Introduction:
• A common cause of healthcare acquired infections (HAIs) in the United States is primary bloodstream infections due to peripheral or central catheter use
  • Guidelines for prevention of these infections include handwashing and scrubbing the catheter port with alcohol swabs before access
  • Although this is standard protocol, primary bloodstream infections are still prevalent in hospitals
  • Changing the protocol from the use of alcohol swabs to disinfection caps imbedded with 70% alcohol can reduce the infection rate and save lives

Implications:
• Roughly 75,000 patients die each year from HAIs; 10% die from primary bloodstream infections
• Patients with HAIs are more likely to develop additional serious health complications
• Using disinfection caps can reduce the number of infectious organisms living on peripheral and central tubing and the ports

Research:
• Common infectious agents include: methicillin-resistant S. aureus and Staphylococcus, Micrococcus, and Bacillus spp (Wright et al., 2013)
• The risk of contracting septicemia, osteomyelitis, or endocarditis increases after acquiring an HAI (Langton, 2014)
• In one study, infection rates dropped from 12.7% to 5.5% after implementing the use of disinfection caps (Disinfection Cap Helps Reduce CLABSI rate, 2013)

Plan:
• Gather relevant data
• Review the current policy on catheter port disinfection and statistics of primary bloodstream infections in the hospital

Do:
• Present research and plan for change to the hospital review board
• Assemble an associate meeting to discuss the change and the current literature
• Distribute and collect patient consent forms
• Educate physicians and nurses on the use of the new disinfection caps and begin applying the change
• Collect data over a three month period once implemented

Study:
• After three months, review the occurrences of HAIs and compare the statistics to those prior to the study
• Expect to see reduced rates of primary bloodstream infections related to catheter maintenance

Act:
• If the change results are successful, implement a new policy for the use of disinfection caps for peripheral and central catheter maintenance

References:
• Disinfection Cap Helps Reduce CLABSI Rate. (2013). AACN Bold Voices, 5(4), 10-10
• Langton, H. (2014). The management of central venous catheters and infection control: is it time to change our approach?. Journal of Perioperative Practice, 24(6), 141-146