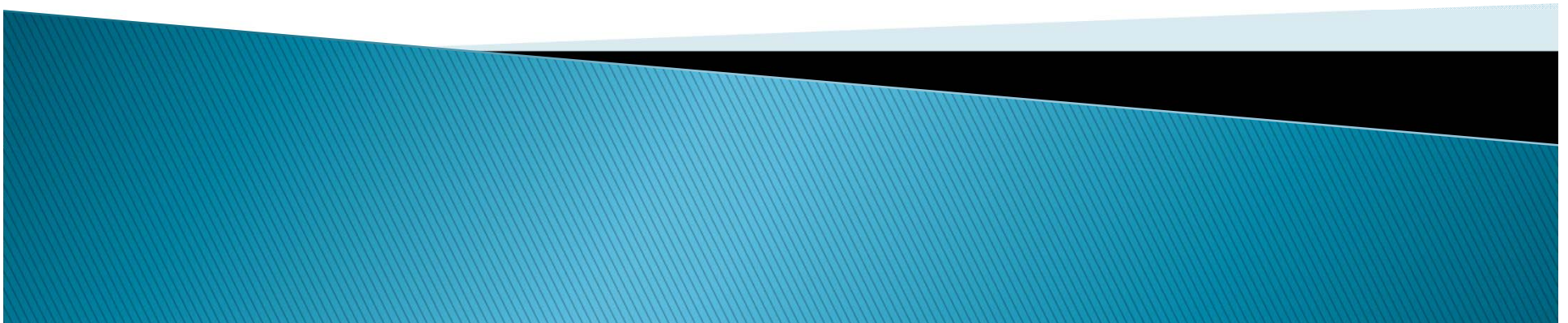


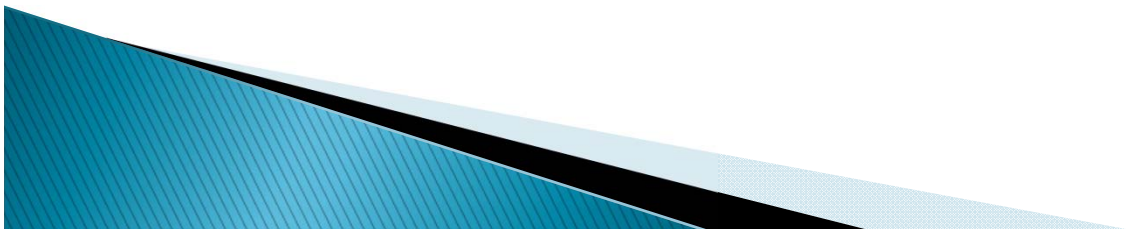
Getting to Zero!
**Central Line–Associated
Infection Prevention**
Multidisciplinary Workshops 2016:
Aseptic Central Line Tubing Line Change

November 2016



Learner Objectives

1. The Learner will be able to describe the importance of using aseptic technique for central line tubing change
2. The Learner will identify the equipment necessary to perform a central line tubing change
3. The Learner will be able to identify which personnel are available to assist during the procedure and ways to control the environment according to The Joint Commission's 4 Chief Aspects of Aseptic Technique
4. The Learner will be able to demonstrate a central line tubing change using aseptic technique and hub care



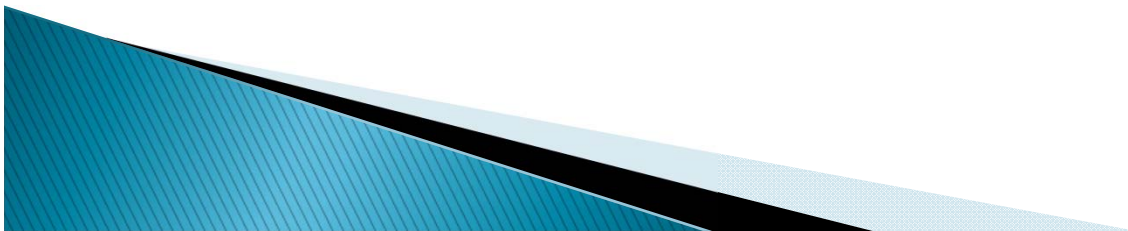
Key Terms

- ▶ Hand Hygiene
- ▶ Red Zone
- ▶ Aseptic Technique
- ▶ Central Venous Catheter
- ▶ Needleless Connector



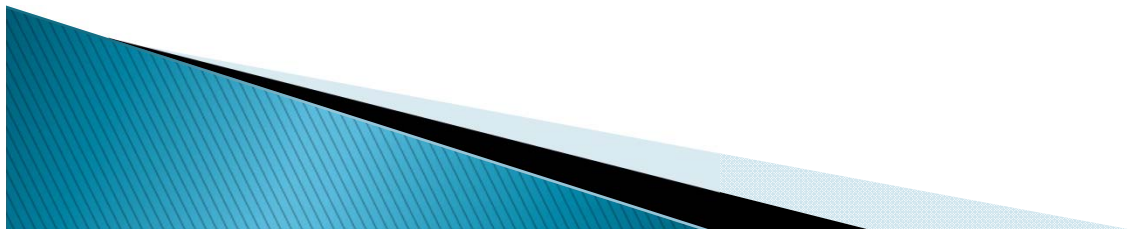
Learner Objective # 1

- ▶ The Learner will be able to describe the importance of using aseptic technique for central line tubing change



CLABSI in the NICU

- ▶ Premature infants are at an increased risk for CLABSI
- ▶ Mortality rates due to CLABSI in the NICU are estimated to be between 4–20%
- ▶ Infection can be reduced by adherence to a strict protocol for placement and maintenance of a central line
- ▶ Improved maintenance includes handling lines aseptically which can significantly reduce CLABSI in neonatal patients



Learner Objective # 2

- ▶ The Learner will identify the equipment necessary to perform a central line tubing change





**STERILE PROCEDURE
IN PROGRESS**



Maximum Barriers

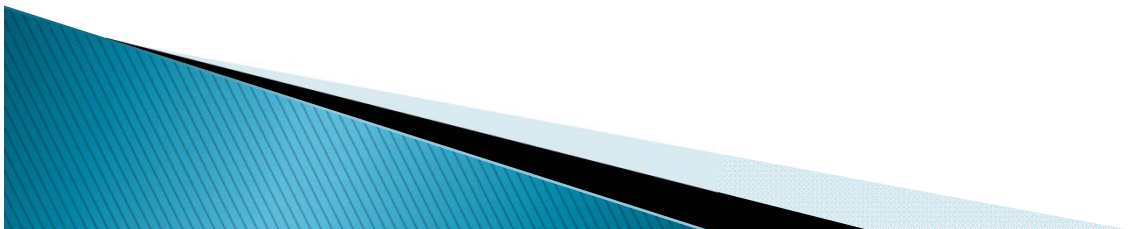
- ▶ Hat and mask
- ▶ Sterile drapes
- ▶ Sterile gown
- ▶ Sterile gloves
- ▶ Sterile gauze
- ▶ Sterile reservoir



Utilization of maximum barriers prevents the transfer of microorganisms from health care providers and the environment to the patient

Learner Objective # 3

- ▶ The Learner will be able to identify which personnel are available to assist during the procedure and ways to control the environment according to The Joint Commission's 4 Chief Aspects of Aseptic Technique



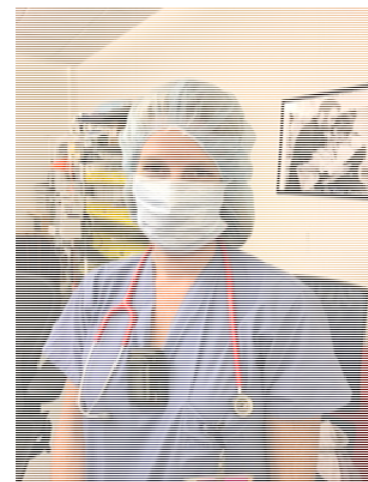
New to You

Utilization of Red Zone

- ▶ No distractions during central line change, Stop Sign on closed door
- ▶ Parents and visitors will be asked to step out if present
- ▶ All other staff and personnel except for the second RN will be asked not to enter the Red Zone Area

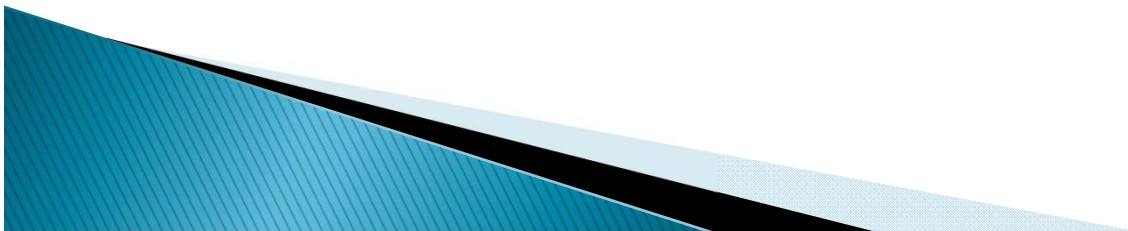


- ▶ Using a second nurse will help to alleviate distractions
- ▶ A second RN will be available to:
 - Answer alarms and phones
 - Offer assistance throughout the tubing line change process as needed
- ▶ The second nurse may be someone in the neighborhood, triage nurse, or a resource nurse



Learner Objective # 4

- ▶ The Learner will be able to demonstrate a central line tubing change using aseptic technique and hub care



Identify a Second Person





Hand Hygiene

- ▶ Hand hygiene is the single most important factor in preventing the spread of pathogens and reducing infections in healthcare settings
- ▶ Keep Purell and clean gloves in an easily accessible location
- ▶ Clean hands and change gloves often



Maintaining Sterility



Priming with 4x4

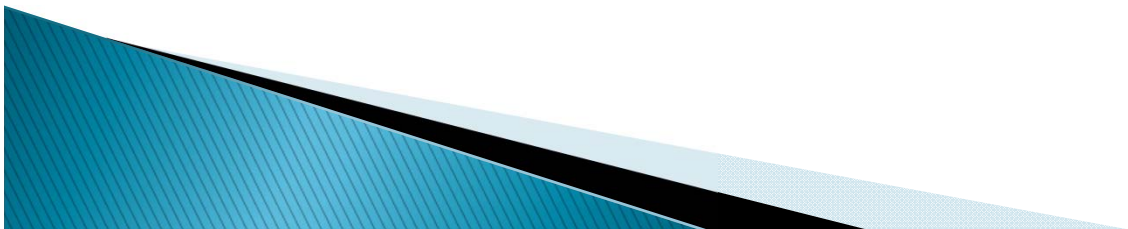


Spiking with 4x4

Sterile Reservoir



When priming lines use reservoir to catch drips



Scrub The Hub



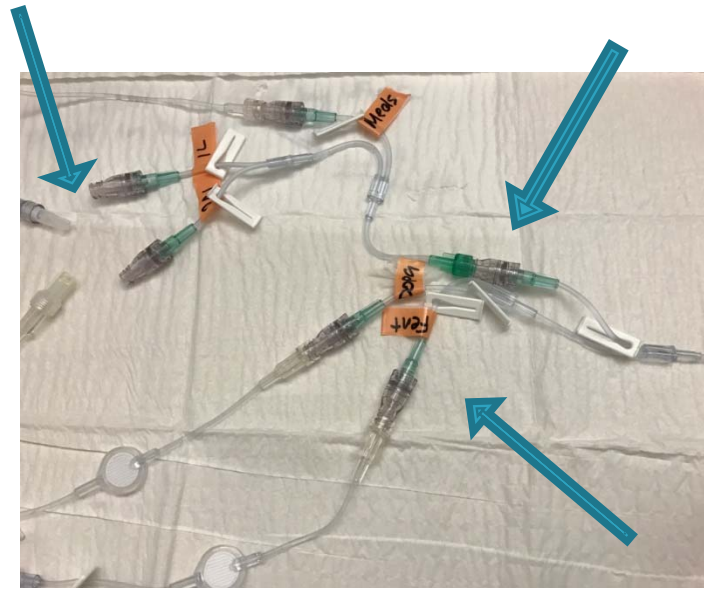
Scrub the hub for 15 seconds and let air dry for 30



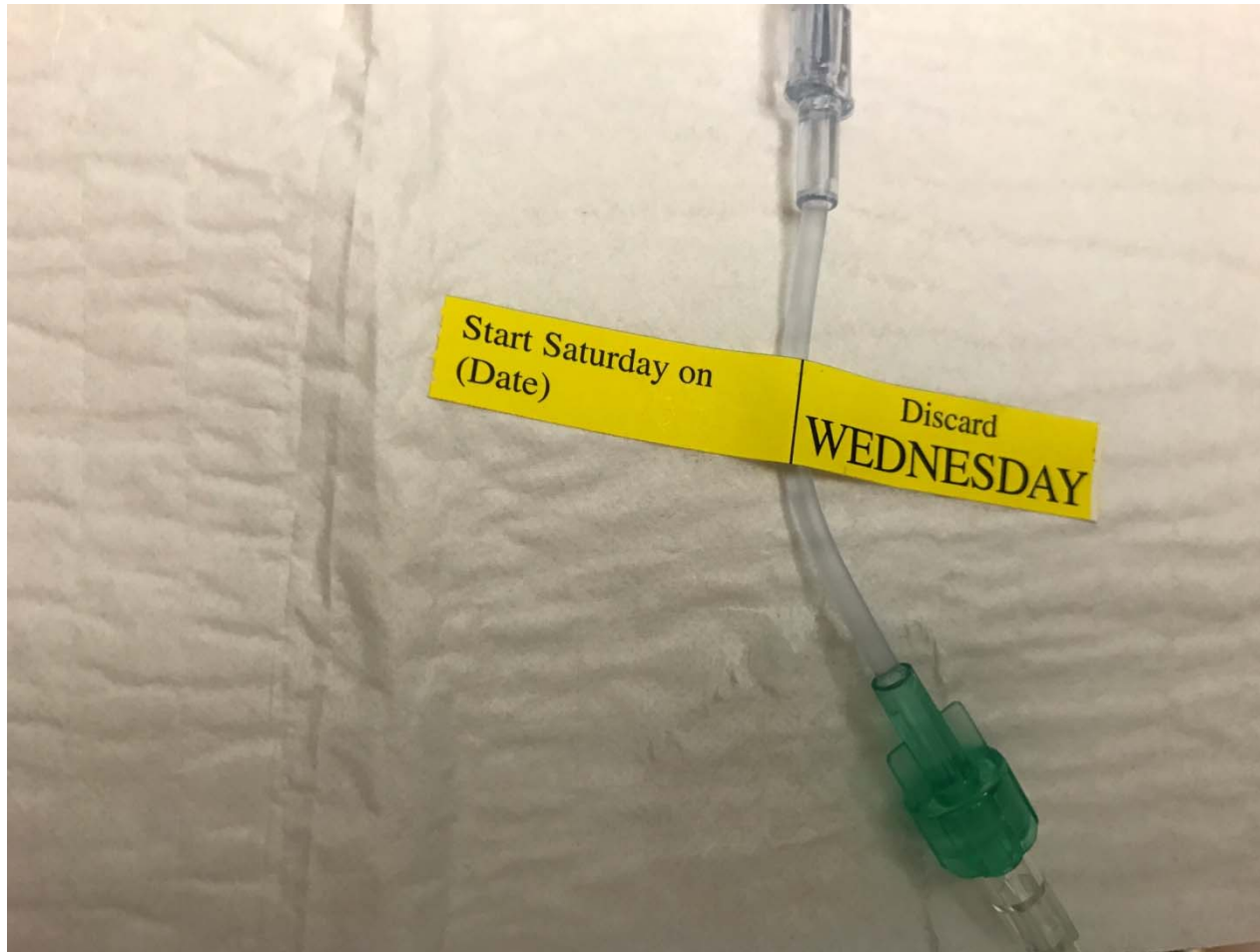
Disconnecting and reconnecting with 2x2's

Connectors

- ▶ Double and triple connectors are good for 96 hours
- ▶ 24 hour fluid (e.g. PN and IL) lines only need to be changed down to connector
- ▶ All connectors should have claves on the end and should be labeled



Label your connectors



References

1. The Center for Disease Control, Hand hygiene guideline in healthcare settings. March 25, 2016. Accessed November 2, 2016. <http://www.cdc.gov/handhygiene/providers/guideline>.
2. The Joint Commission, Preventing central line-associated bloodstream infections: Useful tools, an international perspective. November 20, 2013. Accessed October 20, 2016. <http://www.jointcommission.org/CLABSIToolkit>
3. Suresh G. and Edwards W. Central line-associated bloodstream infections in neonatal intensive care: changing the mental model from inevitability to preventability. *American Journal of Perinatology* 2012;29:57-64.
4. Ying J. Goh V. and Osiovich H. Reduction of central line-associated bloodstream infections in a neonatal intensive care unit after implementation of a multidisciplinary evidence-based quality improvement collaborative: a four year surveillance. *Canadian Journal of Infectious Diseases and Medical Microbiology* 2013;24(4)185-190

