



American Recovery and Reinvestment Act
Epidemiology and Laboratory Capacity (ELC)
for Infectious Disease Program
Healthcare-Associated Infections (HAIs)
Grantee Meeting

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October 19-20, 2009



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

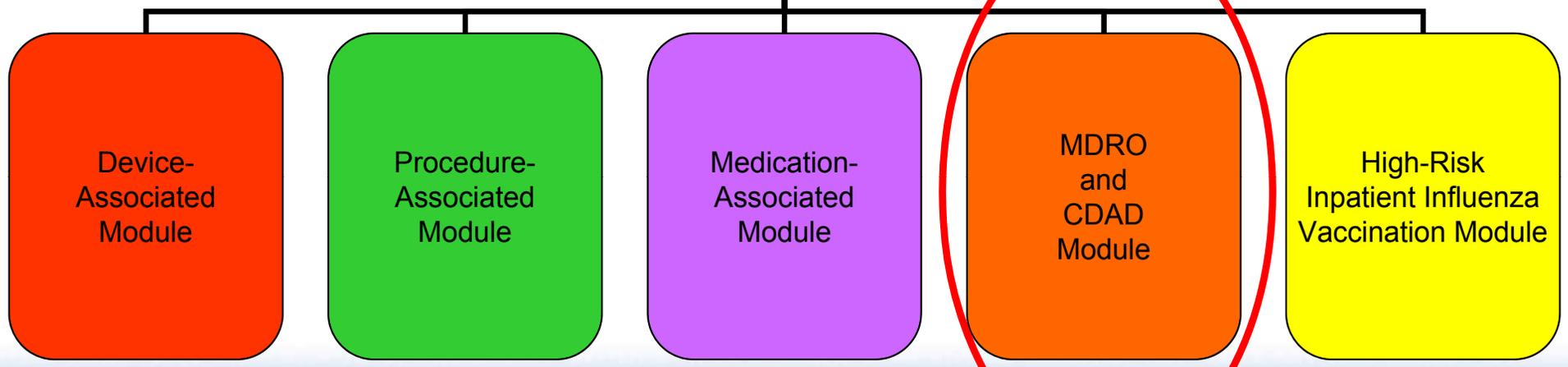
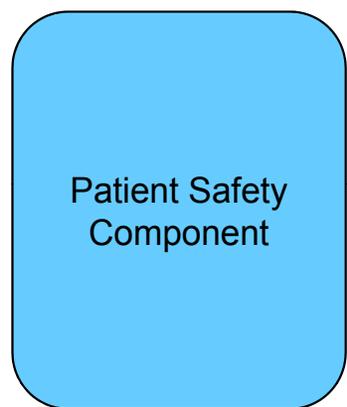


Objectives

- Introduce the MDRO and CDAD Module.
- Explain the requirements of the Module.
- Describe the options available in this Module.
- Demonstrate the metrics that are available through the Module.



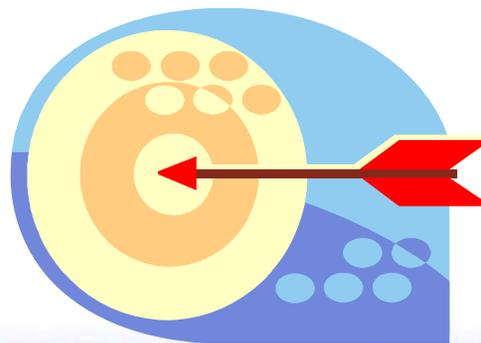
National Healthcare Safety Network (NHSN)





Goal of the MDRO and CDAD Module

- o Monitoring of MDRO and *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.





Organisms Monitored

- 1) Methicillin-Resistant *Staphylococcus aureus* (MRSA)
(option w/ Methicillin-Sensitive *S. aureus* (MSSA))
- 2) Vancomycin-Resistant *Enterococcus* spp. (VRE)
- 3) Multidrug-Resistant (MDR) *Klebsiella* spp.
- 4) Multidrug-Resistant (MDR) *Acinetobacter* spp.
- 5) *Clostridium difficile*-Associated Disease (CDAD)





Why These Organisms

- The identified organisms have increased in prevalence in US hospitals over the last three decades
- These organisms have important implications for patient safety
- Options for treating patients with these infections are often extremely limited
- These infections are associated with increased lengths of stay, costs, and mortality



Reporting Requirements and Options



Required:

-Infection Surveillance

OR

-Laboratory-Identified (LabID) Event (Proxy Infection Measures)

Optional:

-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



Reporting Methods

A = Facility-Wide by Location:

- Report separately from all locations of a facility.
- Separate denominators (patient days, admissions, encounters) for all locations.

B = Selected Locations:

- Report separately from 1 or more specific locations of a facility.
- Separate denominators (patient days, admissions, encounters) for each location.

C = Overall Facility-Wide:

- Report all from throughout a facility.
- Single denominators (patient days, admissions, encounters) for entire facility.



Monthly Reporting Plan



- NHSN Home**
- Reporting Plan**
 - [Add](#)
 - [Find](#)
- Patient**
- Event**
- Procedure**
- Summary Data**
- Analysis**
- Surveys**
- Users**
- Facility**
- Group**
- Log Out**

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

View Monthly Reporting Plan

[Print PDF Form](#)

Mandatory fields marked with *

Facility ID*: Pleasant Valley Hospital (10312)
 Month*: November
 Year*: 2008

Device-Associated Module [?HELP](#)

Locations CLA BSI DE VAP CAUTI CLIP

Procedure-Associated Module [?HELP](#)

Procedures SSI Post-procedure PNEU

Medication-Associated Module [?HELP](#)

Antimicrobial Use and Resistance

Locations Microbiology Pharmacy

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

Locations	Setting	Specific Organism Type
INMEDCC - IN:ACUTE:CC:M	IN - Inpatient	MRSA - MRSA

Process and Outcome Measures

Infection Surveillance	AST-Timing	AST-Eligible	Incidence	Prevalence	Lab ID	Event	HH	GG
X						X		

Patient Influenza Vaccination Module [?HELP](#)

Method A:

Method B:



Infection Surveillance



Purpose: To collect MDRO or CDI data on NHSN-defined healthcare-associated infections (HAIs)

HAI: a localized or 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 facility admission.**



Infection Surveillance Definitions

- **MRSA:** *S. aureus* testing oxacillin resistant; or positive from molecular testing for *mecA* and PBP2a
- **MSSA:** *S. aureus* testing oxacillin intermediate or susceptible; or (option) negative from molecular testing for *mecA* and PBP2a
- **VRE:** Any *Enterococcus* spp. testing resistant to vancomycin
- **MDR-Klebsiella:** *Klebsiella* spp. testing intermediate or resistant to ceftazidime or ceftriaxone
- **MDR-Acinetobacter:** *Acinetobacter* spp. resistant to all agents tested within at least 3 antimicrobial classes, including β -lactams, carbapenems aminoglycosides, and fluoroquinolones
- **C. difficile:** Gastrointestinal System Infection-Gastroenteritis or Gastrointestinal System Infection-Gastrointestinal Tract where *C. difficile* is the associated pathogen



Infection Surveillance Requirements



- At least three months in a calendar year for MDRO or CDI*
 - Months do not have to be sequential



January



March



July

- **Reporting Methods:**
 - A. Facility-wide by location
 - B. Selected locations
- **Settings - Inpatient locations:**
 - ICUs
 - Specialty Care Areas
 - Neonatal ICUs (Not for CDI)
 - Other inpatient care areas (No nurseries for CDI)



Infection Surveillance



- NHSN Home
- Reporting Plan
- Patient
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 - Incomplete
- Procedure
- Summary Data
- Analysis
- Surveys
- Users
- Files
- Groups
- Log Out

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

View 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 (10312)	Event #:	13221
Patient ID*:	DS4321		
Social Security #:		Secondary ID:	
Last Name:		First Name:	
Middle Name:			
Gender*:	M - Male	Date of Birth*:	05/17/1961
Ethnicity:			
Race:	American Indian/Alaska Native	Asian	
	Black or African American	Native Hawaiian/Other Pacific Islander	
	White		

Event Information [HELP](#)

Event Type*:	SST - Skin and Soft Tissue	Date of Event*:	11/27/2008
Post-procedure:			
MDRO/CDAD Infection*:	Y - Yes		
Specific Organism Type*:	MDR-Acinetobacter	C. difficile	MDR-Klebsiella
	<input checked="" type="checkbox"/> MRSA	MSSA	VRE
Location*:	INMEDCC - IN:ACUTE:CC:M		
Date Admitted to Facility:	11/09/2008		

Risk Factors **BSI, UTI, PNEU, SSI**



Infection Surveillance (2)

Event Details [HELP](#)

Specific Event: DECU - Decubitus ulcer

Specify Criteria Used* (check all that apply)

Signs & Symptoms

- Abscess
- Heat
- Hypotension
- Hypothermia
- Redness
- Fever
- Purulent drainage or material
- Pain or tenderness
- Localized swelling
- Other evidence of infection found on direct exam, during surgery, or by diagnostic tests
- Other signs & symptoms

Laboratory & Diagnostic Testing

- Positive blood culture
- Positive culture
- Other positive laboratory tests
- Positive culture of pathogen
- Positive culture of skin contaminant

Clinical Diagnosis

- Physician diagnosis of this event type
- Physician institutes appropriate antimicrobial therapy

Secondary

Bloodstream

Infection*:

Died:

Discharge Date:

Pathogens

Identified*: Y - Yes; If Yes, specify below ->

Pathogens [HELP](#)

Pathogen 1: SA - *Staphylococcus aureus*

10 drugs required

Drug	Result
CLIND - Clindamycin	R - Resistant
DAPTO - Daptomycin	N - Not Tested
ERYTH - Erythromycin	R - Resistant
GENT - Gentamicin	R - Resistant
LNZ - Linezolid	S - Susceptible
OX - Oxacillin	R - Resistant
QUIDAL - Quinupristin/dalfopristin	N - Not Tested
RIF - Rifampin	N - Not Tested
TMZ - Trimethoprim/sulfamethoxazole	S - Susceptible
VANC - Vancomycin	S - Susceptible



Infection Surveillance (3)

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MDRO and CDAD Prevention Process and Outcome Measures Monthly Monitoring

[HELP](#) [Print PDF Form](#)

Mandatory fields marked with *

Facility ID*: 10312 (Pleasant Valley Hospital)

Location Code*: INMEDCC - IN:ACUTE:CC:M

Month*: November

Year*: 2008

General

Setting: Inpatient Patient Days*: 533 Admissions*: 30

Setting: Outpatient (or Emergency Room) Encounters:

MDRO & CDAD Infection Surveillance or LabID Event Reporting

Specific Organism Type	MDR-Acinetobacter	C. difficile	MDR-Klebsiella	MRSA	VRE
Infection Surveillance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
LabID Event	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	* <input checked="" type="checkbox"/>	<input type="checkbox"/>

Process Measures

- NHSN Home
- Reporting Plan
- Patient
- Event
- Procedure
- Summary Data
- Analysis
- Surveys
- Users
- Facility
- Group
- Log Out





Infection Surveillance Analysis

MDRO/CDI Infection Incidence Rate

$$= \frac{\text{\# of Infections by MDRO or CDI}}{\text{\# of Patient-Days}}$$

(stratified by time and location)





Laboratory-Identified (LabID) Event Reporting



Purpose: To calculate proxy measures of MDRO or CDI events, exposures, and healthcare acquisitions through monitoring and reporting data from positive clinical cultures.

- This monitoring method enables a facility to rely almost exclusively on data obtained from the laboratory.





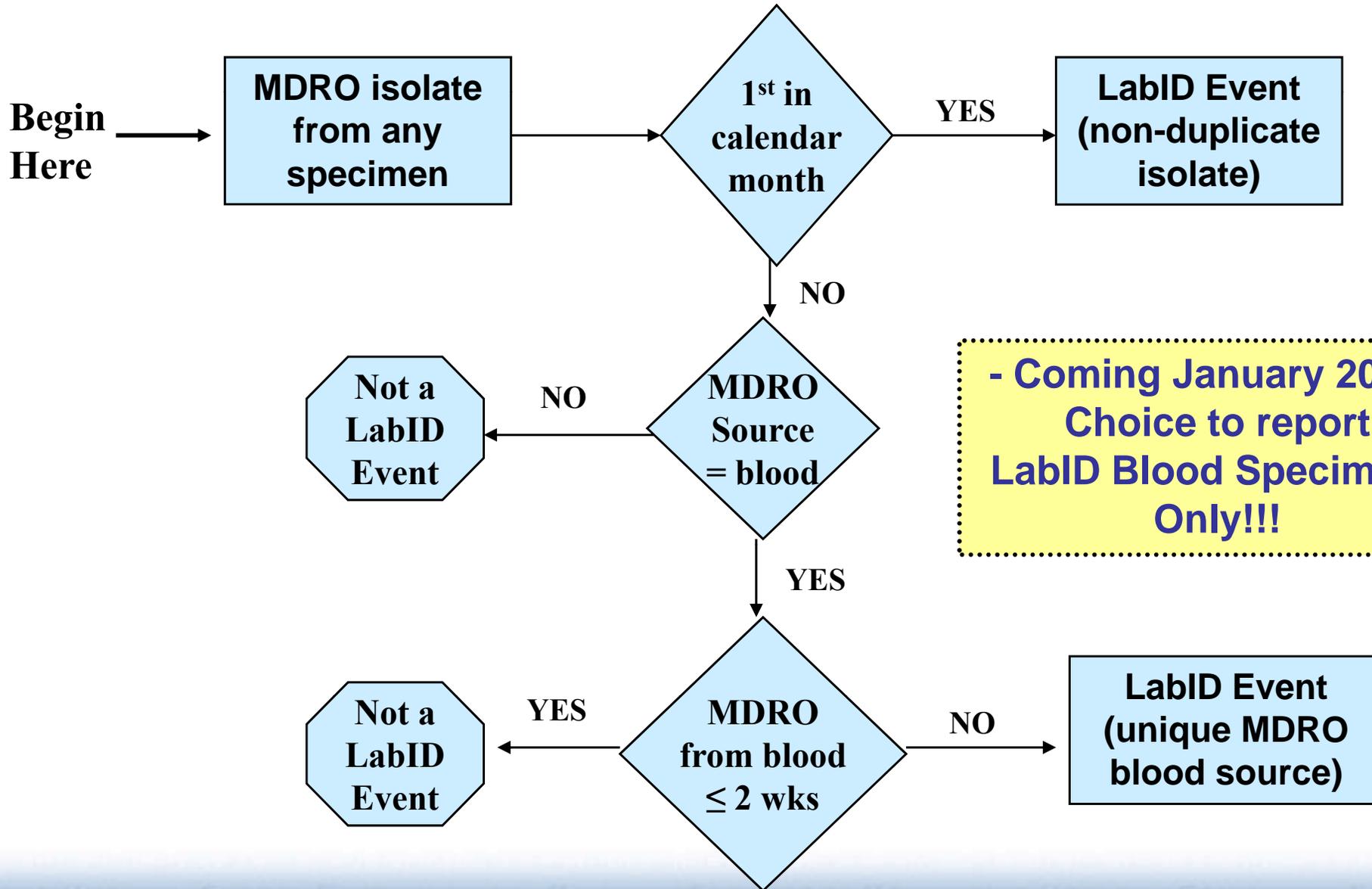
LabID Event Reporting Definitions



- **LabID Event:** Non-duplicate MDRO isolate from any_s specimen source plus unique blood source MDRO isolates; or non-duplicate *C. difficile* positive laboratory assay.
- **MDRO Isolate:** Specimen obtained for clinical decision making testing positive for a MDRO (specified for monitoring), excluding active surveillance testing specimens
- **Unique Blood Source:** MDRO isolate from blood in patient with no prior positive blood culture for same MDRO in ≤ 2 weeks
- **Duplicate MDRO Isolate:** Same MDRO, same patient, same month, same location, any source (except blood)
- **Duplicate *C. difficile* Isolate:** Same patient, same location, with a prior positive *C. difficile* laboratory assay in ≤ 2 weeks.



Identifying a MDRO LabID Event



**- Coming January 2010 –
Choice to report
LabID Blood Specimens
Only!!!**



LabID Event Reporting Requirements



- All LabID Events for at least one MDRO or for CDI
- At least one selected location in the healthcare facility
- At least three consecutive months in a calendar year



May



June



July

- Reporting Methods: Facility-wide by location, Selected locations, or Overall facility-wide
- Settings: 1) Inpatient (No nurseries or NICUs for CDI)
2) Outpatient Locations (No outpatient dialysis centers)



LabID Event



- NHSN Home
- Reporting Plan
- Patient
- Event**
 - Add
 - Find
 - Incomplete
- Procedure
- Summary Data
- Analysis
- Surveys
- Users
- Facility
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Logged into Pleasant Valley Hospital (ID 10312) as DSIEVERT.
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View 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 (10312)	Event #:	13218
Patient ID*	DS5678		
Social Security #:		Secondary ID:	
Last Name:		First Name:	
Middle Name:			
Gender*	M - Male	Date of Birth*	08/23/1954
Ethnicity:			
Race:	American Indian/Alaska Native	Asian	
	Black or African American	Native Hawaiian/Other Pacific Islander	
	White		

Event Information [HELP](#)

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

Date Specimen Collected*: 11/23/2008

Specific Organism Type*: MRSA - MRSA

Outpatient>: N - No

Specimen Source*: WOUNDSPC - Specimen from wound

Date Admitted to Facility*: 11/04/2008

Location*: INMEDCC - IN:ACUTE:CC:M

Date Admitted to Location*: 11/01/2008

Documented prior evidence of previous infection or colonization with this specific organism type?: N - No

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

Custom Fields [HELP](#)

Comments [HELP](#)

[Edit](#) [Delete](#) [Back](#)



LabID Event (2)



NHSN - National Healthcare Safety Network (1SD-CLFT-NHSN1) | NHSN Home | My Info | Contact us | Help | Log Out

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MDRO and CDAD Prevention Process and Outcome Measures Monthly Monitoring

Save of Summary Data successful.

[HELP](#)

Mandatory fields marked with *

[Print PDF Form](#)

Facility ID*: 10312 (Pleasant Valley Hospital)
Location Code*: INMEDCC - IN:ACUTE:CC:M
Month*: November
Year*: 2008

General

Setting: Inpatient Patient Days*: 533 Admissions*: 30
Setting: Outpatient (or Emergency Room) Encounters:

MDRO & CDAD Infection Surveillance or LabID Event Reporting

Specific Organism Type	MDR-Acinetobacter	C. difficile	MDR-Klebsiella	MRSA	VRE
Infection Surveillance					
LabID Event				*X	

Progress Measures:





Categorization of LabID Events



NHSN Application Categorizes LabID Events as:

- Community-Onset (CO): LabID Event collected as an outpatient or as an inpatient ≤ 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)



LabID Event Reporting Analysis



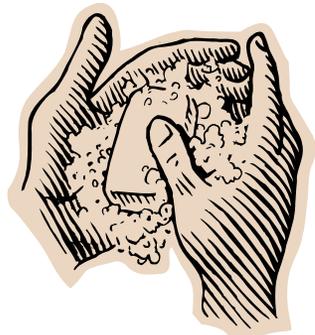
Specific Metrics	Exposure	Infection	Acquisition
Admission Prevalence Rate	✓		
Overall Prevalence Rate	✓		
Bloodstream Infection Admission Prevalence Rate	✓	✓	
Bloodstream Infection Incidence or Incidence Density Rate		✓	✓
Overall MDRO Infection/Colonization Incidence Rate			✓
Overall MDRO Infection/Colonization Incidence Density Rate			✓
CDI Incidence Rate			✓
CDI Healthcare Facility-Onset Incidence Rate			✓
CDI Combined Incidence Rate			✓



Prevention Process Measures Surveillance



- 1) Monitoring Adherence to Hand Hygiene
- 2) Monitoring Adherence to Gown and Gloves Use as Part of Contact Precautions
- 3) Monitoring Adherence to Active Surveillance Testing (for MRSA & VRE only)





Adherence to Prevention Process Measures



- Required Minimum Reporting - if chosen:
 - a) **HH**: at least 30 unannounced observations after HCW contact with patient or objects near patient
 - b) **GG**: at least 30 unannounced observations during HCW contact with patient or objects near patient
 - c) **AST**: conducted on patient admission or admission & discharge for MRSA and/or VRE only
 - At least one selected location in the healthcare facility (suggest same location selected for Infection Surveillance or LabID Event reporting)
 - At least one month in a calendar year
- Reporting Methods: Selected locations only
- Settings: Inpatient and Outpatient (for HH) locations



Process Measures Reporting



MDRO and CDAD Prevention Process and Outcome Measures Monthly Monitoring

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

Page 1 of 2

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

Facility ID #: 9999 *Month: 8 *Year: 2008 *Location Code: SICU

Setting: Inpatient **Days[§]: 120 ** Admissions[§]: 7

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	X	<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"/>	<input type="checkbox"/>

Process Measures (Optional)

Hand Hygiene

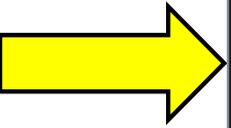
** Performed: 24

** Indicated: 30

Gown and Gloves

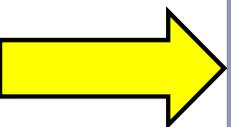
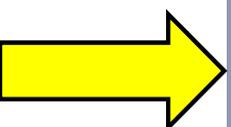
** Used: 27

** Indicated: 30





Process Measures Reporting (2)



<u>Active Surveillance Testing (AST)</u>					
** Active Surveillance Testing performed (check all that apply)	X	<input type="checkbox"/>			
** Timing of AST † (circle one)	Adm Both	Adm Both			
** AST Eligible Patients ‡ (circle one)	All NHx	All NHx			
<u>Admission AST</u>					
** Performed	6				
** Eligible	7				
<u>Discharge/Transfer AST</u>					
** Performed					
** Eligible					

§ If Location Code = All and Organization = All, then include NICU Patient Days and Admissions





Process Measures Adherence Analysis



Adherence Rate to Process Measures

$$= \frac{\text{\# Performed or Used}}{\text{\# Indicated or Eligible}} \times 100$$

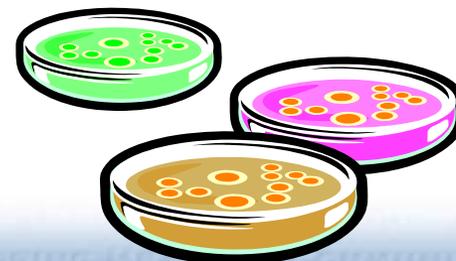


AST Outcomes Measures



Purpose: To allow facilities to more accurately quantify exposure burden and/or healthcare acquisition of MRSA and/or VRE:

- Utilize active surveillance testing results
- AST adherence must be performed in the same location (minimum adherence level required to calculate prevalence & incidence)
- Infection Surveillance or LabID Event reporting is also recommended in the same location for the same organism





AST Outcomes Measures



- Required Minimum Reporting - if chosen:
 - Prevalent and/or incident cases of MRSA or VRE
 - At least one selected location in the healthcare facility
 - At least one month in a calendar year
 - Same location where AST Adherence Process Measures are being performed
- Reporting Methods: Selected locations only
- Settings: Inpatient locations





AST Outcome Measures Definitions



- **AST Admission Prevalent Case**
 - Known Positive
 - Patient with documented MRSA or VRE colonization or infection in previous 12 months ~~OR~~
 - Admission AST or Clinical Positive
 - Patient with MRSA or VRE isolated from specimen collected on admission (≤ 3 days).

- **AST Incident Case**
 - Patient with stay > 3 days
 - With no documented MRSA or VRE in previous 12 months or on admission (≤ 3 days)
 - With MRSA or VRE isolated from specimen collected > 3 days after admission or at time of discharge/transfer



AST Outcome Measures Reporting



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

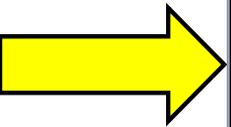
Facility ID #: 9999 *Month: 8 *Year: 2008 *Location Code: SICU

Setting: Inpatient **Days[§]: 120 ** Admissions[§]: 7

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	X	<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"/>	<input type="checkbox"/>





AST Outcome Measures Reporting (2)



Active Surveillance Testing (AST)					
**Active Surveillance Testing performed (check all that apply)	X	<input type="checkbox"/>			
**Timing of AST † (circle one)	Adm Both	Adm Both			
**AST Eligible Patients † (circle one)	All NHx	All NHx			
Admission AST					
** Performed	6				
** Eligible	7				
Discharge/Transfer AST					
** Performed					
** Eligible					

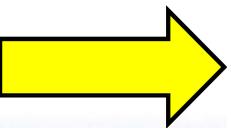
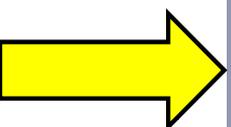
§ If Location Code = ALL and Organism = C. difficile, include NICU Patient Days and Admissions

Prevalent Cases

(Specific Organism Type)	MRSA	VRE	MDR- <i>Klebsiella</i>	MDR - <i>Acinetobacter</i>	<i>C.difficile</i>
** AST/Clinical Positive	3				
** Known Positive	---				

Incident Cases:

** AST/Clinical Positive					
--------------------------	--	--	--	--	--





AST Outcome Measures Analysis



AST Admission Prevalence

$$= \frac{\text{\# of Admission AST/Clinical/Known Positives}}{\text{\# of Admissions}}$$

AST Incidence / Direct Acquisition

$$= \frac{\text{\# of Discharge/Transfer AST and New Clinical Positives} \times 100}{\text{\# of Patient-Days}}$$



Analysis in the
MDRO and CDAD Module



1) Generate a Dataset

CDC 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

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Generate Data Sets

[? HELP](#)

Generate Patient Safety Analysis Data Sets

	Date Last Generated	Action
	Mar 6 2009 4:30PM	Generate New

The data set generation process will take several minutes. Do not logoff or close this window while the process is running. You may minimize the browser window and work in other applications while you wait.

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- Analysis**
 - [Generate Data Sets](#)
 - [Output Options](#)
- Surveys
- Users
- Facility
- Group
- Log Out



2) Choose Output Options



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

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Patient Safety Component

Analysis Output Options

- Device-Associated Module
- Procedure-Associated Module
- Medication-Associated Module
- MDRO/CDAD Module - Infection Surveillance
- MDRO/CDAD Module - LABID Event Reporting
- MDRO/CDAD Module - Process Measures
- MDRO/CDAD Module - Outcome Measures
- High Risk Inpatient Influenza Vaccination Module
- Advanced
- My Custom Output
- Published Output

Navigation Menu:

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3) Choose Reporting Option and Organism



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

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Patient Safety Component

Analysis Output Options

Expand All Collapse All

- Device-Associated Module
- Procedure-Associated Module
- Medication-Associated Module
- MDRO/CDAD Module - Infection Surveillance
 - All MRSA HAI
 - CDC Defined Output
 - Line Listing for All MRSA HAI [Run] [Modify]
 - Frequency Table for All MRSA HAI [Run] [Modify]
 - Bar Chart for All MRSA HAI [Run] [Modify]
 - Pie Chart for All MRSA HAI [Run] [Modify]
 - Rate Table for MRSA HAI Data by Location [Run] [Modify]
 - All MSSA HAI
 - All C. difficile HAI

Navigation Menu: NHSN Home, Reporting Plan, Patient, **Event**, Procedure, Summary Data, Analysis (Generate Data Sets, Output Options), Surveys, Users, Facility, Group, Log Out



4) Basic Run Options – Line Listing



National Healthcare Safety Network

Line Listing - All MRSA HAI

As of: March 9, 2009 at 5:09 PM

Date Range: All MDRO_EVENTS

orgID	eventID	eventType	centralLine	urinaryCath	ventUsed	postProc	spcEvent	admitDate	eventDate	location	mrsa	mssa	vrc	acine	kleb	cdf
10312	13017	REPR					EMET	01/15/2008	01/23/2008	INHONCSA	Y	N	N	N	N	N
10312	13027	SST					DECU	01/12/2008	01/23/2008	INHONCSA	Y	N	N	N	N	N
10312	13029	SST					DECU		01/15/2008	INHONCSA	Y	N	N	N	N	N
10312	13048	REPR				N	OREP	01/25/2008	01/30/2008	INSURGCC	Y	N	N	N	N	N
10312	13133	SST					DECU	01/15/2008	01/24/2008	PEDMEDSURG	Y	N	N	N	N	N
10312	13216	BSI	N				LCBI	10/29/2008	11/12/2008	INMEDCC	Y	N	N	N	N	N
10312	13221	SST					DECU	11/09/2008	11/27/2008	INMEDCC	Y	N	N	N	N	N
10312	13474	SST				N	DECU	11/09/2008	11/12/2008	INMEDCC	Y	N	N	N	N	N
10312	13561	BSI	N				LCBI	10/07/2008	10/23/2008	INMSCC	Y	N	N	N	N	N
10312	13563	SST					SKIN	10/14/2008	10/16/2008	INMEDWARD	Y	N	N	N	N	N
10312	13944	BSI	Y			N	LCBI	11/15/2008	12/01/2008	INBMTSCA	Y	N	N	N	N	N
10312	13950	BJ				N	BONE	11/30/2008	12/05/2008	INBMTSCA	Y	N	N	N	N	N
10312	13973	SST					BURN		12/13/2008	INIFMWARD	Y	N	N	N	N	N
10312	13977	LRI				N	LUNG		12/12/2008	INGIWARD	Y	Y	Y	Y	Y	N
10312	13995	EENT				N	UR	12/12/2008	12/16/2008	INENTWARD	Y	N	N	Y	Y	N
10312	13997	EENT				N	UR	12/16/2008	12/17/2008	INENTWARD	Y	Y	Y	Y	Y	N
10312	14106	UTI		N			SUTI	12/01/2008	12/12/2008	INGIWARD	Y	N	N	N	N	N
10312	14290	SSI					BONE	05/10/2008	05/15/2008	INORTWARD	Y	N	N	N	N	N
10312	14293	BSI	N				LCBI	02/28/2008	03/02/2008	INCARDCC	Y	N	N	N	N	N

Sorted by orgID eventID

Data contained in this report were last generated on March 6, 2009 at 4:30 PM.



5) Basic Run Options – Frequency Tables



National Healthcare Safety Network

Frequency Table - All MRSA HAI

As of: March 9, 2009 at 5:14 PM

Date Range: All MDRO_EVENTS

orgID=10312

Frequency Row Pct	Table of location by eventType								
	location	eventType							Total
	BJ	BSI	EENT	LRI	REPR	SSI	SST	UTI	
INBMTSCA	1 50.00	1 50.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	2
INCARDCC	0 0.00	1 100.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	1
INENTWARD	0 0.00	0 0.00	2 100.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	2
INGIWARD	0 0.00	0 0.00	0 0.00	1 50.00	0 0.00	0 0.00	0 0.00	1 50.00	2
INHONCSA	0 0.00	0 0.00	0 0.00	0 0.00	1 33.33	0 0.00	2 66.67	0 0.00	3
INIFMWARD	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	1 100.00	0 0.00	1
INMEDCC	0 0.00	1 33.33	0 0.00	0 0.00	0 0.00	0 0.00	2 66.67	0 0.00	3
INMEDWARD	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	1 100.00	0 0.00	1
INMSCC	0 0.00	1 100.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	1
INORTWARD	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	1 100.00	0 0.00	0 0.00	1
INSURGCC	0 0.00	0 0.00	0 0.00	0 0.00	1 100.00	0 0.00	0 0.00	0 0.00	1
PEDMEDSURG	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	1 100.00	0 0.00	1
Total	1	4	2	1	2	1	7	1	19

Data contained in this report were last generated on March 6, 2009 at 4:30 PM.

National Healthcare Safety Network

Frequency Table - All MRSA LabID Events

As of: March 9, 2009 at 5:17 PM

Date Range: All LABID_EVENTS

orgID=10312

Frequency Row Pct	Table of specimenSource by onset			
	specimenSource	onset		Total
	CO	HO		
BLDSPC	6 40.00	9 60.00	15	
BONESPC	0 0.00	1 100.00	1	
PUS	3 42.86	4 57.14	7	
SKINSORE	1 100.00	0 0.00	1	
SPUTUM	2 22.22	7 77.78	9	
SRGEXSPC	1 50.00	1 50.00	2	
ULCERSPC	0 0.00	1 100.00	1	
URINE	1 100.00	0 0.00	1	
WOUNDSPC	5 41.67	7 58.33	12	
Total	19	30	49	

Data contained in this report were last generated on March 6, 2009 at 4:30 PM.



6) Basic Run Options – Pie or Bar Charts



National Healthcare Safety Network

Pie Chart – All MRSA HAI

As of: March 9, 2009 at 5:22 PM

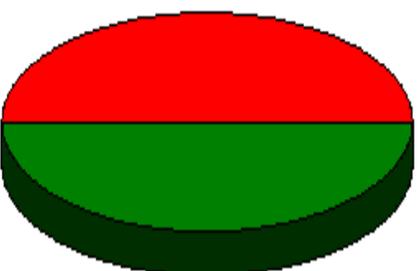
Date Range: All MDRO_EVENTS

orgID= 10312

FREQUENCY of eventType

location= INBMTSCA

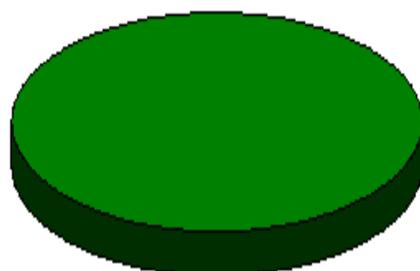
BJ
1
50%



BSI
1
50%

location= INCARDCC

BSI
1
100%



National Healthcare Safety Network

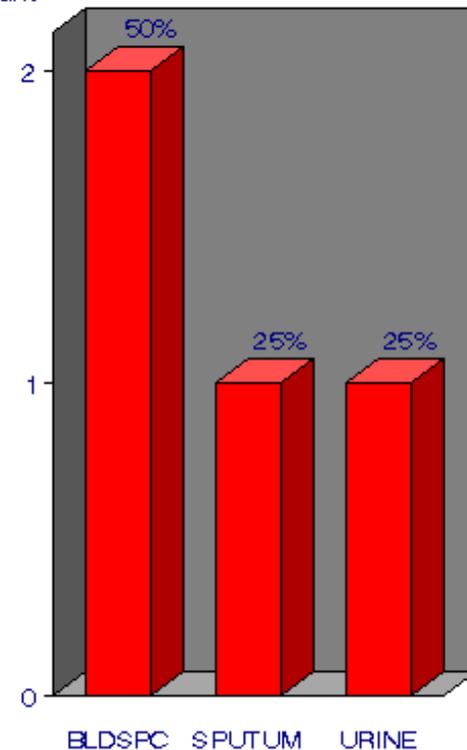
Bar Chart – All MRSA LabID Events

As of: March 9, 2009 at 5:21 PM

Date Range: All LABID_EVENTS

orgID= 10312 location= INCARDCC

Count



specimenSource



7) Basic Run Options – Rate Tables



National Healthcare Safety Network Rate Table - All MRSA HAI by Location

As of: March 9, 2009 at 5:28 PM

Date Range: All MDRO_RATES

orgID=10312 locCDC=IN:ACUTE:CC:C

location	summaryYM	MRSACount	numPatDays	MRSARate
INCARDCC	2008M02	0	312	0.0
INCARDCC	2008M03	1	312	3.2

Source of aggregate data: Not available

Data contained in this report were last generated on March 6, 2009 at 4:30 PM.

National Healthcare Safety Network Rate Table - All MRSA HAI by Location

As of: March 9, 2009 at 5:28 PM

Date Range: All MDRO_RATES

orgID=10312 locCDC=IN:ACUTE:CC:M

location	summaryYM	MRSACount	numPatDays	MRSARate
INMEDCC	2008M01	0	743	0.0
INMEDCC	2008M03	0	723	0.0
INMEDCC	2008M05	0	2000	0.0
INMEDCC	2008M08	0	66	0.0
INMEDCC	2008M11	3	533	5.6

National Healthcare Safety Network Rate Table - All MRSA LabID Events by Location

As of: March 9, 2009 at 5:30 PM

Date Range: All LABID_RATESMRSA

orgID=10312 locCDC=' '

summaryYM	location	MRSA_admPrevCount	numAdms	MRSA_admPrevRate
2007M01	ALL-IN	0	350	0.0
2008M06	ALL-IN	0	120	0.0
2008M11	ALL-IN	1	658	0.2

Source of aggregate data: Not available

Data contained in this report were last generated on March 6, 2009 at 4:30 PM.

National Healthcare Safety Network Rate Table - All MRSA LabID Events by Location MDRO Exposure Burden - Inpatient MRSA Admission Prevalence Rate

As of: March 9, 2009 at 5:30 PM

Date Range: All LABID_RATESMRSA

orgID=10312 locCDC=IN:ACUTE:CC:C

summaryYM	location	MRSA_admPrevCount	numAdms	MRSA_admPrevRate
2008M02	INCARDCC	1	23	4.3
2008M03	INCARDCC	0	23	0.0
2008M06	INCARDCC	0	10	0.0
2008M11	INCARDCC	1	23	4.3



Process Measures – HH & GG Adherence



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

Patient Safety Component Analysis Output Options

- NHSN Home
- Reporting Plan
- Patient
- Event
- Procedure
- Summary Data
- Analysis**
 - Generate Data Sets
 - Output Options
- Surveys
- Users
- Facility
- Group
- Log Out

- Device-Associated Module
- Procedure-Associated Module
- Medication-Associated Module
- MDRO/CDAD Module - Infection Surveillance
- MDRO/CDAD Module - LABID Event Reporting
- MDRO/CDAD Module - Process Measures
 - Specific Process Measures
 - CDC Defined Output
 - Rate Table for Hand Hygiene Adherence
 - Rate Table for Gown/Glove Adherence
 - All MRSA AST Process Measures
 - All VRE AST Process Measures
- MDRO/CDAD Module - Outcome Measures
- High Risk Inpatient Influenza Vaccination Module
- Advanced



HH & GG – Percent Adherence



National Healthcare Safety Network Rate Table - All Hand Hygiene Adherence by Location

As of: March 17, 2009 at 10:48 AM
Date Range: All HH_RATESMDRO

orgID=10312 loccdc=IN:ACUTE:CC:C

location	summaryYM	hhPerformed	hhIndicated	HH_adhRate
INCARDCC	2008M03	25	30	83.3
INCARDCC	2008M06	40	45	88.9

Source of aggregate data: Not available
Data contained in this report were last generated on March 11, 2009 at 3:25 PM.

National Healthcare Safety Network Rate Table - All Hand Hygiene Adherence by Location

As of: March 17, 2009 at 10:48 AM
Date Range: All HH_RATESMDRO

orgID=10312 loccdc=IN:ACUTE:CC:M

location	summaryYM	hhPerformed	hhIndicated	HH_adhRate
INMEDCC	2008M05	32	44	72.7
INMEDCC	2008M09	25	30	83.3

National Healthcare Safety Network Rate Table - All Gown/Glove Adherence by Location

As of: March 10, 2009 at 9:52 AM
Date Range: All GG_RATESMDRO

orgID=10312 loccdc=IN:ACUTE:CC:C

location	summaryYM	ggUsed	ggIndicated	GG_adhRate
INCARDCC	2008M03	27	30	90
INCARDCC	2008M06	35	66	53

Source of aggregate data: Not available
Data contained in this report were last generated on March 10, 2009 at 9:42 AM.

National Healthcare Safety Network Rate Table - All Gown/Glove Adherence by Location

As of: March 10, 2009 at 9:52 AM
Date Range: All GG_RATESMDRO

orgID=10312 loccdc=IN:ACUTE:CC:M

location	summaryYM	ggUsed	ggIndicated	GG_adhRate
INMEDCC	2008M05	35	66	53
INMEDCC	2008M09	26	30	86.7



Modify - Output Options



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

Patient Safety Component

Analysis Output Options

- Device-Associated Module
- Procedure-Associated Module
- Medication-Associated Module
- MDRO/CDAD Module - Infection Surveillance
- MDRO/CDAD Module - LABID Event Reporting
 - All LabID Events
 - All MRSA LabID Events
 - All MSSA LabID Events
 - All C. difficile LabID Events
 - CDC Defined Output
 - Line Listing for All CDIF LabID Events
 - Frequency Table for All CDIF LabID Events
 - Bar Chart for All CDIF LabID Events
 - Pie Chart for All CDIF LabID Events
 - Rate Table for CDIF LabID Data by Location

- NHSN Home
- Reporting Plan
- Patient
- Event
- Procedure
- Summary Data
- Analysis**
 - Generate Data Sets
 - Output Options
- Surveys
- Users
- Facility
- Group
- Log Out



Modify – Line Listing



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

Line Listing

Analysis Data Set: LabID_Events

Modify Attributes of the Output:

Last Modified On: 03/11/2009

Output Type:

Output Name:

Output Title:

Select output format:

Output Format:

Use Variable Labels

Select a time period or Leave Blank for Cumulative Time Period:

Date Variable: Beginning: Ending:

Enter Date variable/Time period

Specify Other Selection Criteria:

[Show Criteria](#) [Column +](#) [Row +](#)

cdif	= Y

Other Options:

Modify Variables To Display By Clicking:

Specify Sort Variables By Clicking:

Select Page by variable:

Select Variables to include in Line Listing:

Available Variables

- mdrolncompleteFlag
- mdrolnPlan
- modifyDate
- modifyUserID
- mrsa
- mssa
- onsetDesc
- orgID
- patDischarge
- patGName
- patMName
- patRaceAAB
- patRaceAMIN
- patRaceASIAN
- patRaceNH_PI
- patRaceWHITE
- patSurname
- prevDisMons
- spcOrgType
- specDateYH
- specDateYM
- specDateYQ
- specDateYr
- specimenSource
- specimenSourceDes
- ssn
- vre

Selected Variables

- patID
- eventID
- location
- outpatient
- prevPos
- onset
- cdiAssay
- admitDate
- locationAdmitDate
- specimenDate

>>

All >>

<<

All <<

Up

Down



Modify – Line Listing Output



National Healthcare Safety Network

Line Listing - All CDIF LabID Events

As of: March 17, 2009 at 11:17 AM

Date Range: LABID_EVENTS specimenDate 01/01/2008 to 12/31/2008

patID	eventID	location	outpatient	prevPos	onset	cdiAssay	admitDate	locationAdmitDate	specimenDate
B-107	13032	INMEDCC	N	N	HO	Incident	09/01/2008	09/01/2008	09/09/2008
DS0825	14666	OUTOCCCL	Y	N	CO	Incident	.	.	02/03/2008
DS0825	14667	OUTOCCCL	Y	Y	CO	Recurrent	.	.	02/25/2008
DS0825	14668	OUTGICL	Y	Y	CO		.	.	02/28/2008
DS0826	14670	OUTGICL	Y	N	CO-HCFA	Incident	.	.	02/05/2008
DS0826	14671	OUTOCCCL	Y	N	CO-HCFA		.	.	02/10/2008
DS0826	14672	OUTGICL	Y	Y	CO		.	.	02/23/2008
DS0827	14673	OUTOCCCL	Y	N	CO	Incident	.	.	02/17/2008
DS0828	14674	OUTGICL	Y	Y	CO	Incident	.	.	02/13/2008
DS0828	14675	OUTOCCCL	Y	Y	CO	Recurrent	.	.	02/28/2008
DS1213	14571	INSURGCC	N	N	CO	Incident	10/05/2008	10/05/2008	10/07/2008
DS1314	14572	INSURGCC	N	N	HO	Incident	10/03/2008	10/17/2008	10/19/2008
DS1514	14573	INMEDCC	N	N	CO	Incident	09/22/2008	09/22/2008	09/23/2008
DS1615	14574	INMEDCC	N	N	HO	Incident	09/06/2008	09/16/2008	09/18/2008
DS1716	14575	INGIWARD	N	N	CO-HCFA	Incident	07/20/2008	07/21/2008	07/21/2008
DS1817	14576	INMEDCC	N	Y	CO-HCFA	Incident	09/10/2008	09/11/2008	09/12/2008
DS9876	14320	INSURGCC	N	N	HO	Incident	10/05/2008	10/07/2008	10/23/2008
ET100	14428	INGIWARD	N	N	HO	Incident	07/01/2008	07/01/2008	07/06/2008
ET100A	14431	INGIWARD	N		HO	Incident	01/15/2008	01/15/2008	01/26/2008
ET101F1	14426	INGIWARD	N		HO	Incident	06/01/2008	06/01/2008	06/06/2008
ET102	14499	INMEDWARD	N	N	HO	Incident	04/10/2008	04/10/2008	04/29/2008
ET102T2	14494	INMEDWARD	N	N	HO	Incident	05/01/2008	05/01/2008	05/10/2008
ET102T2	14496	INMEDWARD	N	Y	HO	Recurrent	05/01/2008	05/01/2008	05/25/2008
ET102T2	14497	INMEDWARD	N	Y	HO	Recurrent	05/01/2008	05/01/2008	06/10/2008
ET117A	14097	INENTWARD	N	N	HO	Incident	12/01/2008	12/01/2008	12/12/2008
MS124	14344	OUTOCCCL	Y	N	CO	Incident	.	.	02/14/2008
MS129	14372	INGIWARD	N		HO	Recurrent	04/25/2008	04/25/2008	05/25/2008
MS129	14374	INGIWARD	N		HO	Incident	04/25/2008	04/25/2008	04/29/2008
RP1234	13473	OUTGICL	Y	Y	CO-HCFA	Incident	.	.	11/20/2008
RP1234	14364	OUTGICL	Y	Y	CO	Recurrent	11/10/2008	.	12/06/2008

Sorted by orgID patID

Data contained in this report were last generated on March 11, 2009 at 3:25 PM.

Any C. diff LabID Event with a blank cdiAssay field indicates that it is related to a previous defining Event in a different location.



Modify – Rate Table



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

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

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Logged into Pleasant Valley Hospital (ID 10312) as [DSYBCKT](#).
Facility Pleasant Valley Hospital (ID 10312) is following the PS component.

Analysis Rate Table

Analysis Data Set: LABID_RatesMRSA [Export Analysis Data Set](#)

Modify Attributes of the Output:

Last Modified On: **03/06/2009**

Output Type:

Output Name:

Output Title:

Select output format:

Output Format:

Choose page Orientation: Portrait Landscape

Use Variable Labels

Select a time period or Leave Blank for Cumulative Time Period:

Date Variable Beginning Ending [Clear Time Period](#)

Enter Date variable/Time period at the time you click the Run button

Specify Other Selection Criteria:

[Show Criteria](#) [Column +](#) [Row +](#) [Clear Criteria](#)

location				
= INMEDCC				

Other Options:

Group by:

Show Histogram

[Print Variable Reference List](#)



Modify – Rate Table Output



Summary Mon/Yr	Location	MRSA Admission Prevalence LabID Count	Admissions	MRSA Admission Prevalence Rate
2008M03	INMEDCC	1	32	3.1
2008M05	INMEDCC	0	422	0.0
2008M11	INMEDCC	0	30	0.0

Summary Mon/Yr	Location	MRSA Blood Admission Prevalence LabID Count	Admissions	MRSA BSI Admission Prevalence Rate
2008M03	INMEDCC	0	32	0.0
2008M05	INMEDCC	0	422	0.0
2008M11	INMEDCC	0	30	0.0

Summary Mon/Yr	Location	MRSA CO Admission Prevalence LabID Count	MRSA Admission Prevalence LabID Count	MRSA Percent Admission Prevalence/Community-Onset
2008M03	INMEDCC	0	1	0.0
2008M05	INMEDCC	0	0	.
2008M11	INMEDCC	0	0	.

Summary Mon/Yr	Location	MRSA Blood Incident LabID Count	Admissions	MRSA BSI Incidence Rate
2008M03	INMEDCC	0	32	0.0
2008M05	INMEDCC	0	422	0.0
2008M11	INMEDCC	1	30	3.3

Summary Mon/Yr	Location	MRSA HO Admission Prevalence LabID Count	MRSA Admission Prevalence LabID Count	MRSA Percent Admission Prevalence/Healthcare Facility-Onset
2008M03	INMEDCC	1	1	100.0
2008M05	INMEDCC	0	0	.
2008M11	INMEDCC	0	0	.

Summary Mon/Yr	Location	MRSA Blood Incident LabID Count	Patient Days	MRSA BSI Incidence Density Rate
2008M03	INMEDCC	0	723	0.0
2008M05	INMEDCC	0	2000	0.0
2008M11	INMEDCC	1	533	1.9

Summary Mon/Yr	Location	MRSA LabID Count	Admissions	Overall MRSA Prevalence Rate
2008M03	INMEDCC	1	32	3.1
2008M05	INMEDCC	0	422	0.0
2008M11	INMEDCC	3	30	10.0

Summary Mon/Yr	Location	MRSA Incident LabID Count	Patient Days	Overall MRSA Infection/Colonization Incidence Density Rate
2008M03	INMEDCC	0	723	0.0
2008M05	INMEDCC	0	2000	0.0
2008M11	INMEDCC	3	533	5.6



Summary Review



- NHSN enrollment, digital certificate, facility-location set-up.
- Complete Monthly Reporting Plan.
- Choose Infection Surveillance and/or LabID Event Reporting.
- Choose from any Optional Process or Outcomes Measures.
- Report into Module for at least 3 months in a calendar year.
 - Consecutive months required for LabID Event reporting.
- Report into NHSN for at least 6 months in a calendar year.
 - = “Active Participant”



NHSN Reference



Home Page:

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