NHSN Definitions Review

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Infection Window Period and RIT

Table 5: Repeat Infection Timeframe

Infection Window Period
(first positive diagnostic test, 3 days before and 3 days after)

Repeat Infection Timeframe (RIT)
(date of event = day 1)

Date of Event
(date the first element occurs for the first time within the infection window period)

HOSPITAL DAY	RIT	INFECTION WINDOW PERIOD
1		
2		
3		
4	1	**Urine culture:** >100,000 cfu/ml *E. coli*
5	2	Fever > 38.0 C
6	3	Fever > 38.0 C
7	4	
8	5	
9	6	Urine culture: No growth
10	7	
11	8	
12	9	Urine culture: > 100,000 cfu/ml *S. aureus*
13	10	
14	11	
15	12	
16	13	
17	14	
18		
19		
		SUTI-HAI **Date of Event = 4** **Pathogens = *E. coli, S. aureus***

Identifying HAIs in NHSN

- An infection is considered a Healthcare-associated Infection (HAI) if the date of event of the NHSN site-specific infection criterion occurs on or after the 3rd calendar day of admission to an inpatient location where day of admission is calendar day 1.

Date of Event, POA, RIT

- Date of Event: The date the first element used to meet an NHSN site-specific infection criterion occurs for the first time within the seven-day infection window period.
- Present on Admission (POA): if the date of event of the NHSN site-specific infection criterion occurs during the POA time period, which is defined as the day of admission to an inpatient location (calendar day 1), the 2 days before admission, and the calendar day after admission.
- Repeat Infection Timeframe: if the date of event is determined to be either of the two days prior to inpatient admission, then the date of event will be hospital day 1.

Repeat Infection Timeframe

- The RIT is a 14-day timeframe during which no new infections of the same type are reported. The RIT applies to both POA and HAI determinations. The date of event is Day 1 of the 14- day RIT. If criteria for the same type of infection are met within the 14 day RIT, a new event is not identified or reported. Additional pathogens recovered during the RIT from the same type of infection are added to the event.
- The RIT will apply at the level of specific type of infection with the exception of BSI, UTI, and PNEU where the RIT will apply at the major type of infection.

NHSN: Patient Safety Component Protocol Updates for 2017

Kathy Allen-Bridson
NHSN Protocol and Training Team Lead

Definitions Review (see handout)

NHSN Definitions Review
November 2016

Central Line-Associated Bloodstream Infections (CLABSI) For CLABSI, neonates can fall into definitions 1, 2, or 3 but patients older than one year can only fall into definitions 1 or 2. Primary CLABSI's are reportable per CMS. "Primary" means that they're not associated with an infection at another site, e.g. with urine/sputum/purulent cultures that match organisms identified in blood.	**Laboratory-Confirmed Bloodstream Infection (LCBI) - 1** -Patient of any age -Pathogen cultured from blood	**Laboratory-Confirmed Bloodstream Infection (LCBI) - 2** -Patient of any age -Matching common commensals cultured from blood (e.g. coagulase negative Staphylococcus) -Signs/symptoms	**Laboratory-Confirmed Bloodstream Infection (LCBI) - 3** -Patient of any age -Matching common commensals cultured from blood (e.g. coagulase negative Staphylococcus) -Signs/symptoms as with def. 2 but also bradycardia, apnea, hypothermia
	Mucosal Barrier Injury LCBI-1	**Mucosal Barrier Injury LCBI-2**	**Mucosal Barrier Injury LCBI-3**
	-Patient of any age -Meets LCBI-1 Criteria -Is a stem cell transplant recipient or neutropenic Has specific intestinal organisms cultured in blood, e.g. Candida, Clostridium, etc. with no other organisms -Has signs/symptoms. For SCT patients, diarrhea or graft v host disease. For neutropenic patients, elevated ANC or WBC	-Patient of any age -Meets LCBI-2 Criteria -Is a stem cell transplant recipient or neutropenic -Has signs/symptoms. For SCT patients, diarrhea or graft v host disease. For neutropenic patients, elevated ANC or WBC	-Neonates -Meets LCBI-2 Criteria -Is a stem cell transplant recipient or neutropenic -Has signs/symptoms. For SCT patients, diarrhea or graft v host disease. For neutropenic patients, elevated ANC or WBC

Patient Safety Component- Updates for 2017

- Made based on NHSN user feedback and requests
- Objectives of modifications:
  - Clarify, but not change, previous guidance
  - Improve the specificity of healthcare-associated infection data
  - Optimize usefulness of the data for measuring prevention success
- Modifications go into effect January 1, 2017

Patient Safety Component- Updates for 2017

- Many modifications made which are simply clarifying in nature and do not change content
- Changes that affect >1 module
  - Organism lists updated
    - NHSN All Organisms list updated
    - Mucosal Barrier Injury Organisms list- 59 genera added
    - Common Commensal list- 13 genera added

PSC Updates Cont.

- Endocarditis- ENDO
  - Expand the length of time between which ENDO cases in same patient should be reported (Repeat Infection Timeframe [RIT])
  - ENDO Repeat Infection Timeframe will extend for entire patient admission
  - Infection Window Period extended from 7 days to 21 days to address the extended amount of time that can be required to diagnose
  - No new BSIs reported with same organism from ENDO, during same admission

PSC Updates Cont.

- Bloodstream Infection (BSI) Definitions
  - Modify the list of organisms eligible as pathogens for a primary BSI
    - *Campylobacter* spp.
    - *Clostridium difficile*
    - Enteropathogenic *Escherichia coli*
    - *Salmonella* spp.
    - *Shigella* spp.
    - *Listeria* spp.
    - *Yersinia* spp.

    Ineligible as primary BSI in 2017
  - Do not report Group B *Streptococcus* from blood specimen in first 6 days of neonate's life as CLABSI

PSC Updates Cont.

- PNU3- Pneumonia in Immunocompromised Patients
  - Changed portions of the definition of "immunocompromised"
    - "early post transplant" becomes "history of solid organ or hematopoietic stem cell transplant"
    - "are on high dose steroids (e.g., > 40 mg of predisone or its equivalent)….daily for > 2 weeks" becomes "those on steroids daily for >2weeks"

CMS Quality Reporting Programs Deadline Approaching

- **2016 Quarter 2** (April 1 – June 30) due for **Acute Care Hospitals** that participate in the Hospital Inpatient Quality Reporting (IQR) Program
  - CLABSI and CAUTI Data
    - All ICU locations
    - Adult and pediatric medical, surgical and med/surg wards
  - Inpatient COLO and HYST SSI Data
  - MRSA Bacteremia and *C. difficile* LabID events
    - FacWideIN
    - ED and 24-hour observation locations

CMS Quality Reporting Programs Deadline Approaching

- **2016 Quarter 2** (April 1 – June 30) due for **Inpatient Rehabilitation facilities (IRF)** that participate in the IRF Quality Reporting (IQR) Program
  - CAUTI Data
  - MRSA Bacteremia and *C. difficile* LabID events
    - Freestanding IRFs: Reporting by FacWideIN
    - IRF units within acute care or critical access hospitals: Reporting by each CMS IRF Unit

CMS Quality Reporting Programs Deadline Approaching

- **2016 Quarter 2** (April 1 – June 30) due for **Long-term Acute Care Facilities (LTACs/LTCHs)** that participate in the LTAC Hospital Quality Reporting (IQR) Program
  - CLABSI and CAUTI Data – All bedded inpatient locations
  - MRSA Bacteremia and *C. difficile* LabID events – FacWideIN
  - VAE data – all bedded inpatient locations

Important Dates and Resources

NHSN Trainings and Webinars

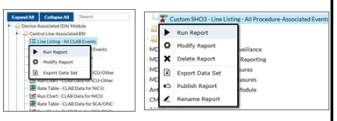
- November 30th: Rebaseline Webinar Part II: **"Running the New SIRs in NHSN"**
- March 2017: NHSN Annual Training – detailed review of each new SIR by HAI type

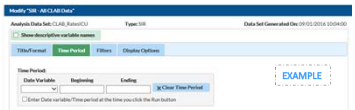
Additional Rebaseline Resources

- Updating the National Risk-Adjustment of HAI Data – March 2016
  - http://www.cdc.gov/nhsn/pdfs/training/2016/updating-national-risk-adjustment-dudeck.pdf
- APIC 2016 NHSN Members Meeting – June 2016
  - http://www.cdc.gov/nhsn/pdfs/newsletters/nhsn-members-meeting-2016.pdf
- NHSN Newsletters
  - http://www.cdc.gov/nhsn/pdfs/newsletters/nhsn-enewsletter_dec-2015_final.pdf
  - http://www.cdc.gov/nhsn/pdfs/newsletters/nhsn-nl-march-2016.pdf
  - http://www.cdc.gov/nhsn/pdfs/newsletters/nhsn-nl-june-2016.pdf

November 30th: Running the New SIRs in NHSN

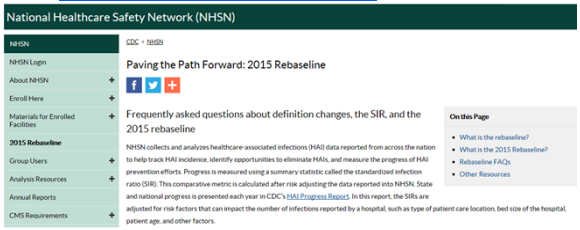
- Preview of the new application interface
- New reports
- Putting the re-baseline into practice
- Annual surveys





Additional Rebaseline Resources

- The Rebaseline website is now LIVE
  - http://www.cdc.gov/nhsn/2015rebaseline



FAQs from the October 5th Webinar

Parneet Ghuman and the NHSN Methods and Analytics Team

FAQs

Q: I noticed that the MRSA and CDI models include a variable for ED and observation units. What if my hospital does not have an ED or observation unit?

- Your hospital will still receive the appropriate risk adjustment, based on the national experience from facilities without EDs or observation units.

Q: I am wondering if we will be able to run reports utilizing the current risk model and baseline even after December 31, 2016.

- After Dec. 10th, NHSN Users will be able to run SIRs for 2015 and 2016 under both the old baseline, and the new baseline. Data for 2017 and forward will be available under the new baseline only.

FAQs

Q: Will MBI-LCBIs be excluded from the CMS SIR with the rebaseline?

- Yes, MBI-LCBIs will be excluded from the CMS SIR. New measures for MBI-LCBI events will be available in NHSN.

Q: Will SSIs reported as "Present at time of Surgery" (PATOS) be excluded from the SSI SIRs?

- SSIs reported as PATOS are excluded from all the SSI SIR models under the rebaseline. Although PATOS events are excluded from the SIR calculations, they must still be reported per NHSN protocol. Users can still analyze their PATOS data using frequency and line list reports

FAQs

Q: If CMS can see the data now, why can't the hospital also see the data now?

- While your 2015 and 2016Q1 data was reported to CMS using the new baselines, the new baselines have not been incorporated into the NHSN application yet. CDC is currently testing the new risk models and reports within the application to ensure that they have been accurately applied in NHSN for the December update

Q: Did I understand correctly that we can preview Hospital Compare to see how CMS views the data under the new baseline?

- Yes; beginning on October 8, 2016, hospitals can now view HAI data from 2015 Q1 – 2015 Q4 in the December 2016 Preview Reports via the *QualityNet Secure Portal*.

Thank You for your time!

Email Us: NHSN@CDC.gov

For more information, contact CDC
1-800-CDC-INFO (232-4636)
TTY: 1-888-232-6348 www.cdc.gov

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.