



**CLABSI PREVENTION
IN
PEDIATRIC PATIENTS**

Brenda Vason, RN,BSN,CIC

OBJECTIVES

1. Discuss CLABSI facts
2. Define central line and central line associated blood stream infections
3. Discuss steps in developing a CLABSI prevention program in a pediatric setting
4. Discuss prevention strategies and barriers that may prevent successful implementation of recommended changes

CLABSI FACTS

- ❑ The elimination of central line associated blood stream infections has become a national infection prevention priority.
- ❑ Most blood stream infections are associated with central lines
- ❑ Over 250,000 CLABSI occur every year
- ❑ Great number of line infections outside of critical care
- ❑ High cost
- ❑ High mortality especially in neonatal and pediatric intensive care unit



The new CDC Vital Signs article stated:

CLABSI rates in intensive care units decreased from an estimated 43,000 infections in 2001 to an estimated 18,000 in 2009. (58⁰% reduction!)

<http://www.cdc.gov/mmwr/pdf/wk/mm60e0301.pdf>

Definition: Central Line

A vascular infusion device that terminates at or close to the heart or in one of the great vessels.

- Aorta
- Pulmonary artery
- Superior vena cava
- Inferior vena cava
- Subclavian veins
- Common femoral veins
- Umbilical Artery

CLABSI DEFINITION

- ❑ Central Line Associated Blood Stream Infection (CLABSI) is a primary blood stream infection (BSI) in a patient that had a central line within 48 hours before development of the BSI.



CHILDREN

are not

“Little Adults”

PEDIATRIC PATIENT RISK FACTORS

- Limited research data on pediatric specific issues
- More vulnerable to patient safety errors
- Complex special healthcare needs
- Long hospital stay
- Intensive care

WHERE DO YOU START

- Identify champions
- Develop teams/task force
- Participate/create collaborative networks
- Staff Education (Ongoing)
- Implement evidenced - based catheter care bundles
- Monitor Compliance
- Share outcomes/transparency
- Celebrate

CHAMPIONS (CLABSI TEAM)

- Physician**
- Nurses**
- “Can Do People”**
- Administrative Resources**
- Infection Prevention**

COLLABORATIVES AND NETWORKING OPPORTUNITIES

- Create networking and collaboration among like institutions
- Compare results
- Share Resource
- Motivate and promote safety culture
- Provides aggregated data analysis and reporting
- Provide a way to be transparent

STAFF EDUCATION

- Include all staff inserting and caring for central lines
- Medical and nursing staff training should include competency checks during orientation and yearly
- Define central line and line infection
- Define CLABSI Bundle/evidenced based practices
- “Just in time” coach training (empowers staff to speak up)

Evidenced – based catheter care Bundles

- ❑ Definition: a group of evidenced based interventions for patients with intravascular central catheters
- ❑ Purpose: when implemented together , result in better outcomes than when implemented separately
- ❑ Provides standardization throughout the health system
- ❑ Involves team work

CHECK LISTS AND STANDARDIZED KITS

- 2010 NPSG.07.04.01**
- Developed and approved by users**
- Medical surgical unit and Critical care unit specific**

IDENTIFY BARRIERS

- Caregiver or provider related?
- Guideline related?
- System related?

STEPS TO ELIMINATE BARRIERS

- ❑ Care giver related
 - education/dispel myths/break habits
- ❑ Guideline related
 - ease of application to the population
 - supporting evidence
- ❑ System related
 - availability of supplies
 - tool and tool design
 - leadership support

COMPLIANCE MONITORING and FOLLOW - UP

- ❑ Develop guidelines for monthly monitoring and data submission
- ❑ Improve hand hygiene program
- ❑ Monthly or quarterly team meetings to review results, identify barriers to compliance, and develop action plans
- ❑ Provide real time results to caregivers

ACCOUNTABILITY STRATEGIES

- ❑ Create a collaborative culture
- ❑ Keep units/leaders engaged and owning the process
- ❑ Share outcomes (weekly, monthly)

CELEBRATE SUCCESS!



OUR SUCCESS

- ❑ > 395 days since CLABSI in PICU!
- ❑ Maintained an overall 1 infection/1000 line days in medical surgical units !



FUTURE GOAL

□ TARGET ZERO!



QUESTIONS



THANK YOU!

Brenda.Vason@childrensal.org