

USER GUIDE:

AHRQ HCUP PROCEDURE CLASSES REFINED FOR ICD-10-PCS, v2027.1

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Montana Hospital Association
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Washington State Department of Health
West Virginia Health Care Authority
Wisconsin Department of Health Services
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WHAT'S NEW IN v2027.1 OF THE AHRQ HCUP PROCEDURE CLASSES REFINED FOR ICD-10-PCS?

- Added ICD-10-PCS procedure codes that became effective in FY 2027, so the tool includes ICD-10-PCS codes valid from October 2015 through September 2027, including 80 codes that became effective April 1, 2026.

- Aligned the identification of major procedures with the definition of operating room procedures in the Agency for Healthcare Research and Quality (AHRQ) Quality Indicator (QI) software for codes valid from October 2015 through September 2027.[1]

Detailed changes for v2027.1 of the Procedure Classes Refined for ICD-10-CM are in the Change Log. A summary of key changes for all release versions of the CCSR for ICD-10-CM is available in Appendix A.

[1] Please note that with the publication of the Final Rule for the inpatient prospective payment system (IPPS) for fiscal year 2022, the Centers for Medicare & Medicaid Services releases ICD-10-CM/PCS code updates twice a year (every April 1 and October 1). ICD-10-PCS codes that will become effective on April 1, 2027, are not included in v2027.1

INTRODUCTION

This report provides technical documentation for the Agency for Healthcare Research and Quality (AHRQ) Healthcare Cost and Utilization Project (HCUP) Procedure Classes Refined for International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS). Starting on October 1, 2015, procedures for hospital inpatient stays in the United States are reported using the ICD-10-PCS coding system. ICD-10-PCS consists of more than 80,000 procedure codes.

The Procedure Classes Refined for ICD-10-PCS facilitates health services research by allowing the researcher to readily determine (1) whether a procedure is diagnostic or therapeutic and (2) whether a procedure is expected to be performed in an operating room. The Procedure Classes Refined for ICD-10-PCS assign all ICD-10-PCS procedure codes to one of four categories:

- Minor Diagnostic—Nonoperating room procedures that are diagnostic (e.g., B244ZZZ, Ultrasonography of Right Heart)
- Minor Therapeutic—Nonoperating room procedures that are therapeutic (e.g., 02HQ33Z, Insertion of Infusion Device into Right Pulmonary Artery, Percutaneous Approach)
- Major Diagnostic—Procedures that are considered operating room procedures that are performed for diagnostic reasons (e.g., 02BV0ZX, Excision of Superior Vena Cava, Open Approach, Diagnostic)
- Major Therapeutic—Procedures that are considered operating room procedures that are performed for therapeutic reasons (e.g., 0210093, Bypass Coronary Artery, One Site from Coronary Artery with Autologous Venous Tissue, Open Approach).

Prior to the availability of ICD-10-PCS-coded data, the ICD-10-PCS codes were categorized into the procedure classes using the General Equivalence Mappings (GEMS) for ICD-9-CM procedures and released as a beta version. Once ICD-10-PCS-coded data became available, the beta version of the Procedure Classes was evaluated using the HCUP National Inpatient Sample (NIS). In addition, there was interest in aligning the identification of major procedures with the definition of operating room procedures in the AHRQ Quality Indicators.™ These findings led to the development of the Procedure Classes Refined for ICD-10-PCS, which replaces the beta versions of the Procedure Classes for ICD-10-PCS. Background on the development of the Procedure Classes Refined for ICD-10-PCS is provided in Appendix A.

This User Guide describes the AHRQ HCUP Procedure Classes Refined for ICD-10-PCS and the downloadable software and documentation. The Procedure Classes Refined for ICD-10-PCS is updated annually to coincide with fiscal year (FY) updates to the ICD-10-PCS coding system and retains procedure codes valid from the start of ICD-10-PCS in October 2015. For this reason, it is advisable to always use the most recent version of the tool (it is not recommended to use the beta versions of the tool). Files containing the mapping of ICD-10-PCS

codes to their corresponding procedure class can be downloaded from the HCUP User Support (HCUP-US) website.[2]

DESCRIPTION OF THE AHRQ HCUP PROCEDURE CLASSES REFINED FOR ICD-10-PCS

Identification of Minor Versus Major Procedures

The AHRQ HCUP Procedures Classes Refined for ICD-10-PCS, v2027.1, includes all ICD-10-PCS codes valid from October 1, 2015, through September 30, 2027. The identification of a major procedure is tied to the expectation that the procedure would be performed in an operating room. Procedure codes are identified as major based on the ICD-10-PCS list of operating room procedures included in the AHRQ QI software. The clinical review panel for the AHRQ QI software begins with the latest fiscal year version of the MS-DRGs and does further clinical review to identify major procedures. There can be some variation between the MS-DRG identification and the AHRQ QI identification of major procedures/surgeries.[3] Any procedure not identified as major is assigned to be a minor procedure.

Identification of Therapeutic versus Diagnostic Procedures

The identification of diagnostic and therapeutic procedures was determined by either the taxonomy of the ICD-10-PCS code or ICD-10-PCS clinical coding experts. For example, the following codes are always diagnostic:

- Medical/surgical codes (with a first character of 0) and a seventh character of X
- Administration codes (with a first character of 3) and a seventh character of X.

The taxonomy does not include a clear identification of therapeutic procedures.

USING THE PROCEDURE CLASSES REFINED FOR ICD-10-PCS WITH THE CLINICAL CLASSIFICATIONS SOFTWARE REFINED (CCSR) FOR ICD-10-PCS

The AHRQ HCUP Procedure Classes Refined for ICD-10-PCS identifies individual procedure codes as minor or major, and diagnostic or therapeutic. A different HCUP tool, the Clinical Classifications Software Refined (CCSR) for ICD-10-PCS aggregates individual ICD-10-PCS procedure codes into over 320 clinical categories. The CCSR categories capture high-volume procedures and low-volume, but high-impact, procedures (e.g., transplant). The individual ICD-

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[2] The HCUP User Support website can be found at https://hcup-us.ahrq.gov/.

[3] Based on v2027.1 of the Procedure Classes Refined for ICD-10-PCS, 64.1 percent of ICD-10-PCS codes are identified as major operating room procedures in both schemas, 8.6 percent of ICD-10-PCS codes are identified as major only in QI software, 1.5 percent of ICD-10-PCS codes are identified as major only in the MS-DRG grouper, and 25.7 percent of ICD-10-PCS codes are not identified as major operating room procedures in both schemas.

10-PCS codes within each CCSR category are clinically similar but may vary in their procedure class. Used in tandem, these two HCUP tools can facilitate research on inpatient procedures.

Counting Operating Room Procedures Using the CCSR for ICD-10-PCS and Procedure Classes Refined for ICD-10-PCS

The Procedures Classes Refined for ICD-10-PCS can be used to identify the ICD-10-PCS codes expected to be performed in the operating room (i.e., major diagnostic and therapeutic procedures, values 3 and 4 of the Procedure Classes Refined) and the CCSR for ICD-10-PCS can be used to classify the individual procedure codes into clinical categories. Consider the following example:

- CCSR MST004 (Incision and Drainage of Musculoskeletal Tissue and Joints) includes over 1,900 ICD-10-PCS codes.
    - One-third of the codes are designated as minor therapeutic.
    - Two-thirds of the codes are designated as major therapeutic.
- Using the HCUP National Inpatient Sample (NIS) for 2018, CCSR MST004 (Incision and Drainage of Musculoskeletal Tissue and Joints) would identify about 110,000 inpatient stays in the U.S. for which this type of procedure was a principal or secondary procedure.
- If the analysis was limited to operating room procedures using the Procedure Classes Refined (values 3 and 4), then it would identify about 57,000 inpatient stays in the U.S. in CCSR MST004.

Counting Minor Procedures Using the CCSR for ICD-10-PCS and Procedure Classes Refined for ICD-10-PCS

Some CCSR for ICD-10-PCS categories include only minor procedures (values 1 and 2 of the Procedure Classes Refined). Examples include CCSR IMG006-IMG007 (Computerized tomography, CCSR IMG009 (Plain radiology), CCSR MAM004 (Cardiac stress tests), CCSR MAM008 (Cardiac monitoring), and CCSR MAM007 (Electrocardiogram).

When examining utilization of minor procedures (and not just those listed above), it should be noted that these types of procedures are often underreported on hospital administrative discharge records for a few reasons:

- Billing for the procedure may have been done by the physician, not the hospital.
- The minor procedure is not expected to affect reimbursement for the inpatient stay and therefore is not coded on the discharge record.
- There may be limited room for reporting procedure codes on the hospital discharge record. Some HCUP Partners include no more than six procedures on the files provided to HCUP.

USING THE DOWNLOADABLE PROCEDURE CLASSES REFINED FOR ICD-10-PCS FILES

System Requirements

Using the AHRQ HCUP Procedure Classes Refined for ICD-10-PCS tool requires a program to decompress or "unzip" files.[4] Approximately 1.0 megabytes of disk space available on one's hard drive also will be needed to accommodate all the Procedure Classes Refined for ICD-10-PCS files. Additional space is necessary for saving the Procedure Classes Refined for ICD-10-PCS output files.

Downloadable Files

The Procedure Classes Refined for ICD-10-PCS zip file contains the following:

1. CSV file that includes the mapping of ICD-10-PCS codes into their procedure classes category with a label for the individual CCSR category. The procedure classes have the following values:
    - Minor diagnostic (value 1)
    - Minor therapeutic (value 2)
    - Major diagnostic (value 3)
    - Major therapeutic (value 4)
2. SAS mapping program to apply the tool to the user's data
3. Procedure Classes Refined for ICD-10-PCS User Guide (PDF)
4. Change log with specific detail on coding changes between versions (Excel)

Table 1 includes additional detail on the names and purposes of the files contained in the Procedure Classes Refined for ICD-10-PCS zip file.

[4] Third-party zip utilities are available from the following reputable vendors on their official websites: ZIP Reader (Windows) (free download offered by PKWARE, Inc.), SecureZIP® for Mac or Windows (free evaluation and licensed/fee software offered by PKWARE, Inc.), WinZip (Windows) (evaluation and fee versions offered by the Corel Corporation), Stuffit Expander® (Mac) (free evaluation and licensed/fee software offered by Smith Micro Software Inc.).

Table 1. Contents of the Procedure Classes Refined for ICD-10-PCS Zip File

File Name	Purpose
PClassR_v*yyyy-r*.csv where *yyyy* represents the fiscal year and *r* represents a release number within the fiscal year. For example, the first mapping file release to include codes valid through fiscal year 2027 is named PClassR_v2027-1.csv.	The CSV mapping file lists all ICD-10-PCS procedure codes along with a description for each code, the procedure class assignment (value 1, 2, 3, or 4), and the description of the procedure class (e.g., major therapeutic). This file can be converted to Excel, where a filter can be applied to examine individual ICD-10-PCS codes and value of the procedure classes.
PClassR_Mapping_Program_v*yyyy-r*.sas where *yyyy* represents fiscal year and *r* represents a release number within fiscal year[a]	SAS mapping program applies the Procedure Classes Refined for ICD-10-PCS to the user's data.
PClassR-User-Guide-v*yyyy-r*.pdf where *yyyy* represents fiscal year and *r* represents a release number within fiscal year[a]	This document (i.e., User Guide for the Procedure Classes Refined for ICD-10-PCS in PDF format).
PClassR-ChangeLg_v*yyyy*-v*yyyy-r*.xlsx	A log of changes (Microsoft® Excel) comparing two versions of the Procedure Classes Refined for ICD-10-PCS tool including a list of changes and assignment of ICD-10-PCS codes to a procedure class value.

Abbreviations: CSV, comma separated values; ICD-10-PCS, International Classification of Diseases, Tenth Revision, Procedure Coding System

Data Elements Required for Input Dataset

The input dataset **must** contain an array of ICD-10-PCS procedure codes. These data elements are required for the assignment of the Procedure Classes Refined for ICD-10-PCS (Table 2).

Table 2. Required Input Data Element

Data Element Names in Program	Purpose	How to Modify the Data Element Name Used in the Program	Data Element Name in HCUP Databases
PR1-PRn where n is the dimension of the procedure array	Array of ICD-10-PCS procedures used to assign procedure classes	Specify prefix for PR array using macro statement %LET PRPREFIX=	I10_PR1-I10_PRn in all HCUP databases starting in data year 2016

Abbreviations: ICD-10-PCS, International Classification of Diseases, Tenth Revision, Procedure Coding System

Representation of ICD-10-PCS Procedure Codes

ICD-10-PCS procedure codes are represented by 7 alphanumeric codes. In the CSV mapping file, the ICD-10-PCS procedure codes are enclosed in quotation marks (and do not contain decimals). Table 3 provides examples for how the ICD-10-PCS codes are represented in the CSV mapping file. In the SAS mapping program that assigns the Procedures Classes, ICD-10-PCS codes in the input dataset are expected to be alphanumeric character strings of length 7.

Table 3. Example of Representation of ICD-10-PCS Procedure Codes in the Procedure Classes Refined for ICD-10-PCS

Procedure	ICD-10-PCS Procedure Code	Alphanumeric Code (With Quotation Marks) in the CSV File
Delivery of products of conception, external approach	10E0XZZ	'10E0XZZ'
Insertion of infusion device into superior vena cava, percutaneous approach	02HV33Z	'02HV33Z'
Respiratory ventilation, 24-96 consecutive hours	5A1945Z	'5A1945Z'

Abbreviations: CSV, comma separated values; ICD-10-PCS, International Classification of Diseases, Tenth Revision, Procedure Coding System

Running the SAS Mapping Program to Add Procedure Classes to Data

To download, modify, and run the software to apply the Procedure Classes Refined for ICD-10-PCS to an input dataset, follow these steps:

1. Users should download and extract the contents of the zip file containing the Procedure Classes Refined for ICD-10-PCS tool to a saved location on their computer. Files included in the zip file are described in Table 1 and referenced below.
2. Users must set up the SAS program (PClassR_Mapping_Program_vyyyy-r.sas) to run on their data. They must specify or modify the following where appropriate:
    a. Change the paths in the SAS program to point to the computer location(s) of
        i. The CSV mapping file (PClassR_v*yyyy-r*.csv)
        ii. The input dataset
        iii. The output dataset
    b. Set the macro variables in the SAS program to match the data element names and file structure of the input dataset (Table 4).

Table 4. Modifiable Macro Variables and Directory Paths by Type of Information

Description of Macro Variables and Directory Paths	SAS Program Syntax Example
File Locations	
Specify the location of the CSV mapping file	FILENAME INRAW1
Specify the location of the input dataset	LIBNAME IN1
Specify the location of the output dataset	LIBNAME OUT1
Input File Characteristics	
Specify the prefix used to name the ICD-10-PCS procedure data element array in the input dataset. In this example the procedure data elements would be named I10_PR1, I10_PR2, etc., similar to the naming of ICD-10-PCS data elements in HCUP databases.	%LET PRPREFIX=I10_PR;
Specify the maximum number of procedure codes on any record in the input file. In this example the maximum number of procedure codes on any record is 15. The value of NUMPR must be numeric and greater than or equal to 1.	%LET NUMPR=15;
Specify the name of the variable that contains a count of the ICD-10-PCS codes reported on a record. If no such variable exists in the input data file, leave this blank. In this example, the count variable is available and named I10_NPR.	%LET NPRVAR=I10_NPR;
Specify the number of observations to use from the input dataset. Use MAX to use all observations and use a smaller value for testing the program.	%LET OBS=MAX
Input and Output File Names	
Specify the file member name of the input dataset	%LET CORE=YOUR_SAS_FILE
Specify the file member name for the output dataset	%LET OUT1=OUTPUT_SAS_FILE

Abbreviation: CSV, comma-separate values

Data Elements Added to the Output File

The output file includes all data elements from the input file, in addition to an array of procedure class data elements (**PCLASSn**) with a one-to-one correspondence to the array of ICD-10-PCS codes. For example, PCLASS1 includes the procedure class for the ICD-10-CPS code in the first position of the ICD-10-PCS procedure code array. The length of the array of procedure class data elements (PCLASS1-PCLASSn) is the same length as the input array of procedure codes. The values of the data elements PCLASSn indicate whether the corresponding ICD-10-PCS code is one of the following:

- Minor diagnostic (value 1)
- Minor therapeutic (value 2)
- Major diagnostic (value 3)
- Major therapeutic (value 4).

An additional data element, **PCLASS_ORPROC**, indicates if any ICD-10-PCS code on the record is a major (i.e., operating room) procedure. It works by scanning the array of procedure class data elements (PCLASSn) created by the program. The ORPROC data element will have the value 1 if any procedure was in classes 3 or 4, major diagnostic or therapeutic, respectfully.

The data element **PCLASS_VERSION** indicates the version of the software that was used to assign the procedure classes.

Handling of Missing or Invalid Procedures by the SAS Mapping Program to Assign Procedure Classes

In v2027.1, codes that are not valid ICD-10-PCS procedure codes from October 1, 2015, through September 30, 2027, are assigned a SAS missing value (.) for the procedure class. In addition, if there is no procedure code in the input array, then the corresponding position in the procedure classes array will have a missing value (.).

APPENDIX A: BACKGROUND ON THE DEVELOPMENT OF THE PROCEDURE CLASSES REFINED FOR ICD-10-PCS

The Agency for Healthcare Research and Quality (AHRQ) Healthcare Cost and Utilization Project (HCUP) Procedure Classes for ICD-9-CM was used as the starting point for the AHRQ HCUP Procedure Classes Refined for ICD-10-PCS. In preparation for the October 2015 implementation of ICD-10-CM/PCS, the Healthcare Cost and Utilization Project (HCUP) tools were converted to the new coding system. The initial mapping was completed in 2014 (prior to ICD-10-PCS-coded data being available) by linking the procedure class designation of ICD-9-CM codes to ICD-10-PCS codes via the General Equivalence Mappings (GEMs) available from the Centers for Medicare & Medicaid Services (CMS) website.[5] The determination of major procedures was based on the Medicare Severity Diagnosis Related Group (MS-DRG) identification of operating room procedures that is documented each year in Appendix E of the MS-DRG Definitions Manual. Appendix E identifies operating room procedures that impact the MS-DRG assignment during the grouping process. If the ICD-10-PCS was listed in Appendix E for the fiscal year, it was considered a major procedure; all other PCS codes were assigned as minor procedures in the tool. The resultant first iteration of the ICD-10-PCS classification was considered a beta version.

Beta versions v2016.1 through v2020.1 continued to use the MS-DRG designation of an operating room procedure. In v2021.1, AHRQ decided to align the definition of a major procedure with the AHRQ Quality Indicators (QI) software. The AHRQ QI software uses the identification of any possible operating room procedure for the denominator or population at risk of some of the quality indicators (e.g., select Patient Safety Indicators (PSIs) and Pediatric Quality Indicators (PDI)). In contrast, the MS-DRG software uses the identification of select operating room procedures for the purpose of assigning discharges into a surgical versus medical MS-DRG category. The underlying premise of the QI software was better aligned with the purpose of the Procedure Classes. With the v2027.1 release of the Procedure Classes Refined for ICD-10-PCS, the definition of operating room procedures aligns with the AHRQ QI software for all codes valid October 2015 through September 2027.

In January–February 2021, the 2018 National Inpatient Sample was used to evaluate v2021.1 of the Procedure Classes Refined for ICD-10-PCS so that the tool could be transitioned out of beta status. To evaluate the reliability of the procedure class identification, a clinical panel reviewed lists of common procedures within procedure class and across age groups (pediatrics, adults, and older adults aged 65 years and older) and sex generated using the 2018 NIS. Procedures were identified by the Clinical Classifications Software Refined (CCSR) for ICD-10-PCS. In addition, the clinical panel reviewed the grouping of codes across procedure classes within a CCSR category. For example, all procedure codes in CCSR ENT004 (Diagnostic Audiology) are minor diagnostic. In contrast, CCSR CAR026 (Pacemaker and Defibrillator Procedures) is a

[5] Information on the GEMS is available at https://www.cms.gov/medicare/coding-billing/icd-10-codes/icd-10-cm-icd-10-pcs-gem-archive

mixture of minor and major therapeutic procedures depending on the invasiveness of the procedure.

Summary of Key Changes in the Versions of Procedure Classes Refined for ICD-10-PCS

The following is a summary of key features and changes between released versions of the Procedures Classes Refined for ICD-10-PCS:

- v2027.1 (released October 2026)
  - Added ICD-10-PCS procedure codes that became effective in FY 2027, so the tool includes ICD-10-PCS codes valid from October 2015 through September 2027, including 80 codes that became effective April 1, 2026.
  - Aligned the identification of major procedures with the definition of operating room procedures in the AHRQ QI software for codes valid from October 2015 through September 2027.

- v2026.1 (released October 2025)
  - Added ICD-10-PCS procedure codes that became effective in FY 2026, so the tool includes ICD-10-PCS codes valid from October 2015 through September 2026, including 50 codes that became effective April 1, 2025.
  - Aligned the identification of major procedures with the definition of operating room procedures in the AHRQ QI software for codes valid from October 2015 through September 2026.

- v2025.1 (released November 2024)
  - Added ICD-10-PCS procedure codes that became effective in FY 2025, so the tool includes ICD-10-PCS codes valid from October 2015 through September 2025, including 41 codes that became effective April 1, 2024.
  - Aligned the identification of major procedures with the definition of operating room procedures in the AHRQ QI software for codes valid from October 2015 through September 2025.

- v2024.1 (released April 2024)
  - Added ICD-10-PCS procedure codes that became effective in FY 2024, so the tool includes ICD-10-PCS codes valid from October 2015 through September 2024, including 34 codes that became effective April 1, 2023.
  - Aligned the identification of major procedures with the definition of operating room procedures in the AHRQ QI software for codes valid from October 2015 through September 2024.

- v2023.1 (released December 2022)
  - Added ICD-10-PCS procedure codes that became effective in FY 2023, so the tool includes ICD-10-PCS codes valid from October 2015 through September 2023.

- Aligned the identification of major procedures with the definition of operating room procedures in the AHRQ QI software for codes valid from October 2015 through September 2023.

- v2022.2 (released March 2022)
  - Added nine codes related to the introduction or infusion of therapeutics and COVID-19 vaccines, which became effective April 1, 2022.
  - Aligned the identification of major procedures with the definition of operating room procedures in the AHRQ QI software for codes valid from October 2015 through September 2022.

- v2022.1 (released October 2021)
  - Added ICD-10-PCS procedure codes that became effective in FY 2022, so the tool includes ICD-10-PCS codes valid from October 2015 through September 2022.
    - Aligned the identification of major procedures for new FY 2022 codes with the list of operating room procedures used for the Medicare Severity-Diagnosis Related Groups (MS-DRGs) v39[6] instead of the Agency for Healthcare Research and Quality (AHRQ) Quality Indicator (QI) software. When the FY 2022 codes are added to the AHRQ QI software, the Procedure Classes Refined for ICD-10-PCS will be updated.
  - Renamed the data element that identifies records with at least one operating room procedure from ORPROC to PCLASS_ORPROC to identify the origin of the data element.

- v2021.2 (released March 2021)
  - Transitioned the software out of beta status after empirical testing and clinical review.
  - Added 12 codes related to COVID-19 therapeutics, which became effective August 1, 2020, as well as 21 codes related to administration of COVID-19 vaccines and monoclonal antibody treatments, which became effective January 1, 2021.
  - Aligned the identification of major procedures with the definition of operating room procedures in the AHRQ QI software for codes valid from October 2015 through September 2021.[7]
  - Includes ICD-10-PCS procedure codes valid from October 2015 through September 2021.

- v2021.1 (beta version; released October 2020)

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[6] Information on the MS-DRG identification of operating room procedures is available in Appendix E of the MS-DRG Definitions Manual for v39 at https://www.cms.gov/icd10m/version39.0-fullcode-cms/fullcode_cms/P0033.html.

[7] Information on the list of operating room procedure codes in the AHRQ QI software v2021 is available in Appendix A of the Patient Safety Indicator (PSI) module at https://qualityindicators.ahrq.gov/Downloads/Modules/PSI/V2021/TechSpecs/PSI_Appendix_A.pdf.

- Updated with FY 2021 coding, but did not do a more extensive refinement
- Aligned the identification of major procedures with the definition of operating room procedures in the AHRQ QI software v2020 for codes valid from October 2015 through September 2020.[8]
    - Similar information on FY 2021 codes (October 2020 - September 2021) was unavailable from the QI software, so identification of major procedures was based on the list of operating room procedures used for the Medicare Severity-Diagnosis Related Groups (MS-DRGs) v38.[9]
- Includes ICD-10-PCS procedure codes valid from October 2015 through September 2021.

[8] Information on the list of operating room procedure codes in the AHRQ QI software v2020 is available in Appendix A of the Patient Safety Indicator (PSI) module at https://qualityindicators.ahrq.gov/Downloads/Modules/PSI/V2020/TechSpecs/PSI_Appendix_A.pdf.
[9] Information on the MS-DRG identification of operating room procedures is available in Appendix E of the MS-DRG Definitions Manual for v38 at https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/AcuteInpatientPPS/MS-DRG-Classifications-and-Software.