Developing an Efficient CAUTI Surveillance Method Using an Automated Data Collection Process
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Objectives
- Describe the development of an automated approach for CAUTI surveillance utilizing innovative technology
- Demonstrate an algorithmic method to the CDC CAUTI surveillance guidelines

Implementation
- **Numerator DATA – Number of Hospital-Acquired CAUTIs**
  Weekly report to capture patients with positive urine micro cultures and Foley orders from CIS (Clinical Information Systems)
- **Denominator DATA – Foley Catheter Days**
  Daily report to retrieve Foley catheter days & maximum temperature from the electronic V/S and I/O Flowsheet

Evaluation
- The multidisciplinary team was instrumental in developing our CAUTI surveillance program
- The collaborative effort:
  - Made the process much less complicated
  - Improved reliability of the data
  - Reduced the time to review and report CAUTIs
  - Greatly decreased the number of chart reviews

Significance
- CAUTIs are one of the most common hospital-acquired infections (HAIs), increasing hospital stay, mortality, and cost
- Regulation: Joint Commission National Patient Safety Goal
- Interdisciplinary efforts to establish best practice, provide data for staff education, and create periodic reports to monitor infections and help facilitate CAUTI prevention

Challenges
- Initial ICU CAUTI surveillance included manual entry into a spreadsheet
  - ICU staff entered data for all patients admitted to the ICU
  - Infection Control reviewed every ICU patient with a Foley for a positive urine culture and signs/symptoms of a CAUTI
- Data collection process was tedious and time-consuming

Strategy
- A multidisciplinary group (Nursing, Nursing Informatics, Nursing Quality, Infection Control, and IT department) analyzed the manual data collection process in the ICU to develop a more streamlined method
  - Scope: ICU ➔ All Inpatient units
  - Evaluation of the current information systems
  - Clinical Documentation (electronic V/S & I/O Flowsheet)
  - CPOE (Computerized Provider Order Entry)
  - Laboratory

Implications for Practice
- Using advanced technology and electronic information, evaluations of CAUTIs are done in a timely manner and the results are promptly provided to the frontline staff taking care of the patients
- This information is shared with our CAUTI prevention work group to help guide infection prevention practices
- Next Step: develop a database to merge CAUTI data reports and further improve our automated reporting process

Contributors
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References