CALL TO ACTION
HOSPITAL ONSET BACTEREMIA AND FUNGEMIA

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WHAT WE KNOW

At SHEA Spring Conference it was announced that CDC will be adding Hospital Onset Bacteremia and Fungemia as a surveillance protocol for hospitals with a target launch for early 2023

Definition:

Blood culture collected on day 4 or later with pathogenic bacteria or fungi

Complimentary metrics: Blood culture utilization, Blood culture contamination, Community-onset bacteremia and fungemia, Matching Commensal Hospital-Onset Bacteremia

BACKGROUND

From Dr. Dantes' presentation:

Patient perspective: I should not be developing bloodstream infection after I come to the hospital… whether it's due to a central line or otherwise"

- Objective determination with minimal data collection burden
- Casts a broader net to address patient safety outcomes in hospital care settings
- Intended to increase awareness, promote adherence to recommended clinical guidelines and encourage hospitals to track and improve their practices
- CLABSI and MRSA LabID events are a subset of Hospital Onset Bacteremia and Fungemia

List of Measures Under Consideration: CMS Published December 1, 2021

"This measure tracks the development of new bacteremia and fungemia among patients already admitted to acute care hospitals, using algorithmic determinations from data sources widely available in electronic health records. This measure includes many healthcare-associated infections not currently under surveillance by the Center for Disease Control and Prevention (CDC)'s national healthcare safety network (NHSN). Ongoing surveillance also requires minimal data collection burden for users."

CMS programs included:

Hospital-Acquired Condition Reduction Program; Hospital Inpatient Quality Reporting Program; Medicare and Medicaid Promoting Interoperability Program for Eligible Hospitals (EHs) or Critical Access Hospitals (CAHs); PPS-Exempt Cancer Hospital Quality Reporting Program

CMS INVOLVEMENT

On April 18th Centers for Medicare & Medicaid Services published its annual proposed rule for federal fiscal year 2023 Inpatient Prospective Payment System (IPPS) and Long-Term Care Hospital Prospective Payment System

"We request information on the potential future adoption of two digital NHSN measures, the NHSN Healthcare-associated Clostridioides difficile Infection Outcome Measure and the NHSN Hospital-Onset Bacteremia & Fungemia Outcome Measure, into the Hospital IQR Program, PCHQR Program, and the LTCH QRP.

In addition, we request information on the potential inclusion of these digital CDC NHSN measures in the HAC Reduction Program. This request for information supports our goal of moving fully to digital quality measurement in CMS quality reporting and value-based purchasing programs, including the HAC Reduction Program."

NUMERATOR

- Must meet Bacteremia OR Fungemia criteria (BFC), ~~AND Antimicrobial treatment criteria (ATC).~~
- Bacteremia OR Fungemia criteria (BFC): Patient of any age has a recognized bacterial or fungal pathogen from a blood specimen collected on the 3rd calendar day of admission (*** proposed rule states day 4***) or later (where the date of admission to an inpatient location is calendar day 1
  - The pathogen must not be included on the NHSN common commensal list, and meet EITHER of the following criteria:
    - 1) Pathogen identified by culture of one or more blood specimens,
    - OR 2) Pathogen identified to the genus or species level by non-culture based microbiologic testing (NCT) methods.
    - ~~Antimicrobial Treatment Criteria (ATC): A patent must have been administered at least 1 dose of an intravenous or oral (including all enteral routes) antimicrobial in the window period extending 2 calendar days before and 2 calendar days after the date of blood specimen collection for BFC. The date of blood specimen collection is day 0.~~

NUMERATOR EXCEPTIONS

- Previous matching Present on Admission Bacteremia or Fungemia: If a patient meets BFC but also had a pathogen matching to the same species or genus level identified from a blood specimen by culture or NCT that was collected in the Present on Admission (POA) window, defined as hospital calendar day 2 (**3 in proposed rule**) or earlier (where calendar date of admission to an inpatient location is day

  1), then this BFC is excluded from the HOB measure. If multiple pathogens are identified from the same blood culture or NCT, then a match of any of those pathogens to a POA blood pathogen is sufficient to exclude the BFC from the HOB measure.

  2) Previous HOB event: A patient with a previous HOB event is excluded from additional HOB events during the same hospital admission

DENOMINATOR

The expected number of HOB events based on predictive models using facility- and patient care location data as predictors

Exclusions:
Data from patients who are not assigned to an inpatient bed in an applicable location are excluded from the denominator counts. Denominator counts exclude data from inpatient rehabilitation units and inpatient psychiatric units with unique CMS Certification Numbers (CCN) than the acute care facility.

Exceptions:
Under investigation, subject to change.

RATIONALE

Multiple justification studies are underway. An HOB measure is viewed favorably among subject matter experts and users. A survey of 89 researchers in the Society for Hospital Epidemiology of America (SHEA) Research Network found that “Among the majority of SHEA Research Network respondents, HOB is perceived as preventable, reflective of quality of care, and potentially acceptable as a publicly reported quality metric.” Furthermore, “Given a choice to publicly report central-line-associated bloodstream infections (CLABSIs) and/or HOB, 57% favored reporting either HOB alone (22%) or in addition to CLABSI (35%) and 34% favored CLABSI alone.”

HOW TO:

1. Electronically. You may (and we encourage you to) submit electronic comments on this regulation to *https:// www.regulations.gov*. Follow the instructions under the "submit a comment" tab.

2. By regular mail. You may mail written comments to the following address ONLY: Centers for Medicare & Medicaid Services, Department of Health and Human Services, Attention: CMS–1771–P, P.O. Box 8013, Baltimore, MD 21244–1850.

Please allow sufficient time for mailed comments to be received before the close of the comment period.

3. By express or overnight mail. You may send written comments via express or overnight mail to the following address ONLY: Centers for Medicare & Medicaid Services, Department of Health and Human Services, Attention: CMS–1771–P, Mail Stop C4–26–05, 7500 Security Boulevard, Baltimore, MD 21244–1850.

DEADLINE FOR POSTING COMMENTS IS JUNE 17TH 2022 @ 5PM EDT

HTTPS://WWW.REGULATIONS.GOV/DOCUMENT/CMS-2022-0074-0006