

# Using NHSN for Multidrug Resistant Organism and *Clostridium difficile* Infection (MDRO/CDI) Laboratory-Identified (LabID) Event Reporting

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National Center for Emerging and Zoonotic Infectious Diseases

Place Descriptor Here



# Objectives

- Review the structure of the Multidrug-Resistant Organism & Clostridium *difficile* Infection (MDRO/CDI) Module within the Patient Safety Component of NHSN
- Describe the rationale for monitoring MDROs and CDI
- Review requirements for MRSA Bacteremia and CDI LabID Event reporting to CMS through NHSN
- Describe the methodology, protocols, and definitions used in data collection and reporting under the MDRO/CDI LabID Event Reporting in NHSN
- Review the correct method for entering MRSA Bacteremia and CDI LabID Events into NHSN
- Apply knowledge through case studies

# Patient Safety Component

## 5 Modules

Patient  
Safety  
Component

```
graph TD; A[Patient Safety Component] --> B[Device-associated Module]; A --> C[Procedure-associated Module]; A --> D[Antimicrobial Use and Resistance (AUR) Module]; A --> E[MDRO & CDI Module]; A --> F[Vaccination Module];
```

Device-associated  
Module

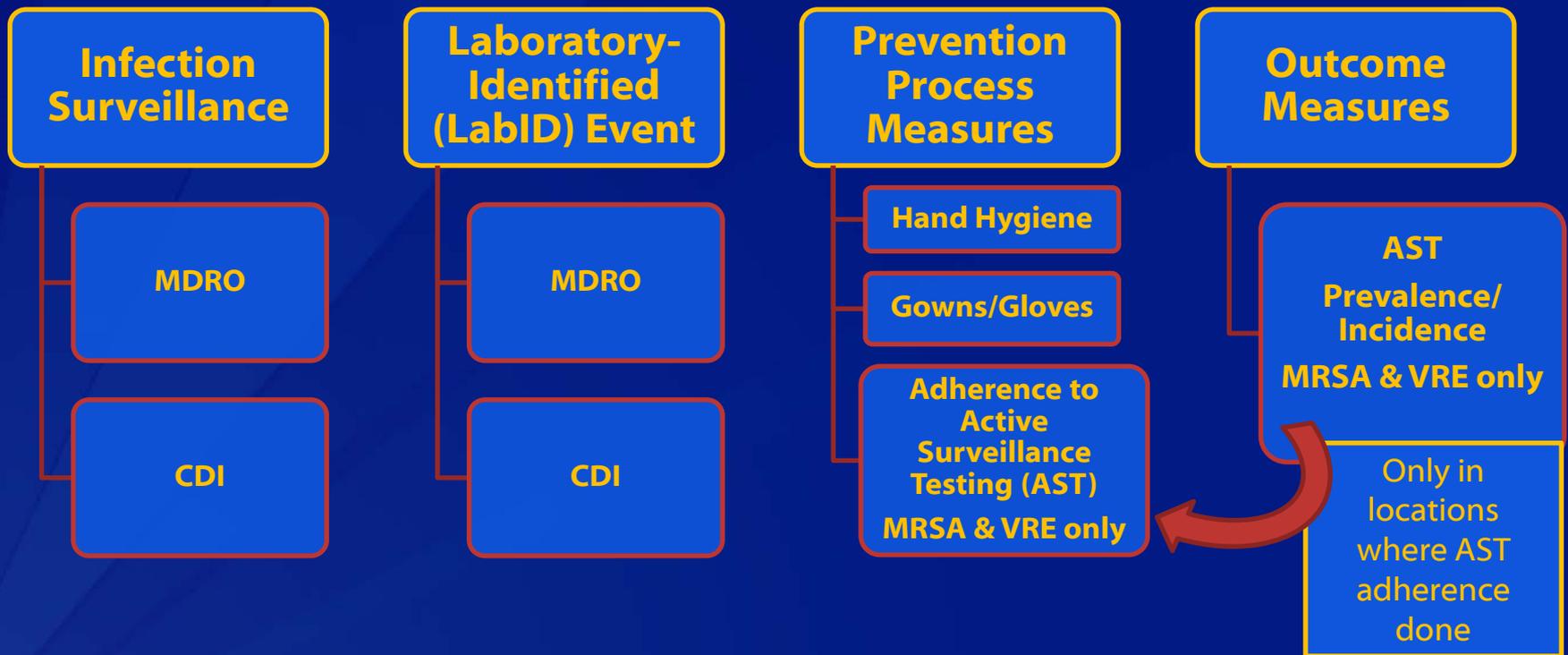
Procedure-  
associated  
Module

Antimicrobial Use  
and Resistance  
(AUR)  
Module

MDRO & CDI  
Module

Vaccination Module

# Multidrug-Resistant Organism & *Clostridium difficile* Infection Module (MDRO/CDI)



# Background

# Goal of the MDRO and CDI Module

- Enables users to evaluate local trends and changes in the occurrence of these pathogens and related infections
- This module 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

# Why *C. difficile*?

- Unlike many causes of healthcare associated infections (HAIs), *C. difficile* diarrheal infections have increased, and are now at **historic highs**
- *C. difficile* infections are linked to about **14,000 deaths** each year, with approximately 90% being among the elderly
- Antibiotic use and healthcare exposure are two of the greatest risk factors
- Careful attention to surface cleaning, and wearing gowns and gloves when treating those known to be infected, can reduce spread by 20%
- Renewed interest:
  - Reporting to CMS via NHSN

CDC. (2012). Vital signs: Preventing clostridium difficile infections, MMWR, 61.



# Making Health Care Safer

Stopping *C. difficile* Infections

CDC  
**Vital**signs™

March 2012

## On this Page

- Introduction
- Problem
- Who's at Risk?
- What Can Be Done
- Science Behind this Issue
- Related Links
- Social Media
- Read Associated MMWR

People getting medical care can catch serious

infections called [health care-associated \(HAIs\)](#). While most types of HAIs are [de](#)one – caused by the germ *C. difficile*\* – [1](#) at historically high levels. *C. difficile* causes diarrhea linked to 14,000 American deaths each year. Those most at risk are people, especially older adults, who take antibiotics and are in medical care. When a person takes antibiotics, good germs that protect against infection are destroyed for several months. During this time, patients can get sick from *C. difficile* picked up from contaminated surfaces or spread from health care provider's hands. About 25% of *C. difficile* infections first show symptoms in hospital patients; 75% first show in nursing home patients or in people recently discharged from doctors' offices and clinics. *C. difficile* infections cost at least \$1 billion in extra health care annually.

\**Clostridium difficile* (kloh-STRID-ee-um) (see)

Centers for Disease Control and Prevention

# MMWR

Early Release / Vol. 61

Morbidity and Mortality Weekly Report

March 6, 2012

## Vital Signs: Preventing *Clostridium difficile* Infections

### Abstract

**Background:** *Clostridium difficile* infection (CDI) is a common and sometimes fatal health-care-associated infection; the incidence, deaths, and excess health-care costs resulting from CDIs in hospitalized patients are all at historic highs. Meanwhile, the contribution of nonhospital health-care exposures to the overall burden of CDI, and the ability of programs to prevent CDIs by implementing CDC recommendations across a range of hospitals, have not been demonstrated previously.

**Methods:** Population-based data from the Emerging Infections Program were analyzed by location and antecedent health-care exposures. Present-on-admission and hospital-onset, laboratory-identified CDIs reported to the National Healthcare Safety Network (NHSN) were analyzed. Rates of hospital-onset CDIs were compared between two 8-month periods near the beginning and end of three CDI prevention programs that focused primarily on measures to prevent intrahospital transmission of *C. difficile* in three states (Illinois, Massachusetts, and New York).

**Results:** Among CDIs identified in Emerging Infections Program data in 2010, 94% were associated with receiving health care; of these, 75% had onset among persons not currently hospitalized, including recently discharged patients, outpatients, and nursing home residents. Among CDIs reported to NHSN in 2010, 52% were already present on hospital admission, although they were largely health-care related. The pooled CDI rate declined 20% among 71 hospitals participating in the CDI prevention programs.

**Conclusions:** Nearly all CDIs are related to various health-care settings where predisposing antibiotics are prescribed and *C. difficile* transmission occurs. Hospital-onset CDIs were prevented through an emphasis on infection control.

**Implications for Public Health:** More needs to be done to prevent CDIs; major reductions will require antibiotic stewardship along with infection control applied to nursing homes and ambulatory-care settings as well as hospitals. State health departments and partner organizations have shown leadership in preventing CDIs in hospitals and can prevent more CDIs by extending their programs to cover other health-care settings.

3X

94%

20%

<http://www.cdc.gov/mmwr/pdf/wk/mm61e0306.pdf>

Recommended metrics  
from the  
SHEA/HICPAC Position Paper  
were the basis  
for the  
MDRO and CDI Module

# SHEA/HICPAC Position Paper (October 2008): *Recommendations for MDRO Metrics in Healthcare Settings*

- Define reasonable and practical metrics to best measure impact of prevention
- Authors from APIC, CDC, SHEA, HICPAC
- Five Categories of MDRO Outcome Measures
  1. Tracking Patients
  2. Monitoring Susceptibility Patterns
  3. Estimating Infection Burden
  4. Estimating Exposure Burden
  5. Quantifying Healthcare Acquisition (which includes Transmission)

# Organisms

1) Methicillin-Resistant *Staphylococcus aureus* (MRSA)  
[option w/ Methicillin-Sensitive *S. aureus* (MSSA)]

2) Vancomycin-Resistant *Enterococcus* spp. (VRE)

3) Cephalosporin-Resistant (CephR) *Klebsiella* spp.

4) Carbapenem-Resistant (CRE) *Klebsiella* spp.

5) Carbapenem-Resistant (CRE) *E. coli* spp.

6) Multidrug-Resistant (MDR) *Acinetobacter* spp.

7) *Clostridium difficile*

# Definitions

- ❑ MRSA: *S. aureus* testing oxacillin, ceftazidime, or methicillin resistant; or positive from molecular testing for *mecA* and *PBP2a*
- ❑ MSSA: *S. aureus* testing oxacillin, ceftazidime, or methicillin intermediate or susceptible; or negative from molecular testing for *mecA* and *PBP2a*
- ❑ VRE: Any *Enterococcus* spp. testing resistant to vancomycin
- ❑ CephR-*Klebsiella*: *Klebsiella* spp. testing intermediate or resistant to ceftazidime, ceftriaxone, cefotaxime, or cefepime
- ❑ CRE-*Klebsiella*: *Klebsiella* spp. testing intermediate or resistant to imipenem, meropenem, or doripenem
- ❑ CRE-*E. coli*: *E. Coli* spp. testing intermediate or resistant to imipenem, meropenem, or doripenem

# Definitions (2)

- ❑ *MDR-Acinetobacter*: *Acinetobacter* spp. testing intermediate or resistant to at least one drug within at least 3 antimicrobial classes of 6, including:  $\beta$ -lactam/ $\beta$ -lactamase inhibitor combo (PIP, PIPTAZ) cephalosporins (CEFEP, CEFTAZ) carbapenems (IMI, MERO, DORI) aminoglycosides (AMK, GENT, TOBRA) fluoroquinolones (CIPRO, LEVO) sulbactam (AMPSUL)
- ❑ *C. difficile*: *C. difficile* is identified as the associated pathogen for LabID Event or HAI reporting [Gastrointestinal System Infection (GI) -Gastroenteritis (GE) or Gastrointestinal Tract (GIT)]

# Reporting Requirements and Options

Active participants must choose main reporting method

Infection Surveillance

LabID Event Reporting

additional options then become available

## Prevention Process Measures:

- Adherence to Hand Hygiene
- Adherence to Gown and Glove Use
- Adherence to Active Surveillance Testing (for MRSA /VRE Only)

## Outcome Measures:

- AST Prevalence / Incidence (for MRSA/VRE Only)

# CMS Reporting Requirements

## LabID Event for FacWideIN



# Healthcare Facility HAI Reporting to CMS via NHSN – Current and Proposed Requirements

*DRAFT (11/23/2011)*

HAI Event	Facility Type	Reporting Start Date
CLABSI	Acute Care Hospitals Adult, Pediatric, and Neonatal ICUs	January 2011
CAUTI	Acute Care Hospitals Adult and Pediatric ICUs	January 2012
SSI	Acute Care Hospitals Colon and abdominal hysterectomy	January 2012
I.V. antimicrobial start	Dialysis Facilities	January 2012
Positive blood culture	Dialysis Facilities	January 2012
Signs of vascular access infection	Dialysis Facilities	January 2012
CLABSI	Long Term Care Hospitals *	October 2012
CAUTI	Long Term Care Hospitals *	October 2012
CAUTI	Inpatient Rehabilitation Facilities	October 2012
<b>MRSA Bacteremia LabID Event</b>	Acute Care Hospitals	January 2013
<b>C. difficile LabID Event</b>	Acute Care Hospitals	January 2013
HCW Influenza Vaccination	Acute Care Hospitals	January 2013
HCW Influenza Vaccination	Outpatient Surgery/ASCs	October 2014
SSI (future proposal)	Outpatient Surgery/ASCs	TBD

\* Long Term Care Hospitals are called **Long Term Acute Care Hospitals** in NHSN

# CMS 2013

## MRSA Bacteremia LabID Event

**Organism:** Methicillin-Resistant *Staphylococcus aureus* (MRSA)

**Data Collection:** CDC NHSN - MDRO/CDI Module

### Required Locations:

All inpatient locations (=FacWideIN) for LabID Events

### Required Data:

– **Community-Onset (CO)** and **Healthcare-Onset (HO)**  
Event

MRSA blood specimens at the facility-wide inpatient level

# CMS 2013

## *C. difficile* LabID Event

- **Organism:** *Clostridium difficile* (C.diff )
- **Data Collection:** CDC NHSN - MDRO/CDI Module (LabID Event)
- **Required Locations:** All inpatient locations at Facility-wide Inpatient level (FacWideIN) minus NICU, SCN, or other Well Baby locations (e.g. Nurseries, babies in LDRP)
- **Required Data:**
  - **Community-Onset (CO) and Healthcare-Onset (HO) Events**
  - **All *C. difficile* LabID Events** on unformed stool specimens at the facility-wide Inpatient level

# Facility-wide Inpatient FacWideIN

**Includes all inpatient locations,  
including observation patients  
housed in an inpatient location**

# CMS 2013

## What Data Will NHSN Report to CMS?

### MRSA Blood and *C. difficile* Healthcare Facility-Onset (HO) LabID Events

**CDI:** *All non-duplicate, non-recurrent LabID Event specimens collected > 3 days after admission to the facility*

**MRSA Blood:** *All non-duplicate, LabID Event specimens collected >3 days after admission to the facility*

# Getting Ready for Reporting

# Creating a Monthly Reporting Plan



The screenshot displays the NHSN Reporting Plan interface. On the left is a navigation menu with the following items: NHSN Home, Reporting Plan, Add, Find, Patient, Event, Procedure, Summary Data, Import/Export, Analysis, Surveys, Users, Facility, Group, and Log Out. The 'Reporting Plan' section is expanded, and the 'Add' option is highlighted with a red arrow. The main content area shows the user is logged in as ANGELA at DHQP Memorial Hospital (ID 10000). Below this, there is a heading 'View Monthly Reporting Plan' and a form with the following fields: Facility ID\* (DHQP Memorial Hospital (10000)), Month\* (July), and Year\* (2012). A note indicates that mandatory fields are marked with an asterisk.

NHSN Home

Reporting Plan

- ▣ Add
- ▣ Find

Patient

Event

Procedure

Summary Data

Import/Export

Analysis

Surveys

Users

Facility

Group

Log Out

Logged Into DHQP Memorial Hospital (ID 10000) as ANGELA.  
Facility DHQP Memorial Hospital (ID 10000) is following the PE component.

## View Monthly Reporting Plan

Mandatory fields marked with \*

Facility ID\*: DHQP Memorial Hospital (10000)

Month\*: July

Year\*: 2012

# Monthly Reporting Plan

*C. difficile* and MRSA LabID (*blood specimens only*) Events must be included in Monthly Reporting Plan each month for data to be reported on behalf of the facility to CMS

Multi-Drug Resistant Organism Module [HELP](#)

Locations		Specific Organism Type						
FACWIDEIN - FacWideIN		MRSA - MRSA						
Process and Outcome Measures								
Infection Surveillance	AST-Timing	AST-Eligible	Incidence	Prevalence	Lab ID Event All Specimens	Lab ID Event Blood Specimens Only	HH	GG
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Locations		Specific Organism Type						
FACWIDEIN - FacWideIN		CDIF - C. difficile						
Process and Outcome Measures								
Infection Surveillance	AST-Timing	AST-Eligible	Incidence	Prevalence	Lab ID Event All Specimens	Lab ID Event Blood Specimens Only	HH	GG
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

All specimens are not required for CMS, but if state mandates, require facility to report all specimens, then it is okay and only bloods will be counted for CMS reporting

# Location Reporting Options

CMS  
Requirement

## **Facility-Wide Inpatient or Facility-Wide Outpatient:**

- Options currently available only for LabID Event reporting
- Report from throughout all of a facility's inpatient or outpatient locations
  - Numerator (MDRO/CDI Events)- report separately for each location in facility
  - Single denominators for entire facility:
    - FacWideIN – patient days and admissions
      - Separate counts for MDRO and CDI
      - Minus baby locations for CDI
    - FacWideOUT – encounters

## **Location Specific:**

- Select only a few locations or every location for full facility coverage
- Report separately from each selected location in the facility
- Separate denominators for each location:
  - Patient days and admissions for inpatient locations
  - Encounters for outpatient locations

# Location Reporting Options

## Location Specific

***Selected Locations***

***All Locations***

Report LabID Events separately from all specific locations being monitored

Separate numerator and denominator from each chosen location

## ***Overall Facility-wide Inpatient (FacWideIN) and/or Outpatient (FacWideOUT)***

Report LabID Events from all inpatient and/or all outpatient locations

Report LabID Events from each patient location separately (numerator)

Inpatient: one denominator for entire facility (*patient days and admissions*)

Outpatient: one denominator for all outpatient locations (*patient encounters*)

# **Adding Locations**

# Why do I Need to Add Locations?

- Each LabID Event (numerator) is reported according to the patient's location when the specimen is collected
- This means that any inpatient unit could potentially house a patient who has a MRSA blood specimen or *C. difficile* stool specimen LabID Event
- To ensure that a location is available for reporting when a LabID Event is identified:
  - Add all inpatient locations before reporting begins in 2013

# PS Home Page: Facility > Locations



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Logged into Pleasant Valley Hospital (ID 10312) as DSIEVERT.  
Facility Pleasant Valley Hospital (ID 10312) is following the PS component.

## NHSN Patient Safety Component Home Page

Use the Navigation bar on the left to access the features of the application.

**Assurance of Confidentiality:** The information obtained in this surveillance system that would permit identification of any individual or institution is collected with a guarantee that it will be held in strict confidence, will be used only for the purposes stated, and will not otherwise be disclosed or released without the consent of the individual, or the institution in accordance with Sections 304, 306 and 308(d) of the Public Health Service Act (42 USC 242b, 242k, and 242m(d)).

**NHSN maintenance may occur nightly  
between 12am and 6am Eastern time.**



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**Reporting Plan**

**Patient**

**Event**

**Procedure**

**Summary Data**

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**Surveys**

**Users**

**Facility**

▶ [Customize Forms](#)

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▶ [Add/Edit Component](#)

▶ [Locations](#)

▶ [Surgeons](#)

**Group**

**Log Out**

# Locations Page: Specify Location Info



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## Locations

### [HELP](#) Instructions

- To **Add** a record, fill in the form with the required fields and any desired optional values. Then click on the *Add* button.
- To **Find** a record, click on the *Find* button. One or more fields can be filled in to restrict the search to those values.
- To **Edit** a record, perform a *Find* on the desired record. Click on the desired record to fill in its values into the form and edit the values. To save the changes, click on the *Save* button.
- To **Delete** one or more records, perform a *Find* on the desired record(s). Check the corresponding box(es), then click on the *Delete* button.
- Press the **Clear** button to start over with a new form.

Mandatory fields to "Add" or "Edit" a record marked with \*

Your Code\*: 5W

Your Label\*: MED WARD

CDC Location Description\*: Inpatient Medical Ward

Status\*: Active

Bed Size\*: 22

A bed size greater than zero is required for most inpatient locations.

Find

Add

Clear

# Find Locations: All or Specific Search



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Facility Pleasant Valley Hospital (ID 10312) is following the PS component.

## Locations

### Instructions

- To **Add** a record, fill in the form with the required fields and any desired optional values. Then click on the **Add** button.
- To **Find** a record, click on the **Find** button. One or more fields can be filled in to restrict the search to those values.
- To **Edit** a record, perform a **Find** on the desired record. Click on the desired record to fill in its values into the form and edit the values. To save the changes, click on the **Save** button.
- To **Delete** one or more records, perform a **Find** on the desired record(s). Check the corresponding box(es), then click on the **Delete** button.
- Press the **Clear** button to start over with a new form.

Mandatory fields to "Add" or "Edit" a record marked with \*

Your Code\*:

Your Label\*:

CDC Location Description\*:

Status\*:

Bed Size\*:  A bed size greater than zero is required for most inpatient locations.

## Location Table

[Display All](#) | [Print Location List](#)

[First](#) | [Previous](#) | [Next](#) | [Last](#)

Displaying 1 - 2 of 2

<input type="checkbox"/>	Status	Your Code	Your Label	CDC Description	CDC Code <input checked="" type="checkbox"/>	Bed Size
<input type="checkbox"/>	Active	<a href="#">5W</a>	MED WARD	Inpatient Medical Ward	IN:ACUTE:WARD:M	22
<input type="checkbox"/>	Active	<a href="#">INMEDWARD</a>	IN:ACUTE:WARD:M	Inpatient Medical Ward	IN:ACUTE:WARD:M	42

[First](#) | [Previous](#) | [Next](#) | [Last](#)

Displaying 1 - 2 of 2

# LabID Event Reporting Introduction

Reporting of **proxy** infection measures of MDRO and *C. difficile* **healthcare acquisition, exposure burden, and infection burden** by using primarily laboratory data. Laboratory testing results can be used without clinical evaluation of the patient, allowing for a much less labor-intensive means to track MDROs and CDI

# Overview

**MRSA Bacteremia LabID  
Event Reporting in NHSN**



# Definition

## MRSA Positive Blood Isolate

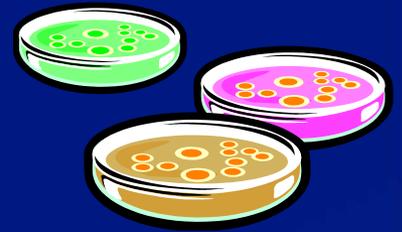
Any blood specimen obtained for clinical decision making for MRSA

*Excludes tests related to active surveillance testing*

# Definition

## MRSA Bacteremia

### LabID Event



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

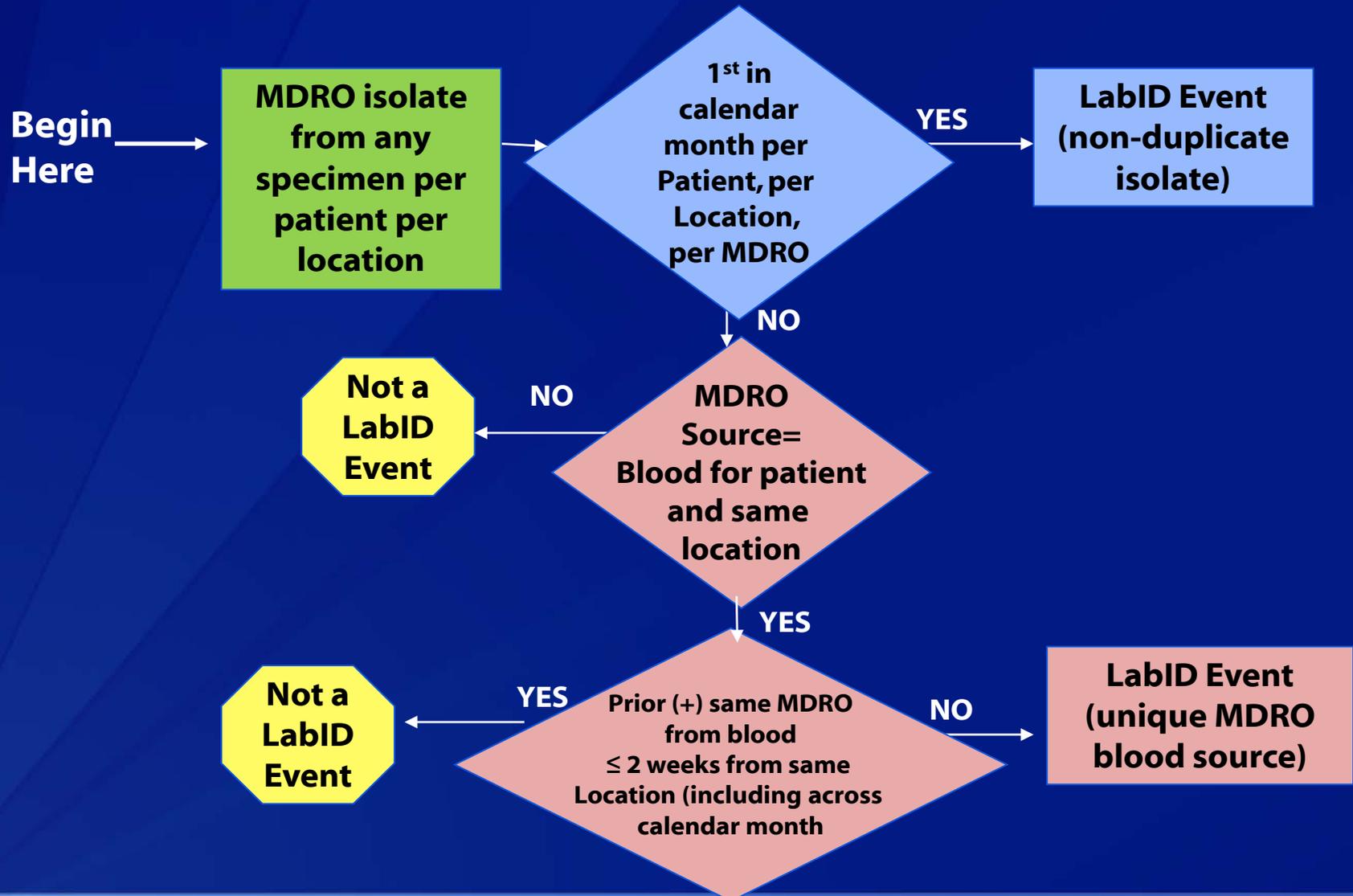
*Also referred to as all non-duplicate LabID Events*

# Definition

## Duplicate MRSA Bacteremia LabID Event

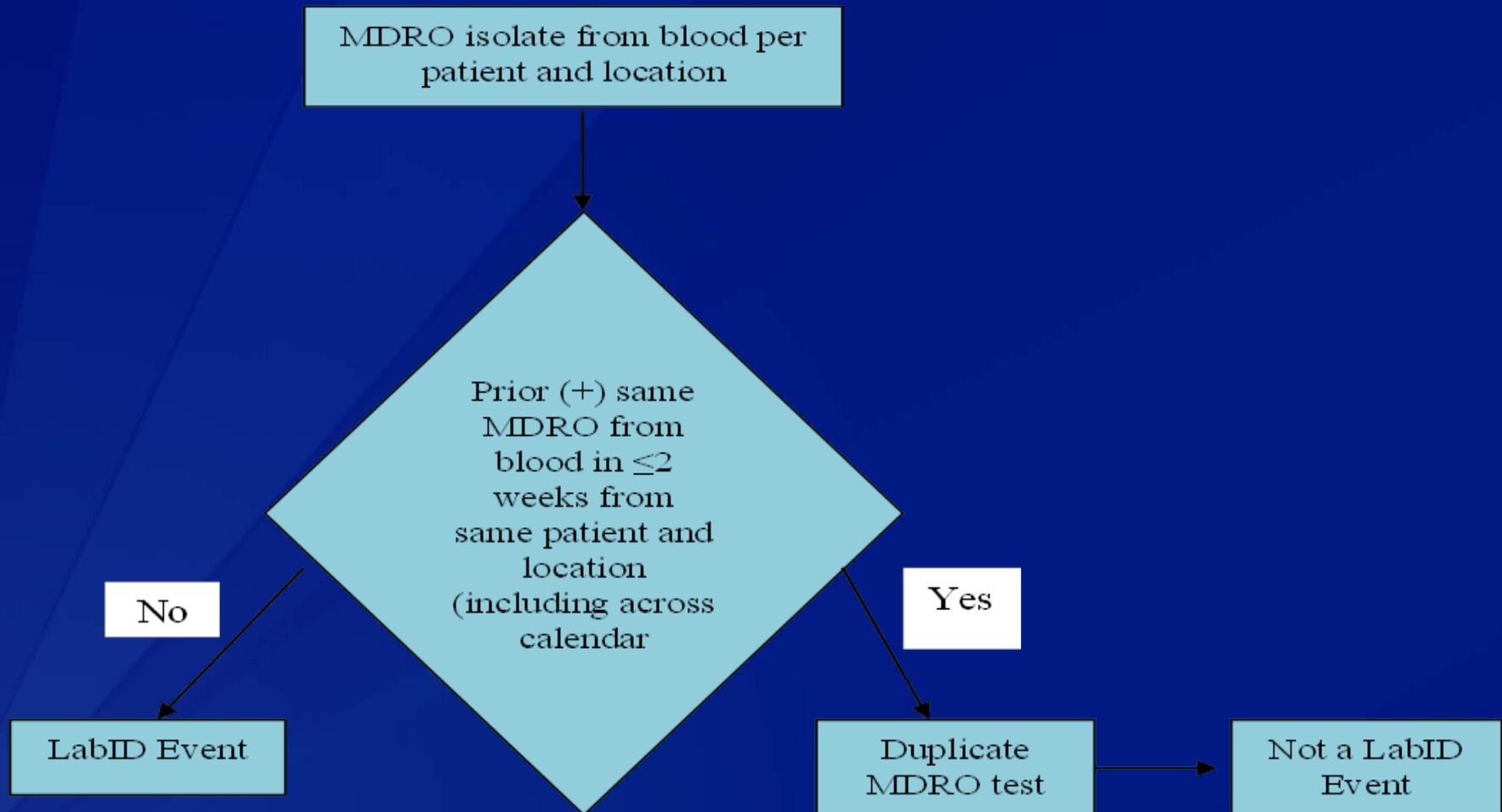
Any MRSA blood isolate from the same patient and same location, following a previous positive MRSA blood laboratory result within the past **14** days

# MDRO Test Result Algorithm for All Specimens



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

# MDRO Test Result Algorithm for Blood Specimens Only LabID Events



Adapted from Figure 2 MDRO Test Results Algorithm for Blood Specimen Only LabID Events

# Summary: MRSA Bacteremia

Purpose: To calculate proxy measures of MRSA bloodstream infections, exposures burdens, and healthcare acquisitions through monitoring and reporting data from positive clinical cultures

LabID Event: A laboratory-identified event. MRSA positive blood specimen for a patient in a location with no prior MRSA positive blood specimen reported within **14 days for the patient and location**. It must be a specimen that is collected for diagnosis/treatment (NO surveillance cultures). A patient in a location in a month can then have additional MRSA blood specimens reported as LabID Events after a full 14-day interval with no positive MRSA blood specimen for the same patient and same location identified by the lab

- ❑ LabID Events (numerators) are reported by specific location where the specimen was collected
- ❑ Monthly Monitoring Summary Data (denominators) for Total Patient Days and Total Admissions are reported for the overall inpatient facility (FacWideIN)

# Add Event - Patient Information



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Facility Pleasant Valley Hospital (ID 10312) is following the PS component.

## Add Event

[Print PDF Form](#)

Mandatory fields marked with \*

Fields required for record completion marked with \*\*

Fields required when in Plan marked with >

### Patient Information [?HELP](#)

Facility ID\*: Pleasant Valley Hospital (ID 10312)

Event #: 24941

Patient ID\*: DS3636

Social Security

#:

Secondary ID:

Last Name:

First Name:

Middle Name:

Gender\*: F - Female

Date of Birth\*: 05/16/1943

Ethnicity:

Race:  American Indian/Alaska Native

Asian

Black or African American

Native Hawaiian/Other Pacific Islander

White

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# Add Event Information

## Event Information HELP

Event Type\*: LABID - Laboratory-identified MDRO or CDAD Event

Date Specimen Collected\*: 01/14/2013 

Specific Organism Type\*: MRSA - MRSA

Outpatient\*: N - No

Specimen Body Site/Source\*: CARD - Cardiovascular/ Circulatory/ Lymphatics

Specimen Source\*: BLDSPC - Blood specimen

Date Admitted to Facility\*: 01/09/2013 

Location\*: INMSWARD - IN:ACUTE:WARD:MS

Date Admitted to Location\*: 01/09/2013 

Documented prior evidence of previous infection or colonization with this specific organism type from a previously reported LabID Event?: N - No

Has patient been discharged from your facility in the past 3 months?\*: N - No

Entries for Blood LabID Events

Patient Location when Specimen Collected

Auto-filled

# NHSN will Categorize your MRSA Blood Specimen LabID Events as CO or HO

NHSN Application Categorizes\* LabID Events As:

- **Community-Onset (CO)**: LabID Event specimen collected as an inpatient  $\leq 3$  days after admission to the facility (i.e., days 1 (admission), 2, or 3)
- **Healthcare Facility-Onset (HO)**: LabID Event specimen collected  $> 3$  days after admission to the facility (i.e., on or after day 4)

\*Based on Inpatient Admission & Specimen Collection Dates

# Overview

## CDI LabID Event Reporting in NHSN



# Definition

## CDI Positive Laboratory Assay

- A positive laboratory test result for *C. difficile* toxin A and/or B \*\*

**OR**

- A toxin-producing *C. difficile* organism detected by culture or other laboratory means performed on a stool sample

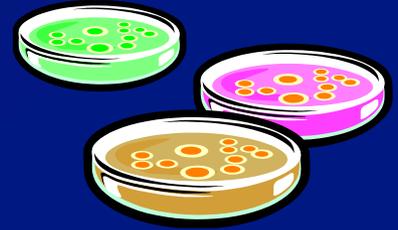
*Remember..  
C. difficile testing  
only on  
unformed  
stool samples  
(should  
conform to  
shape of  
container)*



*\*\*Positive PCR result for toxin producing gene is equal to a positive C. diff test result*

# Definition

## CDI LabID Event



A toxin-positive *C. difficile* stool specimen for a patient in a location with no prior *C. difficile* specimen result reported within **14 days** for the patient and location

*Also referred to as all non-duplicate LabID Events*

# Definition

## Duplicate *C. difficile* Positive Test

Any *C. difficile* toxin-positive laboratory result from the same patient and same location, following a previous *C. difficile* toxin-positive laboratory result within the past **14** days

# Identifying a *C. difficile* LabID Event

Figure 2. *C. difficile* test Results Algorithm for Laboratory-Identified (LabID) Events

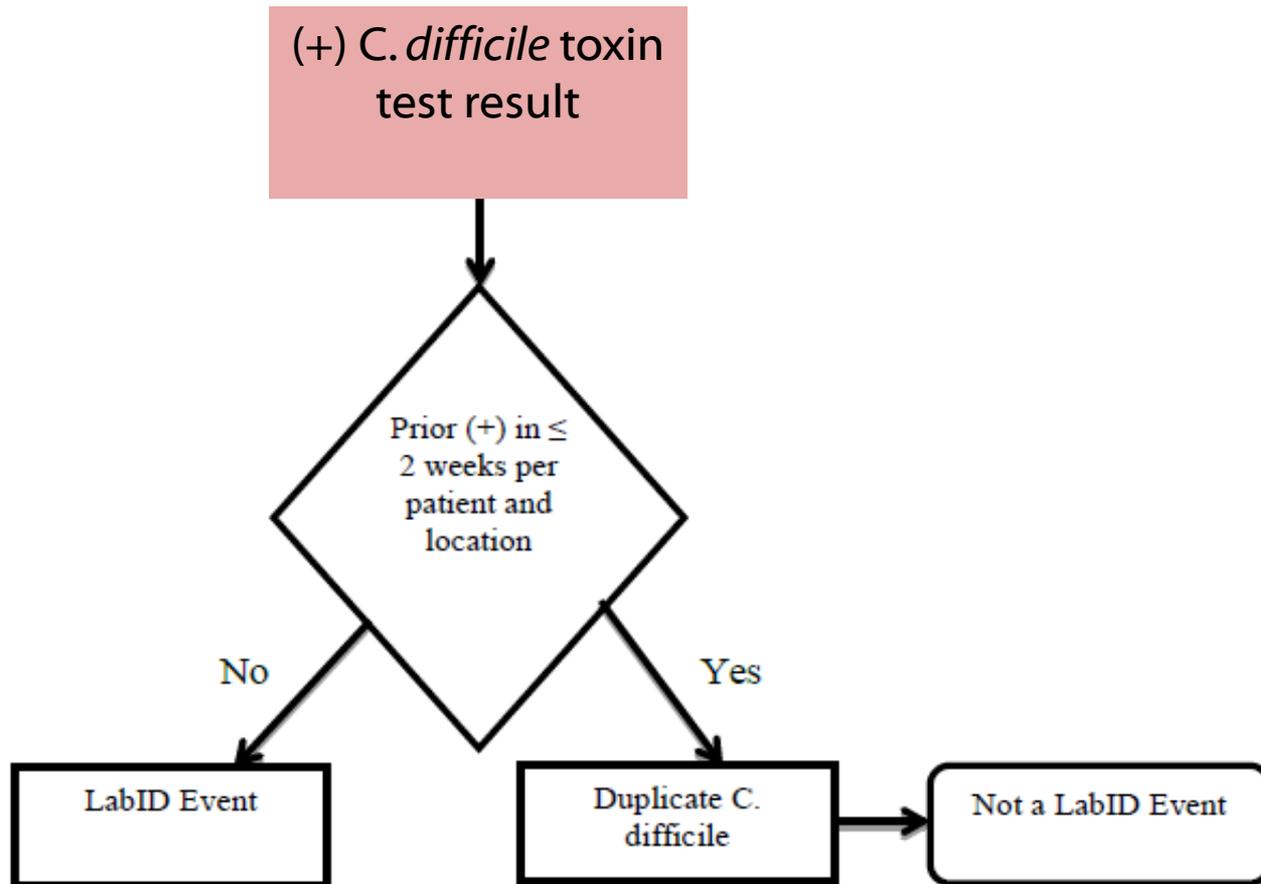


Figure 2. *C. difficile* Test Results Algorithm for LabID Events

# Facility-wide Inpatient (FacWideIN) Reporting for CDI



**MICU**

+



**SCA**

+



**Med-Surg**



**Surgical**

+



**SICU**



**NICU**

# Summary: *C. difficile*

## Purpose:

To calculate proxy measures of *C. difficile* infections, exposures burdens, and healthcare acquisitions through monitoring and reporting data from positive clinical cultures (unformed stool only)

## LabID Event:

A laboratory-identified event. A toxin-positive / toxin-producing *C. difficile* stool specimen for a patient in a location with no prior *C. difficile* specimen reported within 14 days for the patient and location, and having a full 14-day interval with no toxin-positive *C. difficile* stool specimen identified by the lab since the prior reported *C. difficile* LabID Event. Also referred to as non-duplicate *C. difficile* toxin-positive laboratory result

- ❑ LabID Events (numerators) are reported by specific location where the specimen was collected
- ❑ Monthly Monitoring Summary Data (denominators) for Patient Days and Admissions (*minus all NICU, SCN, and Well Baby locations, including LDRP baby counts*) are reported for the overall inpatient facility (FacWideIN)

# LabID Event Report Form



## Laboratory-identified MDRO or CDI Event

OMB No. 0920-0666  
Exp. Date: xx-xx-xxxx

\*required for saving

Facility ID:

Event #:

\*Patient ID:

Social Security #:

Secondary ID:

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)

MRSA

MSSA

VRE

*C. difficile*

CephR-Klebsiella

CRE-Ecoli

CRE-Klebsiella

MDR-Acinetobacter

\*Outpatient: Yes No

\*Specimen Body Site/System:

\*Specimen Source:

\*Date Admitted to Facility:

\*Location:

\*Date Admitted to Location:

\*Has patient been discharged from your facility in the past 3 months? Yes No

If Yes, date of last discharge from your facility:

### Custom Fields

Label

Label

\_\_\_\_\_ / \_\_\_\_ / \_\_\_\_

\_\_\_\_\_ / \_\_\_\_ / \_\_\_\_

# Add Patient Information

- The top section of data collection form is used to collect patient demographics. Required fields have an asterisk (\*).
- There are 4 required fields:
  - Facility ID
  - Patient ID
  - Gender
  - Date of Birth

The screenshot shows the NHSN 'Add Event' form. The left sidebar contains navigation links: NHSN Home, Reporting Plan, Patient, Event (circled in red), Procedure, Summary Data, Import/Export, Analysis, Surveys, Users, Facility, Group, and Log Out. The main content area is titled 'Add Event' and includes a legend for field requirements: Mandatory fields marked with \*, Fields required for record completion marked with \*\*, and Fields required when in Plan marked with >. The 'Patient Information' section contains the following fields: Facility ID\* (dropdown menu), Patient ID\* (text input with 'Find' button), Secondary ID (text input), Last Name (text input), Middle Name (text input), Gender\* (dropdown menu), Ethnicity (dropdown menu), Race (checkboxes for American Indian/Alaska Native, Asian, Black or African American, Native Hawaiian/Other Pacific Islander, and White), Event # (text input), Social Security # (text input), Medicare # (text input), First Name (text input), and Date of Birth\* (text input with calendar icon).

# Add Event Information

## Event Information [?HELP](#)

Event Type\*: LABID - Laboratory-identified MDRO or CDI Event

Date Specimen Collected\*: 01/13/2013

Specific Organism Type\*: CDIF - C. difficile

Outpatient\*: N - No

Specimen Body Site/Source\*: DIGEST - Digestive System

Specimen Source\*: STOOL - Stool specimen

Date Admitted to Facility\*: 01/11/2013

Location\*: INGI(WARD) - IN:ACUTE:WARD(GI)

Date Admitted to Location\*: 01/11/2013

Documented prior evidence of previous infection or colonization with this specific organism type from a previously reported LabID Event?:

N - No

Has patient been discharged from your facility in the past 3 months?\*

Y - Yes

Date of last discharge from your facility\*: 12/19/2012

Auto-filled when LabID and CDIF selected

Patient Location when Specimen Collected

Auto-filled

# NHSN will Categorize CDI LabID Events Based on Inpatient Admission & Specimen Collection Dates

- **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 as an inpatient ≤ 3 days after admission to the facility (i.e., days 1 (admission), 2, or 3).
- **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 & Prior Specimen Collection Date of a Previous CDI LabID Event (that was entered into NHSN)

- **Incident CDI Assay**: Any CDI LabID Event from a specimen obtained **> 8 weeks** after the most recent CDI LabID Event (or with no previous CDI LabID Event documented) for that patient.
- **Recurrent CDI Assay**: Any CDI LabID Event from a specimen obtained **> 2 weeks** and **≤ 8 weeks** after the most recent CDI LabID Event for that patient.

# Provision to LabID Event Reporting for CDI and MRSA Bacteremia

A LabID Event for an inpatient location can include specimens collected during an emergency department or other outpatient clinic visit, if collected same calendar day as patient admission.

\*\*Location will be assigned to the admitting inpatient location (for FacWideIN).

\*\*\*If participating in both inpatient and outpatient LabID reporting, report the LabID Event in both locations as two separate Events, ED and admitting location.

# Rules for Entering MRSA Blood and C. diff LabID Events FacWideIN

- C. diff toxin-positive and MRSA blood specimens MUST be monitored throughout all inpatient locations within a facility
  - *Exception for C. diff:* NICUs, SCN, Well Baby Nurseries, and babies in LDRP units excluded
- LabID Event(s) MUST be entered whether community-onset (CO) or healthcare facility-onset (HO)
- A specimen (C. diff stool and/or MRSA blood) 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
- LabID Events never include results from Active Surveillance Testing

**Entry of  
Monthly Denominator Data  
for FacWideIN  
LabID Event Reporting**



# MDRO/CDI Summary Form (Denominators)



## MDRO and CDI Prevention Process and Outcome Measures Monthly Monitoring

OMB No. 0920-0666  
Exp. Date: xx-xx-xxxx

Page 1 of 2

\*required for saving      \*\*conditionally required based upon monitoring selection in Monthly Reporting Plan

Facility ID #: \_\_\_\_\_ \*Month: \_\_\_\_\_ \*Year: \_\_\_\_\_ \*Location Code: \_\_\_\_\_

Setting: Inpatient    \*\*Total Patient Days: \_\_\_\_\_    \*\*Total Admissions: \_\_\_\_\_

Setting: Outpatient (or Emergency Room)    \*\*Total Encounters: \_\_\_\_\_

If monitoring *C. difficile* in a FACWIDE location, then subtract NICU & Well Baby counts from Totals:

\*\*§Patient Days: \_\_\_\_\_    \*\*§Admissions: \_\_\_\_\_    \*\*§Encounters: \_\_\_\_\_

### MDRO & CDI Infection Surveillance or LabID Event Reporting

Specific Organism Type	MRSA	VRE	CephR- <i>Klebsiella</i>	CRE- <i>Ecoli</i>	CRE- <i>Klebsiella</i>	MDR- <i>Acinetobacter</i>	<i>C. difficile</i>
Infection Surveillance	<input type="checkbox"/>	<input type="checkbox"/>					
LabID Event (All specimens)	<input type="checkbox"/>	<input type="checkbox"/>					
LabID Event (Blood specimens only)	<input type="checkbox"/>						

### Process Measures (Optional)

#### Hand Hygiene

\*\*Performed: \_\_\_\_\_ \*\*Indicated: \_\_\_\_\_

#### Gown and Gloves

\*\*Used: \_\_\_\_\_ \*\*Indicated: \_\_\_\_\_

### Active Surveillance Testing (AST)

\*\*Active Surveillance Testing performed



\_\_\_\_\_

# Choose Summary Data and Add Select Summary Data Type > Continue



Department of Health and Human Services  
Centers for Disease Control and Prevention

NHSN - National Healthcare Safety Network (ISD-CLFT-NHSN1)

[NHSN Home](#) | [My Info](#) | [Contact us](#) | [Help](#) | [Log Out](#)

Logged into Pleasant Valley Hospital (ID 10312) as DSIEVERT.  
Facility Pleasant Valley Hospital (ID 10312) is following the PS component.

## Add Patient Safety Summary Data

Summary Data Type: MDRO and CDAD Prevention Process and Outcome Measures Monthly Monitoring ▾

Continue

Back

NHSN Home

Reporting Plan

Patient

Event

Procedure

Summary Data

▸ Add

▸ Find

▸ Incomplete

Import/Export

Analysis

Surveys

Users

Facility

Group

Log Out

# Enter Location Code = FacWideIN plus Month and Year



Department of Health and Human Services  
Centers for Disease Control and Prevention

NHSN - National Healthcare Safety Network (apt-v-nhsn-test:7002)

[NHSN Home](#) | [My Info](#) | [Contact us](#) | [Help](#) | [Log Out](#)

[NHSN Home](#)

Logged into Pleasant Valley Hospital (ID 10312) as DSIEVERT.  
Facility Pleasant Valley Hospital (ID 10312) is following the PS component.

[Reporting Plan](#)

## MDRO and CDI Prevention Process and Outcome Measures Monthly Monitoring

[Patient](#)

Save of Summary Data successful.

[Event](#)

[Procedure](#)

[Summary Data](#)

[HELP](#)

[Add](#)

[Find](#)

[Incomplete](#)

[Import/Export](#)

Mandatory fields marked with \*

[Print PDF Form](#)

[Analysis](#)

Facility ID\*: 10312 (Pleasant Valley Hospital)

[Surveys](#)

Location Code\*: FACWIDEIN - FacWideIN

[Users](#)

Month\*: January

[Facility](#)

Year\* 2013

[Group](#)

General

# Enter All Required Facility-Wide Inpatient Counts



Department of Health and Human Services  
Centers for Disease Control and Prevention

NHSN - National Healthcare Safety Network (apt-v-nhsn-test:7002)

[NHSN Home](#) | [My Info](#) | [Contact us](#) | [Help](#) | [Log Out](#)

[NHSN Home](#)

Logged into Pleasant Valley Hospital (ID 10312) as DSIEVERT.  
Facility Pleasant Valley Hospital (ID 10312) is following the PS component.

[Reporting Plan](#)

## MDRO and CDI Prevention Process and Outcome Measures Monthly Monitoring

[Patient](#)

✔ Save of Summary Data successful.

[Event](#)

[Procedure](#)

[Summary Data](#)

[Add](#)

[HELP](#)

[Find](#)

[Incomplete](#)

Mandatory fields marked with \*

[Print PDF Form](#)

[Import/Export](#)

Facility ID\*: 10312 (Pleasant Valley Hospital)

**MRSA Bacteremia**

[Analysis](#)

Location Code\*: FACWIDEIN - FacWideIN

[Surveys](#)

Month\*: January

[Users](#)

Year 2013

[Facility](#)

General

Setting: Inpatient Total Patient Days\*: 680 Total Admissions\*: 135

Setting: Outpatient (or Emergency Room) Total Encounters:

**C. difficile**

If monitoring C. difficile in a FACWIDE location, then subtract NICU and Well Baby counts from Totals:

Patient Days\*: 478 Admissions\*: 98 Encounters:

### MDRO & CDI Infection Surveillance or LabID Event Reporting

Specific Organism Type	MRSA	VRE	CephR-Klebsiella	CRE-Ecoli	CRE-Klebsiella	MDR-Acinetobacter	C. difficile
Infection Surveillance							
LabID Event (All specimens)							* X
LabID Event (Blood specimens only)	* X						

Auto-filled

# Resources

# Resources for NHSN



Centers for Disease Control and Prevention

CDC 24/7: Saving Lives. Protecting People. Saving Money through Prevention.

SEARCH

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## National Healthcare Safety Network (NHSN)

The National Healthcare Safety Network (NHSN) is a secure, internet-based surveillance system that integrates and expands legacy patient and healthcare personnel safety surveillance systems managed by the Division of Healthcare Quality Promotion (DHQP) at CDC. NHSN also includes a new component for hospitals to monitor adverse reactions and incidents associated with receipt of blood and blood products. Enrollment is open to all types of healthcare facilities in the United States, including acute care hospitals, long term acute care hospitals, psychiatric hospitals, rehabilitation hospitals, outpatient dialysis centers, ambulatory surgery centers, and long term care facilities. For more information, click on the topics below.

Replay NHSN Training  
SIR Reports  
Dialysis Module

Text size: [S](#) [M](#) [L](#) [XL](#)

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[Get email updates](#)  
To receive email updates about NHSN, enter your email address:

  
[What's this?](#) 

### Contact NHSN:

- Centers for Disease Control and Prevention  
*National Healthcare Safety Network*  
MS-A24  
1600 Clifton Rd  
Atlanta, GA 30333
- 800-CDC-INFO  
(800-232-4636)  
TTY: (888) 232-6348
- New Hours of Operation  
8am-8pm ET/Monday-Friday  
Closed Holidays
- [nhsn@cdc.gov](mailto:nhsn@cdc.gov)  
**More contact info >>**

### Topics

#### Join NHSN

Welcome to NHSN, CMS Hospital Inpatient Quality Reporting Program Training...

#### About NHSN

Overview, Purposes, Confidentiality statement, How data are used, External Peer Review report...

#### Forms

Component-specific manuals containing data collection protocols, instructions for completing forms...

#### NHSN Manuals

Component-specific manuals containing data collection protocols, instructions for completing forms...

#### Resource Library

Guides, Component Manuals, NHSN Codes & Variables, Protocols, Metrics, Frequently Asked Questions, HIPAA...

#### Enrollment Requirements

Eligibility, Required Training, Reporting & System Requirements, Security, Begin Enrollment...

#### Training

Self-study slide sets and corresponding materials for NHSN modules...

#### Patient Safety Component

Overview of the Modules: Device-associated, Procedure-associated, MDRO/CDAD, Vaccination...

#### Biovigilance Component

Hemovigilance Module Overview, Protocol and Tables of Instructions, Frequently Asked Questions...

#### Healthcare Personnel Safety Component

Overview, Benefits of Participation, Management, Vaccination Modules...

### Dialysis Facilities

**Enroll here to comply with CMS QIP requirement >>**

### Data & Statistics

#### NHSN Annual Reports

State Healthcare-associated Infections Prevention Activities and Reports

CDC's NHSN Healthcare-associated Infections Summary Data Reports

### Communication Updates

- E-mail updates
- Members meetings
- Newsletters



<http://www.cdc.gov/nhsn/index.html>

# Resources for MDRO/CDI LabID Event Reporting

- NHSN Patient Safety Component Manual
  - Ch 12: MDRO and CDI Module (January 2013)  
[http://www.cdc.gov/nhsn/PDFs/pscManual/12pscMDRO\\_CDADcurrent.pdf](http://www.cdc.gov/nhsn/PDFs/pscManual/12pscMDRO_CDADcurrent.pdf)

[http://www.cdc.gov/nhsn/TOC\\_PSCManual.html](http://www.cdc.gov/nhsn/TOC_PSCManual.html)

# Resources for MDRO/CDI LabID

- NHSN Forms (January 2013)
  - 57.106: Monthly Reporting Plan
  - 57.128: LabID MDRO or CDI Event Form (numerator)
  - 57.127: MDRO and CDI Prevention Process and Outcomes Measures Monthly Reporting (denominator)

<http://www.cdc.gov/nhsn/forms/Patient-Safety-forms.html#mdro>

# Available Training

- *C. difficile* Guidelines for Clinicians
  - [http://www.cdc.gov/HAI/organisms/cdiff/Cdiff\\_clinicians.html](http://www.cdc.gov/HAI/organisms/cdiff/Cdiff_clinicians.html)
- Training
  - Lectoras (coming soon)
- NHSN Training Website: <http://www.cdc.gov/nhsn/training/>
  - Currently updating site with updated LabID Event Reporting presentations



**Email help desk: [nhsn@cdc.gov](mailto:nhsn@cdc.gov)**

**NHSN website:**

**<http://www.cdc.gov/nhsn/>**



# Case Studies



# Ground Rules for Case Studies

- Purposes:
  - Training on use of definitions AS THEY EXIST
  - Surveillance ≠ clinical
- Examples highlight common errors/difficult issues
- Lab ID Event reporting is a **proxy measure** to lighten the load of surveillance, but this reduction in burden is traded off with a decreased specificity as it relates to true infection and attribution

# Case 1

- 2/1: 56 year old male admitted to ICU bed with pneumonia. Central IV inserted for antibiotics.
- 2/2: Patient voiding without difficulty. Cough with moderate sputum production. Patient complains of lower abdominal cramps, relieved with medication.
- 2/3: Patient transfers to 2E. Later that day, patient has fever of 38.2 and complains of worsening lower abdominal pain. BM with loose unformed stool.

# Case 1

- 2/4: While on 2E, the patient continues to complain of lower abdominal pain and loose stools. Over the course of 24 hours, the patient had three loose stools. Unformed stool specimen collected and sent for testing.
- 2/5: Lab results identified toxin positive *C. difficile* toxin stool samples.



# Case 1

For FacWideIN LabID reporting, would you enter this as a CDI LabID Event?

1. No. His symptoms started <4 days after admission.
-  2. Yes. This is the first positive CDI isolate collected in this inpatient location within 14 days.
3. No. *C. difficile* toxin assay is not an accurate test for CDI.

# Case 1

**#2..YES- This is a CDI LabID Event and should be entered into NHSN**

A toxin positive *C. difficile* stool specimen for a patient in a location with no prior *C. difficile* specimen result within 14 days for the patient and the location

**\*\*Remember NHSN application will categorize as community-onset (CO) or healthcare-onset (HO)**

# Case 1

## What Location is CDI Attributed?

1. ICU

 2. 2E

3. Lab

4. FacWideIN

# Case 1

## #2...2E

Location attribution is based solely on where the patient is assigned when the specimen is collected. There is no thought process or subjective decisions allowed for location attribution for LabID event reporting.

**\*\*NHSN “transfer rule” does NOT apply for LabID Events**

## Case 2

3/1: Patient presents to the emergency department with complaints of diarrhea and lower abdominal pain for the past three days. Patient states that he has been on antibiotics for 10 days for tooth abscess. A stool specimen is collected while the patient is in the emergency department and toxin assay is positive for *C. difficile*.

3/1: Patient admitted to 2S medical unit for intravenous hydrations and medical management.

## Case 2

For FacWideIN LabID reporting. Can this result be entered as a LabID Event and, if so, what location would be entered?

1. No. ED is an outpatient location and I am only monitoring inpatient locations.
2. Yes. Location would be the ED since specimen was collected there.
-  3. Yes. Location would be 2S, the admitting location.
4. Yes. Location would be FacWideIN.

# Case 2

## #3...YES, 2S

If a specimen collected in the emergency department is positive for CDI, and the patient it is collected from is admitted to the facility on the SAME date into a location that is monitoring LabID events for CDI, then that specimen can be reported as the first specimen for the patient in that ADMITTING INPATIENT LOCATION

## Case 2

What if you are participating in both FacWideIN and ED location specific reporting?

- ✓ Report the positive CDI LabID Event separately, once for ED and again for 2S.
- Report only as FacWideIN.
- Report only as FacWideOUT.
- Toss a coin to make location selection.

# Case 2

## #1..Report in both places

If your monthly reporting plan includes both FacWideIN and ED location specific reporting, then you should report the positive CDI LabID Event separately, once as 2S (select *NO* for outpatient) and then again for ED (select *YES* for outpatient).

Event Information [HELP](#)

Event Type\*: LABID - Laboratory-identified MDRO or CDI Event

Date Specimen Collected\*: 02/11/2011 

Specific Organism Type\*: CDIF - C. difficile

Outpatient\*: N - No

Specimen Body Site/Source\*: DIGEST - Digestive System

Specimen Source\*: STOOL - Stool specimen

Date Admitted to Facility\*: 01/29/2010 

Location\*: 5W - 5 WEST - ICU

Date Admitted to Location\*: 02/10/2011 

Documented prior evidence of previous infection or colonization with this specific organism type from a previously reported LabID Event?: N - No

Has patient been discharged from your facility in the past 3 months?\*: N - No

# Case 3

- 2/15: 55 year old patient with end stage pancreatic cancer with liver & bone mets admitted to inpatient unit, 3E, from hospice facility. The patient has no previous history of inpatient admission to this facility. Upon admission to 3E, patient is noted to have foul loose stools.
- 2/16: After three episodes of loose stools over the course of 24 hours, an unformed specimen was collected and tested positive for *C. difficile* toxin.

## Case 3

For FacWideIN LabID reporting Should this be entered into NHSN as a LabID Event?

1.  YES. Specimen was collected from 3E inpatient location
2. NO. This infection belongs to the Hospice

## Case 3

**YES.. This is a CDI LabID Event and should be entered into NHSN**

A toxin positive *C. difficile* stool specimen for a patient in a location with no prior *C. difficile* specimen result within 14 days for the patient and the location. Both community-onset and healthcare-onset events should be reported.

Recommend the use of “Optional Field” to document history of Hospice if you want to track internally.

# Case 3

## How will NHSN Categorize the CDI Event?

- 
1. Community-onset (CO)
  2. Healthcare-Facility onset (HO)
  3. Community-Onset Healthcare Facility-Associated (CO-HCFA)
  4. NHSN will not categorize the event, the user will need to make the decision

# Case 3

## #1..Community-onset (CO)

This patient has no previous history of admission to this facility and the stool specimen was collected as an inpatient less than 4 days after admission to the facility

\*\*Community-Onset Healthcare Facility-Associated (CO-HCFA) is based on previous discharge from index facility.

## Case 3

What if the Stool Specimen was Collected 4 Days after Admission to the Hospital?

1. Community-onset (CO) since the patient was admitted with symptoms of foul stool
2. ✓ Healthcare-Facility onset (HO) since the specimen was collected more than 3 days after admission
3. Community-Onset Healthcare Facility-Associated (CO-HCFA) since the patient was admitted from another healthcare facility

## Case 3

### **#2..Healthcare Facility Onset (HO)**

Healthcare Facility Onset (HO) since the stool was collected more than 3 days after admission.

## Case 4

A toxin positive *C. difficile* stool specimen collected from a inpatient on day 4 of admission would be categorized as:

-  1. Healthcare Facility-Onset (HO)
2. Community-Onset (CO)
3. Community-Onset Healthcare Facility-Associated (CO-HCFA)
4. It depends on the patients history

# Case 4

## #1..Healthcare Facility-Onset (HO)

NHSN Categorizes CDI LabID Events Based on Date Admitted to Facility and Date Specimen Collected

- **Healthcare Facility-Onset (HO):** LabID Event collected  $> 3$  days after admission to the facility (i.e., on or after day 4).
- **Community-Onset (CO):** LabID Event collected as an outpatient or an inpatient  $\leq 3$  days after admission to the facility (i.e., 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  $\leq 4$  weeks prior to current date of stool specimen collection.

## Case 4

What if the patient was symptomatic on admission, but the toxin was negative on admission and positive on day 4 of admission?

1. I can over-ride NHSN and categorize the event as community-onset
2. NHSN will categorize as community-onset
3.  NHSN will categorize as healthcare-onset

# Case 4

## #3..Healthcare-Onset

NHSN would still categorize the event as healthcare-onset since the first positive stool specimen was collected on or after day 4 of admission

\*\*Lab ID Event reporting is a proxy measure to lighten the load of surveillance, but this reduction in burden is traded off with a decreased specificity as it relates to true infection and attribution



Reminder!

# Case 5

In preparation for upcoming CMS reporting requirements for CDI LabID Events, you are completing your NHSN monthly reporting plan. What location(s) will you select if you are only reporting based on CMS?

1. ICU, NICU, medical-surgical units, emergency department, oncology.
2. Emergency department, outpatient surgery, and affiliated physician offices.
3.  FacWideIN, which includes all inpatient locations, except no monitoring in NICU, SCN, and Well Baby locations.
4. FacWideOUT, which includes all outpatient locations affiliated with the facility.

# Case 5

## #3.....FacWideIN

Healthcare facility HAI reporting to CMS via NHSN requires acute care hospitals to report *C. difficile* LabID Events for all inpatient locations where stools specimens may be collected.

**NHSN Home** Logged into DHQP Memorial Hospital (ID 10000) as ANGELA.  
Facility DHQP Memorial Hospital (ID 10000) is following the PS component.

### Add Monthly Reporting Plan

No data found for January, 2013

Mandatory fields marked with \*

Facility ID\*:

Month\*:

Year\*:

No NHSN Patient Safety Modules Followed this Month

---

#### Multi-Drug Resistant Organism Module [HELP](#)

Locations:

Specific Organism Type:

Process and Outcome Measures

Infection Surveillance	AST-Timing	AST-Eligible	Incidence	Prevalence	Lab ID Event All Specimens	Lab ID Event Blood Specimens Only	HH	GG
<input type="checkbox"/>	<input type="text" value=""/>	<input type="text" value=""/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

# Case 5



FacWideIN is a 'virtual' location within NHSN, which means the user does not define it like other specific units/locations, and it is only used in the Monthly Reporting Plan, Summary Data Reporting Form (denominator), and for Conferring Rights.

## Case 6

What denominator data is entered for CDI LabID Event Monitoring, FacWideIN?

1. Patient admissions by each unit and total patient days by unit.
2.  C.diff patient days and admissions for all inpatient locations minus NICU, SCN, and Well Baby location counts, including LDRP locations
3. Total patient days and total admissions for all inpatient locations.
4. Total patient encounters



# Case 7

- 6/15: 25 year old patient with Crohn's disease is admitted from the ED to a 3 East inpatient unit for corticosteroid treatment and pain management. Peripheral IV is inserted in the ED and patient is receiving intravenous fluids.
- 6/16: Patient request bedside commode and complains of frequent urination and burning during urination. A urine culture is collected via straight cath. Patient afebrile.
- 6/18: Urine culture results are positive for E. coli and MRSA. Antibiotic treatment begun.

# Case 7

- 6/21: Patient spikes a temperature of 101.4 F. Blood cultures collected from peripheral IV site.
- 6/22: Two of two blood cultures are positive for MRSA.

# Case 7

Since your facility participates in MRSA bacteremia LabID Event Reporting for FacWideIN, would you report this positive blood culture as a LabID Event?

1. No. Since the patient already had a positive urine culture with MRSA for this month and location, the MRSA blood is considered a duplicate.



2. Yes. This is considered a unique blood source.

# Case 7

**YES**

**This is considered a MRSA bacteremia  
LabID Event since the patient has no  
prior positive blood culture for MRSA in  
this location in  $\leq 2$  weeks**

# Case 7

What if the patient had a previous positive MRSA blood culture one week prior to this culture while in the same location (3 East)?



This would NOT be a MRSA bacteremia LabID Event

2. I would report as a MRSA bacteremia LabID Event
3. I would report as an Infection Surveillance Event

# Case 7

**A prior + MRSA blood culture result in  $\leq 2$  weeks from same patient and same location (including across calendar month) is considered a duplicate MRSA isolate and should NOT be reported as a LabID Event**

## Case 8

6/1: Mr. Nasal, a local nursing home resident, is admitted to the ICU with a stage 4 sacral ulcer. Upon admission into the ICU, an active nasal screen tested positive for MRSA. Blood cultures were also collected upon admission to the ICU.

## Case 8

Should this positive MRSA nasal screen be entered into NHSN as a MDRO/MRSA LabID Event?

1. YES

2. NO



# Case 8

**NO**

**MDRO LabID Event Reporting  
EXCLUDES tests related to active  
surveillance testing**

## Case 8

What if the blood culture also tested positive for MRSA?

1. NO. I would not consider this to be a MDRO LabID Event since the patient had a MRSA positive nasal screen.
2.  YES. Since the blood culture was obtained for clinical decision making, I would report this as a MRSA bacteremia LabID Event .

## Case 8

**Since this was the first positive MRSA blood culture for this patient and location (ICU), this would be considered a MRSA Bacteremia LabID Event**

# Case 9

What denominator data is entered for MRSA Bacteremia LabID Event Monitoring for FacWideIN?

1. Patient admissions by each unit and total patient days by unit.
2. Patient days and admissions for all inpatient locations minus NICU and Well Baby location counts.
-  3. Patient days and admissions for all inpatient locations.
4. Total patient encounters

# Case 10

In preparation for upcoming CMS reporting requirements for MRSA Bacteremia LabID Events, you are completing your NHSN monthly reporting plan.

What location(s) will you select if you are only reporting based on CMS?

1. ICU, NICU, medical-surgical units, emergency department, oncology.
2.  FacWideIN, which includes all inpatient locations.
3. FacWideIN, which includes all inpatient locations, except no monitoring in NICU and Well Baby locations.
4. FacWideOUT, which includes all outpatient locations affiliated with the facility.

# Case 10

## #2.....FacWideIN

Healthcare facility HAI reporting to CMS via NHSN requires acute care hospitals to report MRSA Bacteremia LabID Events for all inpatient locations at the facility-wide inpatient level

**NHSN Home**  
Reporting Plan  
Add  
Find  
Patient  
Event  
Procedure  
Summary Data  
Import/Export  
Analysis  
Surveys  
Users  
Facility

Logged into DHQP Memorial Hospital (ID 10000) as ANGELA.  
Facility DHQP Memorial Hospital (ID 10000) is following the PS component.

### Add Monthly Reporting Plan

No data found for January, 2013

Mandatory fields marked with \*

Facility ID\*:

Month\*:

Year\*:

No NHSN Patient Safety Modules Followed this Month

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**Multi-Drug Resistant Organism Module**

**Locations**  
FACWIDEIN - FacWideIN

**Specific Organism Type**  
MRSA - MRSA

**Process and Outcome Measures**

Infection Surveillance	AST-Timing	AST-Eligible	Incidence	Prevalence	Lab ID Event All Specimens	Lab ID Event Blood Specimens Only	HH	GG
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					



FacWideIN is a 'virtual' location within NHSN, which means the user does not define it like other specific units/locations, and it is only used in the Monthly Reporting Plan, Summary Data Reporting Form (denominator), and for Conferring Rights.

# Case 11

A positive MRSA blood specimen collected from an inpatient on day 4 of admission would be categorized as:



1. Healthcare Facility-Onset (HO)
2. Community-Onset (CO)
3. Community-Onset Healthcare Facility-Associated (CO-HCFA)
4. It depends on the patient's history

# Case 11

## #1..Healthcare Facility-Onset (HO)

NHSN Categorizes MRSA Bacteremia LabID Events Based on Date Admitted to Facility and Date Specimen Collected

- **Healthcare Facility-Onset (HO): LabID Event collected > 3 days after admission to the facility (i.e., on or after day 4)**
- **Community-Onset (CO): LabID Event collected as an outpatient or an inpatient  $\leq 3$  days after admission to the facility (i.e., days 1, 2, or 3 of admission)**

## Case 11

What if the patient was symptomatic for sepsis on admission, but the blood culture was not collected until day 4 of admission?

1. I can over-ride NHSN and categorize the event as community-onset
2. NHSN will categorize as community-onset
3.  NHSN will categorize as healthcare-onset

# Case 11

## #3..Healthcare-Onset

NHSN would still categorize the event as healthcare-onset since the first positive blood specimen was collected on or after day 4 of admission

\*\*Lab ID Event reporting is a proxy measure to lighten the load of surveillance, but this reduction in burden is traded off with a decreased specificity as it relates to true infection and attribution



Reminder!

# Case 12

For **FacWideIN** reporting:

Are LabID Events reported to NHSN for patients housed in Observation locations?

1. YES.



2. NO.

# Case 12

- Are patients housed in Observation locations included in patient day and admission counts for **FacWideIN** reporting?

 NO.

- YES.

# Case 12

Observation patients in observation locations:

An **“observation” location** (e.g., 24-hour observation area) is considered an **outpatient unit**, so time spent in this type of unit does not ever contribute to any inpatient counts (i.e., patient days, device days, admissions). Admissions to such outpatient units represent **“encounters”** for the purposes of outpatient surveillance for LabID Event monitoring in the MDRO/CDI module

# Case 13

For FacWideIN Reporting:

Are LabID Events reported to NHSN for Observation patients housed in inpatient locations within the facility?

 1. YES

2. NO

# Case 13

- Are observation patients housed in an inpatient location (e.g., ICU) included in patient day and admission counts for **FacWideIN** reporting?

- NO.

-  YES.

# Case 13

If an observation patient is sent to an inpatient location for monitoring, the patient should be included for all patient and device day counts. The facility assignment of the patient as an observation patient or an inpatient has no bearing in this instance for counting purposes, since the patient is being housed, monitored, and cared for in an inpatient location.

# Case 14

## Identify the LabID Events

	Pt	Admit Date/ Loc	Specimen Collection Date/Loc	Specimen Source	Lab Result	LabID Event? location?	Explanation
1	Jack	6/1/12 ICU	6/1/12 ED	Stool	C. diff + toxin	<b>YES</b> <b>ICU</b>	Specimen collection date = admission date
2	Jack	6/1/12 ICU	6/2/12 ICU	Blood	MRSA	<b>YES</b> <b>ICU</b>	Blood specimen from ICU ≤ 14 days
3	Jack	6/1/12 ICU	6/12/12 ICU	Blood	MRSA	<b>NO</b>	≤ 14 days from previous specimen in location
4	Jack	6/1/12 ICU	6/20/12 ICU	Blood	MRSA	<b>NO</b>	≤ 14 days from previous <b>specimen</b> in location
5	Jack	6/1/12 ICU	7/10/12 ICU	Blood	MRSA	<b>YES</b> <b>ICU</b>	>14 days previous specimen in location
6	Jack	6/1/12 ICU	7/15/12 2 East	Blood	MRSA	<b>YES</b> <b>2 East</b>	NEW location

**Assume all specimens collected are shown**

# Case 15

## Identify the LabID Events

	Pt	Admit Date/Loc	Specimen Collection Date/Loc	Specimen Source	Lab Result	LabID Event? Location?	Explanation
1	Bill	6/15/12 CCU	6/16/12 CCU	Blood	MRSA	<b>YES/ CCU</b>	≤14 days previous specimen in location
2	Bill	6/15/12 CCU	6/20/12 3-East	Blood	MRSA	<b>YES 3-East</b>	NEW location
3	Dog	7/2/12 ICU	7/1/12 ED	Stool	C. diff + toxin	<b>NO</b>	Specimen collected <b>before</b> admit date
4	Dog	7/2/12 ICU	7/6/12 ICU	Stool	C. diff + toxin	<b>YES / ICU</b>	≤ 14days previous spec (inpt location)
5	Dog	7/2/12 ICU	7/10/12 2-West	Stool	C. diff + toxin	<b>YES / 2-West</b>	NEW location
6	Joe	6/1/12 ICU	6/6/12 ICU	Stool	C. diff equiv toxin	<b>NO</b>	Must be <b>toxin + +PCR = toxin +</b>

**Assume all specimens collected are shown**

# Case 16

## Identify the LabID Events

	Pt	Admit Date/ Loc	Specimen Collection Date/Loc	Specimen Source	Lab Result	LabID Event? Location?	Explanation
1	Jim	8/2/12 CCU	8/2/12 CCU	Nares	MRSA	<b>NO</b>	Surveillance cultures excluded
2	Jim	8/2/12 CCU	8/6/12 CCU	Blood	MRSA	<b>YES / CCU</b>	≤ 14 days previous specimen/location
3	Sam	7/2/12 ICU	7/9/12 ICU	Stool	C. diff + assay - toxin	<b>NO</b>	Must be <b>toxin +</b>  <b>**+PCR = toxin +</b>
4	Tim	7/2/12 NICU	7/6/12 NICU	Stool	C. Diff +toxin	<b>NO</b>	NICU excluded
5	Paul	8/2/12 M/S	8/5/12 M/S	Wound	MRSA	<b>YES*</b>	*Only if report ALL MRSA specimens
6	Paul	8/2/12 M/S	8/5/12 M/S	Blood	MRSA	<b>YES M/S</b>	Unique blood ≤14 days previous specimen/location

**Assume all specimens collected are shown**

# Great Job!!!

