
Abstract:

Background - In New Mexico, voluntary submission of central line–associated bloodstream infection (CLABSI) surveillance data via the National Healthcare Safety Network (NHSN) began in July 2008. Validation of CLABSI data is necessary to ensure quality, accuracy, and reliability of surveillance efforts.

Methods - We conducted a retrospective medical record review of 123 individuals with positive blood cultures who were admitted to adult intensive care units (ICU) at 6 New Mexico hospitals between November 2009 and March 2010. Blinded reviews were conducted independently by pairs of reviewers using standardized data collection instruments. Findings were compared between reviewers and with NHSN data. Discordant cases were reviewed and reconciled with hospital infection preventionists.

Results - Initially, 118 individuals were identified for medical record review. Seven ICU CLABSI events were identified by the reviewers. Data submitted to the NHSN revealed 8 ICU CLABSI events, 5 of which had not been identified for medical record review and 3 of which had been determined by reviewers to not be ICU CLABSI cases. Comparison of final case determinations for all 123 individuals with NHSN data resulted in a sensitivity of 66.7%, specificity of 100%, positive predictive value of 100%, and negative predictive value of 96.5% for ICU CLABSI surveillance.

Conclusions - There is need for ongoing quality improvement and validation processes to ensure accurate NHSN data.