

# NICU Hand Hygiene for Health Care Team Members in Direct Contact with Patient Care Environment

A decorative graphic consisting of several light purple circles and lines. One circle is partially behind the text 'Contact with Patient Care'. Another circle is behind the word 'Environment'. There are also two solid purple circles at the bottom left and a thin purple outline circle at the bottom right.

**Bacteremia Performance Improvement Project**

**September 2007**

# Hand Hygiene Guidelines



Guidelines published by the Center for Disease Control (CDC) provides health-care workers specific recommendations to promote improved hand hygiene.



# Health Care Team Members

Anyone who routinely enters or works in the NICU and has **direct contact with the patient or patient care environment** (e.g. charts, equipment, countertops, etc.) including:

- Health Care Providers: Physician, Consulting Physician/Surgeon, CNP, RN, OT/PT, RT, Social Service, Child Life, Pastoral Care, Ethicist, Care Manager, Research & Visiting Nurses, etc.
- Ancillary Staff: MSR, CSP, Environmental Services, any bedside technician (e.g. x-ray, echo, ultrasound, EEG, ECG ), etc.
- All students

# Hand Hygiene Requirements for Health Care Team Members in Direct Contact with Patient Care Environment

## AAP & ACOOG Perinatal Guidelines:

- Antimicrobial soap required.
- Perform an entry 3 minutes handwash with soap & water up to elbows.
- Subsequent Hand Hygiene of 15 seconds with soap & water or alcohol based rub as outlined in following slides.

# Staff with No Direct Contact with Patient or Patient Care Environment

Those who routinely enter or work in the NICU but **do not** come in contact with the patient care environment such as Pharmacy Tech for med delivery, Physician Secretaries, & Personnel from Supply Room, Laundry, Maintenance, Formula Room, etc.

Must perform 15 second soap & water or alcohol based rub upon entry to the NICU and follow criteria for subsequent hand hygiene according to recommendations listed later in this module.

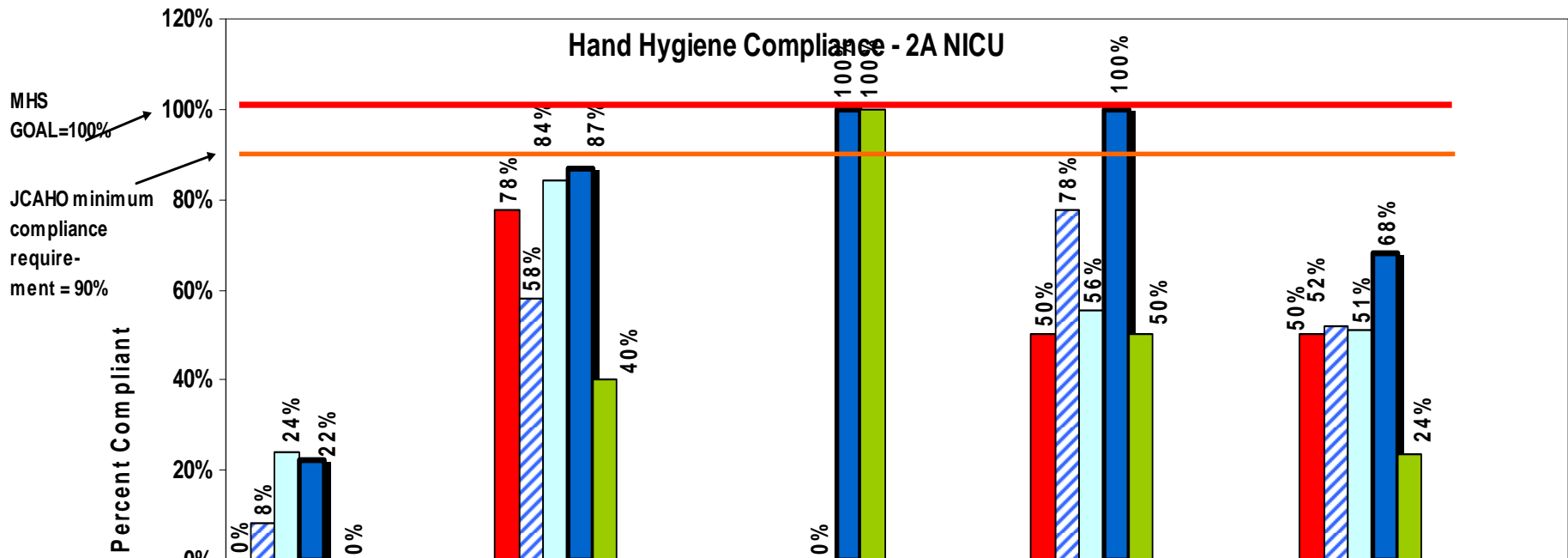
# Hand Hygiene Facts

**Health care associated infections are an important cause of morbidity and mortality among all hospitalized patients, accounting for approximately 80,000 deaths each year.**

**PROPER hand hygiene is one of the MOST Important infection control measures.**

**Unfortunately health care workers are generally compliant less than 50% of the time. (IHI)**

**MetroHealth NICU random handwashing audits show a compliance rate from of ONLY 47.4% to 56.3%.**



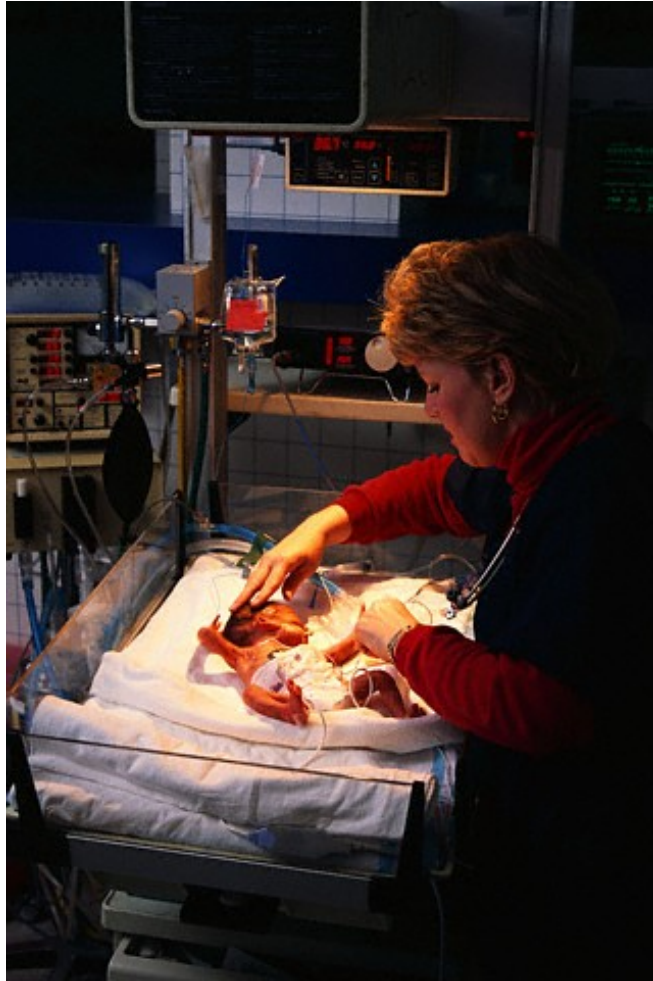
	MD	Nurse	Other Nursing Staff	Other Healthcare Staff	All
■ Compliance Q2'06	0%	78%	0%	50%	50%
▨ Compliance Q3'06	8%	58%	0%	78%	52%
□ Compliance Q4'06	24%	84%	0%	56%	51%
■ Compliance Q1'07	22%	87%	100%	100%	68%
■ Compliance Q2'07	0%	40%	100%	50%	24%
■ Compliance Q3'07	0%	0%	0%	0%	0%
# Observations Q2'06	4	9	1	2	16
# Observations Q3'06	12	50	0	9	71
# Observations Q4'06	25	19	0	9	53
# Observations Q1'07	9	15	1	3	28

# Hand Hygiene

**“Successful hand hygiene promotion was independently associated with a 60% decrease in the risk of health care-associated infection among VLBW neonates.”**

Pessoa-Silva, CL, et al. Pediatrics 2007; 120; e382-e390, accessed 8/8/07

**Do you care ....**



**enough  
to practice  
good  
hand hygiene?**

**to break Chain of Hospital Acquired Infections**



# Goals of Hand Hygiene Initiative

1. Educate all staff about:
  - Importance of appropriate Hand Hygiene
  - Appropriate Hand Hygiene technique
  - Activities resulting in the need for Hand Hygiene
  - Pathogens: transmission and eradication
2. Return demonstrations & test.

# Hand Hygiene

**Hand Hygiene refers to both:**

- **Handwashing With Soap & Water**

**OR**

- **Hand Antisepsis With Alcohol-Based Rub**

[http://miv/Policy/Reference/Infection\\_Control/Employee  
Guidelines/handhygiene.htm](http://miv/Policy/Reference/Infection_Control/Employee_Guidelines/handhygiene.htm)

## MetroHealth and CDC: When is Soap & Water Needed?

Must wash hands with soap & water for 15 seconds:

- When hands are visibly dirty
- Before and after eating
- After using the restroom
- After sneezing or blowing your nose



# Additional time when Soap & Water is needed?

Although uncommon in the NICU, another time to wash with soap and water is:

- if exposure to *Clostridium difficile* or to any patient with diarrhea and *C. difficile* is suspected.
- The physical action of hand washing helps remove spores.



# Appropriate Handwashing Technique

- Turn on water and adjust temperature.
- Apply the proper amount of soap, one pump is usually enough
- Wash for 15 seconds or 3 minute entry.
- Rub vigorously, covering all surfaces of hands and fingers, include up to elbows for 3 minute entry wash.
- Pay special attention between fingers, under ring and around nails
- Rinse hands with water and dry thoroughly with a disposable towel.
- **Use the paper towel to turn off faucet.**

Remember to remove gloves using correct technique so as not to contaminate the hands with a contaminated glove surface and then wash hands.

# MetroHealth & CDC Recommendations for Alcohol-Based Hand Rub or Soap & Water Hand Hygiene

Alcohol-based hand rub or 15 second soap & water

- Before direct contact with patients
- Before donning gloves and after removing gloves
- After direct contact with a patient
- When moving from a dirty to clean body site (After diaper changes should remove gloves and wash hands prior to continuing care)
- After contact with inanimate objects in the immediate vicinity of the patient (countertop, chart, equipment)

# Correct ALCOHOL-BASED RUB Antisepsis technique

- Use enough to cover and wet all surfaces of hands ( palm, back of hand finger, fingertips, fingernails).
  - One complete pump from dispenser
  - About a thumbnail size in palm from bottle
- Rub until dry (about 15 seconds).





# Personal Protective Equipment (PPE)

Gloves and gowns are supplied to protect you and so you don't carry germs to another patient or bring them home on your street clothes

# Personal Protective Equipment

- **EVERY** employee is **RESPONSIBLE** for protecting themselves from exposure to potentially infectious agents.
- Consider **ALL** blood & body fluids as potentially infectious
- **DO NOT LEAVE THE WORK AREA WEARING your PPE**
  - ❖ **Dispose or discard PPE after each use**

# MetroHealth & CDC Recommendations for Glove Usage

- Body Substance Precautions: Click link to review  
[http://miv/Policy/Reference/Infection\\_Control/Isolation\\_Protocols/implementing\\_BSP.htm](http://miv/Policy/Reference/Infection_Control/Isolation_Protocols/implementing_BSP.htm)
  - Isolation Protocols: Click link to review  
[http://miv/Policy/Reference/Infection\\_Control/isolation\\_protocols.htm](http://miv/Policy/Reference/Infection_Control/isolation_protocols.htm)
  - When in contact with skin rashes or lesions
  - Healthcare worker with broken skin
  - Preferred if contact with the patient care area with artificial nails
  - Any contact with MRSA patient care area including charts & countertops
- \*Remember to practice Hand Hygiene prior to and after using gloves

# MetroHealth & CDC Recommendations for Associated Practices

- ALL equipment must be cleaned between patients, using Sani-wipe™ (IV pumps, portable monitors, etc.).
- Stethoscopes and thermometer probe and coil **MUST** be cleaned between patients using either alcohol pad or Sani-wipe™/other antimicrobial agent.

# *The Inanimate Environment Can Facilitate Transmission*



~ Contaminated surfaces increase cross-transmission ~

Abstract: The Risk of Hand and Glove Contamination after Contact with a VRE (+) Patient Environment. Hayden M, ICAAC, 2001, Chicago, IL.

# MetroHealth & CDC Recommendations for Isolation Precautions

- Follow appropriate MH Isolation Protocols
- Post sign for appropriate isolation being used
- Example: For MRSA follow “Environmental Contact Precautions”: Click link to review
- [http://miv/Policy/Reference/Infection\\_Control/Isolation\\_Protocols/environmental\\_contact\\_precautions.htm](http://miv/Policy/Reference/Infection_Control/Isolation_Protocols/environmental_contact_precautions.htm)
  - Room = Patient bed space including equipment, countertops, isolette, charts, etc and patient
  - New gown each time entering patient area – Gowns are NOT reusable

# Compliance with Hand Hygiene Protocol



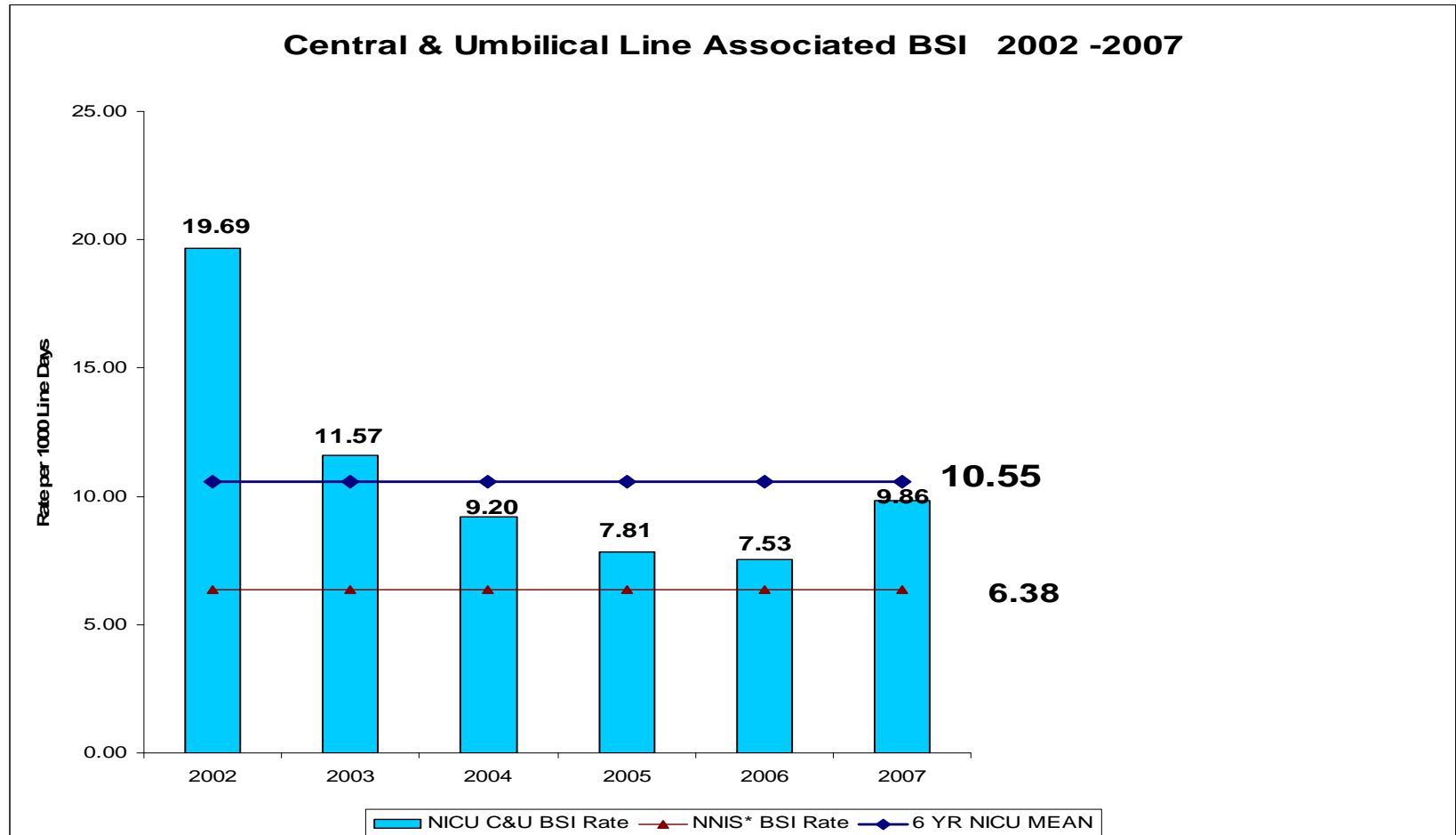
**All hand hygiene steps  
must be performed to  
equal compliance.**



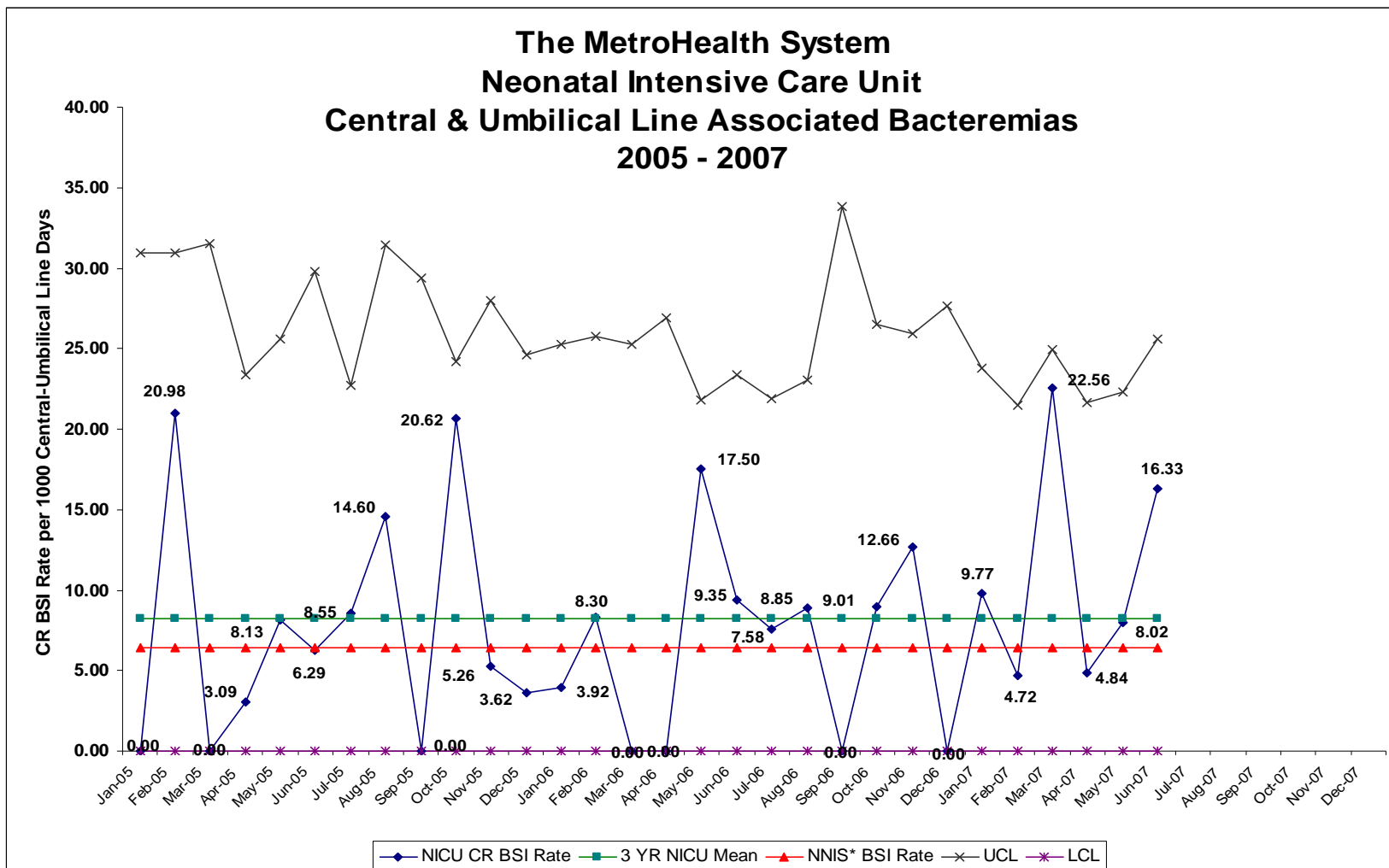
# Infection Rates in the NICU

- Information on infection rates located in NICU Data Resource binder. (It is blue and located in the conference room)
- Our NICU has had a higher 3 year mean than the national average (Lets Work on changing that)
- Random handwashing audits (we will be continuing to do these) show a compliance rate from of ONLY 47.4% to 56.3%.
- With improved awareness and compliance with appropriate handwashing we hope to improve all of the above. WE CAN DO IT !!!

# Central Line Associated Bloodstream Infections



# Central Line Associated Bloodstream Infections

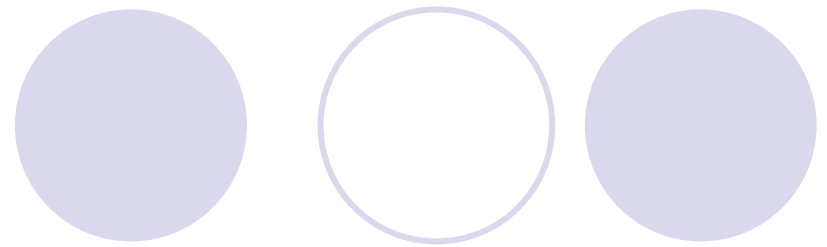
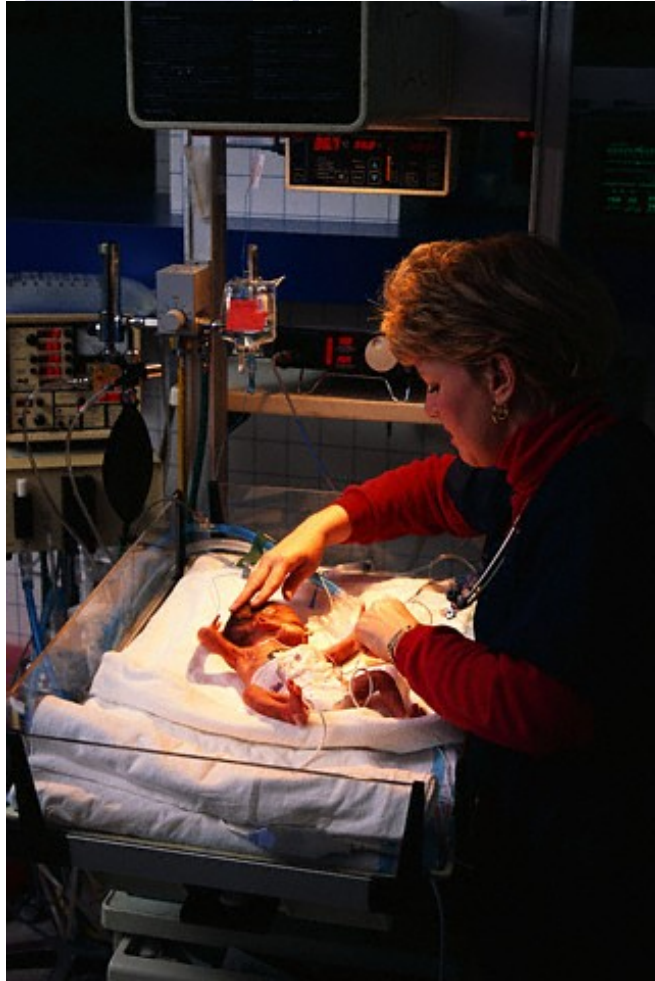


# Summary:

## Hand Hygiene And Bacteremia

- Handwashing serves as an important means of reducing infection
- WE MUST ALL be diligent in our own practice and advocating for patients.
- All hospital staff entering the NICU will be required to complete this educational offering and competency.
- Bedside care providers must accept responsibility for ensuring that all staff are in compliance with Hand Hygiene requirements.
- Signage will be posted on doors and isolettes to encourage proper hand hygiene compliance.
- Charts & equipment moved from the bedside MUST be wiped with sani-wipes prior to being removed or returned, Note: Remember to use gloves with Sani-wipes™.
- Charts & equipment from any room with Isolation Precautions (e.g. Contact/MRSA) should NOT be removed from the patient area.
- **Random handwashing audits will continue.**
- **Remember: 3 minute handwash upon entry.**

**Please care ....**



**enough  
to practice  
good  
hand hygiene!**

**to break Chain of Hospital Acquired Infections**



**Let's all work together  
to improve Hand Hygiene**

**They are in  
our hands!**





# Return Demonstration & Test

- Print out test and competency from the two test/competency files in this folder.
- Return demonstration can be arranged with NICU Performance Improvement Team Trainer.
- For questions, contact Julie Medas, Neonatal Clinical Nurse Specialist, at ext.84506