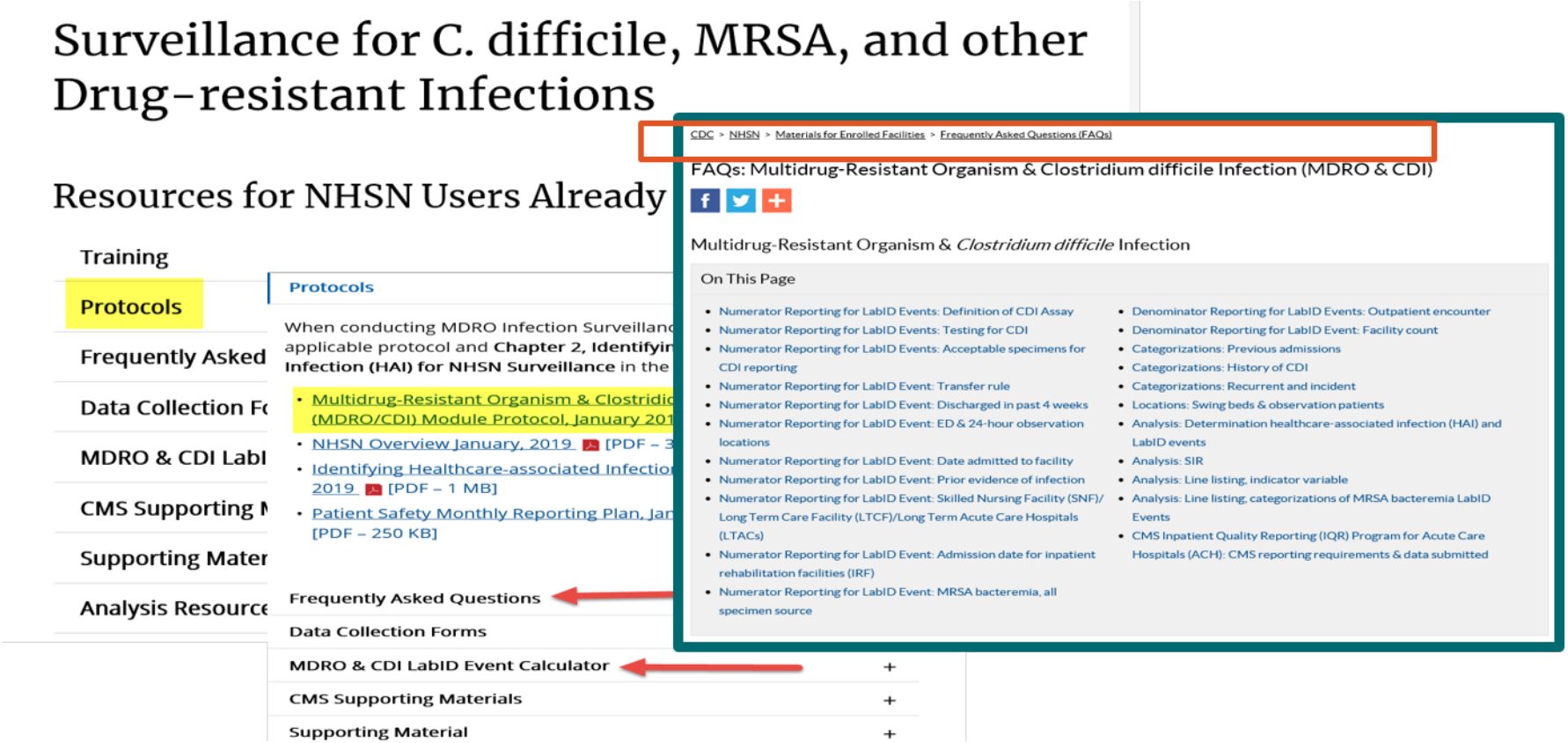
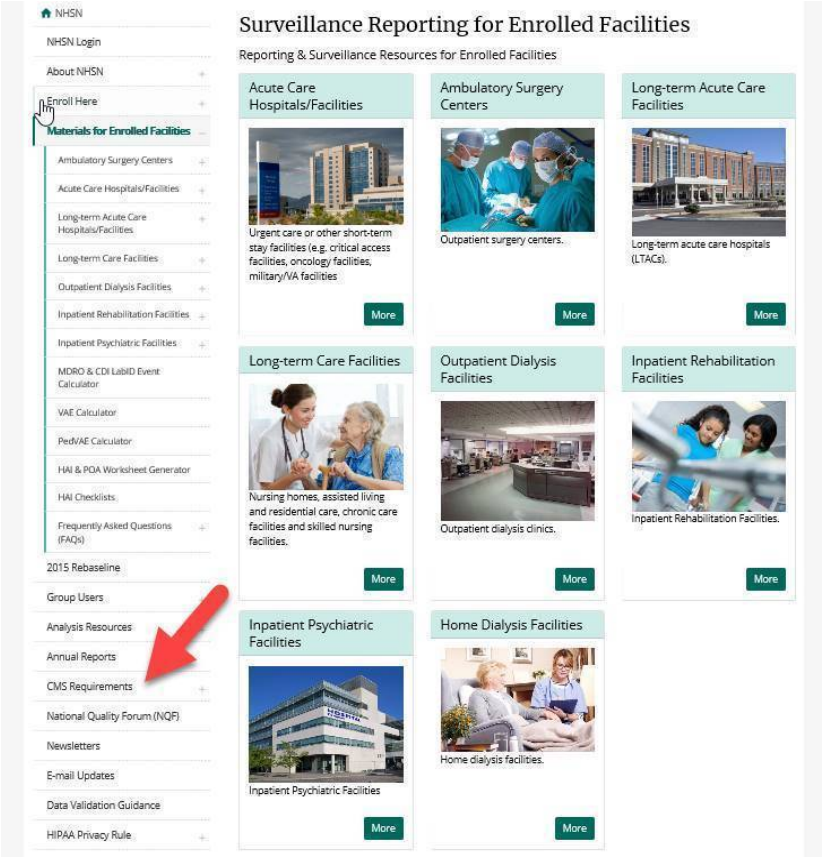
The Challenging Road to Success: Multidrug Resistant Organism and *Clostridioides difficile* (MDRO/CDI) LabID Event Reporting and Infection Surveillance

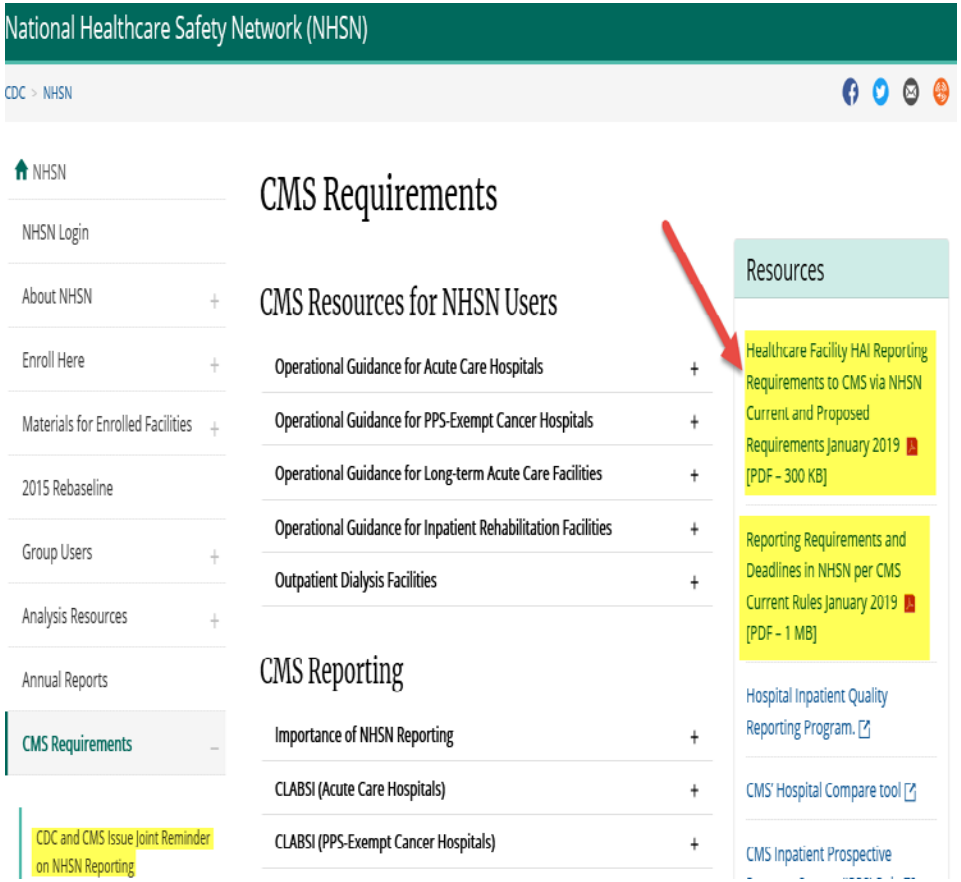
Denise Leaptrot, MSA, SM/BSMT(ASCP), CIC®
Protocol and Validation Team
National Healthcare Safety Network
NCEZID, Division of Healthcare Quality Promotion/Surveillance Branch
Centers for Disease Control and Prevention

The MDRO protocol is available at this link:
https://www.cdc.gov/nhsn/acute-care-hospital/cdiff-mrsa/index.html



CMS Requirements





Definitions

- **MRSA:** *S. aureus* cultured from any specimen that tests oxacillin-resistant, cefoxitin-resistant, or methicillin-resistant by standard susceptibility testing methods, or any laboratory finding of MRSA (includes but not limited to PCR or other molecular based detection methods).

- ***C. difficile***: A positive laboratory result for C. difficile toxin A and/or B (EIA or PCR) tested on unformed stool, OR a toxin-producing C. difficile organism detected by culture or other laboratory means on an unformed stool.

- **VRE**: *Enterococcus faecalis*, *Enterococcus faecium*, or *Enterococcus species unspecified* (only those not identified to the species level) testing **resistant to vancomycin** by standard susceptibility testing methods or a laboratory finding of VRE (includes but not limited to PCR or other molecular based detection methods).

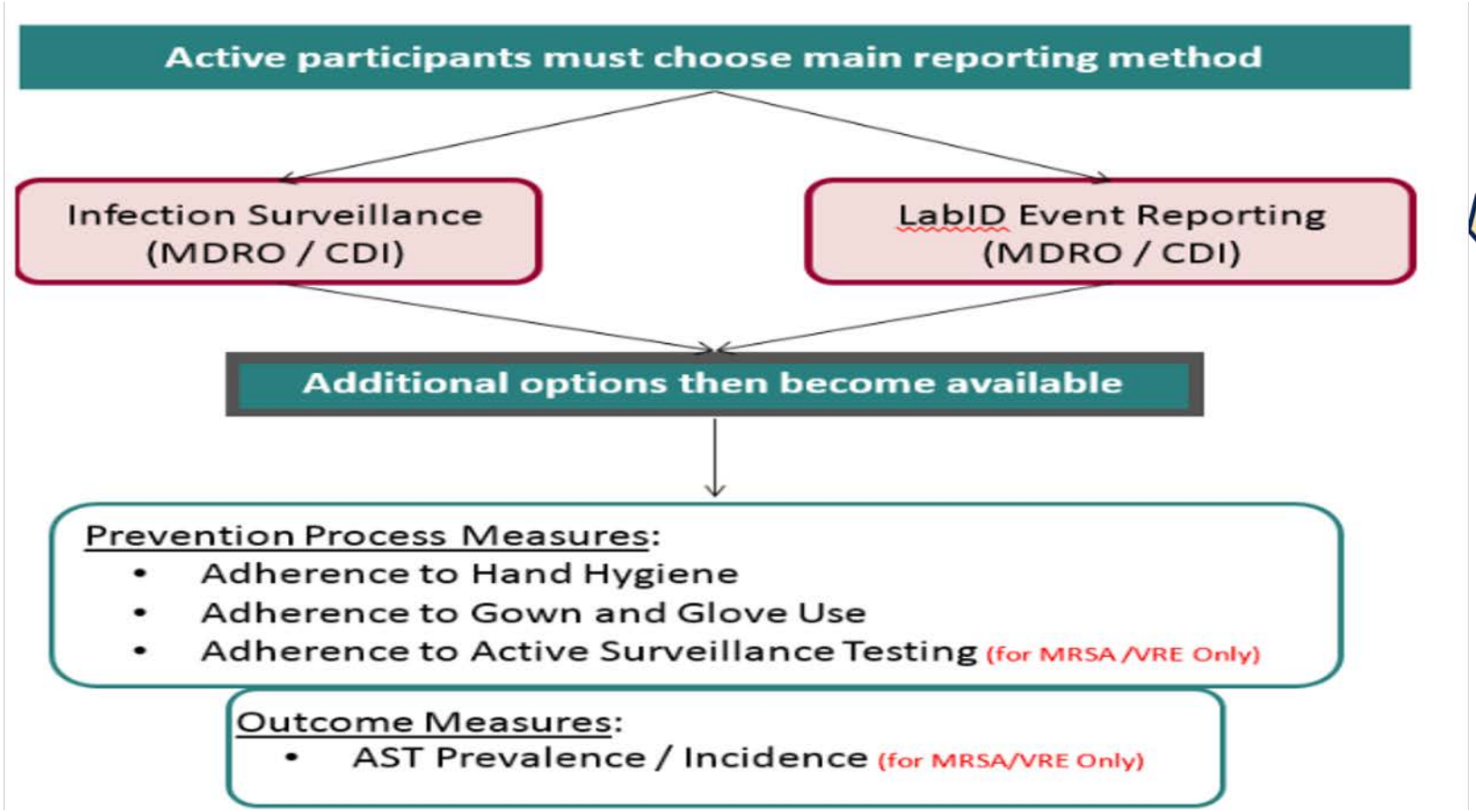
Definitions

- **MDR-Acinetobacter**: Any Acinetobacter species testing non-susceptible (resistant or intermediate) to at least one agent in at least 3 antimicrobial classes of the following 6 antimicrobial classes:

Antimicrobial Class	Agents
β-lactams and β-lactam/β-lactamase inhibitor combinations	Piperacillin, Piperacillin/tazobactam
Sulbactam	Ampicillin/sublactam
Cephalosporins	Cefepime, Ceftazidime
Carbapenems	Imipenem, Meropenem, Doripenem, Ertapenem
Aminoglycosides	Amikacin, Gentamicin, Tobramycin
Fluoroquinolones	Ciprofloxacin, Levofloxacin

- **CephR**- *Klebsiella oxytoca* or *Klebsiella pneumoniae* testing non-susceptible (either resistant or intermediate) to ceftazidime, cefotaxime, ceftriaxone, or cefepime.
- **CRE**- Any *Escherichia coli, Klebsiella oxytoca, Klebsiella pneumoniae*, or *Enterobacter spp*. testing **resistant** to imipenem, meropenem, doripenem, or ertapenem by standard susceptibility testing methods (minimum inhibitory concentrations of ≥4 mcg/mL for doripenem, imipenem and meropenem or ≥2 mcg/mL for ertapenem) OR by production of a carbapenemase (specifically, KPC, NDM, VIM, IMP, OXA-48) demonstrated using a recognized test.

Reporting Requirements and Options

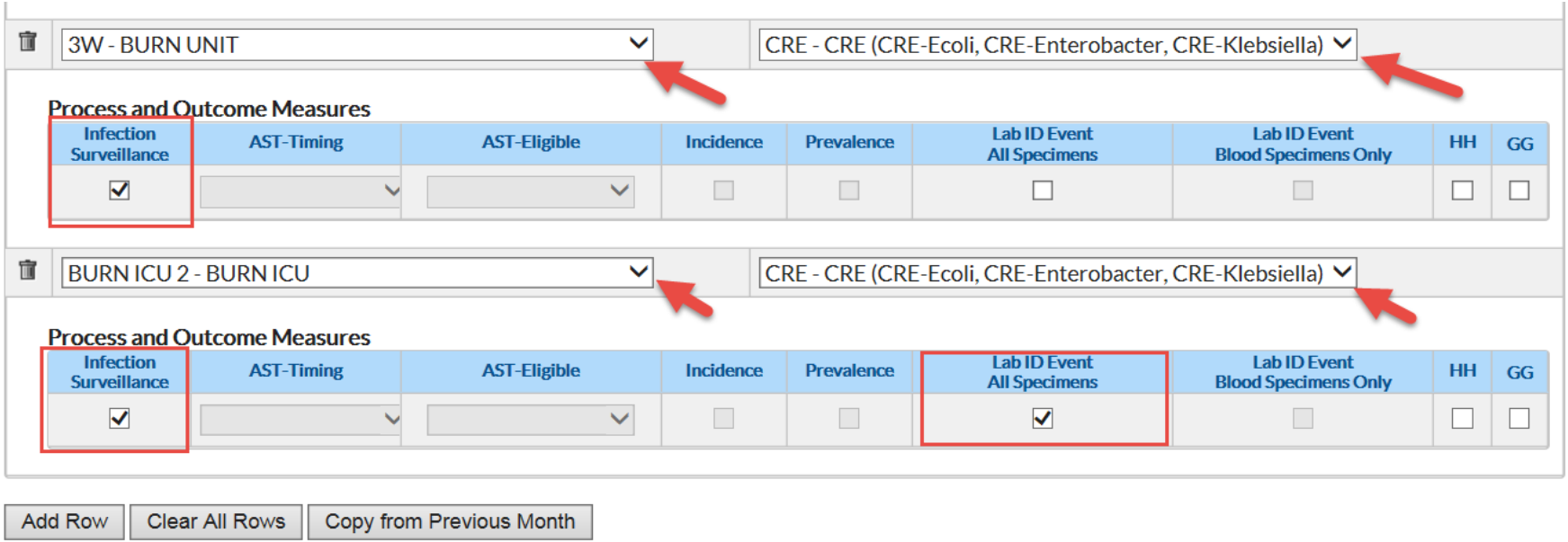


	LabID Event	Infection Surveillance (using HAI surveillance definitions)
Protocol	LabID Event protocol in Chapter 12 of NHSN manual	Infection Surveillance protocol in Chapter 12 of NHSN manual and HAI site-specific definitions in NHSN manual (for example, BSI, UTI, SSI, PNEU, VAE, and GI-CDI and other HAI definitions)
Signs & Symptoms	NONE. Laboratory and admission data, without clinical evaluation of patient	Combination of laboratory data and clinical evaluation of patient (signs/symptoms)
Surveillance Rules	• HAI and POA do **NOT** apply • Transfer Rule does **NOT** apply • Location = location of patient at time of specimen collection • Event date = specimen collection date	• HAI and POA **do** apply • Transfer Rule applies • See NHSN protocol for details regarding location and date of event
Denominator Reporting	• Number of patient days and admissions • Can be reported by specific location or facility-wide, depending on reporting option(s) selected • Inpatient and/or outpatient	• Device days and patient days must be collected separately for each monitored location • Inpatient reporting only

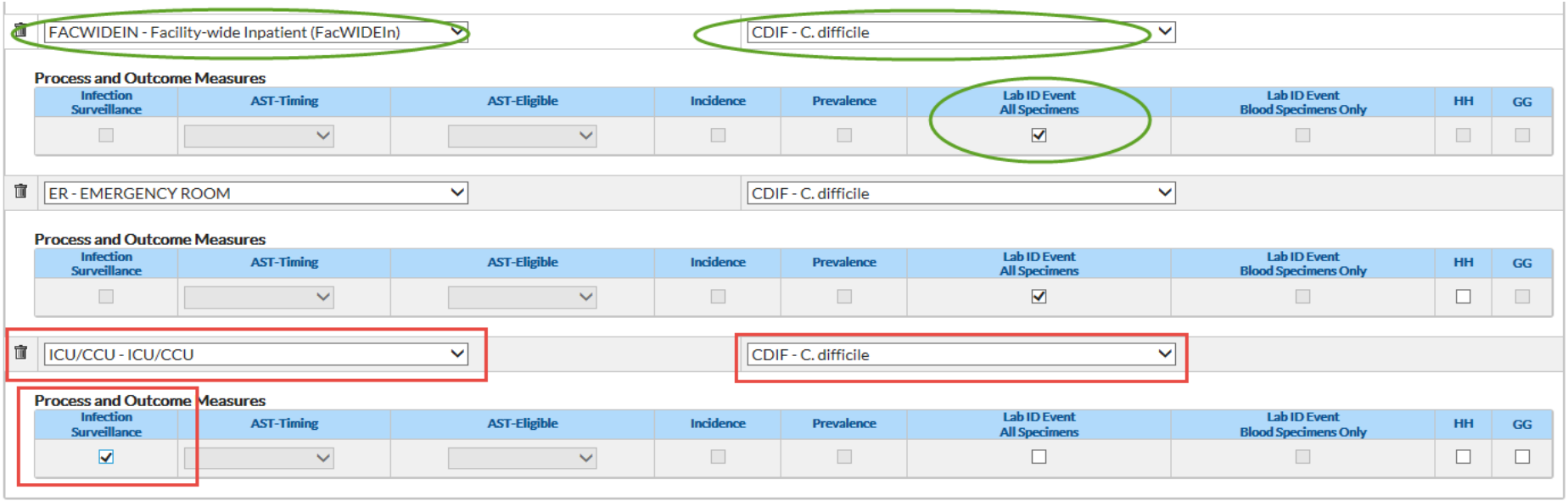
Categorization of Infections	• Events categorized based on inpatient or outpatient and admission and specimen collection dates
	  • Healthcare Facility-Onset (HO)
	  • Community-Onset (CO)
	  • Community-Onset Healthcare Facility-Associated (CO-HCFA) for *C. difficile* only
	• HO,CO, and CO-HCFA (if applicable) LabID Events must be reported to NHSN
		• HAI protocols used
		• Events are either HAI or not, therefore LabID Event categorizations **do not** apply
		• Only HAIs are reported to NHSN

MDRO Infection Surveillance & LabID event are different

If HAI and LabID Event is selected on the MRP, conduct surveillance/ report data for each. When monitoring for CRE, include *E.Coli*, *Kl.Oxytoca*, *Kl.Pneumo* & *Enterobacter* sp. isolates (report individual organism events separately)



Infection Surveillance vs. LabID Event Reporting



CDC

Surveillance Definitions

January 2018 17- 19

GI-GASTROINTESTINAL SYSTEM INFECTION

CDI-*Clostridium difficile* Infection

Clostridium difficile infection must meet at least ***one*** of the following criteria:

1. Positive test for toxin-producing *C. difficile* on an unformed stool specimen (conforms to the shape of the container).[1,2]
2. Patient has evidence of pseudomembranous colitis on gross anatomic (includes endoscopic exams) or histopathologic exam.

Note:

- When using a multi-testing methodology for CD identification, the result of the last test finding, which is placed onto the patient medical record, will determine if GI-CDI criterion 1 is met.

Overview of Laboratory-identified (LabID) Event Reporting

Why monitor MDROs and C. difficile?

- Monitoring of MDRO and *C. difficile* infection (CDI) helps users to evaluate local trends and changes in the occurrence of these pathogens and related infections.
- Provides a mechanism for facilities to report and analyze MDRO and CDI data, in order to inform infection prevention staff of the impact of targeted prevention efforts.
- MRSA and other MDROs have increased in prevalence in U.S. hospitals and have important implications for patient safety. Treatment options for patients with these infections are often extremely limited and are associated with increased lengths of stay, and mortality. Hospital costs for treatment & penalties topped $10 billion in 2016.
- *C. difficile* is responsible for a spectrum of conditions (pseudomembranous colitis, toxic megacolon), which can lead to sepsis and even death. *C. difficile* infections are linked to 14,000 deaths in the US each year. Almost half of infections occur in people < 65, but more than 90% of deaths occur in people > 65. *C. difficile* infections add $4.8 billion in extra health care costs annually (2015).

Advantages of LabID Event Reporting include…..

- Objective laboratory-based metrics that allow the following without extensive chart review:
  - Identify vulnerable patient populations
  - Estimate infection burden
  - Estimate exposure burden
  - Assess need for and effectiveness of interventions
- Standardized case definitions
- Increased comparability between clinical settings

Facility-wide Inpatient: FacWideIN

FacWideIN Standard Reporting Guidance:

The first positive specimen for the patient AND the location is submitted as a LabID event. Following this submission, there should be > 14 days between positive specimens *in this location* before a new LabID event is submitted (the LabID event 14-day rule). If the patient moves to a new location, reporting resets (starts anew). This guidance applies to all inpatient locations in the facility, including locations with a different CMS Certification Number (CCN) such as inpatient rehab (IRF) or psych locations (IPF) as well as from emergency departments and 24-hour observation locations.

Key Concepts to LabID Event Reporting:

- **For NHSN reporting purposes, the 'date admitted to facility" is the calendar day the patient locates to an inpatient location. Time spent in the ED or on a dedicated 24-hour observation unit is time prior to admission.**

- **NHSN does NOT use 'status' for reporting. An 'inpatient' is a patient housed on an inpatient location. An 'outpatient' is a patient housed on an outpatient unit such as the ED or a dedicated 24-hour observation unit. Facility specific status designations such as 'observation', 'inpatient', 'outpatient', 'swing bed patient' or 'short stay patient' are not used for in NHSN reporting.**

- **LabID Event reporting is based strictly on laboratory testing data without clinical evaluation of the patient, allowing for a much less labor intensive method to track *C. difficile* and MDROs, such as MRSA. Symptoms are NOT used in LabID event reporting.**

- **LabID Event reporting is by single facility; prior positives identified at a different facility will not influence reporting at your facility. Events are reported by patient AND location.**

- ***the '*Transfer Rule*' does NOT apply to LabID event reporting**

- **LabID Events are attributable to the location where the positive specimen is collected.**

Rules for Facility-Wide Inpatient (FacWideIN)

FacWideIN Option for LabID Event reporting only!

Includes inpatient locations*, including observation patients housed in an inpatient location PLUS outpatient emergency departments and 24-hour observation locations. **Events are attributed to the location where the positive specimen is collected.**

* See C. difficile LabID Event protocol for location exclusions

Special Case Exception for FacWideIN LabID Event Reporting

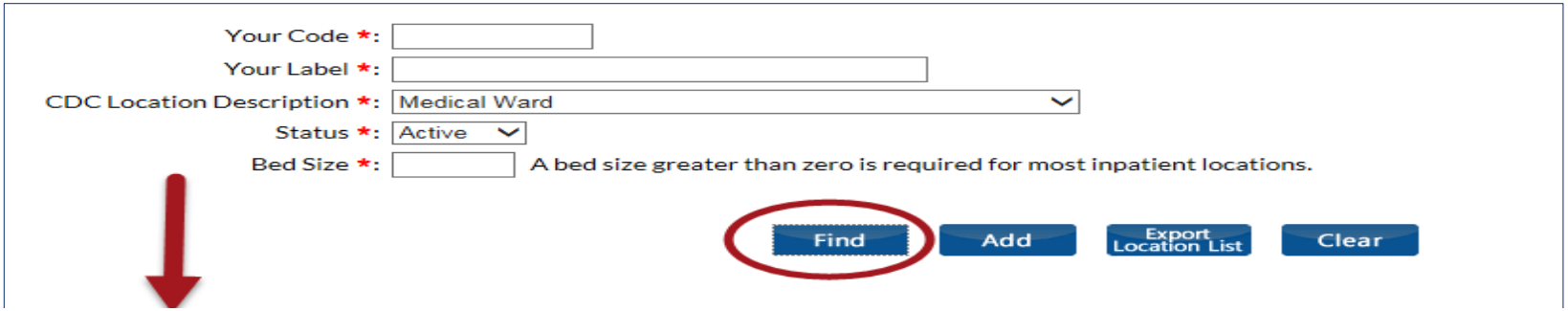
Specimens collected from an affiliated* outpatient location (excluding ED and 24-hour observation locations) can be reported for the inpatient admitting location IF collected on the same calendar day as inpatient admission. For NHSN reporting, the 'date admitted to facility' is the calendar day the patient locates to an inpatient location for the facility.

**Affiliated outpatient location* is an outpatient location where the same patient identifier is used allowing for tracking of specimens across services using the same patient number. In these 'exception' cases, attribute the event to the admitting location.

What's the Location Have to Do With It?
Inpatient Rehab and Inpatient Psychiatric Facilities

- NHSN considers transfers to inpatient rehabs (IRFs) and inpatient psychiatric locations (IPFs) a *continuous* stay for NHSN reporting purposes.
- Facility admission date for a LabID event should reflect the date the patient was physically admitted into either an acute care inpatient location or a IRF/IPF location *whichever comes first* during the patient stay.
- IRF/IPF events are separated from acute inpatient events with IRF/IPF event categorization based on the 'date admitted to location' (specifically the IRF or IPF admission date).

FacWideIN reporting is by patient AND location.
Verify all locations eligible for event attribution are included



Location Table

Display All Print Location List

Page 1 of 2 100 View 1 - 100 of 123

Delete	Status	Your Code	Your Label	CDC Description	CDC Code	NHSN HL7 Code	Bed Size
☐	Active	0909	0909	Emergency Department	OUT:ACUTE:ED	1108-0	
☐	Active	0910	ADULT REHAB	Rehabilitation Ward - Within ACH	IN:ACUTE:WARD:REHAB	1070-2	40
☐	Active	11	BH	Behavioral Health/Psych Ward	IN:ACUTE:WARD:BHV	1051-2	2
☐	Active	111	111	Gastrointestinal (GI) Clinic	OUT:NONACUTE:CLINIC:GI	1118-9	111
☐	Active	12 WEST2	W	Medical Critical Care	IN:ACUTE:CC:M	1027-2	10
☐	Active	152	152	Blood Collection (Blood Drive Campaign)	COMM:NONACUTE:CLINIC:BLOOD	1195-7	
☐	Active	17N	MY WARD	Surgical Ward	IN:ACUTE:WARD:S	1072-8	28
☐	Active	2 WEST	24 HOUR OBS	24-Hour Observation Area	OUT:ACUTE:WARD	1162-7	19
☐	Active	20	22	Neurology Clinic	OUT:NONACUTE:CLINIC:N	1123-9	22
☐	Active	20000	THIS LABEL	Medical Cardiac Critical Care	IN:ACUTE:CC:C	1028-0	10
☐	Active	2101	2101	24-Hour Observation Area	OUT:ACUTE:WARD	1162-7	12
☐	Active	24 OBS1	24 OBS1	24-Hour Observation Area	OUT:ACUTE:WARD	1162-7	12
☐	Active	3 CENTRAL	3 CENTRAL	Medical Ward	IN:ACUTE:WARD:M	1060-3	20
☐	Active	301	OR	Operating Room/Suite	IN:ACUTE:OR	1096-7	1
☐	Active	3333	E3WE	Ear, Nose, Throat Clinic	OUT:NONACUTE:CLINIC:ENT	1126-2	2222

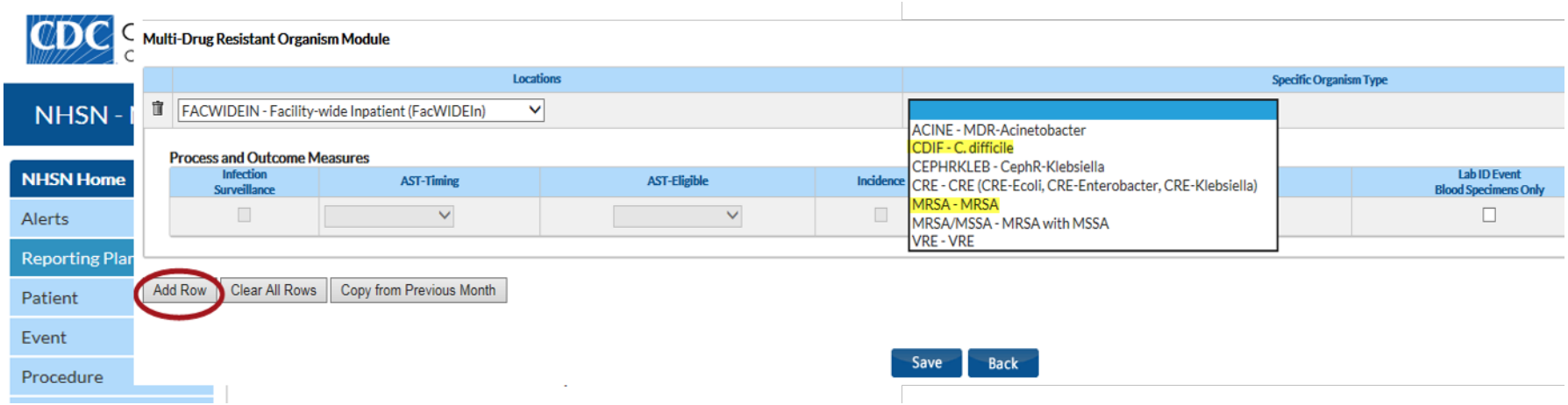
Getting Started with Laboratory-identified (LabID) Event Reporting

Monthly Reporting Plan

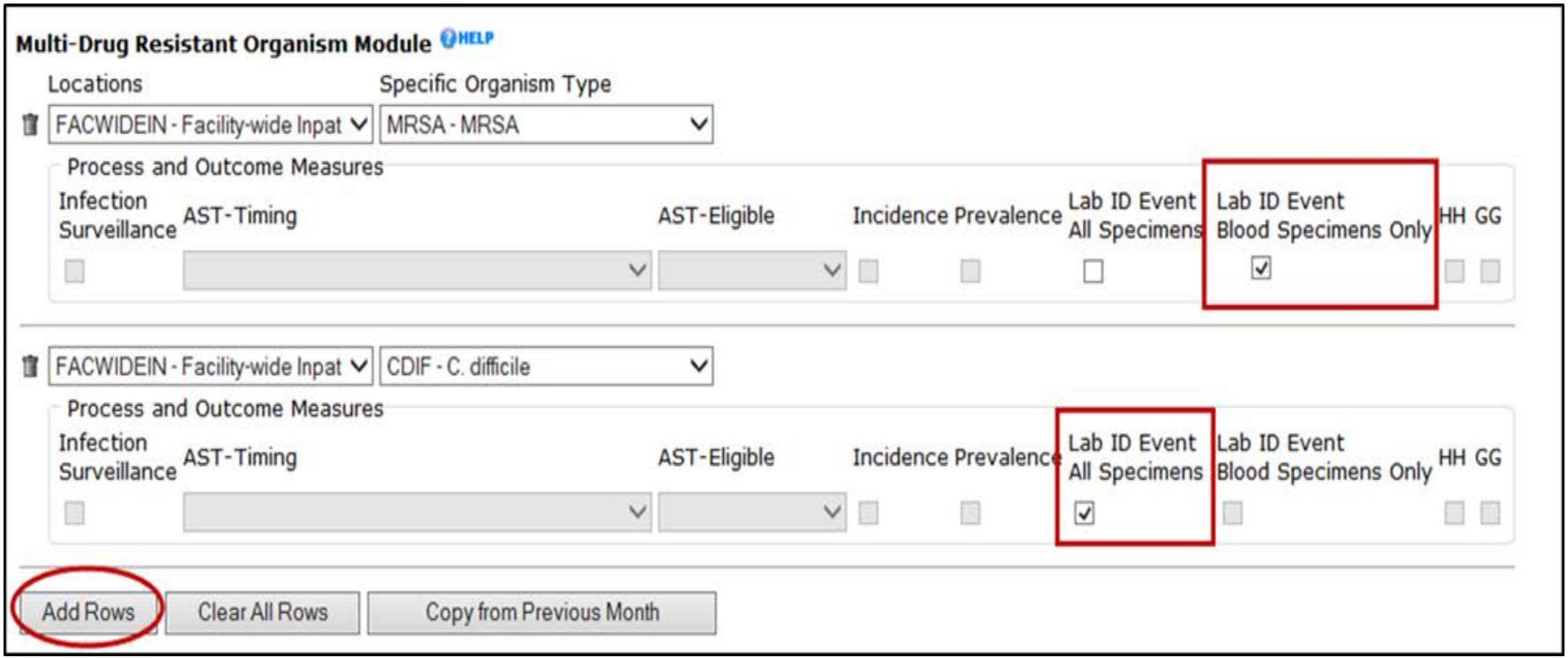
- **The Monthly Reporting Plan informs CDC which modules a facility is participating in during a given month.**
  - Referred to as “In-Plan” data
- **The Plan also informs CDC which data can be used for aggregate analyses.**
  - This INCLUDES sharing applicable data with CMS!
- **A facility must enter a Plan for every month of the year.**
- **NHSN will only submit data to CMS for *complete* months (data for all months of the quarter must be in place prior to submission).**

Monthly Reporting Plan FacWideIN

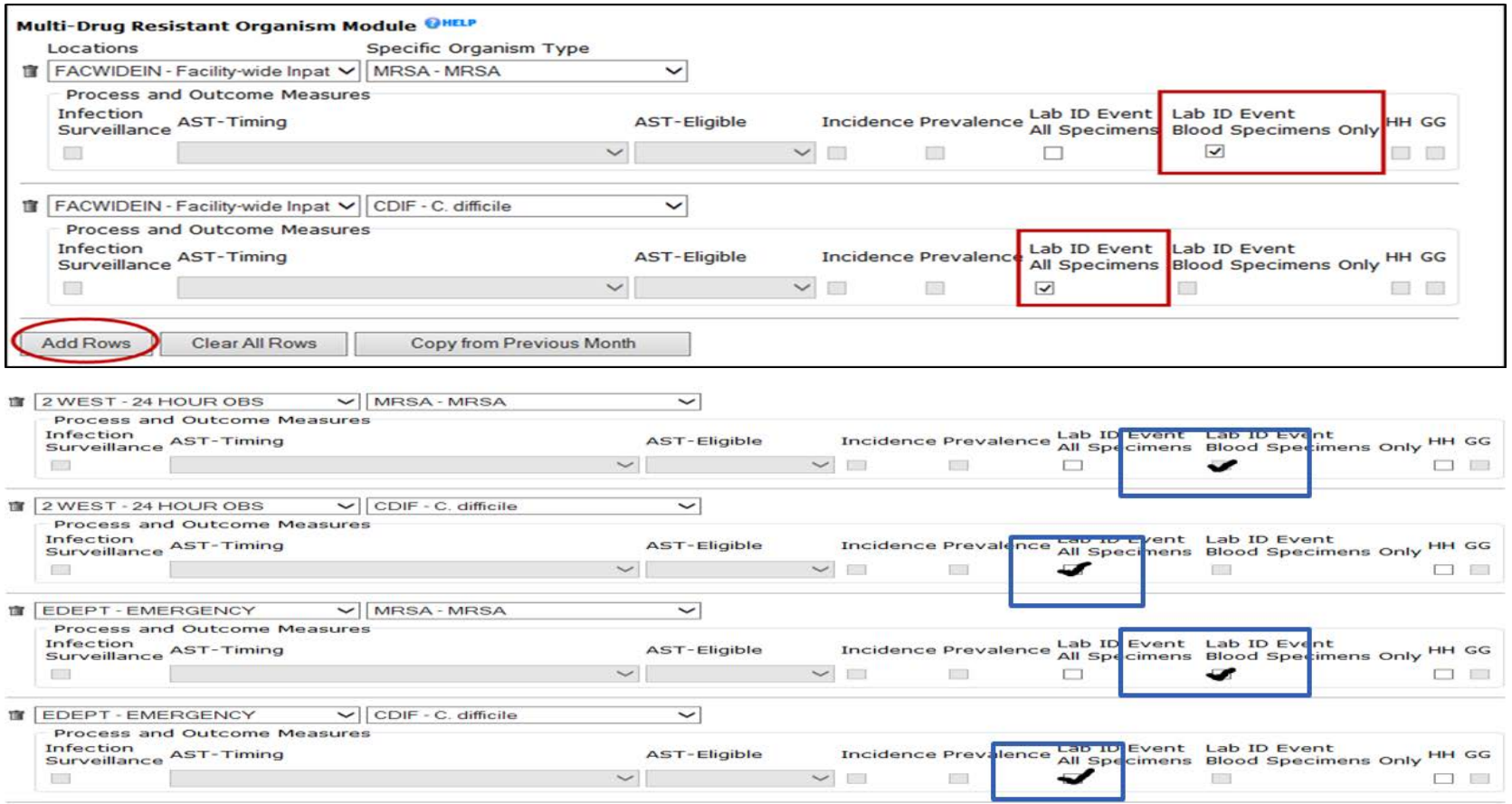
- Add facility-wide inpatient reporting for MRSA bacteremia and *C. difficile* LabID events to your monthly reporting plan (MRP) using the "**FACWIDEIN**" location. Emergency departments and 24-hour observation location are automatically included for reporting.



Monthly Reporting Plan: FACWIDEIN



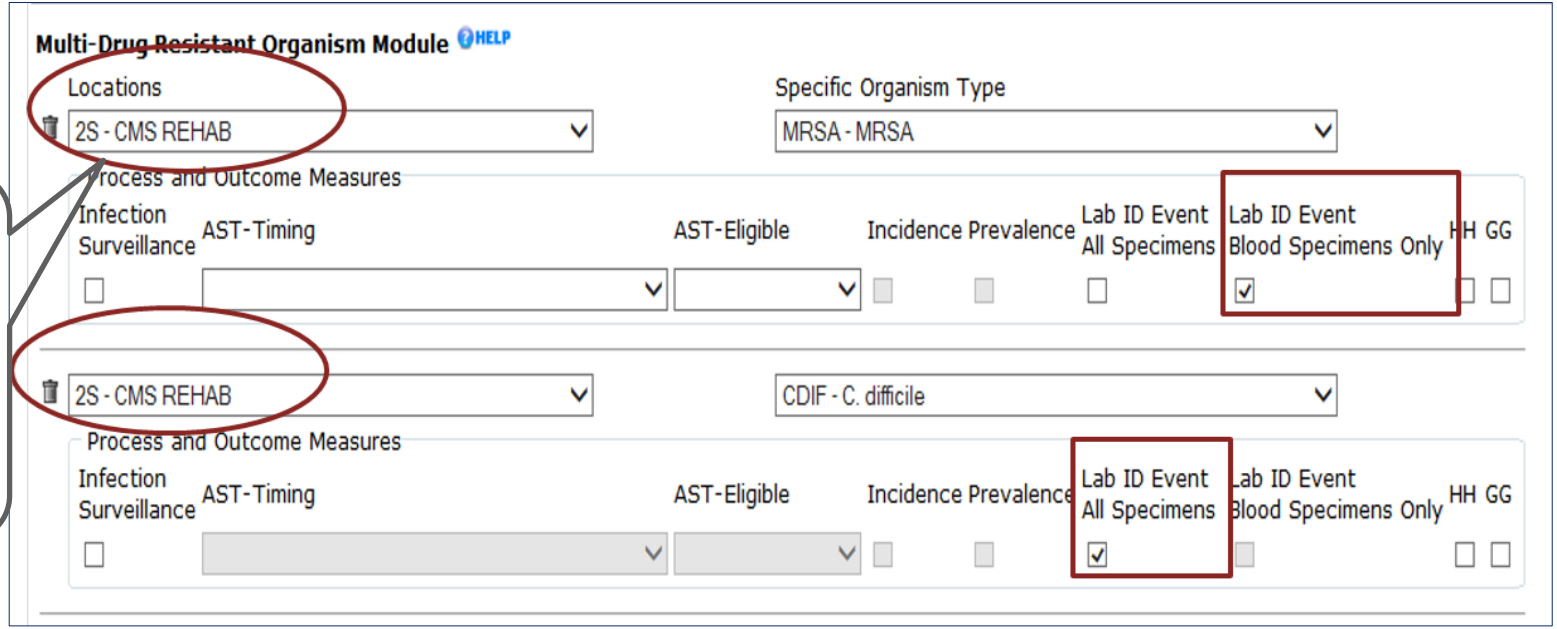
Monthly Reporting Plan: FacWideIN



Monthly Reporting Plan: CMS-IRF Unit within a Hospital

- Each month, add desired monitoring to your monthly reporting plan using your CMS IRF location. <u>This location will not auto-populate for inclusion in reporting.</u>
- The CDI Module section of the plan **must contain** the row shown in the screenshot below in order for your facility's data to be sent to CMS.

Repeat steps for each CMS-IRF unit. <u>Repeat for IPF if desired</u>



MRSA Bacteremia and *C. difficile* LabID Event Reporting in NHSN

Clostridioides difficile = ***C. difficile*** = C. Diff = CDI or CD

Definition: *C. difficile* LabID Event

CD-positive laboratory assay:
A positive laboratory test result for *C. difficile* toxin A and/or B, (includes molecular assays [PCR] and/or toxin assays) tested on an unformed stool specimen (must conform to the container)
OR
A toxin-producing *C. difficile* organism detected by culture or other laboratory means performed on an unformed stool sample (must conform to the container).

Must be Unformed Stool

- **Note:**

When using a multi-step testing algorithm for CDI **on the same unformed** stool specimen, the finding of the **last test performed** on the specimen that is documented in the patient medical record will determine if the CDI positive laboratory assay definition is met.

Knowledge Check: Facility monitors *C.difficile* LabID events. The primary testing method used is GDH + EIA

Should this finding be submitted as a LabID event?

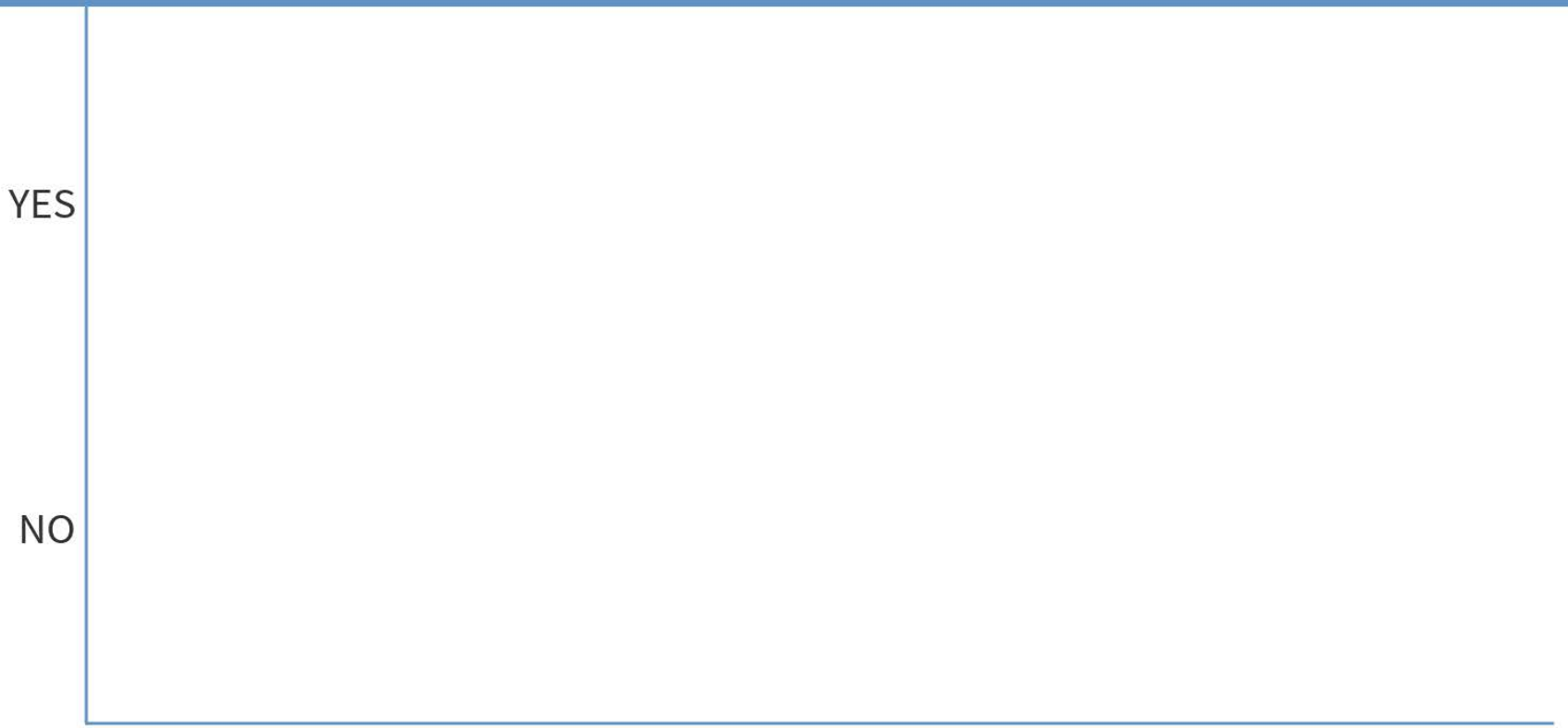
Laboratory finding :

GDH Antigen = Positive

EIA Toxin = Positive

NOTE* finding may represent latent infection, further testing recommended

Is this a LabID event?



Start the presentation to see live content. Still no live content? Install the app or get help at **PollEv.com/app**

Knowledge Check: Is this a LabID Event?

Yes, final test performed is EIA toxin which is resulted as Positive.

Laboratory finding :

GDH Antigen = Positive

EIA Toxin = Positive

NOTE* finding may represent latent infection, further testing recommended

* Interpretative statements are not findings used with event determination

Knowledge Check: Facility monitors *C. difficile* with primary testing method of GDH + EIA with PCR for discrepant results

Should this finding be submitted as a LabID event?

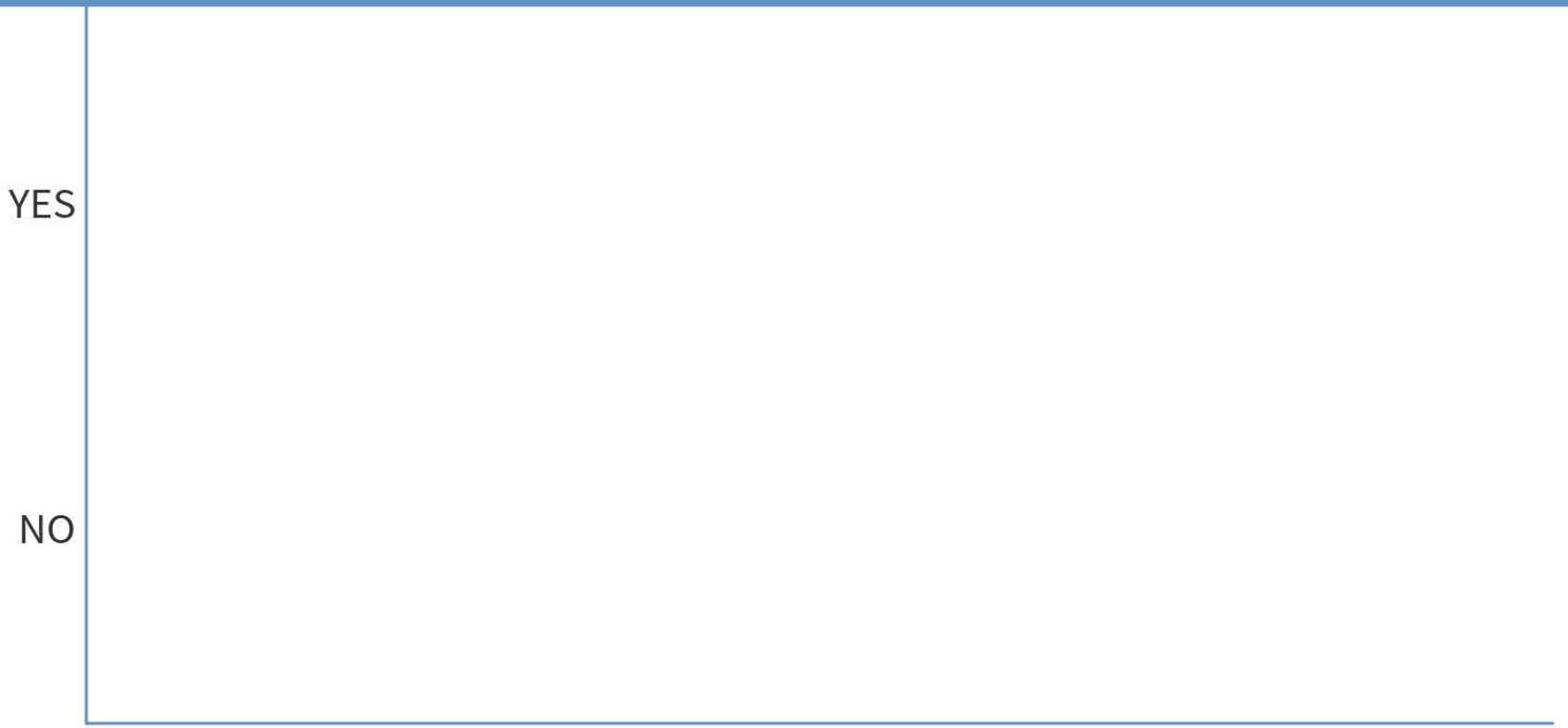
Laboratory finding :

GDH Antigen = Positive

EIA Toxin = Negative

PCR (NATT) = Positive

Is this a LabID event?



Start the presentation to see live content. Still no live content? Install the app or get help at **PollEv.com/app**

Knowledge Check: is this a LabID Event?

Yes, final test performed is PCR (NATT) with positive result noted

Laboratory finding :

GDH Antigen = Positive

EIA Toxin = Negative

PCR (NATT) = Positive

Clarification for situations where ‘formed’ stool is tested:

- The CDI laboratory assay definition includes the requirement for testing on unformed stool specimens
- To ensure this requirement is met, NHSN recommends each testing laboratory have a ‘rejection’ protocol in place where inappropriate specimens submitted for CD testing – specifically, ‘formed’ stool specimens – are rejected and not tested
- By having a rejection protocol in place at the laboratory level, there is a quality check in place which avoids inappropriate testing as well as making LabID event decisions more clear
- A rejection policy involves clinical judgment so should be reflective of appropriate clinical laboratory guidance such as a criteria based on the Bristol Stool Chart algorithm

Identifying a CDI LabID Event

Testing on unformed stool sample

(+) *C. difficile* test result per patient and location

Prior (+) in ≤ 2 weeks from same patient and location (including across calendar months)

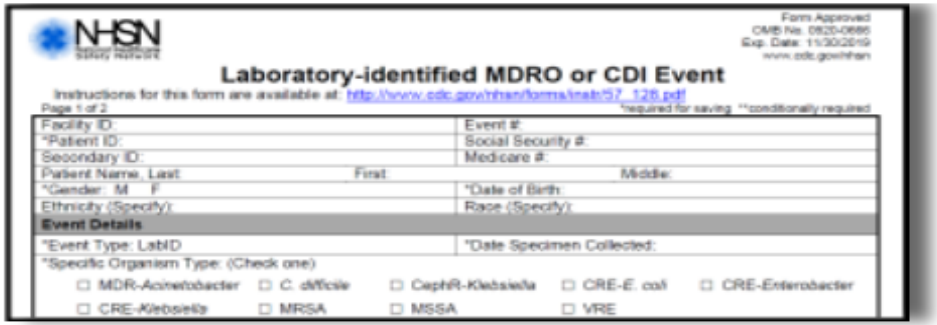
YES

Duplicate test

Not a LabID Event

No

LabID Event



NHSN

Form Approved
OMB No. 0920-0666
Exp. Date: 11/30/2019
www.cdc.gov/nhsn

Laboratory-identified MDRO or CDI Event

Instructions for this form are available at: http://www.cdc.gov/nhsn/forms/inslb/57_126.pdf

Page 1 of 2 *required for saving; **conditionally required

Facility ID:	Event #:
*Patient ID:	Social Security #:
Secondary ID:	Medicare #:
Patient Name: Last: First:	Middle:
*Gender: M F	*Date of Birth:
Ethnicity (Specify):	Race (Specify):
Event Details	
*Event Type: LabID	*Date Specimen Collected:

*Specific Organism Type: (Check one)

☐ MDR-*Acinetobacter* ☐ *C. difficile* ☐ CephR-*Klebsiella* ☐ CRE-*E. coli* ☐ CRE-*Enterobacter*

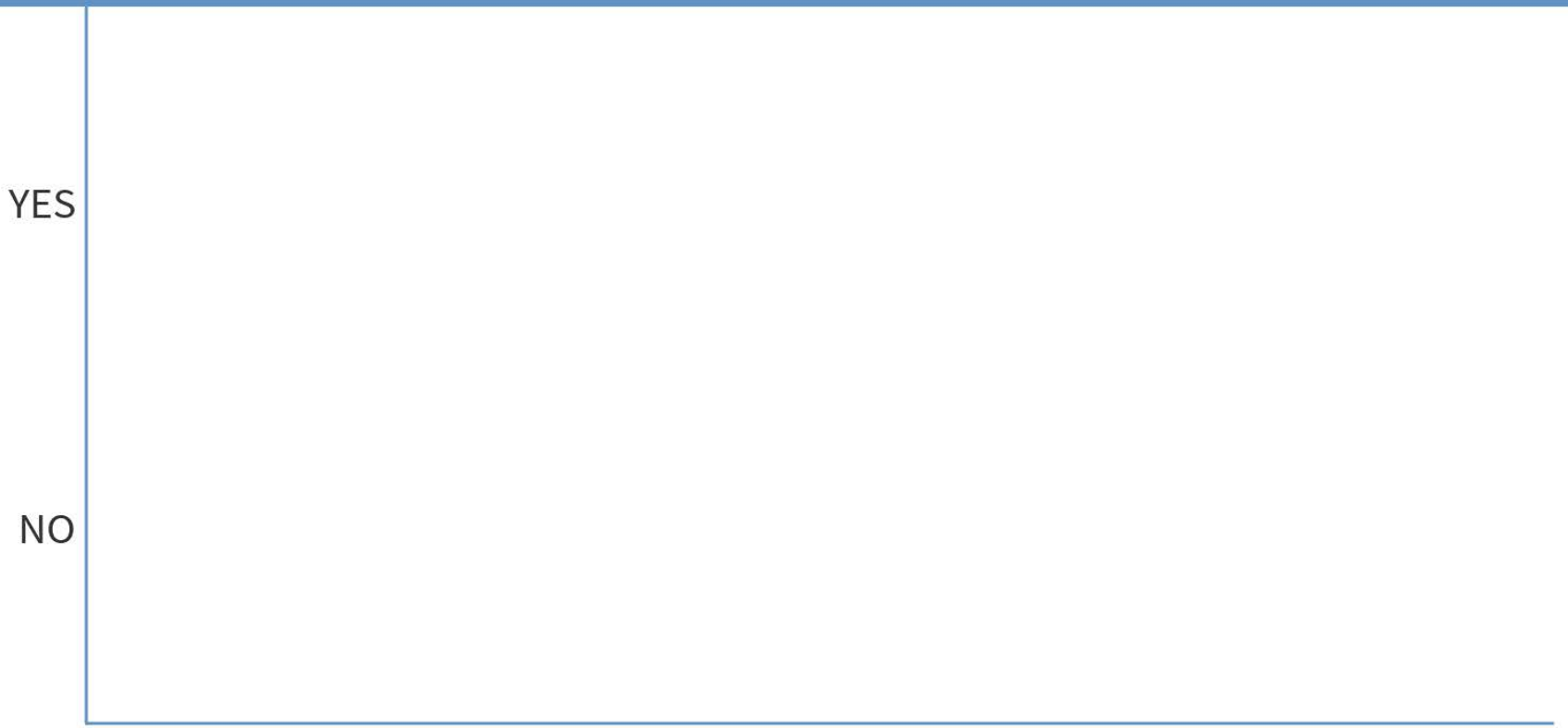
☐ CRE-*Klebsiella* ☐ MRSA ☐ MSSA ☐ VRE

Knowledge Check

This facility participates in FacWideIN C. difficile LabID Event Reporting.

As a surprise for her 50th birthday, Kim's friends arrange a beach getaway weekend which includes a bar crawl through several local seafood spots. Kim has a wonderful time ☺ but upon her return home, she has acute abdominal cramps with loose stool. She progresses to nausea with vomiting and ends up in local ER where assessment includes tachycardia, diarrhea with r/o food poisoning. A loose stool specimen is collected & submitted for enteric pathogens panel testing which includes *C. difficile.* The CD result is noted to be PCR positive. Is this a LabID event?

Does the CD finding represent a LabID event?



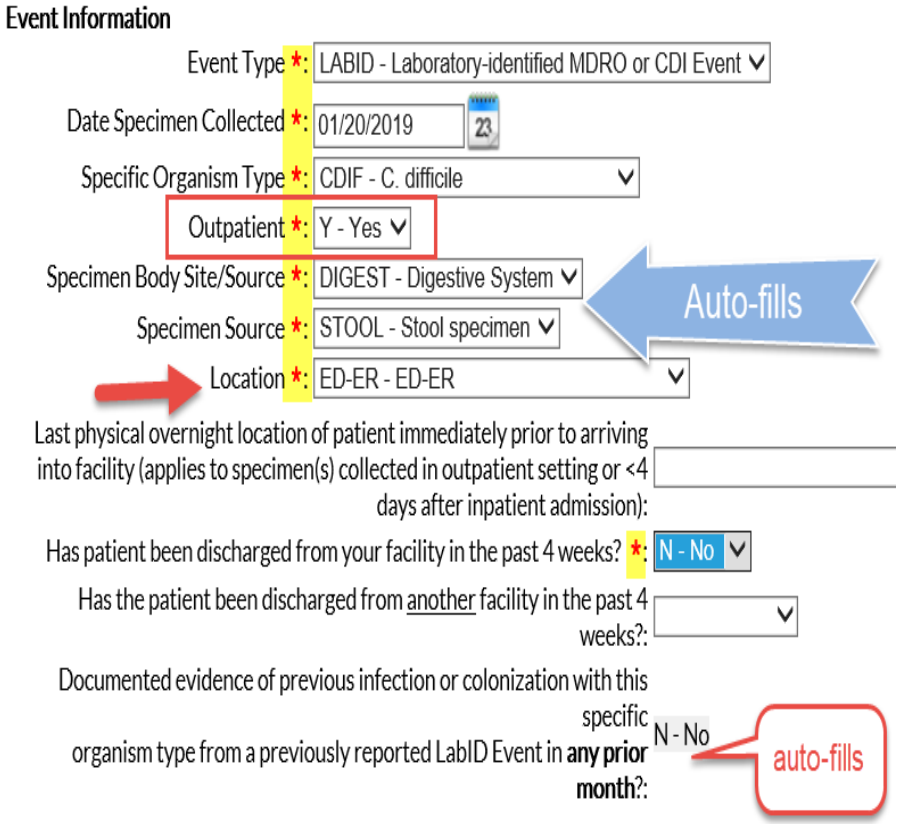
Start the presentation to see live content. Still no live content? Install the app or get help at **PollEv.com/app**

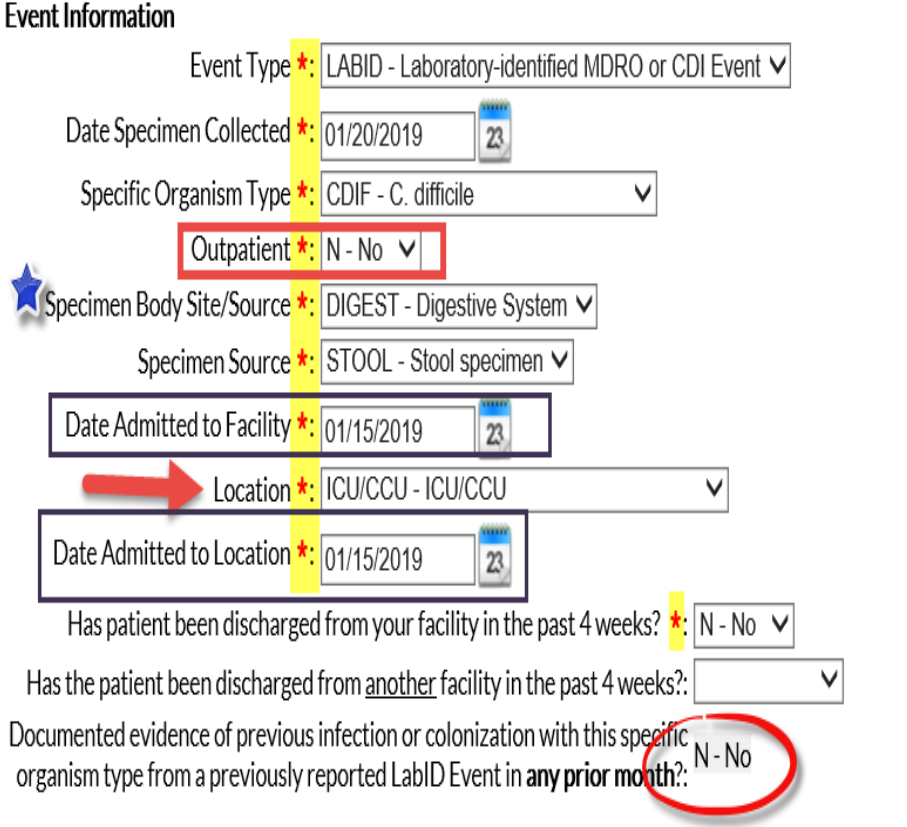
Correct Answer = YES

This facility participates in FacWideIN C. difficile LabID Event Reporting.

As a surprise for her 50th birthday, Kim's friends arrange a beach getaway weekend which includes a bar crawl through several local seafood spots. Kim has a wonderful time ☺ but upon her return home, she has acute abdominal cramps with loose stool. She progresses to nausea with vomiting and ends up in local ER where assessment includes tachycardia, diarrhea with r/o food poisoning. A loose stool specimen is collected & submitted for enteric pathogens panel testing which includes *C. difficile.* The CD result is noted to be PCR positive.

C. Difficile LabID Event: Outpatient vs. Inpatient





Once you have entered the CDI LabID Event, NHSN will categorize based on inpatient admission and specimen collection dates as one of the following:

- **Healthcare Facility-Onset (HO)**: LabID Event specimen collected >3 days after admission to the facility (i.e., on or after day 4).
- **Community-Onset (CO)**: LabID Event specimen collected in an outpatient location or an inpatient location ≤ 3 days after admission to the facility (specifically, days 1, 2, or 3 of admission).
- **Community-Onset Healthcare Facility-Associated (CO-HCFA)**: CO LabID Event collected from a patient who was discharged from the facility ≤ 4 weeks prior to the date current stool specimen was collected.

NHSN will further categorize CDI LabID Events based on specimen collection date and prior specimen collection date of a previous CDI LabID Event (that was entered into NHSN) as:

Incident CDI LabID Event

- Any CDI LabID Event from a specimen obtained > 56 days (8 weeks) after the most recent CDI LabID Event (or with no previous CDI LabID Event documented) for that patient. Note: the date of first specimen collection is considered day 1.

OR

Recurrent CDI LabID Event

- Any CDI LabID Event from a specimen obtained > 14 days (2 weeks) and ≤ 56 days (8 weeks) after the most recent CDI LabID Event for that patient. Note: the date of first specimen collection is considered day 1.

***Remember: Events are Facility Specific

National Healthcare Safety Network
Line Listing - All CDIF LabID Events
As of: January 26, 2018 at 11:27 AM
Date Range: LABID_EVENTS admDateYQ 2017Q4 to 2017Q4

orgID	patID	eventID	spcOrgType	location	outpatient	prevPos	onset	cdiAssay	admitDate	locationAdmitDate	specimenSource	specimenDate	FWCDIF_facIncHOCount	FWCDIF_admPrevCOCount
1[redacted]	45236	30102221	CDIF	3WB	N	N	CO	Incident	11/01/2017	11/01/2017	STOOL	11/01/2017	0	1
1[redacted]	45236	30102227	CDIF	BROWN ICU	N	N	HO	Recurrent	11/01/2017	11/15/2017	STOOL	11/24/2017	0	0
1[redacted]	45236	30102785	CDIF	3WB	N	Y	CO-HCFA		12/01/2017	12/01/2017	STOOL	12/02/2017	0	0
1[redacted]	56333	30102228	CDIF	3WB	N	N	HO	Incident	12/01/2017	12/01/2017	STOOL	12/08/2017	1	0
[redacted]	698569	30100773	CDIF	LDRP	N	N	HO	Incident	11/07/2017	11/07/2017	STOOL	11/22/2017	1	0

Sorted by orgID patID
Data contained in this report were last generated on January 26, 2018 at 11:14 AM.
Any C. diff LabID Event with a blank cdiAssay field indicates that it is related to a previous defining Event in a different location.

LabID Events categorized as CO-HCFA are simply an additional level and subset of the categorized CO events

Healthcare facilities are NOT penalized for CO-HCFA LabID Events

Let's Review *C. difficile* LabID Event Reporting

- For FacWideIN, *C. difficile* toxin-positive specimens MUST be monitored for all inpatient locations within a facility (includes ED and 24-hour OBS locations) but not for predominately baby locations (Nursery, NICU, etc.)
- All LabID Event(s) MUST be entered regardless of categorization
- Only loose stools should be tested for C. difficile
- A CD+ test finding on a loose stool specimen qualifies as a LabID Event if there has not been a previous positive CD laboratory event for the patient and location **within the previous 14 days for the patient and location**

Definition: *MRSA* Bacteremia LabID Event

- Any *MRSA* blood specimen obtained for clinical decision making purposes (excludes screening cultures, such as those used for active surveillance testing)

- *MRSA* positive blood specimen for a patient in a location with no prior MRSA positive blood specimen result collected **within 14 days** for the patient and location *(includes across calendar months for Blood Specimen Only reporting)*

- ***LabID Event =*** First *MRSA*+ blood for the patient in the location; all initial *MRSA* blood isolates for the location, excluding tests related to active surveillance testing

Definition: *Unique Blood Source*

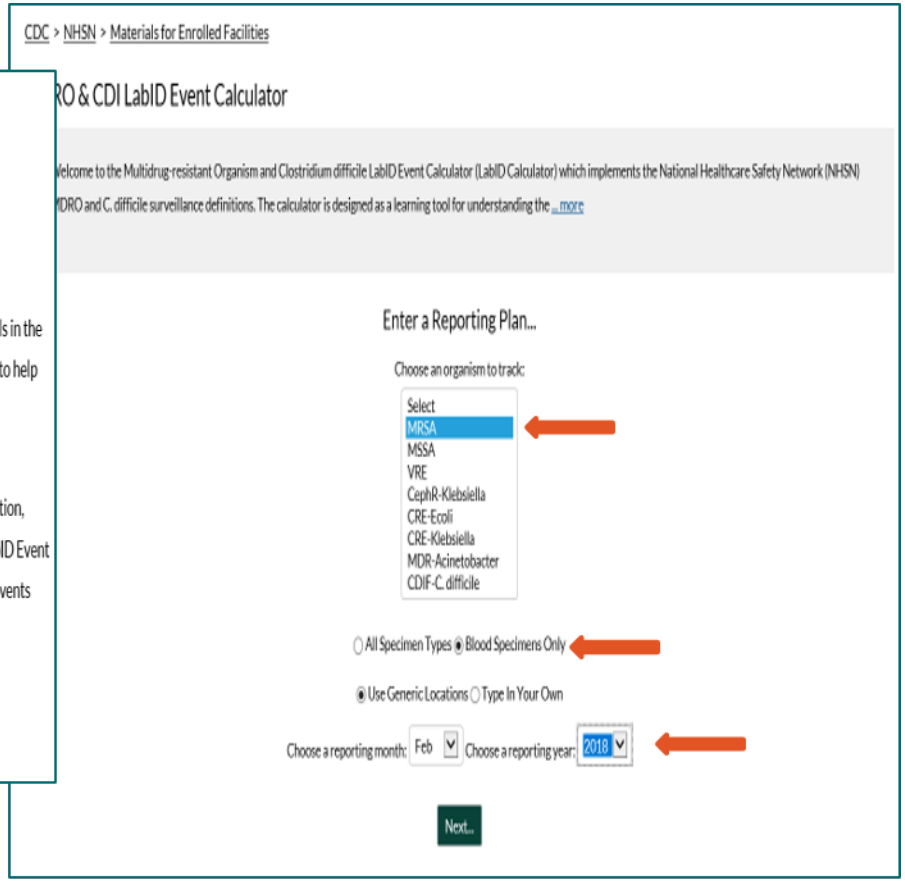
- There should be a full 14 days with no MRSA+ BC for the patient and location before another MRSA Blood LabID Event is entered into NHSN for the patient and location

- Blood isolates collected within 14 days for the same patient and location are considered duplicates (and not reportable)

- If following all specimens, the first MDRO for the patient, month, and location should be reported

NOTE: The date of specimen collection is considered Day 1

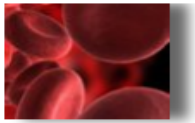
MDRO & CDI LabID Event Calculator



MDRO Test Result for Blood Specimens Only LabID Events

MDRO Isolate from blood per patient and location

Prior (+) same MDRO from blood in ≤2 weeks from same patient and location (including across calendar months)



YES

NO

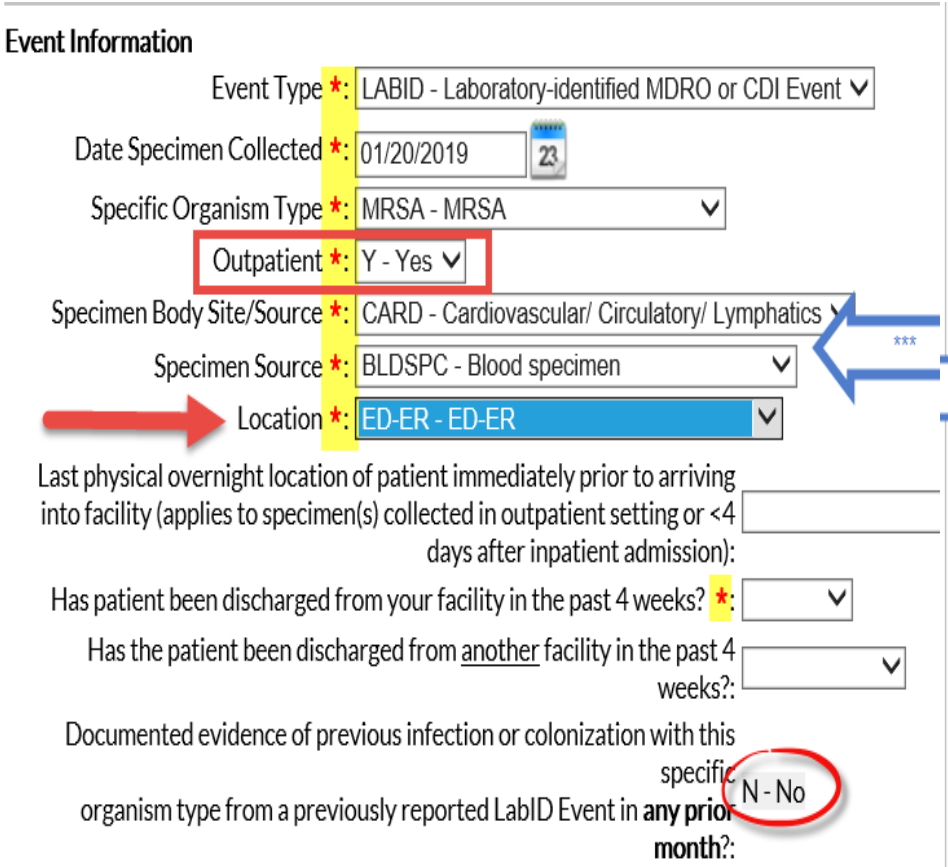
Duplicate MDRO test

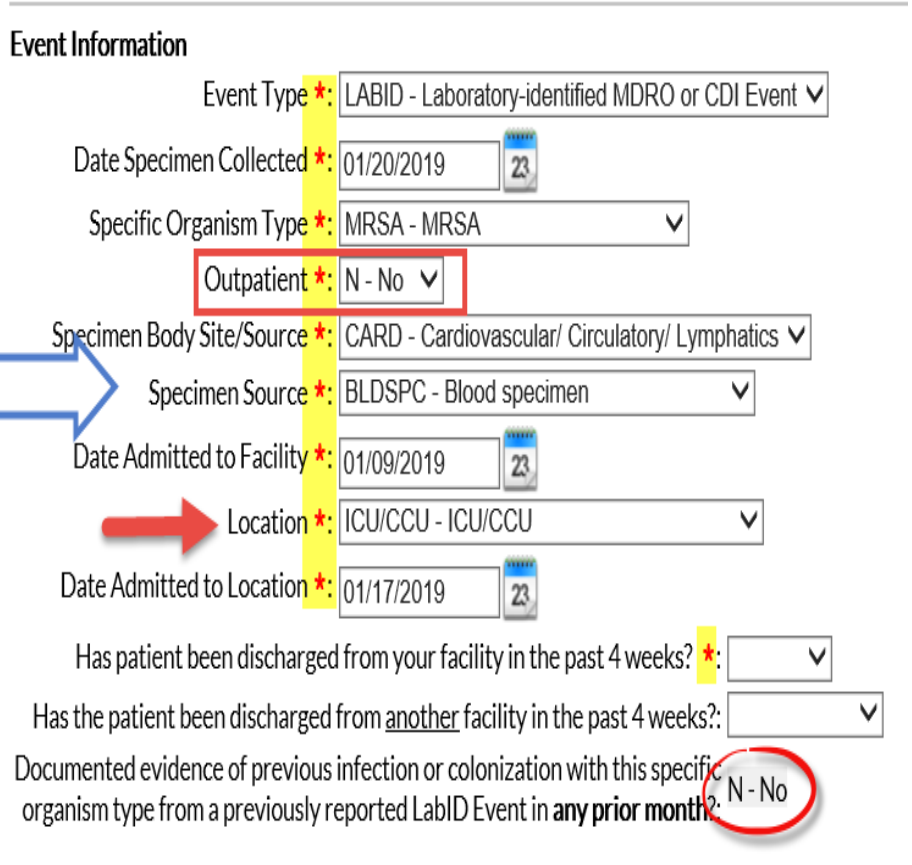
NOT A LABID EVENT

LabID Event (non-duplicate isolate)

Adapted from Figure 1 MDRO Test Results Algorithm for Blood Specimens Only LabID Events

MRSA LabID Event: Outpatient vs. Inpatient





Categorization of MRSA LabID Events

NHSN Application Categorizes *MRSA* LabID Events As:

- **Community-Onset (CO)**: LabID Event specimen collected in an outpatient location or in an inpatient location ≤ 3 days after admission to the facility [hospital days 1 (admission), 2, or 3]
- **Healthcare Facility-Onset (HO)**: LabID Event specimen collected > 3 days after admission to the facility [on or after hospital day 4]

During Analysis, **Unique blood source (first *MRSA* positive for the patient for the admission or first positive >15 days of prior +) identified. Any MRSA event ≤14 days from prior positive is considered a 'duplicate' event

Categorization of MRSA LabID Events

National Healthcare Safety Network

Line Listing - All MRSA LabID Events

As of: January 26, 2018 at 11:38 AM

Date Range: LABID_EVENTS admDateYQ 2017Q3 to 2017Q4

orgID	patID	eventID	spcOrgType	location	outpatient	prevPos	onset	admitDate	locationAdmitDate	specimenSource	specimenDate	FWMRSA_admPrevBldCount	FWMRSA_bldIncCount
[redacted]	02010428	28087743	MRSA	5 WEST	N	N	HO	07/26/2017	07/26/2017	BLDSPC	07/31/2017	0	1
[redacted]	3636	29193027	MRSA	3 CENTRAL	N	N	CO	09/29/2017	09/29/2017	BLDSPC	09/30/2017	1	0
[redacted]	3636	29193028	MRSA	3 CENTRAL	N	Y	HO	09/29/2017	09/29/2017	BLDSPC	10/05/2017	0	0
[redacted]	CM1005-TEST-D	28632349	MRSA	3 CENTRAL	N	N	CO	08/12/2017	08/12/2017	BLDSPC	08/12/2017	1	0

Sorted by orgID patID

Data contained in this report were last generated on January 26, 2018 at 11:14 AM.

Knowledge Check

This facility participates in FacWideIN MRSA bacteremia LabID Event Reporting

Janet visits Jungle World where she enters a local gator wrestling tournament. During the victory round, the gator gets frisky and chomps down on Janet's leg. Janet bests the gator but sustains a deep gash to her leg. First aid is rendered and Janet returns home with the Victor's Cup. Several days later, Janet becomes lethargic and notes red streaks around the gash. She visits her private physician who directly admits her to MC 3E where blood cultures are collected that later return MRSA+. Antibiotics are initiated and Janet improves. On HD 4, she's moved to a step-down unit where the MD writes discharge orders to include blood culture draw to document 'clearance'. These blood cultures later return MRSA+. Is the 3E event CO or HO? What about the step- unit event?

Is the 3E event community onset or hospital onset?

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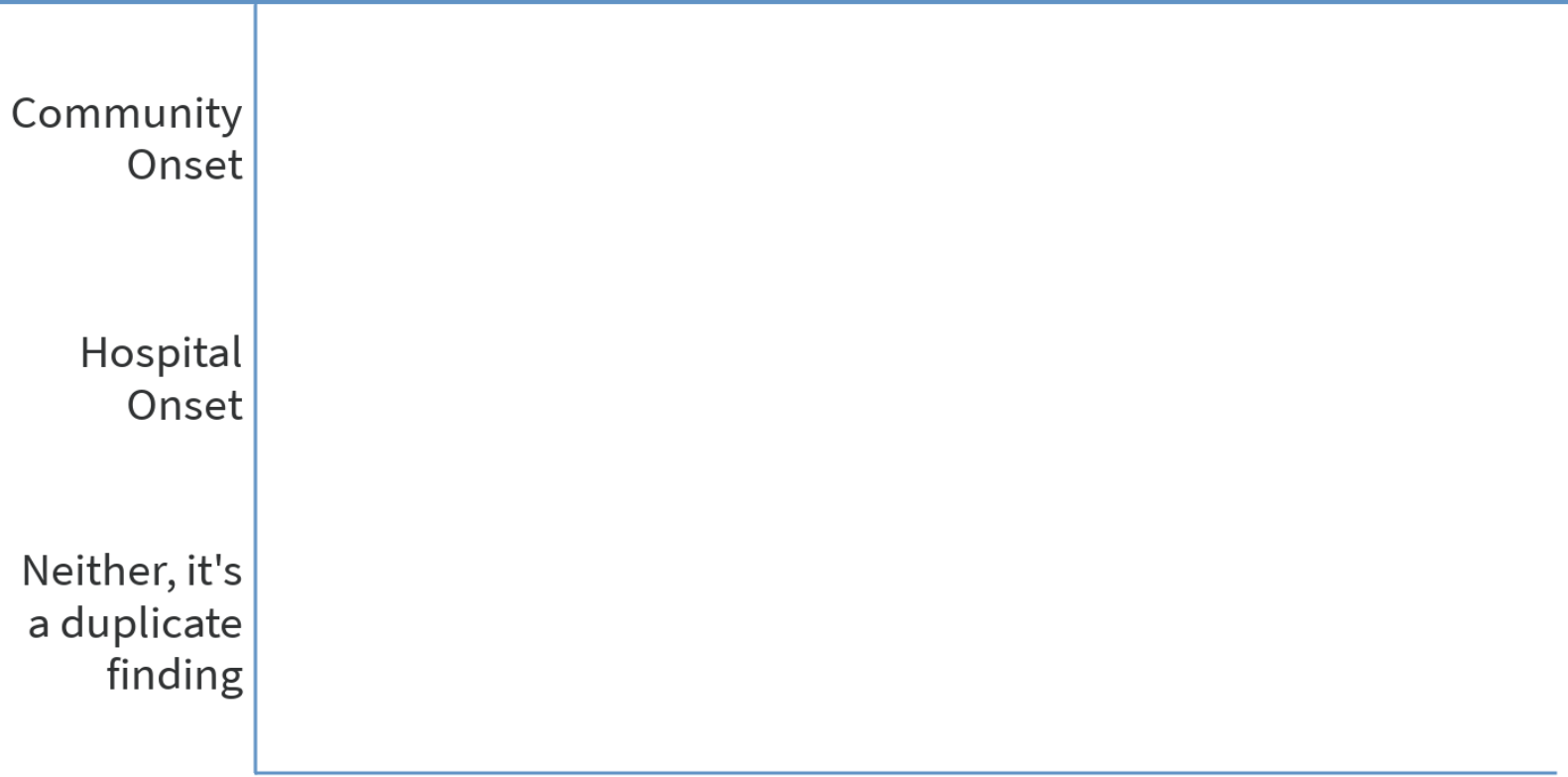
Rationale:

She visits her private physician who directly admits her to MC 3E where blood cultures are collected that later return MRSA+. (Hospital day 1)

Community Onset – inpatient event occurring on HD 1 [day of admit], HD 2 or HD 3

How is the Step-down unit event categorized?



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Rationale:

On HD 4, she's moved to a step-down unit where the MD writes discharge orders to include blood culture draw to document 'clearance'. These blood cultures later return MRSA+.

Healthcare onset - event occurs on or after HD 4. Location level risk assignment with no comparison to prior events

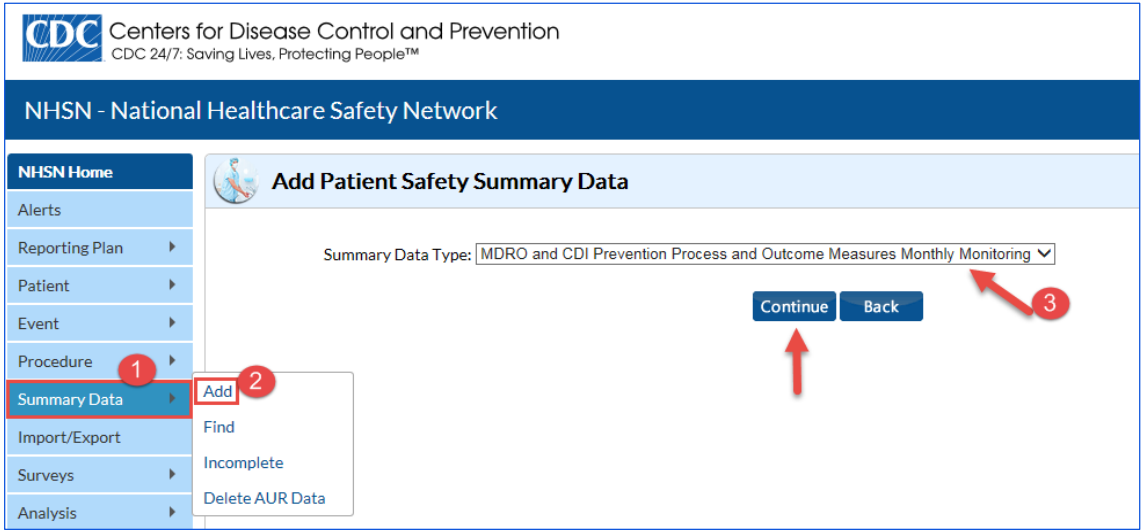
Let's Review MRSA Bacteremia LabID Events for FacWideIN

- *MRSA* blood specimens are monitored throughout all inpatient locations within a facility as well as ED and 24-hour observation locations
- All *MRSA* blood LabID Event(s) MUST be entered: community-onset (CO) and/or healthcare facility-onset (HO)
- A blood specimen qualifies as a LabID Event if there has not been a previous positive laboratory result for the **patient and location within the previous 14 days**

Reporting Denominator Data

Entering Summary Denominator Data - FacWideIN

- Click on ‘Summary Data’ then ‘Add’ on the left navigation bar
- Select ‘MDRO/ CDI Prevention Process and Outcome Measures Monthly Monitoring’ from the Summary Data Type dropdown menu
- On the summary data entry screen, select FACWIDEIN as the location for entering the summary data. Six summary data fields open for entry

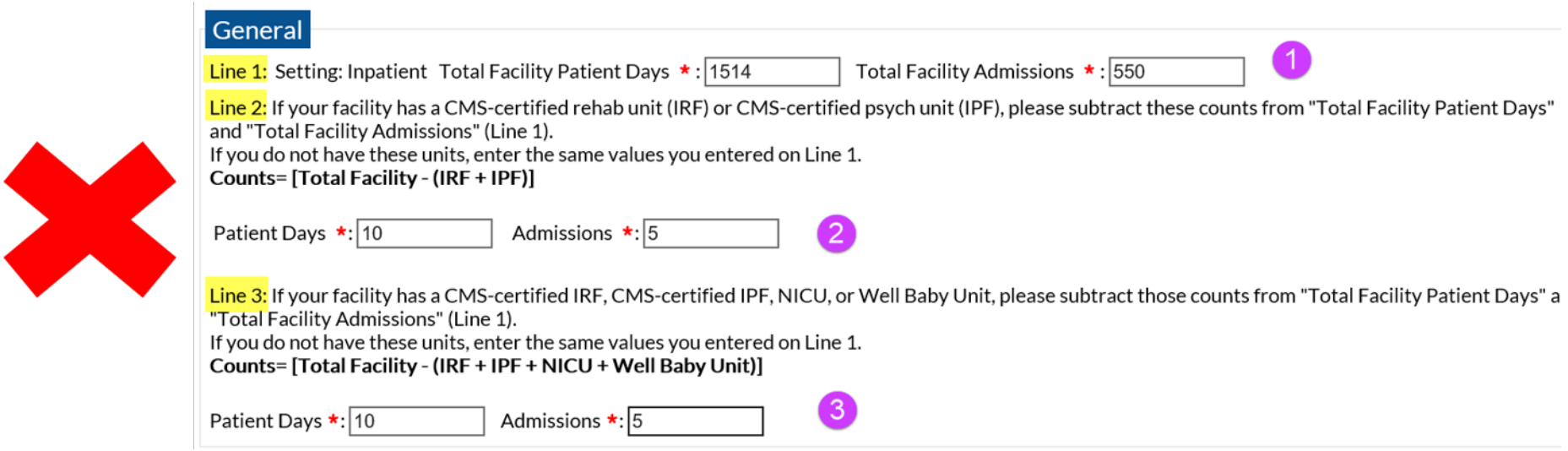


Denominator Data: FacWideIN

- **Line 1:** Counts from all inpatient locations in the facility
- **Line 2:** Counts from all inpatient locations in the facility except CMS-certified Rehab and Psych units (formerly labeled MDRO row 2)
- **Line 3:** Counts from all inpatient locations in the facility except CMS-certified Rehab and Psych units, NICUs, and well-baby units (formerly CDI row 3)

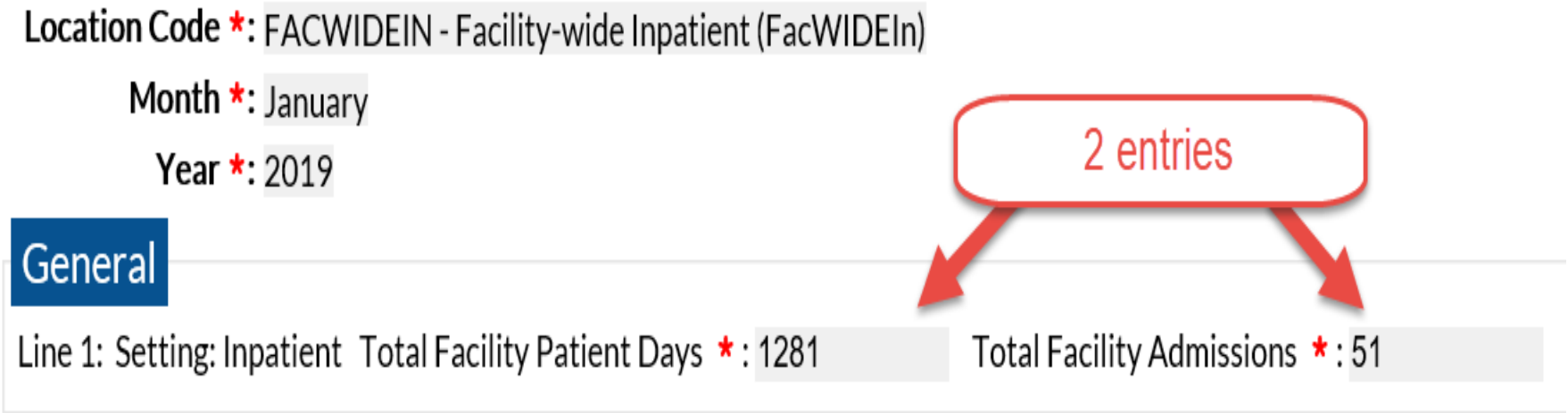
Example: Incorrect Data Entry

- Line 2 and Line 3 refer to the total number of patients housed in inpatient locations (FacWideIN) in your facility, regardless of the patient's MDRO or *C. difficile* infection status (not diagnosis)
- ***Each denominator row should be a **sub-set of the row above it**



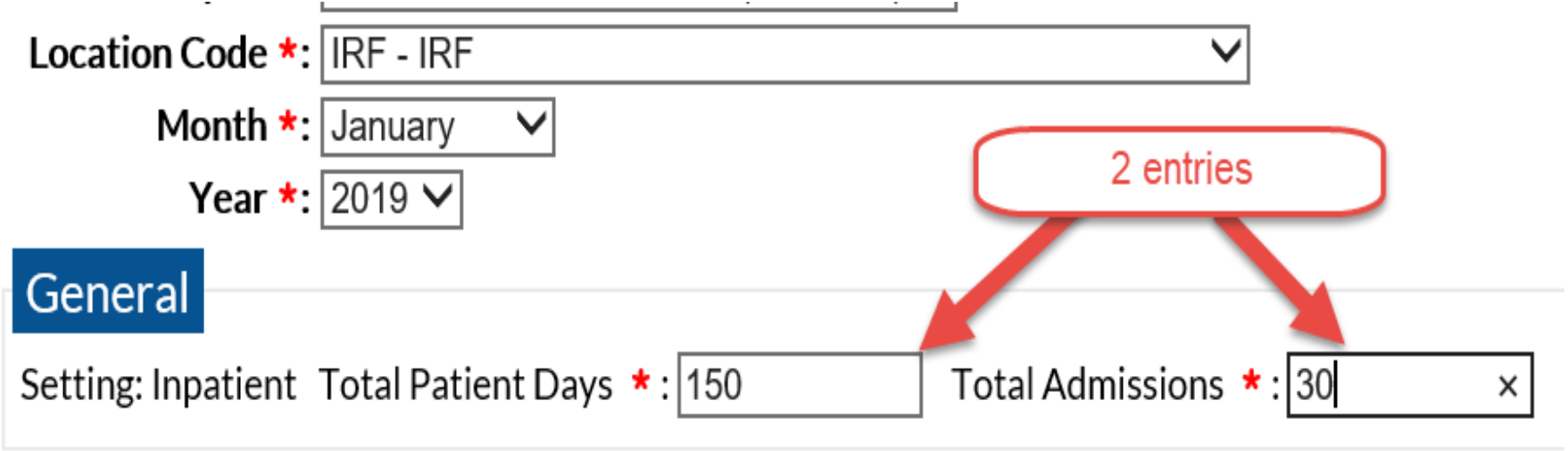
FacWideIN Denominator Reporting: LTACHs/IRFs

- Reduced data entry requirements for LTACHs and free-standing IRFs:



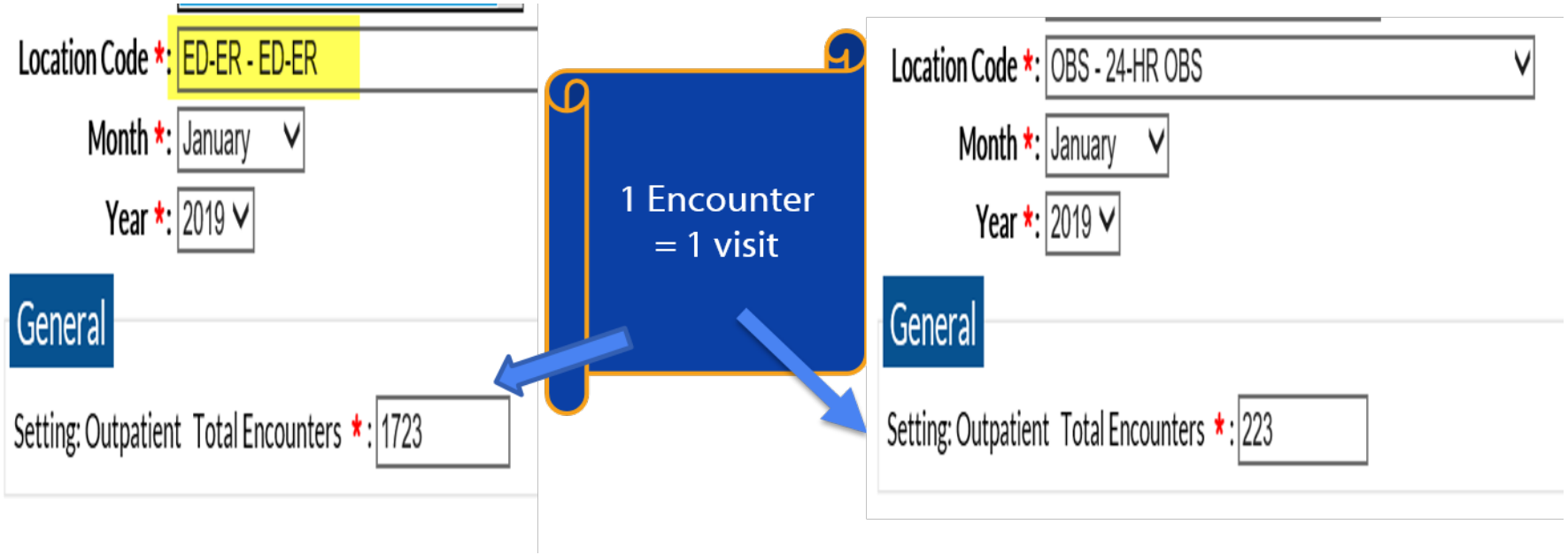
Denominator Data: IRF Unit within a Hospital

- On the summary data entry screen, select the CMS IRF unit as the location for which you are entering the summary data by clicking on the drop down menu next to ‘Location Code’
- After selecting the appropriate unit, month, and year, two summary data fields populate
- Enter data, save and repeat these steps for each CMS-IRF unit &/or a IPF location if desired



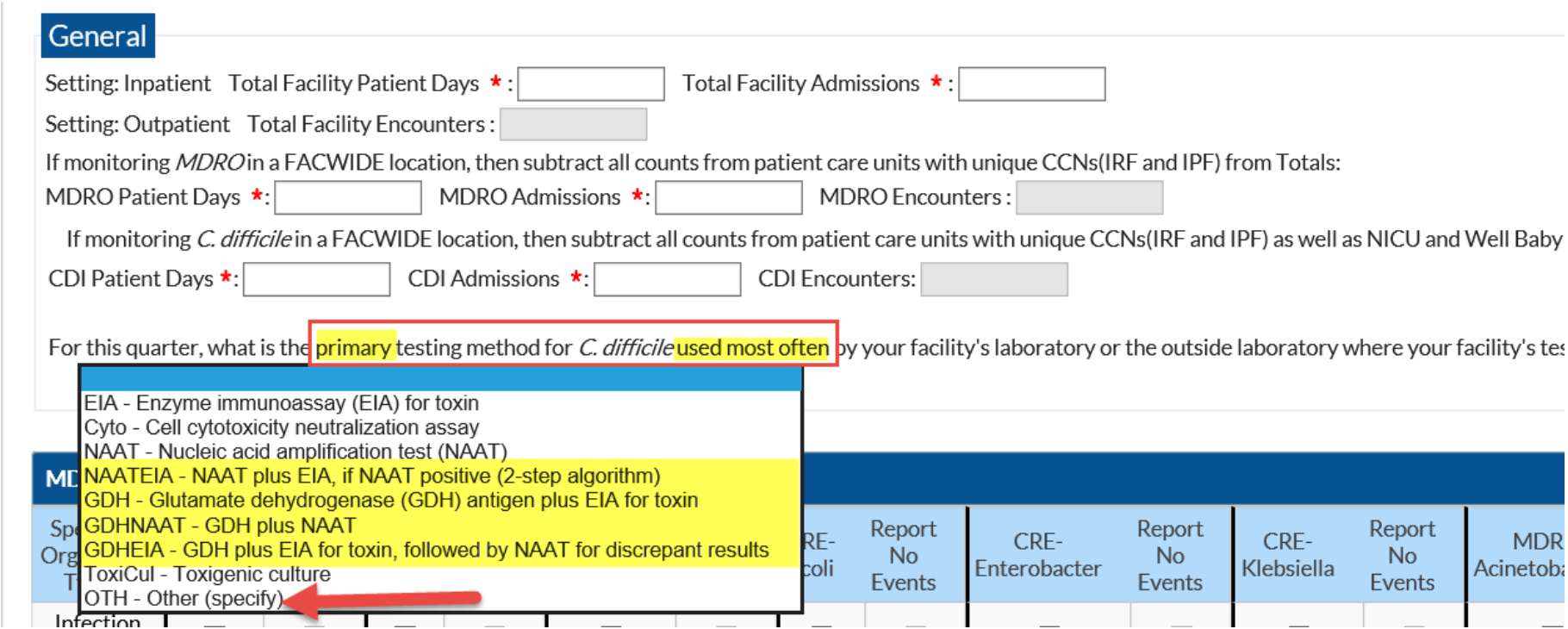
Denominator Data: Emergency Department / 24-hour observation

- On the summary data entry screen, use the 'Location Code" drop down menu to select ED or 24-hour observation as the location for which you are entering the summary data
- After selecting the appropriate unit, month, and year, one summary data field will become required (Total Encounters). Repeat steps for 24-hour observation locations



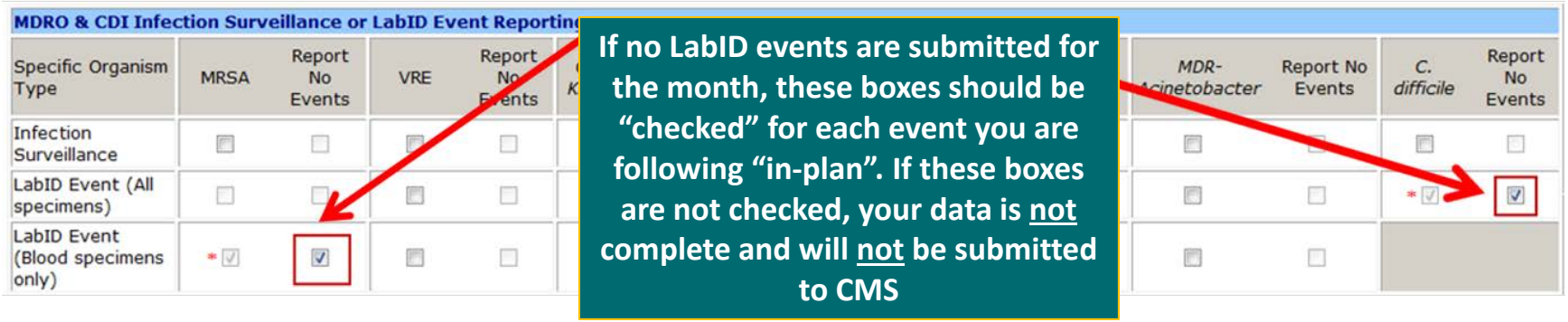
Denominator Data: FacWideIN

Select CDI Test type quarterly (last month of each calendar-year quarter – March; June; September; December)



Denominator Data: Report No Events

- If you have identified and reported both MRSA bacteremia and C. difficile LabID events during the month, you are finished with your reporting for the month and can skip this step
- If you have not submitted a LabID event for MRSA bacteremia or C. difficile at the end of a month, you must indicate this on the summary data record in order for your data to be sent to CMS
- On the MDRO and CDI Module summary data form, checkboxes for “Report No Events” are found underneath the patient day and admission count fields, as seen in the screenshot below



If you identify and enter LabID events for an organism after you’ve already checked the “Report No Events” box, the “Report No Events" check will automatically be removed in the NHSN database

How to achieve

- ✓ Understand why surveillance for MRSA bacteremia and *C. difficile* is important
- ✓ Comprehend the parameters for LabID Event reporting to CMS via NHSN
- ✓ Illustrate how to correctly set-up monthly reporting plans for MRSA bacteremia and *C. difficile* LabID Event reporting and/or Infection Surveillance
- ✓ Learn MRSA bacteremia and *C. difficile* LabID Event definitions and protocols
- ✓ Describe how to correctly submit Event data into NHSN
- ✓ Define how to correctly enter denominator data for LabID Event reporting into NHSN

Questions: Email user support: **nhsn@cdc.gov**

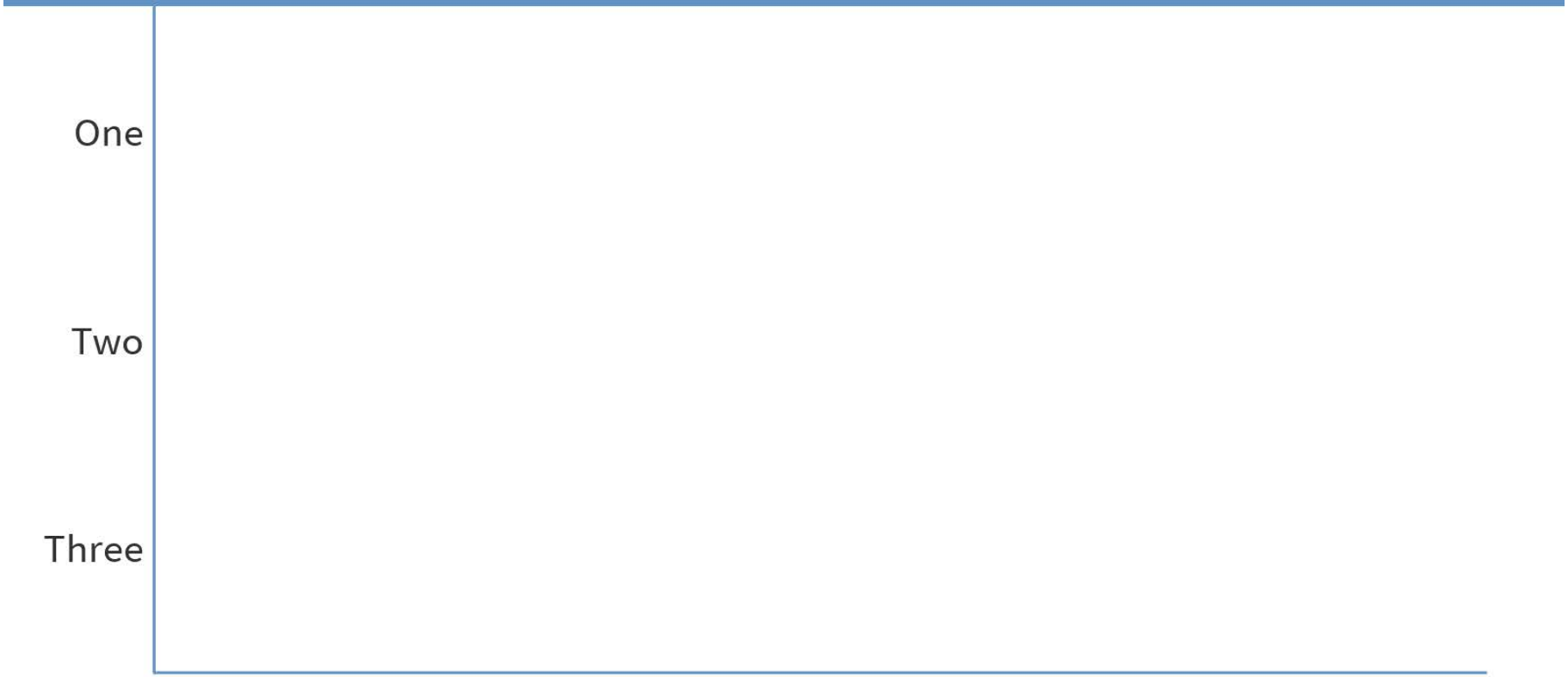
Case Studies

How do I identify the LabID event?

Dear LabID event specialist at NHSN,

I have a patient admitted to CCU with Endocarditis; blood cultures were collected day of admission (2/5/19) which revealed MRSA. The patient transferred to the Surgical unit for MVR evaluation on 2/10; assessment included new blood culture which still show MRSA. The patient has MVR on 2/12 and a culture of valve vegetation shows MRSA. He returns to the Surgical unit where he does well until 2/16 when he has cardiac decompensation requiring transfer back to CCU. New blood cultures collected 2/17 again show MRSA. My facility follows MRSA bacteremia LabID events; how many MRSA LabID events would I report ?

How many MRSA LabID events are reportable?



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Correct Answer = Two events

Event #1 – CCU on 2/5

Event #2 – Surgical unit on 2/10

I have a patient admitted to CCU with Endocarditis; blood cultures were collected day of admission (2/5/19) which revealed MRSA. The patient transferred to the Surgical unit for MVR evaluation on 2/10; assessment included new blood culture which still show MRSA. The patient has MVR on 2/12 and a culture of valve vegetation shows MRSA. He returns to the Surgical unit where he does well until 2/16 when he has cardiac decompensation requiring transfer back to CCU. New blood cultures collected 2/17 again show MRSA.

MRSA LabID Event Reporting

Hello Denise -

I think you missed the part of my previous email where I noted the patient has Endocarditis so I was able to associate the MRSA+ BCs to a POA ENDO. I know I MUST report the +BC cultures as a LabID event anyway but when I ran my line listing report, I have HO events. This is incorrect as the infection was present on admission. Also, shouldn't the 2/17 MRSA+ BC be reported since the lab report is positive. AND – you've told me many times, LabID event reporting is a proxy measure based on positive laboratory findings. PLEASE correct as soon as possible then let me know when I can run a new report for my IC Committee & C-Suite showing all events were present at admission. Should the 2/17 +BC be entered as a LabID event?

Should the 2/17 MRSA blood result be entered as a MRSA bacteremia LabID Event?

No. Her symptoms started on admission to the hospital

Yes. First MRSA positive blood specimen collected for this patient and location (no previous positive within 14 days for location)

No. The specimen is collected <14 days from prior positive in this location

Yes. Report all MRSA+ BC as MRSA LabID events

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Correct Answer = NO

I have a patient admitted to CCU with Endocarditis; blood cultures were collected day of admission (2/5/19) which revealed MRSA. The patient transferred to the Surgical unit for MVR evaluation on 2/10; assessment included new blood culture which still show MRSA. The patient has MVR on 2/12 and a culture of valve vegetation shows MRSA. He returns to the Surgical unit where he does well until 2/16 when he has cardiac decompensation requiring transfer back to CCU.

** The 2/17 positive isolate occurs within 14 days of a prior positive in this location thus, is not reportable.

Why is the 2/10 event categorized as HO (healthcare onset)

It's not HO; this is an incorrect categorization

It's HO because it occurs on HD 1 (day of admit), HD 2 or HD 3

It's HO because it occurs after HD 4

NHSN must change the categorization to CO

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How is the 2/10 event categorized?
Correct Answer = HO

I have a patient admitted to CCU with Endocarditis; blood cultures were collected day of admission (2/5/19) which revealed MRSA. The patient transferred to the Surgical unit for MVR evaluation on 2/10; assessment included new blood culture which still show MRSA.

Date for admission = 2/5 (HD 1)

Date of Event = 2/10 which is HD 6

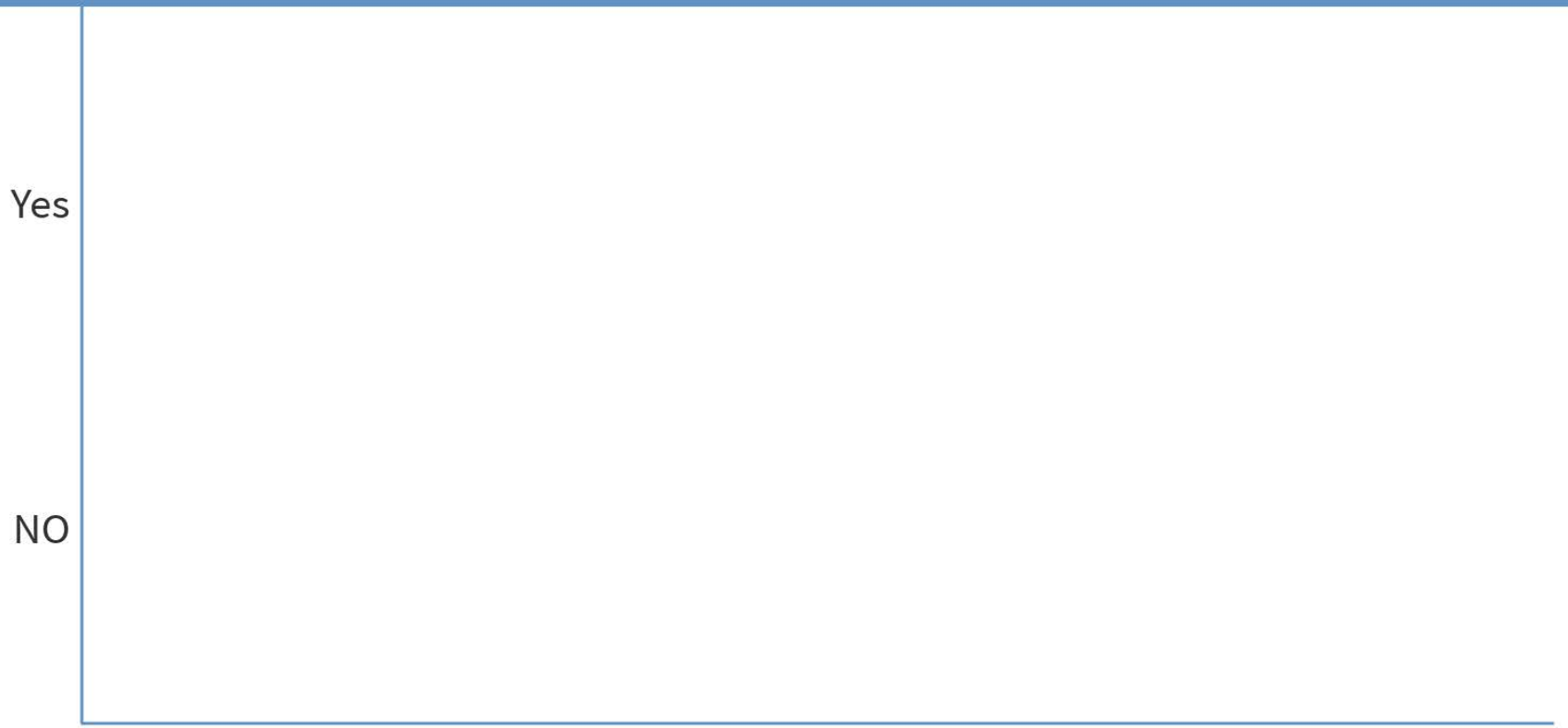
Then ……

Denise –

NO, NO, NO. The LabID event reporting module is flawed. NHSN is lost and not listening to me? The patient had ENDOCARDITIS on admission and all of these MRSA+ BC are due to that condition! It's totally unfair to my facility to require we report any events at all! This results in detrimental financial impact to my facility because of increased HO events. I'd like to request an exclusion for reporting events when they are clearly associated to another site of infection. I want to remove the 2/10 event from the database. I don't like the reporting guidance and think it's grossly unfair. Please change it.

Can this request for removal be honored?

Can the request for deleting the HO event from the NHSN database be honored?



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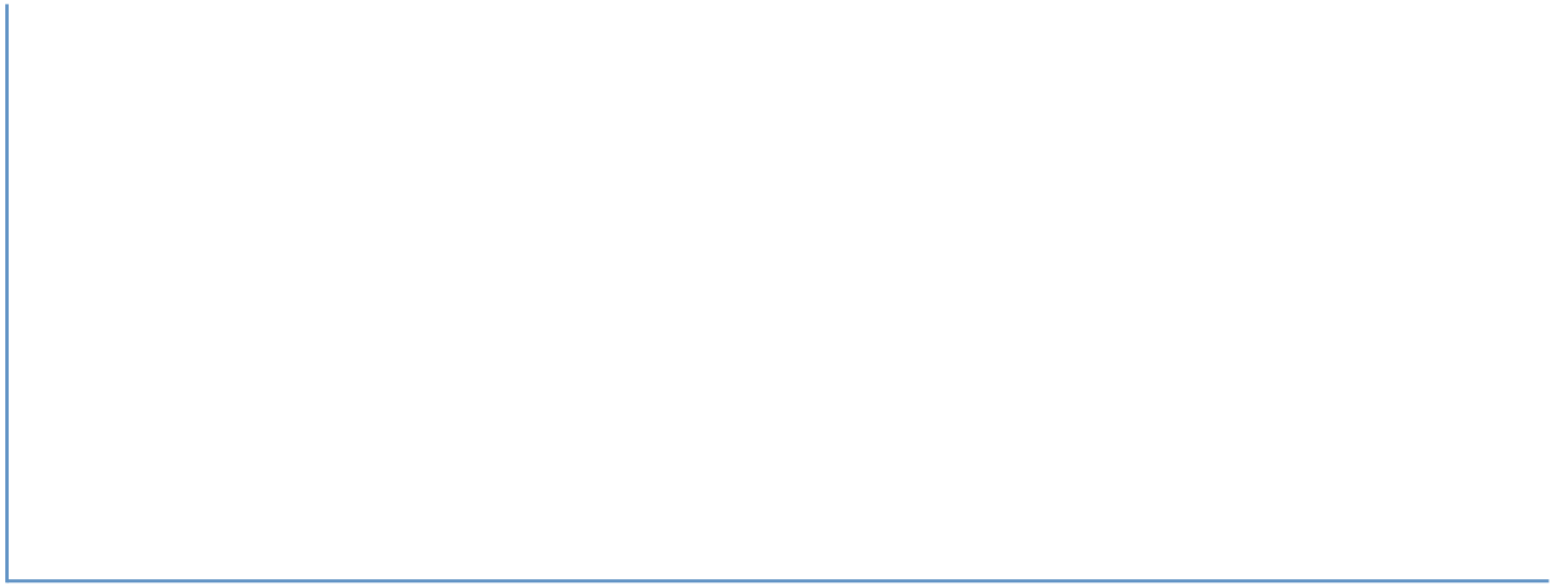
Rationale:

NO, NO, NO. The LabID event reporting module is flawed. NHSN is lost and not listening to me? We hear You! The patient had ENDOCARDITIS on admission and all of these MRSA+ BC are due to that condition! There is no clinical consideration in LabID Event Reporting. It's totally unfair to my facility to require we report any events at all! This results in detrimental financial impact to my facility because of increased HO events. I'd like to request an exclusion for reporting events when they are clearly associated to another site of infection. I want to remove the 2/10 event from the database. I don't like the reporting guidance and think it's grossly unfair. Please change it. NHSN is prohibited from changing data submitted by a facility. Facilities agree to follow reporting guidance as written when they sign the agreement to participate.

Location vs. Age

9 months after a long blackout related to a snowstorm in the Midwest, the Neonatal units at Memorial Medical Center are filled to capacity. In an effort to 'find room at the inn' for new births, infants housed in the extended stay nursery area are moved to the hospital's Peds unit. Rose, age 4 months who has been hospitalized since birth, is transferred to the Peds unit with a known diagnosis of short gut syndrome. A new resident sees Rose on the Peds unit, notes watery stools and orders a *C. difficile* screen. An unformed stool specimen is collected and submitted for toxin testing which returns *C. diff* positive. The facility follows FacWideIN *C. difficile* LabID event reporting on their Monthly Reporting Plan. Should the CD+ finding be entered into NHSN as LabID event?

Should the C. difficile finding be entered into NHSN as a LabID Event?



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Correct Answer = Yes.

Rose, age 4 months who has been hospitalized since birth, is transferred to the Peds unit with a known diagnosis of short gut syndrome. A new resident sees Rose on the Peds unit, notes watery stools and orders a *C. difficile* screen. An unformed stool specimen is collected and submitted for toxin testing which returns *C. diff* positive. The facility follows FacWideIN *C. difficile* LabID event reporting on their Monthly Reporting Plan.

FacWideIN event reporting includes all inpatient locations for the facility. Any patient housed/cared for on an eligible inpatient location is included in event reporting.

How will NHSN Categorize the CDI Event?

Community-onset (CO)

Healthcare-Facility onset (HO)

Community-Onset Healthcare Facility-Associated (CO-HCFA)

NHSN will not categorize the event, the user will need to make the decision

Start the presentation to see live content. Still no live content? Install the app or get help at **PollEv.com/app**

How is the event categorized? Correct Answer: HO

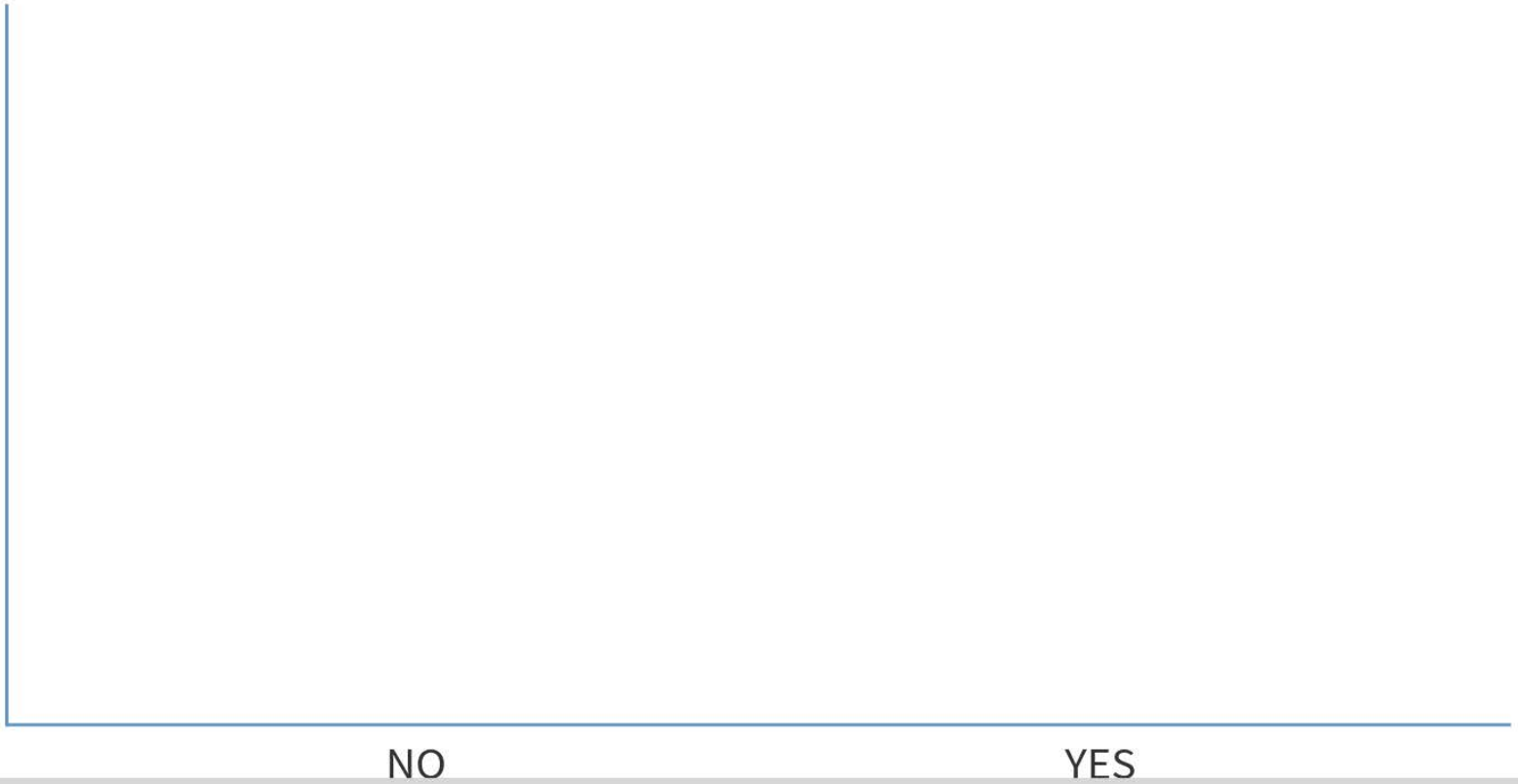
9 months after a long blackout related to a snowstorm in the Midwest, the Neonatal units at Memorial Medical Center are filled to capacity. In an effort to 'find room at the inn' for new births, infants housed in the extended stay nursery area are moved to the hospital's Peds unit. Rose, age 4 months who has been hospitalized since birth, is transferred to the Peds unit with a known diagnosis of short gut syndrome. A new resident sees Rose on the Peds unit, notes watery stools and orders a *C. difficile* screen. An unformed stool specimen is collected and submitted for toxin testing which returns *C. diff* positive. The facility follows FacWideIN *C. difficile* LabID event reporting on their Monthly Reporting Plan.

Event occurs after HD 4

Is this a LabID event?

The Christmas party for the IP team is a fun night of Whirly Ball. The most competitive of the bunch, Deb, gets caught in a crossfire of car bumps and tumbles onto the field where an overenthusiastic colleague ‘bumps’ into her. After a short hospital stay related to a knee injury, Deb is transferred to an LTAC for rehab. The LTAC follows VRE LabID events on their monthly reporting plan and has an VRE AST program based on rectal swab collection. Deb’s rectal swab is VRE + . Is this an eligible finding for LabID event reporting?

Should this positive laboratory finding be entered into NHSN as a LabID Event?



Start the presentation to see live content. Still no live content? Install the app or get help at **PollEv.com/app**

Correct Answer: No

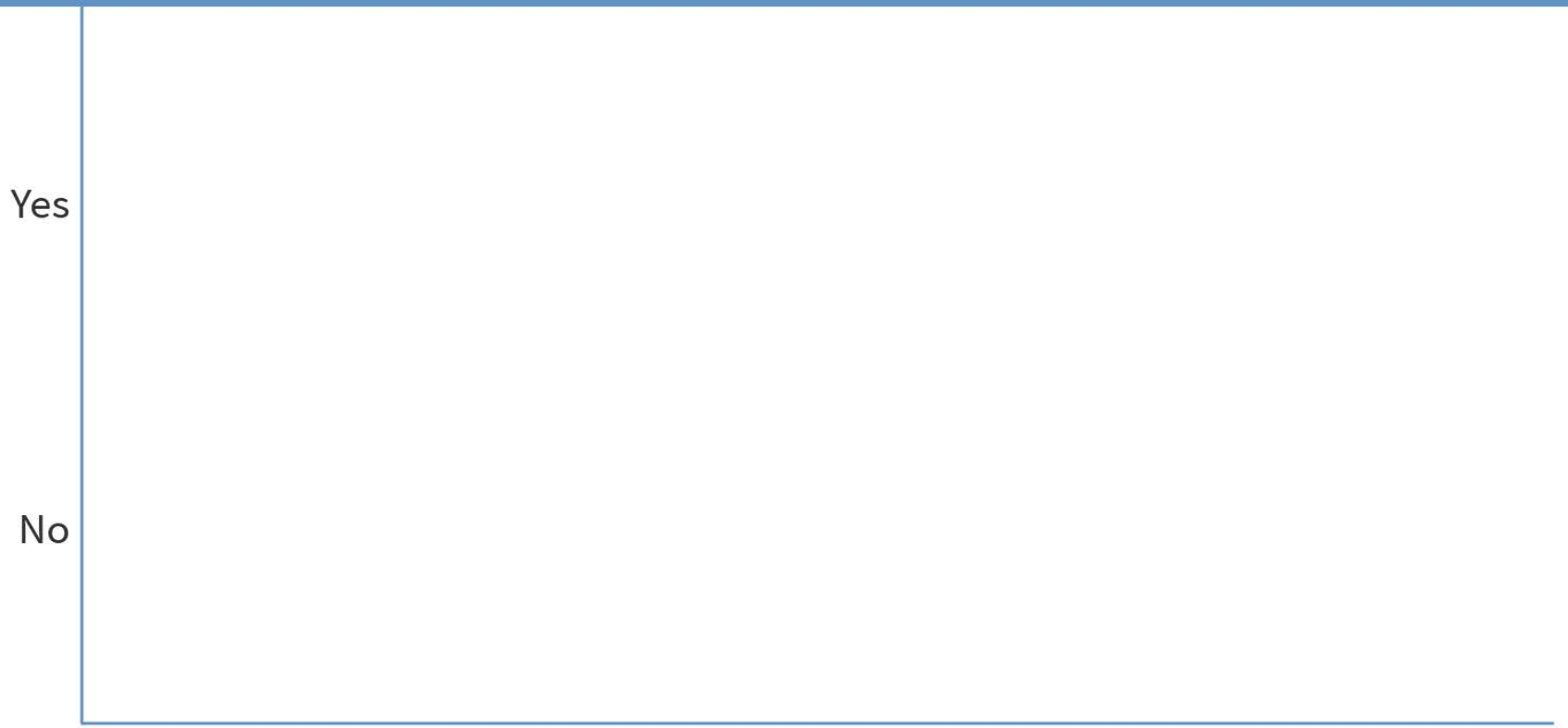
The Christmas party for the IP team is a fun night of Whirly Ball. The most competitive of the bunch, Deb, gets caught in a crossfire of car bumps and tumbles onto the field where an overenthusiastic colleague 'bumps' into her. After a short hospital stay related to a knee injury, Deb is transferred to an LTAC for rehab. The LTAC follows VRE LabID events on their monthly reporting plan and has an VRE AST program based on rectal swab collection. Deb's rectal swab is VRE +. Is this an eligible finding for LabID event reporting?

AST screens are not eligible for use with LabID event reporting.

Is this a LabID event?

Laura enjoys the neighborhood New Year's Eve festivities until an errant toss from the axe throwing event lands her in the community hospital with a head injury. She's stabilized but a few days into the stay, develops loose stools. A test for CDI returns positive & Laura is transferred to MMC, a sister facility, for a higher level of care. A copy of her medical record is sent to MMC which includes the CDI report. This is the first admission for Laura to MMC. She does well and on HD 10 is ready for discharge when she's noted to have a single loose stool. The attending wants to ensure her CDI is not recurring and orders a new CDI test on this specimen. MMC uses PCR testing for CD detection; final laboratory report reads PCR +. Is a CD LabID event identified for MMC?

Is a C. difficile LabID event identified for MMC?



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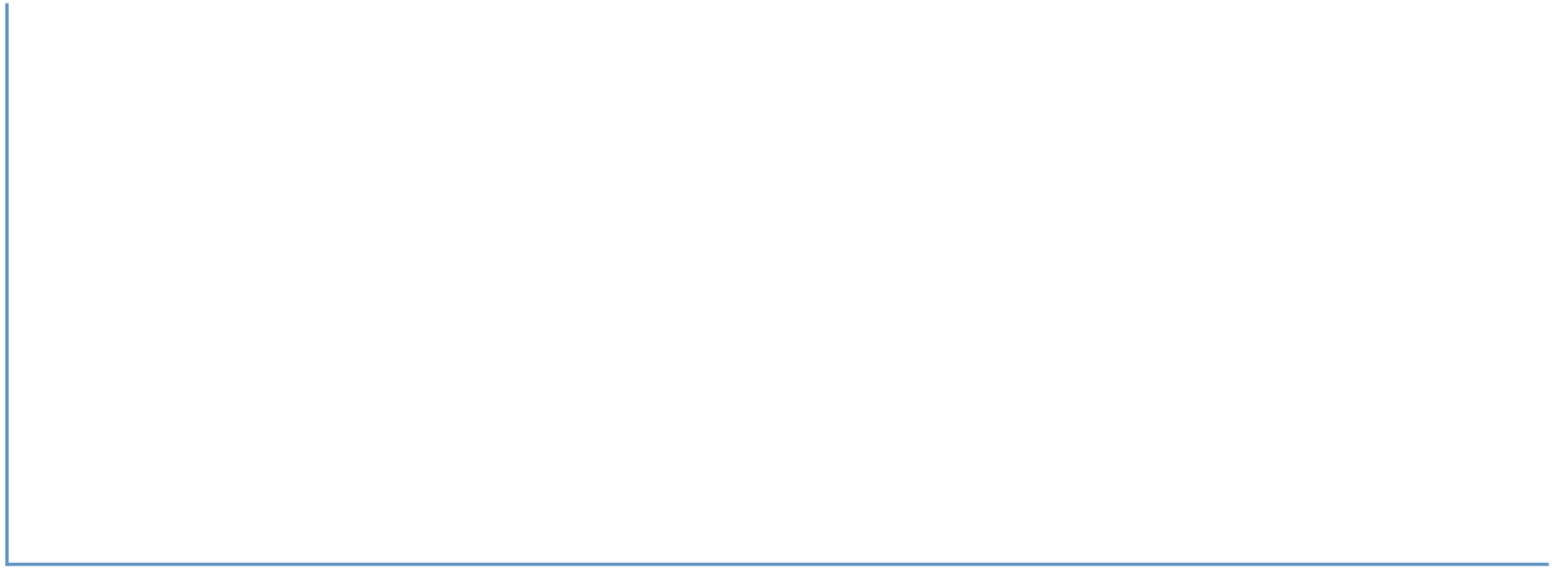
Correct Answer: YES

Laura enjoys the neighborhood New Year's Eve festivities until an errant toss from the axe throwing event lands her in the community hospital with a head injury. She's stabilized but a few days into the stay, develops loose stools. A test for CDI returns positive & Laura is transferred to MMC, a sister facility, for a higher level of care. A copy of her medical record is sent to MMC which includes the CDI report. This is the first admission for Laura to MMC. She does well and on HD 10 is ready for discharge when she's noted to have a single loose stool. The attending wants to ensure her CDI is not recurring and orders a new CDI test on this specimen. MMC uses PCR testing for CD detection; final laboratory report reads PCR +.

First positive finding for the patient and location.

How is the HD 10 event reported?



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How is the HD 10 event categorized?
Correct Answer: Incident HO event for MMC

This is the first admission for Laura to MMC. She does well and on HD 10 is ready for discharge when she's noted to have a single loose stool. The attending wants to ensure her CDI is not recurring and orders a new CDI test on this specimen. MMC uses PCR testing for CD detection; final laboratory report reads PCR +.

First positive finding for the patient at his facility making it an 'Incident' event. Date of event is HD 10 giving it a location level assignment of HO. NHSN reporting is by single facility, there is no 'search' across different facilities for prior events.