

NICU Infection Reduction: Project and Parent Collaboration

Marla Mills, DNP, RN, CNP



UNIVERSITY OF MINNESOTA
CHILDREN'S HOSPITAL

 FAIRVIEW

Patient Safety Related Achievement

Engage families and staff in the initiative to reduce late onset infections in the NICU

Overall Measurable Aim: No cases of late onset infection



Infections in the NICU

In very small infants infections can:

- Increase mortality
- Increase severity of chronic lung disease
- Increase length of stay



NICU Infants at Risk

- Prematurity
- Immature immune system
- Surgical procedures
- Catheter related devices
- Ventilator use
- Poor skin integrity
- Prolonged length of stay



Unit Background

- Members Vermont Oxford Network for VLBW infants and Expanded Database
- Participated in four Vermont Oxford Collaborative (focus has been Family-Centered Care, Discharge Planning, Your Ideal NICU, and Daily Care)
- Multidisciplinary Quality Improvement Committee



NICU Focus on Family Centered Care

- Parents as part of the team**
- Parents in rounds**
- Parents welcome in unit anytime**
- Philosophy of Care**
- Elimination of visiting hours**



Interdisciplinary Quality Improvement Committee

- Meet twice a month
- Use Plan-Do-Study-Act format for rapid cycle projects
- Average 15-25 projects in different phases
- Annual Quality Fair
- Two parents of NICU graduates are members of our committee



NICU Graduate Parent as Expert

- One to one parent support
- Twice a month pizza nights for current NICU families and once a month scrapbooking
- Parent newsletter
- Parents as educators for staff and other parent support committee members
- Parents as educators for NICU families
- Parents on quality improvement committee
- Parents on hospital committees

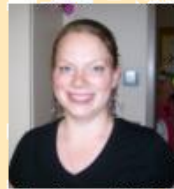


NICU Interdisciplinary Quality Committee

Team Members



Margie



Miriam



Janet



Julie R.



Dotty



Kari



Indu



Jessica & Bridget



Julie B.



Lynn



Tom



Mark



Bev.



Maggie



Diane



Grace



Marla



Cathy



Infection Reduction Project

- The work of many committee members and involves all neonatal staff
- Always ongoing
- Previous work
 - Standardized preparation for catheter placement including the use of sterile gloves and gowns for procedure
 - Use of PICC lines
 - Standardized dressing and catheter care



Rapid Cycle Projects

- Hub care guidelines
- Maintain infants sacred space
- Staff and parent personal space
- Improve aseptic technique for perc art lines
- Trial of closed system arterial blood drawing equipment
- Increased staff compliance with the dress code
- Review each case of catheter related infection
- Implement use of microclaves in IV set-up
- Revise parent hand washing procedure and parent education
- Removal of soft toys from infant beds



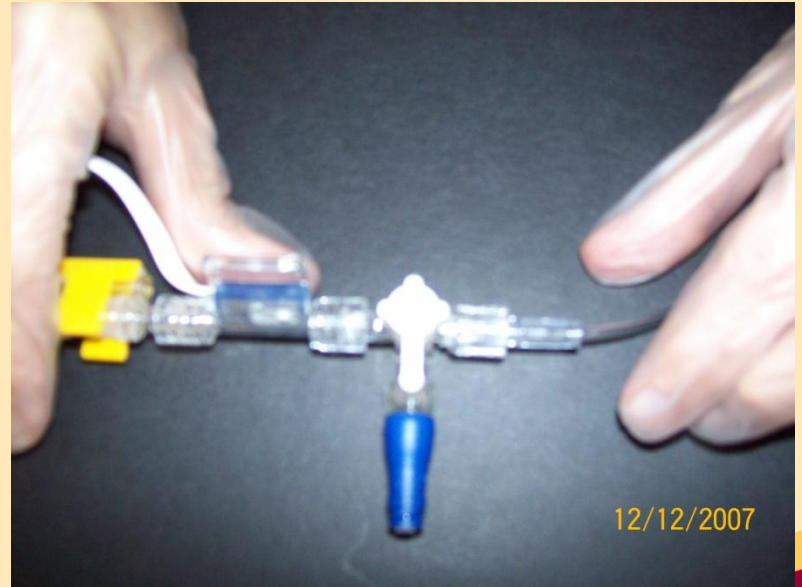
Hand Hygiene

- Change in scrub policy
- Foam at all bed sides and as enter the unit
- Staff survey
- Staff education
- Scrub before entering nursery
- Observation
- Letter to all consultants, employees that come to the NICU
- Parent information and education



Hub Care

- Developed standardized guidelines
- Use of microclaves
- Staff education
- Observation of staff



Sacred Space

- Developed guidelines
- Poster for staff education
- Parent education



Arterial Lines

- Revise percutaneous arterial catheter care and set-up
- Trial of a closed system for arterial blood drawing



Dress Code

- Staff education on hospital policy and NICU guidelines
- Reinforce policy/observation



Removal of Soft Toys From the Beds

- Staff education
- Parent education
- Monitoring



Parent Involvement

Parents on committee developed parent information on hand washing and sacred space

Provided parent perspective and feedback as projects were being developed and implemented

Reviewed information and written material on projects as it was being developed



Parent Information on Sacred Space

••how can i help care for my baby while on the NICU?••

Dividing clean and dirty areas in your baby's nursery space helps to decrease the risk for spreading infection.

All health care team members—
doctors, nurses, parents, visitors
—are responsible for maintaining your baby's
sacred space.

baby's sacred space...

Your baby's counter space has one dirty area that contains the diaper scale. The rest of the working space is considered clean. After changing a dirty diaper, always place it on the diaper scale!

Your baby's bed has clean and dirty areas as well. Clean is from above your baby's diaper area to the head of the bed. Dirty is your baby's diaper area down to the foot of the bed. That is why it is best to place a pacifier by your baby's head and dirty diapers by their feet during the changing process.

The parent space is for you to keep your personal items [purses, pumping supplies, drink containers]. It is clearly marked for each bedside.

The parent mailbox is the wire bin mounted underneath the parent space to be used for any lactation news, journals, newsletters, pictures, etc.

••help us keep your baby's
space clean and safe.
gentle reminders to staff are
always welcome!••

PARENT
TO
PARENT



UNIVERSITY OF MINNESOTA
CHILDREN'S HOSPITAL

FAIRVIEW

Parent Information on Hand washing

••how can i help care for my baby while on the NICU?••

The health of your baby is our greatest concern! Hand washing is a simple and proven way to greatly reduce the risk of infection for all patients.

All health care team members—
doctors, nurses, parents, visitors
—are responsible for washing their hands with both foam and soap upon entering the NICU.

hand washing 101...

Step 1...Remove your coat upon entering the NICU—feel free to use the coat closet near the front desk.

Step 2...Wear short sleeves or roll your sleeves above your elbows.

Step 3...Remove all watches and rings—especially those with raised stones!

Step 4...Scrub with foam from your fingertips to elbows until it has completely dried.

Step 5...Proceed to the sink and wash your hands using the green soap for 30-60 seconds.

Step 6...Use the foam at the bedside before touching your baby!

Step 7...Teach and reinforce the importance of good hand hygiene to all of your baby's visitors!

••if you are concerned that someone has not washed their hands, feel free to ask!••

PARENT
TO
PARENT
connecting families one child at a time



UNIVERSITY OF MINNESOTA
CHILDREN'S HOSPITAL

FAIRVIEW

Family Education/Partnership to Reduce Infections

- Written parental information on the importance of hand washing and the baby's "sacred space" developed by parents whose children had been discharged from the NICU
- Parents of former NICU patients are members of the NICU Quality Improvement Committee
- Parental Education to reduce infections is:
 - Included in parent orientation
 - Available as a brochure in the parent lounge
 - Incorporated into the quarterly newsletter, **NICU News**, produced by the Parent-to-Parent Support Team volunteers and the University of Minnesota Children's Hospital, Fairview



Parent Newsletter



issue three • quarter four • 2008

nicu NEWS

connecting families one child at a time

Ronald McDonald House...
the house that love built

resources you can use!...
tools to help you along the way

**many nicu babies qualify for
early intervention services!**

escape the NICU...
local restaurants

how can i care for my baby while on the nicu?...
helpful hints, fabulous ideas, amazing classes!

Kangaroo Care
one way to help care for your baby while on the nicu



UNIVERSITY OF MINNESOTA
CHILDREN'S HOSPITAL

FAIRVIEW

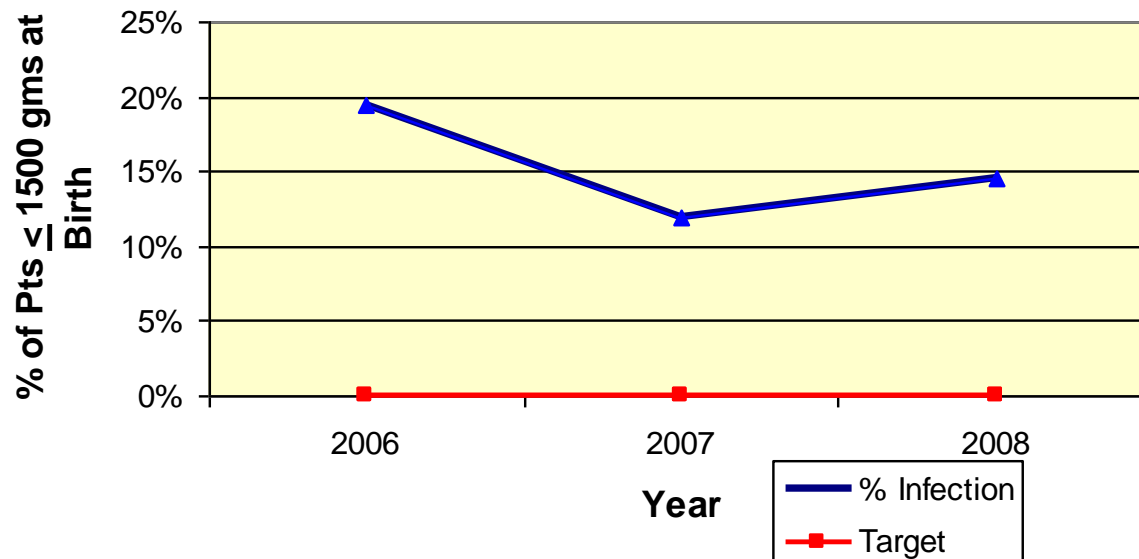
Nosocomial Infections VLBW Infants

University of Minnesota Medical Center, Fairview

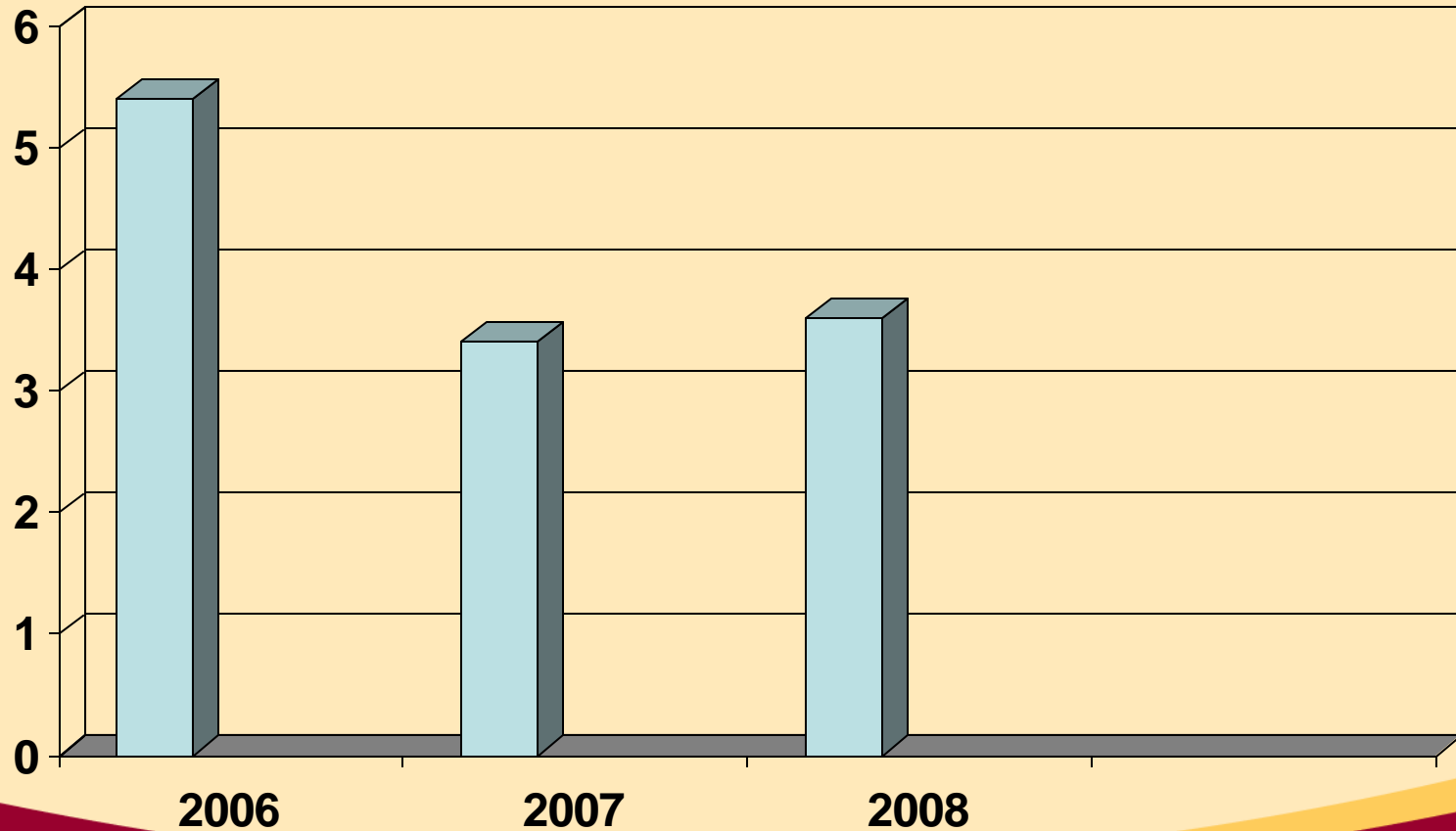
Neonatal Intensive Care Unit

Blood Stream & Cerebral Spinal Fluid Infections

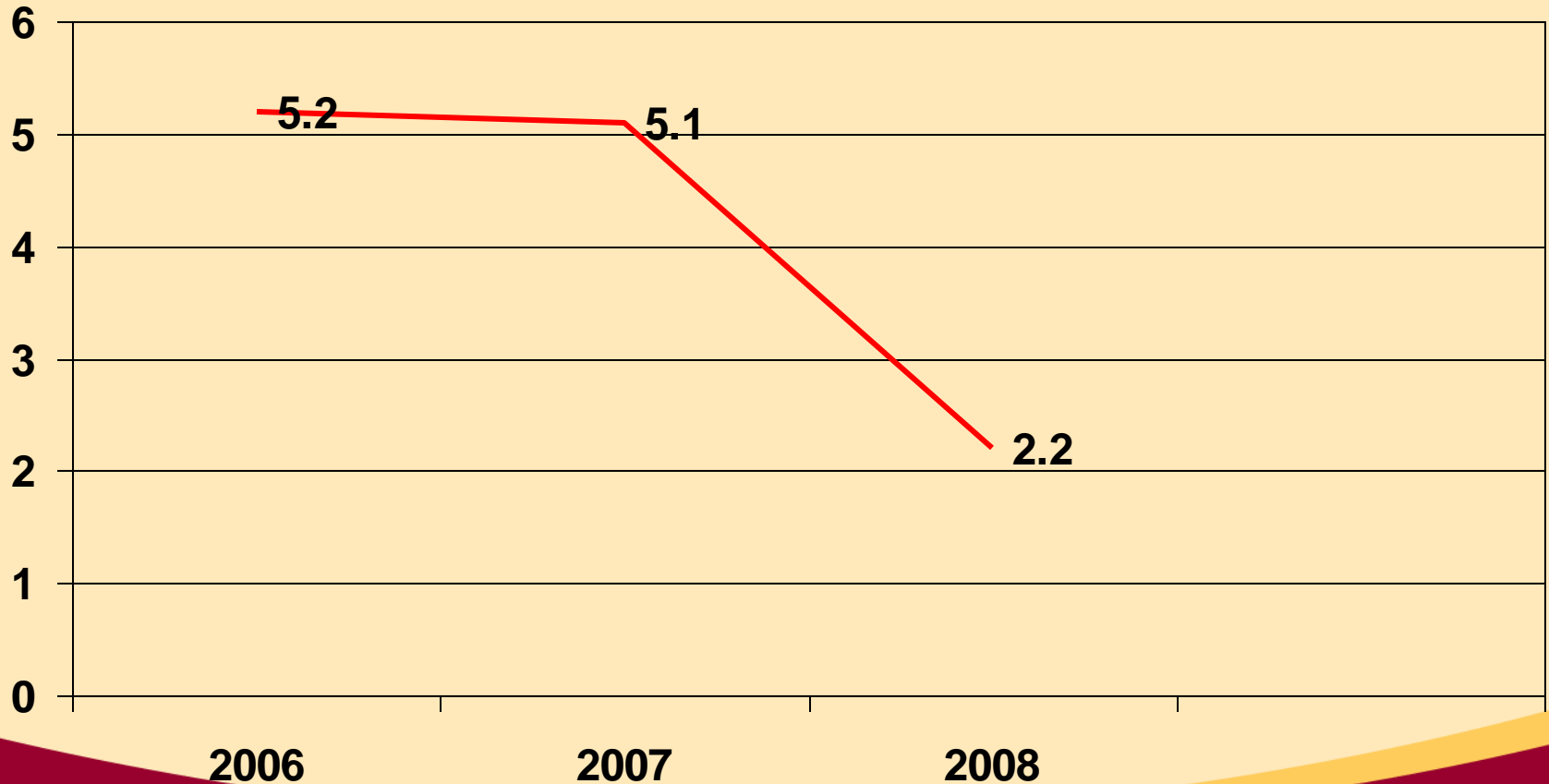
≤ 1500 GM Birth Weight Infants



Nosocomial Infections all NICU Infants Late Onset Infections (Blood and CSF)



Catheter Related Blood Stream Infections (per 1,000 catheter days)



Questions?



UNIVERSITY OF MINNESOTA
CHILDREN'S HOSPITAL

 FAIRVIEW

References

- Institute for Family-Centered Care (). Advancing the practice of patient- and family-centered care How to get started.... Bethesda, MD Retrieved from http://www.familycenteredcare.org/pdf/getting_started.pdf on 1/19/2009
- Brady MT (2005). Health care-associated infections in the neonatal intensive care unit. *Am J Infect Control* 33:268-75.
- Kilbrade HW, Wirtschafter DD, Powers RJ, Sheeham MB (2003). Implementation of evidence-based potentially better practices to decrease nosocomial infections. *Pediatrics* 11(4):e519-e533.
- Kilbrade Hw, Powers R, Wirtschafter DD, et al (2003). Evaluation and development of potentially better practices to prevent neonatal infection. *Pediatrics* 11(4):e504-518.

