Infection Prevention—It’s Everyone’s Job!!!

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Objectives

• Gain a better understanding of the Centers for Disease Control and Prevention (CDC) initiatives and how they affect our dialysis world

• Identify two things you can do right now in your facility to improve your infection prevention practices

• Identify one action you can take to increase the likelihood of sustainability of your infection prevention initiatives
About us

• University of VT Medical Center (UVMMC) is comprised of:
  o Six dialysis facilities.
  o One acute hospital-based unit.
  o Five chronic care satellites dispersed throughout the state.

• UVMMC is staffed with registered nurses (RNs) and hemodialysis technicians (HDTs), with staff to patient ratios of:
  o One RN to nine patients.
  o One HDT to three-four patients.
Just a Little History

• 2007—UVMMC partnered with the CDC National Healthcare Safety Network (NHSN) to follow access-related bloodstream infections (ARBSIs) in dialysis

• 2009—UVMMC’s infection preventionist reviewed NHSN data
  o Findings showed that in 2008, UVMMC reported 75 ARBSIs
  o Site managers were alerted to collective infection rates

• 2009—CDC Dialysis Bloodstream Infection (BSI) Prevention Collaborative was birthed with 17 facilities
  o UVMMC realized there were no “best practices” or central repository for BSI incidents
Targeting Zero—A Dialysis Success Story

**Background**
- FAHC Dialysis - comprised of 6 dialysis units. One Acute Hospital based unit and five chronic care satellites dispersed throughout the state of Vermont. (280 patients, 45% catheter rate)
- In Spring of 2007 we partnered with the Centers for Disease Control (CDC) National Healthcare Safety Network (NHSN) for Dialysis to follow access related bloodstream infection (ARBSI) data

**The Problem** - Analysis of one year of NHSN data (2008) revealed:
- Patients with central lines had highest rate of access related bacteremia (ARB) 5.6 per 100 patient months (75 infections)
- Patients with AVF or graft had low rates of ARB
- Hospitalization and antibiotic start data was not found to be useful and collection was discontinued.

**RESPONDING TO THE PROBLEM (“FOCUSED ON DECREASING CENTRAL LINE INFECTION RATE”)**

**PROBLEM**
Central Line ARB rate 5.6 per 100 pt months

**SOLUTION**
- Target Central Line ARB rate 3.0 per 100 pt months

**Central Line ARB rate**
- March 2010

**SUCCESSFUL OUTCOMES**
- 64% reduction in Central line ARB
- NEW CATHETER CARE POLICY
  - Heightened awareness of number of times hand washing is to be done
  - Scrubbing the hands for the required length of time
  - Mindfulness when working with a catheter
  - Ensuring PPE worn correctly and patient wears mask correctly
  - Team approach to catheter procedures (2 people)

**NEXT STEPS**
- Patient Education
  - Enforce positive behaviors
  - 100% hand washing compliance upon entering and exiting unit
- Fistula First Initiative
  - Decrease access use and achieve AVF rate of 50%
- Application of triple antibiotic ointment to catheter sites
  - Per CDC recommendation.
Unit-Based Interventions

• Implementation of an Infection Prevention Advocate (IPA) Committee comprised of:
  o RN and HDT from each unit via:
    • Monthly skype meetings.
    • Quarterly face-to-face meetings.

• Staff involvement with each infection
  o Mini root cause analysis (RCA) at the facility level
  o Monthly leadership presentation of all infections

• Staff audits
  o Using CDC audit tools and creating a “safe zone” culture
Unit-Based Interventions (cont.)

- Education...education...education
- Reinforcement...reinforcement...reinforcement
- Skills labs
  - e.g., Chester Chest™
- Infection Prevention Pledge
- Patient involvement
  - The eyes and ears of the facility
Holy Cow!!!

• So, where do we stand with our infection rate?
• Now that we know, how can we make a difference?
• Is there any HELP out there?
Make Use of Your Resources

- NHSN data—accurate self reporting is key!
- CDC audit tools—why reinvent the wheel?
- IPRO website—provides awesome information.
NHSN

• Is the nation’s most widely used healthcare-associated infection (HAI) tracking system.
• Provides facilities, states, regions, and the nation with the data and reporting capabilities needed to:
  o Identify problem areas, including infection prevention problems by facility, state, or specific quality improvement project.
  o Measure progress of prevention efforts.
  o Identify Benchmark progress of infection prevention efforts.
  o Comply with state and federal public reporting mandates.
  o Drive national progress toward elimination of HAIs.
Take-Aways

• Encourage awareness of the situation—Do all staff know:
  o Your infection rates and improvements made?
  o Their role in preventing infections?
  o What initiatives are in place?

• Get back to basics—Really nothing new:
  o Revisit key initiatives.
    • Do they still look the same?
  o Invest time in your “champions.”
  o Create a safe zone culture.
“Sustainability is AWARENESS”

Sally Hess, CIC, MPH
Infection Prevention Pledge

As important members of the dialysis healthcare team, we **pledge** to protect ourselves and our patients by doing the following:

- Performing hand hygiene per CDC protocol
- Being mindful and following dialysis policies and procedures regarding infection prevention
- Developing a culture that makes it OK for patients to ask me if I washed my hands!
- Working **together** to ensure all staff follow infection prevention protocols

Your Dialysis Team

University of Vermont Medical Center
Renal Services

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Print Name:
Signature:
Date:
Dialysis Resource Site

Dialysis Safety

Patients who undergo dialysis treatment have an increased risk for getting a healthcare-associated infection (HAI). Hemodialysis patients are at a high risk for infection because the process of hemodialysis requires frequent use of catheters or insertion of needles to access the bloodstream. Also, hemodialysis patients have weakened immune systems, which increase their risk for infection, and they require frequent hospitalizations and surgery where they might acquire an infection.
Resources

• CDC Audit Tools

• IPRO
  o [http://esrdnetworks.org](http://esrdnetworks.org)

• NHSN
  o [https://www.cdc.gov/nhsn/pdfs/pscmanual/8pscdialysiseventcurrent.pdf](https://www.cdc.gov/nhsn/pdfs/pscmanual/8pscdialysiseventcurrent.pdf)
  o [https://www.cdc.gov/nhsn/about-nhsn/index.html](https://www.cdc.gov/nhsn/about-nhsn/index.html)

• NTDS
  o [https://www.asn-online.org/ntds/project.aspx?ID=1](https://www.asn-online.org/ntds/project.aspx?ID=1)
Look How Far We Have Come…
Questions???
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