusive breastfeeding up to 6 months and available linguistically and culturally specific support services without ties to commercial interests.
- Signs and Symptoms of breastfeeding problems including reasons for contacting the healthcare professional
- The importance of continuing breastfeeding after the introduction of solid foods
- Teaching and education resources for each mother about breastfeeding.
- Referral to WIC for breastfeeding support and follow-up. Additional resources may include La Leche League, breastfeeding telephone helplines, community-based support groups, home health services, etc.

c. Any nursing concerns related to infant's ability to latch or effectively suckle at the breast will be communicated to the infant's healthcare provider prior to discharge.

d. Discharge planning will include phone numbers for the Pediatric Emergency Room and contact information for the pediatric clinic and the Mommy call line.

e. Upon discharge, mothers will be instructed to contact their healthcare provider/clinic for any concerns or questions about breastfeeding. All infants of breastfeeding mothers will be given a follow-up appointment to be seen within 48-72 hours after discharge or will be given instructions to contact their Primary Physician for an appointment within 48-72 hours.

f. No pregnant women, mothers, or families are given marketing materials, samples or gift packs by the facility that consist of breast milk substitutes, bottles, nipples pacifiers, other infant equipment or coupons for the above items.

g. Any educational material distributed to breastfeeding mothers are free from messages that promote or advertise infant food or drinks others than breast milk.

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ADDENDUM KK (Cont'd)

BREASTFEEDING POLICY (Cont'd)

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ADDENDUM KK (Cont'd)

BREASTFEEDING POLICY (Cont'd)

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ADDENDUM L

CHILD ABUSE, REFERRAL PROCESS

PURPOSE:

Mechanism for referral to the hospital's child abuse and neglect team or Child Protective Services on a 24-hour basis as required by the California Children's Services Manual of Procedures for regional NICUs (1999).

POLICY:

All employees and contract caregivers of the NICU must promptly report any suspected case of child abuse or neglect to the designated authorities. "Child abuse" includes: physical abuse, unlawful corporal punishment, general and severe neglect, sexual assault, exploitation, willful cruelty or unjustifiable punishment, or emotional maltreatment.
Designated authorities include the Department of Clinical Social Work at LAC+USC Healthcare Network and the Violence Intervention/Prevention (VIP) Program. The VIP Forensic Program and the SCAN team, are located in the out-patient department (OPD 3rd floor, room 3P61).

PROCEDURE:

1. Monday through Friday during business hours and not on recognized holidays, staff will contact the NICU MSW to report any suspicion of child abuse or neglect, patient or visitor to the NICU. The NICU MSW's will follow-up on the case, and inform employee of further reporting needs.

2. Outside the "regular business hours", staff will report any suspicion of child abuse or neglect to the VIP Clinic's hot-line (323-409-5086), which is manned 24/7.

3. Staff will notify the on-call neonatal fellow and the NICU charge nurse of any suspicion so that the neonatal interdisciplinary team can follow-up with VIP.

4. Staff will notify Risk Management upon suspicion/discovery.

<u>References</u>:

California Department of Justice website: http://ag.ca.gov/childabuse

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ADDENDUM LL

UNIT ORIENTATION

REGISTERED NURSE (RN) TRAINING PROGRAM

Each newly hired RN is evaluated for the extent of his/her experiences in providing neonatal intensive care nursing. For RNs with no prior experience, the RN training program to the NICU is divided into two phases: 1-A for intermediate care nursery, and 1-B for acute care nursery For the experienced RN, an individualized program to meet his/her learning needs is drafted by the NICU education coordinator in conjunction with the evaluation(s) from nursing management.

Intermediate Care (Phase 1-A)

Phase 1-A of the RN training program is designed for RNs who are newly entering the field of neonatal intensive care. This phase is four weeks in length with emphasis placed on newborn assessment, nursing diagnosis, interventions and evaluation of nursing care for the low-risk neonatal population, psychosocial support for the parents/family and significant others, and discharge processing of the recovering neonate. Program content in this phase will prepare the RN orientee in theoretical and clinical knowledge necessary to achieve confident and competent entry level nursing practice in the intermediate care NICU. (Refer to program's overall and weekly objectives below.) The lecture/ discussion/ practicum portion of this phase is 72 hours, and the clinical preceptorship is 88 hours.

Acute Care (Phase 1-B)

Phase 1-B of the RN training program is designed for RNs who have either successfully completed Phase 1-A of the LAC+USC Medical Center's RN Training Program or who have validated experience in NICU nursing and are able to pass the post-tests from Phase 1-A. This phase is 8 weeks in length with emphasis on the integration of neonatal pathophysiological concepts with nursing assessment, diagnosis, developmental care, psychosocial support for his/her parents/family and significant others, advanced care methodologies, and implications of NICU care for the patient, the family and the community. Program content in this phase will prepare the RN orientee in theoretical and clinical knowledge necessary to achieve confident and competent entry level nursing practice in acute care of hospitalized high-risk infants. (Refer to program's overall and weekly objectives below.) The lecture/discussion/practicum portion of this phase is 48 hours, and the clinical preceptorship is 232 hours.

As part of the RN Training Program, weekly behavioral objectives are included to guide the RN orientee in his/her learning activities. Homework may be assigned, and it is the responsibility of each RN orientee to compete these assignments. The RN orientee will be provided guidance and support in their clinical leaning experiences by RNs who have received specialized preceptor training.

Didactic and medication administration pre-tests are administered during the Training Program to determine the orientee's level of knowledge acquisition in relation to recall, application, and interpretation. These pre-tests consist of multiple choices, true-false and short answer items. Pre-test results will focus the RN orientee on learning needs and will guide the instructor as to educational areas to be emphasized and reviewed. The results of the pre-tests are confidential and will not be utilized during the evaluation process of the RN orientee.

OVERALL OBJECTIVES FOR PHASE 1-A

Upon completion of the four-week training, the RN orientee will:

1. Provide effective and timely total patient care for three intermediate care infants utilizing the nursing process in assessment, diagnosis, implementation, and evaluation.

2. Calculate medication dosages accurately and administer medications according to NICU standards and protocols.

3. Collaborate with the multidisciplinary health care team in delivering optimal patient care to the infant and his/her significant others.

4. Perform all nursing procedures under supervision of a preceptor until competency and proficiency have been achieved as determined by the preceptor and/or education coordinator.

5. Achieve a score of 85% or greater on the Phase 1-A post-test.

6. Achieve a score of 90% or greater on the medication administration post-test for Phase I-A.

7. Complete 80% or more of the skills inventory for NICU intermediate care nursing.

OVERALL OBJECTIVES FOR PHASE 1-B

Upon completion of the seven-week program in Phase 1-B, the RN orientee will:

1. Provide effective and timely total patient care for two acute care infants utilizing the nursing process in assessment, diagnosis, implementation, and evaluation.

2. Maintain accurate and thorough documentation.

3. Calculate medication dosages accurately and administer medications according to NICU standards and protocols.

4. Collaborate with the multidisciplinary health care team in delivering optimal patient care to the infant and his/her significant others.

5. Perform all nursing procedures under supervision of the preceptor until competency and proficiency have been achieved as determined by the preceptor and/or education coordinator.

6. Achieve a score of 85% or greater on the Phase 1-B post-test.

7. Achieve a score of 90% or greater on the medication administration post-test for Phase 1-B.

8. Complete 85% or more on the skills inventory for acute care.

WEEKLY OBJECTIVES FOR PHASE 1-A

Week One: Upon completion of week one, the RN orientee will have attended all central orientation classes.

Week Two: Upon completion of week two the RN orientee will:

1. Discuss the organizational structure of both medicine and nursing in the NICU in relation to "chain of command" for problem-solving.
2. *State a minimum of five aspects of universal precautions to be adhered to in the NICU and the rationale for each.
3. *Discuss hand hygiene and infection control in the NICU specifying unit policies to be adhered to when entering/leaving the unit, gowning and delivering direct care.
4. *State the rationale for the route of medication administration considering an infant's gestational age and clinical status.
5. Delineate the role responsibilities of the RN in medication administration.
6. *Observe and/or perform, under supervision, blood withdrawal via heelstick as per unit protocol.

Week Three: Upon completion of week three, the RN orientee will:

1. *Maintain appropriate chart and flow sheet documentation.
2. *Performs, under the direction of the preceptor, a complete physical assessment on at least one term and one preterm infant, identifying normal versus abnormal findings.
3. *Demonstrate correct technique when bottle feeding (nippling) and performing intermittent gavage feeding for a minimum of two infants using each feeding method.
4. Perform occult stool screening test on at least two infants.
5. State the normal values for the above named screening test and the possible implications of abnormal results.
6. *Demonstrate correct technique when utilizing non-invasive hemodynamic monitoring.
7. *Apply the principles of thermoregulation when providing care for an infant housed in an incubator with a skin (ISC) probe or under air control.
8. Compare and contrast apnea with periodic breathing considering heart rate, respiratory rate, color changes, pulse oximeter readings, and gestational age.
9. *State the appropriate nursing assessment and hierarchy of interventions for an infant who is found to be apneic.
10. *Provide total patient care for two intermediate care infants.
11. *Demonstrate the assembly of an oxygen set-up with blender, flow meter, T-piece and face mask.

WEEKLY OBJECTIVES FOR PHASE 1-A

Week Four: Upon completion of week four, the RN orientee will:

1. *Demonstrate, under supervision, appropriate administration of a minimum of two oral and intramuscular medications.
2. *Perform, under supervision, a minimum of one intravenous push/intravenous slow push/intravenous slow drip medication administration.
3. *Calculate the therapeutic dose of ampicillin and gentamicin for at least one infant considering the infant's weight and gestational age.
4. State a minimum of two adverse reactions which may be anticipated during a blood transfusion and the appropriate nursing response to each.
5. *Provide care for an infant with a peripheral IV appropriately calculating fluids and assessing for signs of infiltration.
6. Observe and/or perform under supervision starting a PIV.
7. Contrast the psychological and nutritional benefits of breast milk with formula feedings.
8. State a minimum of three factors which may interfere with the neonate's ability to tolerate enteral feedings.
9. Calculate and evaluate the appropriateness of fluid and caloric intake/kilogram/day for a minimum of two infants (one on enteral feeds and one on intravenous nutrition).
10. Calculate and evaluate fluid output in mLs/kg/hour for a minimum of two infants.
11. Identify a minimum of three risk factors (prenatal, intrapartum and/or neonatal) which may contribute to respiratory distress in the neonate.
12. State a minimum of four signs/symptoms of necrotizing enterocolitis and the appropriate nursing response to the assessment.
13. Provide total patient care for three intermediate care infants.
14. Identify a minimum of three risk factors (prenatal, intrapartum and/or neonatal) which may contribute to metabolic disturbances in the neonate.
15. *Discuss the nursing assessment and plan of care for the infant of a diabetic mother.
16. *Demonstrate appropriate technique when withdrawing blood via heelstick or when initiating intravenous access and/or therapy.
17. Identify parent teaching for a minimum of two infants in collaboration with the discharge planning nurse.

WEEKLY OBJECTIVES FOR PHASE 1-A

Week Five: Upon completion of week five, the RN orientee will:

1. *Perform and evaluate a minimum of three thorough nursing assessments of neonates during the immediate newborn period recognizing normal from abnormal data.
2. Interpret and evaluate blood gas results differentiating normal from abnormal findings.
3. Define the following terms: PEEP, NP-CPAP, PIP, I:E ratio, mean airway pressure, HFV, hertz, amplitude.
4. Identify four factors that reduce pulse oximetry accuracy.
5. *Describe the appropriate nursing interventions when one encounters either a low or high pulse oximeter or transcutaneous PO_2/ PCO_2 reading, and end-tidal CO_2 monitoring.
6. Demonstrate appropriate technique while performing endotracheal tube suctioning stating a minimum of three precautionary measures which must be considered when performing this procedure.
7. Discuss nursing care for an infant with a nursing diagnosis of “impaired gas exchange.”
8. Demonstrate appropriate technique when caring for an infant with either a percutaneous or Broviac catheter stating guidelines for line changes, maintenance and site care.
9. Provide total patient care for two ex-preemies who have transitioned to a growing preemie stage.

WEEKLY OBJECTIVES FOR PHASE 1-B

Week One: Upon completion of week one, the RN orientee will:

1. Compare and contrast fetal and postnatal pulmonary and systemic pressure hemodynamics.
2. Verbally trace the pathway of oxygenated blood from the placenta through the fetal shunts and back to the placenta.
3. Describe the major clinical manifestations of meconium aspiration syndrome in relation to the underlying pathophysiology.
4. Prepare a chest drainage system in a laboratory simulation or clinical setting.
5. State three nursing precautions/interventions when caring for an infant with persistent pulmonary hypertension.
6. State a minimum of three pathophysiological sequelae of asphyxia and organ systems, citing a minimum of two nursing assessments for each potential problem providing appropriate rationale.
7. *Provide total patient care for one stable intubated infant or two stable infants not on mechanical ventilation.
8. *Demonstrate correct technique when utilizing invasive hemodynamic monitoring.
9. Demonstrate correct technique when withdrawing blood via an umbilical line.
10. Provide total patient care for one infant receiving oxygen therapy via nasal cannula or hood.

WEEKLY OBJECTIVES FOR PHASE 1-B

Week Two: Upon completion of week two, the RN orientee will:

1. Compare and contrast the clinical manifestations of seizure activity in the preterm infant with that of the full term infant.
2. Differentiate jitteriness from seizure activity.
3. Discuss the nursing management of infants at high risk for intraventricular hemorrhage, citing a minimum of five preventative measures.
4. Discuss the effects of positioning techniques on the infant's state, behavior, and muscle tone. Include the adverse effects of positioning on perfusion physiology.
5. *Provide total patient care for at least one stable endotracheally intubated infant or two stable infants not on mechanical ventilation.

Week Three: Upon completion of week three, the RN orientee will:

1. State a minimum of two reactions which may be anticipated during the administration of prostaglandin E-1 and the appropriate nursing response to each.
2. Complete a physical assessment of a neonate with suspected congenital heart disease, noting specific areas of the evaluation that relate to the specific defect.
3. Define pulse pressure and state at least two instances in which pulse pressure is narrowed and widened.
4. Discuss the dynamics of right to left cardiac shunt noting probable clinical signs/symptoms.
5. Discuss nursing care for an infant with either a surgical problem or cardiac defect.
6. Provide total patient care for at least one surgical patient and/or infant with congenital heart disease.
7. *Provide total patient care for two stable infants, one of which is being mechanically ventilated.

Week Four: Upon completion of week four, the RN orientee will:

1. *Provide total patient care for one stable very low birth weight (VLBW) infant who is being mechanically ventilated.
2. Discuss nursing care for a VLBW infant with actual or potential temperature instability.
3. Discuss nursing care for a VLBW infant with actual or potential alteration in skin integrity
4. Calculate and evaluate the fluid and caloric intake of a VLBW infant receiving intravenous nutrition.
5. Discuss the nursing management of an infant receiving insulin therapy integrating the physiological principles with assessment, diagnosis, intervention, and evaluation.
6. Apply the principles of thermoregulation when providing care for VLBW infant.

WEEKLY OBJECTIVES FOR PHASE 1-B

Week Five: Upon completion of week five, the RN orientee will:

1. *Provide total patient care for one unstable infant who is being mechanically ventilated.

Week Six: Upon completion of week six, the RN orientee will:

1. *Provide total patient care for one unstable endotracheally intubated infant and one stable infant receiving oxygen therapy via nasal cannula or nasal(-pharyngeal) prongs or on room air.
2. *Demonstrate correct IV tubing and transducer changes for an infant with an arterial line and a central venous line.
3. *Discuss developmental age specific activities for the following groups of infants:
   a. 0-3 months
   b. 4-6 months
4. Discuss habilitation measure measures specific for the NICU graduate.

Week Seven: Upon completion of week seven, the RN orientee will:

1. Discuss the process of safe transfer and return of the NICU patient off the unit for diagnostic testing.
2. Demonstrate care planning and parent/primary caregiver instruction for discharge of an ex-preemie into the community.

EVALUATION CRITERIA FOR RN TRAINING PROGRAM COMPLETION

1. Attendance

   100% attendance is expected of all RN orientees for both the clinical and didactic components of the program.

2. Objectives

   Minimal achievement of each objective (both overall and weekly objectives in each phase) is defined within the objective. If minimal achievement is not clearly stated, the objective should be considered to demand 100% achievement.

3. Didactic Material

   Post-test scores as listed above under overall objectives must be achieved. RN orientees who do not achieve the passing scores will be counseled and coached as warranted. One retake opportunity is provided for each post-test.

EVALUATION CRITERIA FOR RN TRAINING PROGRAM COMPLETION (Cont'd)

4. Clinical Performance

A. Daily worksheets on patient assignments will be completed by the orientee/preceptor and will be reviewed during bi-weekly meetings with the NICU education coordinator Nurse Manager and during the evaluation process (see below).

B. The orientee/preceptor and education coordinator will meet at least on a bi-weekly basis to review the status of objective achievement and to discuss the orientee's adaptation process to the NICU. Additional weekly objectives may be set during these meetings as appropriate.

C. Each RN orientee will be jointly evaluated by a clinical preceptor and the Education Coordinator/Nurse Manager at the end of each phase.

D. An evaluation form will be provided for the RN orientee on the first day of the NICU program to review the criteria by which his/her behavior in the clinical setting will be evaluated. Evaluation will be on a needs improvement/competent basis for each category with specific categories demanding competency marked with a star (*). The RN orientee must receive an evaluation as competent on all starred items and an 85% overall competency level on all other (non-starred) items on both evaluations. (The list of starred and unstarred criteria is provided to the RN orientee at the beginning of each phase.)

5. Performance Standards Evaluation

The RN orientee's performance of the entry level duties of an NICU nurse (RN I) is recorded on the "Staff Nurse Performance Standards Evaluation" form which reflects the same tool utilized for annual evaluation of all NICU RN staff.

Failure to achieve successful completion of all the above evaluative criteria will result in a recommendation to the NICU Nurse Manager to terminate employment of the RN orientee in the NICU. Each RN orientee will be expected to sign a statement of understanding on these criteria.

References:

LAC+USC Medical Center NICU Unit Based Standards, Addendum P.

Altimier, L., Brown, B., & Tedeschi, L. (2006) NANN Guidelines for Neonatal Nursing Policies, Procedures, Competencies, and Clinical Pathways, 4th edition. National Association of Neonatal Nurses.

Burd, A. (2006) Foundations of Neonatal Care: A Comprehensive Competency-Based Orientation Program. National Association of Neonatal Nurses.

ADDENDUM LL

NICU ADMITTING AREA TRAINING PROGRAM

Program Description

This four-week course is designed to prepare the RN currently working in the NICU to function competently and independently in the admitting area of the NICU. The nursing process is used as a framework for the integration and synthesis of critical care nursing for the infant with multi-system problems. This course will provide the nurse with core content upon which to base nursing management decisions to effect optimal patient outcomes. The clinical experience, under the guidance of a preceptor, enables the nurse to integrate and apply nursing management at the bedside.

Program Goal

Comprehensive and efficient nursing care and processing of infants in the admitting area of the NICU.

Prerequisite

Completion of six months full-time NICU experience at LAC+USC Medical Center and/or NICU Nurse Manager's approval.

Learning Experience

There will be twelve hours of didactic and 160 hours of clinical exposure. Teaching methods will be via: lecture, discussion, demonstration, nursing rounds, and assigned readings. Written resources will be taken from the most recent edition of Handbook of Neonatal Intensive Care by Merenstein and Gardner (the 7th edition, 2010, as of this revision) and the most current research articles from nursing and medical journals. The RN orientee will also be expected to make clinical presentation(s).

Overall Program Objectives

1. Attendance at all sessions is expected.
2. Provide total patient care for infant(s) in the admitting area of the NICU utilizing the nursing process in assessment, diagnosis, implementation, and evaluation.
3. Initiate standard of care and protocols on infants admitted to the NICU.
4. Maintain accurate and thorough documentation.
5. Collaborate with the multidisciplinary health care team in delivering optimal patient care.

Evaluation for Program Completion

1. 100% attendance is expected for all RN orientees of both clinical and didactic components.
2. RN orientees will be evaluated weekly utilizing the nursing process as the basis for the evaluation. Each category of evaluation will be scored according to the following criteria: + = strong; √ = standard; - = weak. An overall rating will be determined each week as follows: B = performance is below requirement; M = performance meets requirement; E = performance exceeds requirement.
3. Post-test score of 90% or greater.

WEEKLY OBJECTIVES

Each week from the following list of objectives, the preceptor and RN orientee will select weekly objectives until all objectives are completed. The RN orientee will be able to:

1. Complete patient care in a timely and efficient manner.
2. Perform assessment/data collection in an on-going and systematic manner, focusing on physiologic, psychological and cognitive status of the patient(s).

3. Formulate a goal-directed plan of care which is prioritized and based on determined nursing diagnoses and patient outcomes.
4. Implement care in a knowledgeable, skillful consistent and continuous manner.
5. Function to establish priorities of patient care based on essential patient needs and available unit resources of time, personnel, equipment and supplies.
6. Evaluate own effectiveness, care given by other health team members, and contributions of systems, environment and instrumentation in progressing towards desirable patient care outcomes.
7. Demonstrate competency in selected psychomotor skills.
8. Identifies patient's and/or significant other's learning needs and implements appropriate measures to meet them.
9. Perform documentation duties in a timely, accurate and concise manner.
10. Function with an awareness and application of safety measures established by the institution.
11. Performs efficiently in emergency patient situations, following established protocols, remain calm, informing appropriate persons and documenting events.
12. Demonstrate sound knowledge base and actions in the care and decision making for designated patient populations.
13. Demonstrate effective communication methods and skills using lines of authority appropriately.
14. Formulate effective interpersonal relationships with all health care team members, patients and significant others.
15. Practice effective problem identifications/resolution skills as a method of sound decision making.

References:

Lee, S., et al. (2010). Merenstein & Gardner's Handbook of Neonatal Intensive Care, 7th edition. Mosby Elsevier.

LAC+USC Medical Center. NICU Unit Based Standards. Addendum P – Performance Standards.

Walden, M., & Verklan, M. T. (2009). Core Curriculum for Neonatal Intensive Care Nursing, 4th edition.

LAC+USC MEDICAL CENTER
DEPARTMENT OF NURSING
NEONATAL INTENSIVE CARE UNIT
UNIT STRUCTURE STANDARDS

UNIT ORIENTATION
NICU Training Program – Admitting Area

DATE				
PATIENT CARE MANAGEMENT				
NURSING PROCESS				
Completes patient care in a timely and efficient manner.				
Perform assessment/data collection in an ongoing and systematic manner, focusing on physiologic, psychological and cognitive status.				
Formulate a goal directed plan of care which is prioritized and based on determined nursing diagnoses and patient outcomes.				
Implement care in a knowledgeable, skillful, consistent, and continuous manner.				
Function to establish priorities of patient care based on essential patient needs and available unit resources of time, personnel, equipment, and supplies.				
Evaluate own effectiveness, care given by other health team members, and contributions of systems, environment, and instrumentation in progressing towards desirable patient care outcomes.				
TECHNICAL SKILLS				
Demonstrate competency in selected psychomotor skills.				
PATIENT EDUCATON				
Identify patient and /or significant other learning needs and implements appropriate measure to meet them.				
DOCUMENTATION				
Perform documentation duties in a timely, accurate, and concise manner.				

SUB-HEADINGS
+ = Strong
√ = Standard
- = Weak

OVERALL RATING
B = Performance **BELOW** Requirement
M = Performance **MET** Requirement
E = Performance **EXEEDS** Requirement

UNIT ORIENTATION
NICU Training Program – Admitting Area

DATE				
PATIENT CARE MANAGEMENT (Con't.)				
SAFETY				
Function with awareness and application of safety measures established by the institution.				
EMERGENCY SITUATIONS				
Perform efficiently in emergency patient situations, following established protocols, remaining calm, informing appropriate persons and documenting events.				
KNOWLEDGE BASE				
Demonstrate sound knowledge base and actions in the care and decision making for designated patient populations.				
COMMUNICATION				
Demonstrates effective communication methods and skills, using lines of authority appropriately.				
INTERPERSONAL RELATIONSHIPS				
Formulate effective interpersonal relationships with all health care team members, patients, and significant others.				
PROBLEM SOLVING/DECISION MAKING				
Practice effective problem identification/resolution skills as a method of sound decision making				
OVERALL RATING End of Each rating period (Rate B, M, or E)				

SUB-HEADINGS
+ = Strong
√ = Standard
- = Weak

OVERALL RATING
B = Performance **BELOW** Requirement
M = Performance **MET** Requirement
E = Performance **EXEEDS** Requirement

UNIT ORIENTATION
NICU Training Program – Admitting Area

WEEK 1 – Week 8
GOALS FOR FOLLOWING WEEK:

Employee Signature & Date

Discussed By & Date

SUB-HEADINGS
+ = Strong
√ = Standard
- = Weak

OVERALL RATING
B = Performance **BELOW** Requirement
M = Performance **MET** Requirement
E = Performance **EXEEDS** Requirement

UNIT ORIENTATION
NICU Training Program – Admitting Area

NICU ADMITTING CHECKLIST

	DATE / RATING
ORIENTATED TO LDR / O.R.	
ORIENTATED TO MAIN O.R.	
TOUR OF RESUS ER / PEDS ER	
LOCATION OF EMERGENCY BLOOD & PROCEDURE	
ATTEND NSVD	
ATTEND C/S	
ATTEND AND/OR PARTICIPATE IN CODE OB	
CHART APGARS	
COMPLETED ADMISSIONS FROM:	L&D ☐ NEWBORN NURSERY ☐ ED ☐ OUTSIDE ☐

RATING

R – Reviewed
O – Observed
RD – Return Demonstration

WA- With Assistance
MA - Minimal Assistance
FI – Functions Independently

UNIT ORIENTATION
NICU Training Program – Admitting Area

TYPE OF ADMISSION	DATE	RATING

On _____, _____, RN successfully completed the NICU Admitting program.

_____ _____

Employee Signature & Date **Evaluator Signature & Date**

RATING

R – Reviewed
O – Observed
RD – Return Demonstration

WA- With Assistance
MA - Minimal Assistance
FI – Functions Independently

ADDENDUM LL

NICU NURSING ATTENDANT ORIENTATION

Program Description

This one-week orientation program is designed to train the nurse attendant to the NICU. Emphasis will be placed on familiarizing the orient with nurse attendant specific to the NICU. The orientee will be precepted by an expected nurse attendant in by an experienced nurse attendant in the responsibilities of the nurse attendant role. A unit specific checklist will be completed by the orientee's preceptor on a competent/needs improvement basis for specific activities performed by NICU nurse attendant.

Daily Assignments

1. Report to the ANM/TL at the beginning of the shift. Obtain any special assignments for the shift.
2. Report to the ANM/TL when leaving the unit and when returning.
3. Stock all items, lines and solutions in assigned areas. Rotate all solutions when restocking (move those already in stock to the front and restock new supplies in the back). When restocking supplies note expiration dates and place the items which expire soonest toward the front.
4. Stock clean cover gowns on the visitor cart.
5. Remove used isolettes/open cribs/used equipment to the dirty utility room as necessary.
6. Make rounds throughout the unit and remove any broken equipment.
7. Return all clean equipment to appropriate storage area. All equipment is stored ready to use.
8. In the absence of unit clerical support assist with assembling patients forms chart and completing admission record/forms. Answer and direct unit phone calls. Record temperature for breast milk refrigerators and warming cabinet, on log sheet.
9. Stock and clean the four (4) lab areas each shift.
10. Wipe diaper scales with cleaning wipe.
11. Damp dust counter tops, refrigerator tops, crash cart top, telephones and desks each shift.
12. Make sure that all linen hamper and trash hamper lids are in working order and closed.
13. Run errands as requested.
14. Make of list of missing/needed supplies from material management and report it to the ANM.
15. Restock IV cart.

Monthly Assignments

1. Defrost and clean refrigerators as assigned.
2. At the direction of the ANM, Clean employee refrigerators.
3. Clean microwave.

ADDENDUM LL

NICU UNIT CLERK ORIENTATION

Program Description

This one-week orientation program is designed to train the ward clerk assigned to the NICU. Emphasis will be placed on familiarizing the orientee with clerical duties specific to the NICU. The orientee will be precepted by an experienced ward clerk in the responsibilities of the unit clerk role. A unit specific checklist will be completed by the orientee's preceptor on a competent/needs improvement basis for specific activities performed by NICU ward clerks.

Duties and Responsibilities

1. Reviewed ward clerk reference folders.
2. Answers telephone and directs calls to appropriate personnel.
3. Completes admission paper work.
4. Completes discharge paper work.
5. Makes clinic appointments.
6. Coordinates photocopying chart(s) for infant(s).
7. Completes transfer out form.
8. Transports laboratory specimens.
9. Arranges for prescription pick-up and delivery.
10. Orders stationary.
11. Stocks clerical areas in all rooms.
12. Runs errands as needed
13. Updates bed control list every 8 hours.
14. Meet, greet and screen visitors.
15. Instructs visitors in handwashing and gowning procedures.
16. Completes Newborn Screening forms.
17. Maintains current and accurate patient location list.
18. Provides information to staffing office as needed.
19. Picks up blood products and delivers to NICU.
20. Completes ward clerk audit.
21. Gives report to on-coming shit.
22. Thins clipboards and charts.

Duties and Responsibilities (Cont'd)

23. Obtain new patient identification tags when needed.
24. Lists Attending MD/Team on Inpatient Cover Record.
25. Acts as a receptionist in a courteous and friendly manner.
26. Assists with admission and discharge of NICU patients.

ADDENDUM M

PROGRAM FOR TOTAL BODY COOLING

(Therapeutic Hypothermia)

PURPOSE:

Therapeutic hypothermia is a safe and effective treatment for hypoxic-ischemic encephalopathy (HIE) in newborns. LAC+USC NICU offers whole-body cooling as a primary therapy for newborns with moderate to severe HIE due to perinatal depression. Cooling must be initiated within 6 hours of birth and after meeting established criteria. The newborn will remain cooled for 72 hours from initiation of treatment with a goal core body temperature of 33.5°C.

POLICY:

Candidate Selection Criteria for newborns greater than or equal to 36 weeks, admitted at less than six hours of age with evidence of perinatal depression/asphyxia: All candidates will be evaluated for the following:

1. Acute perinatal event:
   - A. Abruption placenta
   - B. Cord prolapse
   - C. Severe fetal heartrate (FHR) abnormality; i.e., variable or late decelerations
2. Apgar score:
   - A. Less than or equal to 5 at 10 minutes
3. Blood pH – (cord or any postnatal blood gas) at less than one hour of life:
   - A. pH 7.0 or lower.
4. Base deficit on cord blood gas or any postnatal blood gas at less than one hour of life:
   - B. Greater than or equal to 16 mEq/L
5. Continued need for ventilation initiated at birth and continued for ten minutes or longer.

Infusion criteria is listed in Step A and Step B below:

ADDENDUM M

PROGRAM FOR TOTAL BODY COOLING (Cont'd)
(Therapeutic Hypothermia) (Cont'd)

Step A: Clinical and Biochemical Evaluation – Criteria A

IF BLOOD GAS IS AVAILABLE	If blood gas not available or pH 7.01 – 7.15 or Base Deficit 10 – 10.9 mEq/L
A1 Newborn should have #3 or 4 from above ▪ Cord pH or any postnatal blood gas within 1 hour of age with pH ≤ 7.0 or ▪ Base deficit on cord gas or any postnatal blood gas within I hour of age ≥ 16 mEq/L	A2 Newborn should have #1 and 2 or #1 and 5 from above ▪ Acute perinatal event + o Apgar score <5 @ 10 min or o Continued need for ventilation initiated at birth and continued for at least 10 minutes

Step B: Neurologic Examination – Criteria B

Presence of seizures or presence of 1 or more signs in 3 of 6 categories of moderate/severe HIE below:

CATEGORY	MODERATE	SEVERE
1. Level of consciousness	Lethargic	Stupor/Coma
2. Spontaneous activity	Activity	No activity
3. Posture	Distal flexion, full extension	Decerebrate
4. Tone	Hypotonia (focal, general)	Flaccid
5. Primitive reflexes Suck Moro	 Weak Incomplete	 Absent Absent
6. Autonomic system Pupils Heart Rate Respirations	 Constricted Bradycardia Periodic breathing	 Skew deviation/dilated/NR to light Variable HR Apnea

ADDENDUM M

PROGRAM FOR TOTAL BODY COOLING (Cont'd)
(Therapeutic Hypothermia) (Cont'd)

Exclusion Criteria:

- Birthweight less than 1800 grams
- Gestational age less than 34 weeks
- Imperforate anus
- Evidence of head trauma
- Skull fracture causing major intracranial hemorrhage
- Major congenital anomalies

Clinical Roles

1. Nurse
   - A. Maintains competency in the bedside critical care of neonates undergoing hypothermia therapy for minimizing sequelae from HIE.
   - B. Reviews all written physician's orders within 1 hour and initiates.
   - C. Verifies ventilator humidification system is turn off until the re-warming phase
   - D. Ensures that infant undergoing hypothermia therapy is well sedated as ordered to decrease energy expenditures.
   - E. Advocates for the parents and family of the Neonate(s) undergoing hypothermia therapy by explaining physical appearance of newborn and equipment utilized to provide care.
   - F. Participates in the ongoing quality improvement of the NICU hypothermia program.
   - G. Documentation: Use Therapeutic Hypothermia Vital Sign Flow Sheet for recording the patient's esophageal probe temperature, blanket water temperature, heart rate, pulse oximeter saturation, and blood pressure.
     1) Every 15 minutes for the first 4 hours
     2) Every hour from 4-12 hours of cooling.
     3) Every 2 hours from 12-72 hours of cooling.
     4) Every 1 hour from 72-82 hours during re-warming.
     5) At 82 hours, resume NICU vital sign frequency.

ADDENDUM M

PROGRAM FOR TOTAL BODY COOLING (Cont'd)

(Therapeutic Hypothermia) (Cont'd)

Clinical Roles (Cont'd)

2. Attach the Therapeutic Hypothermia Vital Sign Flow Sheet(s) to the current Nursing Intensive Care Record – neonatal flow sheet during cooling and re-warming processes.

3. Bedside Respiratory Therapist

   a. Maintains competency in the bedside critical respiratory care of endotracheally intubated neonates undergoing hypothermia therapy for minimizing sequelae from HIE.

   b. Sets-up and maintains the respiratory therapy equipment for the NICU hypothermia program.

   c. Participates as needed in the quality improvement of the NICU hypothermia program.

Patient Care

1. Nursing care will be maintained at least 1:1 at the bedside with specifically assigned relief or all breaks of the assigned bedside nurse.

2. Newborns undergoing NICU hypothermia will have:

   a. Umbilical/central line for maintenance fluids, arterial access (central or peripheral) for blood pressure monitoring and lab work sampling, and a minimum of one patent peripheral venous line maintained to heparin lock.

   b. Urinary catheter placement for continuous urinary output monitoring and hourly recording.

   c. Continuous core temperature monitoring via esophageal probe during cooling therapy and the re-warming process (no orogastric or nasogastric tube placement).

   d. Continuous aEEG monitoring. (Amplitude Integrated Electroencephalography)

   e. Meticulous skin assessment monitoring. Turn the newborn every hour (i.e., log-roll within 45 degrees of midline to the right and to the left) while on the cooling blanket to thoroughly examine the skin, which has been in direct contact with the blanket (to monitor for signs of local tissue trauma). *Rolled cloth blankets and other positioning aids may be used but should be placed under the cooling blanket*.

   f. Endotracheally intubation for respiratory care

   .

ADDENDUM M

PROGRAM FOR TOTAL BODY COOLING (Cont'd)

(Therapeutic Hypothermia) (Cont'd)

Patient Care (Cont'd)

3. Newborns will be weighed upon admission to the NICU and again at the end of hypothermia therapy (no "daily weights and no baths").

Laboratory Studies

1. On admission
   a. CBC with differential via peripheral smear
   b. Type & Screen
   c. Chem 14, Magnesium, and Phosphorus
   d. PT, PTT, Fibrinogen, D-dimer
   e. Blood gas with lactate and ionized calcium
   f. Serum ammonia
   g. Urinalysis with microscopy
   h. Cultures (blood and ETT aspirate)

2. During Therapy *(all frequencies are minimums, and may become more frequent as clinically indicated)*
   a. Obtain bedside glucose every hour times four, then every four hours times four, then every eight hours until cooling is completed at 72 hours.

ADDENDUM M

PROGRAM FOR TOTAL BODY COOLING (Cont'd)

(Therapeutic Hypothermia) (Cont'd)

Laboratory Studies (Cont'd)

b. Blood gas with lactate and ionized calcium every four hours for the first 24 hours, then every 12 hours the next 48 hours, and then every four hours during re-warming process.

c. CBC with differential (peripheral smear) every 24 hours.

d. Chem 8, magnesium, phosphorus every 12 hours.

e. Chem 14, magnesium, phosphorus every 24 hours.

f. PT/PTT/fibrinogen/D-Dimers every 24 hours.

Radiology Studies

1. Chest x-ray and KUB on admission (after esophageal temperature probe placement)
2. Cranial ultrasound within 12 hours of admission.
3. Brain MRI with spectroscopy on DOL 4 or 5 (after re-warming is completed).

Ancillary Studies and Consults

1. Pediatric Neurology consult.
2. At least one formal EEG prior to discharge, and earlier if clinically indicated.
3. Arrange for High-Risk Neonatal Follow-up clinic post-discharge.
4. Obtain serum calcium level prior to discharge.

ADDENDUM MM

SHORT-TERM OBJECTIVES

1. RN Staffing appropriate for patient acuity and census
2. Continue to develop ORCHID Charting and educate staff
3. Identify all unsafe/out-dated equipment. Institute a process for replacement to meet patient census.
4. Meet criteria for all quality improvement indicators/audits.
5. Work with Satellite Pharmacy to identify services needed. Ensure that these services are provided.
6. Continue to maintain Neonatal Resuscitation Provider (NRP) certification of all NICU patient care staff.
7. Monitor Pyxis overrides
8. Maintain NICU staff participation in daily patient rounds.
9. At least two RNs will gain national certification in neonatal intensive care nursing/BSN/MSN.
10. Continue monthly in-services with clinical issues and age-appropriate topics.
11. Continue to meet criteria for point of care testing (POCT) standards.
12. At least two RNs will gain national certification in neonatal transport annually.
13. Continue to monitor Parental Satisfaction of the NICU.
14. Increase neonate breast milk feeding.

ADDENDUM N
SET-UP AND RE-WARMING PROCESS
TOTAL BODY COOLING
(Therapeutic Hypothermia)

PURPOSE:

Therapeutic hypothermia is a safe and effective treatment for hypoxic-ischemic encephalopathy (HIE) in newborns. LAC+USC NICU offers whole-body cooling as a primary therapy for newborns with moderate to severe HIE due to perinatal depression. Cooling must be initiated within 6 hours of birth and after meeting established criteria. The newborn will remain cooled for 72 hours from initiation of treatment with a goal core body temperature of 33.5°C.

PROCEDURE:

Cooling Set-Up

1. Turn off power to the radiant warmer

2. Cincinnati Sub-Zero Blanketrol® III (CSZB) Set-up

   a. Obtain the CSZB from the clean equipment area.

   b. Attach the two sets of non-disposable connector hoses to Hansen connectors on the side of the unit. Be sure fittings are fully inserted (the sleeve portion needs to be pulled back while connecting the hosing to ensure correct fit). There are six connector sites on the side of the machine; use any one of the top three and any one of the bottom three.

   c. Attach the (infant size) disposable blanket to non-disposable connector hoses. Push hose together and snap quick-disconnect fittings in place.

      1) Place infant size mattress on “open” Giraffe Omnibed in warmer platform configuration with the heat source shut OFF.

      2) Open hose clamps and turn on CSZB unit.

   d. Check water level:

      1) Check to make sure water is at the proper level by lifting the cover of the water fill opening.

      2) Fill with distilled water until water if necessary, until water is touching strainer.

   e. Plug power cord into a grounded RED receptacle and turn unit ON.

ADDENDUM N
SET-UP AND RE-WARMING PROCESS
TOTAL BODY COOLING (Cont'd)

ADDENDUM N
SET-UP AND RE-WARMING PROCESS
TOTAL BODY COOLING (Cont'd)

PROCEDURE: (Cont'd)

3. Pre-cool CSZB to 5°C using Manual Control Mode.
   a. Allow at least 15 minutes to pre-cool the blanket prior to use.

4. Turn cooling blanket to Auto Control Mode.

5. Set CSZB servo control set point to 33.5°C.

6. Place undressed (Use of a disposable diaper secured in "bikini fashion" is recommended) newborn directly on the Blanketrol® blanket which is already on the pre-cooled mattress of the warmer bed platform so that the head and body are completely resting on the blanket. This may appear to be the "frog" position.

7. After endotracheal intubation is achieved, obtain the disposable temperature probe from the Kool-Kit™ tray. Insert the temperature probe via the oral cavity and into the esophagus while continuously monitoring the newborn's temperature. The probe tip should be positioned in the lower third of the esophagus. [Use attached Probe Placement Chart to determine the distance of the probe.] Verify placement with the admission x-rays (see below).

8. It is expected that the newborn's core temperature will drop below the eventual desired temperature of 33.5°C within the first 30-45 minutes on the blanket. The Blanketrol® system will then warm the blanket water to raise the newborn's temperature to the target 33.5°C within approximately 90 minutes from initiation of cooling. Once stable at 33.5°C, some core temperature fluctuation is to be expected, but should not be greater than 0.5°C above or below.

9. Once the patient reaches a core temperature of 33.5°C, a thin receiving blanket (single thickness) may be placed between the newborn and the Blanketrol® blanket.

10. Meticulous skin assessment monitoring. Log-roll to visualize back, buttocks, extremities and back of the head to thoroughly examine the skin, which has been in direct contact with the blanket (to monitor for signs of local tissue trauma).

11. Rolled cloth blankets and other positioning aids may be used but should be placed under the cooling blanket.

12. Promptly notify the physician if the newborn's body temperature is less than 33.0°C while cooling or greater than 37.5°C while re-warming process.

ADDENDUM N
SET-UP AND RE-WARMING PROCESS
TOTAL BODY COOLING (Cont'd)

Re-warming Process

1. At completion of cooling therapy for 72 hours, the newborn will be re-warmed gradually (by 0.5°C per hour over next 6-12 hour period) as per written physician's orders.

2. Place a new skin probe with reflective cover on the newborn and attach the probe to the radiant warmer.

3. Obtain/document skin probe temperatures every half hour during the re-warming process.

4. Each hour (starting at hour 73), increase the Blanketrol® set point temperature by 0.5°C as per written physician's orders.

5. At the end of the re-warming period, return the newborn's thermoregulation to the overhead radiant warmer or incubator configuration.

   a. Set the initial Omnibed servo control temperature to 36.5°C.

   b. Turn the Blanketrol® power switch to OFF. Remove the cooling blanket and the esophageal probe.

   c. Continue care for thermoregulation per NICU standards.

ADDENDUM N
SET-UP AND RE-WARMING PROCESS
TOTAL BODY COOLING (Cont'd)

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5. Shankaran, S., Barnes, P. D., Hintz, S. R., Laptook, A. R., Zaterka-Baxter, K., et al. (2012). Brain injury following trial of hypothermia for neonatal hypoxic-ischaemic encephalopathy. *Archives of Disease in Childhood.Fetal and Neonatal Edition, 97*(6) doi:http://dx.doi.org.contentproxy.phoenix.edu/10.1136/archdischild-2011-301524

ADDENDUM NN

PERFORMANCE STANDARDS

JOB DESCRIPTION OF NEONATAL NURSING UNIT CLERK

1. Definition of Position: The nursing unit clerk provides clerical support and other related duties to support patient care in the NICU.

2. Job Relationship: Responsible to the NICU Nurse Manger, Assistant Nurse Manager, or Registered Nurse (RN).

3. Qualifications/Responsibilities:

   A. Education and Experience

      i. Completion of a recognized clerical training program or

      ii. Six months full-time clerical experience in an in-patient care setting.

   B. Patient Care Activities

      i. Maintains accurate patient identifications. Replaces any patient's identification tags as needed.

      ii. Performs other patient related activities assigned by the RN including but not limited to accompanying the NICU patient through the discharge process and errands.

      iii. Admits, transfers, and discharges/effects the disposition of patients and notifies the appropriate departments.

      iv. Keeps informed as to the whereabouts of all NICU patients. Posts the NICU location lists at various locations within the NICU.

   C. Ward services activities:

      i. Maintains official records of current patient census.

      ii. Maintains patient records and confidentiality of patient information. On evenings and nights, prepares new charts and breaks down completed charts.

      iii. Completes necessary forms, requisitions and communications with attention to detail and accuracy.

      iv. Requests old records/films. Maintains adequate numbers of needed photocopied patient teaching protocols, educational handouts, and Standards of Care.

ADDENDUM NN (Cont'd)

PERFORMANCE STANDARDS (Cont'd)

JOB DESCRIPTION OF NEONATAL NURSING UNIT CLERK (Cont'd)

3. Qualifications/Responsibilities: (Cont'd)

C. Ward services activities: (Cont'd)

v. Maintains supplies and equipment for patient care and NICU management. On evenings and nights, the following:

a. Stocking linens in all rooms.

b. Stocking water and other necessary care items for the nurses.

c. Stocking necessary stationary items for all rooms.

vi. Receives, verifies and signs for ward supply deliveries. Orders stationary as per monthly assignment.

vii. Assists in orientation of personnel to clerical functions.

viii. Keeps informed as to whereabouts of charge nurse and NICU physicians.

ix. Keeps desk and bulletin boards neat, clean, and organized.

x. Coordinates all in-coming and out-going telephone calls.

xi. Distributes and re-routes correspondence.

xii. Acts as receptionist in a courteous and friendly manner. Interfaces with parents/families to create positive exchanges and to facilitate open communications.

xiii. On nights and evenings, transports lab specimens to the clinical lab and retrieves blood products from blood bank for the NICU.

xiv. On nights and evenings, assists nursing office with pick-up and distribution of medications.

xv. On nights and evenings, assists with admission and discharge of NICU patients.

ADDENDUM NN (Cont'd)

PERFORMANCE STANDARDS (Cont'd)

JOB DESCRIPTION OF NEONATAL NURSING UNIT CLERK (Cont'd)

3. Qualifications/Responsibilities: (Cont'd)

D. Other Expectations:

i. Follow Medical Center and Nursing policies and procedures related to infection control, Fire/Life Safety, Code Pink and CPR renewal.

ii. Maintains a courteous and helpful relationship with parents, public and co-workers.

iii. Attends in-service education programs as assigned to maintain current skill and to learn new skills.

iv. Adheres to the Department of Nursing dress code.

v. Maintains the standards of attendance and observation of working hours.

vi. Participates in quality improvement activities as assigned.

vii. Uses appropriate channels of communication.

viii. Able to recognize significant patient and family needs in order to be able to organize and complete duties.

ix. Understands basic growth and developmental issues related to the care of a variety of neonatal patients.

ADDENDUM NN

PERFORMANCE STANDARDS

JOB DESCRIPTION OF CLINICAL NURSE SPECIALIST

1. Definition of Position:

   The clinical nurse specialist (CNS) is a California Board of Registered Nursing certified Registered Nurse (RN) who is an advanced practice nurse providing expert clinical practice, research, education, consultation and clinical leadership with an identified patient population (e.g., neonates and their families). The scope of CNS practice includes patients, nursing personnel. CNS works in direct patient care and indirect patient care activities that affect a broad range of patients. Specifically, the CNS:

   a. Assesses, plans, implements and evaluates the total health care of a specific neonatal population in one or more clinical specialty areas; (normal newborn nursery, neonatal intensive care, neonatal intermediate care, and infant specialty clinics, especially, the premature infant follow-up clinic and the high-risk follow-up clinic).

   b. Utilized the nursing process drawing upon knowledge, experience and research to identify problem situations or issues in patient care.

   c. Seeks out best practices in neonatal care for analysis, interpretation, review, and inclusion into the practices of the NICU with the goal of achieving the highest quality and safety in contemporaneous care.

   d. Provides consultation and guidance to nursing staff pertinent to patient care problems within the field of specialty;

   e. Coordinates neonatal team conferences for the purpose of education.

   f. Facilitates interdisciplinary teamwork to improve communications and elevate the standard of care for neonatal patients and their families.

2. Job Relationship: Responsible to the Pediatric Associate Nursing Director.

3. Qualifications/Experience:

   a. Education and Experience:

      i. A Masters or higher Degree in Nursing.

      ii. A current and active license to practice as a RN from the California State BRN.

ADDENDUM NN (Cont'd)

PERFORMANCE STANDARDS (Cont'd)

JOB DESCRIPTION OF CLINICAL NURSE SPECIALIST (Cont'd)

3. Qualifications/Experience: (Cont'd)

a. Education and Experience: (Cont'd)

iii. A current and active license to practice as a CNS from the California State BRN.

iv. Five years or more experience in a tertiary level NICU.

v. Tertiary level NICU nursing experience must be within the last ten years.

vi. Maintain current national certification in neonatal intensive care nursing from a recognized accrediting organization.

vii. Maintain instructor certification in the AAP-AHA Neonatal Resuscitation Provider program.

viii. Maintain instructor certification in the S.T.A.B.L.E. Program recognized by the AAP and March of Dimes.

ix. Maintain California Children's Services paneling for Special Care Centers.

x. Maintain national certification in Neonatal Transportation.

4. Patient Care Management

a. Evaluates the clinical nursing practice in the NICU.

b. Actively seeks collaborative relationships with nursing experts in the field of neonatal nursing care and proactively investigates implementation of improved methods and strategies of neonatal health care delivery.

c. Coordinates and assesses the critical care educational development and clinical competency of the nursing staff in the NICU and ensures continued neonatal critical care nursing competency through educational programs for both the newly-hired and experienced nursing staff.

d. Provides consultation with staff on complex neonatal critical care nursing issues.

e. Oversees the comprehensive parent and/or primary caretaker education activities.

f. Ensures the implementation of a coordinated and effective discharge planning program.

ADDENDUM NN (Cont'd)

PERFORMANCE STANDARDS (Cont'd)

JOB DESCRIPTION OF CLINICAL NURSE SPECIALIST (Cont'd)

5. Performs in the five areas of nursing expertise for the identified population of service.

   a. Expert Clinical Nursing Practice

      i. Works with staff to provide clinical care.

      ii. Uses advanced theoretical and empirical knowledge of physiology, pathophysiology, pharmacology, and health assessment.

      iii. Assesses and intervenes in complex health care problems within a selected clinical specialty area and selects, uses, and/or evaluates technology, products, and devices appropriate to the specialty area of practice.

      iv. Manages populations of clients with disease states and non-disease based etiologies to improve and to promote health care outcomes.

      v. Precepts students and mentors other nursing staff.

   b. Education

      i. Assists with and promotes staff development.

      ii. Provides formal education classes (i.e., community education and/or presentations) and informal education classes (i.e., in-services).

      iii. Serves as a preceptor to nursing students, new RN graduates, RNs reentering the workforce, and advanced practice RN students and RNs.

      iv. Mentors and coaches staff and students.

   c. Research

      i. Uses clinical inquiry and research in an advanced specialty area of practice.

      ii. Uses a performance improvement model as an avenue to improve advanced clinical practice and care.

      iii. Stays abreast of current literature in the specialty area of practice.

      iv. Initiates research into topics that directly impact nursing care and uses measurement and evaluation methodologies to assess outcomes.

      v. Publishes data from research topics related to the specialty area of practice.

ADDENDUM NN (Cont'd)

PERFORMANCE STANDARDS (Cont'd)

JOB DESCRIPTION OF CLINICAL NURSE SPECIALIST (Cont'd)

5. Performs in the five areas of nursing expertise for the identified population of service. (Cont'd)

d. Consultation

i. Performs consultative functions in multiple health care settings.

ii. Provides clinical expertise and recommendations to physicians, other health care providers, patients.

iii. Review standards of practice to reflect current nursing clinical practice.

iv. Provides input to nurse manager regarding policy and procedures for clinical practice in a specialty area.

iv. Uses evidence-based clinical practice to develop methods to improve patient care and patient care outcomes.

e. Clinical Leadership

i. Uses theory/research as a foundation for clinical leadership and CNS research based practice.

ii. Participates in the professional development of self, others, and the nursing profession. Facilitating goal setting and achievement for personal growth and for the NICU.

iii. Belongs to and participates in professional organizations.

iv. Serves as a change agent in health care settings by developing health care standards, assisting in the implementation of standards, facilitating goal setting and achievement, and evaluating outcomes.

a) Researches upcoming changes in accreditation standards and regulations that impact neonatal care for incorporation into the NICU care practices.

b) Participates in state and national initiatives for neonatal quality care improvement from California Perinatal Quality Care Collaborative, Vermont Oxford Network, Joint Commission and the Center for Disease Control and Prevention.

v. Serves in a leadership role in the community.

ADDENDUM NN (Cont'd)

PERFORMANCE STANDARDS (Cont'd)

JOB DESCRIPTION OF CLINICAL NURSE SPECIALIST (Cont'd)

5. Performs in the five areas of nursing expertise for the identified population of service. (Cont'd)

e. Clinical Leadership (Cont'd)

vi. Membership on LAC+USC Medical Center committees:

a) NICU Quality Improvement Committee

b) Pediatric Clinical Practice Council

c) Pediatric Nurse Managers Meetings

d) Weekly NICU Discharge Rounds

e) NICU Unit-Based Committee

f) Nursing Protocol Committee

References:

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National Association of Neonatal Nurses. (2009). Requirements for Advanced Neonatal Nursing Practice in Neonatal Intensive Care Units,

ADDENDUM NN

PERFORMANCE STANDARDS

JOB DESCRIPTION OF NEONATAL LICENSED VOCATIONAL NURSE

1. DATA GATHERING

   Performs and documents gathered patient data as outlined in the Department of Nursing Documentation Standards, for the recovering neonatal patients and families.

2. TECHNICAL SKILLS

   a. Demonstrates ability to carry out required skills as outlined in NICU specific nursing procedures skills checklist.

   b. Demonstrates ability to assist physicians/nurse practitioners with NICU specific procedures.

   c. Demonstrates ability to use NICU specific equipment according to nursing procedures.

   d. Demonstrates ability to use developmental age-specific activities for the neonatal patient and family.

3. PATIENT EDUCATION

   a. Demonstrates ability to assess parent's and significant other's learning needs and carry out NICU specific teaching protocols.

   b. Evaluates and documents parent/family responses to teaching on the Nursing Intensive Care Record – Neonatal.

4. DOCUMENTATION

   Adheres to Department of Nursing Documentation Standards for all medical record entries.

5. PATIENT RIGHTS/LEGAL ISSUES

   Adheres to system requirements in the following areas:

   a. Patient confidentiality inclusive of Health Insurance Portability and Accountability Act (HIPAA).

   b. Response to media (news, radio, television) requests.

   c. Regulation governing staff as witness to legal actions.

ADDENDUM NN (Cont'd)

PERFORMANCE STANDARDS (Cont'd)

JOB DESCRIPTION OF NEONATAL LICENSED VOCATIONAL NURSE (Cont'd)

5. PATIENT RIGHTS/LEGAL ISSUES (Cont'd)

d. Knowledge of medical center's Patient Bill of Rights.

e. Regulations governing family's access to the patient's chart.

f. Regulations governing patients/parents in custody and police investigations and Department of Children and Family Services (DCFS) hospital hold.

g. Reporting requirements for child/dependent adult/elder abuse and domestic violence.

h. Organ donations

i. Informed consents.

6. SAFETY

a. Adheres to NICU specific and Department of Nursing procedures for reporting unusual occurrences to include but not limited to:

i. Patient's injuries

ii. Non-patient's injuries/complaints

iii. Employee's injuries/complaints

iv. Equipment maintenance

v. Environmental conditions

b. Adheres to all NICU/Departmental safety policies to include but not limited to:

i. Patient, public and employee safety

ii. Infection control

iii. Restraints

iv. Fire reporting/drill activities

v. Disaster reporting/drill activities

vi. Hazardous materials/waste

7. EMERGENCY SITUATIONS

Responds to unit/patient crisis situations as outline in NICU Unit Based Standards.

ADDENDUM NN (Cont'd)

PERFORMANCE STANDARDS (Cont'd)

JOB DESCRIPTION OF NEONATAL LICENSED VOCATIONAL NURSE (Cont'd)

8. KNOWLEDGE BASE

a. Demonstrates awareness of location of, and working knowledge of NICU specific standards/policies/protocols.

b. Demonstrates awareness of location of, and knowledge of Department of Nursing Manuals.

c. Demonstrates ability to locate and use other reference manuals and books in the NICU:

i. Dietary Manual

ii. Laboratory Manual

iii. Drug Formulary

iv. Research Manual

v. NICU Unit Structure Standards

vi. NICU specific reference material

vii. Safety Policy Manual

viii. Material Safety Data Sheet (MSDS) Manual

d. Demonstrates ability to care for neonatal patients and families.

e. Demonstrates ability to report abnormal (critical) values.

f. Demonstrates ability to carry out medical orders as directed after clearly considering implications of their appropriateness for the patient, relationship to current therapies under way, and integration with nursing standards.

9. PROFESSIONALISM/SELF VALIDATION

a. Demonstrates punctuality to work, to report, and to required meetings.

b. Maintains attendance record as outlined in the Department of Nursing standards.

c. Adheres to Department of Nursing dress code.

d. Maintains positive public relations image with other employees, patients, visitors at all times.

ADDENDUM NN (Cont'd)

PERFORMANCE STANDARDS (Cont'd)

JOB DESCRIPTION OF NEONATAL LICENSED VOCATIONAL NURSE (Cont'd)

9. PROFESSIONALISM/SELF VALIDATION (Cont'd)

e. Gives and accepts constructive criticism in a positive, self-developmental manner.

f. Assesses own knowledge, skill, and practice.

g. Participates in self-evaluation at performance appraisal time and mutually sets goals for achievement with Nurse Manager.

h. Challenges questionable care practices of health care team members.

i. Collaborates and coordinates with health team members in the planning and delivery of patient care.

10. TEACHING OTHERS/SELF DEVELOPMENT

a. Maintains requirements for relicensure.

b. Completes Department of Nursing Mandatory sessions in a timely manner:

i. Fire drill/class

ii. Disaster drill/classes

iii. Infection control

iv. CPR review

v. Electrical safety

c. Completes NICU mandatory training sessions in a timely manner.

d. Serves as a role model/teacher/resource person in assisting student nurse(s) to meet their clinical learning objectives. Collaborates with the instructor regarding the observed learning needs of the individual students.

11. OBJECTIVES

a. Participates in annual NICU objectives formulation by submitting ideas as requested by the Nurse Manager.

b. Volunteers or accepts assignment for projects to achieve NICU/Department of Nursing objectives.

ADDENDUM NN (Cont'd)

PERFORMANCE STANDARDS (Cont'd)

JOB DESCRIPTION OF NEONATAL LICENSED VOCATIONAL NURSE (Cont'd)

12. QUALITY ASSURANCE/STANDARDS/PROBLEM-SOLVING/DECISION-MAKING

Participates in NICU-based quality assurance/risk management program inclusive of monitoring of indicators, problem identification and problem resolution.

13. COMMUNICATION

a. Demonstrates ability to communicate with parents, family, visitors, and members of the interdisciplinary health care team.

b. Recognizes and makes an effort to communicate through an interpreter when English is not the spoken language of the parents, family or visitor.

c. Communicates patient's responses and changes in condition:

i. In the medical record

ii. To the appropriate members of the health care team

d. Attends and participated in NICU staff meetings and patient care conferences.

e. Uses basic problem-solving skills in recognizing and reporting problems, concerns, and needs.

f. Uses appropriate channels of communication.

g. Reads and signs minutes of NICU staff minutes.

h. Demonstrates effective written communications skills.

14. WORKING RELATIONSHIPS

a. Formulates and maintains effective working relationships with professional staff, NICU co-workers, physicians, and members of the nursing management team.

b. Characterizes working relationships by mutual support, open communications, trust, and respect.

c. Participates in planning and conducting unit activities in consideration of Department of Nursing Policies and Medical Center Policies.

d. Reports irreconcilable differences among co-workers to Nurse Manager for intervention.

ADDENDUM NN (Cont'd)

PERFORMANCE STANDARDS (Cont'd)

JOB DESCRIPTION OF NEONATAL LICENSED VOCATIONAL NURSE (Cont'd)

15. STAFFING FLEXIBILITY

a. Maintains awareness of the Department of Nursing policies/procedures as they relate to scheduling/staff.

b. Schedules time in collaboration with peers/assistant Nurse Manager to meet standards of services.

c. Consults with immediate assistant Nurse Manager about work schedule changes.

16. RESEARCH

a. Participates in NICU patient research program as outlined by approved research protocol.

b. Participates in nursing research at the NICU or Departmental level as assigned.

c. Implements nursing research at NICU level as outline in the Department of Nursing Structure Standards.

17. CLINICAL (Per Unit Specific Standards). Refer to NICU Nursing Orientation program.

ADDENDUM NN

PERFORMANCE STANDARDS

JOB DESCRIPTION OF NEONATAL NURSING ATTENDANT

1. DEFINITION OF POSITION:

Performs basic nursing duties related to the care of infants in the NICU. The Neonatal Intensive Care Unit provides direct care for infants and has received special orientation and training related to neonates and infants.

2. JOB RELATIONSHIP:

Responsible to the NICU Nurse Manager, Assistant Nurse Manager or a Registered Nurse (RN).

3. QUALIFICATIONS/RESPONSIBILITIES:

A. Education and Experience

i. Completion of a training program or training assignment in nursing attendant work or

ii. Six months experience in providing basic nursing care services to in-patients in a nursing facility or

iii. Certification as a nursing assistant by the State of California.

B. Patient Care Activities

i. Prepares NICU for receiving infant admission(s), transfers or via emergent situations.

ii. Assists in admission, transfer and discharge procedures.

viii. Transports specimen to proper areas.

.

ADDENDUM NN (Cont'd)

PERFORMANCE STANDARDS (Cont'd)

JOB DESCRIPTION OF NEONATAL NURSING ATTENDANT (Cont'd)

C. Indirect Patient Care Activities

i. Performs related clerical duties as assigned.

ii. Provides a safe and clean environment and reports problems to the RN.

iii. Cleans and prepares equipment for disinfection.

iv. Receives and puts away stock supplies.

v. Performs other patient care activities assigned by the RN.

D. Other Expectations:

i. Applies universal precautions in all settings.

ii. Follows Medical Center and Nursing policies and procedures.

iii. Maintains a courteous and helpful relationship with patients, public, and co-workers.

iv. Attends in-service education programs as assigned to maintain current skills, and to learn new skills and new treatment procedures.

v. Adheres to the Department of Nursing dress code.

vi. Maintains the standard of attendance and observation of working hours.

ADDENDUM NN (Cont'd)

PERFORMANCE STANDARDS (Cont'd)

JOB DESCRIPTION OF NEONATAL NURSING ATTENDANT (Cont'd)

3. QUALIFICATIONS/RESPONSIBILITIES: (Cont'd)

D. Other Expectations: (Cont'd)

vii. Participates in quality assurance activities as assigned.

viii. Maintains confidentiality of patient information.

ix. Follows Medical Center and Nursing policy and procedures, related to infection control, Fire/Life Safety, Code Pink and CPR renewal.

ADDENDUM NN
PERFORMANCE STANDARDS

JOB DESCRIPTION OF NURSE MANAGER

1. Definition of Position: Under general supervision, the Nurse Manager (NM) 24-hour responsibility to administer a program for the Neonatal Intensive Care Unit (NICU) with responsibility for patient care, human resources and administrative functions. The NM assists in the planning, development and implementation of policies and procedures for nursing services; directs others in accomplishing designated goals; and collaborates in intra- and inter-departmental problem-solving and decision-making.

2. Job Relationship: Responsible to the Pediatric Associate Nursing Director.

3. Qualifications/Responsibilities:

   A. Education and Experience:

      1) A Bachelors or higher Degree in Nursing or relevant degree in Administration.

      2) A current and active license to practice as a Registered Nurse (RN) from the California State Board of Registered Nursing.

      3) Two years experience as supervisor of RNs.

      4) Must have two years experience as a RN within the last five years in a tertiary NICU.

   B. Patient Care Management

      1) Implements a care modality consistent with departmental philosophy and regulatory standards. Is responsible for the direct supervision of all clinical personnel who provide patient care in the NICU.

         a. Establishes a system consistent with personnel resources and the needs of the patients.

         b. Identifies methods of work assignments to ensure accountability of care for each patient.

         c. Ensures consistent application of the care modality by all caregivers.

         d. Is responsible for the day-to-day coordination of and quality of clinical nursing care of patients in the NICU.

ADDENDUM NN (Cont'd)

PERFORMANCE STANDARDS (Cont'd)

JOB DESCRIPTION OF NURSE MANAGER (Cont'd)

B. Patient Care Management (Cont'd)

2) Demonstrates knowledge of the needs of the neonatal patient.

a. Assists staff in the planning of patient care through use of patient rounds, care conferences, and discharge.

b. Assists staff with problem-solving and decision-making related to NICU patient problems and interventions.

c. Visits patients/families, requests feedback, investigates and facilitates problem resolution.

d. Provides direct patient care as necessary.

e. Collaborates with other health care disciplines in order to establish performance improvement indicators.

3) Develops, interprets, implements, and reinforces standards of NICU care.

a. Demonstrates knowledge of current theory, standards of professional practice and regulatory standards when determining a need for new/revision of current standards and/or interpreting standards.

b. Serves as a change agent and role model when initiating or promoting quality practice.

c. Holds staff accountable for that which is delegated to them.

4) Monitors documentation to assure that the nursing process is demonstrated and important aspects of care are met.

a. Assessments/reassessments are performed.

b. Development, implementation and evaluation of a plan of care.

c. Patient/family educational needs are met.

d. Discharge planning is reflected.

ADDENDUM NN (Cont'd)

PERFORMANCE STANDARDS (Cont'd)

JOB DESCRIPTION OF NURSE MANAGER (Cont'd)

B. Patient Care Management (Cont'd)

5) Monitors and evaluates the delivery of nursing care in the NICU in an on-going basis.

a. Promotes staff participation in unit problem identification and resolution.

b. Involves staff in determining important aspects of care for monitoring and evaluation.

c. Conducts monitoring and evaluation activities according to departmental policy.

C. Human Resource Management

1) Interviews, selects, and promotes the retention of qualified staff.

a. Follows established policies/procedures for interviewing and selecting staff.

b. Develops an orientation plan to prepare new staff for their specific duties and responsibilities.

c. Clarifies personal expectations and assists staff in meeting those expectations.

d. Develops a plan to provide staff with resources in order to maintain age-appropriate competency and skills validation.

2) Establishes staffing patterns/schedules that ensure equitable distribution of staff to ensure safe quality care.

a. Schedules staff to ensure coverage required by the NICU.

b. Promotes coverage from within the NICU. Monitors the appropriateness for use of paid overtime.

c. Collaborates with other NMs and Nursing Supervisors to assure staff coverage.

ADDENDUM NN (Cont'd)

PERFORMANCE STANDARDS (Cont'd)

JOB DESCRIPTION OF NURSE MANAGER (Cont'd)

C. Human Resource Management (Cont'd)

3) Provides on-going and timely appraisal of employee performance.

a. Establishes and communicates standards of performance for all categories of personnel on the unit.

b. Directs and provides incentives for staff to exceed the standards of performance.

c. Maintains on-going anecdotal records of staff performance according to established procedures.

d. Provides both positive and negative feedback to staff on an on-going basis.

e. Completes timely probationary and annual performance appraisals.

f. Provides counseling and takes disciplinary action according to departmental standards.

4) Facilitates the development of assigned nursing personnel.

a. Assists staff in identifying learning needs and develops a plan to meet those needs within available educational resources.

b. Schedules staff for mandatory classes and required annual updates: Basic Life Support, Safety, Neonatal Resuscitation Provider, Fire/Life Safety, Infection Control, Code Pink, Child Abuse, Domestic Abuse, Diversity, and Sexual Harassment training.

c. Maintains required educational records: activity cards, competency skills validation and employees' files.

d. Utilizes quality improvement findings to determine staff educational needs. Develops lesson plans and/or other available resources in order to meet the learning needs.

e. Encourages staff to use on-site educational programs.

ADDENDUM NN (Cont'd)

PERFORMANCE STANDARDS (Cont'd)

JOB DESCRIPTION OF NURSE MANAGER (Cont'd)

C. Human Resource Management (Cont'd)

f. Develops management skills in Assistant Nurse Managers and interested staff.

g. Sets an example for staff through own self-development.

5) Cooperates with affiliating educational programs.

a. Consults with faculty to establish mutual objectives. Provides orientation session for faculty and students.

b. Collaborates with faculty to assure patient care assignments meet the learning needs of students.

D. Administrative Responsibilities.

1) Establishes annual goals and objectives for the unit.

a. Develops achievable unit goals and objectives which address the needs of patients/families and are consistent with organizational philosophy and objectives.

b. Submits annual report on goals and objectives.

2) Provides input into and administers the NICU budget.

a. Provides input into staffing needs based on identified acuity and/or program needs.

b. Provides input into capital equipment needs.

c. Monitors staffing against target, providing justification for variance as requested.

d. Monitors the use of supplemental staffing and overtime to stay within established targets.

e. Utilizes management information reports to monitor cost effective and efficient use of supplies and equipment.

ADDENDUM NN (Cont'd)

PERFORMANCE STANDARDS (Cont'd)

JOB DESCRIPTION OF NURSE MANAGER (Cont'd)

D. Administrative Responsibilities. (Cont'd)

3) Monitors compliance with standards stated in the California Nurse Practice Act, Title XXII, Joint Commission, and other pertinent regulatory agencies.

a. Complies with regulations for staff licensure including Emergency Medical Treatment and Active Labor Act (EMTALA), and California Children's Services (CCS) requirements.

b. Assures all staff have current required health evaluations.

c. Conducts hazard surveillance/safety rounds, taking corrective action where appropriate.

d. Complies with standards for pharmacy and ward supply rounds.

e. Maintains required unit records for refrigerator logs, CPR/defibrillator, and point of care testing (POCT).

4) Collaborates with other members of the nursing management team to ensure effective management of the area.

a. Participates in the evaluation of the utilization of staffing resources.

b. Participates in resolving area and interdepartmental systems problems.

c. Responds promptly and effectively to environmental crises/emergencies.

d. Identifies and directly confronts issues that affect the quality of patient care provided.

5) Maintains interdepartmental/interdisciplinary working relationships.

a. Works collaboratively with other disciplines.

b. Assures nursing participation in interdisciplinary conferences/planning sessions.

ADDENDUM NN (Cont'd)

PERFORMANCE STANDARDS (Cont'd)

JOB DESCRIPTION OF NURSE MANAGER (Cont'd)

D. Administrative Responsibilities. (Cont'd)

c. Provides input in an informed and timely manner to interdepartmental/interdisciplinary problems or conflicts.

6) Communicates effectively with subordinates, peers, and supervisor.

a. Knows and utilizes proper lines of authority.

b. Gives clear and concise directions.

c. Establishes a system to assure on-going dissemination of information to the staff.

d. Disseminates information in a timely manner.

e. Demonstrates effective written and verbal skills.

f. Completes reports accurately and on time.

7) Participates in departmental/area committees.

a. Actively participates in Nursing Management.

b. Attends Nursing Management Council meetings.

c. Actively participates in/assures representation at assigned committees, disseminating information appropriately.

8) Facilitates research activities in the NICU.

a. Assists with planning, implementation or evaluation of studies, projects or research conducted by the department.

b. Facilitates the communication and application of research findings.

ADDENDUM NN

PERFORMANCE STANDARDS

JOB DESCRIPTION OF NEONATAL RN II & RN III

1. ASSESSMENT

   Performs and documents assessments as outlined in the Department of Nursing Documentation Standards, for the acute and critically ill neonatal patients and families.

2. CARE PLANNING

   Initiates interdisciplinary plan of care (IPOC) including discharge planning process as outlined in the Department of Nursing Documentation Standards.

3. INTERVENTION

   Implements interventions identified in the patient plan of care.

4. EVALUATION

   Evaluates patient's responses to procedures and nursing interventions as outlined in the Department of Nursing Documentation Standards.

5. TECHNICAL SKILLS

   a. Demonstrates ability to carry out required skills as outlined in NICU specific nursing procedures skills checklist. Refer to NICU RN Orientation program.

   b. Demonstrates ability to assist physicians/nurse practitioners with NICU specific procedures.

   c. Demonstrates ability to use NICU specific equipment according to nursing procedures.

   d. Demonstrates ability to use developmental age-specific activities for the neonatal patient and family.

6. PATIENT EDUCATION

   a. Demonstrates ability to assess parent's and significant other's learning needs and carry out NICU specific teaching protocols.

   b. Evaluates and documents parent/family responses to teaching on the Nursing Intensive Care Record – Neonatal.

ADDENDUM NN (Cont'd)

PERFORMANCE STANDARDS (Cont'd)

JOB DESCRIPTION OF NEONATAL RN II & RN III (Cont'd)

7. DOCUMENTATION

Adheres to Department of Nursing Documentation Standards for all medical record entries.

8. PATIENT RIGHTS/LEGAL ISSUES

Adheres to system requirements in the following areas:

a. Patient confidentiality inclusive of Health Insurance Portability and Accountability Act (HIPAA).

b. Response to media (news, radio, television) requests.

c. Regulation governing staff as witness to legal actions.

d. Knowledge of medical center's Patient Bill of Rights.

e. Regulations governing family's access to the patient's chart.

f. Regulations governing patients/parents in custody and police investigations and Department of Children and Family Services (DCFS) hospital hold.

g. Reporting requirements for child/dependent adult/elder abuse and domestic violence.

h. Organ donations

i. Informed consents.

9. SAFETY

a. Adheres to NICU specific and Department of Nursing procedures for reporting unusual occurrences to include but not limited to:

i. Patient's injuries

ii. Non-patient's injuries/complaints

iii. Employee's injuries/complaints

iv. Equipment maintenance

v. Environmental conditions

ADDENDUM NN (Cont'd)

PERFORMANCE STANDARDS (Cont'd)

JOB DESCRIPTION OF NEONATAL RN II & RN III (Cont'd)

9. SAFETY (Cont'd)

b. Adheres to all NICU/Departmental safety policies to include but not limited to:

i. Patient, public and employee safety

ii. Infection control

iii. Restraints

iv. Fire reporting/drill activities

v. Disaster reporting/drill activities

vi. Hazardous materials/waste

10. EMERGENCY SITUATIONS

Responds to unit/patient crisis situations as outline in NICU Unit Based Standards.

11. KNOWLEDGE BASE

a. Demonstrates working knowledge of NICU specific specific/ standards/policies/protocols location awareness.

b. Demonstrates awareness of location of, and knowledge of Department of Nursing Manuals.

c. Demonstrates ability to locate and use other reference manuals and books in the NICU:

i. Dietary Manual

ii. Laboratory Manual

iii. Drug Formulary

iv. Research Manual

v. NICU Unit Structure Standards

vi. NICU specific reference material

vii. Safety Policy Manual

viii. Material Safety Data Sheet (MSDS) Manual

ADDENDUM NN (Cont'd)

PERFORMANCE STANDARDS (Cont'd)

JOB DESCRIPTION OF NEONATAL RN II & RN III (Cont'd)

11. KNOWLEDGE BASE (Cont'd)

d. Demonstrates ability to successfully complete the Advanced Pediatric/Neonatal Critical Care Program or National Certification as a Critical Care Registered Nurse (CCRN).

e. Demonstrates ability to care for neonatal patients and families.

f. Demonstrates ability to report abnormal (critical) values.

g. Demonstrates ability to carry out medical orders as directed after clearly considering implications of their appropriateness for the patient, relationship to current therapies under way, and integration with nursing standards.

12. PROFESSIONALISM/SELF VALIDATION

a. Demonstrates punctuality to work, to report, and to required meetings.

b. Maintains attendance record as outlined in the Department of Nursing standards.

c. Adheres to Department of Nursing dress code.

d. Maintains positive public relations image with other employees, patients, visitors at all times.

e. Gives and accepts constructive criticism in a positive, self-developmental manner.

f. Assesses own knowledge, skill, and practice.

g. Participates in self-evaluation at performance appraisal time and mutually sets goals for achievement with Nurse Manager.

h. Challenges questionable care practices of health care team members.

i. Collaborates and coordinates with health team members in the planning and delivery of patient care.

ADDENDUM NN (Cont'd)

PERFORMANCE STANDARDS (Cont'd)

JOB DESCRIPTION OF NEONATAL RN II & RN III (Cont'd)

13. TEACHING OTHERS/SELF DEVELOPMENT

a. Maintains requirements for re-licensure.

b. Completes Department of Nursing Mandatory sessions in a timely manner:

i. Fire drill/class

ii. Disaster drill/classes

iii. Infection control

iv. CPR review

v. Electrical safety

c. Completes NICU mandatory training sessions in a timely manner.

d. Serves as a role model/teacher/resource person in assisting student nurse(s) to meet their clinical learning objectives. Collaborates with the instructor regarding the observed learning needs of the individual students.

14. OBJECTIVES

a. Participates in annual NICU objectives formulation by submitting ideas as requested by the Nurse Manager.

b. Volunteers or accepts assignment for projects to achieve NICU/ Department of Nursing objectives.

15. QUALITY ASSURANCE/STANDARDS/PROBLEM-SOLVING/DECISION-MAKING

Participates in NICU-based quality assurance/risk management program inclusive of monitoring of indicators, problem identification and problem resolution.

16. DELEGATION/COORDINATION

a. Plans and coordinates the patient's care with nursing personnel and other disciplines.

b. Determines priority of care and assigned work accordingly to self and/or one or more nursing personnel.

c. Provides technical guidance to one or more nursing personnel in providing direct nursing care.

ADDENDUM NN (Cont'd)

PERFORMANCE STANDARDS (Cont'd)

JOB DESCRIPTION OF NEONATAL RN II & RN III (Cont'd)

16. DELEGATION/COORDINATION (Cont'd)

d. Monitors the completion of, the quality in and the charting of nursing tasks.

e. Considers the following in making/implementing assignments:

i. Patient acuity

ii. Team member scope of responsibility and performance standards

iii. Infection control

iv. Safety

f. Acts as relief charge nurse as scheduled in the absence of the immediate supervisor, in providing for the nursing care and safety of all patients in the NICU.

17. COMMUNICATION

a. Demonstrates ability to communicate with parents, family, visitors, and members of the interdisciplinary health care team.

b. Recognizes and makes an effort to communicate through an interpreter when English is not the spoken language of the parents, family or visitor.

c. Communicates patient's responses and changes in condition:

i. In the Electronic Care Record ORCHID.

ii. To the appropriate members of the health care team

d. Attends and participated in NICU staff meetings and patient care conferences.

e. Uses basic problem-solving skills in recognizing and reporting problems, concerns, and needs.

f. Uses appropriate channels of communication.

g. Reads and signs minutes of NICU staff minutes.

h. Demonstrates effective written communications skills.

ADDENDUM NN (Cont'd)

PERFORMANCE STANDARDS (Cont'd)

JOB DESCRIPTION OF NEONATAL RN II & RN III (Cont'd)

18. WORKING RELATIONSHIPS

a. Formulates and maintains effective working relationships with professional staff, NICU co-workers, physicians, and members of the nursing management team.

b. Characterizes working relationships by mutual support, open communications, trust, and respect.

c. Participates in planning and conducting unit activities in consideration of Department of Nursing Policies and Medical Center Policies.

d. Reports irreconcilable differences among co-workers to Nurse Manager for intervention.

19. STAFFING FLEXIBILITY

a. Maintains awareness of the Department of Nursing policies/procedures as they relate to scheduling/staff.

b. Schedules time in collaboration with peers/assistant Nurse Manager to meet standards of services.

c. Consults with immediate assistant Nurse Manager about work schedule changes.

20. RESEARCH

a. Participates in NICU patient research program as outlined by approved research protocol.

b. Participates in nursing research at the NICU or Departmental level as assigned.

c. Implements nursing research at NICU level as outline in the Department of Nursing Structure Standards.

21. CLINICAL (Per Unit Specific Standards). Refer to NICU RN Orientation program.

ADDENDUM NN

PERFORMANCE STANDARDS

JOB DESCRIPTION OF NEONATAL RN

1. ASSESSMENT

   Performs and documents assessments as outlined in the Department of Nursing Documentation Standards, for the acute and critically ill neonatal patients and families.

2. CARE PLANNING

   Initiates Interdisciplinary plan of care (IPOOC) including discharge planning process as outlined in the Department of Nursing Documentation Standards.

3. INTERVENTION

   Implements interventions identified in the patient plan of care.

4. EVALUATION

   Evaluates patient's responses to procedures and nursing interventions as outlined in the Department of Nursing Documentation Standards.

5. TECHNICAL SKILLS

   a. Demonstrates ability to carry out required skills as outlined in NICU specific nursing procedures skills checklist. Refer to NICU RN Orientation program.

   b. Demonstrates ability to assist physicians/nurse practitioners with NICU specific procedures.

   c. Demonstrates ability to use NICU specific equipment according to nursing procedures.

   d. Demonstrates ability to use developmental age-specific activities for the neonatal patient and family.

6. PATIENT EDUCATION

   a. Demonstrates ability to assess parent's and significant other's learning needs and carry out NICU specific teaching protocols.

   b. Evaluates and documents parent/family responses to teaching on the Nursing Intensive Care Record – Neonatal.

ADDENDUM NN (Cont'd)

PERFORMANCE STANDARDS
JOB DESCRIPTION OF NEONATAL RN (Cont'd)

7. DOCUMENTATION

Adheres to Department of Nursing Documentation Standards for all medical record entries.

8. PATIENT RIGHTS/LEGAL ISSUES

Adheres to system requirements in the following areas:

a. Patient confidentiality inclusive of Health Insurance Portability and Accountability Act (HIPAA).

b. Response to media (news, radio, television) requests.

c. Regulation governing staff as witness to legal actions.

d. Knowledge of medical center's Patient Bill of Rights.

e. Regulations governing family's access to the patient's chart.

f. Regulations governing patients/parents in custody and police investigations and Department of Children and Family Services (DCFS) hospital hold.

g. Reporting requirements for child/dependent adult/elder abuse and domestic violence.

h. Organ donations

i. Informed consents.

9. SAFETY

a. Adheres to NICU specific and Department of Nursing procedures for reporting unusual occurrences to include but not limited to:

   i. Patient's injuries

   ii. Non-patient's injuries/complaints

   iii. Employee's injuries/complaints

   iv. Equipment maintenance

   v. Environmental conditions

ADDENDUM NN (Cont'd)

PERFORMANCE STANDARDS
JOB DESCRIPTION OF NEONATAL RN (Cont'd)

9. SAFETY (Cont'd)

b. Adheres to all NICU/Departmental safety policies to include but not limited to:

i. Patient, public and employee safety

ii. Infection control

iii. Restraints

iv. Fire reporting/drill activities

v. Disaster reporting/drill activities

vi. Hazardous materials/waste

10. EMERGENCY SITUATIONS

Responds to unit/patient crisis situations as outline in NICU Unit Based Standards

11. KNOWLEDGE BASE

a. Demonstrates working knowledge of NICU specific standards/policies/protocols and location awareness.

b. Demonstrates awareness of location of, and knowledge of Department of Nursing Manuals and location awareness.

c. Demonstrates ability to locate and use other reference manuals and books in the NICU:

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ADDENDUM NN (Cont'd)

PERFORMANCE STANDARDS
JOB DESCRIPTION OF NEONATAL RN (Cont'd)

11. KNOWLEDGE BASE (Cont'd)

d. Demonstrates ability to successfully complete the Advanced Pediatric/Neonatal Critical Care Program or National Certification as a Critical Care Registered Nurse (CCRN).

e. Demonstrates ability to care for neonatal patients and families.

f. Demonstrates ability to report abnormal (critical) values.

g. Demonstrates ability to carry out medical orders as directed after clearly considering implications of their appropriateness for the patient, relationship to current therapies under way, and integration with nursing standards.

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a. Demonstrates punctuality to work, to report, and to required meetings.

b. Maintains attendance record as outlined in the Department of Nursing standards.

c. Adheres to Department of Nursing dress code.

d. Maintains positive public relations image with other employees, patients, visitors at all times.

e. Gives and accepts constructive criticism in a positive, self-developmental manner.

f. Assesses own knowledge, skill, and practice.

g. Participates in self-evaluation at performance appraisal time and mutually sets goals for achievement with Nurse Manager.

h. Challenges questionable care practices of health care team members.

i. Collaborates and coordinates with health team members in the planning and delivery of patient care.

ADDENDUM NN (Cont'd)

PERFORMANCE STANDARDS
JOB DESCRIPTION OF NEONATAL RN (Cont'd)

13. TEACHING OTHERS/SELF DEVELOPMENT

a. Maintains requirements for relicensure.

b. Completes Department of Nursing Mandatory sessions in a timely manner:

i. Fire drill/class

ii. Disaster drill/classes

iii. Infection control

iv. CPR review

v. Electrical safety

c. Completes NICU mandatory training sessions in a timely manner.

d. Serves as a role model/teacher/resource person in assisting student nurse(s) to meet their clinical learning objectives. Collaborates with the instructor regarding the observed learning needs of the individual students.

14. OBJECTIVES

a. Participates in annual NICU objectives formulation by submitting ideas as requested by the Nurse Manager.

b. Volunteers or accepts assignment for projects to achieve NICU/ Department of Nursing objectives.

15. QUALITY ASSURANCE/STANDARDS/PROBLEM-SOLVING/DECISION-MAKING

Participates in NICU-based quality assurance/risk management program inclusive of monitoring of indicators, problem identification and problem resolution.

16. DELEGATION/COORDINATION

a. Plans and coordinates the patient's care with nursing personnel and other disciplines.

b. Determines priority of care and assigned work accordingly to self and/or one or more nursing personnel.

c. Provides technical guidance to one or more nursing personnel in providing direct nursing care.

ADDENDUM NN (Cont'd)

PERFORMANCE STANDARDS
JOB DESCRIPTION OF NEONATAL RN (Cont'd)

16. DELEGATION/COORDINATION (Cont'd)

d. Monitors the completion of, the quality in and the charting of nursing tasks.

e. Considers the following in making/implementing assignments:

i. Patient acuity

ii. Team member scope of responsibility and performance standards

iii. Infection control

iv. Safety

f. Acts as relief charge nurse as scheduled in the absence of the immediate supervisor, in providing for the nursing care and safety of all patients in the NICU.

17. COMMUNICATION

a. Demonstrates ability to communicate with parents, family, visitors, and members of the interdisciplinary health care team.

b. Recognizes and makes an effort to communicate through an interpreter when English is not the spoken language of the parents, family or visitor.

c. Communicates patient's responses and changes in condition:

i. In the medical record

ii. To the appropriate members of the health care team

iii. Attends and participated in NICU staff meetings and patient care conferences.

e. Uses basic problem-solving skills in recognizing and reporting problems, concerns, and needs.

f. Uses appropriate channels of communication.

g. Reads and signs minutes of NICU staff minutes.

h. Demonstrates effective written communications skills.

ADDENDUM NN (Cont'd)

PERFORMANCE STANDARDS
JOB DESCRIPTION OF NEONATAL RN (Cont'd)

18. WORKING RELATIONSHIPS

a. Formulates and maintains effective working relationships with professional staff, NICU co-workers, physicians, and members of the nursing management team.

b. Characterizes working relationships by mutual support, open communications, trust, and respect.

c. Participates in planning and conducting unit activities in consideration of Department of Nursing Policies and Medical Center Policies.

d. Reports irreconcilable differences among co-workers to Nurse Manager for intervention.

19. STAFFING FLEXIBILITY

a. Maintains awareness of the Department of Nursing policies/procedures as they relate to scheduling/staff.

b. Schedules time in collaboration with peers/assistant Nurse Manager to meet standards of services.

c. Consults with immediate assistant Nurse Manager about work schedule changes.

20. RESEARCH

a. Participates in NICU patient research program as outlined by approved research protocol.

b. Participates in nursing research at the NICU or Departmental level as assigned.

c. Implements nursing research at NICU level as outline in the Department of Nursing Structure Standards.

21. CLINICAL (Per Unit Specific Standards). Refer to NICU RN Orientation program.

ADDENDUM O

TOTAL BODY COOLING DURING INTERFACILITY TRANSPORT

POLICY:

The attending Neonatologist will be responsible for the decision to initiate and terminate hypothermia therapy. As hypothermia therapy must begin within a short time frame, initiation of whole body cooling will begin at the referring facility and the continuation of therapy during transport back to LAC+USC Medical Center.

Refer to the following resources: Selection Criteria in Addendum Total Body Cooling, and to Addendum Inter-facility Transport Program.

PROCEDURE:

1. Before leaving LAC+USC Medical Center, the NICU transport team will shut off the heat source to the transport incubator. Portholes should be open for air circulation.

2. When the NICU transport team arrives at the referring facility, a full assessment with vital signs will be obtained.
    a. When stable the newborn will be placed in the transport incubator with no warming measures.
    b. The transport incubator's warming mechanism will remain off, and the newborn will remain as uncovered as possible (infant restraints will be utilized as per Transport Addendum).

3. Axillary temperatures will be recorded every 15 minutes. At any time during transport IF the newborn's axillary temperature:
    a. Is less than 33.5° Celsius, the warming mechanism of the transport incubator should be set at minimal heat in order to bring the newborn's axillary temperature back to 34-35° Celsius range.
    b. Rises above 35° Celsius, shut off the warming mechanisms and open the portholes to the transport incubator. The newborn will remain as uncovered as possible.

ADDENDUM O

TOTAL BODY COOLING DURING INTERFACILITY TRANSPORT (Cont'd)

PROCEDURE: (Cont'd)

4. Medications
   a. For shivering, fentanyl only (either IV bolus or drip) is preferred during therapy (per written physician's order).
   b. If seizure activity is noted, please load with IV Phenobarbital 20mg/kg (per written physician's order).

   ***Note: Administration of fentanyl may cause transient decrease in blood pressure due to peripheral vasodilation.*

5. All other care will adhere to standard transport practices, including the monitoring of and response to blood gases, saturation, blood pressure, and clinical indicators of systemic perfusion.
   a. Blood gases are affected by hypothermia, and should be corrected for the temperature of the sample.
   b. Sinus bradycardia is a common side effect of hypothermia, and is usually not accompanied by hemodynamic instability. If the heartrate is:
      1) More than 80: no intervention
      2) Between 70 to 80 without changes in hemodynamic status: no intervention
      3) Less than 70 and stable or 70 to 80 with increased pressor requirement, raise core temperature slightly using measures above.

6. Monitoring and Documentation:
   a. An axillary temperature probe will remain in place throughout the transport.
   b. Check and record blood glucose at referral hospital before departure, and at least every hour during transport (more frequently if possible).

ADDENDUM OO

PAIN AND SEDATION MANAGEMENT

Purpose: To delineate the parameters of pain assessment and treatment/prevention of moderate to severe pain along with sedation therapy for operative and medical procedures on infants in the NICU.

Policy: Assessment of pain is addressed and recorded along with vital signs assessment in the NICU on every patient. Using evidenced-based pain assessment tools, parameters such as cry, agitation, irritability, facial expression, extremity tone and movement, and behavior state determine a pain score that is documented (every 1-2 hours for 1:1 and 1:2 acuity, every 3-4 hours for 1:3 and 1:4 acuity). The LAC+USC Medical Center NICU utilizes the Neonatal Pain, Agitation and Sedation Scale (N-PASS: see Chart I N-PASS scoring). Pharmaceutical pain/sedation therapies will be instituted via written physician's/nurse practitioner's order and continued by rewritten order every 24 hours. Comfort measures such as swaddling, non-nutritive sucking, holding and rocking are basic nursing interventions to manage mild pain/discomfort and do not require a written physician's order. Mild pain management may be augmented via oral sucrose 24% (refer to Oral Sucrose Guidelines) which requires a written physician's/nurse practitioner's order and is documented on the Medication Administration Record.

All surgical procedures including chest tube placement and cut-down central line placement must employ pre-operative sedation and continuous pain/sedation management during and after the procedure in the NICU. Medical procedures, including lumbar punctures, high frequency ventilation, and percutaneous central line placement, (which are known to cause pain and/or severe discomfort in older pediatric and adult patients) will be appropriately managed with sedation and/or analgesia. Pharmaceutical management for moderate to severe pain/agitation in the NICU can be intravascular and may be intermittently or continuously dosed.

Pain assessment with management interventions and sedation strategies for agitation/discomfort are explained to the parent(s)/family on admission and repeated at every opportunity.

ADDENDUM OO (Cont'd)

PAIN AND SEDATION MANAGEMENT (Cont'd)

CHART I: NPASS SCALE

N-PASS:
Neonatal Pain, Agitation, & Sedation Scale

Pat Hummel, MA, RNC, NNP, PNP & Mary Puchalski, MS, RNC

Assessment Criteria	Sedation		Normal	Pain / Agitation	
	-2	-1	0	1	2
Crying Irritability	No cry with painful stimuli	Moans or cries minimally with painful stimuli	Appropriate crying Not irritable	Irritable or crying at intervals Consolable	High-pitched or silent-continuous cry Inconsolable
Behavior State	No arousal to any stimuli No spontaneous movement	Arouses minimally to stimuli Little spontaneous movement	Appropriate for gestational age	Restless, squirming Awakens frequently	Arching, kicking Constantly awake or Arouses minimally / no movement (not sedated)
Facial Expression	Mouth is lax No expression	Minimal expression with stimuli	Relaxed Appropriate	Any pain expression intermittent	Any pain expression continual
Extremities Tone	No grasp reflex Flaccid tone	Weak grasp reflex ↓ muscle tone	Relaxed hands and feet Normal tone	Intermittent clenched toes, fists or finger splay Body is not tense	Continual clenched toes, fists, or finger splay Body is tense
Vital Signs HR, RR, BP, SaO_2	No variability with stimuli Hypoventilation or apnea	< 10% variability from baseline with stimuli	Within baseline or normal for gestational age	↑ 10-20% from baseline SaO_2 76-85% with stimulation – quick ↑	↑ > 20% from baseline $SaO_2 \leq 75\%$ with stimulation – slow ↑ Out of sync with vent

Premature Pain Assessment
- + 3 if < 28 weeks gestation / corrected age
- + 2 if 28-31 weeks gestation / corrected age
- + 1 if 32-35 weeks gestation / corrected age

Assessment of Sedation
- Sedation is scored in addition to pain for each behavioral and physiological criteria to assess the infant's response to stimuli
- Sedation does not need to be assessed/scored with every pain assessment/score
- Sedation is scored from 0 → -2 for each behavioral and physiological criteria, then summed and noted as a negative score (0 → -10)
  - A score of 0 is given if the infant's response to stimuli is normal for their gestational age
- Desired levels of sedation vary according to the situation
  - "Deep sedation" → score of -10 to -5 as goal
  - "Light sedation" → score of -5 to -2 as goal
  - Deep sedation is not recommended unless an infant is receiving ventilatory support, related to the high potential for apnea and hypoventilation
- A negative score without the administration of opioids/ sedatives may indicate:
  - The premature infant's response to prolonged or persistent pain/stress
  - Neurologic depression, sepsis, or other pathology

Assessment of Pain/Agitation
- Pain assessment is the fifth vital sign – assessment for pain should be included in every vital sign assessment
- Pain is scored from 0 → +2 for each behavioral and physiological criteria, then summed
  - Points are added to the premature infant's pain score based on their gestational age to compensate for their limited ability to behaviorally or physiologically communicate pain
  - Total pain score is documented as a positive number (0 → +10)
- Treatment/interventions are indicated for scores > 3
  - Interventions for known pain/painful stimuli are indicated before the score reaches 3
- The goal of pain treatment/intervention is a score ≤ 3
- More frequent pain assessment indications:
  - Indwelling tubes or lines which may cause pain, especially with movement (e.g. chest tubes) → at least every 2-4 hours
  - Receiving analgesics and/or sedatives → at least every 2-4 hours
  - 30-60 minutes after an analgesic is given for pain behaviors to assess response to medication
  - Post-operative → at least every 2 hours for 24-48 hours, then every 4 hours until off medications

Pavulon/Paralysis
- It is impossible to behaviorally evaluate a paralyzed infant for pain
- Increases in heart rate and blood pressure may be the only indicator of a need for more analgesia
- Analgesics should be administered continuously by drip or around-the-clock dosing
  - Higher, more frequent doses may be required if the infant is post-op, has a chest tube, or other pathology (such as NEC) that would normally cause pain
  - Opioid doses should be increased by 10% every 3-5 days as tolerance will occur without symptoms of inadequate pain relief

ADDENDUM OO (Cont'd)

PAIN AND SEDATION MANAGEMENT (Cont'd)

Scoring Criteria

Crying / Irritability

-2 → No response to painful stimuli, e.g.:
- No cry with needle sticks
- No reaction to ETT or nares suctioning
- No response to care giving

-1 → Moans, sighs, or cries (audible or silent) minimally to painful stimuli, e.g. needle sticks, ETT or nares suctioning, care giving

0 → Not irritable – appropriate crying
- Cries briefly with normal stimuli
- Easily consoled
- Normal for gestational age

+1 → Infant is irritable/crying at intervals – but can be consoled
- If intubated – intermittent silent cry

+2 → Any of the following:
- Cry is high-pitched
- Infant cries inconsolably
- If intubated – silent continuous cry

Behavior / State

-2 → Does not arouse or react to any stimuli:
- Eyes continually shut or open
- No spontaneous movement

-1 → Little spontaneous movement, arouses briefly and/or minimally to any stimuli:
- Opens eyes briefly
- Reacts to suctioning
- Withdraws to pain

0 → Behavior and state are gestational age appropriate

+1 → Any of the following:
- Restless, squirming
- Awakens frequently/easily with minimal or no stimuli

+2 → Any of the following:
- Kicking
- Arching
- Constantly awake
- No movement or minimal arousal with stimulation (inappropriate for gestational age or clinical situation, i.e. post-operative)

Facial Expression

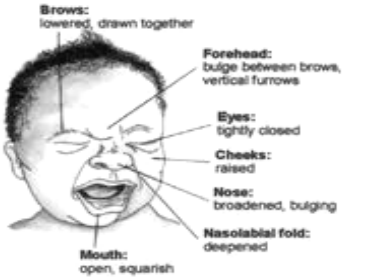
-2 → Any of the following:
- Mouth is lax
- Drooling
- No facial expression at rest or with stimuli

-1 → Minimal facial expression with stimuli

0 → Face is relaxed at rest but not lax – normal expression with stimuli

+1 → Any pain face expression observed intermittently

+2 → Any pain face expression is continual



Facial expression of physical distress and pain in the infant

Extremities / Tone

-2 → Any of the following:
- No palmar or planter grasp can be elicited
- Flaccid tone

-1 → Any of the following:
- Weak palmar or planter grasp can be elicited
- Decreased tone

0 → Relaxed hands and feet – normal palmar or sole grasp elicited – appropriate tone for gestational age

+1 → Intermittent (<30 seconds duration) observation of toes and/or hands as clenched or fingers splayed
- Body is *not* tense

+2 → Any of the following:
- Frequent (≥30 seconds duration) observation of toes and/or hands as clenched, or fingers splayed
- Body is tense/stiff

Vital Signs: HR, BP, RR, & O_2 Saturations

-2 → Any of the following:
- No variability in vital signs with stimuli
- Hypoventilation
- Apnea
- Ventilated infant – no spontaneous respiratory effort

-1 → Vital signs show little variability with stimuli – less than 10% from baseline

0 → Vital signs and/or oxygen saturations are within normal limits with normal variability – or normal for gestational age

+1 → Any of the following:
- HR, BP, and/or RR are 10-20% above baseline
- With care/stimuli infant desaturates minimally to moderately (SaO_2 76-85%) and recovers quickly (within 2 minutes)

+2 → Any of the following:
- HR, BP, and/or RR are > 20% above baseline
- With care/stimuli infant desaturates severely (SaO_2 < 75%) and recovers slowly (> 2 minutes)
- Infant is out of synchrony with the ventilator – fighting the ventilator

We value your opinion.
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ADDENDUM OO (Cont'd)

PAIN AND SEDATION MANAGEMENT (Cont'd)

References:

American Academy of Pediatrics and Canadian Paediatric Society. (2006). Prevention and management of pain in the neonate: An update. Pediatrics, 118: 2231-2241.
Anand, K. J. S. (2007). Pain assessment in preterm neonates. Pediatrics, 119: 605-607.

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California State Board of Registered Nursing. (2000). Pain assessment: The fifth vital sign.

California State Board of Registered Nursing. (2001). Frequently asked questions regarding pain management.

California State Board of Registered Nursing. (2004). The nurse's role in pain management.

Hummel, P., et al. (2008). Clinical reliability and validity of the N-PASS: neonatal pain agitation and sedation scale with prolonged pain. Journal of Perinatology, 28, 55-60.

Kanwaljeet, J. S, et al. (2006). Summary proceedings from the neonatal pain-control group. Pediatrics, 117: S9-S22.

McCaffery, M., & Pasero, C. (1999). Pain Clinical Manual, 2nd edition. Mosby.

Sharek, P. J., et al. (2006). Evaluation and development of potentially better practices to improve pain management of neonates. Pediatrics, 118: S78-S86.

Walden, M., & Gibbins, S. (2008). Pain Assessment and Management, 2nd edition. National Association of Neonatal Nurses.

ADDENDUM P

DELIVERY OF CARE METHODOLOGY

Team Nursing Care

RNs carry out all aspects of the nursing process, including assessment, nursing diagnosis, developing a plan of care, and evaluating the effectiveness. It also implies:

- the use of relevant standards
- medication administration
- documentation
- Collaboration with inter-disciplinary team and family members.
- required discharge preparation and parent teaching

Non-RNs may participate in the care of the neonates, but the RN is accountable for the quality and effectiveness of the care.

Primary Nursing

Designated primary RN (s) will provide total patient care for an infant during the course of the infant's hospitalization. The Primary RN is responsible for formulating a plan of care to meet specific needs of the infant and his/her family significant caregiver. The Primary RN also takes an active role in discharge preparation.

Care/Patient Assignments

Assignments will be made by the SSN or Team Leader before each shift and documented on the NICU's unit assignment sheet. Nurses will be assigned to infants on the basis of:

- Pending critical admissions
- Interfacility transport needs
- Intrafacility transport needs for diagnostic testing, surgery, etc.
- Infants' acuity requirements
- Nurse capabilities/skill sets
- Availability of staff and skills mix
- Staff learning needs (e.g., orienting RN)
- Continuity of infant care
- Physical layout of the NICU
- Infection control measures
- Pre/Post Operative Care

ADDENDUM P (Cont'd)

DELIVERY OF CARE METHODOLOGY (Cont'd)

Assignments may be adjusted during or after report if necessary by the SSN/ Team Leader.

The NICU functions on eight-hour, and twelve-hour shifts. Eight-hour shifts are 0700-1500, 1500-2300 and 2300-0700. Twelve hour shifts are from 0700-1900 and 1900-0700.

Shift Report

General report is given by the SSN/Team Leader at change of shift. Pertinent information is passed on at this time, regarding change in policy, upcoming events, etc. Patient assignments are then given.

Bedside report is given from nurse to nurse with aid of Kardex, current Nursing Intensive Care Record - Neonatal, Interdisciplinary Patient Care Plan and medical record. Report will include:

- Name
- MRUN
- diagnosis
- current condition
- pending diagnostic testings
- medications
- family situation
- all other pertinent information

A chart check is done at the beginning of every shift. The two bedside RNs review the previous shift's medical orders and compare them to the transcriptions on the Kardex and Medication Administration Record. Questions/concerns are addressed before the off-going RN leaves the NICU.

Documentation

Charting is performed by licensed NICU nursing personnel performing direct patient care. Charting is done on the Nursing Intensive Care Record - Neonatal:

When infant condition deteriorates, frequency of charting to be increased as needed.

Upon admission initial assessment to be completed by R.N. within one hour.

Interdisciplinary Patient Care Plan - Newborn (PCP) must be initiated by NICU RN. The PCP must be updated by the NICU RN every 24 hours.

ADDENDUM P (Cont'd)

DELIVERY OF CARE METHODOLOGY (Cont'd)

The NICU RN is responsible for charting on all active care plans once a shift. Charting is done in the narrative section of the Nursing Intensive Care Record – Neonatal and may be included in the End of Shift Summary (EOSS) note.

Reference:

LAC+USC Healthcare Network Department of Nursing Services Policy, #400, Documentation – in Patient, effective 07/2008.

LAC+USC Healthcare Network Department of Nursing Services Policy, #401, In-Patient Documentation Guidelines, effective 03/2009.

LAC+USC Healthcare Network Department of Nursing Services Policy, #903, Medication Administration Record (MAR), effective 03/2008.

LAC+USC Healthcare Network Policy, #403, Health/Medical Record: Documentation, effective 11/2008.

LAC+USC Healthcare Network Policy, #412, Health/Medical Record: Use of Abbreviations, Acronyms, and Symbols, effective 11/2008.

ADDENDUM PP

RECOMMENDED REFERRALS FOR INFANTS

Clinic (at LAC+USC unless otherwise indicated)	Description of Service
Audiology	Repeat Screening with ABR Serial
Cleft Palate Clinic at Rancho Los Amigos Cleft Palate Clinic at Children's Hospital Los Angeles (CHLA)	Cleft Palate follow up
Breastfeeding Clinic Continuity Clinic	Well baby follow-up*
Dermatology	Infants with skin lesions, birth marks, burns, etc.
Cardiology	Congenital heart or AP collaterals
ENT	Infants with airway problems, i.e., stridor tracheostomy, etc.
ECMO Follow-Up at Huntington Hospital or CHLA	Infants who underwent ECMO Therapy
Genetics*	Down Syndrome, all other trisomies, all syndromes, or any infant demonstrating unusual features.
GI Clinic	Infants with digestive system disorders (i.e., pathological jaundice), feeding problems, etc.
Hematology Clinic	Infants with blood disorders (i.e., hemophilia thrombocytopenia, etc.)
High Risk Clinic*	Infants with birthweight 1501 to 2000 grams, low Apgars, on assisted ventilation, documented sepsis, etc.
HIV Clinic (Maternal Child Clinic)*	Infants with positive HIV and/or maternal positive HIV
Medical Rehabilitation Clinic (Physical Therapy)	Infants with Erbs or Bells Palsy, infants with fractures or dislocations
Myelo Clinic*	Infants with neural tube defects (myelomeningocele)
Neurology	Infants with intracranial malformations or abnormalities
Occupational Therapy	Infants who are poor nipplers or with upper body weakness of hypotonicity
Ophthalmology	Infants with eye anomalies (i.e., cataracts, opacities, etc.)
Orthopedics	Infants with fractures or club feet
Pulmonary (Chest Clinic)	All infants going home on oxygen
Preemie Infant Follow-Up *	All infants whose birthweights were less than 1500 grams
Renal Clinic*	Infants with renal anomalies
ROP Clinic	Infants with retinopathy of prematurity
SIDS Clinic (at CHLA)*	Infants who has a sibling die of SIDS
Special Surgery Clinic	Infants with ostomies
Surgery Clinic	Infants with G tubes, post-op abdominal surgery, etc.
Urology Clinic	Infants with urological anomalies (i.e., hypospadias, ambiguous genitalia, etc.)

* Includes Well Child Care

ADDENDUM Q

DEVELOPMENTAL CARE

Purpose: Developmental care is the conscientious and continuous strategy of care modification in the critical care environment towards support via artificial recreations of "normal" infant development.

The NICU has dimmer switches on bedside lighting, muted telephone and alarm sounds, positioning aids and devices to promote therapeutic postures, padded incubator covers, designated rest periods, skin-to-skin care, secluded (sometimes private) rooms, and staff reminders to keep voices low in the NICU.

Policy: LAC+USC Medical Center's NICU promotes age-appropriate developmental care in its critical care service. Developmental care is a tenet of all disciplines' orientation to the NICU and of family teaching at the bedside. Developmental care strategies are incorporated into annual skills evaluations for all bedside staff. Occupational therapy and physical therapy are integral parts of the NICU team and in care planning. Nurses at the bedside are encouraged to adapt linens and positioning aids to promote optimal positioning and restful nesting of infants. Daily medical rounds at the bedside practice decibel levels below 55 dB. Bedside lighting is adjusted based on patient care needs and patient's activites. Messages and telephone calls are relayed to the designated staff member by approaching the staff member and speaking in soft tones. Family and discharge teaching include a major component of developmental care. Referrals are made for individual cases of concern.

References:

Altimier, L., Brown, G., & Tedeschi, L. (2006). Developmental Care. In NANN Guidelines for Neonatal Nursing Policies, Procedures, Competencies, and Clinical Pathways, 4th edition, pp. 83-85.

Gibbins, S., et al. (2008). The Universe of Developmental Care: A New Conceptual Model for Application in the Neonatal Intensive Care Unit. Advances in Neonatal Care, 8(3): 141-147.

Kenner, C., & McGrath, J. M. (2004). Developmental Care of Newborns & Infants: A Guide for Health Professionals. Mosby.

National Association of Neonatal Nursing. The NANN Advanced Competency in Developmental Care (program), 2008.

Pagaran, Sheilah. Birth – 12 Months: Developmental Milestones (continuing education presentation for LAC+USC Medical Center), 2008.

ADDENDUM QQ

RESPIRATORY AND ANCILLARY SERVICES

Purpose: To describe the interface of services provided in the NICU from ancillary services (non-nursing) to maximize the standards of care provided to patients and families.

Respiratory Care: Respiratory Care Practitioners will be responsible for performing ordered direct patient care in all areas of the NICU and are staffed in the NICU 24 hours each day. Respiratory care includes:

1. The set-up, maintenance, and monitoring of continuous mechanical ventilators including but not limited to admission bed preparations in the NICU.
2. Airway management such as suctioning, endotracheal tube securing and position verification, tracheostomy tube securing and cleaning, oral/nasopharyngeal airway placemen, securing non-invasive ventilation devices.
3. Oxygen administration via mask or cannula.
4. Aerosol administration with or without oxygen
5. Aerosolized medication delivery and surfactant administration
6. Maintain blood gas lab and analyze blood specimen for the NICU as a satellite clinical lab under accreditation by the College of American Pathologists.
7. Providing ventilatory care during surgical procedures in the NICU.
8. Attending and providing resuscitation during all high risk deliveries.
9. Participate in all neonatal respiratory studies.
10. Ability to participate in withdrawal of care (comfort care) team process
11. Inter/intra-facility ventilator patient transport.
12. Drawing arterial and capillary blood specimens.
13. Collecting pulmonary secretion specimens.
14. Participating in cardiopulmonary emergencies, providing manual or mechanical ventilation, chest compression, and nasal/oral endotracheal intubation.
15. Assesses patient's overall cardiopulmonary status by inspection, auscultation, and using monitors such as the transcutaneous gas monitor/end tidal CO_2 and documents patient's vital signs.

ADDENDUM QQ (Cont'd)

RESPIRATORY AND ANCILLARY SERVICES (Cont'd)

16. Performs the full range of ventilatory care services as prescribed by a physician including selecting, setting up, and operating a variety of devices, such as medication delivery units, humidifiers, and continuous mechanical ventilators, CPAP units, T-piece infant resuscitators, in the NICU.
17. Administers specialty therapies, such as inhaled nitric oxide (INO) and high frequency ventilation.
18. Performs invasive procedures such as arterial punctures, intubations, and other procedures under the written order of a physician after completing department training.
19. Assists physicians with the insertion of tracheostomy tubes, and may perform reinsertion of tubes as needed.
20. Performs cardiopulmonary resuscitation in life threatening situations, which includes establishment of an airway, and the application of mechanical ventilatory support.
21. Promotes positive interdisciplinary communications by attending daily bedside rounds, monitoring the daily review of the respiratory plan of care, and promptly informing the bedside RN of any changes in respiratory parameters.
22. Documents all the above interventions as required.
23. Compliance with all infection control measures in the NICU.
24. Reinforces family education on respiratory therapy at the bedside.

Responsibilities of Ancillary Services

1. Chemistry Technicians (for "B" Lab) and Hematology Technicians
    a. Perform heelsticks only.
    b. Obtain microblood specimens for lab studies

2. Pharmacist
    a. LAC+USC Medical Center Pharmacy is open 24 hours a day. The NICU satellite pharmacy is open 0700 – 1900. The central pharmacy manages any orders from 1900 - 0700.
    b. All special order intravenous parenteral nutrition (TPN) solutions are managed and provided by Pharmacy service.
    c. TPN/Hyperal solutions and fat emulsions are delivered daily 1600-1800 hours to the NICU through Pharmacy.
    d. For maximum safety, reconstitution and dispensing of all medication is under the direction of the Pharmacy department.
3. Radiology

ADDENDUM QQ (Cont'd)

RESPIRATORY AND ANCILLARY SERVICES (Cont'd)

a. The Medical Center provides 24-hour x-ray capability to the NICU.
b. Radiology consultation is available to the NICU upon request.
c. A dedicated portable x-ray machine will remain in the NICU.
d. Radiologic technicians, who respond to the NICU for stat or routine morning films:

   i. Will be familiar with gentle techniques to be used with newborns.
   ii. Are instructed in hand hygiene standards of the NICU and comply with this practice at all times.
   iii. Will use gonadal shields when appropriate for patients lead apron/gloves for any person assisting in procedures.

4. Volunteer Services

After orientation and training for the NICU, the volunteer may:

1) Assist staff/family with locating their infant in the Neonatal Complex (RN/LVN will check identification bands).
2) Assist with instructing families/visitors in correct hand washing technique.
3) Assist with feeding and/or holding infants.
4) Assist with answering telephones in the Unit.

ADDENDUM R

INTERDISCIPLINARY DISCHARGE PLANNING

PURPOSE: To delineate the process of discharge planning with the goal of addressing the continuing health care needs of each NICU graduate. Discharge planning begins with the admission process examining the areas of continuing physical, emotional, social, medical, transportation, and safety needs of each NICU patient via an individualized plan of care to meet those needs.

POLICY: The entire health care team consisting of discharge planning (DP) nurse medical social worker (MSW), NICU clinical nurse specialist (CNS), utilization review (UR) staff, NICU medical physician(s), medical director of the High-Risk Follow-Up Clinic, nurse practitioner(s), occupational therapist, physical therapist, patient financial worker and allied health personnel (as individual patient needs dictate) will participate in the assessment and planning for continuity of care from the NICU admission through discharge.

PROCESS:

1. Initial assessment and planning for discharge begins on admission and is documented on the Interdisciplinary Assessment & Discharge Planning Newborn form (#1089).

2. Interdisciplinary NICU Discharge Rounds are held weekly.
    a. Attendance at these rounds is recorded via signature of each team member on the attendance record. Storage of the attendance records is the responsibility of the DP nurse(s).
    b. A log of the minutes from each meeting is kept and detailed discussion on each patient for current status, discharge goals and individualized plan to meet the goals. Maintenance and storage of the log is the responsibility of the DP nurse(s).
    c. The CNS ensures the implementation of a coordinated and effective discharge planning program in coordination with the DP nurse(s) and provides oversight of the comprehensive parent and /or primary caretaker education activities.
    d. UR staff identifies and refers all eligible patients for California Children's Services (CCS) enrollment. UR updates all third party payors on their cases in the NICU and facilitates insurance authorizations as warranted.
    e. MSWs notify the team of case needs for home nursing visits, referrals for the Los Angeles County Department of Children and Family Services, transportation issues, financial issues, and psychosocial concerns for the home placement of each NICU patient.
    f. The DP nurse will:
        i. Notify the family of the NICU patient who qualifies for CCS referral.
        ii. Discuss the discharge plan with the family and the assigned bedside nurse of the NICU patient.

ADDENDUM R (Cont'd)

INTERDISCIPLINARY DISCHARGE PLANNING (Cont'd)

2. Interdisciplinary NICU Discharge Rounds are held weekly and are based on all NICU patients and their individual needs. (Cont'd)

   f. The DP nurse will: (cont'd)

      iii. Coordinate and facilitate all referrals identified by the team.

      iv. Arrange for parent education for home care of infant.

      v. Order and obtain home care equipment and supplies as warranted for the continued home care of the NICU infant.

      vi. Implement an individual patient's care record for each family to facilitate follow-up referrals and list vendor resources as needed.

   g. Each discipline attending the weekly discharge rounds will be responsible for implementing the recommendations from the team that involve their discipline (physician's orders, therapies, interventions, and teaching).

References:

California Children's Services Manual of Procedures, Chapter 3 (Provider Standards), Section 3.25 Standards for Neonatal Intensive Care Units (NICUs), subsections H.15 and J.1-5 (1999).

LAC+USC Medical Center NICU Structure Standard on Performance Standards for job descriptions of the discharge planner and clinical nurse specialist (2010).

ADDENDUM RR

GUIDELINES FOR NICU RESUSCITATION TEAM ATTENDANCE IN LABOR AND DELIVERY

PURPOSE: The Neonatal Resuscitation Team will attend every delivery.

POLICY:

1. The team will consist of a NICU respiratory therapist and one or more of the following personnel: a neonatologist, neonatal fellow, qualified pediatrician and/or pediatric resident as indicated in the table below.

2. An NICU registered nurse will attend all deliveries of gestational age 28 weeks or less and constitute the third experienced member of the Neonatal Resuscitation Team when needed.

3. The neonatology attending will attend deliveries at the request of neonatal fellow or qualified pediatrician leading the resuscitation team.

Reference:

Keck School of Medicine, Department of Neonatology, website
http://www.usc.edu/schools/medicine/departments/pediatrics/divisions/neonatal/intranet/div_guide/clin_guide.html

DELIVERY ROOM ATTENDANCE CRITERIA

Indication	Neonatologist/Fellow/NICU	Resident/NICU RN	NICU RT
Prematurity <35 weeks	Yes	Yes	Yes
Non-C-Section operative delivery (Forceps, Vacuum, etc.)	Yes	Yes	Yes
Thick Meconium staining of amniotic fluid	Yes	Yes	Yes
Poly/Oligohydraminos	Yes	Yes	Yes
Multiple Gestation	Yes	Yes	Yes
Late decelerations or flat-line on fetal tracing	Yes	Yes	Yes
Other signs of non-reassuring fetal tracing	No	Yes	Yes
Prematurity ≥35 weeks	No	Yes	Yes
Maternal medications within 1 hour -Demerol, Stadol, Vistrail	No	Yes	Yes
Uncomplicated C-Section	No	Yes	Yes
Thin meconium staining of amniotic fluid	No	Yes	Yes
Maternal drug abuse	No	Yes	Yes
LGA or SGA	No	Yes	Yes
Maternal fever	No	Yes	Yes

ADDENDUM S

EQUIPMENT LOCATION AND REPAIR

TYPE OF EQUIPMENT	STORAGE/LOCATION	TO REPAIR
Glucose Monitor (aka: Glucometer)	At "lab" sink counter top in NICU	Call POCT
IV Light	Within patient area	Call Biomed
Enteral Syringe Pump	Within patient areas	Call Biomed
Hemoglobin Monitor (HemoCue™)	At "lab" sink counter top in NICU	Call POCT
Bedside Computer	At bedspace counter	Call ext. 2100 for Information Technology
Digital Thermometer	Within patient areas	Call Biomed
Electrical Weight Scales	Within patient areas	Call Biomed
Heat Lamps	Within patient areas	Call Biomed
Open Cribs; Bassinettes	In a bedspace	Call Biomed
Alaris large volume infusion and syringe pumps and PCU	In bedspace on wall mounted poles	Call Biomed
Phototherapy Lights	On Omnibeds & within patient areas	Call Biomed
Phillips™ Cardiorespiratory Bedside Monitor	At each bedspace	Call Biomed
Phillips™ Portable Cardiorespiratory Monitor	Within patient areas	Call Biomed
Giraffe Omni-Bed	In a bedspace	Call Biomed
Panda Bed	In Delivery Rooms	Call Biomed
Giraffe Incubator	In a bedspace	Call Biomed
Transport Incubator	Small niches inside intermediate NICU	Call Biomed
ZOLL Defibrillator	Nursing Station top of crash cart	Call Biomed
Milk Warmer	At bedside counter	Call Biomed

ADDENDUM SS
Infant Security

Purpose

To define the adaptation/usage of the facility-selected computerized high-alert system for infant monitoring within the NICU at LAC+USC Medical Center.

Policy:

"The HALO infant protection system is a hardware and software system designed to prevent the abduction of infants from hospitals. The system can also be used to locate infants within the HALO perimeter."- - HALO® System Manual 2006).

- Newly born infants from the Labor and Delivery unit are admitted to the NICU without prior application of the HALO® sensor tags.
- When newborn infants from the Normal Nursery unit are transferred to the NICU, the HALO® sensor tag is disabled and removed.
- Infants transported into the NICU from outside facilities will be evaluated upon admission for application of the HALO® sensor tag.
- Only NICU patients assigned to cribs or bassinettes will utilized the HALO® infant protection system; NICU infants on warmer beds or in incubators are exempt from the HALO® infant protection system.
- The sensor tag is applied to the lateral aspect of the lower leg; the site is changed at every other day with each bath and as needed.

Procedure:

Upon transfer to a crib or bassinette within the NICU, the following steps will be performed to enter the patient into the HALO® infant protection system:

Admitting an Infant:

1. Select a tag in inventory from inventory, and retain the emptied foil bag/pouch in the tag rack for re-use.
2. At a HALO console PC, click Admit to open the Admit Wizard log-in window.
3. Enter your user Name and Password, then click Next or Press Enter for the Tag Section window to open.

4. Make sure that the Infant option has a circled dot to its left. All unassigned infant tags will be displayed on screen.

5. Hold the bottom of the tag against the thenar area of the caregiver's palm for at least 10 seconds to ensure that the off-body alarm is reset.

6. Place the tag on the Tag Link and click the Tag Link button on the screen. (Make sure that the Tag Link is at least 24 inches away from the console PC or monitor to ensure best results.) The Tag Turn ON window opens. Turning on the tag takes several seconds after which the Tag Confirmation window opens. When the tag has been verified (this can take several seconds), the Patient Information window opens.

7. Enter the information for this infant:
   - ❖ Last Name
   - ❖ First Name (if known)
   - ❖ Gender
   - ❖ Room (NICU or NICUI)

   Under Notes, enter the PF# (MRUN). Review the entered information for accuracy, and then click Next.

8. In the Tag Activation window, select the time period after which Off-Body alarms will be activated for this tag. (The default time period is Immediately.) Review the entered information for accuracy, and then click Next. The Completing the Admit Wizard window opens.

9. Verify that the Patient Info is correct and complete. If any of the information is not correct, click Back to return to previous windows for corrections, or click Cancel to close the Wizard without admitting the infant.

10. When the displayed information is correct, click Finish to admit this infant and close the Admit Wizard, or click Next to admit this infant and begin admitting another infant.

11. Gather at the bedside the following items:
    - ✓ a roll of Secure Strips,
    - ✓ Stockinette (which comes in three sizes), and
    - ✓ the assigned tag.

12. Remove a Secure Strip from the roll. Bend the tape slightly to separate the Strip from the roll.

13. Center the Strip on the bottom of the tag and press the adhesive side firmly into place.

14. Carefully peel the remaining backing from the Secure Strip to expose the adhesive.

15. Place the tag on the infant's lower leg (lateral aspect).

16. Slip the Stockinette over the tag to hold it in place.

Editing Infant Information:

1. At the HALO® console PC or server PC, click **Edit**. The **Edit Information Wizard** logon window opens.
2. Enter your User Name and Password (refer to Admitting An Infant above), then click **Next** or press **Enter**. The Patient Selection window opens.
3. Click the button beside the **Infant** tag type to list the assigned infant tags.
4. Select the infant whose information needs to be edited.
   - Scroll through the list and select the desired tag, or
   - Type the tag's number into the **Tag/Patient Info**: box, or
   - Type the infant's last name into the **Tag/Patient Info**: box.

   As the name is typed, the highlight progressively selects the row containing the last name beginning with the letters typed. After selecting the tag, click **Next**. The **Patient Information** window opens.
5. In the **Patient Information** window, make the necessary changes to the data for this infant. Review the entered information for accuracy, and then click **Next**. The **Completing the Edit Information** Wizard window opens.
6. In the Completing the Edit Information Wizard, verify that the **Patient Info**: is correct and complete. If any of the information is not correct:
   - ❖ Click **Back** to return to previous windows for corrections, or
   - ❖ Click **Cancel** to close the Wizard without saving the edited information.

   If you are satisfied with the displayed information:
   - ❖ Click **Finish** to save the edited information for this patient and close the Edit Information Wizard, or
   - ❖ Click **Next** to save the edited information for this patient and begin editing another patient.

Disabling A Tag:

1. At any HALO® screen, click **Disable**. The **Disable Assigned Tag Wizard** logon window opens.
2. Enter your User Name and Password (refer to Start a Wizard above), then click **Next** or press **Enter**. The Patient Selection window opens. The tag list is populated with assigned infant and tags.
3. To select the tag:
   Scroll through the list and select the desired tag, or
   Type the tag's number into the **Tag/Patient Info:** box, or
   Type the patient's last name into the **Tag/Patient Info:** box.

Disabling A Tag (Cont'd):

As the name is typed, the highlight progressively selects the row containing the letters typed.

4. In the Disable Period window, select the length of time for which this tag is to be disabled.

5. Click Next. The Completing the Disable Assigned Tag Wizard window opens.

6. In the Completing the Disable Assigned Tag Wizard window, verify that the tag information and disable patient are correct. If any of the information is not correct:
   - ❖ Click Back to change the time period in the previous window, or
   - ❖ Click Cancel to close the Wizard without disabling the tag.

   If the displayed information is correct:
   - ❖ Click Finish to disable this tag and close the Disable Assigned Tag Wizard, or
   - ❖ Click Next to disable this tag and begin disabling another tag.

   The tag is immediately disabled for the specified period.

7. The time period of a disabled tag can be extended by re-entering the Disable Wizard and selecting a new time period. HALO® restarts the disable period using the new time.

Discharging An Infant:

1. At any HALO® screen, click Discharge. The Discharge Wizard logon window opens.

2. Enter the User Name and Password (see above), then click Next or press Enter. The Patient Selection window opens.

3. Place the tag on the Tag Link and click the Tag Link button. (Make sure the Tag Link is at least 24 inches from the console PC or monitor to ensure best results.) The Tag Turn OFF window opens.

4. In the Tag Turn OFF window, select the check boxes beside the messages to be turned off. To turn off all messages, select the check box beside Turn OFF Tag. All message boxes are checked and cannot be unchecked.

5. After the selected items have been checked off, click Turn OFF. The selected items are turned off (this may take several seconds), and the Completing the Discharge Wizard window opens.

6. In the Completing the Discharge Wizard window, verify that the Patient Info: is correct, and that the appropriate messages have been turned off (if the Tag Turn On and OFF feature was utilized).
   - ❖ Click Finish to discharge this infant and close the Discharge Wizard, or
   - ❖ Click Next to discharge this infant and begin discharging another infant.

7. Return the tag for cleaning and storage within the foil bag and in the tag rack.

RESPONDING TO ALARMS

Accepting Alarms at a Console or Server:

1. Verify/Delegate a specific staff member to respond to the location of the alarm and intervene as warranted.
2. At the server PC or console PC displaying the alarm, click the description of the alarm to select it. NOTE: If there is more than one alarm that is to be accepted with the same annotation, press and hold the Shift or Ctrl keys while selecting alarms.
3. Click **Accept Alarm**, or double-click the alarm description in the alarm panel. The **Accept Alarm Wizard** logon window opens.
4. Enter the User Name and Password (refer to above), then click **Next** or press **Enter**. The **Alarm Note** window opens, displaying the alarm or alarms that have been selected.
5. In the **Notes** field, type in the reason for the alarm(s), or click the arrow and select an annotation from the list.
6. Click **Finish** to accept the alarm(s) and close the wizard.

Muting Alarm Sounds:

1. At the HALO® console PC that generated the alarm, click **Mute**. The alarm sound is turned off, and the Mute button changes to its activated state. If the alarm is not accepted within 5 minutes, or another alarm is received, the sound is automatically turned on again, and the Mute button reverts to its normal state.

References:

VeriChip. (2006). HALO® System Manual.

ADDENDUM T

ERYTHROMYCIN OPHTHALMIC ADMINISTRATION

Purpose: To comply with the State of California law and the standard of care for ophthalmic prophylaxis (gonococcal ophthalmia neonatorum) in all newborns.

Policy: At LAC+USC Medical Center, all newborns received sterile erythromycin (0.5%) ophthalmic ointment to both eyes within one hour of birth or just after the first breastfeeding. When the newborn's eyelids are fused because of extreme prematurity, note on the Kardex that the erythromycin ointment will need to be given at the first opportunity when the eyelids are no longer fused.

Procedure:

1. NICU physician will order Erythromycin ointment administration.

2. Obtain and open a single-use tube of sterile erythromycin (0.5%) ophthalmic ointment from Pharmacy.

3. Place a 1-cm ribbon of the ointment in the lower conjunctival sac of each eye.

4. If for any reason the erythromycin has not been given (as when eyelids are fused), this information will be part of every shift report until the administration can be completed.

Documentation:

- Medication administration to be documented on the infant's Medication Administration Record (MAR).

- When the ointment cannot be given because of eyelid fusion, the medication entry on the MAR will be recopied each day on the new MAR until the ointment is administered.

References:

The American Academy of Pediatrics and The American College of Obstetricians and Gynecologists. (2017). Guidelines for Perinatal Care, 8th edition American Academy of Pediatrics.

ADDENDUM TT

MOTHER-INFANT IDENTIFICATION

1. **Purpose**

   To properly identify each newborn infant to its proper mother immediately after birth. While mother and infant are still in the delivery room, and while transferring mother and infant to the perinatal and pediatric units, and for infants born on other services (i.e., gyn, surgical).

2. **Who May Do**

   Nursing staff who have been oriented to the procedure.

3. **Observation and Safety Factors**

   a. **NEVER** separate mother and infant until identified, which consists of:

      1) Ident-a-bands applied

      2) Dummy tag **only** when critical condition of newborn warrants expedient transfer to Neonatal Intensive Care Unit. The tag number is documented on the delivery record. Bands are applied to infant and mother.

   b. Show and explain purpose of band/tags to mother whenever maternal condition permits.

   c. Tags should be applied snugly - not too tight so as to cut off circulation and not too loosely so that they will fall off.

   d. Gender (sex) of infant to be observed and verified with the mother by circulator before recording, when mother and infant's condition permits.

   e. All three tags, infant ID band, cord blood labels, and identification information **must** be read and verified by two persons with the Delivery Record and must be initialed on the delivery record.

   f. Identification tags are placed on mother and infant prior to leaving the LDR/OR/ER.

ADDENDUM TT (Cont'd)

MOTHER-INFANT IDENTIFICATION (Cont'd)

3. **Observation and Safety Factors** (Cont'd)

   g. Identification tags must be read and verified by two persons whenever:

      1) They are initially placed on mother and infant

      2) Infant is admitted to Post Partum or NICU (including observation/ verification of sex)

      3) Infant is discharged

   h. Ident-a-bands must be read and verified by nursing staff whenever infant is taken to mother.

   i. If necessary to remove a band due to medical condition, set must be replaced. (See #5 procedures).

   j. Infants transferred to the NICU must have at least one ID tag dummy tag <u>on</u> before leaving the delivery room.

   k. Mother of infant transferred to NICU must have on the mother's dummy tag/ ID tag prior to leaving the delivery room.

4. **Equipment**

   - One page of matching OB Identification Bands (2 adult bracelets, 2 infant bracelets, 2 infant flag type tags). See attachment A.
   - 1 comfy cuffs (for NICU admissions) with 2 ID tags.
   - One set of 3 matching clear dummy tags (for emergency NICU admissions only).

5. **Procedure**

   a. Upon delivery of infant, the nurse enters the date and time of birth and sex of infant in the designated fields of the electronic delivery record. The clerk then:

      1) Registers the newborn in Affinity using the newborn registration menu item (infants born outside the hospital will be issued a MRUN, admission, and bed number by PFS).

ADDENDUM TT (Cont'd)

MOTHER-INFANT IDENTIFICATION (Cont'd)

5. **Procedure (Cont'd)**

2) Issues a bed number

3) Records MRUN #, and tag #, in Delivery Record.

4) Places identification band sheet in printer and generates matching mother-infant tags using the mother-baby band menu item in Affinity. Tags will print out with mother's name, MRUN, and infant's MRUN, sex, and date and time of birth, and birth order if multiple birth.

5) The nurse will read and verify information on tags, including spelling of mother's name, infant ident-plate, and cord blood labels with the electronic Delivery Record for accuracy with the L&D clerk; both persons will initial delivery record.

1) Clerk will read from delivery record while nurse verifies information on tags, ident-plate, and cord blood labels
NOTE: in instances when a downtime number has been issued the clerk will obtain the downtime number from PFS and complete bands with inserts.

2) Then, nurse will read from delivery record while clerk verifies information on tag inserts, ident plate, and cord blood labels.

b. Separate bands from sheet.

c. Show and explain the purpose of tags to mother whenever maternal condition permits or significant other if mother is not alert.

d. Place the one adult band snugly around the mother's wrist and attach securely close band. (This includes dummy tags.)

e. Place one infant band snugly around infant's wrist and ankle. Place one finger between the infant's skin and tag; pull tag snugly and fasten.

ADDENDUM TT (Cont'd)

MOTHER-INFANT IDENTIFICATION (Cont'd)

5. **Procedure** (Cont'd)

f. Upon transfer of mother and infant to the perinatal units/pediatric unit, the following procedure is to be followed:

1) Transporter shall read the mother's ID band and the delivery record from the mother's chart to the nurse who is accepting the infant, i.e., read the sex, patient's name, mother's MRUN #, infant's MRUN #, date and time of delivery, and tag number.

2) The nurse who is accepting the infant shall visually inspect the infant's sex (gender), check both of the infant's ID bands as well as delivery record from the infant's chart for the sex, mother's name and MRUN #, date and time of delivery and tag number. Nurse accepting will also assess proper fit of bands.

3) If there is any incorrect information on the I.D. bands and/or delivery record, or improper fit of both ident bands, all of the mother's and baby's chart may be returned to L&D for correction, according to the receiving unit's Charge Nurse's discretion, who will then notify the sending unit's charge nurse of the need for the correction. It is the responsibility of the sending unit to correct the incorrect information.

4) If the mother and baby are returning to L&D for correction, the postpartum nurse should document on the infant's chart progress note the reason why infant was not accepted to this ward (and notify the nurse in charge on both units.).

5) No infant or mother will be admitted to the postpartum ward with incorrect ID bands and/or delivery record.

6) Upon admission to the postpartum floor, once all the tags and delivery records have been verified as being correct, the admitting nurse nursery and the transporter will sign on the Nursing Care and Treatment Flow Sheet-Newborn in the designated place. (Transfer to, date/time, verified to, date/time, verified by section).

ADDENDUM TT (Cont'd)

MOTHER-INFANT IDENTIFICATION (Cont'd)

5. **Procedure** (Cont'd)

f. Upon transfer of mother and infant to the perinatal units/pediatric unit, the following procedure is to be followed: (Cont'd)

7) When tags are taken to NICU for infants admitted to the NICU, the following procedure will be followed:

a) Tags (Dummy and new tags) and delivery record will be verified as being correct by the NICU and L&D nurse.

b) Verification of tags will be documented on the neonatal flowsheet, i.e., 12/07/94 at 0600 tags verified by _____RN/_____RN.
Dummy tags will then be removed by NICU nurse and stapled to the flow sheet. L&D nurse will then tag mother after verifying information with delivery record and mother's ident band and place tag on mother. Dummy tag will then be removed and stapled to the progress note in the mother's chart.

8) In the event that the tags must be changed after the infant and mother have been separated, the following procedure is to be followed:

a) Investigate and complete appropriate reports.

b) Notify the Nursing Supervisor or Nurse Manager.

c) Document in the Patient Medical record.

d) All inpatient records are to indicate new tag number and correct information, but old information **must be legible. Never erase or eradicate.** Draw a single line through the error, date and sign. Correct the information in the electronic medical record.

e) Original tags are to be removed in the presence of the mother, and the new tags applied in the presence of the mother.

f) Original tags are to be stapled to the patient's record and are not to be destroyed or given to the patient.

g) New identification tags must be verified as defined in this procedure.

ADDENDUM TT (Cont'd)

MOTHER-INFANT IDENTIFICATION (Cont'd)

6. Charting

   a. Record OB tag number and baby MRUN # on Delivery Record. Dummy tag number must be recorded on the delivery record and designated as such prior to transfer to the NICU.

   b. Signatures for initial placement reading and admissions to nurseries will be documented on newborn care and treatment flow sheet, except as stated in 7b above for NICU admissions.

7. **Procedure for identing infants born off service (other area in Medical Center) will be as follows:**

   a. Mother and infant will be tagged using dummy (blank) tag set (plastic bands).

   b. Staff delivering infant will call x3302 and notify clerk of delivery, mother's name and MRUN, sex of infant, time and date of delivery.

   c. 3B clerk will notify bed control and request transfer of mother to WOB service, give bed control 3B bed #.

   d. 3B clerk registers infant

   e. Notify bed control or fax transfer back to originating service

8. **Procedure for identing infants by issuing downtime MRUN and account number will be as follows:**

   a. Upon delivery of infant, Patient Financial Services will:

      1) Issue the MRUN and account number; give number to clerk who will read back.

      2) The L&D clerk will record the Downtime MRUN and tag number on Delivery Record.

      3) Complete matching plastic tags with paper inserts with handwritten information listed in 5 a. #4.

      4) Continue mother-infant identification procedure as specified in 5a.

ADDENDUM TT (Cont'd)

MOTHER-INFANT IDENTIFICATION (Cont'd)

8. **Procedure for identing infants by issuing downtime MRUN and account number will be as follows: (Cont'd)**

   b. The nurse will read and verify downtime MRUN and account number for accuracy with the L&D clerk.

      1) Clerk will read MRUN from the downtime Master Card while the nurse verifies information on the Delivery Record.

      2) Then, nurse will read from the downtime Master Card while clerk verifies information on Delivery Record.

   c. Once downtime MRUN is verified, the nurse and clerk can proceed with verification procedure for information on tag inserts, and Delivery record as specified in 5a.

   d. Upon system upload, PFS will proceed with admitting infants who were given downtime numbers by entering and filing information including MRUN and account number information from Master Card using retro date and time into Affinity.

   e. Ensure mother is admitted in Affinity to WOB service (if not, notify PFS).

   f. Select Edit Mother Baby link and enter information.

   g. Print new set of tags and correct tag number on delivery record.

   h. Place new tags on mother and infant as in 5g 8a-h.

   i. If mother has been discharged from Affinity before downtime numbers have been filed, Admission Office/Bed Control is to be notified at X5955 for reactivation of mother's account.

   j. Once mother's account has been reestablished, proceed with entering downtime numbers as stated in 9e.

9. Procedure for babies born off hospital grounds.

   a. Mother and infant are registered separately by PFS.

   b. Link mother and baby using "Edit, Mother Baby Link" procedure (menu item).

ADDENDUM U

FAMILY CENTERED CARE

Purpose: The parent/guardian's involvement includes activities of daily living, collaboration in setting goals, interventions and expected outcomes, home health care planning, and selected patient care. Educational considerations include the infant's length of stay, community resources, cultural and religious practices, emotional barriers, desire and motivation, physical and/or cognitive motivation or barriers and language barriers. Educational content includes developmental stages of the infant medications, equipment, drug interactions, nutrition, rehabilitation, responsibilities in the treatment process and how and when to seek further treatment.

Policy: Family-Centered Care (FCC) is the concept that acknowledges, recognizes, and facilitates the parent/guardian as an integral factor in the infant's care from admission through discharge. The NICU multidisciplinary staff presents a linguistically and culturally sensitive interdisciplinary team approach to educating the parents/family in the new role as primary advocate for the critically ill infant.

Multidisciplinary Team Approach:

1. The Multidisciplinary Team includes (but is not limited to): Medicine, Nursing, Social Services, Respiratory, Dietician, Pastoral Care, Utilization Review, and Physical/Occupational Therapy.

2. The Multidisciplinary Team will participate in the plan of care for the patient and family. Each discipline will provide, encourage, and facilitate the education and participation of the family unit to ensure all physical and psychosocial needs of the patient and families are met.

Culturally Sensitive Care:

1. Recognize, honor, and respect the cultural diversities of the child and family unit.

2. Allow the practice of cultural diversity as long as the condition of the patient is not compromised.

Family/Professional Collaboration

1. Provide an atmosphere that is non-threatening where the exchange of information between the family and health care team can occur.

2. Develop a trusting and respectful relationship with the family through an open communication in a collaborative environment.

3. Identify support systems and coping strategies of the family unit

4. All NICU staff are expected to provide consistent information and education to the family to ensure their ability to make informed decisions, provide appropriate and necessary care and advocate for their child.

5. Information and education provided can be in the form of verbal interaction, written material, and return demonstration.

ADDENDUM U (Cont'd)

FAMILY CENTERED CARE (Cont'd)

Family/Professional Collaboration (Cont'd)

6. During family conferences, allow and encourage parental input regarding the care of their infant, their expectations, their participation, and decision making for their infant.

Consideration For Family Presence During Procedures and Resuscitation

1. Consideration for parental presence during procedures and resuscitation.

   a. Parental presence will be offered based on the consideration of the below:
      - Parental desire
      - Reaction of parent(s)
      - Nature of the procedure or resuscitation measures
      - Medical staff judgment

   b. If presence of the parent(s) interferes with the procedure/resuscitation then parent(s) may be asked to leave.

   c. Parent(s) who exhibit outburst of hysterical behavior, physical interference with medical actions, or other types of disruptive behavior may be required to leave the room.
      - Agreed Parental Presence:
        - If time allows explain to the parent, what parent(s) are about to see will be explained
        - Parent(s) will be supported by a staff member (who can include a physician, a nurse, a social worker, or a pastoral care staff member) and will be able to ask questions of that staff member
      - Staff member will announce to the healthcare team that family member is present.

Advocacy and Empowerment

1. All staff have the professional responsibility to act as advocates for the patient and family unit.

ADDENDUM U (Cont'd)

FAMILY CENTERED CARE (Cont'd)

References:

1. Family Centered Care Map, http://www.fccmap.org

2. Kenner, C., & Wright, J. (2007). Comprehensive Neonatal Nursing Care: An Interdisciplinary Approach. Elsevier Science.

3. Institute for Family-Centered Care. http://www.familycenteredcare.org

4. McGrath, J.M. (2003). Family-Centered Care. In Kenner, C., & Lott, J.W. Comprehensive Neonatal Nursing: A Physiologic Perspective, 3rd edition. Saunders.

5. Stokowski, L. A. (2005). Family-Centered Care: Not Quite There Yet? Advances in Neonatal Care, 7(2): 4.

ADDENDUM UU

PRENATAL EXPOSURE TO SUBSTANCE ABUSE

PURPOSE: Evaluating and reporting cases that involve prenatal drug and alcohol exposure. California law (SB 2669, Chaptered 1603, Statutes of 1990) mandates that any indication of maternal substance abuse shall lead to an assessment by a health care practitioner or medical social worker of the needed services of the mother and infant prior to discharge of the infant from the hospital.

POLICY: An assessment must be done in all situations in which an infant is born to a mother who has signs/symptoms or other indicators of substance abuse, or if the infant has signs suggestive of prenatal drug/alcohol exposure. Prenatal exposure should be considered when a constellation of factors is present and in the absence of other medical causes:

- Positive toxicology screen for un-prescribed medications or drugs
- Excessive tremulousness
- Poor feeding
- High-pitched cry
- Seizures
- Lethargy
- Vomiting
- Watery stools
- Small for gestational age
- Prematurity
- Diaphoresis
- Physical stigmata of fetal alcohol syndrome (refer to the latest edition of *Smith's Recognizable Patterns of Human Malformation* by Kenneth Jones)
- Frantic sucking
- Fever/unstable temp

The Medical Center must complete all required assessment forms prior to submission to the Department of Children and Family Services (DCFS). In addition, it is recommended that the Medical Center conduct a confirmatory test, and to disclose the result to DCFS. DCFS will not automatically conduct a confirmatory test on all referrals. Information provided by the Medical Center represents a portion of DCFS' investigation and is utilized to assist in determining if an infant is in immediate danger, or if the infant is at risk of abuse and/or neglect, and if the infant requires placement in protective custody.

PROCEDURE: The following steps shall be taken in these situations:

1. Signs of prenatal drug/alcohol exposure in the infant shall be documented in the infant's medical record.

2. A toxicology screen for the infant shall be ordered and the results discussed with the parent(s).

ADDENDUM UU (Cont'd)

PRENATAL EXPOSURE TO SUBSTANCE ABUSE (Cont'd)

PROCEDURE: The following steps shall be taken in these situations: (Cont'd)

3. The required assessment shall minimally include the factors set forth in the "Newborn Risk Assessment" form (available from DCFS). An explanatory comment must be noted for each risk factor (as explained on the reverse of the DCFS form). This assessment must be done prior to the infant's discharge and is the responsibility of the NICU MSW. A photocopy of this form is placed in the medical record.

4. Child protective services shall be notified immediately by the MSW when the assessment leads to suspicion of child endangerment due to the presence of or interaction of the infant, parent, and environmental risk factors.

5. The MSW notifies Los Angeles County Sheriffs Department that a "hospital hold" has been placed on the infant.

6. The MSW will also complete the Suspected Child Abuse Report form (SS-8572) from DCFS and place a photocopy on the medical record.

7. The completed Newborn Risk Assessment form along with the Suspected Child Abuse Report form is faxed to DCFS.

8. To ensure that the completed forms and information are received by DCFS, the hard copies are mailed by postal service to DCFS.

9. Upon discharge of the infant (to foster placement, home, or DCFS custody), the MSW notifies the Los Angeles County Police of the exact location to which the infant was discharged.

References:

Garcia, J. (2008). Evaluating and reporting cases on pre-natal drug and alcohol exposure. Letter from Hospital Association of Southern California to all Los Angeles Hospital CEOs, Medrano-Bailey, Antonietta, MSW, LCSW (personal communication, 2008).

ADDENDUM V

FIRE AND DISASTER PLAN

General Purpose:

1. Evacuation/relocation will be undertaken only when authorized by the Command Post/Incident Commander.
2. All personnel are to be prepared for immediate instructions to evacuate patients.
3. The NICU team will assume command of all evacuation activities in their area(s), ensuring staff and patient evacuation.
4. Each bedside NICU nurse will ensure evacuation of those infants assigned to her/him, Kardex to accompany each infant.
5. Patients in immediate danger are moved first.
6. Hospital identification bands or tags must be worn by all patients being evacuated.
7. Medications and medical charts should accompany patients if the situation permits.
8. DO NOT use elevators (unless directed to do so by the Command Post/Incident Commander.
9. All windows and doors should be closed in the evacuated areas.
10. Vacated rooms and restrooms should be checked to ascertain that all have been evacuated.
11. Panic and confusion can be avoided by each employee's familiarity with evacuation procedures.

Key Points:

1. Maintain only basic life support. Other non-supportive measures can follow if there is sufficient time.
2. If oxygen is in use in the area of the fire, the Charge Nurse, Lead RCP, and/or physician will evaluate each infant's needs.
3. Evacuation problems unique to a newborn intensive care unit (NICU) involve infants with the following medical problems:

    a. Infants within an oxygen enriched environment which may include the following:

    - Oxygen delivered by hood, nasal cannula, nasal pharyngeal continuous positive airway pressure (CPAP).
    - Oxygen delivered by endotracheal tube or tracheostomy tube where the infant is usually dependent on a mechanical ventilator for respiratory support.

ADDENDUM V (Cont'd)

FIRE AND DISASTER PLAN (Cont'd)

Key Points: (Cont'd)

3. Evacuation problems unique to a newborn intensive care unit (NICU) involve infants with the following medical problems: (Cont'd)

    b. Infants with pleural cavity decompression (pneumothorax) or mediastinal decompression (pneumopericardium or pneumomediastinum).

    c. Infants with central lines, intra-arterial and intravenous catheters.

4. Outline of steps recommended to be followed during evacuation of the NICU:

    a. Turn off oxygen after evaluation, if in immediate fire area. Ventilation with room air can be continued until other support equipment is removed. If not in immediate fire area, this can be turned off as soon as a mobile oxygen supply is connected.

    b. Unplug all attached electrical support equipment.

    c. Alaris IV pumps run on battery and can be transported with the patient for evacuation. Secure IV tubings to the patient prior to evacuation.

    d. Disconnect from the wall air/oxygen pressurized sources, the oxygen tubing attached to manual bag and mask and attach to the portable oxygen E tank (RCPs will make full tanks available and arrange for regulator connections). Evacuate the infant with his/her incubator from the NICU area.

    e. If fire is within a patient's support equipment (incubator motor), oxygen again should be turned off first followed by immediate unplugging of incubator. The infant should then be physically removed from the incubator before other fire control procedures are undertaken.

    f. When establishing care in areas outside of the fire area, reconnect support devices in order of their importance: chest tube, warmth, ventilator, I.V., etc.

5. Evacuate horizontally first to the opposite room of the NICU from the fire source.

ADDENDUM V (Cont'd)

FIRE AND DISASTER PLAN (Cont'd)

Key Points: (Cont'd)

6. If necessary, evacuation to the outside of the building will occur using the nearest exit door 3H351 from the acute room:
    - Non critical infants are to be evacuated first using evacuation apron. Four infants per apron, not to exceed 40 pounds.
    - Critical infants to be evacuated using the bed in which they are assigned. Infant can be placed in any available open crib with transport O_2 attached.
    - Unit evacuations should preferentially all use the door 3H351 and exit stair C3 which goes directly outside. Intermediate room patients will cross through the acute room to reach to outside of the building. Proceed up driveway to meet in parking lot behind Outpatient Building.
    - Secondarily if the access to door 3H351 and exit stair C3 is blocked should patients be removed via door 3H251 and exit stair C3 which will involve decent via stair one level to reach the outside of the building meeting outside in the courtyard.
    - Two assigned employees to carry open crib down the stairway with an RCP or RN maintaining patient's airway.

Handling of Special Equipment

1. Cardiorespiratory, blood pressure, oximeter, transcutaneous, temperature monitors (e.g., Phillips):
    - Remove modules from monitor docking keeping cables and electrodes connected.
    - Place modules in bed with patient.

2. Nasogastric (NG) suction - Disconnect from wall suction.

3. Chest tube to suction:
    - Disconnect tubing at source of suction, maintaining all chest tube drainage system connections to chest tube for water seal.
    - Maintain the chest tube drainage system lower than patient's chest and thoracic tube.

ADDENDUM V (Cont'd)

FIRE AND DISASTER PLAN (Cont'd)

Handling of Special Equipment (Cont'd)

4. Intravenous infusions and Alaris pumps

   a. Obtain portable IV stand(s) from storage on the intermediate side and the isolation rooms and bring as needed to the bedside:

      - Unplug IV pumps and coil electrical cords into snap lock straps to prevent dragging on the floor with evacuation.
      - Secure the Alaris pumps to the portable IV stands(s).
      - Reassess settings on pump in battery mode prior to evacuation.

   b. If Alaris pump(s) can not be placed on portable stand:

      - Clamp off tubing(s), then turn off pump(s) and disconnect tubing(s) from pumps.
      - Place IV bag(s) and tubing(s) in the bed; secure tubings to infant prior to evacuation.

5. Incubator:

      - Bundle infant in warmed blanket(s).
      - Unplug incubator.

6. Ventilators:

      - Disconnect ventilator tubing at tracheostomy or ET tube connection and connect tubing from manual resuscitation device to continue ventilatory and oxygen support (using oxygen tanks as needed).
      - Manually ventilate patient as needed while evacuating.

7. Discontinuing/removing ventilators from bed space area:

      - Shut off ventilator by turning power knob to the off position and depress silence button
      - Disconnect both oxygen and air pressurized hoses from wall outlets and electrical power cord from wall outlet.
      - Drape ventilator circuit, hoses, and electrical cord over ventilator and roll device to safe area(s).

ADDENDUM V (Cont'd)

FIRE AND DISASTER PLAN (Cont'd)

Handling of Special Equipment (Cont'd)

8. Disconnecting nasal oxygen and free flow devices:
    - Nasal cannula can be attached directly to the regulator of the portable oxygen cylinder.
    - For other devices, remove the device from the patient, and attach the manual bag with mask and tubing to nipple on the regulator on portable oxygen cylinder.
    - Keep bag and mask with oxygen flow close to patient's face while evacuating.

9. Transcutaneous monitor:
    - Transcutaneous monitors for oxygen and carbon dioxide at skin levels can be removed and reapplied in the evacuation area(s) as needed.
    - Remove oxygen and carbon dioxide cable and module from the monitor docking and place in infant's bed for evacuation.

10. Enteral pumps:
    - Shut off pump.
    - Disconnect pump from electrical wall outlet
    - Place pump in incubator/warmer/open crib for evacuation.

11. Infant's medications
    - Continuous infusion medications (dopamine, insulin, etc.), are to continue infusion via Alaris pump in battery mode.
    - Intermittent infusion medications can be completed in route of evacuation.
    - Take infant's current flush solution.
    - Pharmacy will provide additional medications in the evacuation area(s).

References:

1. LAC+USC Healthcare Network: Fire Life Safety & Emergency Preparedness Training Handbook, 2004.

2. Healthcare Fire Safety Roundtable Report, 2004. http://www.fire.gov/newsletter/winter2005/IAFC_RdTable/healthcare.pdf

ADDENDUM VV

RETINOPATHY OF PREMATURITY (ROP)

Purpose

Retinopathy of Prematurity (ROP) is a vaso-proliferative disorder of the retina among preterm infants. ROP can progress to a tractional retinal detachment, which can result in functional or complete blindness. Timely screening, treatment and follow-up of ROP can prevent blindness and minimize vision abnormalities.

Policy

In accordance to the American Academy of Pediatrics (AAP) Policy Statement in Screening Infant for ROP (2012), preterm infants and selected infants at risk of developing ROP are screened for ROP. See Chart I, Chart II, Chart III, and Chart IV for ROP screening protocol, initiation criteria, follow-up and conclusion of acute retinal screening criteria. Captured images, findings and interpretation, parental education, as well as clinical input and treatment (See Chart V) are incorporated into permanent medical record and communicated in a manner that is compliant with rules of the Health Insurance Portability and Accountability Act (HIPAA). Should such infants discharged or transferred to another facility, the primary physician ensures the availability of appropriate follow-up and makes specific arrangement for that examination before discharge or transfer occurs.

Definition

Retinopathy of Prematurity (ROP) was formerly known as Retrolental Fibroplasia which results from incomplete vascularization of the retina in premature infants. The extent and the severity of the immaturity of the retina depend on the degree of infant's prematurity at birth. The goal of an effective ROP screening is to identify infants who could benefit from treatment and make appropriate recommendations on the timing of future screening and treatment interventions.

Procedure

1. Eye examinations are done by ophthalmology consultation.

2. Prior to eye examination, administer Neonatal Mydriatic Solution as ordered.

3. Utilize sterile equipment during eye examination to avoid possible cross-contamination of infectious agents.

4. Ophthalmologist pre-treats infants' eye with a topical anesthetic agent.

5. Offer Non-Nutritive Sucking and Sweet–Ease (requires medical order) to infants during examinations to minimize discomfort and systemic effect of the ROP examination.

ADDENDUM VV (Cont'd)

RETINOPATHY OF PREMATURITY (ROP) (Cont'd)

Procedure (Cont'd)

6. Position the infant for examination securely and assist the ophthalmologist with the procedure.

7. Document medications administered on Medication Administration Wizard (MAW).

8. Using NPASS Scale (see Chart VI), document infant's pain scale in the nursing flowsheet.

Documentation

Medication administration to be documented on Medication Administration Wizard (MAR). Documentation includes pain scale during and after procedures, interventions used for pain relief and infant's response to intervention. Documents bedside procedure in ORCHID.

Chart 1: Screening Protocol

Infant with birth weight less than or equal to 1500 grams
Infant with gestational age of 32 weeks or less as defined by the attending neonatologist
Selected infants with a birth weight between 1500 and 2000 grams with unstable clinical course and who are believed by the attending neonatologist to be at high risk for ROP
Infants with gestational age greater than 32 weeks with unstable clinical course and who are believed by the attending neonatologist to be at high risk for ROP

ADDENDUM VV (Cont'd)

RETINOPATHY OF PREMATURITY (ROP) (Cont'd)

Chart II: Timing of First Eye Examination Based on Gestational Age at Birth

Gestational Age at Birth (week)	Age at Initial Examination (week) Postmenstrual	Age at Initial Examination (week) Chronological
22 weeks	31 weeks	9 weeks
23	31	8
24-27	31	4-7
28+	32+	4
Older gestational age, high-risk factors	Consider timing based on severity of comorbidities	4

Chart III: Follow-up Schedule:

1-Week or Less Follow-up	1-to 2-Week Follow-up	2- to 3-Week Follow-up
Immature vascularization: Zone 1 – no ROP;	Immature vascularization; posterior zone II	Stage I or 2 ROP: zone III
Immature retina extends into posterior zone II, near the boundary of zone 1	Stage 2 ROP: zone II	Regressing ROP: zone III
Stage 1 or 2 ROP: zone 1	Unequivocally regressing ROP; zone I	
Stage 3 ROP: zone II		
The presence or suspected presence of aggressive posterior ROP		

ADDENDUM VV (Cont'd)

RETINOPATHY OF PREMATURITY (ROP) (Cont'd)

Chart IV: Termination of ROP Examination:

Zone III retinal vascularization attained without previous zone I or II ROP
Full retinal vascularization in close proximity to the ora serrata for 360 degrees
Postmenstrual age of 50 weeks and no prethreshold or worse ROP is present
Regression of ROP

Chart V: Retinal Findings Requiring Peripheral Retinal Ablation Treatment:

Zone I ROP: any stage with plus disease
Zone 1 ROP: stage 3 – no plus disease
Zone II: stage 2 or 3 with plus disease

ADDENDUM VV (Cont'd)

RETINOPATHY OF PREMATURITY (ROP) (Cont'd)

Chart VI: NPASS Scale

N-PASS:
Neonatal Pain, Agitation, & Sedation Scale

Pat Hummel, MA, RNC, NNP, PNP & Mary Puchalski, MS, RNC

Assessment Criteria	Sedation		Normal	Pain / Agitation	
	-2	-1	0	1	2
Crying Irritability	No cry with painful stimuli	Moans or cries minimally with painful stimuli	Appropriate crying Not irritable	Irritable or crying at intervals Consolable	High-pitched or silent-continuous cry Inconsolable
Behavior State	No arousal to any stimuli No spontaneous movement	Arouses minimally to stimuli Little spontaneous movement	Appropriate for gestational age	Restless, squirming Awakens frequently	Arching, kicking Constantly awake or Arouses minimally / no movement (not sedated)
Facial Expression	Mouth is lax No expression	Minimal expression with stimuli	Relaxed Appropriate	Any pain expression intermittent	Any pain expression continual
Extremities Tone	No grasp reflex Flaccid tone	Weak grasp reflex ↓ muscle tone	Relaxed hands and feet Normal tone	Intermittent clenched toes, fists or finger splay Body is not tense	Continual clenched toes, fists, or finger splay Body is tense
Vital Signs HR, RR, BP, SaO_2	No variability with stimuli Hypoventilation or apnea	< 10% variability from baseline with stimuli	Within baseline or normal for gestational age	↑ 10-20% from baseline SaO_2 76-85% with stimulation – quick ↑	↑ > 20% from baseline SaO_2 ≤ 75% with stimulation – slow ↑ Out of sync with vent

Premature Pain Assessment
+ 3 if < 28 weeks gestation / corrected age
+ 2 if 28-31 weeks gestation / corrected age
+ 1 if 32-35 weeks gestation / corrected age

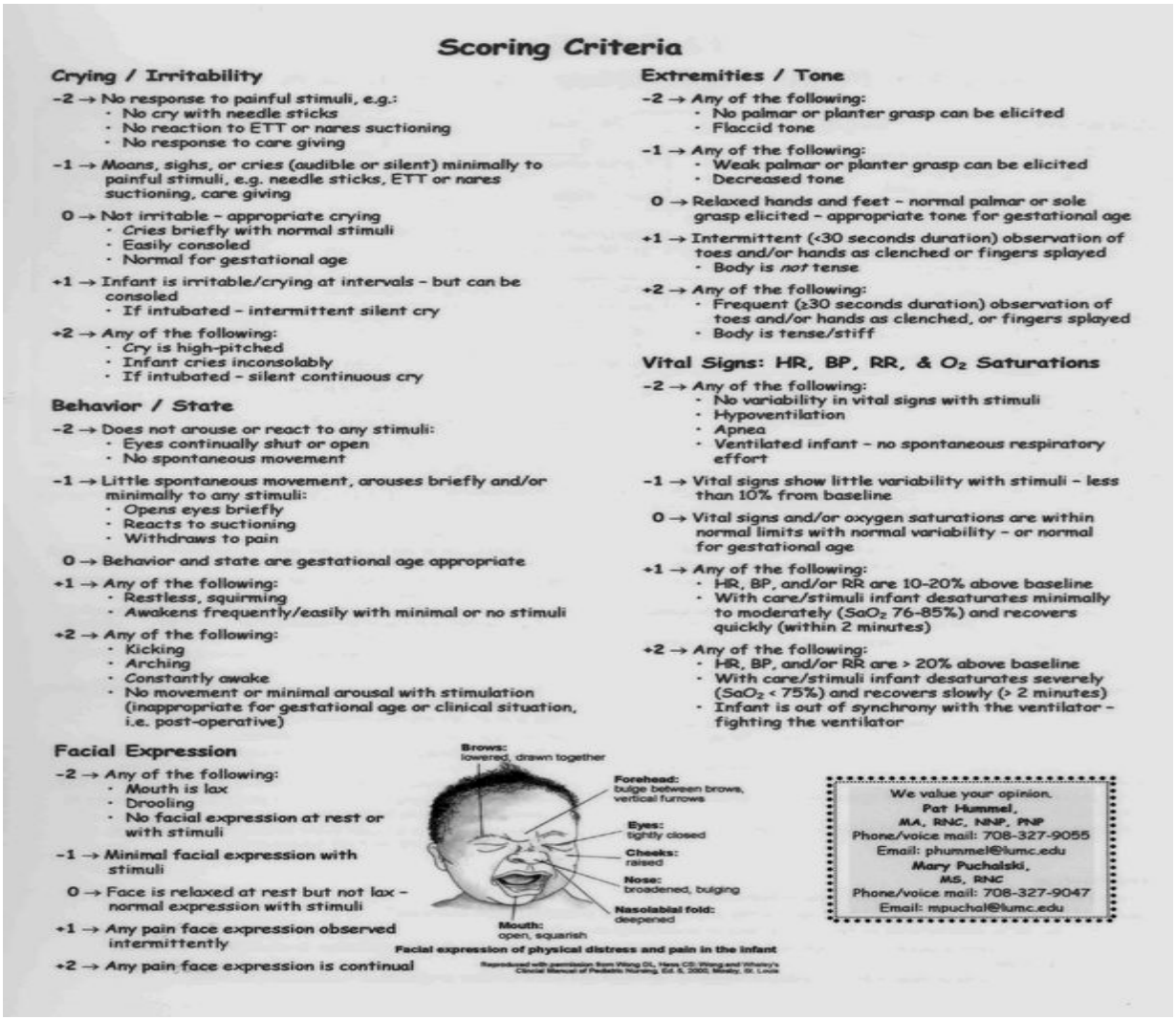
Assessment of Sedation
- Sedation is scored in addition to pain for each behavioral and physiological criteria to assess the infant's response to stimuli
- Sedation does not need to be assessed/scored with every pain assessment/score
- Sedation is scored from 0 → -2 for each behavioral and physiological criteria, then summed and noted as a negative score (0 → -10)
  - A score of 0 is given if the infant's response to stimuli is normal for their gestational age
- Desired levels of sedation vary according to the situation
  - "Deep sedation" → score of -10 to -5 as goal
  - "Light sedation" → score of -5 to -2 as goal
  - Deep sedation is not recommended unless an infant is receiving ventilatory support, related to the high potential for apnea and hypoventilation
- A negative score without the administration of opioids/ sedatives may indicate:
  - The premature infant's response to prolonged or persistent pain/stress
  - Neurologic depression, sepsis, or other pathology

Assessment of Pain/Agitation
- Pain assessment is the fifth vital sign – assessment for pain should be included in every vital sign assessment
- Pain is scored from 0 → +2 for each behavioral and physiological criteria, then summed
  - Points are added to the premature infant's pain score based on their gestational age to compensate for their limited ability to behaviorally or physiologically communicate pain
  - Total pain score is documented as a positive number (0 → +10)
- Treatment/interventions are indicated for scores > 3
  - Interventions for known pain/painful stimuli are indicated before the score reaches 3
- The goal of pain treatment/intervention is a score ≤ 3
- More frequent pain assessment indications:
  - Indwelling tubes or lines which may cause pain, especially with movement (e.g. chest tubes) → at least every 2-4 hours
  - Receiving analgesics and/or sedatives → at least every 2-4 hours
  - 30-60 minutes after an analgesic is given for pain behaviors to assess response to medication
  - Post-operative → at least every 2 hours for 24-48 hours, then every 4 hours until off medications

Pavulon/Paralysis
- It is impossible to behaviorally evaluate a paralyzed infant for pain
- Increases in heart rate and blood pressure may be the only indicator of a need for more analgesia
- Analgesics should be administered continuously by drip or around-the-clock dosing
  - Higher, more frequent doses may be required if the infant is post-op, has a chest tube, or other pathology (such as NEC) that would normally cause pain
  - Opioid doses should be increased by 10% every 3-5 days as tolerance will occur without symptoms of inadequate pain relief

ADDENDUM VV (Cont'd)

RETINOPATHY OF PREMATURITY (ROP) (Cont'd)



Scoring Criteria

Crying / Irritability

-2 → No response to painful stimuli, e.g.:
- No cry with needle sticks
- No reaction to ETT or nares suctioning
- No response to care giving

-1 → Moans, sighs, or cries (audible or silent) minimally to painful stimuli, e.g. needle sticks, ETT or nares suctioning, care giving

0 → Not irritable – appropriate crying
- Cries briefly with normal stimuli
- Easily consoled
- Normal for gestational age

+1 → Infant is irritable/crying at intervals – but can be consoled
- If intubated – intermittent silent cry

+2 → Any of the following:
- Cry is high-pitched
- Infant cries inconsolably
- If intubated – silent continuous cry

Behavior / State

-2 → Does not arouse or react to any stimuli:
- Eyes continually shut or open
- No spontaneous movement

-1 → Little spontaneous movement, arouses briefly and/or minimally to any stimuli:
- Opens eyes briefly
- Reacts to suctioning
- Withdraws to pain

0 → Behavior and state are gestational age appropriate

+1 → Any of the following:
- Restless, squirming
- Awakens frequently/easily with minimal or no stimuli

+2 → Any of the following:
- Kicking
- Arching
- Constantly awake
- No movement or minimal arousal with stimulation (inappropriate for gestational age or clinical situation, i.e. post-operative)

Facial Expression

-2 → Any of the following:
- Mouth is lax
- Drooling
- No facial expression at rest or with stimuli

-1 → Minimal facial expression with stimuli

0 → Face is relaxed at rest but not lax – normal expression with stimuli

+1 → Any pain face expression observed intermittently

+2 → Any pain face expression is continual

Facial expression of physical distress and pain in the infant

Extremities / Tone

-2 → Any of the following:
- No palmar or planter grasp can be elicited
- Flaccid tone

-1 → Any of the following:
- Weak palmar or planter grasp can be elicited
- Decreased tone

0 → Relaxed hands and feet – normal palmar or sole grasp elicited – appropriate tone for gestational age

+1 → Intermittent (<30 seconds duration) observation of toes and/or hands as clenched or fingers splayed
- Body is *not* tense

+2 → Any of the following:
- Frequent (≥30 seconds duration) observation of toes and/or hands as clenched, or fingers splayed
- Body is tense/stiff

Vital Signs: HR, BP, RR, & O_2 Saturations

-2 → Any of the following:
- No variability in vital signs with stimuli
- Hypoventilation
- Apnea
- Ventilated infant – no spontaneous respiratory effort

-1 → Vital signs show little variability with stimuli – less than 10% from baseline

0 → Vital signs and/or oxygen saturations are within normal limits with normal variability – or normal for gestational age

+1 → Any of the following:
- HR, BP, and/or RR are 10-20% above baseline
- With care/stimuli infant desaturates minimally to moderately (SaO_2 76-85%) and recovers quickly (within 2 minutes)

+2 → Any of the following:
- HR, BP, and/or RR are > 20% above baseline
- With care/stimuli infant desaturates severely (SaO_2 < 75%) and recovers slowly (> 2 minutes)
- Infant is out of synchrony with the ventilator – fighting the ventilator

We value your opinion.
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References:

Hummel, P.A, Puchalski, M.L., Creech, S.D., & Weiss, M.G. (2004). N-PASS: Neonatal pain, agitation, and sedation scale-reliability and validity, 2 (6). Retrieved October 27, 2014 from: http://www.anestesiarianimazione.com/2004/06c.asp

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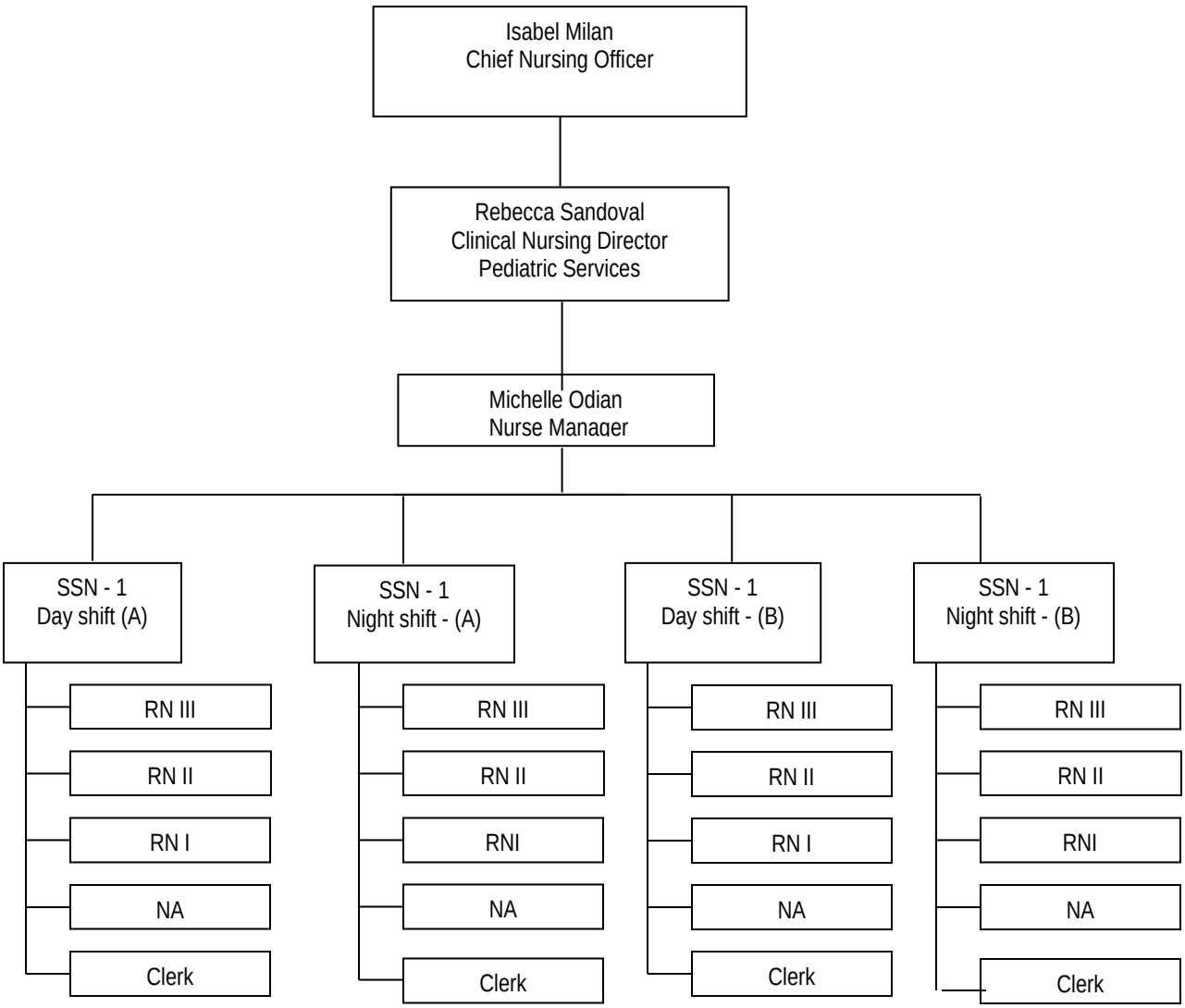
ADDENDUM W

UNIT ORGANIZATIONAL CHART



Reference: IV-C
Originating Date: 7/91
Revised: 8/11, 4/14, 2/19

ADDENDUM WW
NICU TRANSPORT – INTERFACILITY PROGRAM

I. PURPOSE: To evaluate, stabilize and transport critical care infants between outlying hospitals and LAC+USC Medical Center Neonatal Intensive Care Unit (NICU) via surface or air ambulance.

II. POLICY: LAC+USC Medical Center NICU shall provide transportation services for outlying hospitals that, by self identification, are unable to care for in-patient critically ill infants or who request back transfers when bed space/staffing dictates.

III. STAFF: The medical center and Department of Newborn Services shall designate one person as the coordinator of the NICU Interfacility Transport Program. The coordinator will be responsible for staff training, competency, technical and professional components of the transport procedures, and related documentation performance improvement activities. The coordinator will oversee data collection on neonatal interfacility transports and reporting to California Perinatal Quality Care Collaborative.

The transport team shall consist of a transport-certified NICU Registered Nurse (RN), a transport-certified critical care NICU Respiratory Care Practitioner (RCP), along with a neonatologist or neonatal fellow or neonatal resident (with approval of the attending neonatologist), or neonatal nurse practitioner (NNP). Auxiliary roles to the team include: the NICU charge nurse, and ambulance emergency medical technicians (EMTs).

Neonatal nursing and respiratory therapy staff must meet the established transport competency criteria and maintain current certification in the AAP-AHA Newborn Resuscitation Provider program in order to participate in the NICU Transport Interfacility Program.

IV. PROGRAM TRAINING: Initial selection of non-physician NICU staff is based on experience in providing tertiary NICU care, job classification, completed specific training programs and special projects at the LAC+USC NICU and length of service in the LAC+USC NICU. All interfacility transport RNs must be RNs have completed orientation to the admission area of the NICU; final selection of candidates for transport RNs is made by the NICU nurse manager. All interfacility transport RCPs must be RCP Senior/Leads and have worked in the LAC+USC NICU for one year full-time; final selection of candidates for transport RCPs is made by the NICU Director of Respiratory Services.

The transport physician must have completed a clinical rotation in tertiary level critical care of neonates and be comfortable with the Unit Standards of the LAC+USC NICU. A resident without these experiences must be preceptored by an experienced neonatal physician in order to attend the transport.

Completion of the current S.T.A.B.L.E. Program constitutes the didactic portion of the initial training for this transport program. The clinical component of this program consists of demonstrated competency on at least two transports in the areas of equipment management, forms and documentations, interfacility communications, and interpersonal skills.

ADDENDUM WW (Cont'd)

NICU TRANSPORT – INTERFACILITY PROGRAM (Cont'd)

IV. PROGRAM TRAINING: (Cont'd)

Renewal of transport certification for RN and RCP is biannual via the S.T.A.B.L.E. Program recertification, every 2 years.

V. PROCEDURE: The LAC+USC Medical Center NICU will also be in contact with the Southern California Perinatal Dispatch Center regarding the unit's bed availability. The NICU will have a designated telephone number that is answered 24 hours/day in reference to potential transports. The referring hospital will contact the Dispatch Center or LAC+USC NICU directly for transport. The referring physician will speak with the neonatal fellow or neonatologist covering the NICU, the referring hospital's charge nurse will speak with the NICU charge nurse.

The neonataologist will evaluate the patient's clinical information, determine transport stability for accepting or rejecting the transport, discuss bed availability and staffing, and notify the referring hospital. Admissions may not be refused without approval from the NICU Medical Director, in his absence, approval by the NICU Associate Medical Director, in his absence the Newborn Division Director. Tracking of transport refusals is maintained for quality improvement purposes. The NICU charge nurse or designated transport RN will contact the ambulance service to arrange for the transport, notify the transport RCP, and will notify the referring hospital of the estimated time of transport arrival.

A. Equipment (may include but not limited to the following):

1. Transport incubator with battery (and gurney as needed)
2. Portable cardiopulmonary monitor and cable
3. Two or more intravenous infusion pumps
4. Transport bags, nursing and respiratory, stocked with disposable equipment
5. Full oxygen and air cylinders with regulators and Allen wench
6. Pulse oximeter and cable
7. Stethoscope, infant or neonatal
8. Clipboard/Folder with the following forms:
    a. Patient Transfer Checklist
    b. Patient Transfer Acknowledgment and Consent
    c. Physician Transfer Certification
    d. General Consent (English and Spanish)
    e. Authorization for and Informed Consent to Surgery or Special Diagnostic or Therapeutic Procedures (English and Spanish)

ADDENDUM WW (Cont'd)

NICU TRANSPORT – INTERFACILITY PROGRAM (Cont'd)

V. PROCEDURE: (Cont'd)

A. Equipment (may include but not limited to the following): (Cont'd)

f. Interpreter Attestation During Informed Consent

g. Authorization for/Consent to Blood Transfusion and Refusal to Permit Blood Transfusion (English and Spanish)

h. Authorization and Consent to Interview and/or Filming (English/ Spanish)

i. Core CpeTS Acute Inter-Facility - Neonatal Transport Form (2019)

j. Nursing Intensive Care Record – Neonatal (flow sheet)

k. Interdisciplinary Assessment & Discharge Planning Newborn

l. Medication Administration Record

m. Physicians Orders

n. Clinical Notes

o. Neonatal Respiratory Care Service Respiratory Flow Sheet

p. Respiratory Care Orders

q. Calculator

r. Black ink pen

s. Parent Information Envelope, containing:

i. Neonatal Intensive Care Unit (brochure)

ii. Bienvenidos al hospital de Mujeres y Ninos del Los Angeles Unidad de Cuidado Intensive para Recien Nacidos (brochure)

iii. LAC+USC Medical Center Access Map

iv. Bringing Breastmilk to the Hospital

v. Como Traer Leche Materna Al Hospital

t. Transfer Evaluation Envelope, containing

i. Referring Hospital Transport Evaluation

u. Matching mom & baby tags from LAC+USC.

ADDENDUM WW (Cont'd)

NICU TRANSPORT – INTERFACILITY PROGRAM (Cont'd)

V. PROCEDURE: (Cont'd)

B. Interventions:

1. The NICU Manager, Transport Coordinator or Charge Nurse or transport RN initiates the following:

a. Records all data on the Core CpeTS Acute Inter-Facility-Neonatal Transport Intake Form (2019) that can be confirmed prior to the transport team's departure.

b. Explains to the referring hospital personnel that they will be notified shortly after U.R and the on-call neonatologist accepts the transport. Contact UR for acceptance approval.

c. Contacts the neonatologist/neonatal fellow after UR approval and discusses with him/her the infant's condition and the unit's census. A decision is made at that time whether the infant will be accepted for transport to LAC+USC NICU.

d. Contacts the ambulance service to bring the neonatal equipped van to pick up the NICU Transport Team, and equipment.

e. Verifies that notification is made to the referring hospital personnel whether the infant is accepted for transport. Ensure parents/ guardian signed consent to transfer.

f. Continues to complete as much data as possible according to the Core CpeTS Acute Inter-Facility-NeonatalTransport Intake Form (2019) to include the most recent vital signs and other demographic data or delegates this to the designated transport RN.

g. Informs the referring hospital personnel about the following items that need to be gathered and set aside for the transport team:

i. Copy of the mother's delivery record (including history and physical)

ii. Copy of maternal hepatitis status

iii. Copy of the infant's medical record.

iv. Face sheets from mother's and infant's medical records

v. Cord blood sample with labeled identifiers

vi. Copy of most recent x-ray(s)

vii. At least one parent/legal guardian should be waiting at the referring hospital in order to sign LAC+USC Medical Center consents and forms

viii. Copy of signed consent to transfer.

ADDENDUM WW (Cont'd)

NICU TRANSPORT – INTERFACILITY PROGRAM (Cont'd)

V. PROCEDURE: (Cont'd)

B. Interventions: (Cont'd)

h. Notifies the RCP about the transport

i. Notifies the designated NICU Transport RN (if not already notified).

2. As warranted, the neonatologist may provide suggestions to the referring hospital personnel for the interim stabilization of the infant in advance of the arrival of the NICU Transport Team.

3. The NICU Transport Team, the transport incubator and equipment are picked up at the NICU entrance by the ambulance carrier EMTs. The NICU Transport Team is then transported to the referring hospital. NOTE: As available, seat belts should be worn by all Transport Team members.

4. Upon arrival at the referring hospital:

a. The transport team members will identify themselves and follow the gowning and scrubbing procedures of the referring hospital.

b. The transport incubator should be connected to an electrical wall outlet and kept pre-heated. (The EMTs can be delegated to complete this task.)

c. The transport team will receive a report from the infant's physician and/or nursery personnel.

d. The transport team will perform a complete assessment of the infant for his/her current physical status. This should include:

i. Inspection of the infant for bruises, lacerations or other signs of trauma.

ii. Physical anomalies

iii. Neurological and gestational assessments

iv. Current vital signs and POC glucose. Repeat vital signs will be assessed and recorded at least every half hour until departure.

v. Adequacy of ventilation and circulation should be specifically evaluated, e.g., breath sounds, blood pressure and peripheral circulation.

vi. Endotracheal tube and line placement(s) should be verified via x-ray prior to departure.

ADDENDUM WW (Cont'd)

NICU TRANSPORT – INTERFACILITY PROGRAM (Cont'd)

V. PROCEDURE: (Cont'd)

B. Interventions: (Cont'd)

4. Upon arrival at the referring hospital: (Cont'd)

vii. Whenever possible, blood gases will be obtained prior to departure in all infants receiving oxygen and in those infants exhibiting respiratory distress (e.g., tachypnea, nasal flaring, grunting, cyanosis, chest wall retractions or apnea). Infants who are hypotensive or in circulatory failure as demonstrated by delayed capillary refill, thready or weak pulses, or low cuff blood pressure measurement should also have blood gases performed prior to departure.

e. The transport team may call back to a LAC+USC Medical Center NICU attending physician for any major concerns on stabilization of the infant. In an emergency, verbal orders are to be recorded on the Physicians Orders form per LAC+USC Medical Center protocol.

f. If the infant is determined to be in imminent danger of expiring, the LAC+USC attending neonatologist must be contacted immediately regarding the critical status of the infant.

g. The transport physician and RN will meet with the parent(s) to explain the need for transport and answer any questions that the parents/caregivers may have concerning the infant's condition. Consent for transport and consent for hospital admission should be obtained at this time. Parent information folder/envelope should be left with the family.

h. Witness signatures on all consent forms for transport, i.e., General Consent General Consent, Authorization for and Informed Consent to Surgery or Special Diagnostic or Therapeutic Procedures, Patient Transfer Acknowledgment and Consent, Authorization for/Consent to Blood Transfusion and Refusal to Permit Blood Transfusion, and Authorization and Consent to Interview and/or Filming. Give copies of consents to parents/caregivers.

5. When the infant is ready for transport, the following will be performed:

a. Electrodes are in place and connected to the transport cardio-pulmonary monitor along with the pulse oximeter probe to the oximeter.

b. Portable transport infusion pumps are connected to IVs.

ADDENDUM WW (Cont'd)

NICU TRANSPORT – INTERFACILITY PROGRAM (Cont'd)

V. PROCEDURE: (Cont'd)

B. Interventions: (Cont'd)

5. When the infant is ready for transport, the following will be performed: (Cont'd)

c. If applicable, chest tubes are securely attached and placed to a water seal drain.

d. Endotracheal tube is secured in position.

e. Umbilical arterial, venous, or peripheral IVs lines are secured.

f. The transport RN will continue the current IV fluid infusion or as ordered by the transport physician.

g. The infant is placed in the pre-warmed transport incubator or a gurney with a car seat if greater than 5 kg and temperature stable.

h. The transport team should collect all the records complied by the referring hospital, including the cord and maternal blood specimens, copies of x-rays and copies of the mother's and infant's charts.

i. The transport RN gives the Referring Hospital Transport Evaluation form to the referring physician or nursing staff to complete and return to LAC+USC NICU. (This is most often completed on the spot and placed in a sealed envelope for return to the Transport Coordinator.)

j. Prior to departure, the transport nurse and/or fellow will show the infant to the parents/caregivers. .

k. The transport RN should contact LAC+USC Medical Center NICU, inform the unit of the estimated time of arrival, and alert the unit to any additional equipment that may be needed upon return to the NICU.

l. While in route to LAC+USC NICU, the infant's vital signs should be reassessed and recorded every 15 minutes.

6. Upon arrival in the LAC+USC NICU and transfer of the infant and his care to the admitting staff, the transport RN and RCP will restock the transport equipment bags.

ADDENDUM WW (Cont'd)

NICU TRANSPORT – INTERFACILITY PROGRAM (Cont'd)

VI. DOCUMENTATION:

A. Complete the Core CpeTS Acute Inter-Facility-Neonatal From (2019) Transport Intake form and place in the unit transport binder.

B. Complete the Nursing Intensive Care Record – Neonatal, the Medication Administration Record, Interdisciplinary Assessment & Discharge Planning Newborn, Respiratory Flow Sheet, and Clinical Notes.

C. The completed Core CpeTS Acute Inter-Facility-Neonatal From (2019) and Referring Hospital Transport Evaluation form are forwarded to the LAC+USC NICU Interfacility Transport Coordinator.

VII. BACK TRANSPORTS:

A. The LAC+USC Medical Center NICU Charge Nurse and attending neonatologist will contact the referring hospital to determine the feasibility of return transportation of a stabilized infant who no longer requires tertiary level neonatal intensive care.

B. The neonatologist will contact the parent(s)/caregivers for consent to return transport of their child. Written permission from the parent(s) is preferred to telephonic consent, but either method is acceptable.

C. The NICU charge nurse will contact the ambulance service to arrange for the back transport, inform the designated transport RN and RCP, contact the nursing staff of the originating hospital and arrange for photocopying of the infant's chart along with a copy of the most recent chest x-ray.

D. The attending neonatologist will contact the receiving physician in order to update and transfer medical care and will inform the neonatal fellow/resident of the imminent back transfer.

E. Transport of the infant and documentation will proceed as for interfacility transfer of the critically ill infant.

ADDENDUM WW (Cont'd)

NICU TRANSPORT – INTERFACILITY PROGRAM (Cont'd)

References:

American Academy of Pediatrics. (2007). Guidelines for Air and Ground Transport of Neonatal and Pediatric Patients (3rd edition).

American Academy of Pediatrics and the American College of Obstetricians and Gynecologists. (2007). Guidelines for Perinatal Care (6th edition).

Karlsen, K. A. (2006). The S.T.A.B.L.E. Program Learner Manual (5th edition).
www.staableprogram.org

Kenner, C. & Lott, J. W. (2003). Comprehensive Neonatal Nursing: A Physiologic Perspective (3rd edition). Elsevier Saunders.

Neonatal Transport Data System, California Perinatal Transport Systems, Managed by California Perinatal Quality Care Collaboration, http://www.perinatal.org.

Southern California Perinatal Transport System
http://www.perinatal.org/california_perinatal_dispatch_center_neonatal_transport.asp

Verklan, M. T. & Walden, M., editors. (2004). Core Curriculum for Neonatal Intensive Care Nursing (3rd edition). Elsevier Saunders.

ADDENDUM X

HUMAN MILK PREPARATION

Purpose: To establish guidelines for the preparation of formula and/or breast milk. ***Definitions* per the Academy of Nutrition and Dietetics**:

- Aseptic Technique: "A procedure aimed at protecting patients from infections by minimizing the presence of pathogenic microorganisms. In handling of feedings and feeding systems, this means adherence to good hand-hygiene practices, use of" no touch" technique in preparation and administration of human milk or formula, and meticulous attention to details that minimize microbial exposure and proliferation in selection, storage , transporting and administering feeds.

Policy: All staff who fortify human milk will have documented initial training and subsequently have documentation of an annual competency in feeding preparation. Only authorized personnel are permitted in the breast milk storage/preparation room. Nursing staff who have been oriented to the procedure may fortify human milk.

Procedure:

- Wash hands, dry with paper towel from dispenser
- A designated preparation area will be cleaned using approved food grade sanitizer and then area will be wiped off with individual wet paper towel from a dispenser before human milk is fortified
- Wash hands, dry with paper towel from dispenser
- Assemble needed equipment and ingredients
- Staff preparing (fortifying) human milk will wear a hat, gloves, and a gown
- Use hand antiseptic technique
- Open and handle fortifier per specific procedure described by fortifier
- Fortify per Physician's order or standardized recipe (see attached)
- Measure ingredients using aseptic techniques-no touch
- Fortifier will placed directly into clean container
- Label closed container with Patient's Name, MRUN, Breast Milk with Fortifier, expiration time and date.
- Staff will feed formula or breast milk within four hours of preparation

Staff Training:

Staff training will include the following elements:

- Use of standardize recipes or per physician's order
  - Fortifying Breast Milk
- Fortification and storage of expressed breast milk and or donor milk with donor milk fortifier.

ADDENDUM X (Cont'd)

HUMAN MILK PREPARATION (Cont'd)

Staff Training: (Cont'd)

- Appropriate Hand Hygiene before feeding preparation
  - Wash hands with soap and water
  - Alcohol gel
- Feeding preparation using aseptic technique- no touch
- Labeling requirements of expressed breast milk, formula and donor milk.
- Cleaning technique
  - Before preparation
  - After preparation
- Inventory control, including removal of expired products
- Proper storage of expressed breast milk and donor milk
- Powder formula will be mixed by pharmacy

Staff apparel requirements:

- Gown
- Gloves-non-sterile, need to be changed whenever soiled
- Hair covered with a surgical type hat or hair cover

Work Area Preparation requirements:

- Before human milk is fortified, work surface is cleaned with an approved food grade sanitizer
- Wipe solution off with an individual wet paper towel from a dispenser
- Clean surface after any spills during the preparation process and again at the end of preparation
- Cleaning supplies will be stored separately from infant fortifying formula products and ingredients
- During human milk fortification, no other activities (such as heavy cleaning) should occur in the room.

ADDENDUM X (Cont'd)

HUMAN MILK PREPARATION (Cont'd)

Quality Assurance:

Process Step	Hazard	Policy	Monitoring Method	Action Plan (Criterion Failure)	Records
Storage of Fortifier	Contamination of enteral feeding products by chemical, microbiological, or particulate matter through due to improper storage	Identify or discard products with improper labeling or compromised	Monitor fortifying additives expiration dates	Discard products that have exceeded expiration date as noted by the manufacturer. Coach/Counsel employees in monitoring and action procedures.	
Preparation	Introductions of microbes, chemical, or particulates by process or employees	Train employees in proper preparation techniques and sanitation. Wash hands before preparing feedings. Clean and sanitize preparation area before initiating preparation.	Verify cleaning and sanitizing process.	Coach/counsel employees in proper enteral formula preparation methods.	Competency documentation
Storage of Human Milk/Formula	Spores germinate and microorganisms multiply at temperatures	Store all prepared formulas under refrigeration (35° to 39° F), Verify temperature accuracy of refrigeration monitor.	Daily log NM monthly review of log	Monitor refrigeration appropriate temperature. If temperature standards are not being met, immediately move prepared formula and human milk to refrigeration that maintains the required temperature. Coach/counsel employees in	Breast Milk Refrigerator Maintenance Log

ADDENDUM X (Cont'd)

HUMAN MILK PREPARATION (Cont'd)

Process Step	Hazard	Policy	Monitoring Method	Action Plan (Criterion Failure)	Records
				enteral product monitoring methods.	
Storage of human milk/formula	Infant receives someone else's milk	Each patient's breast milk will be clearly separated. Label will include: Name, MRUN, date and time of pumping, labeled container will be place into a patient labeled (Name and MRUN) re-sealable plastic bag and then into a bin to prevent misadministration of human milk/formula and to prevent cross-contamination of that milk with other feedings.	Monitor, surveillance	Reeducate staff	Breast Milk/Formula Containers in Labeled Separate Plastic Bottles and Bins
Storage of defrosted donor milk and donor milk fortifier	Use of expired product. Contamination and introduction of microbes, chemical and or particulates by process or employees	Store all defrosted donor milk in the "Community Bin" under 35-39 degree Fahrenheit refrigeration. Label each defrosted donor milk with name of product, date and time defrosted and expired, with employee initial.	Monitor expiration date. Monitor refrigeration temperature.	Counsel employees in proper defrosting, mixing and storage of donor milk and fortifier. Discard all products that have exceeded expiration date.	Breast milk Regrigeration maintenance log, donor milk preparation log and E-HR

ADDENDUM X (Cont'd)

HUMAN MILK PREPARATION (Cont'd)

References:

1. Meyers, Robin, Robbins, Sandra T.(2011) Infant Feedings: Guidelines for Preparation of Human and Formula in Health Care Facilities (2nd) Diana Faulhaber Publisher.

2. Jones, Frances (2011). Best practice for expressing, Storing and handling human milk in hospitals, homes and child setting (3rd ed). Fort Worth, TX: Human milk Banking Association of Northern America.
3. Robbins, S.T. & Meyers , R. (2011). Infant feeding: Guidelines for preparation of human milk and formula in health care facilities (2nd ed). Chicago, IL: Academy of Nutrition and Dietetics.

ADDENDUM XX

VITAL SIGNS IN NEONATES AND INFANTS

The following are guidelines for "normal" vital signs for NICU infants.

VITAL SIGNS IN NEONATES AND INFANTS					
Age	HR	RR	Blood Pressure		Temp
			Systolic	Diastolic	
Birth (1st 12h of life)	100-160	30-70	50-70	25-45	36.5 – 37.5°C (97.7 – 98.5°F)
Neonate (1st 6 weeks of life)	90-180	30-60	60-90	30-60	36.5 – 37.5°C (97.7 – 99.5°F)
Infant (30 days – 1 year)	80-160	30-60	85-105	53-66	36.5 – 37.5°C (97.7 – 99.5°F)

Neonatal Infant Pain Scale (N PASS) will be used to assess each infant for pain.

References:

Karlsen, K. (2006). S.T.A.B.L.E. Program, 5th edition.

Lawrence, J., et al. (1993). The development of a tool to assess neonatal pain. Neonatal Network, 12(6): 59-66.

Verklan, M. T., & Walden, M. (1999). Core Curriculum for Neonatal Intensive Care Nursing, 3rd ed., pp. 378-384.

ADDENDUM Y

HEPATITIS B PREVENTION

PURPOSE: The Centers for Disease Control and Prevention (CDC) recommends and the American Academy of Pediatrics (AAP) endorses the preventive health initiative to identify all infants born in the USA who are at risk of contracting Hepatitis B (HBV) and the implementation of proactive treatment of those at-risk infants before discharge from the Medical Center.

POLICY: All infants admitted to the NICU or born at LAC+USC Medical Center will be assessed upon admission for hepatitis B prophylaxis and treated accordingly and without delay.

DEFINITION: Standard newborn dose 0.5 mL of single antigen Hepatitis B Vaccine (Energix-B) IM in the vastus lateralis site to be administered within 24 hours of birth for medically stable infants weighting 2,000 grams.

PROCEDURE:

1. The most current version of the Vaccine Information Statement (VIS) from the CDC is given to the mother of the baby by the RN. This VIS should be in the preferred language of the mother. The most current English version of the VIS is attached to this foreign language version. Although the vaccination does not require written consent from the mother, the transfer of information (verbal and written VIS) is documented on the infant's medical record. The VIS is given to the parent and the parental signature can be obtained anytime prior to the actual vaccination.

2. Follow hospital standards for IM injection. Infants delivered of mothers known to be HBsAg positive are to receive the following:
   - Hepatitis B Vaccine 0.5 mL IM within 12 hrs of birth
   - Hepatitis B Immune Globulin (HBIG) 0.5 mL IM concurrently at a different site
   - Completion of the COUNTY OF LOS ANGELES PUBLIC HEALTH HOSPITAL REPORT – PERINATAL HEPATITIS B – For Follow-Up of Infant Born to HBsAg + Mothers form (Revised 2/10/2010) which is faxed to 213-351-2781 within 24 hours of the birth for case management follow-up
   - Provide education to the mother:
     - That she may breast-feed her infant upon delivery even before hepatitis B vaccination and HBIG are given.
     - About the importance of her infant completing the full hepatitis B vaccination series on schedule.
     - That blood will need to be drawn from the infant after completion of the hepatitis B vaccine series at age 9-18 months to determine if the infant needs further management
     - About modes of HBV transmission and the need for testing and vaccination of susceptible household, sexual, and needle-sharing contacts.
     - That she needs to have a medical evaluation for chronic hepatitis B including an assessment of whether she is eligible for antiviral treatment.

PROCEDURE: (Cont'd)

ADDENDUM Y (Cont'd)

HEPATITIS B PREVENTION (Cont'd)

3. Infants delivered of mothers with unknown HBsAg status are to receive the following:
   - Hepatitis B Vaccine 0.5 mL IM within 12 hrs of birth.
   - HBIG 0.5 mL IM ASAP if HBsAg test of mother is reported as positive. This should be given by/or before 7 days of life.
   - Completion of the COUNTY OF LOS ANGELES PUBLIC HEALTH HOSPITAL REPORT – PERINATAL HEPATITIS B – For Follow-Up of infants Born to HBsAg+ Mothers from (Revised 11/13/2017) which is faxed to 213-351-2781 within 24 hours of the birth case management follow-up.
   - Post-vaccination serologic testing for infants whose mother's HBsAg status remains unknown indefinitely (e.g., when parent or person with lawful custody surrenders an infant confidentially shortly after birth)

4. Infants weighing at least 2.0 kg and delivered of mothers with known HBsAg negative status are to receive the standard newborn dose of single antigen hepatitis B vaccine before discharge.

5. Infants weighing less than 2.0 kg and delivered of mothers with known HBsAg negative status are to receive the first hepatitis B vaccine dose at 30 days of chronological age if stable, or at hospital discharge if less than 30 days of age.

6. Follow NICU Addendum Immunization Administration.

DOCUMENTATION:

- If the Hepatitis B (HbsAg) result is pending, the RN will print mother's lab result when available.
- Print mother's lab report of HBsAg status and place in the infant's medical record after

  Two RNs will verify the following:
  - The collection date occurred during this pregnancy
  - Stamp mother's lab report with baby's identification plate
  - The RN has initialed and dated the photocopy, which indicates his/her review
- Record maternal HBs Ag status on the IADP form.
- Medication administration to be documented on:
  - Medication Administration Record (MAR – FM338)
  - Yellow immunization card, and
  - Immunization Record Card (H-519).

ADDENDUM Y (Cont'd)

HEPATITIS B PREVENTION (Cont'd)

- The H-519 IMMUNIZATION RECORD CARD is completed as indicated by the RN and the mother of the infant, including the date VIS is given to caregiver.

ADDENDUM Y (Cont'd)

HEPATITIS B PREVENTION (Cont'd)

DOCUMENTATON: (Cont'd)

- The physician documents in a Progress Note that the mother of the baby was informed of the risks and benefits of the vaccination. If the mother declines the vaccination, the physician notes this in detail in the Progress Note.
- The completed COUNTY OF LOS ANGELES PUBLIC HEALTH HOSPITAL REPORT – PERINATAL HEPATITIS B – For Follow-Up of Infants Born to HBsAg + Mothers form is also placed in the infant's medical record after faxing.
- Teaching is recorded on the NEWBORN CARE PATIENT TEACHING PROTOCOL in the designated area.

Discharge Instruction

Give immunization record to parent/caregiver, remind them to bring this record to primary caregiver visit.

References:

1. Centers for Disease Control and Prevention. A comprehensive immunization strategy to eliminate transmission of hepatitis B virus infection in the United States: Recommendations of the Advisory Committee on Immunization Practices (ACIP). Part 1: immunization of infants, children, and adolescents [published correction appears in *MMWR Morb Mortal Wkly Rep*. 2006; 55:158–159]. *MMWR Recomm Rep*. 2005; 54(RR-16):1–33.

2. American Academy of Pediatrics. (2006). Endorsed policy statement: A comprehensive immunization strategy to eliminate transmission of hepatitis B virus infection in the United States.

3. NICU Unit Based Standard I-1, Immunization Administration.

4. County of Los Angeles, Department of Public Health (2018). Health Care Providers and Hospitals. Perinatal Hepatitis B Prevention. Retrieved from: www.Publichealth.lacounty.gov/ip/perinatalhepb_providers.htm

ADDENDUM Y (Cont'd)

HEPATITIS B PREVENTION (Cont'd)

Los Angeles County Department of Public Health Vaccine Preventable Disease Control Program
Perinatal Hepatitis B Prevention Unit
3530 Wilshire Boulevard, Suite 700, Los Angeles, CA 90010 (213) 351-7400 ✧ Fax: (213) 351-2781
http://publichealth.lacounty.gov/ip/perinatalhepb_home.htm

HOSPITAL REPORT

FOR FOLLOW-UP OF INFANT(S) BORN TO HBsAg+ MOTHERS OR UNKNOWN MOTHERS

☞ Please fax this report, mother's hepatitis B surface antigen (HBsAg) laboratory report & an admission face sheet to (213) 351-2781 within **24 hours of birth.** Please call (213) 351-7400 if you have any questions.

MOTHER

Mother's Last Name	First Name	Middle Name
Medical Record #	DOB	Ethnicity/Race
Address: Number, Street	Apt/Unit Number	Mother's Preferred Language
City/Town	State	Zip Code
Phone # Home	Work	Cell

Insurance: (√ one) ☐ No Insurance ☐ Medi-Cal ☐ Private ☐ Unknown

Type of Test	Test Date	Positive	Pending	Not Done	Negative
HBsAg (Hepatitis B surface antigen)					
HBeAg (Hepatitis B e antigen)					

Obstetrician's Name | Phone # | Fax #

INFANT

Infant's Name	Medical Record #	Sex	Date of Birth	Time	Birth Weight

IMMUNOPROPHYLAXIS

GIVE HEPATITIS B IMMUNEGLOBULIN (HBIG) & HEPATITIS B VACCINE TO INFANT WITHIN 12 HOURS OF BIRTH

Immunoprophylaxis	Date	Time	Vaccine Status Information
HBIG 0.5ml	_____	☐ AM ☐ PM _____	☐ Not Given (specify):_____ _____
Hep B Vaccine #1	_____	☐ AM ☐ PM _____	**Please check vaccine given:** ☐ Engerix-B (GSK) 0.5ml (10mcg) ☐ Recombivax-HB (Merck) 0.5ml (5mcg) ☐ Not Given (specify) _____

Name of Pediatrician to Care For Infant After Discharge	**Phone #**	**Fax #**
Name of Reporting/Delivery Hospital and Address		**Phone #**
Name of Reporting Person *(Please Print)*	**Signature**	**Date Form Completed**

(Revised 11/13/2017)

County of Los Angeles Public Health

ADDENDUM YY

NICU TRANSPORT – INTRAFACILITY PROGRAM

I. PURPOSE:

To define same day patient relocation within the Medical Center from the NICU to locations of diagnostic studies and procedures, such as VCUG, MRI, surgery, and return to the NICU.

II. POLICY:

All NICU patients will be monitored throughout the transport, relocation, and return to the NICU. "Monitoring" entails at a minimum continuous pulse oximetry and/or visual surveillance by a licensed NICU staff member who is familiar with the particular case. Patients may be transferred in a pediatric crib or transport incubator accompanied by NICU staff. If the NICU patient requires any respiratory therapy modality during the transport process, two licensed NICU staff members familiar with the case must accompany the patient. Of these two one must be competent and experienced in neonatal endotracheal intubation and all respiratory therapy equipment that is needed for the transport (see list below). Preventive measures should be taken to avoid close contact with visitors, non-NICU staff, and other patients in the hallways and elevators to prevent infectious exposures. Family may accompany the patient at the discretion of the NICU transport staff. When signing off the case to the OR team, the following must be present:

- Standard hospital patient identifiers on the patient
- Site marking of lateral locations
- Review of intravascular fluids in use and the specific routes for each fluid
- Relay of information regarding the family's location if they are planning on waiting for the completion of the procedure/study

Upon return to the NICU:

- If transported for a surgical procedure, full post-operative orders must be re-written
- Prior written orders are automatically resumed ONLY if the transport was for non surgical procedure

The nursing documentation will reflect the transfer for:

Time left the NICU

Presence of monitoring equipment for transport

Conveyance equipment utilized (type of bed or transport incubator)

IV volumes infused during transport for types and amounts

Time of return to the NICU

Patient's tolerance via VS and assessment(s)

Hand-off report given by and received from with names of staff involved

ADDENDUM YY (Cont'd)

NICU TRANSPORT – INTRAFACILITY PROGRAM (Cont'd)

III. Procedure to Radiology Department:

When the transfer is made to Radiology or MRI, communicate your arrival promptly to the staff there and determine where the closest wall suction set-up and crash cart are located. Rooms B3B118 and B3B119 have wall outlets for suction and oxygen; they may not be readily equipped with regulator or flow meter. If not, determine the closest regulator and flow meter that could be used in an emergency.

IV. Transport Equipment: Transport equipment will include:

- Pressurized oxygen source if required
- Suction equipment (minimum of a bulb syringe for patients without artificial airways and mechanical suction equipment with tubing and catheters for patients with endotracheal tubes or trach tubes)
- Pulse oximetry set-up or cardiopulmonary monitor set-up with pulse oximetry.
- Transport kits for nursing and for respiratory therapy (refer to the interfacility transport program for details of kit contents
- Stethoscope, pediatric or neonatal
- Medical chart
- Maternal/Infant tags on patient
- Completed consents and checklists specific to the proposed procedure or study

IV: Training:

All nursing and respiratory therapy staff are oriented to use of the transport incubator as part of their orientation to the NICU.

ADDENDUM Z

HEPARIN USE IN THE NICU

Purpose:

To clarify the use of heparin in the NICU.

Policy:

Administration of heparin sodium in neonatal critical care is a daily high-risk, high-alert process involving intravascular central and peripheral lines. Low molecular weight heparin (LMWH) administration is a rarely used, but high-risk, high-alert process , e.g., when treating superior vena cava syndrome (SVCS) that involves a documented thrombosis formation secondary to a central venous line tip in the superior vena cava. This policy delineates the elements of the daily use of heparin sodium and the rare use of LMWH. Pharmaceutical vials of heparin are managed in the Pharmacy and are not stocked within the NICU. Neonatal staff does not mix heparin into solution for intravascular administration.

Procedure:

1. For daily management of the patency of intravascular lines, physicians/nurse practitioners write orders for IV fluids that include sodium heparin as listed in the table below:

Line Type/Purpose	***Rate***	***Solution***	***Heparin Concentration***
Flush for Peripheral IVs and for medication administration	Varies; usually 1.0 mL with each administration	0.9% NaCl	
Peripheral Arterial Line (PAL)	0.5 mL/hour	½ NS, NS, ½ Na Acetate, Sodium Acetate	0.5 unit/ mL to 1 unit/ml
Central Venous Lines (CVL): Umbilical Venous Line, PICC, Broviac, Jugular	(According to weight and daily fluid intake calculations)	Premie Hyperal, Stock Hyperal, Customized TPN, D5W, D10W	0.5 unit/mL
CVL to keep open	0.5 mL/hour	As above	1.0 unit/mL
CVL to keep open	1.0 mL/hour	As above	0.5 unit/mL
Peripheral IV (PIV)	(According to weight and daily fluid intake calculations)	Individualized TPN	None to 0.5 unit/mL
Umbilical Arterial Line (UAL)	0.5 to 1 mL/hour	½ NS, NS, ½ Na Acetate, Na Acetate	1.0 unit/mL
Secondary CVL	0.2 ml/hr	D5W	0.5 unit/ml

2. Documentation of these solutions and ingredients is made on the Nursing Intensive Care Record – Neonatal in the intake section and in opening and end of shift summary notes.

ADDENDUM Z (Cont'd)

HEPARIN USE IN THE NICU (Cont'd)

Procedure:

3. When a symptomatic thrombus is diagnosed, LMWH may be ordered for treatment. For each day's treatment of the thrombosis, the neonatal physician/nurse practitioner writes a new order for LMWH. Dosage of LMWH is made according to daily laboratory determination of X_a levels, platelet counts, and mean platelet volume. (Refer to Neofax). *(Neofax 2008, pp. 134-135.)*

4. Each LMWH administration is documented on the patient's MAR.

5. Protamine sulfate is available through pharmacy to manage hemorrhage.

References:

LAC+USC Healthcare Network. Department of Nursing Services Policy #910: High Alert Medications.

LAC+USC Healthcare Network. Department of Health Services. Nursing Clinical Protocol. Anticoagulant Therapy.

The Joint Commission Alert: Prevent Blood Thinner Deaths and Overdoses. September 24, 2008.

Young, T. E., & Mangum, B. Neofax 2008, 21st edition. Thomson Reuters.

ADDENDUM ZZ

WARMING CABINET AND FLUIDS

PURPOSE: To Outline the use of the warming cabinet to provide heated storage for blankets and solutions.

POLICY: The use of the warming cabinet shall be in compliance with safety guidelines and temperature range shall be checked when used for the appropriate temperature settings.

PROCEDURE:

1. If both solutions and blankets are stored in one unit: solutions are place in the top compartments and blankets in the bottom.
2. Blankets must be folded and stacked to allow for 2" to 3" open space between the blankets and the cabinet top, sides and door to allow for even heat distribution and proper cabinet operations.
3. Ensure the circuit breaker and the main power are in the "On" position.
4. To set the temperature for the cabinet:
    a. Press the Set button on the temperature panel
    b. Using the Up-Down arrow select the desired temperature setting. Selected temperature must be between 90º – 120º degrees Fahrenheit.
    c. The temperature for warming fluids must be no higher than 104º degrees Fahrenheit or a per manufacturer's recommendation. Warmed fluids need to be rotated and are good only for 72 hours once warmed.
    d. The temperature for blankets must be no more than 120º degrees Fahrenheit.
    e. Press the Set button again to enter new values.
    f. Press the Set button and the down arrow to return to normal operations. Read out will indicate the cabinet temperature.
5. Fluids will be dated for expiration prior to placement in the warmer

Maintenance:

1. Facilities Management shall inspect and evaluate warming cabinet for safety as per policy.
2. Temperatures will be monitored and recorded

References:

1. Skytron Warming cabinets Operator's Manual
2. Electrical Equipment management Policy- Network Policy # 601