Colorado Improves Accuracy of Central Line-associated Bloodstream Infection (CLABSI) Numbers

Colorado healthcare facilities have been required to publicly report central line-associated bloodstream infection (CLABSI) data to CDC’s National Healthcare Safety Network (NHSN) since 2008. The Colorado Department of Public Health and Environment ensures health facilities report the required healthcare-associated infection data to NHSN, including CLABSI data.

Inaccurate data reported by facilities can result in incorrect comparisons, mislead the public and result in facilities not recognizing infection practices that need improvement.

To ensure the quality and accuracy of the data reported to NHSN, the Colorado Department of Public Health and Environment’s Patient Safety Program undertook a validation study to identify any discrepancies in reporting of HAIs.
What Colorado Accomplished

The Colorado Department of Public Health and Environment staff conducted interviews with hospital infection preventionists (IPs) and performed onsite chart reviews of randomly selected patients with positive blood cultures in specific adult critical care units, neonatal critical care units level II/III and III, and long-term acute care facilities during the first three months of 2010. The reviewers visited 41 facilities and interviewed the infection preventionists at 60 facilities. The chart reviewers were unaware of the infection status of the patients and each chart was reviewed by each reviewer. Additionally, charts of patients with reported CLABSIs that were not in the initial random selection were reviewed for potential over-reporting.

This validation effort was important to improve accuracy of data that can lead to better prevention across healthcare since it included acute care hospitals and long-term acute care healthcare facilities.

The two primary reasons for misclassification of CLABSI were misinterpretation of the surveillance definition and surveillance errors. Discrepancies were also identified in surveillance practices and the reporting of daily patient admissions and central line usage.

CDC’s Role

CDC manages NHSN, the largest healthcare-associated infection reporting system in the United States; over 8,000 healthcare facilities participate. CDC provided funding for site visits and health department staff to support this validation program. CDC experts also provided technical support in evaluating difficult cases, and assisted the health department with potential misinterpretations of current definitions.

What We Learned

- Ongoing validation of healthcare-associated infection data is an important step to improve tracking and prevention of HAIs.
- Education and guidance were provided by the Patient Safety Team to achieve greater consistency in surveillance practices across facilities. The Team also provided individual reports to each infection preventionist to highlight areas where they exceeded expectations as well as areas where improvement was needed.
- There was limited communication during the transferring of patients between facilities.
- The team was able to incorporate areas of improvement into CLABSI training classes provided to infection preventionists in Colorado.