Learning Objectives

- Gain further understanding of the updated GI-IAB – intraabdominal definition
- Explain where to find the most up to date ICD-10-PCS and CPT NHSN operative procedure codes
- Describe managing PATOS events for the 2015 Rebaseline
- Review identification of organism(s) in specimens from brain-dead patient awaiting organ harvest
- Describe update to the NHSN Organism List
- Gain further understanding of the MBI-LCBI removal from the CLABSI SIR
- Explain the determination for patients accessing central lines
- Apply Secondary BSI Assignment
- Identify NHSN Training tools and resources

But first – let’s begin with a polling question!
Background

The current process for MDRO/CDI LabID event reporting requires facilities to determine if a positive specimen meets the definition, i.e. no prior positive specimen for same patient/same location within 14 days. Within the protocol is a recommendation that each facility keep an internal line listing log of all positive tests as a reference in LabID event reporting. There is discussion for reporting all positive specimens to NHSN and allowing the application to determine which events meet definition. Advantages to reporting all positive specimens include:

- Removes decision making from users
- Decreases time related to electronic download/import
- Removes the need for the facility to keep an internal line listing log of all positive tests as a reference
- Removes inaccurate categorization of ‘incident’ events in situations where the patient changes location and positive specimen is > 14 days from a prior positive

Disadvantages:

- Potential for increased time for data entry if submitting LabID events manually

Polling Question

- Would you be in favor of a move to submit all positive specimens as LabID events and allow the NHSN application to determine which events meet definition?

1. Yes
2. No
Question

Q: Can you give a quick review of the updated GI-IAB intraabdominal infection definition?

GI- IAB- Intraabdominal
(surgical and non-surgical IAB infections)

IAB-Intraabdominal infection, not specified elsewhere including gallbladder, bile ducts, liver (excluding viral hepatitis), spleen, pancreas, peritoneum, subphrenic or subdiaphragmatic space, or other intraabdominal tissue or area not specified elsewhere

Intraabdominal infections must meet at least one of the following criteria:
1. Patient has organisms identified from an abscess or from purulent material from intraabdominal space by a culture or non-culture based microbiologic testing method which is performed for purposes of clinical diagnosis or treatment (e.g., not Active Surveillance Culture/Testing (ASC/AST)).
GI-IAB-Updated — NEW 2b (surgical and non-surgical IAB infections)

2. Patient has [at least one of the following]:
   a. abscess or other evidence of intraabdominal infection on gross anatomic or histopathologic exam
   b. abscess or other evidence of intraabdominal infection on gross anatomic or histopathologic exam and organism(s) identified from blood by a culture or non-culture based microbiologic testing method, which is performed for purposes of clinical diagnosis or treatment (e.g., not Active Surveillance Culture/Testing (ASC/AST). The organism(s) identified in the blood must contain at least one of the following organisms: Bacteroides spp., Candida spp., Clostridium spp., Enterococcus spp., Fusobacterium spp., Peptostreptococcus spp., Prevotella spp., Veillonella spp., or Enterobacteriaceae

GI-IAB-Updated (surgical and non-surgical IAB infections)

3. Patient has at least two of the following signs or symptoms: fever (>38.0°C), nausea*, vomiting*, abdominal pain*, or jaundice*

   And at least one of the following:
   a. organisms seen on Gram stain or identified from drainage or tissue obtained during invasive procedure or from an aseptically-placed drain (e.g., closed suction drainage system, open drain, T-tube drain, CT guided drainage) by a culture or non-culture based microbiologic testing method which is performed for purposes of clinical diagnosis or treatment (e.g., not Active Surveillance Culture/Testing (ASC/AST).

   b. organisms identified from blood by a culture or non-culture based microbiologic testing method which is performed for purposes of clinical diagnosis or treatment (e.g., not Active Surveillance Culture/Testing (ASC/AST) and imaging test evidence suggestive of infection (e.g., ultrasound, CT scan, MRI, radionuclide scans (gallium, technetium, etc.) or on abdominal x-ray), which if equivocal is supported by clinical correlation (i.e., physician documentation of antimicrobial treatment for intraabdominal infection). The organism(s) identified in the blood must contain at least one of the following organisms: Bacteroides spp., Candida spp., Clostridium spp., Enterococcus spp., Fusobacterium spp., Peptostreptococcus spp., Prevotella spp., Veillonella spp., or Enterobacteriaceae

* With no other recognized cause

Clinical Correlation

From Key Terms:

Physician documentation of antimicrobial treatment for site-specific infection.
Question

Q: How do I know if I am using the most up to date set of ICD-10-PCS or CPT codes and what should I do if I have a question about a code?

Confirm that the codes that are being used are most up to date version on the NHSN website

ICD-10-PCS and CPT Code FAQ

New! FAQs for 2016:
- FAQs: Surgical Site Infections SSI April 2016
- FAQs: SHI Procedure Codes April 2016
- FAQs: Analysis April 2016
- FAQs: Annual Survey April 2016
- FAQs: CDA
- FAQs: Locations April 2016
- FAQs: Miscellaneous April 2016
2015 Re-baseline Activities: Managing Present at Time of Surgery (PATOS) Events
Rebecca Yvonne Konnor
Epidemiologist

Present at Time of Surgery (PATOS) Events

- Definition
- Case Studies
- More information can be found: [http://www.cdc.gov/nhsn/training/index.html](http://www.cdc.gov/nhsn/training/index.html)
Re-baseline Activities

- CDC will be using 2015 data as new baseline for SIRs
- Analyses will be completed during the summer of 2016
  - Will include updated risk models for HAI
- New 2015 baseline and updated risk models available in the application in December 2016

Re-baseline of SSI SIR using 2015 Data: Managing Present at Time of Surgery (PATOS) Events

- **QUESTION:** Will PATOS be excluded from SIR with the new baseline?
  - The **Complex 30-day SSI SIR** will exclude SSIs that are reported as PATOS
  - This exclusion will be applied when the re-baseline is complete later this year
  - This exclusion will be applied retrospectively to the 2015 data and then forward

Re-baseline of SSI SIR using 2015 Data: Managing PATOS Events

- **QUESTION:** Will NHSN report the 2015 and 2016 SIRs using the new baseline to CMS?
  - Yes
- **QUESTION:** Will PATOS be excluded from the All SSI SIR model and the Complex A/R model?
  - At this time, we are still assessing PATOS for exclusion from the other two SSI SIR models, All SSI SIR and Complex A/R
Identification of Organism(s) In Specimens from Brain-dead Patient Awaiting Organ Harvest

Katherine Allen-Bridson

Question: Should organisms identified from specimens collected from hospice patients in the hospital be excluded from healthcare-associated infection surveillance?

- The 2016 NHSN surveillance update allows for the exclusion of organisms identified in patient specimens in one specific scenario. Both of the following must be true:
  - Patient has been documented brain-dead in the medical record on the day of specimen collection, or prior, AND
  - The patient is being supported for organ donation purposes
- No other exclusions may apply

Update of the NHSN Organisms Lists

Katherine Allen-Bridson
Question: When will the NHSN organism lists be updated?

- January 2017 updates to the following lists:
  - All Organisms
  - Common Commensals
  - MBI-LCBI Organisms
  - UTI Bacteria

- Proposed 2-year future update schedule

Organisms-Continued

- All Organisms List:
  - Addition of organisms from a university lab information system
  - Taxonomic updates according to SNOMED CT; inactivate old organisms

- MBI Organisms List:
  - Work with small group of microbiologists and ID MDs
  - Addition of missing Enterobacteriaceae and viridans group streptococci
  - Add organism to the list, if moved to new genus; Entire Genus.
  - Considered input from users since MBI-LCBI inception; some additions made

Organisms-Continued

- Common Commensal List
  - Add organism to the list, if moved to new genus; Entire Genus.
  - Considered input from users -some additions made

- UTI Bacteria List
  - List expands from newly added bacteria
CLABSI MBI – LCBI
Prachi Patel

CLABSI MBI-LCBI FAQs

- When will MBI-LCBIs be removed from the CLABSI SIR?
  - CLABSI events reported as MBI-LCBI will be excluded from the numerator when performing risk-adjustment of 2015 CLABSI data.
  - CLABSI SIRs based on the new 2015 baseline will exclude MBIs. However, CLABSI SIRs that use the original baseline (2006-2008 for ACHs and 2013 for LTACHs) will continue to include MBI-CLABSIs.
  - The rebaseline is expected to be implemented in late 2016, using 2015 data.

- With the removal of MBI-LCBIs from the CLABSI SIR, will MBI-LCBIs still be required to be reported in NHSN?
  - MBI-LCBIs will still remain a reportable event under the CLABSI protocol.
  - After the removal of MBI-LCBIs separate MBI measures will become available in NHSN for data analysis.
  - At a minimum, Rate tables will be available.

- When will CDC publish updated CLABSI rates and/or SIRs that reflect this definition change?
  - The SIRs using the new baseline are scheduled to be available in NHSN in December 2016
CLABSI MBI-LCBI FAQs

- How will the changes of removing MBI-LCBIs from the CLABSI numerator be reported to CMS?
  - Data sent to CMS in and after August 2016, will be using the new rebaseline CLABSI (with MBI-LCBIs removed).
  - For Acute Care Hospitals, CDC will re-send the 2015 CLABSI SIRs to CMS using the new 2015 baseline, for purposes of the Hospital Value Based Purchasing (HVBP) program.
    - These SIRs will be calculated using the data frozen as of each quarterly deadline for the 2015 reporting period.

Patient Accessing Central Lines
Georganne Ryan

Patient ACCESSING Central Lines

- What is and is not considered acceptable documentation to exclude a positive CLABSI if a patient is observed or suspected of patient accession into a vascular access lines?
- When does it have to be documented?
- How do you enter it into NHSN?
2016 NHSN Reporting Instructions – observed or suspected patient accession into vascular lines

A positive blood specimen meeting LCBI criteria, that is accompanied by documentation of observed or suspected patient accession into a vascular access line, within the HAI infection window period, will be considered a CLABSI, but not CLABSI for NHSN surveillance purposes. A BSI RT will be created. If reporting the BSI to NHSN, answer “No” to the event field “Central Line”. If a facility is reporting CLABSI electronically to NHSN via Clinical Document Architecture (CDA), no CT ARI should be reported for this event, since this BSI is not considered associated to the central line. If blood cultures collected after the BSI RT are again positive, they must be investigated as a part of any BSI surveillance. Documentation of observed or suspected patient accession into vascular access lines, within the HAI infection window period, will again be necessary in order to determine that the LCBI is not central-line associated.

Examples: Patients suspected or observed of ACCESSING Central Lines and documentation required

- A patient is seen tampering with and removing the catheter hub and a syringe with fluid it found on bed. This is documented in the record.
- A patient has been counselled by physician about IV abuse in hospital and signed a affidavit that he will not use, but nurse suspects patient is high. This is documented in the record.
- Nurse observes patient with needle and documents in chart.

What about patients that are manipulating central lines?

- NHSN does not use the word “manipulating” as related to this topic. The word used is “accessed”.
- Non-goal directed manipulation of the line by a patient (taking off caps, putting the line in their mouth) is not the patient actually “accessing” their line. They are not entering the line, with the potential to introduce organisms into the line. Therefore, this would not meet the requirements for exclusion from CLABSI reporting.
Examples:
These do not meet the reporting requirement

- A patient is seen tampering with and removing the catheter hubs
  (e.g. patient is delirious or demented)
- A pediatric patient is taking off caps, putting the line in their mouth
- A mother accesses line and injects an experimental drug.
- A line was accessed just prior to inpatient admission

When and how to report:

- The exclusion is only for documented cases of observed or suspected patient accession into vascular lines.
- Documentation must be within the Infection Window Period.
- The positive blood culture is considered an LCBI and if reporting to NHSN, answer "No" to the event field "central line".
- The LCBI will create a 14-day BSI RIT.

Patients ACCESSING Central Lines

- Preventing central line manipulation, although challenging at times, is a necessary part of CLABSI prevention in our patients. Retaining these events within the scope of the CLABSI definition would support that goal.
- By documenting suspected or observed patient behavior of accessing central lines on an ongoing basis has a two-fold purpose:
  - alerting healthcare workers of patient behavior
  - necessary documentation for exclusion of a CLABSI
- It is also important that we are consistent in the application of surveillance definition.
Question: If a site specimen (e.g., wound, urine, respiratory specimen) and a blood specimen have a matching pathogen, a bloodstream infection can be attributed as a secondary BSI and therefore no primary BSI/CLABSI will have been identified, correct?

- Not quite
- There are 3 things that must be taken into consideration when making a secondary BSI determination

Secondary BSI Assignment (excluding VAE)

1. An NHSN site-specific infection definition must first be met
2. The blood specimen must have a collection date occurring during the appropriate time of the site-specific infection’s Secondary BSI Attribution Period* (defined as Infection Window Period + Repeat Infection Timeframe).
   a. An organism identified from the site-specific infection must be used as an element to meet the site-specific infection criterion, AND the blood specimen must contain at least one matching organism (collection date outside the IWP)
   OR
   b. The positive blood specimen must be an element used to meet the site-specific infection criterion (collection date during the IWP)

*For a surgical site infection (SSI), during the Secondary BSI Attribution Period for an SSI
**QUESTION:** When VAE surveillance is being conducted what is the approach for secondary BSI assignment?

- Good question!
- Secondary BSIs are not reported for VAC or IVAC
- Secondary BSIs may only be reported for PVAP
- When PVAP is met
  - If a positive blood specimen is collected within the VAE 14-day event period
  - At least one eligible organism from the blood specimen matches an eligible organism from an eligible respiratory tract specimen used to meet the PVAP definition

Then the BSI can be assigned as secondary to VAE

**So, what if.........**

- No VAE definition is met?
- Only the VAC or IVAC definition is met?
- The PVAP definition is met but the positive blood culture is determined NOT to be secondary to VAE?

Determine if the BSI is secondary to another NHSN site-specific infection to include the PNEU or LRI/Lung

**Secondary BSI Assignment**

- If one of the NHSN site-specific definitions is not met or the BSI cannot be attributed to a VAE...... the BSI is a primary BSI and may need to be reported as a Central Line Associated Bloodstream Infection (CLABSI)
Navigating NHSN Resources – Training and Tools

Cindy Gross and Emily Witt

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**NHSN Tools: Calculators and Worksheet Generator**

- MDRO & CDI LabID Event Calculator

- VAE Calculator

- Healthcare–associated Infection (HAI) and Present on Admission Infection (POA) Worksheet Generator
Healthcare–associated Infection (HAI) and Present on Admission Infection (POA) Worksheet Generator

Welcome to the NHSN Healthcare–associated Infection (HAI) and Present on Admission Infection (POA) Worksheet Generator Version 1.0. The Generator is designed to help you complete the POA worksheet on admission and identify and report Healthcare–associated Infections (HAI) and Present on Admission Infections (POA). The Generator is a web-based tool designed to assist you in:

1. Completing the POA worksheet.
2. Completing the POA worksheet.
3. Completing the POA worksheet.
4. Completing the POA worksheet.
5. Completing the POA worksheet.

The Generator is intended to be used in conjunction with the NHSN POA worksheet and the NHSN Infection Control and Prevention Manual. It is recommended that you review the manual before using the Generator.

Note: The information displayed in the Generator is based on the data entered into the system. The information displayed may not be accurate, and the Generator is intended to be used as a tool to assist in the identification and reporting of HAI and POA infections. It is recommended that you review the manual before using the Generator.
Question: Where can I find training resources on the NHSN website?

Important Note
- Training resources are available:
  - On the NHSN Website for each module: http://www.cdc.gov/nhsn/enrolled-facilities/index.html
  - Compiled on the Training website: http://www.cdc.gov/nhsn/training/

Example: SSI Training Resources
What resources are available on the Training Website?

- Self-paced Interactive Training
- NHSN In-person Training Archived Web-stream Videos (coming soon!)
- NHSN In-person Training slide decks
  - Case studies, answers, and rationale
- Quick Learns (formerly Hot Topics)

*Note: Training site resources are grouped by type of training – a great resource for new NHSN users!
Quick Learns

2016 Quick Learns: NHSN Definition and Rule Changes, CAUTI FAQs, ICD-10 PCS and CPT Transition, PSC Annual Survey, Reporting MRSA & CDI Lab ID Data for Acute Care WFs, SSI Event form for PAID/SS, SSI Exclusion Criteria for SIR, TAP Reports in NHSN

2016 NHSN Training: Slidesets and Webstream Videos

Questions?

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