Patient Safety Component – Surgical Site Infections (PSC - SSIs)

How to Add and Analyze Custom Procedure and Events Part 1

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Goals for Today

- This training will provide an overview of NHSN Custom Reporting

- After the completion of this training, the PS user will be able to:

    - Identify what a Custom Procedure is and how it is created
    - Identify what a Custom Event is and how it is created

NHSN Defined Procedures and Events – Patient Safety

APPENDIX.

Specific event types available for SSI attribution by NHSN procedure category

Operative Procedure Category	Specific Event Type
AAA - Abdominal aortic aneurysm repair	DIP - Deep Incisional Primary
	ENDO - Endocarditis
	GIT - Gastrointestinal tract
	IAB - Intraabdominal, not sp...
	...onal Pr...
	...ous in...
AMP - Limb amp...	DIP - Deep Incisional Primar...
	JNT - Joint or bursa
	SIP - Superficial Incisional Pr...
APPY - Appendix surgery	DIP - Deep Incisional Primar...
	GIT - Gastrointestinal tract
	IAB - Intraabdominal, not sp...

NHSN Defined Procedures Category

Table 1. Surgical Site Infection Criteria

Criterion	Surgical Site Infection (SSI)
	Superficial incisional SSI
	Must meet the following criteria:
	Date of event occurs within 30 days after any NHSN operative procedure (where day 1 = the procedure date) **AND** involves only sk... **AND** patient has at least **one** of the following:
	a. purulent drainage from the superficial incision.
	b. organism(s) identified from an aseptically-obtained specimen from the superficial incision or subcutaneous tissue by a culture or non-culture based microbiologic testing method which is performed for purposes of clinical diagnosis or treatment (for example, not Active Surveillance Culture/Testing (ASC/AST)).

NHSN Defined Events

NHSN Defined Procedures and Events

- What if your facility wants to report and analyze data for procedures that are not am NHSN defined procedure?

- Answer – Create a custom procedure that fits your reporting needs in NHSN.

Custom Procedure, Events and Fields

- NHSN custom data tools are surveillance resources that allow a facility to tailor its data collections needs
  - Use of these tools is **optional** and must be defined by the facility
- The facility should define their own criteria prior to creating custom options

Custom procedure	• Not an NHSN procedure • Not included in Monthly Reporting Plan • Off-plan reporting
Custom event	• No NHSN Event criteria
Custom field	• Not an NHSN variable • May be added to an NHSN defined procedure
There is not benchmarking available for custom created procedures. SIRS can not be calculated	

Creating a New Procedure – Radical Cystectomy (RC)

- Cystectomy is a procedure that removes the bladder for treatment of invasive bladder cancer

- An incision is made through the abdomen to remove the bladder and, potentially, other organs and affected tissue

- In 2019 a total of 75,022 new cases of Urinary Bladder cancer were reported, and 16,796 people died of this cancer in the United States[1]

- A 2016 Mayo clinic study of 3,187 patients who underwent RC, indicated 766 were diagnosed with a postoperative infection, including 404 or 12.7% with a surgical site infections (SSI) within 30 days[2]

Custom Options Function (PSC)

- Accessed from the NHSN Facility side menu

  "Facility ➡ Customize Forms"

- The page provides instructions and options for new variables, procedures and events that can be added by the user

Selecting the Appropriate Form

1) Selecting form type

   a) CDC-Defined options are for adding new variables to existing CDC events and Procedures (example: COLO procedure, SSI event)

   b) Custom indicates you want to create a new procedure category or event type that does not exist in the PSC

   c) We want to add a *"Custom-PS-Procedure"* and *"CDC-Defined-PS-Event"* for this quick learn.

Creating a New Procedure

2) Enter a Form: User defined code to assign your procedure

3) Enter a description: Detailed name of the procedure you are creating

4) Keep status *"Active"* for procedures

Remember to click to Add Button

Creating a New Procedure (cont.)

- Quality check to see if the new procedure category can be used

- Follow the same steps to manually add individual procedure records
  https://www.cdc.gov/nhsn/pdfs/training/2022/SSI-Reporting-508.pdf

Creating a New SSI Event (PSC)

- Similar process as creating a new procedure
  - For events additional details are added to an already existing event form (SSI event)
- For this presentation, a new field will be added to indicate if urine leakage was responsible for an Intra-abdominal infection that can be linked to the newly created procedure *Radical Cystectomy (RC)*

Creating a New SSI Event (cont.)

Start on the *"Customize Forms"* page:

1) Select the form type for the new field – CDC – Defined-PS - Event

2) Assign the existing form for the new field to appear on

3) Enter a description that clearly describes the field

Remember to make to event active

Creating a New SSI Event (cont.)

5) Add a label to the field. This will be the label that appears on the form.

6) Select the type of variable (alpha-numeric, numeric, or date)

7) Save the newly created field

Multiple Fields can be added to the new custom variables created

Creating a New SSI Event (cont.)

- Check to see if the new field is added to the event form

- Follow the same steps to manually add individual procedure records

https://www.cdc.gov/nhsn/pdfs/training/2022/SSI-Reporting-508.pdf

Import Custom Procedure File

■ Option to add multiple procedure records at once

■ Data must be imported with a *header row* and the *header names* must match the *variable names* as they appear in the template file

■ Must be uploaded via .cvs file

■ Required fields must be completed in order to upload the file successfully

   – CPT codes are not required for custom procedures, but encouraged

patID	sex	dob	Medicare ID	Proc Code	Proc CPTC	Proc Date	Proc Duration Hr	Proc Duration Min	Sw Class	asa	scope	Surgeon Code	anesthesia	Ht Feet	Ht Inches	Wt English	diabetes	custom1
001534	F	5/24/53	2345671M	CSY		2/15/22	5	37	cc	2	Y	5698	Y	5	2	147	N	Y
004558	M	9/16/43	3456892M	CSY		5/9/22	6	7	cc	2	Y	7623	Y	6	0	197	y	Y

Resources for Importing Custom Files

- Found on the PSC – SSI website
  - Instructions on how to import SSI event data (Importing Patient Safety Procedure Data (cdc.gov))
- Import template file to add procedures to
  - Provides example of how data is entered in a .cvs file format

[NHSN Organism List (All Organisms, Common Commensals, MBI Organisms, and UTI Bacteria) – June 2022](NHSN Organism List) [XLS – 560 KB]

Sample Procedure Import File [XLSX – 25 KB]

How to Import Patient Safety Procedure Data, January 2020 [PDF – 400 KB]

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004558	M	9/16/43	3456892M	CSY		5/9/22	6	7	cc	2	Y	7623	Y	6	0	497		Y

References

1. U.S. Cancer Statistics Working Group. U.S. Cancer Statistics Data Visualizations Tool, based on 2021 submission data (1999-2019): U.S. Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; www.cdc.gov/cancer/dataviz, released in June 2022.

2. Parker WP, Tollefson MK, Heins CN, Hanson KT, Habermann EB, Zaid HB, Frank I, Thompson RH, Boorjian SA. Characterization of perioperative infection risk among patients undergoing radical cystectomy: Results from the national surgical quality improvement program. Urol Oncol. 2016 Dec;34(12):532.e13-532.e19. doi: 10.1016/j.urolonc.2016.07.001. Epub 2016 Aug 5. PMID: 27503783.

3. Brown KG, Solomon MJ, Latif ER, Koh CE, Vasilaras A, Eisinger D, Sved P. Urological complications after cystectomy as part of pelvic exenteration are higher than that after cystectomy for primary bladder malignancy. J Surg Oncol. 2017 Mar;115(3):307-311. doi: 10.1002/jso.24511. Epub 2016 Nov 18. PMID: 27859276.

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- Please submit any questions about the content of the presentation to NHSN@cdc.gov

Additional NHSN training resources:
https://www.cdc.gov/nhsn/training/

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