



SSI Workshop PART 2: SSI Surveillance and Reporting Protocols

March 2011



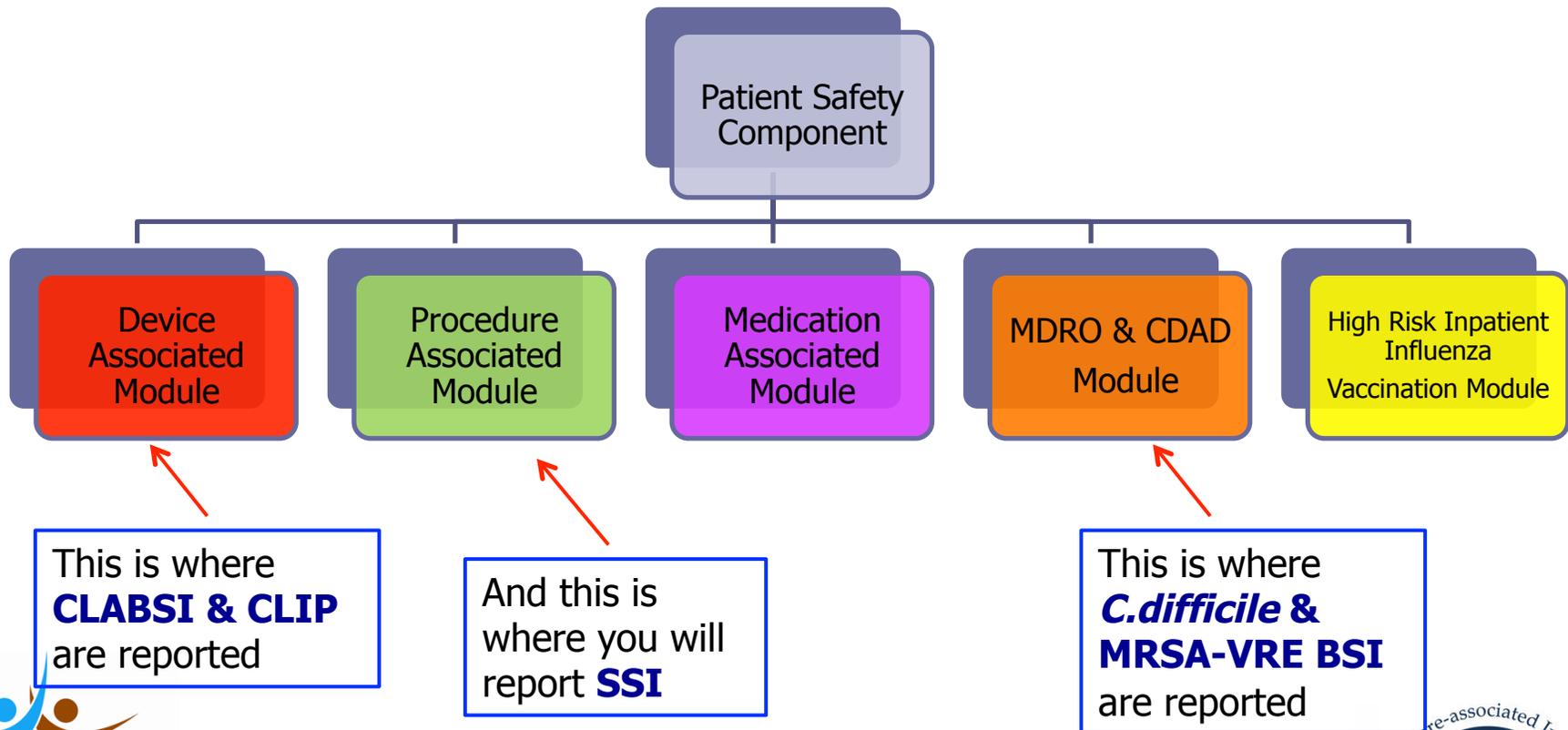
HAI Liaison Program
Healthcare-Associated Infections Program
Center for Health Care Quality
California Department of Public Health

Section Objectives

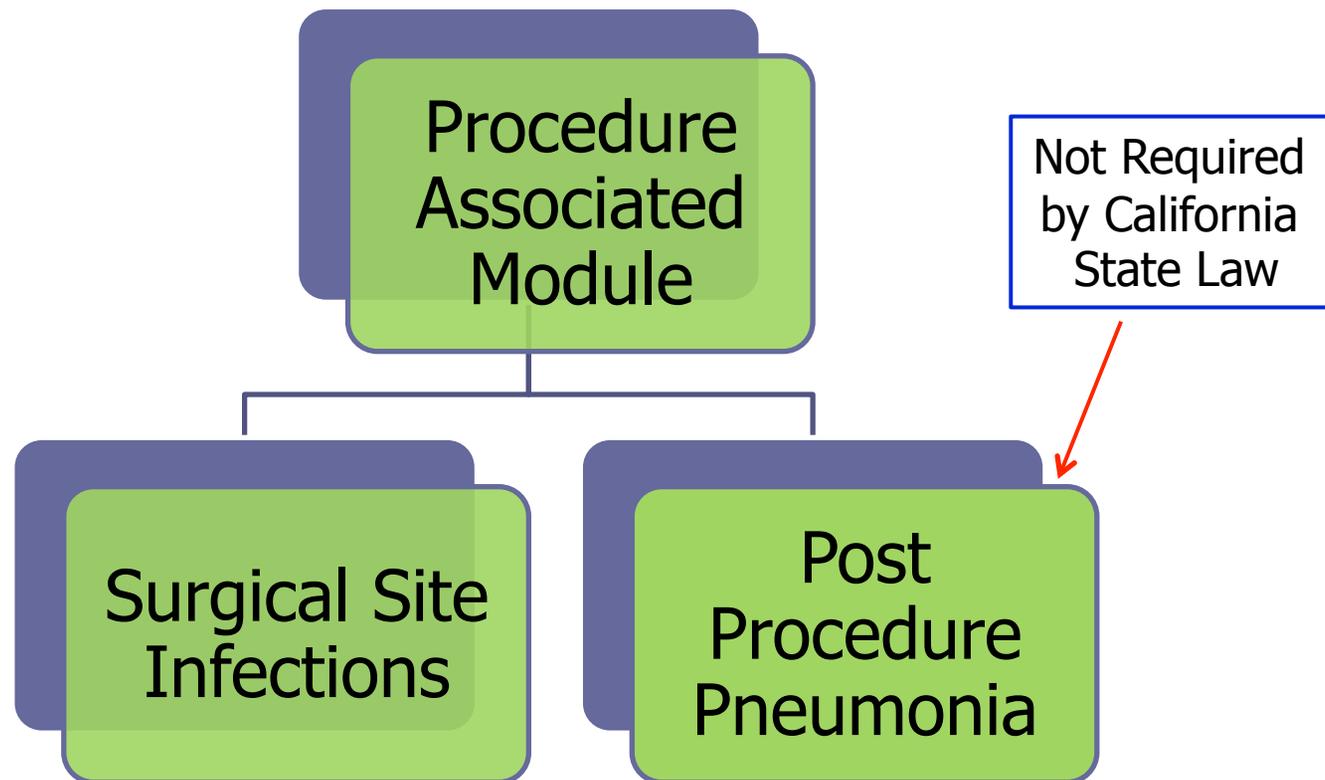
- Demonstrate NHSN Monthly Reporting Plan set up
 - For Procedure-associated SSI Module
- Demonstrate data entry for NHSN procedure data
 - Discuss data import options (e.g. CSV file upload)
- Review NHSN key terms and SSI definitions
- Review NHSN data collection forms and data entry requirements



National Healthcare Safety Network (NHSN)



Procedure –associated Module Components



Procedure-associated Module Protocol

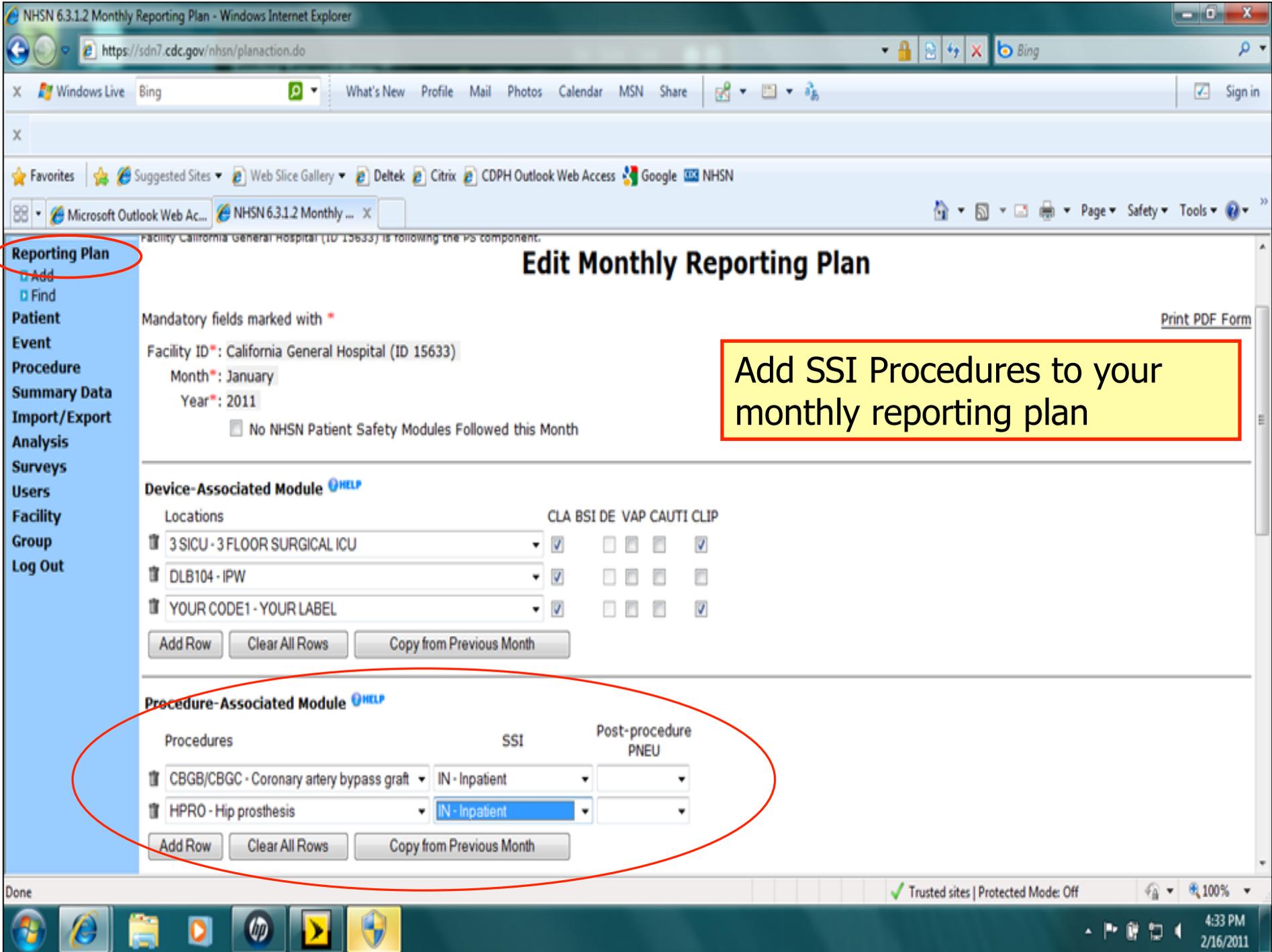
- First, choose which procedures will be monitored (*must select 2*)
 - CABG (CBGB & CBGC)
 - Hip prosthesis (HPRO)
 - Other based on facility risk assessment (see AFL)
- Reporting required for Inpatient procedures only



Monthly Reporting Plan

- Enter the procedures and events into the Monthly Reporting Plan under Procedure-associated Module
- The reporting plan informs CDC of the surveillance to be performed during a given month and what data to expect





Edit Monthly Reporting Plan

[Print PDF Form](#)

Add SSI Procedures to your monthly reporting plan

Mandatory fields marked with *

Facility ID*: California General Hospital (ID 15633)

Month*: January

Year*: 2011

No NHSN Patient Safety Modules Followed this Month

Device-Associated Module [HELP](#)

Locations	CLA	BSI	DE	VAP	CAUTI	CLIP
3 SICU - 3 FLOOR SURGICAL ICU	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				
DLB104 - IPW	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
YOUR CODE1 - YOUR LABEL	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				

Procedure-Associated Module [HELP](#)

Procedures	SSI	Post-procedure PNEU
CBGB/CBGC - Coronary artery bypass graft	IN - Inpatient	
HPRO - Hip prosthesis	IN - Inpatient	

FACWIDEIN - FacWideIN VRE - VRE

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"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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="text"/>	<input type="text"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

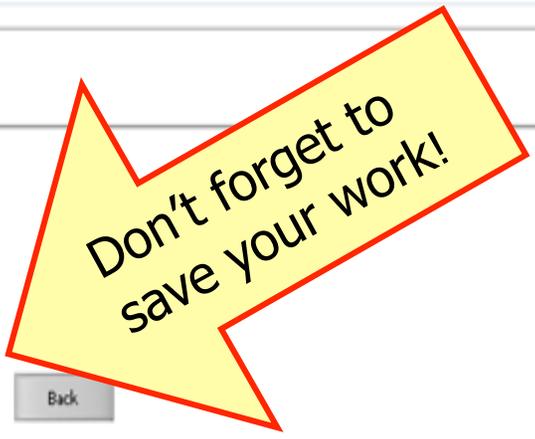
Add Rows Clear All Rows Copy from Previous Month

Patient Influenza Vaccination Module [HELP](#)

Method A:

Method B:

Save Back



Conferring Rights

NHSN 6.3.1.2 Memberships - Windows Internet Explorer

https://sdn7.cdc.gov/nhsn/manageGroups.do?method=showpage&subaction=manageGroups&navReset=true¤tmenu=menu_grp_nomint&NHSNSe

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

NHSN - National Healthcare Safety Network

Logged into California General Hospital (ID 15633) as VICKIKELLER.
Facility California General Hospital (ID 15633) is following the PS component.

Memberships

2 Groups that have access to this facility's data

- CDPH (12528)
- LA County Public Health (15659)

1 Group

Confer Rights

Leave Group(s)

Enter ID and Password for this facility to join a new group

Group ID:

Group Joining Password:

Join Group

Back

Done

Trusted sites | Protected Mode: Off

11:42 AM
2/26/2011

NHSN 6.3.1.2 NHSN Confer Patient Safety Rights - Windows Internet Explorer

https://sdn7.cdc.gov/nhsn/manageGroups.do

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bing News Entertainment Video Sports Money Autos Lifestyle Health 38°F Sign in

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NHSN 6.3.1.2 NHSN Confer Patient Safety Rights Page Safety Tools

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

NHSN - National Healthcare Safety Network NHSN Home | My Info | Contact us | Help | Log Out

NHSN Home Logged into California General Hospital (ID 15633) as VICKIKELLER.
Facility California General Hospital (ID 15633) is following the PS component.

Reporting Plan
Patient
Event
Procedure
Summary Data
Import/Export
Analysis
Surveys
Users
Facility
Group
 Confer Rights
 Join
 Leave
 Nominate
Log Out

Confer Rights-Patient Safety

✓ Please select the rights that group 'CDPH' should have to facility 'California General Hospital'

Patient Safety

General

View Options

Patient	<input type="radio"/> With All Identifiers
	<input checked="" type="radio"/> Without Any Identifiers
	<input type="radio"/> With Specified Identifiers <input type="checkbox"/> Gender <input type="checkbox"/> DOB <input type="checkbox"/> Ethnicity <input type="checkbox"/> Race
Monthly Reporting Plan	<input checked="" type="checkbox"/>
Data Analysis	<input checked="" type="checkbox"/>
Facility Information	<input checked="" type="checkbox"/>

Surveys

Year	Year	Survey Type
2009	to	Facility Survey Data

Done Trusted sites | Protected Mode: Off 100%

11:44 AM 2/26/2011

NHSN 6.3.1.2 NHSN Confer Patient Safety Rights - Windows Internet Explorer

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NHSN 6.3.1.2 NHSN Confer Patient Safety Rights

ADD ROW Clear All Rows

Infections and other Events (Not specific to MDRO/CDAD)

Plan	Month	Year	Month	Year	Event
(All)			to		CLIP - Central Line Insertion Practices
Location type:		Location:			
CC		1 MICU - 1ST FLOOR, NORTH WING, MEDICAL ICU			
(All)			to		BSI - Bloodstream Infection (CLA)
Location type:		Location:			
(ALL)		(ALL)			
			to		

Add Row Clear All Rows Copy Locations to Summary Data Copy Procs to Denominator data

Summary Data for Events

Plan	Month	Year	Month	Year	Location Type	Location
(All)			to		CC	(ALL)
(All)			to		(ALL)	(ALL)

Add Row Clear All Rows

Denominator Data for Events

Plan	Month	Year	Month	Year	Procedure	Setting
			to			

Done Trusted sites | Protected Mode: Off 100%

11:46 AM 2/26/2011

NHSN 6.3.1.2 NHSN Confer Patient Safety Rights - Windows Internet Explorer

https://sdn7.cdc.gov/nhsn/manageGroups.do

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Bing | News Entertainment Video Sports

Favorites | Suggested Sites | Web Slice Gallery | Deltek Citrix CDPH Outlook Web Access Google CDC

NHSN 6.3.1.2 NHSN Confer Patient Safety Rights

Infections and other Events (Not specific to MDRO/CDAD)

Plan	Month	Year	Month	Year	Location type:	Location:
(All)			to		CC	1 MICU - 1ST FLOOR, NORTH WIN
(All)			to		(ALL)	(ALL)
(All)			to			

Buttons: Add Row, Clear All Rows, Copy Locations to Summary Data, Copy Procs to Denominator data

Summary Data for Events

Plan	Month	Year	Month	Year	Location Type	Location
(All)			to		CC	(ALL)
(All)			to		(ALL)	(ALL)

Buttons: Add Row, Clear All Rows

Denominator Data for Events

Plan	Month	Year	Month	Year	Procedure	Setting
			to			

- ALL SSI and PPP
- ALL non-SSI and PPP
- BJ - Bone and Joint Infection
- BSI - Bloodstream Infection (CLA)
- BSI - Bloodstream Infection (non-CLA)
- CLIP - Central Line Insertion Practices
- CNS - Central Nervous System
- CVS - Cardiovascular
- DE - Dialysis Event
- EENT - Eye, Ear, Nose and Throat
- FLUVAX - Influenza Vaccination
- FLUVX - High Risk Influenza Vaccination
- GI - Gastrointestinal
- LRI - Lower Respiratory Infection
- PNEU - Pneumonia (Vent)
- PNEU - Pneumonia (non-Vent)
- PNEU - Pneumonia (Post Procedure)
- REPP - Reproductive Tract
- SSI - Surgical Site Infection**
- SSI - Skin and Soft Tissue
- SYS - Systemic
- UTI - Urinary Tract Infection (Cath)
- UTI - Urinary Tract Infection (non-Cath)

Trusted sites | Protected Mode: Off | 100%

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NHSN 6.3.1.2 NHSN Confer Patient Safety Rights - Windows Internet Explorer

https://sdn7.cdc.gov/nhsn/manageGroups.do

Windows Live Bing | What's New | Profile | Mail | Photos | Calendar | MSN | Share | Sign in

bing | News | Entertainment | Video | Sports | Money | Autos | Lifestyle | Health | 38°F | Sign in

★ Favorites | ★ Suggested Sites | Web Slice Gallery | Delttek | Citrix | CDPH Outlook Web Access | Google | NHSN

NHSN 6.3.1.2 NHSN Confer Patient Safety Rights | Page | Safety | Tools

Infections and other Events (Not specific to MDRO/CDAD)

Plan	Month	Year	to	Month	Year	Event
(All)						CLIP - Central Line Insertion Practices
	Location type:			Location:		
	CC			1 MICU - 1ST FLOOR, NORTH WING, MEDICAL ICU		
(All)						BSI - Bloodstream Infection (CLA)
	Location type:			Location:		
	(ALL)			(ALL)		
(All)						SSI - Surgical Site Infection
	Procedure:			Setting:		

Add Row | Clear All Rows | Copy Locations to Summary Data | Copy Procs to Denominator data

Summary Data for Events

Plan	Month	Year	to	Month	Year	Location Type	Location
(All)						CC	(ALL)
(All)						(ALL)	(ALL)

Add Row | Clear All Rows

Denominator Data for Events

Plan	Month	Year	to	Month	Year	Procedure	Setting
------	-------	------	----	-------	------	-----------	---------

Done | Trusted sites | Protected Mode: Off | 100%

11:49 AM
2/26/2011

The screenshot displays the NHSN 6.3.1.2 interface. A dropdown menu is open, listing various surgical procedures. The 'HPRO - Hip prosthesis' option is highlighted with a red oval. A yellow callout box on the left contains the text: "Choose a surgery you're going to be reporting on from the drop down box". Below the dropdown, a form contains several fields: "Month", "Year", "Event" (set to "CLIP - Central Line Insertion Practices"), "Location" (set to "MICU - 1ST FLOOR, NORTH WING, MEDICAL ICU"), "BSI - Bloodstream Infection (CLA)", "SSI - Surgical Site Infection", and "Setting". A red arrow points from a yellow callout box on the right, which says "Setting is always 'in'", to the "Setting" dropdown. At the bottom, a "Summary Data for Events" table is visible, with columns for Plan, Month, Year, Location Type, and Location. The Windows taskbar at the bottom shows the time as 11:55 AM on 2/26/2011.

(ALL)
AAA - Abdominal aortic aneurysm repair
AMP - Limb amputation
APPY - Appendix surgery
AVSD - AV shunt for dialysis
BILLI - Bile duct, liver or pancreatic surgery
BRST - Breast surgery
CARD - Cardiac surgery
CBGB - Coronary bypass w/ chest & donor incisions
CBGC - Coronary bypass graft with chest incision
CEA - Carotid endarterectomy
CHOL - Gallbladder surgery
COLO - Colon surgery
CRAN - Craniotomy
CSEC - Cesarean section
FUSN - Spinal fusion
FX - Open reduction of fracture
GAST - Gastric surgery
HER - Hemiorrhaphy
HPRO - Hip prosthesis
HTP - Heart transplant
HYST - Abdominal hysterectomy
KPRO - Knee prosthesis
KTP - Kidney transplant
LAM - Laminectomy
LTP - Liver transplant
NECK - Neck surgery
NEPH - Kidney surgery
OVRY - Ovarian surgery

Choose a surgery you're going to be reporting on from the drop down box

Setting is always "in"

Plan	Month	Year	Month	Year	Location Type	Location
(All)			to		CC	(ALL)
(All)			to		(ALL)	(ALL)

NHSN 6.3.1.2 NHSN Confer Patient Safety Rights - Windows Internet Explorer

https://sdn7.cdc.gov/nhsn/manageGroups.do

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Add rows and repeat to confer rights to each or your selected surgeries

(All) Location type: CC Location: 1 MICU - 1ST FLOOR, NORTH WING, MEDICAL ICU CLIP - Central Line Insertion Practices

(All) Location type: (ALL) Location: (ALL) BSI - Bloodstream Infection (CLA)

(All) Procedure: HPRO - Hip prosthesis Setting: In SSI - Surgical Site Infection

(All) Procedure: CBGB - Coronary bypass w/ chest & donor incisions Setting: In SSI - Surgical Site Infection

Add Row Clear All Rows Copy Locations to Summary Data **Copy Procs to Denominator data**

Summary Data for Events

Plan	Month	Year	to	Month	Year	Location Type	Location
(All)			to			CC	(ALL)
(All)			to			(ALL)	(ALL)

Add Row Clear All Rows

Trusted sites | Protected Mode: Off | 100%

11:56 AM 2/26/2011

Add a row for "CBGC" For CABG, add both CBGB & CBGC

When both surgeries in your Reporting Plan, click "Copy Procs to Denominator data"



“Denominator Data for Events” fields will auto populate with same surgeries

NHSN 6.3.1.2 NHSN Confer Patient Safety Rights - Windows Internet Explorer

https://hqn7.cdc.gov/nhsn/manageGroups.do

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NHSN 6.3.1.2 NHSN Confer Patient Safety Rights

HAI Program - Hip prosthesis

(All) - to - SSI - Surgical Site Infection
Setting: In

Procedure: CBGB - Coronary bypass w/ chest & donor incisions

(All) - to - SSI - Surgical Site Infection
Setting: In

Procedure: CBGC - Coronary bypass graft with chest incision

Add Row Clear All Rows Copy Locations to Summary Data Copy Procs to Denominator data

Summary Data for Events

Plan	Month	Year	Month	Year	Location Type	Location
(All)	-	-	to	-	-	(ALL)
(All)	-	-	to	-	(ALL)	(ALL)

Add Row Clear All Rows

Denominator Data for Events

Plan	Month	Year	Month	Year	Procedure	Setting
(All)	-	-	to	-	HPR0 - Hip prosthesis	In
(All)	-	-	to	-	CBGB - Coronary bypass w/ chest & donor incisions	In
(All)	-	-	to	-	CBGC - Coronary bypass graft with chest incision	In

Add Row Clear All Rows

Done Trusted sites | Protected Mode: Off Sunday, March 27, 2011 1:45 PM 3/27/2011

MDRO/CDAD Summary Data (Denominators)

Plan	Month	Year	Month	Year	Location Type	Location
(All)			to		FACWIDE	FACWIDEIN - FacWideIN

Admissions Patient Days Encounters
 C. difficile Admissions C. difficile Patient Days C. difficile Encounters

MDRO/CDAD Process & Outcome Measures

Plan	Month	Year	Month	Year	Location Type	Location
			to			

Process Measures: Hand Hygiene, Gown and Gloves

Organism: MRSA, VRE

AST Process & Outcome Measures: ASTAdm, AST D/T, AST Incidence, AST Prevalence



NHSN Operative Procedures

- Each NHSN operative procedure category consists of a group of ICD-9-CM codes

Example: Hip prosthesis or HPRO = ICD-9 codes:
00.70, 00.71, 00.72, 00.73, 00.85, 00.86, 00.87,
81.51,81.52, 81.53

- When monitoring an NHSN operative procedure category, ALL listed ICD-9 codes within that category must be included



“Procedure” or Denominator Data

- Data for EACH surgical procedure included in your Reporting Plan must be entered each month as the denominator
 - Electronically via vendor-enabled Clinical Document Architecture (CDA) standards
 - Electronically via hospital-developed Comma Separated Variable (CSV) file format
 - Manually



Developing a CSV File to Import Procedure Data

1. Identify where (in what existing systems) the required data fields reside
2. Work with your IT department, OR data system manager, medical records supervisor, and/or others
3. Determine how data elements might be made electronic if not already
4. Learn or seek assistance on how to develop the CSV file (or convert from an excel spreadsheet).

CSV files can be uploaded directly to NHSN





Importing Patient Safety Procedure Data

The NHSN will allow importation of procedure data in an ASCII comma delimited text file format. You can generate the import files from different external sources, such as databases or hospital information systems. The default import option allows the importation of procedures where the procedure date occurs in a month for which a Monthly Reporting Plan exists and the Plan specifies the procedure code in the import file record. If you wish to import records for procedures not in the Plan, you must specify which procedures to include.

Custom procedures can also be imported if they are first created on the custom options page.

Available on the NHSN website under Patient Safety Component "Related Material"
Give this information to your IT department and/or surgical data manager.



SSI Denominator Data

- For manual data entry, complete a Denominator Procedure form for each procedure
- Example: If monitoring HPRO, complete a Denominator for Procedure form for every patient who has a HPRO during the month

Note: Even if developing electronic files to import procedure data, completing forms for initial week(s) will allow you to learn the data elements required



Sources for Denominator Procedure Data

- Operating room record review
- Patient medical record
- OR logs
- ICD9-CM procedure codes
- Make friends with Medical Records if you haven't already!

Not a comprehensive list



SSI Denominator Data

- Some operative procedures have more than one incision
 - Example: CBGB in which an incision to harvest a donor vessel is made that is separate from the primary incision
- Record these procedures only one time
 - There is no separate procedure code for the donor harvest site.



* required for saving

Facility ID:	Procedure #:
*Patient ID:	Social Security #:
Secondary ID:	
Patient Name, Last:	First: Middle:
*Gender: F M	*Date of Birth:
Ethnicity (specify):	Race (specify):
Event Type: PROC	*NHSN Procedure Code:
*Date of Procedure:	ICD-9-CM Procedure Code:
Procedure Details	
*Outpatient: Yes No	*Duration: ____Hours ____Minutes
*Wound Class: C CC CO D U	*General Anesthesia: Yes No
*ASA Score: 1 2 3 4 5	*Emergency: Yes No
*Trauma: Yes No	*Endoscope: Yes No
Surgeon Code: _____	
*Implant: Yes No	*Non-autologous Transplant: Yes No
CSEC:	
*Height: ____feet ____inches (choose one) ____meters	*Weight: ____lbs / kg (circle one)
	*Duration of Labor: ____hours
	*Estimated Blood Loss: ____ml
Circle one: FUSN RFUSN	
*Spinal Level: (check one)	*Diabetes Mellitus: Yes No
<input type="checkbox"/> Atlas-axis	*Approach/Technique: (check one)
<input type="checkbox"/> Atlas-axis/Cervical	<input type="checkbox"/> Anterior
<input type="checkbox"/> Cervical	<input type="checkbox"/> Posterior
<input type="checkbox"/> Cervical/Dorsal/Dorsolumbar	<input type="checkbox"/> Anterior and Posterior
<input type="checkbox"/> Dorsal/Dorsolumbar	<input type="checkbox"/> Lateral transverse
<input type="checkbox"/> Lumbar/Lumbosacral	<input type="checkbox"/> Not specified
<input type="checkbox"/> Not specified	
*HPRO: (check one)	Total Primary Partial Primary Total Revision Partial Revision
*KPRO: (check one)	____Primary (Total) ____Revision (Total or Partial)
Custom Fields	
Label	Label
Comments	

Whether developing a CSV import file or entering procedure data manually, become familiar with the "Denominator Data for Events" fields

Duration

- Record the hours and minutes between the skin incision and skin closure
- Do not record anesthesia time
- If the patient goes to the OR more than once during the same admission and another procedure is performed through the same incision within 24 hours of the original incision, report the combined duration of operation for both procedures



Wound Classification

- **Clean (I)**
Uninfected wound, no inflammation; respiratory, alimentary, genital, or uninfected urinary tracts not entered; primarily closed; closed drainage, if needed.
- **Clean contaminated (II)**
Respiratory, alimentary, genital, or urinary tracts entered under controlled conditions and without unusual contamination; include operations on biliary tract, appendix, vagina, oropharynx.



Wound Classification Cont'd

- Contaminated (III)
Open, fresh, accidental wounds; major breaks in sterile technique or gross spillage from GI tract; includes incisions into acute, nonpurulent inflamed tissue.
- Dirty / Infected (IV)
Old traumatic wounds with retained devitalized tissue and those that involve existing clinical infection or perforated viscera.



ASA* Score

Used to proxy patient co-morbidities or underlying disease

- 1 = Normally healthy patient
- 2 = Patient with mild systemic disease
- 3 = Patient with severe systemic disease that is not incapacitating
- 4 = Patient with an incapacitating systemic disease that is a constant threat to life
- 5 = Moribund patient not expected to survive for 24 hours with or without operation



*American Society of Anesthesiologists



Endoscope

- If the entire operative procedure was performed using an endoscope/laparoscope, select "Yes"
- Otherwise select "No"
- Exception: For CBGB, if the donor vessel was harvested using a laparoscope, select "Yes"



Implant

- A nonhuman-derived implantable foreign body (e.g., prosthetic heart valve, hip prosthesis) permanently placed during an NHSN operative procedure and not routinely manipulated for diagnostic or therapeutic purposes
- Screws, wires, and mesh that are left in place ARE considered implants



Non-autologous Transplant

- Transplant: Human cells, tissues, organs, or cellular- or tissue-based products that are placed in a human recipient via grafting, infusion, or transfer
 - Examples include: heart valves, organs, ligaments, bone, blood vessels, skin, corneas, and bone marrow cells

Select "Yes" ONLY for Non-autologous transplants

- Non-autologous or "allografts" are tissues or other products derived from another human body, either a donor cadaver or a live donor
- Autologous or "autograft" are products that originate from the patient's own body



More Required Fields

- **Emergency**
Nonelective, unscheduled operative procedure
- **Trauma**
Operative procedure performed because of blunt or penetrating injury to patient
- **General anesthesia**
Administration of drugs or gasses that enter the general circulation and affect the central nervous system to render the patient pain-free, amnesic, unconscious, and often paralyzed with relaxed muscles



Surgeon Code

- Optional field
- Select the hospital-assigned code of the surgeon who performed the principal operative procedure

Why monitor by surgeon?

Feedback of surgeon-specific data has been clearly demonstrated to lower SSI rates



Your worksheet is completed -
Now let's put the procedures into the computer



NHSN 6.3.1.2 NHSN Procedure - Windows Internet Explorer

https://sdn7.cdc.gov/nhsn/eventaction_proc.do?method=showpage&mode=add&clear=Y&subaction=procedure&navReset=true¤tmenu=menu_ps_

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Microsoft Outlook Web Ac... NHSN 6.3.1.2 NHSN Pr...

nhsn - national healthcare safety network

NHSN Home Logged into California General Hospital (ID 15633) as VICKIKELLER.
Facility California General Hospital (ID 15633) is following the PS component.

Reporting Plan

Patient

Event

Procedure

- Add
- Find
- Incomplete

Summary Data

Import/Export

Analysis

Surveys

Users

Facility

Group

Log Out

Add Procedure

Mandatory fields marked with *

Fields required when in Plan marked with >

Patient Information HELP

Facility ID*: California General Hospital (ID 15633)

Procedure #: 4278465

Patient ID*:

Secondary ID:

Social Security #:

First Name:

Last Name:

Middle Name:

Gender*:

Date of Birth*:

Ethnicity:

Race: American Indian/Alaska Native Asian
 Black or African American Native Hawaiian/Other Pacific Islander
 White

Procedure Information HELP

NHSN Procedure Code*:

*Print out for a Worksheet**

[Print PDF Form](#)

* Or you may wish to design a data collection form in a table format (Excel)

Done Trusted sites | Protected Mode: Off 100%

5:19 PM 2/16/2011

NHSN 6.3.1.2 NHSN Procedure - Windows Internet Explorer

https://sbn7.cdc.gov/nhsn/eventaction_proc.do

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Home Print Page Safety Tools

Procedure Information [HELP](#)

NHSN Procedure Code*: CRAN - Craniotomy

ICD-9-CM Code:

Procedure Date*:  **Procedure is not Linked**

Procedure Details [HELP](#)

Outpatient*: N - No Duration (Hrs:Mins): 0 :

Wound Class>: General Anesthesia>:

ASA Class>:

Emergency>: Trauma>: Endoscope>:

Surgeon Code:

Implant>: Non-autologous Transplant>:

Custom Fields [HELP](#)

Comments [HELP](#)

Will indicate "linked" if an infection has been entered for this patient ID

Done Trusted sites | Protected Mode: Off 100%

5:21 PM 2/16/2011

Reporting SSI

- Perform surveillance to identify SSI
- Enter SSI Events into the NHSN system



Finding SSI – how?

- Follow NHSN protocols for surveillance
- Evaluate surgical patients during same admission
- Evaluate positive wound cultures
- Work with surgical services and surgical unit staff to develop process for alerting to possible SSI
- Monitor surgical patients for re-admission
- Perform post-discharge surveillance



Examples of SSI Data Sources

- Microbiology reports
- Re-admission of surgical patients
- Infection control rounds on nursing units
- Pharmacy reports for antimicrobial use
- Temperature chart/log
- Operating room report of surgeries
- Post-discharge SSI surveillance methods



Examples of SSI Post-discharge Sources

- Readmissions to **other** hospitals
- Emergency department or clinic records
- Health care system/HMO may have laboratory and pharmacy records for antimicrobial agents
- Surgeon surveys – phone, mail or FAX
- Patient surveys – less reliable



Superficial Incisional SSI

Surveillance Definition

- Infection occurs within 30 days after surgical procedure
- AND**
- Involve only skin and subcutaneous tissue of the incision
- AND**

Patient has at least **1**:

- Purulent drainage from incision
- Organism isolated from incision culture or fluid (obtained aseptically)
- Pain or tenderness
- Localized swelling, redness, or heat
- Incision opened by surgeon and found to be culture positive or was not cultured
- Diagnosis of superficial SSI by surgeon or attending physician



Deep Incisional SSI

Surveillance Definition

Infection occurs within 30 days after surgical procedure if no implant or within 1 year if implant

AND

Involves deep soft tissues of the incision, e.g. fascial & muscle layers

AND

Patient has at least **1**:

Purulent drainage from deep incision but not from the organ/space of the surgical site

Deep incision spontaneously dehisces or opened by surgeon **AND** is culture positive or not cultured **AND** fever $>38^{\circ}\text{C}$, localized pain, or tenderness

Abscess or evidence of deep infection found on direct exam, during reoperation, by histopathologic or radiologic exam

Diagnosis of deep SSI by surgeon or attending physician



Primary vs. Secondary Incisional SSI

- Primary Incisional

A superficial incisional SSI (**SIP**) or deep incisional SSI (**DIP**) identified in the primary incision site for procedures with one incision or more than one incision

Examples: C-section incision (only 1 incision);

Chest incision for CAGB (incision in chest, 2nd in leg)

- Secondary Incisional

A superficial incisional SSI (**SIS**) or deep incisional SSI (**DIS**) identified in the secondary incision site for procedures with one incision or more than 1 incision

Example: leg donor site incision for CBGB



Organ Space SSI

Surveillance Definition

Infection occurs within 30 after surgical procedure if no implant or within 1 year if implant

AND

Involves any part of body that is opened or manipulated during the surgical procedure; excludes skin, fascia, or muscle layers, and subcutaneous tissue of the incision

AND

Patient has at least **1**:

Purulent drainage from drain placed through stab wound into organ/space

Organism isolated from incision culture or fluid (obtained aseptically)

Abscess or evidence of organ/space infection found on direct exam, during reoperation, by histopathologic or radiologic exam



Classifying Organ/Space SSI

- When SSI occurs in an organ or organ space related to the procedure, specific infection sites are assigned to further identify the location of the infection
- Examples
 - Hip Prosthesis (HPRO) with subsequent osteomyelitis would be reported as SSI-BONE
 - CBGB with mediastinitis would be reported as (SSI-MED)



SSI Numerator Data

- Use Surgical Site Infection (SSI) form for each SSI identified during the month
- Indicate the specific site of the SSI
 - SIP
 - DIP
 - SIS
 - DIS
 - Organ/Space (-select site)



Pathogen Data

- List up to 3 pathogens for each SSI identified (in rank order of importance)
- For each pathogen, complete information about antimicrobial susceptibilities
- Only certain bug/drug combinations are required, but up to 20 drugs can be listed with susceptibilities



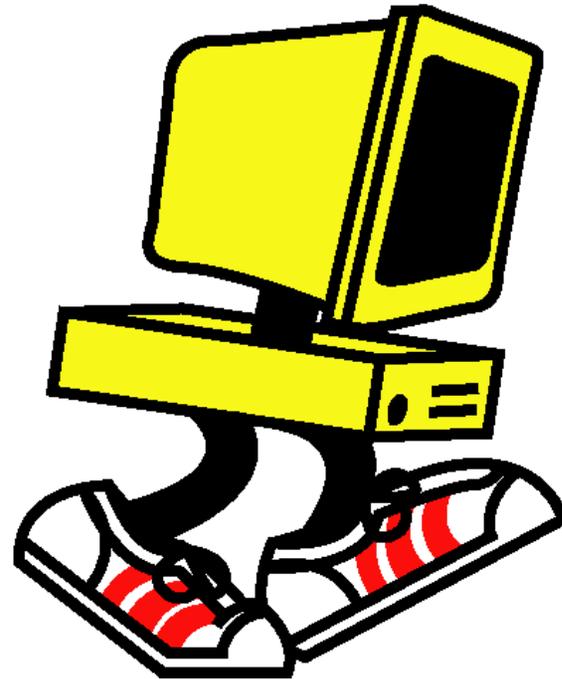
Completed SSI Report Form

 Surgical Site Infection (SSI)		<small>OMB No. 0920-0685 Exp. Date: 09-30-2012</small>
<small>*required for saving **required for completion</small> Facility ID: _____ Event #: _____		
*Patient ID: 1131353 Social Security #: _____ Secondary ID: _____		
Patient Name, Last: Green First: Kelly Middle: _____		
*Gender: F <input type="radio"/> M <input checked="" type="radio"/>		*Date of Birth: 04/13/62
Ethnicity (Specify): _____ Race (Specify): _____		
*Event Type: SSI		*Date of Event: 10/25/09
*NHSN Procedure Code: COLO		ICD-9-CM Procedure Code: _____
*Date of Procedure: 10/12/09		*Outpatient Procedure: _____
*MDRO Infection Surveillance: <input type="checkbox"/> Yes, this event's pathogen & location are in-plan for the MDRO/CDAD Module <input checked="" type="checkbox"/> No, this event's pathogen & location are not in-plan for the MDRO/CDAD Module		
*Date Admitted to Facility: 10/11/09		Location: _____
Event Details		
*Specific Event:		
<input type="checkbox"/> Superficial Incisional Primary (SIP)		<input checked="" type="checkbox"/> Deep Incisional Primary (DIP)
<input type="checkbox"/> Superficial Incisional Secondary (SIS)		<input type="checkbox"/> Deep Incisional Secondary (DIS)
<input type="checkbox"/> Organ/Space (specify site): _____		
*Specify Criteria Used (check all that apply):		
<u>Signs & Symptoms</u>		<u>Laboratory</u>
<input type="checkbox"/> Purulent drainage or material		<input checked="" type="checkbox"/> Positive culture
<input checked="" type="checkbox"/> Pain or tenderness		<input type="checkbox"/> Not cultured
<input type="checkbox"/> Localized swelling		<input type="checkbox"/> Positive blood culture
<input type="checkbox"/> Redness		

We report LabID Events. We do not perform "Infection Surveillance".

This answer will always be "no."

You've finished the work sheet -
Now let's go to the computer to
enter the SSI!



- NHSN Home
- Reporting Plan
- Patient
- Event**
 - Add
 - Find
 - Incomplete
- Procedure
- Summary Data
- Import/Export
- Analysis
- Surveys
- Users
- Facility
- Group
- Log Out

Logged into California General Hospital (ID 15633) as VICKIKELLER.
Facility California General Hospital (ID 15633) 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*: California General Hospital (ID 15633) ▾ Event #: 4278369

Patient ID*: Find Find Events for Patient

Social Security #: Secondary ID:

Last Name: First Name:

Middle Name:

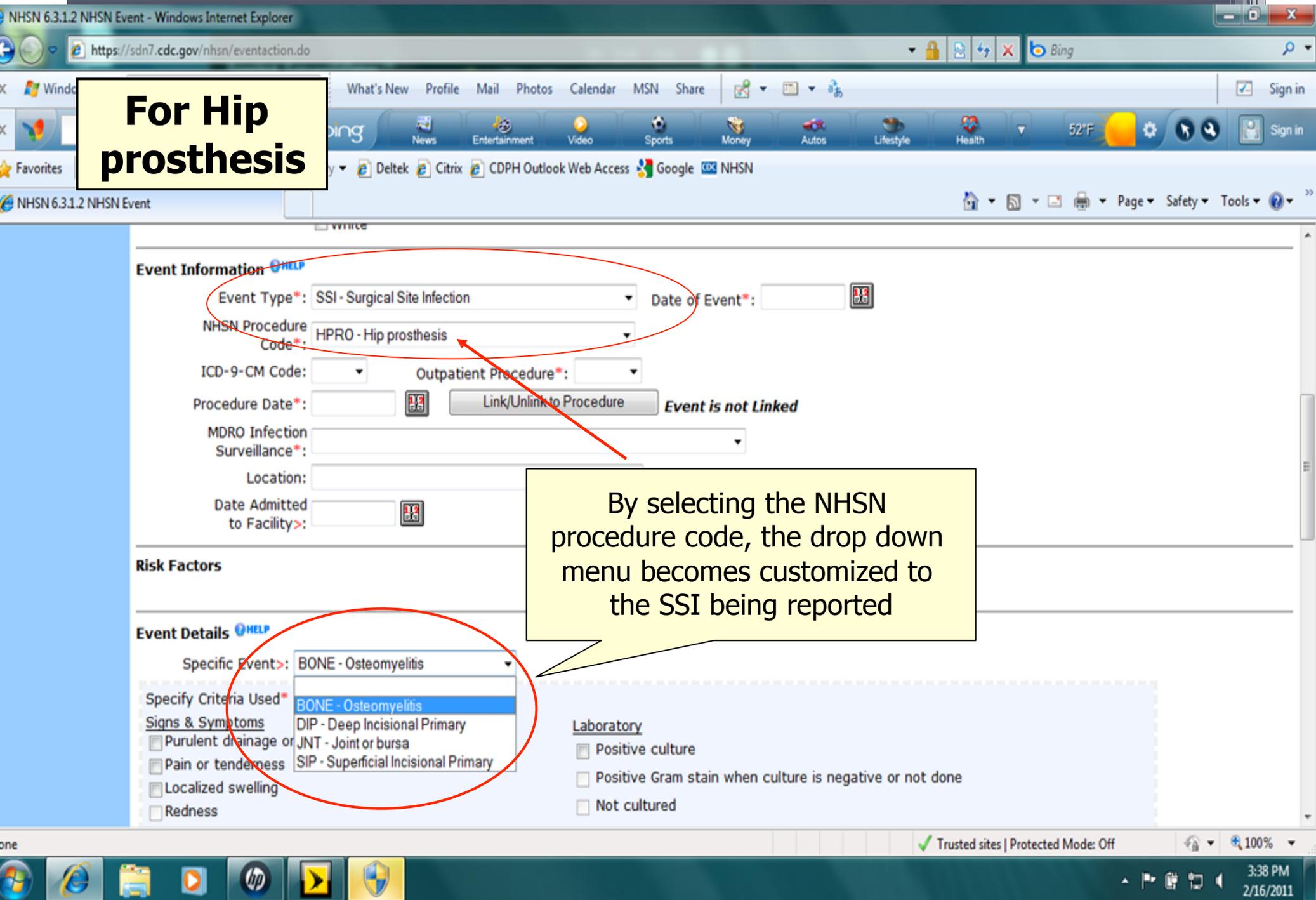
Gender*: ▾ Date of Birth*:

Ethnicity: ▾

Race: American Indian/Alaska Native Asian
 Black or African American Native Hawaiian/Other Pacific Islander
 White

Event Information [HELP](#)

Event Type*: SSI - Surgical Site Infection ▾ Date of Event*:



For Hip prosthesis

By selecting the NHSN procedure code, the drop down menu becomes customized to the SSI being reported

Event Information

Event Type*: SSI - Surgical Site Infection Date of Event*:

NHSN Procedure Code*: HPRO - Hip prosthesis

ICD-9-CM Code: Outpatient Procedure*:

Procedure Date*: *Event is not Linked*

MDRO Infection Surveillance*:

Location:

Date Admitted to Facility>:

Risk Factors

Event Details

Specific Event>: BONE - Osteomyelitis

Specify Criteria Used*

Signs & Symptoms

Purulent drainage or

Pain or tenderness

Localized swelling

Redness

BONE - Osteomyelitis

DIP - Deep Incisional Primary

JNT - Joint or bursa

SIP - Superficial Incisional Primary

Laboratory

Positive culture

Positive Gram stain when culture is negative or not done

Not cultured

For CABG

NHSN 6.3.1.2 NHSN Event - Windows Internet Explorer

https://sdn7.cdc.gov/nhsn/eventaction.do

Event Information

Event Type*: SSI - Surgical Site Infection Date of Event*:

NHSN Procedure Code: CBGB - Coronary bypass w/ chest & donor incisions

ICD-9-CM Code: Outpatient Procedure*:

Procedure Date*: **Event is not Linked**

MDRO Infection Surveillance*:

Location:

Date Admitted to Facility*:

Risk Factors

Event Details

Specific Event*:

Detected*: BONE - Osteomyelitis

Secondary Bloodstream Infection*: CARD - Myocarditis or pericarditis

Died**: DIP - Deep Incisional Primary

Discharge Date: DIS - Deep Incisional Secondary

Pathogens Identified*: ENDO - Endocarditis

LUNG - Other infections of the lower respiratory tract

MED - Mediastinitis

SIP - Superficial Incisional Primary

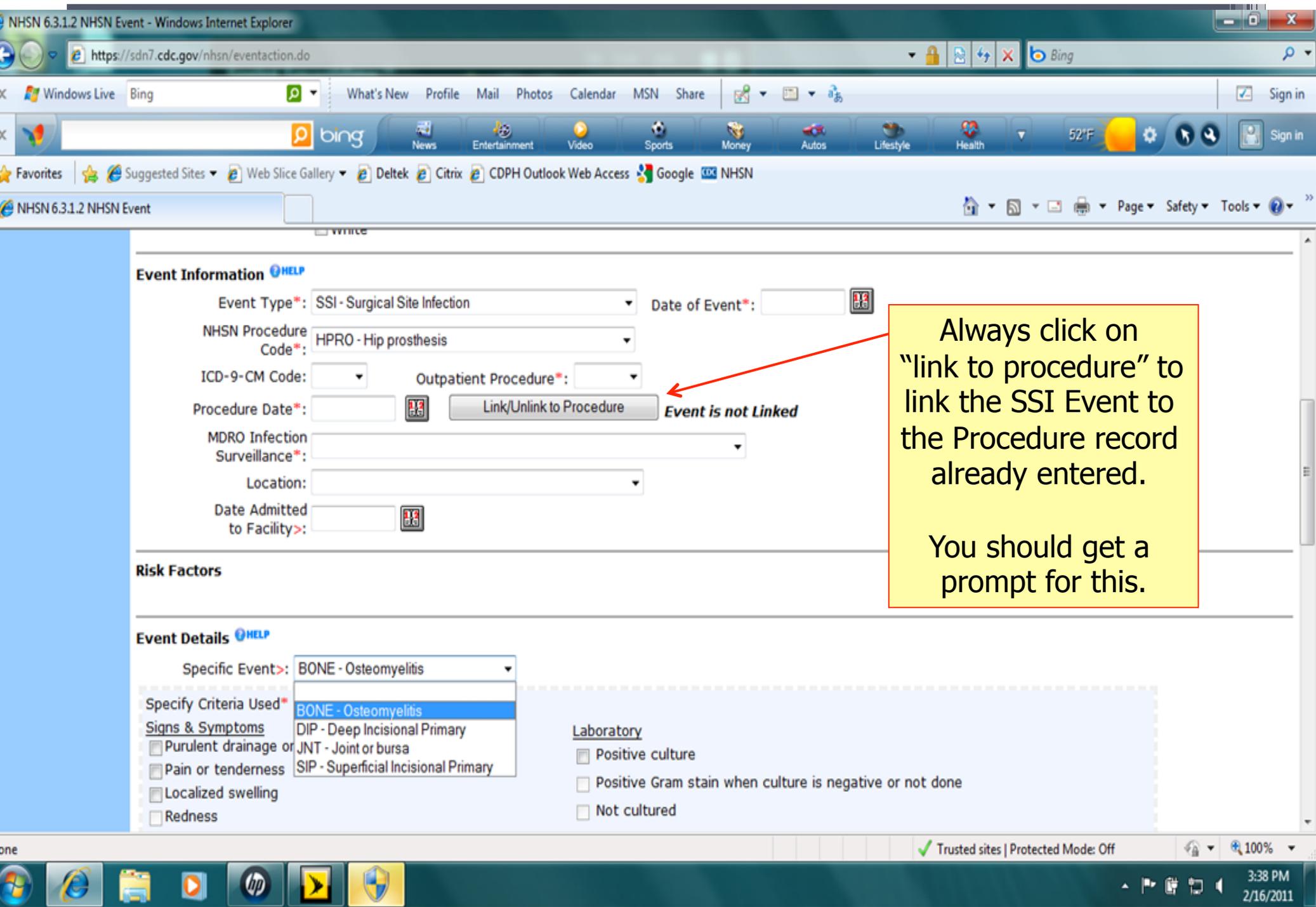
SIS - Superficial Incisional Secondary

VASC - Arterial or venous infection

Done

Trusted sites | Protected Mode: Off

3:42 PM 2/16/2011



Always click on "link to procedure" to link the SSI Event to the Procedure record already entered. You should get a prompt for this.

Event Information [HELP](#)

Event Type*: SSI - Surgical Site Infection Date of Event*:

NHSN Procedure Code*: HPRO - Hip prosthesis

ICD-9-CM Code: Outpatient Procedure*:

Procedure Date*: *Event is not Linked*

MDRO Infection Surveillance*:

Location:

Date Admitted to Facility>>:

Risk Factors

Event Details [HELP](#)

Specific Event>>: BONE - Osteomyelitis

Specify Criteria Used*

Signs & Symptoms

Purulent drainage or

Pain or tenderness

Localized swelling

Redness

Laboratory

Positive culture

Positive Gram stain when culture is negative or not done

Not cultured

BONE - Osteomyelitis

DIP - Deep Incisional Primary

JNT - Joint or bursa

SIP - Superficial Incisional Primary

Gender*:

Ethnicity:

Race: American Indian/Alaska Native Asian
 Black or African American Native Hawaiian/Other Pacific Islander
 White

Date of Birth*:

Event Information [HELP](#)

Event Type*: SSI - Surgical Site Infection Date of Event*:

NHSN Procedure Code*: CBGB - Coronary bypass w/ chest & donor incisions

ICD-9-CM Code: Outpatient Procedure*:

Procedure Date*: *Event is not Linked*

MDRO Infection Surveillance*:

Location:

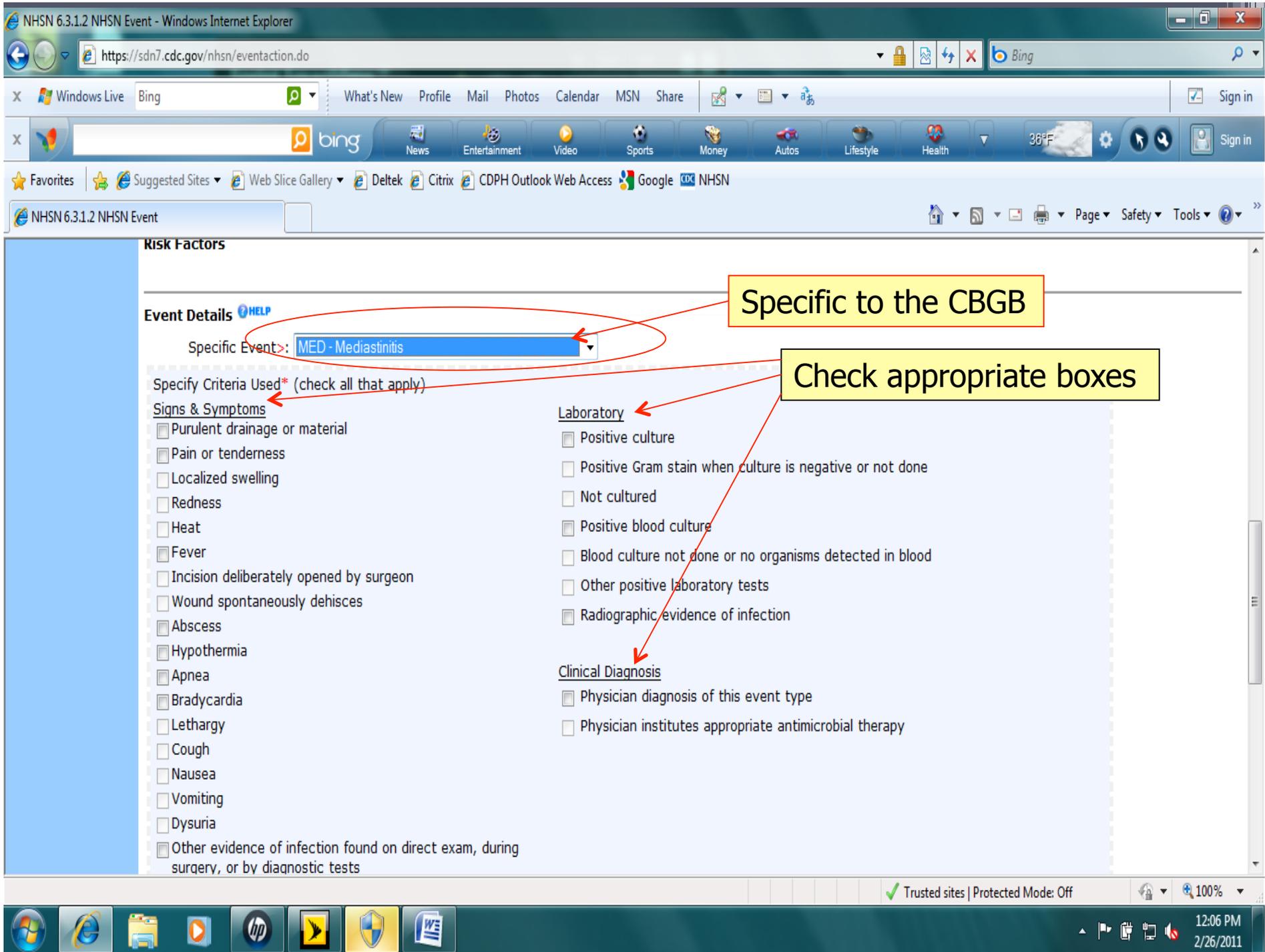
Date Admitted to Facility>:

This box will always be "no".
 We report LabID Events.
 We do NOT perform Infection Surveillance

Risk Factors

Event Details [HELP](#)

Specific Event>:



Specific to the CBGB

Check appropriate boxes

Risk Factors

Event Details HELP

Specific Event: **MED - Mediastinitis**

Specify Criteria Used* (check all that apply)

Signs & Symptoms

- Purulent drainage or material
- Pain or tenderness
- Localized swelling
- Redness
- Heat
- Fever
- Incision deliberately opened by surgeon
- Wound spontaneously dehisces
- Abscess
- Hypothermia
- Apnea
- Bradycardia
- Lethargy
- Cough
- Nausea
- Vomiting
- Dysuria
- Other evidence of infection found on direct exam, during surgery, or by diagnostic tests

Laboratory

- Positive culture
- Positive Gram stain when culture is negative or not done
- Not cultured
- Positive blood culture
- Blood culture not done or no organisms detected in blood
- Other positive laboratory tests
- Radiographic evidence of infection

Clinical Diagnosis

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

Trusted sites | Protected Mode: Off

12:06 PM
2/26/2011

NHSN 6.3.1.2 NHSN Event - Windows Internet Explorer

https://sdn7.cdc.gov/nhsn/eventaction.do

Windows Live Bing

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bing

News Entertainment Video Sports Money Autos Lifestyle Health 38°F

Favorites Suggested Sites Web Slice Gallery Deltak Citrix CDPH Outlook Web Access Google NHSN

NHSN 6.3.1.2 NHSN Event

Specific Event>: MED - Mediastinitis

Specify Criteria Used* (check all that apply)

Signs & Symptoms

- Purulent drainage or material
- Pain or tenderness
- Localized swelling
- Redness
- Heat
- Fever
- Incision deliberately opened by surgeon
- Wound spontaneously dehisces
- Abscess
- Hypothermia
- Apnea
- Bradycardia
- Lethargy
- Cough
- Nausea
- Vomiting
- Dysuria
- Other evidence of infection found on direct exam, during surgery, or by diagnostic tests
- Other signs & symptoms

Laboratory

- Positive culture
- Positive Gram stain when culture is negative or not done
- Not cultured
- Positive blood culture
- Blood
- Other
- Radio

Clinical D

- Physi
- Physi

Detected>: Secondary

- A - Admission
- P - Postdischarge surveillance
- R - Readmission

“Detected” clarification:

A-Admission = SSI occurs during the same hospitalization (admission) as the surgery

P-Postdischarge surveillance = SSI identified post-discharge
 Note: includes notification by other facilities to inform of SSI in patients who had surgery at your hospital

R-Readmission = SSI identified when post-surgical patient is re-admitted to your hospital

Completed SSI Data Entry Screen

Discharge Date: 

Pathogens Identified*: If Yes, specify below ->

Pathogens

Pathogen 1: * 10 drugs required

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

Pathogen 2:

NHSN 6.3.1.2 NHSN Event - Windows Internet Explorer

https://sdn7.cdc.gov/nhsn/eventaction.do

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Favorites Suggested Sites Web Slice Gallery Deltek Citrix CDPH Outlook Web Access Google CDC NHSN

NHSN 6.3.1.2 NHSN Event

Died**:

Discharge Date:

Pathogens Identified>: Y-Yes If Yes, specify below ->

Pathogens [HELP](#)

Pathogen 1: Search

Pathogen 2: Search

Pathogen 3: Search

Custom Fields [HELP](#)

Comments [HELP](#)

Save Back

Trusted sites | Protected Mode: Off

Saturday, February 26, 2011

12:08 PM 2/26/2011

Completed SSI Data Entry Screen

Event Event 2487143 saved successfully.

Add
 Find
 Incomplete

Procedure
Summary Data
Import/Export
Analysis
Surveys
Users
Facility
Group
Log Out

Mandatory fields marked with *
Fields required for record completion marked with **
Fields required when in Plan marked with >

[Print P](#)

Patient Information [HELP](#)

Facility ID*: DHQP Memorial Hospital (10000) Event #: 2487143
Patient ID*: 36912
Social Security #: _____ Secondary ID: _____
Last Name: Green First Name: Kelly
Middle Name: _____
Gender*: M - Male Date of Birth*: 03/11/1962
Ethnicity: NOHISP - Not Hispanic or Not Latino
Race: American Indian/Alaska Native Asian
 Black or African American Native Hawaiian/Other Pacific Islander
 White

Event Information [HELP](#)

Event Type*: SSI - Surgical Site Infection Date of Event*: 10/25/2009
NHSN Procedure Code*: COLO - Colon surgery
ICD-9-CM Code: _____ Outpatient*: N - No
Procedure Date*: 10/12/2009 **Event Linked**

THANK YOU

Vielen Dank

Gracias



תודה

Merci



Questions?



HAI Liaison Program
Vicki Keller
Vicki.Keller@cdph.ca.gov

