Chlorhexidine Gluconate Bath and Reduction of Hospital Associated Infections

Emory University Hospital
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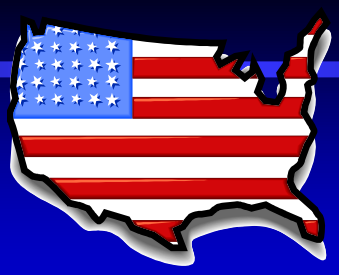
Clinical Nurse Specialists



- 80,000 ICU Patients develop CLBSI

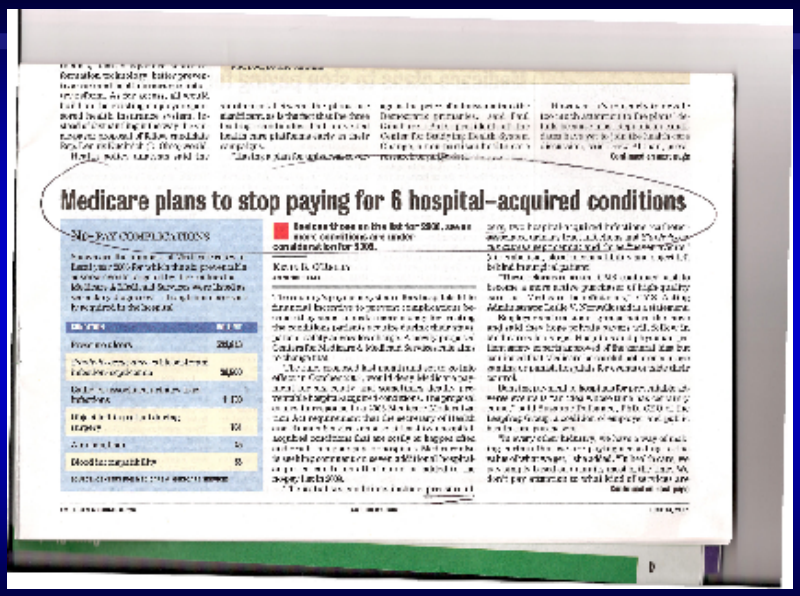
CVICU & M ICU Team

Name	Role	Name	Role
Carolyn Holder	Clinical Nurse Specialist MICU	Patti Berdini Ashley Snyder Lilly Anickat Amy Hanik Alexis MacKenzie	Staff Nurse, MICU
Micah Fisher	Medical Director, MICU		
Mary Zellinger	Clinical Nurse Specialist CVICU	Toni Ash Caroline Durkee	Staff Nurse, CVICU
Christine Lallos	Medical Director CVICU	Connie Bryant Regina Howard	Infection Control Nurse

Aim Statement

- **Decrease hospital associated bloodstream infections by using daily chlorhexidine gluconate baths in ICU patients :**
  - By 50%
  - Six months after intervention is implemented: 9/2008
  - In all CVICU and MICU patients
- **Cost of Bloodstream Infection - $40,000/ea**
- **Annual Cost of BSI's**

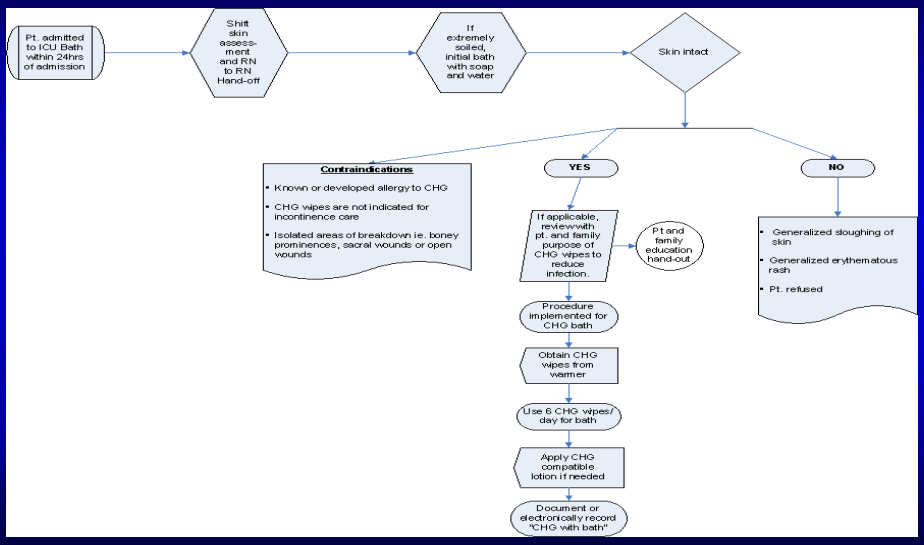
  ____ /yr X $40,000/ea = $_____/yr



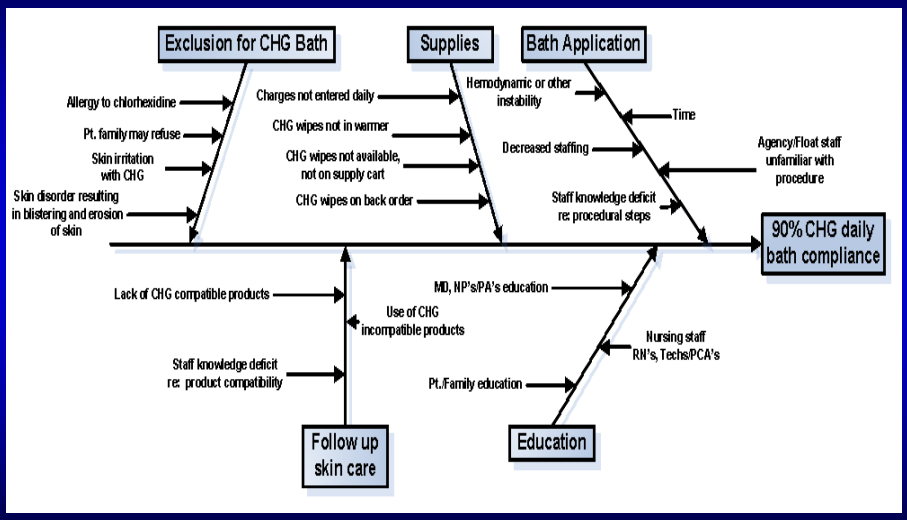
Plan

- **Test of change : Institute chlorhexidine gluconate (CHG) bath cloths for daily bathing in the cardiovascular and medical ICU's at Emory University Hospital**
- **Staff educated March 2008**
- **Start Date: April 1, 2008**
- **Measure: Bloodstream infection rates from central venous catheters and with VRE and MRSA for 6 months prior to the study and for 6 months after the CHG baths implemented. Compliance with daily bath random monitors**

Chlorhexidine Bath Flow Chart



Chlorhexidine Bath Fishbone Diagram



How did we promote staff awareness and participation in this project?

Changes Tested

- Change: Staff educated on daily bath procedure using CHG bath cloths March 2008
- Appropriate warmers provided by manufacturer to provide warm CHG cloths for patient bath
- Procedure revised with products that are compatible and those that are not compatible with CHG April 2008
- Worked with Hospital Purchasing to identify skin products that are compatible with CHG ie lotion
- Clinical rounds and huddles with staff to discuss challenges with CHG baths
- Check for documentation of CHG bath in electronic documentation

Incompatible Products

- Any other brand name lotion/bath products (ex: Bath and Body Works, Suave, etc)
- Dial Soap
- All deodorants
- Tap Water

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Compatible Products

- Proshield Ointment
- Xenaderm
- Comfort Shield Incontinence Wipes & White Baths
- Keri Lotion
- Aquaphor Original Formula Ointment
- Lubriderm Dry Skin Care Lotion
- Eucerin Original Lotion
- Vaseline 100% Pure Petroleum Jelly
- Alcohol foams or rubs
- Keri Oil
- Sween 24 cream

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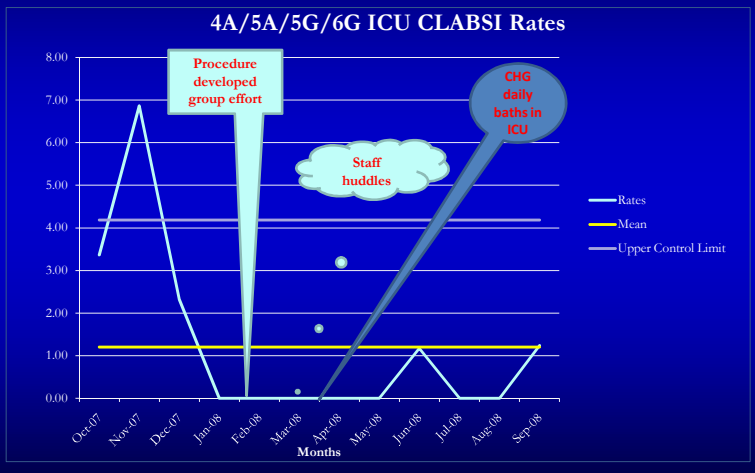
Daily Bathing with an Antiseptic

- In an effort to reduce a chance for infection we will be bathing your loved one daily with chlorhexidine which helps to provide a barrier to bacteria. Evidence shows that this is more effective than soap and water!

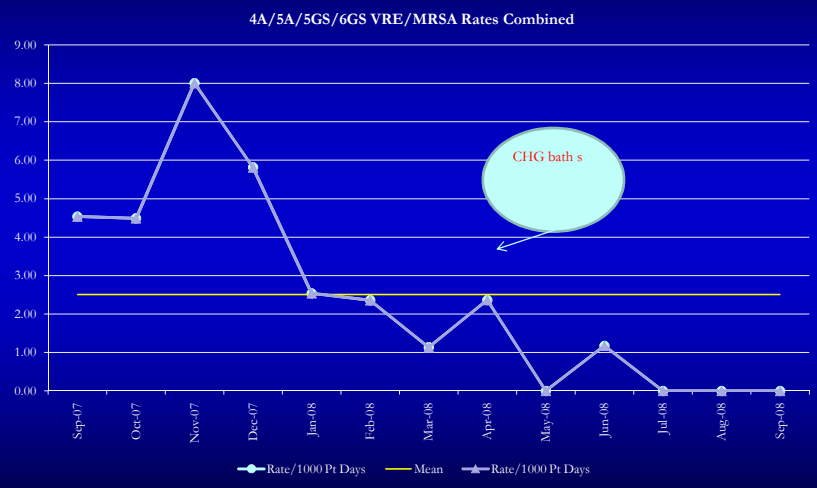
- ***Results:*** *BSI rates decreased from 3.6/1000 patient* days to 1/1000 patient days 6 months after implementation of the chlorhexidine bath procedure.

- The rate of MRSA/VRE colonization was 3.6/1000 patient days prior to the implementation of the chlorhexidine daily baths and was reduced to 1/1000 patient days following implementation.

Catheter Related Associated Blood Stream Infections After CHG Bath



CVICU & MICU VRE/MRSA Rates



Keys to Success & Lessons Learned

- Compatibility issues with chlorhexidine were extremely challenging for staff and all involved
- Staff Nurse & Tech/PCA champions are essential to changing a basic procedure ie. daily bathing
- Sharing data with staff re: costs of bloodstream infections, potential bad outcomes for patient re: LOS and mortality rate extremely helpful for staff buy-in and with staff engagement
- CMS changes in October 2008 re: non payment for hospital acquired infections was important to share with staff

Next Steps

- **We are monitoring compliance with the CHG daily baths by reviewing 30 charts per month to check for documentation of CHG bath:**

  Goal is 90% compliance with daily CHG bath.

- **Expand use of CHG baths at Emory Healthcare:**
  - Developed a research proposal to evaluate the effectiveness of using CHG daily baths on BSI rates for general units.

Thank you!!!!!