



HOB was not consistent over time. Postnatal age should be considered in a neonatal HOB quality metric.

Disclosures: None

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Presentation Type:

Poster Presentation - Poster Presentation

Subject Category: Quality Assessment

Team-based infection preventionist review improves interrater reliability in identification of hospital-acquired infections

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Background: The University of Colorado Health (UCHealth) metropolitan region is composed of 4 hospitals. Therein, 10 infection preventionists (IPs) retrospectively review all cases of potential central-line-associated bloodstream infection (CLABSI), catheter-associated urinary tract infection (CAUTI), and surgical site infection (SSI) to adjudicate whether each case meets the NHSN definitions for hospital-acquired infection (HAI). In August 2021, the UCHealth IP team structure transitioned from a subject-matter expert model (in which each IP reviewed a specific HAI) to a unit-based model (in which each IP reviewed all HAIs and SSIs on their assigned units) to create redundancy in knowledge and skill. The IP team subsequently instituted a weekly meeting to review all potential cases of HAI. We hypothesized that this review structure would result in increased consistency in the application of NHSN definitions across the UCHealth hospitals and units. **Methods:** From August 17, 2022, through March 3, 2023, the UCHealth IPs, managers, and medical directors met weekly for 1 hour via teleconferencing. Each IP presented key details for all near-miss and confirmed cases of SSI or HAI on their respective units and received questions and feedback from their peers and medical directors. Case determination was based on team discussion and consensus. If there was discordance in the interpretation of an NHSN case definition, a formal inquiry was sent to resolve the uncertainty. The number of cases reviewed, case determinations changed, and formal inquiries to NHSN were tracked. **Results:** During the study period, the IP team convened weekly meetings and reviewed 248 patient cases—of which 208 (83.9%) were confirmed HAIs. Based on collaborative team discussion, 14 cases (5.6%) were changed from reportable to nonreportable. Three cases (1.2%) originally thought to be nonreportable were changed to reportable. The HAI determination of a reportable case (eg, revision of a “superficial” SSI to “deep” SSI) was changed for 9 (6.0%). Following team discussion, 13 formal inquiries were sent to the NHSN to clarify case definitions, and these responses were collated for future reference. **Conclusions:** Team-based IP review of HAI cases improves consistency in application of NHSN case definitions and highlights areas of uncertainty in their interpretation. This team-based model of case review is a useful educational and practical tool to increase interrater reliability in case adjudication across

large teams of IPs, to create a systematic way to query NHSN, and to ensure that knowledge gained is disseminated for future benefit.

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Presentation Type:

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Subject Category: Respiratory viruses other than SARS-CoV-2

Incidence, risk factors, and outcomes of hospital-acquired infections with common respiratory viruses

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Background: We estimated the incidence of hospital-acquired respiratory virus infections (HARVIs) by viral species, and we identified risk factors for and outcomes of HARVIs. **Methods:** We identified a cohort of all inpatient admissions of ≥ 24 hours duration to University of Michigan hospitals during 3 study years (2017–2018, 2018–2019, and 2019–2020). HARVIs were defined as initial respiratory virus detection (adenovirus, coronaviruses, human metapneumovirus, influenza A and B, parainfluenza viruses, respiratory syncytial virus, or rhinovirus-enterovirus) in a clinical test ordered after the 95th percentile of the virus-specific incubation period. Incidence was calculated as the number of HARVIs per 10,000 patient admission days. Patient demographic and clinical characteristics were assessed as risk factors for HARVI in Cox proportional hazards models of the competing outcomes of HARVIs and hospital discharge. The association between time-varying HARVI status and the competing outcomes of discharge and in-hospital death was estimated in covariate-adjusted Cox-proportional hazards models. All analyses were performed separately for adult patients (aged ≥ 18 years) and pediatric patients (aged < 18 years). **Results:** The overall incidences of HARVI were 8.5 and 3.0 per 10,000 admission days for pediatric and adult patients, respectively. Rhinovirus was the most common HARVI in both pediatric and adult patients, with incidences of 5.1 and 1.1 infections per 10,000 admission days, respectively. With the exception of influenza A, the incidence of HARVI was higher in pediatric patients than adult patients for all viral species. For adults, congestive heart failure, renal disease, and cancer all increased HARVI risk independent of their associations with extended hospital stays. Risk of HARVI was also elevated for patients admitted September through June relative to July admissions. For pediatric patients, chronic cardiovascular and respiratory conditions, cancer, medical-device dependence, and December admission increased risk of HARVI. Age, sex, and race were not associated with risk of HARVI for children or adults. Inpatient lengths of stay were longer for adults with HARVI compared to those without (range of virus-specific hazard ratios, 0.48–0.77). However, estimated effects were not statistically significant for human metapneumovirus, parainfluenza, or adenovirus. Only influenza A was associated with an increased risk of in-hospital death within 30 days of infection for adults. No HARVIs were associated with increased length of stay or risk of death for pediatric patients. **Conclusions:** The incidence of HARVI varied by viral species and was higher among pediatric patients. HARVIs increased the length of hospital stays for adults but not for pediatric patients.

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Subject Category: SSI

Quality improvement approach for surgical-site infection prevention in a Philippine provincial hospital

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