



**PEDIATRIC NEWBORN
MEDICINE CLINICAL
PRACTICE GUIDELINES**

Newborn Infection Control
& Prevention Guidelines





Clinical Guideline Name	Newborn Infection Control & Prevention Guidelines
CWN Clinical Practice Manual Policy Number	
Implementation Date	7/27/2015
Due for CPC Review	August 2016
Contact Person	Nneka I. Nzegwu, DO
Approved By	Newborn Infection Control & Prevention 3/15, 12/16 BWH Infection Control Department 1/04, 9/09, 1/13, 8/15, 12/16, 12/17 Dept of Pediatric Newborn Medicine Clinical Practice Council 8/16 MSEC _____ CWN SPP _____ SPP Steering _____ Nurse Executive Board/CNO _____

Table of Contents

Physical Design of Neonatal Intensive Care Unit.....3

Physical Design of Well Newborn Nurseries.....3

Infection Control Containment4

Standard Precautions4

Patient Isolation Precautions5

Hand Hygiene6

Other Infection Control Measures7

Human Milk/Pasteurized Donor Human Milk (PDHM)/Formula.....8

Human Milk Accidental Exposure.....10

Environment11

Traffic12

Attire12

Personnel13

Addendums15

 A. MRSA Guidelines for Single and Multiple Births in the NICU

 B. Screening Questions for Illness

 C. Sibling Questionnaire



I. PHYSICAL DESIGN OF NEONATAL INTENSIVE CARE UNIT (NICU)

The NICU is a 66-bed unit divided into 5 neighborhoods encompassing all patient care areas. There is also a Triage area and 2 isolation rooms located within the intensive care areas. There are 30 single private rooms, 18 twin private rooms and 18 larger rooms for infants in the Growth and Development Unit.

Each room has a sink and each isolation room has 2 sinks, one inside and outside the patient care area. Hospital approved hand antiseptic solution is in a container and above each sink. Hospital approved hand lotion and Chlorhexidine (CHG) scrub is available at each hand washing sink. Alcohol-based hand rub pump dispensers are located at each sink and outside each patient room.

Sterile and clean supplies are contained in a clean, locked storage room in the NICU. Additional storage space for sterile and clean respiratory equipment is kept in the neonatal respiratory supply area. Clean NICU equipment such as: isolettes, cribs, warming beds, phototherapy units, and scales are kept in the equipment storage room located in the NICU. Clean IV infusion pumps are stored in the neighborhood storage areas. Formulas are boxed and stored on shelves in the neighborhood supply areas and milk room. Low frequency use equipment such as blood warmers are kept wrapped in plastic when not in use.

A neonatal blood gas laboratory is located centrally between Neighborhoods 1 and 3.

There are NICU equipment storage rooms located in CWN 6141 and on L2 in the Tower building.

II. PHYSICAL DESIGN OF WELL NEWBORN NURSERIES (CWN 9 and 10)

The well newborn care nurseries are located on CWN 9 and 10. There is one sink in each nursery. Foot pedals regulate water flow. Hospital approved hand scrub solution is in a container and above each sink. Alcohol-based hand rub dispensers are at each sink and at other patient care areas within each nursery. Disinfecting wipes and protective gloves are also located in the nurseries for environmental surface cleaning. An additional hand washing sink is located outside each nursery. Each postpartum room is also equipped with a hand washing sink and protective gloves as well as alcohol-based hand rub dispensers both immediately outside and within the room.

Sterile and clean supplies are contained in a clean, locked storage rooms on the postpartum floors. Clean nursery equipment such as: phototherapy units are kept in storage areas



adjacent to the nurseries. Formulas are boxed and stored on shelves in the nurseries. Circumcisions are performed in a dedicated room on CWN 9 next to the newborn nursery. The room is equipped with one sink with foot pedals to regulate water flow. Hospital approved hand scrub solution is in a container and above the sink. Instruments are pre-cleaned with an enzymatic solution and sent daily for sterilization on CWN 5.

INFECTION CONTAINMENT

Infants admitted to or transferred to the NICU or well-baby nurseries from another unit with known or suspected infections are placed on isolation precautions in accordance with the Brigham and Women's Hospital [Infection Control Department Manual of Precautions](#) found on the [BWH Infection Control Intranet Site](#).

Weekly methicillin-resistant *Staphylococcus aureus* (MRSA) swabs of the nasal and perianal regions are obtained and monitored over the course of the infant's hospitalization. We do not routinely test for vancomycin-resistant enterococci (VRE) in our neonatal population as we have low rates of VRE.

There are two "key switchable" isolation rooms (negative airflow) located in Neighborhoods 1 and 2 (6129 and 6093, respectively). These rooms accommodate infants on airborne precautions.

A. STANDARD PRECAUTIONS

All blood, tissue and bodily fluids, are considered potential sources of infection; therefore, staff should utilize the appropriate personal protective equipment (PPE) when performing patient care activities and procedures. PPE consists of gloves (sterile if indicated), contact precaution gowns, and face protection (face mask/shield or glasses).

1. Gloves are worn for all contact with blood and other bodily fluids.
2. Face protection (face shield or goggles plus mask) is available and is worn for procedures which may generate splashes or sprays of blood or other bodily fluids (e.g. non-inline suctioning, chest tube insertion).
3. Fluid-resistant gowns are worn when contamination of clothing with bodily fluids may occur.

B. PATIENT ISOLATION PRECAUTIONS



In addition to Standard Precautions, some infections and disease conditions require additional measures (**Contact, Airborne, Droplet, and Contact Plus Precautions**) to prevent transmission of microorganisms. For well newborn nursery refer to [WNH I.7 Infection Control for the Well Baby Nurseries \(WBN\)](#). Some examples of specific precautions are:

1. **Contact Precautions:** Infants colonized or infected with MRSA, VRE or neonatal herpes simplex are cared for in a private room or isolation room. The infant may be cared for in the well newborn nursery, IF:
 - a) Infant is in an isolette, and
 - b) Contact Precautions sign is affixed to the isolette, and
 - c) Contact precaution cover gowns, gloves and trash receptacles should be located outside the patient room.
 - d) Alcohol-based hand rub (e.g. Purell) is available in the patient care area, and
 - e) Isolette is spaced as far away as possible from other cribs or isolettes.

Note: For cases of Necrotizing Enterocolitis (NEC), place infants with signs and symptoms of NEC (i.e. bloody stool or pneumatosis on x-ray) on contact precautions. Notify Infection Control practitioner about case. Continue contact precautions until infant complete treatment and resolution of symptoms. Consider sending testing for Rotavirus, Enterovirus, Norovirus and Adenovirus.

Note: Contact the Newborn Infection Control & Prevention team or the on-call Infection Preventionist (617-732-6785 or pager 11482) for guidance on isolation of infants requiring Contact Precautions ([Contact Precautions Policy](#)).

Infants with MRSA or VRE should be cared for in an isolation room. See MRSA Protocol (Addendum A).

2. **Airborne Precautions:** Neonates exposed to varicella zoster or neonates with signs or symptoms of congenital tuberculosis (TB) must be cared for in a negative air pressure room. Once suspected, immediately contact Engineering to “key switch” the room to negative pressure and smoke test the room to ensure appropriate airflow. Notify the Newborn Infection Control & Prevention team and the Infection Control (617-732-6785 or pager 11482) for guidance on isolation of infants requiring Airborne Precautions ([Airborne Precautions Policy](#)).



When caring for a NICU patient on Airborne Precautions (e.g., caring for an infant with TB or varicella zoster), all staff are required to wear a respirator. Staff who have been medically cleared by Occupational Health Services (OHS), and have been fit tested within the past year may wear an N-95 respirator. Those who have not been fit tested must wear a powered air purifying respirator (PAPR) which is available from Central Transport Dispatch, ext. 27114 or pager 11826. Environmental Affairs may also be contacted to determine if just-in-time fit testing can be arranged (pager 15000).

3. **Droplet Precautions:** Neonates with influenza should be cared for in a private room or isolation room. This includes neonates with mothers on droplet precautions for influenza and infants with suspected influenza infection ([Droplet Precautions Policy](#)).

If not possible:

- a) Place infants in an isolette at least 3 feet away from other babies in NICU area, and
- b) Affix Droplet Precautions sign to the isolette, and
- c) Ensure that surgical masks are available near the isolette, and
- d) Ensure that alcohol-based waterless hand gel is available near the isolette

4. **Contact Precautions Plus:** Neonates with Enterovirus or Norovirus should be cared for in a private room or isolation room and placed on Contact Precautions Plus. Environmental Services should be informed that Contact Precautions Plus is in effect when an infant is discharged from the private room. After the infant is discharged from the room, the room, crib or isolette should be cleaned and disinfected with a bleach based disinfectant. The Contact Precautions Plus sign must remain on the isolette or crib when it is sent for cleaning.

(N.B. Enterovirus requires Droplet Precautions in addition to Contact Precautions Plus) [Contact Precautions Plus: Infection Control Fact Sheet](#)

If placement in a private room or isolation room is not possible:

- a) Place the infant in an isolette
- b) Affix a Contact Precautions Plus sign to the isolette
- c) Place the isolette near a hand washing sink and at least 3 feet away from other isolettes

C. **HAND HYGIENE** [1.8.5 Hand Hygiene Policy](#)

1. Good hand hygiene practice is the single most effective measure to prevent



healthcare- associated infections and the transmission of microorganisms.

2. Hands must be cleaned with an alcohol-based hand rub or soap and water before and after each patient contact, before donning gloves and other PPE, before performing procedures, after touching contaminated objects or surfaces, and after removing gloves and other PPE.

Soap and water must be used for hand washing when hands are contaminated with blood, other bodily fluids or dirt. After caring for patients with infections such as Norovirus or *C. difficile*, hand washing with soap and water is required because alcohol-based hand rub is not effective.

3. Prior to the initial hand scrub, all jewelry below the elbow should be removed. All NICU staff with direct patient contact will perform an initial hand scrub at the beginning of their shift. A 3-minute scrub with 4% CHG includes use of a nail pick to remove dirt under the nails, vigorous scrubbing of the hands, and arms to the elbows especially the fingers and interdigital areas. Rinse hands and arms past the elbows and dry with a paper towel. A hand scrub with 4% CHG should be done prior to any sterile procedure (ex. placing a central line).
4. Alternatively, hand washing agents are made available to individual employees through a controlled process (i.e. OHS) if allergy other dermatological conditions do not permit the use of standard alcohol-based hand rub (e.g. Purell) or 4% CHG hand scrubs.
5. Staff must keep nails clean and short and adhere to the BWH Fingernail Policy ([1.8.4 Fingernail Policy](#))

D. OTHER INFECTION CONTROL MEASURES

1. Gloves should be worn whenever encountering any bodily fluids (e.g. stool, urine or blood). Handle soiled diapers as little as possible and discard these into the trash receptacle as soon as possible. If a soiled diaper is placed on top of the isolette, a barrier such as a clean diaper, cloth or paper towel should be placed between the diaper and the isolette to decrease environmental contamination. If placed inside the isolette, the soiled diaper should be kept at the foot of the bed, away from respiratory support equipment and umbilical or intravenous access lines. After discarding a soiled diaper, remove gloves and wash hands with soap and water.



2. Restrain hair in a manner that prevents any contact with the infant.
3. During patient care, rings, bracelets, watches, or any other jewelry below the elbows should be removed.
4. Do not eat, drink, or store food or beverages within patient care areas in the NICU or well newborn nurseries. Covered drinks for staff are permitted outside the patient room at the workstations.
5. Provide a dedicated stethoscope for each infant in the NICU and well newborn nurseries on infection control precautions. Clean these dedicated stethoscopes at the start of each shift and after patient discharge with disinfecting wipes. After contact with infants in the well newborn nurseries who are not on isolation precautions, disinfect stethoscopes with germicidal or alcohol wipes between each patient examined.
6. Dispose of sharps and needles per hospital policy after use. Do not reuse sharps and needles. Use sharps with engineered safety devices whenever possible. Activate safety features of needles prior to disposing into a puncture-resistant needle box. Use of non-safety sharps requires completing a waiver from DPH per BWH protocol.
7. Dispose of single use items per hospital policy after use. Do not reuse.
8. Place medical waste, including items contaminated with blood or bodily fluids, in appropriate containers (refer to the [BWH Exposure Control Plan](#) and BWH Safe Work Practices).
9. Place used linen in soiled linen bags and process per hospital policy.
10. Specific instructions for cleaning and changing of respiratory equipment can be found in Neonatal Respiratory manual for policies and procedures ([Newborn Respiratory Care Policy and Procedure Manual](#)).

III. HUMAN MILK/ PASTEURIZED DONOR HUMAN MILK (PDHM)/INFANT FORMULA

[WNH H.6 Human Milk Administration](#)

[WNH H.4 Use & Storage of Pasteurized Donor Human Milk \(PDHM\)](#)



1. Breastfed infants are fed their own mother's expressed milk when it is available.

Human milk is stored aseptically in clean plastic containers. These containers are labeled with the infant's name, medical record number, and the date and time the breast milk was pumped. Labeling of mother's own milk is confirmed by the receiving bedside nurse and the infant's parent (or designee) when the milk is delivered to the NICU. The baby's nurse is responsible for checking name, medical record number, date and time on the label per nursing policy prior to each infant feeding and scanning the milk into EPIC. Any milk that is not properly labeled must be discarded.

2. Breastfed infants are also offered PDHM that is purchased from a commercial milk bank, if indicated. Infants less than 30 weeks and/or 1500 grams qualify to receive PDHM once consent is obtained from the parents. PDHM is used to supplement mother's milk until within 48 hours of attaining full enteral feeding volume. PDHM is weaned per unit policy. All other infants are offered PDHM up to the first 5 days of life as a bridge until maternal human milk is available.
3. Fresh human milk can be refrigerated for up to 96 hours before discarding. It is acceptable to use freshly pumped human milk, if not refrigerated, up to 4 hours from pumping and at room temperature.
4. Thawed human or donor milk and fortified human or donor milk can be refrigerated for 24 hours before discarding. Any milk or infant formula may be stored in the personal refrigerator in the patient's room in accordance with unit policy.
5. Human milk and PDHM are stored in a medical grade freezer for 12 months or a commercial freezer with a separate storage compartment for up to 3 months.
6. While being used to feed an infant, human milk/PDHM/infant formula may remain at room temperature for one hour during bottle feedings and up to four hours for continuous feedings.
7. Human milk/PDHM/infant formula feedings are warmed using the Penguin™ feeding warmer to achieve optimum temperature and maintain cleanliness. The infant's feeding is placed inside a Penguin™ feeding warmer pouch. The feeding warmer pouch is labeled for each individual patient and with the date and time prior to placement in the Penguin™ feeding warmer. The feeding warmer pouch is changed



every 12 hours per manufacturer instructions. Feeding warmers are located next to each infant's bedside.

8. Infant Formula Room recipes eliminate the use of powdered infant formula when possible. Ready-to-use and concentrated liquid infant formulas are commercially sterile products and used when available and nutritionally appropriate.
9. Amino-acid based and metabolic formulas are not available as commercially sterile liquid products. Triglycerides (MCT oil) and liquid protein are added using a clean syringe to measure the appropriate amount before adding to formula. MCT oil should be discarded per the expiration on the bottle. Liquid protein should be discarded 72 hours after opening.
10. There is a central area in the NICU dedicated to human milk/PDHM/infant formula refrigerators and freezers that can be used to store the human milk/PDHM/infant formula for the patient care areas. The temperatures of these designated human milk storage refrigerators and freezers must be continuously monitored via the REES Scientific Monitoring System. Data is centrally collected on a server in the Pharmacy department. Electronic notification is sent to the Nurse Director, the Operations Manager and the Nurse-in-Charge on the unit if the temperature goes out of range. In addition, Engineering is notified when there are problems with the temperature.
11. The feeding bottles and equipment used in the unit are reusable and are to be cleaned in the industrial dishwasher located in the milk room per manufacturer instructions. Reusable feeding bottles and equipment are cleaned after every use and sent for dishwashing twice daily.

IV. HUMAN MILK ACCIDENTAL EXPOSURE

In the event an infant is exposed to another patient's bodily fluids, such as human milk, the following must occur:

1. Notify the infant's attending physician, NICU/Well newborn nursery Medical Director, NICU/Well newborn nursery Nurse Director, social worker, Risk management, on-call Infection Control practitioner (pager 11482) and Newborn Infection Control & Prevention team (BWHNewbornInfecCon@partners.org).



- a) The attending physician will discuss the incident with the parents of the infant who received the wrong human milk.
 - b) The physician will discuss the incident with the mother whose human milk was given to wrong infant.
2. The attending physician will attempt to arrange for a blood sample to be drawn on the mother whose breast milk was given to the wrong infant. Call the lab supervisor to arrange for the patient's family not to be charged for the testing.
 - a) Test for: Hepatitis B surface antigen, Hepatitis C antibody and HIV antibody
 3. The attending physician will provide the parents of the baby who was given the wrong human milk with viral blood tests results when available.

V. ENVIRONMENT

1. Environmental Services clean all sinks and floors with an approved hospital disinfectant daily. Counters and other surfaces are cleaned daily and on an as needed basis.
2. Clean small blood/body fluid spills using the approved hospital disinfectant. Contain large blood/body fluid spills by sprinkling spills with a solidifying agent (i.e. Chlorasorb or Premisorb). Contact Environmental Services for final cleaning.
3. Prior to discharge, clean Giraffe OmnibedsTM every two weeks and clean isolettes weekly unless this negatively impacts the infant's medical condition. Clean infant isolettes and cribs upon discharge.
4. Clean scales with hospital approved disinfectant wipes after each use and cover for storage.
5. Change and disinfect Giraffe OmnibedTM Humidity chambers that are in use weekly with a hospital disinfectant and allowed to air dry.
6. Clean all unit-based equipment (e.g. bedside tables, bilirubin blankets, and monitors) between each patient use prior to the start of a shift or as needed



with an approved hospital disinfectant. Refer to manuals located in the clean utility room for specific instructions on cleaning unit-based equipment.

VI. TRAFFIC IN THE NICU

1. Keep traffic to an absolute minimum while caregivers perform sterile procedures. A “stop sign” will be placed on the closed door when a sterile procedure is in progress (line placement or tubing line change). A second observer will be tasked with making sure traffic in and out of the room is at a minimum. Parents, visitors and other ancillary staff will not be allowed in the room during this time.
2. All visitors, parents and staff are required to perform hand hygiene prior to, and after any contact with infants or the patient care area.
3. Encourage parents, visitors and staff to wipe all electronic devices (e.g. cell phones, iPads) with alcohol-free wipes prior to entering the NICU and in the patient rooms.
4. At the front desk entrance to the NICU, the unit coordinators will screen all visitors, parents, staff and outside personnel for symptoms of illness prior to each entry into the unit (Addendum B and C).

VII. ATTIRE IN THE NICU

1. Remove lab coats and jackets prior to entering the patient care rooms and hang outside of the patient care areas or at the teaming stations. When wearing street clothes, proper care must be taken to adhere to strict hand washing practices with soap and water or an alcohol-based waterless hand gel before and after each patient contact. Prior to entering an isolette or providing clinical care, fleeces and white coats should be removed. When entering an isolette, sleeves should be above the elbows during any patient care.
2. Staff responding to high-risk deliveries and emergencies in the Labor, Birth and Recovery Operating Room Suites or the main OR should be dressed in only hospital laundered scrub attire not worn in from home. The arms of non-scrubbed personnel should be completely covered with a long-sleeved scrub jacket.



3. Provide a clean barrier at the point of infant-caregiver contact when holding or feeding an infant.

VIII. PERSONNEL

1. Employee s will abide by established Occupational Health Services Guidelines:
 - a) Prior to employment, employees must be immune to measles, mumps and rubella. At time of employment, employees are screened for Varicella zoster and TB. Employees who are not immune to Varicella zoster are offered the Varicella vaccine at no cost. The Influenza vaccine is offered annually.
 - b) TB skin testing is performed annually through Occupational Health or by unit based peer to peer TB resource nurses.
 - c) Employees who have been exposed to a communicable disease (e.g., whooping cough, chickenpox) should be cleared by OHS before reporting to work.
 - d) Employees with symptoms consistent with a potentially transmissible infection, (e.g. gastrointestinal illness or upper respiratory symptoms with fever (100.4 or greater)) should stay home and contact OHS for guidance on when they may return to work (x26034).
2. Occupational exposures to blood or other bodily fluids via puncture or splash to mucous membranes or non-intact skin must be immediately washed. The employee should page the STIK beeper (x37845) and report to OHS (during regular office hours), or to Emergency Services (during off-hours, holidays, and weekends) for follow-up care.
3. Employees, who are not seropositive for the Hepatitis B antibody are strongly encouraged to receive the Hepatitis B vaccine which is offered to employees at no cost.
4. All staff caring for newborns at BWH are required to receive an annual Influenza vaccine yearly unless exempt. [Employee Flu Vaccination Policy](#)
5. New nursing personnel must receive an in-service to the Newborn Infection Prevention and Control Guidelines at the time of employment.



-
6. Employees must complete required Infection Control training on Healthstream. Additional in-services are provided as needed.



ADDENDUM A

MRSA Guidelines for Singleton & Multiple Births in the NICU

PURPOSE:

To prevent the transmission and spread of MRSA in the NICU

I. MANAGEMENT OF MRSA-POSITIVE INFANTS

- Place the MRSA-positive infant in a private room. MRSA-positive infants can be cohorted together if there is insufficient space.
- Affix **Contact Precautions** signs on the isolette and all doors.
- Healthcare personnel must:
 - (1) Perform hand hygiene using an alcohol-based hand rub, (2) put on a gown and (3) put on gloves before any contact with the infant or the infant's environment
 - When care is completed, remove gown and gloves then perform hand hygiene *after* contact
 - If possible, dedicate equipment to the infant (e.g. stethoscope). Disinfect shared patient equipment (e.g., ophthalmoscopes) with disinfecting wipes, immediately after use.

II. MANAGEMENT OF MRSA-NEGATIVE SIBLINGS OF MRSA-POSITIVE INFANTS

- MRSA-negative siblings can remain in the main nursery in an isolette.
- Post a *Contact Precautions* sign on the infant's isolette.
- Healthcare personnel must:
 - (1) Perform hand hygiene using an alcohol-based hand rub, (2) put on a gown and (3) put on gloves *before* any contact with the infant or the infant's environment
 - Remove gloves and gown then perform hand hygiene *after* contact.
 - Disinfect shared patient equipment (e.g., ophthalmoscopes) with disinfecting wipes immediately after use.

III. PARENTS OF NICU INFANTS WITH DISCORDANT MRSA STATUS (E.G., ONE MRSA-POSITIVE SIBLING AND ONE MRSA-NEGATIVE SIBLING)

For each visit, parents must:

- Visit the MRSA-negative sibling(s) before visiting the MRSA-positive sibling(s). On any given visit, parents cannot revisit MRSA-negative siblings after having contact with MRSA-positive siblings.



- Perform hand hygiene with an alcohol-based hand rub before and after touching each infant or the infant's environment.
- NICU staff should instruct parents on how to perform effective hand hygiene. Parents do not need to wear gloves or a gown while visiting MRSA-negative or MRSA-positive siblings.
- Wash the infant's chest using a Comfort Bath cloth before kangarooing or breastfeeding.
- If using a NICU breast pump, refer to: [WNH B.3 Breast Pump Use and Skilled Hand Expression](#)
- Wash infant's chest using a Comfort Bath cloth ~~at~~ kangarooing or breastfeeding an MRSA-positive sibling
- Refer to handout for parents: [NICU Parent Education: MRSA](#)

IV. DISCONTINUATION OF CONTACT PRECAUTIONS FOR MRSA IN THE NICU

In order to be eligible for screening, a patient must have no known MRSA positive cultures for at least 90 days and have not received any antibiotics effective against MRSA for 48 hours. These antibiotics include vancomycin, linezolid, daptomycin, ceftaroline, telavancin, tigecycline, quinupristin/dalfopristin, telavancin, trimethoprim/sulfamethoxazole, rifampin, clindamycin, doxycycline, and minocycline.

1. 3 consecutive sets of cultures must be obtained which are negative for MRSA. Obtain nasal perirectal cultures on separate days and any previously positive site(s), e.g., wounds, if possible. Label Micro slip "R/O MRSA". Notify infection control, once cultures are obtained, to remove "flag".

****NOTE: In some cases, the culture period may be extended depending upon the bio burden**

Approved by: Infection Control 10/22/06, 9/16/09, 1/23/13; 8/15, 12/17
Approved by: NICU Clinical Practice Committee 12/06, 1/09



MRSA Precautions in the NICU for Parents Questions & Answers

Q. What is *Staphylococcus aureus*?

A. *Staphylococci* are bacteria that can commonly found on the skin, mucous membranes (e.g., nose, eyes), and respiratory tract of healthy people. Sometimes, these same bacteria can cause an infection. When this happens it usually can be treated with an antibiotic.

Q. What is methicillin resistant *Staphylococcus aureus* (MRSA)?

A. Methicillin is one of the antibiotics used to treat *Staphylococcus aureus* infections. Sometimes methicillin is not effective in killing the *staphylococci* because the bacteria have become resistant to the antibiotic. We refer to this as methicillin resistant *Staphylococcus aureus* or MRSA.

Q. Where does MRSA come from?

A. Resistance to antibiotics can develop when bacteria have been exposed to that antibiotic, especially when there's been a long course of treatment. MRSA can also sometimes be carried between patients on the hands of healthcare providers. It can also be spread on medical equipment that is used for more than one patient if the equipment is not adequately cleaned between uses.

Q. What happens if your baby has MRSA?

A. If your baby is found to have MRSA; he/she will be placed on **Contact Precautions**. He/she will be admitted to an isolation room or remain in the patient care area and your health-care provider will wear gloves and gown when caring for your baby.

Q. Why is it necessary to place an baby who is colonized with MRSA on Contact Precautions?

A. MRSA colonization can result in serious infections and antibiotic treatment options are limited. It is necessary to restrict the transmission of this organism to other babies. Practicing meticulous hand hygiene and wearing gloves and gown for any contact with MRSA positive baby(s) and their environment have been shown to be effective in preventing transmission of MRSA.

Q. When your baby has MRSA, do you need to do anything special?

A. You should disinfect your hands with waterless hand gel (e.g. Purell) before entering the NICU, before and after touching your baby, and before feeding your baby.

If you are breastfeeding and need to pump while visiting your baby, talk to your baby's nurse about using a designated pump.



Q: For multiple births, when one baby is MRSA positive, why is it necessary to implement Contact Precautions for both the MRSA positive baby and the MRSA negative sibling(s)?

A. Sibling babies share extensive contact with parents who may increase the likelihood of transmission of MRSA between siblings. Therefore, to prevent unintended transmission from a sibling not yet known to be MRSA positive, all babies with MRSA positive siblings are to be placed on Contact Precautions to protect other NICU babies.

Q. Why is it recommended that the mother not directly breast feed the MRSA-positive sibling, when one sibling is MRSA negative?

A. There is a possibility that the mother's breast could become colonized with MRSA during nursing. Therefore, a dedicated breast pump is provided for pumping breast milk.

Q. After parents visit with the MRSA positive sibling, why is it recommended that they not revisit with the MRSA negative baby?

A. Sibling babies share extensive contact with parents who may increase the likelihood of transmission of MRSA between siblings. Therefore, to prevent unintended transmission from a sibling not yet known to be MRSA positive, parents should return home, shower and change clothing.

Q. When the babies go home and one is MRSA positive and one MRSA negative, are any special precautions or treatment of the babies necessary?

A. No special handling or precautions are necessary once babies are well enough to be discharged to home. The greatest risk of infection from MRSA is during vulnerable states such as when babies are in the NICU due to illness or are very premature. When they are deemed well enough to be discharged, it is not necessary to keep the MRSA positive baby away from the other siblings at home.

Q. If my baby is readmitted to the hospital, should I notify the healthcare staff that my baby was positive for MRSA?

A. Yes. The receiving hospital may place your baby on precautions upon readmission and culture your baby to determine if your baby is still MRSA positive.

Q. Should I tell my baby's pediatrician that my baby is MRSA positive?

A. Yes. Your pediatrician may want to use precautions (gloves/gown) when examining your baby until it is known that your baby is no longer MRSA positive. Furthermore, if your baby develops an infection, it is important for the pediatrician to know your baby is MRSA+ in the event antibiotic treatment is necessary.



Q. How long will my baby remain MRSA positive?

A. MRSA can be carried for a few days up to many months. Generally, once a baby is eating and growing, the risk of MRSA infection drops substantially. Often it is either harmlessly carried or spontaneously cleared.

BWH Infection Control: 10/22/06, 1/09, 9/16/09, 1/23/13, 8/15, 12/16, 12/17



ADDENDUM B

**SCREENING QUESTIONS FOR ILLNESS**

To help protect your baby in the Neonatal Intensive Care Unit (NICU) from viruses circulating in the community, please answer these questions before entering the NICU.

In the **past 3 days**, have you had any of these symptoms?

Fever YES NO

Sore throat and/or cough YES NO

Runny nose or sneezing YES NO

Nausea, vomiting and/or diarrhea YES NO

If you answer "yes" to any question, please notify one of the Unit Coordinators.

If you have any questions the Unit Coordinator will locate a doctor or nurse to speak with you.



ADDENDUM C

Sibling Visitor Screening Questionnaire

To ensure a safe environment for patients, visitors and staff, Brigham and Women’s Hospital is required to identify visiting children who may have an infection they can give to someone else. To assist the NICU in this effort, please read and answer the questions on this form carefully.

Whom are you visiting?

Patient’s name _____

Please answer the following questions about the visiting child:

Name of visiting child: _____ Age: _____

In the past 3 weeks, has the child been exposed to any of the illnesses listed below? For example, has someone in the child’s day care facility, school classroom or family member had one of these illnesses?

- Chicken Pox Yes No
- Measles Yes No
- Whooping Cough/Pertussis Yes No
- Had a fever in the past 24 hours Yes No
- Had diarrhea or vomiting in the past 24 hours Yes No
- Has a skin rash or impetigo (a contagious disease characterized by cysts, pimple-like spots and yellow crusts) Yes No
- Has an unexplained cough of any duration Yes No

If your answer is yes to any of the above, we would like you to speak to one of our physicians before entering the care areas.

Signature of Adult

Relationship to Patient

Date

Time



Approved by: Infection Control 1/13, 8/15, 12/16, 12/17