Catheter Associated Urinary Tract Infection (CAUTI) Prevention

Analytic Accelerator  
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Helps teams document catheter associated urinary tract infection cases to support NHSN reporting and analyze trends to support CAUTI prevention

The **Catheter Associated Urinary Tract Infection (CAUTI) Prevention** is designed for hospital infection prevention teams, clinical and operational directors, hospital leadership and members of quality improvement teams. The CAUTII application enables users to efficiently find, review, and document CAUTI cases to support NHSN (National Healthcare Safety Network) reporting and to review outcomes and trends of CAUTI across institutions and health systems. It also provides near real-time analysis of internal processes related to CAUTI to support care process improvement for CAUTI prevention.

Data Sources

EMR, nurse charting, orders, hospital billing records, professional billing system(s), Costing
Features and Benefits

- The Performance dashboard helps users measure outcome metrics (CAUTI rate, urinary catheter utilization, excess cost, etc.) in relation to intervention metrics (hand hygiene and urinary catheter maintenance bundle compliance).
- The Urinary Catheter Risk dashboard enables users to identify the hospital care location where patients are at increased risk of developing CAUTI.
- Workflow dashboard(s) provide infection prevention surveillance teams with automated worklists. These dashboards are interactive and give the surveillance team the ability to evaluate auto-flagged cases, along with supporting clinical details, to make the final determination of the CAUTI cases prior NHSN submission.

Background and Problem Summary

Infectious complications from urinary catheter placement, known as CAUTI, are alarmingly frequent, second only to surgical site infection (SSI) (CDC, 2015), based on recent reports by acute care hospitals to the CDC National Healthcare Safety Network (NHSN). CAUTI cases are largely preventable by proper application of best practices such as removing un-needed urinary catheters and properly inserting and maintaining urinary catheters. Effective implementation of these best practices has been shown to reduce CAUTI infection rates.

In FY 2015, the CMS-administered Hospital-Acquired Conditions (HAC) Reduction Program will penalize the lowest performing hospitals by 1% based on CAUTI and CLABSI rates reported to the NHSN (National Healthcare Safety Network) as well as PSI- scores. Identifying and reporting CAUTI cases has become essential to health systems. However, doing so often requires extensive manual chart review according to complex NHSN rules. This inefficient surveillance process results in ‘measurement waste’—one consequence of which is a lack of infection prevention resources available to support upstream clinical process improvement to actually decrease the risk and incidence of reported CAUTI cases.
Use Cases

- An executive is interested in understanding the hospital CAUTI rate as well as understanding how compliant the doctors and nurses are at following best practices for hand hygiene. The CAUTI advanced application allows this user to find these outcome and intervention metrics.
- An infection preventionist (IP) would like to easily identify and review all positive urine cultures to determine if additional CAUTI cases need to be reported to the CDC (Centers for Disease Control) via NHSN. The CAUTI advanced application enables the IP to filter down a list of positive blood cultures to those most recently

Opportunity Insights

- Rapidly find, assess and document CAUTI cases according to NHSN definitions.
- Efficiently review NHSN submission data and CAUTI rates.
- Understand CAUTI risk based on device utilization and bundle compliance based on care location to identify and prioritize improvement interventions.
- Drill down to the facility, unit, service, or patient level to analyze performance, provide feedback, and support measurement of performance improvement interventions.
Potential Improvements

Reduce Risk of HAC Reduction Program Penalties:

- CAUTI is one of the HACs measured for the 1% reimbursement penalty form CMS in 2015.

Opportunity Identification:

- Measure and broadly share CAUTI rates and CAUTI prevention bundle compliance measures across the enterprise to help make visible the opportunities for improvement.

Process Improvements:

- XX% improvement in reduction of utilization in urinary catheter utilization days.

Outcomes Improvement:

- Decrease CAUTI rate or CAUTI-specific readmission rate by XX%.