

# Multidrug-Resistant Organism (MDRO) and *Clostridium difficile*-Associated Disease (CDAD) Module

## Training Course Section:

***C. difficile* Infection Surveillance  
and  
*C. difficile* LabID Event Reporting**



Department of Health and Human Services

Centers for Disease Control and Prevention

### Target Audience

This training session is designed for those who will collect and analyze *Clostridium difficile* Infection data in the MDRO and CDAD Module of NHSN. This may include:

- NHSN Facility Administrator
- Patient Safety Primary Contact
- Infection Preventionist
- Epidemiologist
- Microbiologist
- Professional Nursing Staff
- Trained Support Staff



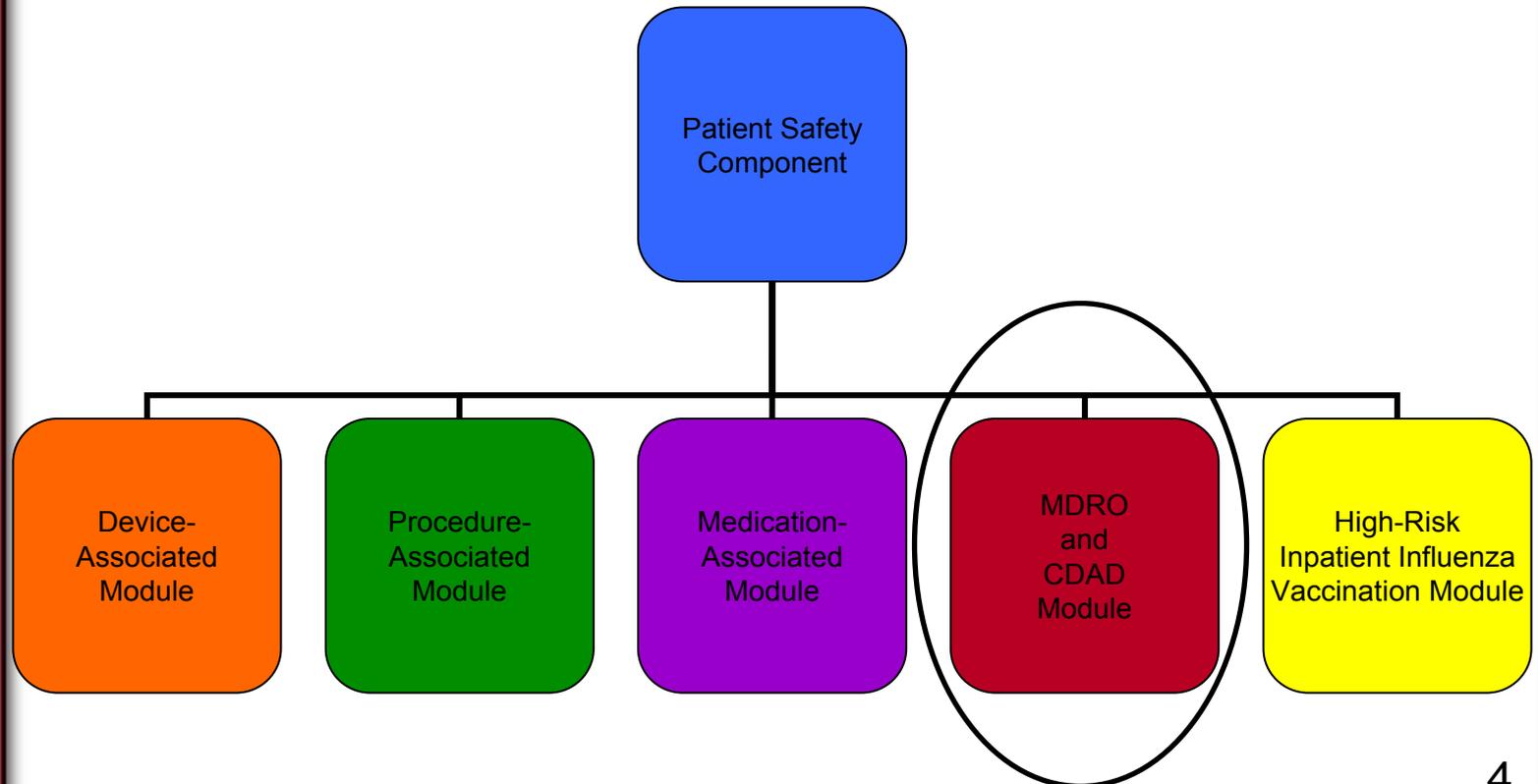
You should have previously viewed the NHSN Overview to help with your understanding of this training.

## ***C. Difficile* Infection**

### Objectives

- Review the structure of the MDRO and CDAD Module within the Patient Safety Component of NHSN
- Describe the rationale for monitoring *C. difficile* infection in NHSN
- Describe the methodology, protocols, and definitions used in data collection and reporting under the CDAD Infection Surveillance and CDAD LabID Event Reporting in NHSN

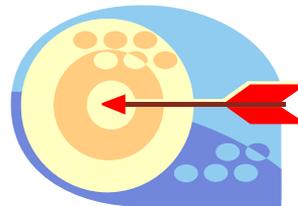
## National Healthcare Safety Network (NHSN)



## C. *Difficile* Infection

### Goal of MDRO and CDAD Module

- o Monitoring of MDRO & *C. difficile* infection (CDI) will help to evaluate local trends and changes in the occurrence of these pathogens and related infections.
- o This module will provide a mechanism for facilities to report and analyze MDRO and CDI data, in order to inform infection control staff of the impact of targeted prevention efforts.



The term CDI is replacing CDAD. Both terms represent the same illness and will be used interchangeably as we transition this module to the newer terminology



UPDATE

### Background



Why monitor *Clostridium difficile* Infection?

- *C. difficile* infection has increased in prevalence in U.S. hospitals over the last three decades
- *C. difficile* has important implications for patient safety
- Options for treating patients with *C. difficile* are often extremely limited
- *C. difficile* infections are associated with increased lengths of stay, costs, and mortality

## C. Difficile Infection

### Reporting Options

-Infection Surveillance

-Proxy Infection Measures:

-Laboratory-Identified (LabID) Event

-Prevention Process Measures:

-Monitoring Adherence to Hand Hygiene

-Monitoring Adherence to Gown and Gloves Use

-Monitoring Adherence to Active Surveillance Testing

-Active Surveillance Testing (AST) Outcome Measures

If you choose to monitor  
*C. difficile* infection you  
must select at least one of  
these two reporting  
options

See: Prevention  
Process Measures  
and AST Outcome  
Measures Training  
Slides

Not used  
for  
*C. difficile*

## *C. Difficile* Infection

The following documents and forms will be discussed in this training. You may wish to PRINT these to follow along.

- 1) **MDRO and CDAD Module Protocol**  
- [http://www.cdc.gov/ncidod/dhqp/nhsn\\_MDRO\\_CDAD.html](http://www.cdc.gov/ncidod/dhqp/nhsn_MDRO_CDAD.html)
- 2) **CDC Definitions for Nosocomial Infections document**  
- <http://www.cdc.gov/ncidod/dhqp/pdf/NNIS/NosInfDefinitions.pdf>
- 3) **Patient Safety Monthly Reporting Plan**  
- [http://www.cdc.gov/ncidod/dhqp/forms/A\\_PSReportPlan\\_BLANK.pdf](http://www.cdc.gov/ncidod/dhqp/forms/A_PSReportPlan_BLANK.pdf)
- 4) **MDRO or CDAD Infection Event form**  
- [http://www.cdc.gov/ncidod/dhqp/forms/57\\_126\\_MDROInfectionEvent.pdf](http://www.cdc.gov/ncidod/dhqp/forms/57_126_MDROInfectionEvent.pdf)
- 5) **Laboratory-Identified MDRO or CDAD Event form**  
- [http://www.cdc.gov/ncidod/dhqp/forms/57\\_128\\_LabIDEvent.pdf](http://www.cdc.gov/ncidod/dhqp/forms/57_128_LabIDEvent.pdf)
- 6) **MDRO and CDAD Prevention Process and Outcome Measures Monthly Monitoring form**  
- [http://www.cdc.gov/ncidod/dhqp/forms/57\\_127\\_MDROMonthlyReporting.pdf](http://www.cdc.gov/ncidod/dhqp/forms/57_127_MDROMonthlyReporting.pdf)

# **Infection Surveillance**

### Reporting

Surveillance for all NHSN-defined healthcare-associated infections (HAI) caused by *C. difficile* in at least one selected inpatient location for at least 3 months in a calendar year.



A NHSN Healthcare-Associated Infection (HAI) is a localized/systemic condition resulting from an adverse reaction to the presence of an infectious agent or its toxin. There must be no evidence that the infection was present or incubating at the time of hospital admission. *C. difficile* infections must meet NHSN-defined criteria for gastroenteritis or gastrointestinal tract infections

## C. *Difficile* Infection Surveillance

### Required Reporting

- Select at least one location in the healthcare facility
- Report at least three months\* in a calendar year (months do not have to be sequential)

Reporting Methods: A. Facility-wide by location or B. Selected locations

Settings - Inpatient locations:

- 1) ICUs
- 2) Specialty Care Areas
- 3) Other inpatient care areas  
[No surveillance in Neonatal ICUs]



**\*At least six months for participation in NHSN Patient Safety Component**

### NHSN Reportable Infections for *C. Difficile*

- GI-GE: Gastrointestinal System Infection-Gastroenteritis
- GI-GIT: Gastrointestinal System Infection-Gastrointestinal Tract
- CDAD Complications:  
Severe CDI in patient within 30 days after CDI symptom onset and at least one of the following:
  - Admission to ICU for CDAD complications
  - Surgery for CDAD complications
  - Death caused by CDAD within 30 days after symptom onset and during hospital admission
- If the patient develops both GI-GE and GI-GIT report only GI-GIT using the date of onset as that of GI-GE *C. difficile* infection.

### Complete list of NHSN HAI definitions

Available at this Website:

- <http://www.cdc.gov/ncidod/dhqp/pdf/NNIS/NosInfDefinitions.pdf>

#### AJIC major articles

### **CDC/NHSN surveillance definition of health care-associated infection and criteria for specific types of infections in the acute care setting**

Teresa C. Horan, MPH, Mary Andrus, RN, BA, CIC, and Margaret A. Dudeck, MPH  
Atlanta, Georgia

BACKGROUND

population for which clinical sepsis is used has been re-  
stricted to patients 17 year old. Another example is

### Reporting Methods

#### **A. Facility-Wide by Location:**

Report separately from all locations of a facility.

Separate denominators (patient days, admissions) for all locations.

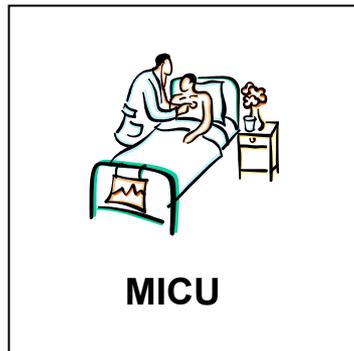
#### **B. Selected Locations:**

Report separately from 1 or more specific locations of a facility.

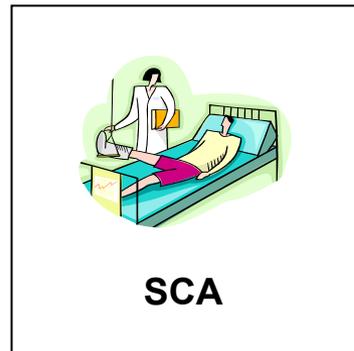
Separate denominators (patient days, admissions) for each location.

## C. *Difficile* Infection Surveillance

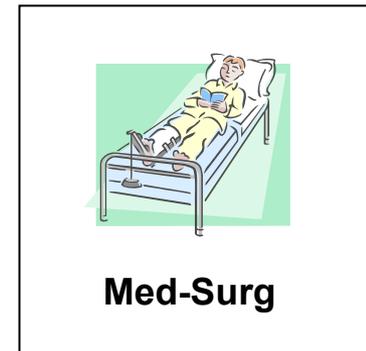
### A. Facility-Wide by Location



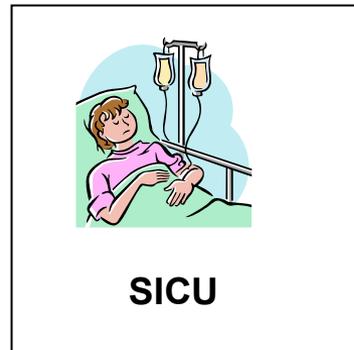
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+



+



## C. *Difficile* Infection Surveillance

### B. Selected Locations



**MICU**



**SCA**



**Med-Surg**



**Surgical**



**SICU**



**NICU**

### Reporting Forms

- 1) Patient Safety Monthly Reporting Plan
- 2) MDRO or CDAD Infection Event form
  - Numerator – one form per infection
- 3) MDRO and CDAD Prevention Process and Outcome Measures Monthly Monitoring form
  - Denominator – total patient days per location

## C. *Difficile* Infection Surveillance



### Example

Betty Brown, our infection preventionist at DHQP Memorial Hospital, initiated an infection surveillance program for *C. difficile* infection in MICU, SICU, and PICU in August 2008.

Because she is performing surveillance in 3 areas of her facility, the reporting method she has chosen is:

B. Selected locations

The next slide shows an example of how she completed her monthly reporting plan

## C. Difficile Infection Surveillance

### Patient Safety Monthly Reporting Plan

\* required for saving

Facility ID: 9999

\*Month/Year: **08** / **2008**

No NHSN Patient Safety Modules Followed this Month

#### Process and Outcome Measures

Locations	Specific Organism Type	Infection Surveillance	%AST Timing	%AST Eligible	Incidence	Prevalence	Lab ID Event	HH	GG
<b>MICU</b>	<b>C. diff</b>	<b>X</b>	Adm	All	<input type="checkbox"/>				
			Both	NHx					
<b>SICU</b>	<b>C. diff</b>	<b>X</b>	Adm	All	<input type="checkbox"/>				
			Both	NHx					
<b>PICU</b>	<b>C. diff</b>	<b>X</b>	Adm	All	<input type="checkbox"/>				
			Both	NHx					
				All	<input type="checkbox"/>				

### Example (cont)



During the monitoring month Betty identified a patient in MICU with gastroenteritis due to *C. difficile* that had not been present when the patient was admitted to the hospital.

The next slides show how Betty completed her NHSN form. Detailed instructions for completing each field on the form are contained in the Tables of Instructions. Note that there are additional questions concerning ICU admission for CDAD complications and surgery.



## MDRO or CDAD Infection Event

OMB No. 0920-0696  
Exp. Date: 03-31-2011

\* required for saving

\*\* required for completion

Facility ID: **9999**

Event #: **333**

\*Patient ID: **A081234**

Social Security #:

Secondary ID:

Patient Name, Last:

First:

Middle:

\*Gender:  M  F

\*Date of Birth: **04/12/1942**

Ethnicity (Specify):

Race (Specify):

### Event Details

\*Event Type: **GI**

\*Date of Event:

[For Event Type = BSI, PNEU, SSI, or UTI use the event specific form]

**08/27/2008**

\*Post Procedure Event: Yes  No

Date of Procedure:

MDRO/CDAD Infection: **Yes** No

NHSN Procedure Code:

ICD-9-CM Procedure Code:

\*Specific Organism Type: (Select up to 3)

MRSA  MSSA  VRE  MDR-*Klebsiella*  MDR-*Acinetobacter*  *C. difficile*

\*Date Admitted to Facility: **08/04/2008**

\*Location **MICU**

\*Specific Event Type (only used for CDC defined events): **GE**

Specific Organism Type (only used for CDC defined events):



## C. Difficile Infection Surveillance

Event Type (used for CDC reported events):

Specify Criteria Used (check all that apply)

Signs & Symptoms

- Abscess
- Apnea
- Vomiting
- Bradycardia
- Redness
- Cough
- Dysuria
- Fever
- Acute onset of diarrhea (liquid stools for > 12 hours)
- Purulent drainage or material
- Pain or tenderness
- New onset/change in sputum, increased secretions or increased suctioning
- Localized swelling
- Persistent microscopic or gross blood in stools
- Wheezing, rales or rhonchi
- Other evidence of infection found on direct exam, during surgery or by diagnostic testing<sup>1</sup>
- Other signs and symptoms<sup>1</sup>

- Heat
- Hypotension
- Hypothermia
- Lethargy
- Nausea
- Suprapubic tenderness

Laboratory or Diagnostic Testing

- Blood culture:  Positive  Negative or Not done
- Other culture:  Positive  Not done
- Positive Gram stain when culture is negative or not done
  - >15 colonies cultured from IV cannula tip using semiquantitative culture method
  - Positive culture of pathogen
  - Positive culture of skin contaminant
  - Other positive laboratory tests
  - Radiographic evidence of infection

Clinical Diagnosis

- Physician diagnosis of this event type<sup>1</sup>
  - Physician institutes appropriate antimicrobial therapy<sup>1</sup>
- + Per specific event criteria

***Clostridium difficile*-Associated Disease**

- \*Admitted to ICU for CDAD complications: Yes  No
- \*Surgery for CDAD complications: Yes  No
- \*Secondary Bloodstream Infection: Yes  No
- \*\*Died: Yes  No
- Event contributed to death? Yes  No
- \*Pathogens Identified: Yes  No   
If Yes, specify on page 2 →

Discharge Date: \_\_\_/\_\_\_/\_\_\_

Pathogen #

**Other Organisms**

\_\_\_ 1 \_\_\_  
Organism 1 (specify)  
**C. diff**

Drug 1 Drug 2  
S I R N S I R N

### AJIC major articles

#### CDC/NHSN surveillance definition of health care-associated infection and criteria for specific types of infections in the acute care setting

Teresa C. Horan, MPH, Mary Andrus, RN, BA, CIC, and Margaret A. Dudeck, MPH  
Atlanta, Georgia

#### BACKGROUND

population for which clinical sepsis is used has been restricted to patients 16 year old. Another example is

Table I. CDC/NHSN major and specific types of health care-associated infections

<b>UTI</b>	<b>Urinary tract infection</b>	
	SUTI	Symptomatic urinary tract infection
	ASB OUTI	Asymptomatic bacteriuria Other infections of the urinary tract
<b>SSI</b>	<b>Surgical site infection</b>	
	SIP	Superficial incisional primary SSI
	SIS	Superficial incisional secondary SSI
	DIP	Deep incisional
	DIS	Deep
	secondary SSI	
	Organ/space	Organ/space SSI. Indicate specific type:
		• BONE      • LUNG

Table I. Continued

<b>EENT</b>	<b>Eye, ear, nose, throat, or mouth infection</b>	
CONJ	Conjunctivitis	
EYE	Eye, other than conjunctivitis	
EAR	Ear, mastoid	
ORAL	Oral cavity (mouth, tongue, or gums)	
SINU	Sinusitis	
UR	Upper respiratory tract, pharyngitis, laryngitis, epiglottitis	
<b>GI</b>	<b>Gastrointestinal system infection</b>	
GE	Gastroenteritis	
GIT	Gastrointestinal (GI) tract	
HEP	Hepatitis	
IAB	Intraabdominal, not specified elsewhere	
NEC	Necrotizing enterocolitis	

## C. *Difficile* Infection Surveillance

### GI-GASTROINTESTINAL SYSTEM INFECTION

#### GE-Gastroenteritis

Gastroenteritis must meet at least 1 of the following criteria:

1. Patient has an acute onset of diarrhea (liquid stools for more than 12 hours) with or without

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vomiting or fever ( $>38^{\circ}\text{C}$ ) and no likely noninfectious cause (eg, diagnostic tests, therapeutic regimen other than antimicrobial agents, acute exacerbation of a chronic condition, or psychologic stress).

2. Patient has at least 2 of the following signs or symptoms with no other recognized cause: nausea, vomiting, abdominal pain, fever ( $>38^{\circ}\text{C}$ ), or headache

and

at least 1 of the following:

- a. an enteric pathogen is cultured from stool or rectal swab
- b. an enteric pathogen is detected by routine or electron microscopy
- c. an enteric pathogen is detected by antigen or antibody assay on blood or feces
- d. evidence of an enteric pathogen is detected by cytopathic changes in tissue culture (toxin assay)
- e. diagnostic single antibody titer (IgM) or 4-fold increase in paired sera (IgG) for pathogen.

GIT-Gastrointestinal tract (esophagus, stomach, small and large bowel, and rectum) excluding gastroenteritis and appendicitis

Gastrointestinal tract infections, excluding gastroenteritis and appendicitis, must meet at least 1 of the following criteria:

1. Patient has an abscess or other evidence of infection seen during a surgical operation or histopathologic examination.
2. Patient has at least 2 of the following signs or symptoms with no other recognized cause and compatible with infection of the organ or tissue involved: fever ( $>38^{\circ}\text{C}$ ), nausea, vomiting, abdominal pain, or tenderness

and

at least 1 of the following:

- a. organisms cultured from drainage or tissue obtained during a surgical operation or endoscopy or from a surgically placed drain
- b. organisms seen on Gram's or KOH stain or multinucleated giant cells seen on microscopic examination of drainage or tissue obtained during a surgical operation or endoscopy or from a surgically placed drain
- c. organisms cultured from blood
- d. evidence of pathologic findings on radiographic examination
- e. evidence of pathologic findings on endoscopic examination (eg, *Candida* esophagitis or proctitis).

### Example (cont)



At the end of the month, Betty completed her Prevention Process and Outcome Measures Monthly Monitoring form that includes her denominators. A separate form for each unit that is monitored should be completed.

Because she is performing infection surveillance her denominator is patient days. Even though she did not identify any *C. difficile* infections in SICU or PICU, she completed a denominator form for each of those units, also.

## C. Difficile Infection Surveillance

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

Page 1 of 2

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

Facility ID #:   9999   \*Month:   08   \*Year:   2008   \*Location Code:   MICU  

Setting: Inpatient \*\*Days<sup>§</sup>:   180   \*\* Admissions<sup>§</sup>:                     

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

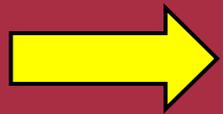
#### MDRO & CDAD Infection Surveillance or LabID Event Reporting

(Specific Organism Type)	MRSA	VRE	MDR- <i>Klebsiella</i>	MDR- <i>Acinetobacter</i>	<i>C. difficile</i>
Infection Surveillance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>X</b>
LabID Event	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

#### Process Measures (Optional)

**Hand Hygiene**  
\*\* Performed:       
\*\* Indicated:     

**Gown and Gloves**  
\*\* Used:       
\*\* Indicated:     



# LabID Event Reporting

### Purpose

- To calculate proxy measures of CDI events, exposures, and healthcare acquisition, facilities may choose to monitor Laboratory-identified (LabID) CDI Events. The main proxy measures are included in a table at the end of this presentation
- This monitoring method enables a facility to rely almost exclusively on data obtained from the laboratory (i.e. proxy measures)



## ***C. Difficile* LabID Event**

### Definitions

**Laboratory-Identified (LabID) Event:** Any non-duplicate CDI-positive lab assay.

**CDI-positive Lab Assay:** Positive lab assay for *C. difficile* toxin A and/or B, or toxin-producing organism detected from stool culture or other lab means

**Duplicate *C. difficile*-positive test:** CDI-positive assay from same patient within 2 weeks of previous positive assay.



### Required Minimum Reporting

- All non-duplicate CDI-positive lab assays per patient per month
- At least three consecutive months in a calendar year



March



April



May

- *C. difficile* testing performed routinely in lab, only on unformed (conforming to the shape of the container) stool samples



## Requirements

- Reporting Methods: A. Facility-wide by location  
B. Selected locations  
C. Overall facility-wide
- Settings: 1) Inpatient locations  
2) Outpatient locations – where care provided to patients post-discharge OR prior to admission
- No Neonatal Intensive Care Units (NICU)
- No outpatient dialysis centers

### Identifying a LabID Event

Testing on unformed  
stool sample



Positive for  
*C. difficile*

Prior  
*C. difficile* positive  
in  $\leq 2$  weeks?

YES

Duplicate test



**Not LabID Event**

Not  
*C. difficile*

NO

**Not LabID Event**

NHSN Laboratory-identified MDRO or CDAD Event		OMB No. 0920-0666 Exp. Date: 03-31-2011
<small>*required for saving</small>		
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: <u>LabID</u>	*Date Specimen Collected:	
*Specific Organism Type: (Check one)		
<input type="checkbox"/> MRSA <input type="checkbox"/> MSSA <input type="checkbox"/> VRE <input type="checkbox"/> MDR- <i>Klebsiella</i> <input type="checkbox"/> MDR- <i>Acinetobacter</i> <input type="checkbox"/> <i>C. difficile</i>		

## C. Difficile LabID Event

### C. Overall Facility-Wide

Patient Days = 2950, Admissions = 300, Encounters = 700



**MICU**



**OP dialysis**



**Med-Surg**



**PICU**



**ER**



**SICU**



**NICU**

## Reporting Forms

- 1) Patient Safety Monthly Reporting Plan
- 2) Laboratory-Identified MDRO or CDAD Event form  
- Numerator – one form per LabID Event
- 3) MDRO and CDAD Prevention Process and Outcome Measures Monthly Monitoring form

Denominators:

- IP locations - total patient days, admissions
- OP locations - encounters per location

## *C. Difficile* LabID Event



### Example

Bob Jones, our infection preventionist at Tinytown Memorial Hospital wants to monitor *C. difficile* in MICU, SICU, and PICU. Because his is a small facility and he is the only person performing surveillance, he has chosen LabID Event reporting because it is less labor intensive than infection surveillance. He will be able to use his laboratory data to identify cases.

Because he is performing surveillance in 3 areas of the facility, the reporting method he has chosen is:

B. Selected locations

The next slide shows how he completed his monthly reporting plan.

## C. Difficile LabID Event

### Patient Safety Monthly Reporting Plan

\* required for saving

Facility ID: 9999 \*Month/Year: 08 / 2008

No NHSN Patient Safety Modules Followed this Month

Out Both

#### Process and Outcome Measures

Locations	Specific Organism Type	Infection Surveillance	%AST Timing	%AST Eligible	Incidence	Prevalence	Lab ID Event	HH	GG
<u>MICU</u>	<u>C. diff</u>	<input type="checkbox"/>	Adm Both	All NHx	<input type="checkbox"/>	<input type="checkbox"/>	<b>X</b>	<input type="checkbox"/>	<input type="checkbox"/>
<u>SICU</u>	<u>C. diff</u>	<input type="checkbox"/>	Adm Both	All NHx	<input type="checkbox"/>	<input type="checkbox"/>	<b>X</b>	<input type="checkbox"/>	<input type="checkbox"/>
<u>PICU</u>	<u>C. diff</u>	<input type="checkbox"/>	Adm Both	All NHx	<input type="checkbox"/>	<input type="checkbox"/>	<b>X</b>	<input type="checkbox"/>	<input type="checkbox"/>



### Example (cont)



At the end of the surveillance month, Bob identified one patient in PICU with a positive LabID Event for *C. difficile*. This was the only unique (non-duplicate) specimen identified positive for this patient.

The next slide shows how Bob completed the LabID Event form.

## C. Difficile LabID Event

 <b>Laboratory-Identified MDRO or CDAD Event</b>		Exp. Date: 03-31-2011
*required for saving		
Facility ID: <b>9999</b>	Event #: <b>445</b>	
*Patient ID: <b>A086789</b>	Social Security #:	
Secondary ID:		
Patient Name, Last:	First:	Middle:
*Gender: M <input type="radio"/> F <input checked="" type="radio"/>	*Date of Birth: <b>11/06/2000</b>	
Ethnicity (Specify):	Race (Specify):	
Event Details		
*Event Type: LabID	*Date Specimen Collected: <b>08/27/2008</b>	
*Specific Organism Type: (Check one)		
<input type="checkbox"/> MRSA <input type="checkbox"/> MSSA <input type="checkbox"/> VRE <input type="checkbox"/> MDR-Klebsiella <input type="checkbox"/> MDR-Acinetobacter <input checked="" type="checkbox"/> <i>C. difficile</i>		
*Outpatient: Yes <input type="radio"/> No <input checked="" type="radio"/>	*Specimen Source: <b>Unformed stool</b>	
*Date Admitted to Facility: <b>08/14/2008</b>	*Location: <b>PICU</b>	*Date Admitted to Location: <b>08/14/2008</b>
*Documented prior evidence of previous infection or colonization with this specific organism type? Yes <input type="radio"/> No <input checked="" type="radio"/>		
Required for CDAD (Optional for MDRO)		
*Has patient been discharged from your facility in the past 3 months? Yes <input type="radio"/> No <input checked="" type="radio"/>		
*Date of last discharge from your facility:		



### Example (cont)



At the end of the month, Bob completed his Prevention Process and Outcome Measures Monthly Monitoring form to indicate the denominators for each location he monitored. Note that he entered both admissions and patient days for the location.

Because LabID Event reporting is recommended for at least 3 consecutive months in the same location, Bob will continue to perform CDI surveillance in MICU, SICU, and PICU in September and October.

## C. Difficile LabID Event

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

OMB No. 0920-0666  
Exp. Date: 03-31-2011

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

Facility ID #: 9999    \*Month: 08    \*Year: 2008    \*Location Code: PICU

Setting: Inpatient    \*\*Days<sup>§</sup>: 565    \*\* Admissions<sup>§</sup>: 27

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

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

(Specific Organism Type)	MRSA	VRE	MDR- <i>Klebsiella</i>	MDR- <i>Acinetobacter</i>	<i>C. difficile</i>
Infection Surveillance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
LabID Event	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>X</b>

#### Process Measures (Optional)

Hand Hygiene

Gown and Gloves



## C. Difficile LabID Event

LabID Event reporting for *C. difficile* can also be performed overall facility-wide in both in and outpatient locations. This means that single denominators are reported for the entire facility. However, even if performing overall facility-wide, NICU and outpatient dialysis centers should not be included. Make sure you remove NICU patient days and admissions from your inpatient denominators and outpatient dialysis visits from your encounters.

The next two slides show an example of the reporting plan and monthly monitoring form for this type of reporting.



## Patient Safety Monthly Reporting Plan

OMB No. 0920-0666  
Exp. Date: 03-31-2011

\* required for saving

Facility ID: 9999

\*Month/Year: 08 / 2008

No NHSN Patient Safety Modules Followed this Month

#### MDRO and CDAD Module

Locations	Setting (Circle one)	Specific Organism Type	LabID Event
<b>ALL</b>	In Out <b>Both</b>	<b>C. diff</b>	<b>X</b>
ALL	In Out Both	_____	<input type="checkbox"/>
ALL	In Out Both	_____	<input type="checkbox"/>
ALL	In Out Both	_____	<input type="checkbox"/>

Process and Outcome Measures

## C. Difficile LabID Event

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

OMB No. 0920-0666  
Exp. Date: 03-31-2011

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

Facility ID #: **9999**   \*Month: **\_08**   \*Year: **\_2008**   \*Location Code: **ALL (IN/OUT)**

Setting: Inpatient   \*\*Days<sup>§</sup>: **\_7,127**   \*\* Admissions<sup>§</sup>: **2,359**

Setting: Outpatient (or Emergency Room)   \*\*Encounters: **\_9,803**

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

(Specific Organism Type)	MRSA	VRE	MDR- <i>Klebsiella</i>	MDR- <i>Acinetobacter</i>	<i>C. difficile</i>
Infection Surveillance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
LabID Event	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>X</b>

#### Process Measures (Optional)

**Hand Hygiene**

**Gown and Gloves**

## C. Difficile LabID Event

When a LabID Event is identified for an outpatient, complete the same event form as that used for an inpatient. Make sure you circle “Yes” to the Outpatient question. An example of the form is shown on the next slide.

Notice that for *C. difficile* LabID Events, two additional questions concerning patient admission to your facility must be answered.



## C. Difficile LabID Event

 <b>Laboratory-identified MDRO or CDAD Event</b>		<small>OMB No. 0920-0566 Exp. Date: 03-31-2011</small>
*required for saving		
Facility ID: <b>9999</b>	Event #: <b>445</b>	
*Patient ID: <b>A086520</b>	Social Security #:	
Secondary ID:		
Patient Name, Last:	First:	Middle:
*Gender: <b>M</b> F	*Date of Birth: <b>09/06/1951</b>	
Ethnicity (Specify):	Race (Specify):	
Event Details		
*Event Type: LabID	*Date Specimen Collected: <b>08/27/2008</b>	
*Specific Organism Type: (Check one)		
<input type="checkbox"/> MRSA <input type="checkbox"/> MSSA <input type="checkbox"/> VRE <input type="checkbox"/> MDR-Klebsiella <input type="checkbox"/> MDR-Acinetobacter <input checked="" type="checkbox"/> <i>C. difficile</i>		
*Outpatient: <b>Yes</b> No	*Specimen Source: <b>Unformed stool</b>	
*Date Admitted to Facility:	*Location: <b>GI Clinic</b>	*Date Admitted to Location:
*Documented prior evidence of previous infection or colonization with this specific organism type?		
Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Required for CDAD (Optional for MDRO)		
*Has patient been discharged from your facility in the past 3 months? <b>Yes</b> No		
*Date of last discharge from your facility: <b>06/15/2008</b>		
Custom Fields		



### LabID Events Categorized through NHSN Calculations as:

- 1) Incident CDI Assay: CDI LabID Event from specimen obtained  $> 8$  weeks after most recent LabID Event.
- 2) Recurrent CDI Assay: CDI LabID Event from specimen obtained  $> 2$  weeks and  $\leq 8$  weeks after most recent LabID Event.

## C. *Difficile* LabID Event

### \*LabID Events Further Categorized through NHSN Calculations:

- 1) Healthcare Facility-Onset (HO): LabID event from stool collected >3 days after admission to the facility (= on or after day 4)
- 2) Community-Onset (CO): LabID Event from stool collected from an outpatient or inpatient  $\leq 3$  days after admission to the facility (Day 1, 2 or 3 with date of admission as Day 1)
- 3) CO Healthcare Facility-Associated (CO-HCFA): CO LabID Event collected from a patient who was discharged from this facility  $\leq 4$  weeks prior to stool collection

**\* See MDRO and CDAD Module Protocol for detailed descriptions of metrics**

## C. Difficile Infection

### Proxy Measures Calculated Using C. Difficile Infection Surveillance and LabID Event Reporting

Specific Metrics	Exposure	Infection	Acquisition
<i>C. Difficile</i> Infection Incidence Rate		√	√
Facility CDI Healthcare Facility-Onset Incidence Rate		√	√
Facility CDI Combined Incidence Rate		√	√
Admission Prevalence Rate	√	√	
Overall Prevalence Rate	√	√	

## C. Difficile Infection

Table 1. Reporting Choices for C. difficile

Reporting Choices	C. difficile
	Method
Infection Surveillance (Location Specific for $\geq 3$ months) Choose $\geq 1$ organism	A, B <u>OR</u> LabID Event
<u>Proxy Infection Measures</u> Laboratory-Identified (LabID) Event	A, B, C
<u>Prevention Process Measures</u> Options: Hand Hygiene Adherence Gown and Gloves Use Adherence	B B



### Let's Review!

1. If your facility chooses to monitor CDI, either infection surveillance OR LabID Event reporting is required
2. *C. difficile* infection surveillance can be performed using Method A (facility-wide by location) and Method B (selected locations)
3. CDI LabID Event reporting can also be performed using Method C (overall facility-wide)
4. LabID Event reporting is recommended in the same facility location for at least 3 consecutive months
5. Infection surveillance should be reported for at least 3 calendar months in the reporting year, but months do not have to be sequential
6. NHSN reportable CDIs include gastroenteritis (GI-GE) and gastrointestinal tract infections (GI-GIT)

## Custom Fields

- Alphanumeric fields – labels and dates
- Available with each form
- User can customize the data being collected and submitted (i.e. additional information)

### References

Centers for Disease Control and Prevention (CDC)  
– National Healthcare Safety Network (NHSN) –

Home Page:

<http://www.cdc.gov/ncidod/dhqp/nhsn.html>

Document Library (main link to all specific forms):

[http://www.cdc.gov/ncidod/dhqp/nhsn\\_documents.html](http://www.cdc.gov/ncidod/dhqp/nhsn_documents.html)

MDRO and CDAD Module:

[http://www.cdc.gov/ncidod/dhqp/nhsn\\_MDRO\\_CDAD.html](http://www.cdc.gov/ncidod/dhqp/nhsn_MDRO_CDAD.html)