

Importing Patient Safety Procedure Data Using CSV

NHSN recommends using a comma-separated value (CSV) file to import procedure data but will also allow importing procedure data using 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 (MRP) exists and the MRP specifies the procedure category and setting in the import file record.
- If you wish to import records for procedures not in the MRP, you must specify which procedures to include.

Please refer to the Procedure Import file specifications (located under the “Supporting Materials” section of the page linked below), as well as the NHSN Manual, for complete details on the data field requirements and definitions. These documents are available here: <http://www.cdc.gov/nhsn/acute-care-hospital/ssi/index.html>.

Guidance for CSV Import:

1. Data **must** be imported with a header row, and the header names **must** match the variable names as they appear in the table below. The fields may be imported in any order.
2. The comma delimited text file format defined in the below table requires commas between fields, even if no data values exist (for example, optional or empty fields).
3. For operative procedures of the same procedure category that are performed via separate incisions during the same trip to the operating room, separate Denominator for Procedure forms are required ([SSI Denominator for Procedure Reporting Instruction #8](#)). Refer to the NHSN Procedure Category table below for the procedure categories that can have multiple procedures.
4. There should be a unique procedure duration for operative procedures of the same procedure category that are performed via separate incisions during the same trip to the operating room. To document the duration of the procedures, indicate the



procedure/surgery start time to procedure/surgery finish time for each procedure separately or, alternatively, take the total time for the procedures and split it evenly between procedures ([SSI Denominator for Procedure Reporting Instruction #8](#)).

5. For NHSN operative procedures, if Outpatient = Y, then the procedure (based on the procedure code) must be listed in one the NHSN Procedure Category (for example COLO) tables to be eligible to monitor as an Outpatient Operative Procedure.
6. If importing Surgeon Code, all surgeon codes must be set up in NHSN prior to importing.
7. If importing Custom fields, all custom fields must be set up in NHSN prior to importing data in these fields.
8. If the optional Procedure Comment field has text that contains commas you must place a double quote at the beginning and end of the string of text (for example, "additional NHSN procedures performed: BILI, GAST, SB").
9. When creating comma delimited files, be careful to exclude non-printable characters (such as blank spaces before or after the data) as they may cause the data to be improperly imported and result in errors.
10. Data must be entered in all fields marked as "Required" for both in-plan and off-plan procedure records.
11. Fields marked as "Optional for Import" allow an incomplete record to be imported. **Note that these fields are considered required for completion of an in-plan procedure record and can be completed through manual edit of each record in the NHSN reporting application.**



NHSN Procedure Import File Format**:

Variable	Field	Requirement	Values	Format†
patID	Patient ID	Required		Character length 15
gender	Gender	Required	M – Male F – Female O – Other	Character length 1
dob	Date of birth	Required		mm/dd/yyyy
medicareID	Medicare beneficiary number	Optional		Character length 15
procCode	NHSN procedure category	Required	See NHSN procedure category	Character length 5
procICD9Code	ICD-9-CM (For September 30, 2015 procedures and earlier)	Optional	ICD-9-CM code must be a valid code as listed in the NHSN Operative Procedure Category list.	Character length 5 ###.##
procICD10Code	ICD-10-PCS (For October 1, 2015 procedures and later)	Optional	ICD-10-PCS code must be a valid code as listed in the NHSN Operative Procedures Category list	Character length 7
procICD10supp	ICD-10-PCS Supplemental (For October 1, 2015 procedures and later)	Optional	ICD-10-PCS supplemental code must be a valid code as listed in the NHSN Operative Procedures Category list; this code is used to help accurately convey if a KPRO or HPRO procedure is a revision	Character length 7
procCPTCode	CPT	Optional	CPT code must be a valid code as listed in the NHSN Operative Procedures Category list	Character length 5
procDate	Date of procedure	Required		mm/dd/yyyy
outpatient	Outpatient	Required	Y – Yes N – No Note: Certain procedure categories can only be monitored as inpatient operative procedures. See NHSN procedure codes below.	Character length 1
procDurationHr	Duration hours	Required		Numeric length 2
procDurationMin	Duration minutes	Required		Numeric length 2

Variable	Field	Requirement	Values	Format†
swClass	Surgical wound class	Required	C – Clean CC – Clean Contaminated CO – Contaminated D – Dirty/Infected Note: The following procedure codes can NOT have a “clean” designation for wound class: APPY, BILL, CHOL, COLO, REC, SB, VHYS. <u>U – Unknown</u> (“Unknown” is only available for procedures performed in 2013 and earlier)	Character length 2
asa	ASA score	Required if Outpatient = N	1 - Normally healthy patient 2 - Patient with mild systemic disease 3 - Patient with severe systemic disease, not incapacitating 4 - Patient with incapacitating systemic disease, constant threat to life 5 - Moribund patient < 24 hr life expectancy	Character length 1
scope	Scope	Required	Y – Yes N – No Hint: Starting in 2016 when importing an ICD-10-PCS code, if there is a 4 or an F in the 5th position of the ICD-10-PCS code, Scope = Yes. If a procedure is coded as both open and scope , then the procedure should be entered into NHSN as Scope = No . The open designation is considered a higher risk procedure. For CPT codes , the procedure code description must be used to determine scope.	Character length 1
surgeonCode	Surgeon code	Optional	Hint: If importing Surgeon Code, all surgeon codes must be set-up in NHSN prior to importing your procedures.	Character length 20
emergency	Emergency	Required	Y – Yes N – No	Character length 1
closure	Closure Technique (for 2014 procedure dates and later)	Optional for Import; required for complete in- plan record.	PRI - Primary OTH – Non-Primary	Character length 3



Variable	Field	Requirement	Values	Format†
anesthesia	General anesthesia	Required	Y – Yes N – No	Character length 1
trauma	Trauma	Required	Y – Yes N – No	Character length 1
htFeet	Height* in feet (Used in conjunction with “height in inches”)	Optional for import; <u>ALL</u> 2014 procedures and later: required for complete in-plan record 2013 procedures and earlier: used only when procedure category is CSEC		Numeric length 2
htInches	Height* in inches (Used in conjunction with “height in feet”)	Optional for import; <u>ALL</u> 2014 procedures and later: required for complete in-plan record 2013 procedures and earlier: used only when procedure category is CSEC		Numeric length 2 (1-11)
htMetric	Height* in meters	Optional for import; <u>ALL</u> 2014 procedures and later: required for complete in-plan record 2013 procedures and earlier: used only when procedure category is CSEC		Numeric decimal (6,3) 999.999



Variable	Field	Requirement	Values	Format†
wtEnglish	Weight* in pounds	Optional for import; <u>ALL</u> 2014 procedures and later: required for complete in- plan record 2013 procedures and earlier: used only when procedure category is CSEC		Numeric decimal (5,2) 999.99
wtMetric	Weight* in kilograms	Optional for import; <u>ALL</u> 2014 procedures and later: required for complete in-plan record 2013 procedures and earlier: used only when procedure category is CSEC		Numeric decimal (5,2) 999.99
hrLabor	Duration of labor	Required; used only when procedure code is CSEC. <u>ALL</u> 2014 procedures and later: required for complete in-plan record		Numeric length 2
diabetes	Diabetes mellitus	<u>ALL</u> 2014 procedures and later: required for complete in-plan record 2013 procedures and earlier: required if procedure category is FUSN or RFUSN	Y – Yes N – No	Character length 1



Variable	Field	Requirement	Values	Format†
spinalLevel	Spinal level	Required if procedure code is FUSN or RFUSN Note: RFUSN is only valid for 2015 procedure dates and earlier	A – Atlas-axis AC – Atlas-axis/Cervical C – Cervical CD – Cervical/Dorsal/Dorsolumbar D – Dorsal/Dorsolumbar L – Lumbar/Lumbosacral <i>N – Not specified</i> <i>(“Not specified” is only available for procedures performed in 2013 and earlier)</i>	Character length 2
approach	Type of approach	Required if procedure category is FUSN or RFUSN Note: RFUSN is only valid for 2015 procedure dates and earlier	A – Anterior P – Posterior B – Anterior and Posterior T – Transoral <i>(“Transoral” is only available for procedures performed in 2014 and later)</i> <i>L – Lateral transverse</i> <i>N – Not specified</i> <i>(“Lateral transverse” and “Not specified” are only available for procedures performed in 2013 and earlier)</i>	Character length 1
hpro	Type of HPRO (for 2013 procedures and earlier)	Required if procedure category is HPRO	TP – Total primary PP – Partial primary TR – Total revision PR – Partial revision	Character length 2
kpro	Type of KPRO (for 2013 procedures and earlier)	Required if procedure category is KPRO	T – Primary (total) R – Revision (total or partial)	Character length 1
jntRepType	Type of HPRO or KPRO (for 2014 procedure dates and later)	Required if procedure category is HPRO or KPRO	TOT – Total HEMI- Hemi RES - Resurfacing (HPRO only)	Character length 4
jntRepTot	Specific type of Total joint replacement (for 2014 procedure dates and later)	Required if procedure is a total HPRO or total KPRO	TOTPRIM - Total Primary TOTREV - Total Revision <i>Following value only available for 2015 procedure dates and earlier:</i> <i>PARTREV - Partial Revision</i>	Character length 8

Variable	Field	Requirement	Values	Format†
jntRepHemi	Specific type of Hemi joint replacement (for 2014 procedure dates and later)	Required if procedure is a hemi HPRO or hemi KPRO	PARTPRIM - Partial Primary PARTREV - Partial Revision <i>Following value only available for 2015 procedures dates and earlier:</i> TOTREV - Total Revision	Character length 8
jntRepRes	Specific type of Resurfacing joint replacement (HPRO) (for 2014 procedure dates and later)	Required if procedure is resurfacing HPRO	TOTPRIM - Total Primary PARTPRIM - Partial Primary <i>Following values only available for 2015 procedures dates and earlier:</i> TOTREV - Total Revision PARTREV - Partial Revision	Character length 8
jntRepPriorInf	Prior infection at index joint, if total or partial revision	Required if procedure is HPRO or KPRO and if total or partial revision	Y – Yes N – No	Character length 1
comment	Comments	Optional		Character length 1000
custom1 – custom50	Custom fields 1-50	Optional		Format and order according to custom field set up and sort order, per procedure code: Alphanumeric field length = 15 character Numeric field length decimal (12,3) 999999999.999

* Values for weight and height can be either in pounds and feet/inches or in kilograms and meters. We do not recommend using both as the system will automatically convert the other.

**For further clarification of each field, please refer to:

- Chapter 9 (Surgical Site Infection (SSI) Event) of the NHSN Manual: Patient Safety Component Protocol, available at: <https://www.cdc.gov/nhsn/pdfs/pscmanual/9pscscscurrent.pdf>
- Instructions for Completion of Denominator for Procedure Form (CDC 57.121) available at: https://www.cdc.gov/nhsn/forms/instr/57_121.pdf

† The character length for non-date fields represents the *maximum* number of characters allowed, provided the appropriate values are imported according to the NHSN protocols. Values with a shorter character length may be allowed (for example, the patient ID can be less than 15 characters).

NHSN Procedure Category

<u>Category</u>	<u>Operative Procedure</u>	<u>Description</u>	<u>Multiple</u>	<u>Inpatient Procedure</u>	<u>Outpatient Procedure</u>
AAA	Abdominal aortic aneurysm repair	Resection of abdominal aorta with anastomosis or replacement		In	
AMP	Limb amputation	Total or partial amputation or disarticulation of the upper or lower limbs, including digits	4	In	Out
APPY	Appendix surgery	Operation of appendix		In	Out
AVSD	AV shunt for dialysis	Arteriovenostomy for renal dialysis		In	Out
BILI	Bile duct, liver or pancreatic surgery	Excision of bile ducts or operative procedures on the biliary tract, liver or pancreas (does not include operations on gallbladder only)		In	Out
BRST	Breast surgery	Excision of lesion or tissue of breast including radical, modified, or quadrant resection, lumpectomy, incisional biopsy, or mammoplasty.	2	In	Out
CARD	Cardiac surgery	Procedures on the heart; includes valves or septum; does not include coronary artery bypass graft, surgery on vessels, heart transplantation, or pacemaker implantation		In	
CBGB	Coronary artery bypass graft with both chest and donor site incisions	Chest procedure to perform direct revascularization of the heart; includes obtaining suitable vein from donor site for grafting.		In	
CBGC	Coronary artery bypass graft with chest incision only	Chest procedure to perform direct vascularization of internal mammary (thoracic) artery		In	



<u>Category</u>	<u>Operative Procedure</u>	<u>Description</u>	<u>Multiple</u>	<u>Inpatient Procedure</u>	<u>Outpatient Procedure</u>
CEA	Carotid endarterectomy	Endarterectomy on vessels of head and neck (includes carotid artery and jugular vein)	2	In	Out
CHOL	Gallbladder surgery	Cholecystectomy and cholecystotomy		In	Out
COLO	Colon surgery	Incision, resection, or anastomosis of the large intestine; includes large-to-small and small-to-large bowel anastomosis; does not include rectal operations (see REC for rectal operations)		In	Out
CRAN	Craniotomy	Excision, repair or exploration of the brain or meninges; does not include taps or punctures		In	
CSEC	Cesarean section	Obstetrical delivery by cesarean section		In	Out
FUSN	Spinal fusion	Immobilization of spinal column	4	In	Out
FX	Open reduction of fracture	Open reduction of fracture or dislocation of long bones with or without internal or external fixation; does not include placement of joint prosthesis	4	In	Out
GAST	Gastric surgery	Incision or excision of stomach; includes subtotal or total gastrectomy; does not include vagotomy and fundoplication		In	Out
HER	Herniorrhaphy	Repair of inguinal, femoral, umbilical, or anterior abdominal wall hernia; does not include repair of diaphragmatic or hiatal hernia or hernias at other body sites	5	In	Out
HPRO	Hip prosthesis	Arthroplasty of hip	2	In	Out
HTP	Heart transplant	Transplantation of heart		In	



<u>Category</u>	<u>Operative Procedure</u>	<u>Description</u>	<u>Multiple</u>	<u>Inpatient Procedure</u>	<u>Outpatient Procedure</u>
HYST	Abdominal hysterectomy	Abdominal hysterectomy; includes that by laparoscope		In	Out
KPRO	Knee prosthesis	Arthroplasty of knee	2	In	Out
KTP	Kidney transplant	Transplantation of kidney		In	
LAM	Laminectomy	Exploration or decompression of spinal cord through excision or incision into vertebral structures	2	In	Out
LTP	Liver transplant	Transplantation of liver		In	
NECK	Neck surgery	Major excision or incision of the larynx and radical neck dissection; does not include thyroid and parathyroid operations		In	Out
NEPH	Kidney surgery	Resection or manipulation of the kidney with or without removal of related structures	2	In	Out
OVRY	Ovarian surgery	Operations on ovary and related structures	2	In	Out
PACE	Pacemaker surgery	Insertion, manipulation, or replacement of pacemaker		In	Out
PRST	Prostate surgery	Suprapubic, retropubic, radical, or perineal excision of the prostate; does not include transurethral resection of the prostate.		In	Out
PVBY	Peripheral vascular bypass surgery	Bypass operations on peripheral arteries and veins	4	In	Out
REC	Rectal surgery	Operations on rectum		In	Out
RFUSN	Refusion of spine	Refusion of spine	4	In	Out
SB	Small bowel surgery	Incision or resection of the small intestine; does not include small-to-large bowel anastomosis		In	Out



<u>Category</u>	<u>Operative Procedure</u>	<u>Description</u>	<u>Multiple</u>	<u>Inpatient Procedure</u>	<u>Outpatient Procedure</u>
SPLE	Spleen surgery	Resection or manipulation of spleen		In	Out
THOR	Thoracic surgery	Noncardiac, nonvascular thoracic surgery; includes pneumonectomy and or hiatal hernia repair or diaphragmatic hernia repair (except through abdominal approach)		In	Out
THYR	Thyroid and/or parathyroid surgery	Resection or manipulation of thyroid and/or parathyroid		In	Out
VHYS	Vaginal hysterectomy	Vaginal hysterectomy; excludes the use of laparoscope		In	Out
VSHN	Ventricular shunt	Ventricular shunt operations, including revision and removal of shunt		In	Out
XLAP	Exploratory Laparotomy	Abdominal operations not involving the gastrointestinal tract or biliary system; includes diaphragmatic hernia repair through abdominal approach		In	Out

