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Women’s Hospital Maternal Units (3WH, L&D, 5WH, NBN & NCCC): Recommendations from Infection Prevention

I. Description

Describes practices followed in the Women's Hospital Maternal Units, including labor and delivery, antepartum, postpartum, newborn nursery and newborn critical care center to reduce the risk of infection for patients and personnel.

II. Rationale

Practices and procedures related to the Women's Hospital Maternal Units are associated with a risk of infection for both of the mother and the infant, as well as personnel. Strict adherence to the infection prevention and control guidelines in this policy can minimize this risk.

III. Policy

A. Infection Prevention Practices in the Women's Hospital Maternal Units

1. Personnel

a. In addition to this policy, personnel must be familiar with the following policies as well:

- i. [Infection Control and Screening Program: Occupational Health Service](#)
- ii. [Infection Control Guidelines for Adult and Pediatric Inpatient Care](#)
- iii. : [Hand Hygiene and Use of Antiseptics for Skin Preparation](#)
 - 1. Anyone handling a newborn will perform hand hygiene with an approved antimicrobial agent or alcohol based hand rub prior to and after contact.
 - 2. **Nitrile gloves must be worn by HCP until after the baby's first bath.**
- iv. [Cleaning, Disinfection, and Sterilization of Patient Care Items](#)
- v. [Isolation Precautions Policy](#)

- vi. [Exposure Control Plan for Bloodborne Pathogens](#)
 - vii. [Tuberculosis Control Plan](#)
 - b. Infection prevention and control education, including OSHA-required education for Bloodborne pathogens and TB, is completed annually via LMS.
2. Biological Waste Disposal
- a. Regulated medical waste must be disposed of within the guideline outlined in the Infection Prevention Policy: [Guidelines for Disposal of Regulated Medical Waste](#)
3. Environmental Services (ES) (refer to the Infection Prevention Policy: [Environmental Services](#))
- a. For the Tub Cleaning Procedure, see Attachment 1.
 - b. Daily Cleaning
 - i. Newborn Nursery (NBN), daily cleaning should coincide with periods when most infants are out of the nursery.
 - ii. Newborn Critical Care Center (NCCC), daily cleaning should be performed by ES.
4. Patient (Maternal and Neonates)
- a. Isolation/Communicable Diseases
 - i. Isolation Precautions: For patients with suspected or confirmed pulmonary tuberculosis, refer to the Infection Prevention Policy: [Tuberculosis Control Plan](#).
 - ii. Infants of maternal patients with communicable diseases (e.g. influenza: fever, sore throat, cough; suspected or confirmed TB) may require isolation and/or separate housing away from the infectious mother. See Attachment 4: Isolation Guidelines for Infants and Mothers with Infectious Disease.
 - iii. All maternal patients flagged in the medical record with a history of a multi-drug resistant organism (MDRO) should be placed on contact precautions until the HCP consults with Hospital Epidemiology (phone 984-974-7500).
 - iv. For guidelines for isolation of mothers or infants with diagnosed or suspected herpes simplex, see Attachment 3: Herpes Simplex
 - v. The [UNC Center for Maternal and Infant Health website](#) contains OB algorithms including Medical Complications of Pregnancy, including infections.
 - b. Patient Care Practices
 - i. Vaginal Examinations: Hand hygiene must be performed and a clean glove worn for each exam. Individual packets of sterile lubricant will be used.
 - ii. For care of intravascular devices (e.g., umbilical catheters, peripheral and central IVs, arterial catheters, Hickman/Broviac catheters), refer to the Infection Prevention Policy: [The Prevention of Intravascular Catheter-Related Infections](#) or Nursing Policy: [Central Venous Access Device \(CVAD\) Care and Maintenance](#).
5. Equipment

- a. General Guidelines (refer to policy, [Infection Control Guidelines for Adult and Pediatric Inpatient Care](#), for cleaning recommendations)
- i. Disposable equipment or equipment labeled for single use only should not be reused. Refer to the Infection Prevention Policy: [Reuse of Single Use Devices \(SUDs\)](#).
 - ii. All patient equipment/items which come in contact with mucous membranes/non-intact skin must be cleaned and high-level disinfected between patients. Refer to the Infection Prevention Policy: [Cleaning, Disinfection, and Sterilization of Patient-Care Items](#). Please direct questions regarding cleaning and disinfection of equipment to Infection Prevention (984-974-7500).
 - iii. Respiratory Equipment must be cared for in accordance with the guidelines in the Infection Prevention Policy: [Respiratory Care Department](#).
- b. Specific Equipment to the Women's Maternal Units
- i. Isolettes, Bassinets, and Warmers
 1. Isolettes, bassinets and warmers are cleaned with an EPA-registered hospital disinfectant between patients and when visibly soiled.
 2. Phenolics must not be used for disinfection of isolettes.
 - Hyperbilirubinemia has been associated with the use of phenolic detergents in enclosed spaces occupied by infants.
 - ii. Circumcision Equipment
 1. The restraint board should be cleaned between patients with an EPA-registered hospital disinfectant. Disposable straps (e.g., Posey) should be used on a circumcision board.
 2. Reusable circumcision instruments (e.g. Gomco): Soiled reusable instruments and equipment must be handled according to the Infection Prevention Policy: [Cleaning, Disinfection, and Sterilization of Patient-Care Items](#).
 - iii. Clothing/Linens
 1. An Infant's personal clothing/linens must be separately washed from other infant's clothing.
 - A washer and dryer are available for the family members and patients to use. Clothes of patients will be washed with commercially prepared detergents and dried separately. No special wash cycle is required for patients colonized or infected with antibiotic-resistant microbes (e.g., VRE, MRSA), or *C. difficile*, as the normal wash cycle has been found effective in eliminating such organisms from the clothes and washing machine.
 - An alcohol-based hand hygiene product will be provided with written instructions to clean hands before and after using the machines.
 - An EPA-registered hospital disinfectant (e.g., MetriGuard, Sani-Cloth) will be available and written instructions for cleaning the contact surfaces of the machines after use.

- Unit owned clothing/linens may be washed together at one time at an approved health care laundry facility.

iv. Scales

1. Scales used for infant weights are cleaned with an EPA-registered hospital disinfectant between each patient and when visibly soiled. Paper liners are changed with each patient contact.
2. Diaper scales are cleaned with an EPA-registered hospital disinfectant daily and when visibly soiled.

v. Pediatric Security Tag (e.g., HUGS)

1. The security tag will be disinfected between patients performing all of the following steps.
 - Pre-Clean with soap and water when visibly soiled.
 - Wipe off with an EPA-registered hospital disinfectant.
 - The strap is single use and should be replaced between patients.

vi. Ultrasound probes

1. Abdominal ultrasound probes that only contact intact skin will be cleaned between patients using an EPA-registered disinfectant approved by the equipment manufacturer.
 - Vaginal ultrasound probes should be cleaned and disinfected according to manufacturer's instructions for use and the Infection Prevention Policy: [Cleaning, Disinfection, and Sterilization of Patient-Care Items](#).

6. Infant Care

a. Co-bedding

- i. Co-bedding is defined as infants of multiple birth gestation sharing one bed in an attempt to improve the patients' clinical outcome.
- ii. In the event that co-bedding is approved by the patient care management team, the infants should be of the same multiple birth gestation, free of infection and communicable disease, and not on Contact Precautions.
- iii. Hand Hygiene must be performed between contact with each baby.

b. Circumcision Care

- i. Refer to Nursing Policy: [Normal Newborn Infant Care](#).

c. Skin Care and Skin Disinfection

- i. Intact skin is the body's first protection from organism invasion and infection. Refer to the Nursing Policy: [Skin Integrity](#).

7. Milk – Human Milk Management

a. General Information

- i. Human milk should be managed as a body fluid, using standard precautions for handling.
 - ii. Care should be taken that human milk is never mislabeled, contaminated, wasted or misappropriated (given to the wrong patient).
 - 1. In the event a patient is inadvertently given human milk from a source other than their mother, refer to Attachment 1: Worksheet for Human Milk Exposure found in the Infection Prevention Policy: [Patient to Patient Exposure to Bloodborne Pathogens and Human Breast Milk](#).
 - iii. Breastfeeding – Refer to the Nursing Policy: [Breastfeeding](#).
 - iv. For more information, contact Lactation Services via Vocera by calling "Lactation Consultant" or by calling 984-974-8078.
- b. Electric Breast Pump
- i. Cleaning Parts and Instruction for User
 - 1. Electric breast pumps can be obtained by calling Lactation Services (984-974-8078) or 5 Women's (984-974-1377) for any patient room in the hospital. The pump and stand available from Lactation Services will be cleaned with an EPA-registered hospital disinfectant between patients and when visibly soiled.
 - 2. In areas that stock and care for unit breast pumps (e.g., Women's Units, Children's Units, and ED), the pump must be cleaned on a routine basis (e.g. daily), when visibly soiled, and after removal from a patient room using an EPA-registered hospital disinfectant (e.g. Sani-cloth).
 - 3. Each hospitalized mother or mother of a hospitalized infant who needs to pump her milk will be given her own pump kit.
 - 4. If either the mother or the infant has a potential communicable disease, is immunocompromised, or is on isolation precautions, the mother should have a dedicated pump.
 - ii. Individual Pump Kits

The nurse or lactation consultant will instruct the mother in the following cleaning procedure:

 - 1. Pump parts will be cleaned in a dedicated basin (not a handwashing sink).
 - 2. Pump parts should be removed from the tubing and disassembled after each use. They should be rinsed in cold water to remove the milk residue, washed thoroughly in hot soapy water and rinsed well to remove any soap residue. Tubing should not be washed as only air travels through it. Any tubing with milk backed up into it should be replaced and the pump inspected for overflow. Condensation of water vapors in the tubing can be removed by turning the pump on high with tubing only connected to the pump. Air movement through the tubing will dry and remove the condensation.
 - 3. All parts should then be placed upside down to drain on a clean paper towel, covered with another towel and allowed to air dry, or dried with clean paper towels

and placed in the mother's personal bag.

4. The nurse, using standard precautions, should assist the mother who is unable to clean her pump parts.
5. If a pump kit has been contaminated or does not appear clean, the mother will be provided with a fresh kit.

8. Visitation

- a. Refer to Patient Care Policy: [Hospital Visitation](#) for general guidelines regarding visitation.
- b. Adults and children with communicable diseases will not be allowed to visit infants.
- c. Visitors will be monitored by the nursery nursing staff and will be excluded if evidence of a communicable disease is present (including infectious dermatitis, upper respiratory tract infections, gastrointestinal tract infections, chicken pox, or shingles).
- d. Under special circumstances, significant family members with oral herpes infections may visit if they have properly covered lesions. These persons must be instructed on measures to prevent viral transmission. (Refer to Attachment 3: Herpes Simplex)
- e. At the discretion of Infection Prevention, visitation in waiting rooms and inpatient units by children younger than 12 years of age may be restricted during the time of the year when respiratory viruses are in the community to prevent the spread of respiratory illness to the inpatient.
- f. Additional considerations for NBN visitation
 - i. Healthy newborns can be visited in the mother's hospital room after the visitors clean their hands.
 - ii. Siblings free of communicable diseases may visit the mother's room under the supervision of a parent or guardian.
 - iii. No visitors with a communicable disease are permitted in the mother's room when the infant is in the room.
- g. Additional considerations for NCCC visitation
 - i. If the NCCC is closed to child visitation, siblings may be allowed to visit infants at the discretion of Infection Prevention, under special circumstances, and after they have been screened for communicable diseases.
 - ii. Discharged infants and their parents return to the NCCC nurseries occasionally to visit NCCC personnel. Visitation should occur outside the NCCC.

B. Infection Prevention Practices in Labor and Delivery

1. Labor and Delivery Areas and Traffic Control

- a. Access to the Labor and Delivery Suite is limited to personnel responsible for patient care or providing service to the delivery suite and to patient visitors as designated below.

- b. The restricted access area of the Labor and Delivery OR Suite is designated by strips of black and yellow tape. All persons entering this area must wear appropriate surgical attire.
 - c. The number of persons attending a delivery or other procedure will be monitored by the nursing staff in consultation with the physician. Attempts will be made to keep this number to a minimum.
 - d. Scheduled tours are provided for couples and siblings when patient activity allows. They are not allowed to enter the OR delivery rooms. Children cannot enter the restricted areas.
2. Personnel in Labor and Delivery
- a. Hand Hygiene and Personal Protective Equipment in Labor and Delivery
 - i. Refer to Attachment 5 of the policy: [Infection Prevention Guidelines for Perioperative Services](#).
 - ii. Persons involved in the delivery (other than obstetricians and assistants who perform a timed surgical hand antisepsis) will thoroughly perform hand hygiene with an approved antimicrobial agent prior to entering the LDR or OR delivery room.
 - iii. For the manual extraction of retained placenta or placental fragments, wear elbow length gloves followed by sterile gloves.
 - b. Dress Code in Labor and Delivery Rooms
 - i. All personnel (including students) assigned for duty will wear hospital-laundered scrub attire available via the scrub-dispensing machine.
 - ii. When a delivery occurs in a LDR room, medical and nursing personnel will wear hospital-laundered scrub attire.
 - iii. Labor support persons or significant others are not required to wear scrubs or a cover gown over their clothing.
 - c. Dress Code in Labor and Delivery OR Rooms
 - i. Refer to Attachment 1: Infection Control Attire in Restricted Zones from the [Infection Prevention Guidelines for Perioperative Services](#) policy will be followed for OR rooms.
 - ii. The neonatal resuscitation team personnel wear a green gown or jump suit, head covering, and masks when attending a delivery in the OR.
 - iii. Support persons/family who attend delivery will wear a jump suit, head covering, and mask if attending a delivery in the OR.
3. Patient Care Practices in Labor and Delivery
- a. Skin
 - i. Any superficial skin infection/lesion should be washed with an antimicrobial agent and dressed with a sterile dressing.
 - ii. The Licensed Independent Practitioner (LIP) should be consulted regarding any skin lesions.
 - b. Placentas

- i. Disposal of Placentas
 1. The decision to discard the placenta after delivery or send for pathologic evaluation should be made immediately after delivery.
 2. The physician should check the appropriate box on the postpartum physician order form.
 3. Those placentas that will not be sent for pathologic evaluation will be discarded on the Labor and Delivery Unit. Each placenta is placed in a plastic container with a tight fitting lid, which is disposed of in the red bag trash. Refer to Infection Prevention Policy: [Guidelines for Disposal of Regulated Medical Waste](#).
- ii. Lotus Birth
 1. A lotus birth is the practice of leaving the umbilical cord uncut after childbirth so that the baby is left attached to the placenta until the cord naturally separates at the umbilicus.
 2. The placenta must be placed in a bowl and handled with standard precautions. The bowl may be covered with sterile towels if necessary (i.e. for procedure or patient transport).
- iii. Patient's Request for Placenta
 1. Refer to Infection Prevention Policy: [Custody of Internal Body Tissue, Organs or Body Parts](#).
- c. Use of Tub Bath During Labor
 - i. The guidelines for the use of the bath/whirlpool tub during labor, listed in Attachment 1, should be followed.
 - ii. The guidelines for cleaning the bath/whirlpool tub, listed in Attachment 1 should be followed.
- d. Internal Pressure Catheters (for monitoring contractions or for amnioinfusion) or Internal Fetal Electrodes (for fetal heart rate monitoring):
 - i. Carefully insert the catheter and leads by means of aseptic technique (wear sterile gloves).
 - ii. Use disposable products whenever possible.
 - iii. Do not remove components of monitoring system from sterile packages and set up until the system is actually needed.
 - iv. Between patients: clean the external cables with an EPA-registered hospital disinfectant and clean or launder the straps used to hold the fetal monitors in place per manufacturer's recommendations.
 - v. Maintain a closed system.
 - vi. Use extreme caution to avoid contamination during procedures such as calibration.
 - vii. Use sterile solutions for system.

- viii. Use sterile equipment for all fluid pathways in the pressure-monitoring system.
- ix. Use continuous-flush system instead of intermittent flushing with a syringe.
- x. A direct intrauterine pressure device that functions without the fluid-filled catheter apparatus is preferred.
- xi. Avoid scalp electrodes, if possible, if maternal infection with hepatitis B, hepatitis C, HIV, or herpes simplex virus is known or suspected.

4. Infant Care in Labor and Delivery

- a. Mouth-to-mouth techniques for suctioning meconium must not occur. Wall suction is the accepted method.

C. Infection Prevention Practices in the NCCC and NBN

1. Personnel in NCCC

a. Hand Hygiene in NCCC

- i. HCP and all visitors must wash their hands and forearms with an antimicrobial soap (e.g. CHG) for 30 seconds upon entry to NCCC.
- ii. All HCP must perform NCCC Unit Entry Scrub (wash hands for 30 seconds up to the elbows) at the beginning of the shift and upon returning to the unit after a break or meal.
- iii. Mothers with hand IV catheters should cleanse their hands with alcohol based hand sanitizer carefully in order to keep the IV dressing dry.

b. Staff Drinks in the Pods

- i. Storage of food/drinks in a patient care area where there is likelihood of contamination with blood or OPIM is against OSHA regulations.
- ii. Staff drink bottles may be stored in a closed cabinet in the pod labeled for staff covered drinks only.
- iii. Hand hygiene must be performed before accessing the drink storage cabinet and drinks must be consumed near the designated clean storage cabinet. Do not take drinks back to patient bedside and consume them in an area that is likely to be contaminated.
- iv. Hand hygiene must be performed after returning the drink bottle to the cabinet and resuming patient care.
- v. Drinks are not to be placed on bedside tables, stands, shelves, etc. within the Pods.

2. Mothers in NCCC

a. Drink Consumption

- i. The mother should be instructed to perform hand hygiene before beginning to use the pump.
- ii. Drinks may be provided to the mother while she is using the breast pump.

- iii. After she has finished using the breast pump, mom should finish her drink and dispose of the drink container.
 - iv. Unfinished drinks should not be placed by her infant's bedside for later consumption.
 - b. Mothers with Fever
 - i. Mothers with post-partum fever (>38 degrees C) will not be permitted to visit inside the NCCC or handle their infants until an infectious process has been identified and assessed as non-communicable.
- 3. Equipment in NCCC
 - a. Transport Isolette
 - i. The NCCC transport isolettes are cleaned between each patient use with an EPA-registered hospital disinfectant.
 - b. Ophthalmology
 - i. Eye speculums must be high-level disinfected or sterilized before each use.
 - ii. Eye speculums will be taken for sterilization by the ophthalmology department; it is the responsibility of the ophthalmology department to maintain the eye speculums.
 - iii. Multi-patient use eye drops must be discarded if the vial touches the eye.
- 4. Special Isolation Policies in NCCC and NBN
 - a. Refer to the Infection Prevention Policy: [Isolation Precautions](#) for examples of common infectious diseases and type of precautions necessary.
 - b. Refer to Attachment 4: Isolation Guidelines for Infants and Mothers with Infectious Diseases for examples of common infectious diseases and types of precautions necessary for the mother and placement options for the baby.
 - c. Syphilis
 - i. If the mother has a positive RPR, past TP-PA results will be reviewed. If the mother has had a negative TP-PA result in the past 6 months and does not have lesions, no isolation is necessary for mother or infant.
 - ii. If the mother has a positive RPR that is a fourfold or greater increase from previous results, the infant will be placed on contact precautions.
 - iii. If the mother has active lesions or rash with concern for syphilis, the mother and the infant will be placed on contact precautions.
 - d. Airborne Precautions and Pulmonary Tuberculosis
 - i. Infants with known or suspected infection transmitted by the airborne route (e.g. tuberculosis, chickenpox, measles) must be separated from other infants and placed on Airborne Precautions which includes use of a separate isolation room.
 - ii. Infants born to Mothers with Known or Suspected Active Pulmonary Tuberculosis
 - 1. Infant must not be housed or visit with the mother, even to breast feed

2. The mother may pump her milk and the infant may be fed the pumped breast milk by a caregiver other than the mother, as mycobacterium is not found in breast milk.
 3. If the mother has tuberculosis mastitis, she may pump to maintain supply but the milk should be discarded.
- iii. For more information on management of patients with known or suspected MTB, refer to Infection Prevention Policy: [Tuberculosis Control Plan](#).
- e. Contact Precautions and MDROs
- i. Infants born to mothers with known MDRO colonization or infection should be placed on Contact Precautions.
 - ii. Infant may be housed rooming in with the mother in Contact Precautions when admitted to Labor and Delivery, 3WH, or NBN/5WH.
 - iii. If cared for in the nursery, pediatric floor, or the NCCC, the infant will be placed on Contact Precautions in an isolation room.
 - iv. In the event that one twin becomes colonized with MDRO, there are several options, which could be implemented situation dependent with the input of Infection Prevention.
 1. Colonized twin in isolation, non-colonized twin not isolated and being screened weekly for potential acquisition.
 - Parents/visitors could be required to gown/glove with colonized twin to reduce risk of MDRO acquisition to non-colonized twin.
 2. Colonized twin in isolation and non-colonized twin empirically isolated and non-colonized twin no longer screened for acquisition.
- f. Infants born to mothers with Cystic Fibrosis will be placed on contact isolation if the mother has a MDRO. If the mother does not have a MDRO, the infant does not need isolation precautions (unless the infant has CF).
- g. Cohorting of Infants in NCCC due to Outbreak
- i. In the event of a suspected outbreak, (e.g. viral respiratory diseases, *Staphylococcal* outbreak) the isolation of infected infants from non-infected infants may be done by cohorting patients in the affected pod.
 - ii. Infection Prevention should be notified as soon as possible.
 - iii. Known infected infants will be placed in the designated pod and no other infants will be admitted to the area until all the infected infants have been discharged.
 - iv. All non-exposed infants and new admissions will be admitted to any of the unaffected pods.
 - v. In the event of an outbreak, any or all of the CDC enhanced measures may be utilized to control the outbreak with guidance from the medical director of Hospital Epidemiology.

IV. Implementation

It is the responsibility of the Women's Hospital Maternal Units nursing managers and Medical Directors to implement this policy.

V. References

American Academy of Pediatrics Red Book, 31st ed.

APIC Text, 4th ed.

VI. Related Policies

Infection Prevention Policy: Cleaning, Disinfection, and Sterilization of Patient-Care Items
Infection Prevention Policy: Custody of Internal Body Tissue, Organs or Body Parts
Infection Prevention Policy: Environmental Services
Infection Prevention Policy: Guidelines for Disposal of Regulated Medical Waste
Infection Prevention Policy: Hand Hygiene and Use of Antiseptics for Skin Preparation
Infection Prevention Policy: Infection Control and Screening Program: Occupational Health Service
Infection Prevention Policy: Infection Control Guidelines for Adult and Pediatric Inpatient Care
Infection Prevention Policy: Infection Prevention Guidelines for Perioperative Services
Infection Prevention Policy: Isolation Precautions
Infection Prevention Policy: Patient to Patient Exposure to Bloodborne Pathogens and Human Breast Milk
Infection Prevention Policy: Respiratory Care Department
Infection Prevention Policy: Reuse of Single Use Devices (SUDs)
Infection Prevention Policy: The Prevention of Intravascular Catheter-Related Infections
Infection Prevention Policy: Tuberculosis Control Plan
Nursing Policy: Breastfeeding
Nursing Policy: Central Venous Access Device (CVAD) Care and Maintenance
Nursing Policy: Normal Newborn Infant Care
Nursing Policy: Skin Integrity
Patient Care Policy: Hospital Visitation

Attachments:

- 1: Labor and Delivery Unit Policy for the Use and Cleaning of Bath/Whirlpool During Labor
- 2: Flu Guidelines for Couplet Care in Maternity Care Center and Labor and Delivery
- 3: Herpes Simplex
- 4: Isolation Guidelines for Infants and Mothers with Infectious Diseases

Approval Signatures

Step Description	Approver	Date
Policy Stat Administrator	Patricia Ness: Clin Nurse Education Spec	12/2019
	Thomas Ivester: CMO/VP Medical Affairs	12/2019
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Applicability

UNC Medical Center

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