ACS NSQIP PEDIATRIC

User Guide for the 2023 ACS NSQIP Pediatric Participant Use Data File (PUF)

American College of Surgeons National Surgical Quality Improvement Program - Pediatric

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ACS AMERICAN COLLEGE OF SURGEONS

Contents

1. Introduction

This document is designed to accompany the 2023 Pediatric Participant Use Data File (PUF) available for download on the American College of Surgeons National Surgical Quality Improvement Program Pediatric (ACS NSQIP Pediatric) website (https://www.facs.org/quality-programs/data-and-registries/pediatric/). The sections contained herein will provide the user with information on how to request the Pediatric PUF, the contents of the data files, the data collection background, the inclusion and exclusion criteria for cases and hospitals, the data limitations, and the data point definitions and descriptions.

This user guide applies specifically to the 2023 Pediatric PUF. Hospitals utilizing the Pediatric PUF from a different year should refer to the user guide specifically tailored to that particular data set.

2. Data Request Process

An individual who has an official appointment at a fully enrolled Pediatric site and wants to obtain a copy of the Pediatric PUF can do so by visiting https://www.facs.org/quality-programs/data-and-registries/pediatric/participant-use-data-file/ and following the steps below:

1. From the ACS NSQIP Pediatric PUF main page the requestor can scroll down towards the bottom of the page after the PUF descriptions.
2. The requestor can then click on the navy blue "Request Data Set" box.
3. This will take the requestor to the Data Use Agreement. This is a 3-page document that implements the data protections of the Health Insurance Portability and Accountability Act of 1996 (HIPAA) and the ACS NSQIP Hospital Participation Agreement. Delivery of the PUF is contingent on agreement to the terms and conditions specified within the Data Use Agreement. The requestor can read the Data Use Agreement from this page or download the 3-page document. The requestor is then required to type in their first and last name and click on "Request Data File." By clicking on "Request Data File" the requestor agrees to the terms and conditions of the Data Use Agreement.
4. Requestors will then be required to complete a brief online form to provide ACS with basic information about themselves, including the participating hospital in which they are currently employed and in what capacity, as well as how the requestor plans on using the Pediatric PUF data. Once all of the required fields are completed, the requestor clicks "Submit."
5. ACS NSQIP staff will review the request in a timely manner. Program contacts at participating sites will be contacted at this time to confirm the requestor's affiliation with the hospital and confirm internal approval of the PUF request.

6. Following receipt and confirmation of the information submitted, an email will be sent to the requestor containing a username and password along with the URL to download the data. The web link will be active from the time of the email for 10 full days (240 hours).
7. The file will be available in 3 different formats (Text, SAS, SPSS) and depending on the connection speed should take between 5 and 30 minutes to download.
8. The requestor may be contacted to confirm receipt of the data file and allow for feedback on the delivery mechanism, data points contained, and data file format.

3. File Description

Each fall a Pediatric PUF will be made available for the previous calendar year's data. The Pediatric PUF is available in one of three different formats – Text, SAS, and SPSS. The 2023 file contains 297 variables for each case, and a variable-by-variable description is provided starting on page 12. A brief description of the different formats follows:

File Name	Type	Uncompressed File Size	Description
ACS_PEDS_PUF_2023.txt	tab delimited TXT file	285 MB	Contains 305 HIPAA compliant variables on 151,466 cases submitted from 157 sites in 2023.
ACS_PEDS_PUF_2023.sas7bdat	SAS 9.4 data file	946 MB	Same information as stated above in SAS data format.
ACS_PEDS_PUF_2023.sav	SPSS 16.0 data file	542 MB	Same information as stated above in SPSS data format.

4. Data Collection Background and Data Quality

The ACS NSQIP Pediatric collects data on over 150 variables, including preoperative risk factors, intraoperative variables, and 30-day postoperative mortality and morbidity outcomes for patients undergoing major surgical procedures in both the inpatient and outpatient setting. A site's trained and certified Surgical Clinical Reviewer (SCR) captures these data using a variety of methods including medical chart abstraction.

Required data variables are entered via web-based data collection to the ACS NSQIP Pediatric website. Portions of the data may be automatically populated by a software program that was developed to extract data from the participating hospital's existing information systems.

Requestors should contact the SCR(s) at their hospital for detailed information on how the hospital collects its ACS NSQIP Pediatric data.

To ensure the data collected are of the highest quality, the ACS NSQIP Pediatric has developed a host of different training mechanisms for the SCRs and conducts a Data Audit of selected participating sites. In addition to an initial web-based training program, the ACS NSQIP Pediatric requires SCRs to complete a series of web-based training modules followed by a certification exam that must be taken annually. The modules and certification exam focus on the program, processes, and analysis; preoperative, intraoperative, and postoperative definitions; and case studies. These modules are complemented by a growing online decision support system that ensures the SCRs have the knowledge and resources available to collect high-quality data.

The Data Audit is a fundamental tool of ACS NSQIP Pediatric to assess the quality of the data collected at participating sites. The process involves the review of multiple charts, some of which are selected randomly, and others selected based on criteria designed to identify potential reporting errors. For example, cases with five or more preoperative risk factors and no reported mortality or morbidity or cases with two or fewer preoperative risk factors and reported mortality or morbidity will be selected for chart review. Operating room logs are also audited to ensure correct sampling of cases.

The combined results of the audits completed to date revealed an overall disagreement rate of approximately 2% for all assessed program variables. The ACS NSQIP Pediatric has determined that a Data Audit disagreement rate of 5% or less is acceptable. Sites that have higher than a 5% disagreement rate are not provided a hospital odds ratio in the ACS NSQIP Pediatric Semiannual Report and may be required to undergo an additional audit following recommendations from the ACS NSQIP Pediatric.

5. Sampling Process and Case Inclusion/Exclusion Criteria

Systematic Sampling Process

Large surgical services normally experience a significant volume of surgical cases. This presents the SCRs with the problem of managing an overwhelming workload. Therefore, a systematic sampling system called the 8-day cycle was developed to prevent bias in choosing cases for assessment. The SCR uses the 8-day cycle to select completed cases from the hospital's final operative log. The final operative log includes any emergent, urgent or add-on procedures that were performed and excludes any scheduled procedures that were not performed. The operative log is sorted by the date of the operation, "Patient In Room" time, and finally Operating Room Suite Number. The 8-day cycle schedule works as follows: If the first cycle begins on a Monday, it continues through to include the following Monday (an 8-day period of time). The next cycle begins on Tuesday and continues through to include the following Tuesday, and so on. There are 46 8-day cycles in 1 year, and the program recommends that data be submitted for 40 of those

cycles. The process ensures that cases have an equal chance of being selected from each day of the week.

Hospitals with a high volume of surgical cases capture the first 35 consecutive cases meeting the inclusion/exclusion criteria in the 8-day cycle following the systematic sampling guidelines.

Case Inclusion Criteria

The following inclusion criteria were applied to cases collected in 2023. For the current inclusion/exclusion criteria please contact the ACS NSQIP Pediatric Clinical Support Team at clinicalsupport@pediatric.acsnsqip.org.

- The ACS NSQIP Pediatric includes all cases with CPT codes that are listed on the CPT inclusion list.

Case Exclusion Criteria

The following exclusion criteria were applied to cases collected in 2023. For the current inclusion/exclusion criteria please contact the ACS NSQIP Pediatric Clinical Support Team at clinicalsupport@pediatric.acsnsqip.org.

- Patients 18 years of age, or older.
- Cases involving Hyperthermic Intraperitoneal Chemotherapy (HIPEC), regardless of if the procedure performed has an included CPT code(s).
- ASA 6- (Declared brain-dead patient whose organs are being removed for donor purposes).
- Concurrent Case – An additional operative procedure performed by **a different surgical team** (e.g., a different specialty/service) **under the same anesthetic**. An additional operative procedure with a CPT code different from that of the Primary Procedure performed by a different surgical team under the same anesthetic is listed as a concurrent procedure. A concurrent procedure is not included in its own assessment.
- Multiple cases within 30 days – Multiple cases for the same patient within 30 days are excluded. (Only one case, per patient, per 30 day time frame can be abstracted for NSQIP-PEDs).
- Exclude a return to the operating room/ICU setting as the primary procedure, if it is related to an occurrence or complication from any procedure (surgical or otherwise) regardless of where the procedure was performed, within 30 days or within the same admission.
- Exclude a procedure performed by a surgical service not reviewed in Pediatric NSQIP.
- Transplant Cases – Specifically: A patient who is admitted to the hospital for solid organ transplant surgery, and has additional surgical procedures performed during the same hospital stay, is excluded. Any operation performed after the patient has been discharged from the transplant stay is included.

- **Trauma and Abuse Cases**: Any case caused by a trauma or abuse with a principal ICD-10 diagnostic code within the ranges of S00-T14, T20-T79, T83-T85, and V00-Y99 will be excluded from sampling.
    - **Exception to Trauma/Abuse criteria**: When not caused by abuse, include trauma cases with included CPT codes that involve a fracture to a single limb section, with no other injuries. Capture cases with a single break, even if it crosses over multiple bones.
    - Exclude any surgical procedure related to the index trauma procedure(s) which occur during the same hospitalization. Any operation performed after the patient has been discharged from the trauma stay will be included; if they meet NSQIP-Pediatric program inclusion criteria.
    - Exclude any subsequent surgical procedure that is a direct result of abuse, regardless of timeframe.

Hospital Exclusion Criteria

In addition to the case inclusion/exclusion criteria, hospital inclusion/exclusion criteria are also imposed. To maintain the highest level of data quality, only cases included in the odds ratio analysis are included in the Pediatric PUF. These cases go through an additional level of scrutiny as they are passed from data collection to statistical analysis. Sites that exhibit issues with either data quality or 30-day follow-up are reviewed for exclusion to ensure the integrity of PUF data.

Case Selection

Step 1: Collect Procedure Targeted Cases with Procedure Specific Variables

- Once cases meeting criteria for inclusion have been identified, the Procedure Targeted cases with procedure specific variables are selected first, as they occur in consecutive order, utilizing the procedure targeted CPT list.

    - Each of these cases has a limit of 4 per 8-day cycle. These cases include:

        - Appendectomy
        - Spinal Fusion
        - CSF Shunt* *(See note below for 2022)*
        - Vesicoureteral Reflux
        - Tracheostomy

Step 2: Collect Procedure Targeted Cases without Procedure Specific Variables

- Next, all possible Procedure Targeted cases without procedure specific variables are selected, in consecutive order, utilizing the procedure targeted CPT list. The Procedure Targeted CPT Code Inclusion List is located in the appendices section of the Operations Manual.
- There is a 4 case per cycle limit for Gastrostomy and Laparoscopic Cholecystectomy procedures.

Step 3: Collect Surgical Specialty Cases

- If, after selecting all procedure targeted cases as outlined above, the cycle does not meet 35 cases, the hospital will now select all remaining surgical specialty cases, as they occurred in consecutive order, utilizing the Full CPT list.
- At this point in case selection, case limits on procedure targeted cases are still maintained (only four cases for appendectomy, spinal fusion, CSF shunt, vesicoureteral reflux, tracheostomy, gastrostomy and laparoscopic cholecystectomy).
- Collect all cases until reaching a total of 35 cases.

Step 4: Rounding Out Your Cases to Achieve 35 Cases per Cycle

- If less than 35 cases are abstracted for a cycle after a hospital selects all cases as described in steps 1-3 above, a hospital may opt to collect additional cases to round up to 35 cases utilizing the following process, or they may choose to identify the cycle as "Max cases" under the "Manage Cycles" section of the "My Account" tab in the Workstation.
- If the cycle does not total 35 cases after following the three previous steps, the hospital may opt to "Max Cases" or may continue to capture additional cases of the "limited procedures" Appendectomy, Spinal Fusion, CSF Shunt, VUR, Laparoscopic Cholecystectomy, Gastrostomy, and Tracheostomy, while still following the current sampling methodology (primary procedure, only one case per patient per 30 days, etc.).
- If the cycle still does not total 35 cases, the hospital will identify the cycle as "Max Cases" in the workstation.

*NOTE: The CSF Shunt procedure specific variables were removed from abstraction as of July 1st, 2022. As such, CSF Shunt procedures were removed from Step 1 as of July 1st, 2022, and these cases moved to Step 2 of the sampling process.

6. Data Limitations

While every effort has been made to make the Pediatric PUF as complete as possible, the data do have certain limitations. Some of these limitations have been deliberately introduced to safeguard the privacy of patients (such as removal of absolute dates). Other limitations are due to resource constraints (such as the collection of generic surgical variables only). The following items represent the most salient limitations of the data:

- Because such a wide variety of operations are tracked, the variables are necessarily generic in nature. This limitation may pose difficulties for researchers attempting in-depth research on specific conditions or operations. However, surgical Targeted PUF datasets are now available which address target-specific predictors and outcomes for many types of operations.

- Patients are followed after surgery for a maximum of 30 days. Complications or death after that period are not included.

- In order to comply with HIPAA requirements, all absolute dates have been removed. The most critical of these is the date of surgery, which has been reduced to year of surgery only. Some dates (hospital entry, dates of laboratory tests, and so on) have been recoded into durations e.g. Date of Admission and Date of Discharge is recoded into Hospital Length of Stay.

- In order to comply with the Hospital Participation Agreement (HPA) that is agreed to between the ACS and participating sites, facility identifiers as well as geographic information regarding the case have been removed. The HPA stipulates that the ACS does not identify participating sites. Site identification could be possible even with blinded identifiers through advanced statistics. A stipulation of access to the Pediatric PUF is completion of the Data Use Agreement that strictly prohibits attempts to identify hospitals, health care providers, or patients.

- While many risk factors are tracked, preventative measures are not recorded which can lead to an overestimation of the risk of certain conditions when such measures are routinely taken before surgery.

- The data are submitted from hospitals that are participating in the ACS NSQIP Pediatric and do not represent a statistically valid nationally representative sample.

- Most patients do not receive all possible preoperative laboratory tests, so some of these variables have a high percentage of missing values (53% to 87%, depending on the tests). This high percentage of missing data can make it problematic to use these variables in a traditional logistic regression model as well as in many other types of analysis.

This list may not include all data limitations and additional limitations may apply in future versions of the data.

7. Contact Information

All questions about the Pediatric User Guide or Pediatric PUF, as well as comments and suggestions for improvements are welcome and may be directed to Brian Matel, ACS NSQIP Statistical Reports Manager via email at bmatel@facs.org.

8. Frequently Asked Questions

Request Process

Q: Who has access to this file?
A: Any individual with an official appointment at a fully participating pediatric site will be given access to the file following completion of the Data Use Agreement and a short set of questions that are available on the website.

Q: Is the file available to individuals from nonparticipating sites?
A: At this time the data files are only available to individuals with official appointments at fully participating pediatric sites.

Q: I am at a pediatric NSQIP-participating site and would like to work on a research project with others from a different site that is not participating. Will I be allowed to do that?
A: Yes, however, the NSQIP affiliated researcher must be the lead investigator on all PUF-based research projects and is responsible for the PUF dataset, even if forwarded to someone else. The non-participating collaborator must also sign the DUA.

Q: How do I obtain a copy of this file?
A: Please see the "Data Request Process" on page 1 of this document for a step-by-step approach on how to do so.

Contents of the Files

Q: Are other Pediatric PUF data sets available?

A: There are 37 other Pediatric PUFs available for request / download:

PUF Year	PUF Type	Cases	Sites
2012	Pediatrics	51,008	50
2013	Pediatrics	63,387	56
2014	Pediatrics	68,838	64
2015	Pediatrics	84,056	80
2016	Pediatrics	101,887	101
2017	Pediatrics	113,922	109
2018	Pediatrics	119,486	127
2019	Pediatrics	132,881	141
2020	Pediatrics	128,395	148
2021	Pediatrics	141,843	150
2022	Pediatrics	146,331	157
2015	Appendectomy	10,570	20
2016	Appendectomy	13,114	101
2017	Appendectomy	14,463	106
2018	Appendectomy	16,986	122
2019	Appendectomy	20,658	134
2020	Appendectomy	21,445	140
2021	Appendectomy	22,212	140
2022	Appendectomy	22,681	148

PUF Year	PUF Type	Cases	Sites
2016	Spinal Fusion	3,728	93
2017	Spinal Fusion	4,260	98
2018	Spinal Fusion	5,333	112
2019	Spinal Fusion	6,153	124
2020	Spinal Fusion	6,019	131
2021	Spinal Fusion	7,125	139
2022	Spinal Fusion	7,045	145
2016	CSF Shunt	1,452	96
2017	CSF Shunt	1,128	102
2018	CSF Shunt	1,493	115
2019	CSF Shunt	2,298	131
2020	CSF Shunt	2,096	131
2021	CSF Shunt	2,411	135
2020	Vesicoureteral Reflux (VUR)	1,742	124
2021	Vesicoureteral Reflux (VUR)	1,807	126
2022	Vesicoureteral Reflux (VUR)	2,305	136
2021	SAP	89,342	150
2022	SAP	93,007	157

Q: What is in this file?

A: The file contains Health Insurance Portability and Accountability Act (HIPAA) de-identified data from sites participating in the ACS NSQIP Pediatric that received risk-adjusted reports in 2023. The variable name, variable label, data definition, and other pertinent information are provided in Section 9: Data Variables and Definitions.

Q: Are site identifiers included in the database?

A: At this time, we do not provide any geographic or site-specific identification. We took this approach to ensure the privacy of both the participating sites and surgeons.

Q: Are there surgeon-specific identifiers included in the database?

A: At this time, we do not provide any surgeon-specific information. We took this approach to ensure the privacy of both the participating sites and surgeons.

Q: Why does the Pediatric PUF exclude specific dates?

A: In order to release the Pediatric PUF, certain adjustments to the data are required to ensure proper protection of patient information. To meet these requirements, we remove all elements of dates (except admission year) for dates directly related to an individual. For more information on the 18 data elements that are required for removal, please visit https://privacyruleandresearch.nih.gov/ or https://privacyruleandresearch.nih.gov/pdf/HIPAA_Booklet_4-14-2003.pdf.

Q: The ACS NSQIP Pediatric program collects approximately 150 variables, but the database contains approximately 300 variables. What are the additional variables?

A: The additional variables contained in the Pediatric PUF relate to computed durations. For example, the admission and discharge dates are used to calculate hospital length of stay. In addition, each complication in the ACS NSQIP Pediatric requires the use of three different variables in the database. There are a few other data elements collected in the ACS NSQIP Pediatric that require multiple variables in the database.

Values in the Data

Q: Why do some cases have complications that do not have a known duration from operation to complication?

A: In each of these cases, the date of the complication was invalid, which inhibited the calculation of duration. The number of days from operation to complication variable is coded as -99 for these cases.

Q: Why do some of the preoperative lab values have duration from lab to operation, but a value of -99 for the lab value?

A: The results of the lab tests can be entered manually and thus are susceptible to data entry error. Depending on the preoperative lab variable roughly 1% of the cases had invalid values and these invalid values were set to -99 to simplify analysis. It is also possible that some cases have valid lab values but are missing duration from lab to operation variable. This discrepancy is also related to a data entry error and the program continues to improve the data collection software to minimize the potential for data entry errors.

Q: When performing analysis on the five-digit CPT codes in the Other and Concurrent variables, how should I interpret those cases with a valid five-digit CPT code but a CPT description set to NULL?

A: If the case has a valid five-digit CPT code that procedure occurred and should be evaluated as such. The CPT description is a secondary variable and provided for convenience. In the processing of large amounts of data some descriptions are purposefully or inadvertently removed.

File Formats

Q: In what file formats are the data available?

A: The data files are made available in a tab delimited TXT, SAS, and SPSS formats.

Advisement: When a change in definitions across PUF years is noted, users should attend to this if they merge files. It is suggested that they evaluate variable categories across years and combine them in a manner appropriate to their research objectives

Position #	Variable Name	Data Type	Variable Label	Search Term in Chapter 4 Notes: Please search exactly as stated * Variables not included in Chapter 4	Variable Options	Comments
1	PUFYEAR	Num	Year of PUF	* Year of PUF		
2	CaseID	Num	Case Identification Number	Variable Name:Identification Number MRN/IDN		
3	AGE_DAYS	Num	Age of Patient at Time of Surgery (days)	Variable Name:Date of Birth		
4	SEX	Char	Sex	Variable Name:Sex	Male	NULL = No Response
					Female	
					Non-binary	
5	RACE	Char	Race	Variable Name:Race	American Indian or Alaska Native	NULL = No Response
					Asian	Multi-select variable
					Black or African American	"Race combinations with low frequency" was assigned to cases in which multiple race options were selected and the race combinations had fewer than 50 cases.
					Native Hawaiian or Other Pacific Islander	
					Race combinations with low frequency	
					Some Other Race	
					Unknown/Not Reported	
					White	
6	ETHNICITY_HISPANIC	Char	Hispanic Ethnicity	Variable Name:Hispanic Ethnicity	Yes; No; Unknown	NULL = No Response
7	CPT	Char	CPT	Variable Name:Primary Procedure		
8	PRNCPTX	Char	Primary Procedure	Variable Name:Primary Procedure		
9	WORKRVU	Num	Work Relative Value Unit	* Work Relative Value Unit		
10	LAPTHOR	Char	Laparoscopic/MIS Procedure	Variable Name:Laparoscopic/MIS Procedure	Laparoscopic/MIS only	NULL = No Response
					Laparoscopic/MIS and Open	
					Open only or N/A	
11	PROC_DESC_ST	Char	Procedure Description Stomach	Variable Name: Procedure Description Stomach	Gastrostomy; with exploration or foreign body removal	NULL= No Response
					Pyloromyotomy (Fredet-ranstedt type)	
					Biopsy of stomach	
					Excision, local, ulcer, benign tumor of stomach	
					Pyloroplasty	
					Gastrorrhaphy; suture of perforated duodenal or gastric ulcer, wound, or injury	
					Closure of gastrostomy, surgical	
					Closure of gastrocolic fistula	
					Other	
12	PROC_DESC_UT	Char	Procedure Description Ureter	Variable Name: Procedure Description Ureter	Ureterectomy, with bladder cuff	NULL = No Response
					Ureteroplasty, plastic operation on ureter (e.g.; stricture)	
					Ureterectomy, total, ectopic ureter, combination abdominal, vaginal, and/or perineal	
					Ureterocalycostomy, anastomosis of ureter to renal calyx	
					Ureteroureterostomy	
					Ureteroneocystostomy; Anastomosis of Duplicated Ureter to Bladder	
					Ureteroneocystostomy; With Extensive Ureteral Tailoring	
					Ureteroneocystostomy; With Vesico-Psoas Hitch of Bladder Flap	
					Other	
13	PROC_DESC_BLA	Char	Procedure Description Bladder	Variable Name: Procedure Description Bladder	Cutaneous Appendico-vesicostomy	NULL = No Response
					Excision of urachal cyst or sinus w/o umbilical hernia repair	
					Cystotomy, for excision of bladder diverticulum, single or multiple	
					Cystectomy, partial, simple	
					Cystoplasty or Cystourethroplasty, plastic operation on bladder or vescial neck, w/o wedge resection of posterior vesical neck	
					Other	
14	INOUT	Char	Inpatient/Outpatient	Variable Name:In/Out-Patient Status	Inpatient; Outpatient	NULL = No Response
15	ADMYR	Num	Year of Admission	Variable Name:Hospital Admission Date/Time		-99 = No Response
16	TRANST	Char	Transfer Status/Origin Status	Variable Name:Transfer Status/Origin Status	Home/Permanent Residence	NULL = No Response
					Acute Care Hospital	
					Other Facility	
17	OPERYR	Num	Year of Operation	Variable Name:Operation Date		
18	HtoODay	Num	Days from Hospital Admission to Operation	* Days from Hospital Admission to Operation		-99 = No Response
19	ANESTECH	Char	Principal Anesthesia Technique	Variable Name:Principal Anesthesia Technique	General – (including IV anesthesia with intubation or Laryngeal Mask Airway (LMA)	NULL = No Response
					Spinal	
					Epidural	
					Caudal	
					Regional	
					Local – (usually performed by the surgeon)	
					None	
					Other	
					Unknown	

				Search Term in Chapter 4		
20	SURGSPEC	Char	Surgical Specialty	Variable Name:Surgical Specialty	Pediatric Cardiovascular-Thoracic	
					Pediatric Neurosurgery	
					Pediatric Orthopedic Surgery	
					Pediatric Otolaryngolgy (ENT)	
					Pediatric Surgery	
					Pediatric Urology	
					Pediatric Plastics	
					Plastics	
					Cardiovascular-Thoracic	
					General Surgery	
					Gynecology	
					Neurosurgery	
					Orthopedics	
					Otolaryngology (ENT)	
					Urology	
					Interventional Radiology (IR)	
21	HEIGHT	Num	Height/Length at Surgery (in)	Variable Name:Height/Length		-99 = No Response Units converted to inches
22	WEIGHT	Num	Weight at Surgery (lbs)	Variable Name:Weight		-99 = No Response Units converted to lbs
23	DNR	Char	Do Not Resuscitate (DNR) Status	Variable Name:DNR Status	Yes; No	NULL = No Response
24	PREM_BIRTH	Char	Premature Birth	Variable Name:Premature Birth	No	NULL = No Response
					Less than 24 completed weeks gestation	
					24 completed weeks gestation	
					25-26 completed weeks gestation	
					27-28 completed weeks gestation	
					29-30 completed weeks gestation	
					31-32 completed weeks gestation	
					33-34 completed weeks gestation	
					35-36 completed weeks gestation	
					Unknown	
25	VENTILAT	Char	Ventilator Dependence	Variable Name:Ventilator Dependence	Yes; No	NULL = No Response
26	ASTHMA	Char	History of Asthma	Variable Name:History of Asthma	Yes; No	NULL = No Response
27	HXCLD	Char	Bronchopulmonary Dysplasia/Chronic Lung Disease	Variable Name:Bronchopulmonary Dysplasia/Chronic Lung Disease	Yes; No	NULL = No Response
28	OXYGEN_SUP	Char	Oxygen Support	Variable Name:Oxygen Support	Yes; No	NULL = No Response
29	TRACHEOSTOMY	Char	Tracheostomy	Variable Name:Tracheostomy	Yes; No	NULL = No Response
30	STRUCT_PULM_AB	Char	Structural Pulmonary/Airway Abnormalities	Variable Name:Structural Pulmonary/Airway Abnormalities	Yes; No	NULL = No Response
31	ESOVAR	Char	Esophageal/Gastric/Intestinal Disease	Variable Name:Esophageal/Gastric/Intestinal Disease	Yes; No	NULL = No Response
32	PRVPCS	Char	Previous Cardiac Surgery	Variable Name:Previous Cardiac Surgery/Cardiac Intervention	Yes; No	NULL = No Response
33	CRF	Char	Cardiac Risk Factors	Variable Name:Cardiac Risk Factors	No cardiac risk factors	NULL = No Response
					Minor cardiac risk factors	
					Major cardiac risk factors	
					Severe cardiac risk factors	
34	IMPCOGSTAT	Char	Developmental Delay/Impaired Cognitive Status	Developmental Delay	Yes; No	NULL = No Response
35	SEIZURE	Char	Seizure Disorder	Seizure Disorder	Yes; No	NULL = No Response
36	CEREBRAL_PALSY	Char	Cerebral Palsy	Cerebral Palsy	Yes; No	NULL = No Response
37	ACQ_ABNORMALITY	Char	Structural CNS Abnormality	Structural CNS Abnormality	Yes; No	NULL = No Response
38	NEUROMUSCDIS	Char	Neuromuscular Disorder	Neuromuscular Disorder	Yes; No	NULL = No Response
39	IVH_GRADE	Char	Intraventricular Hemorrhage (IVH) Grade	Intraventricular Hemorrhage (IVH) Grade	Grade 1	NULL = No Response
					Grade 2	
					Grade 3	
					Grade 4	
					IVH reported, but no grade assigned	
					No IVH reported	
40	STEROID	Char	Steroid Use	Variable Name:Steroid Use	Yes; No	NULL = No Response
41	OSTOMY	Char	Ostomy/External Fistula	Variable Name:Ostomy/External Fistula	Yes; No	NULL = No Response
42	OSTOMY_TYPE	Char	Ostomy Type	Variable Name:Ostomy	Central Nervous System	NULL = No Response Multi-select variable
					Thorax	
					Upper Gastrointestinal Tract	
					Lower Gastrointestinal Tract	
					Urinary Tract	
43	NUTR_SUPPORT	Char	Nutritional Support	Variable Name:Nutritional Support	Yes; No	NULL = No Response
44	HEMODISORDER	Char	Hematologic Disorders	Variable Name:Hematologic Disorders	Yes; No	NULL = No Response
45	PRSEPIS	Char	SIRS/Sepsis/Septic Shock Within 48 Hours Prior to Surgery	Variable Name:SIRS/Sepsis/Septic Shock	None	NULL = No Response
					SIRS	
					Sepsis	
					Septic Shock	
46	INOTR_SUPPORT	Char	Inotropic Support at Time of Surgery	Variable Name:Inotropic Support at Time of Surgery	Yes; No	NULL = No Response
47	CPR_PRIOR_SURG	Char	Previous CPR Within 7 Days Prior to Surgery	Variable Name:Previous CPR	Yes; No	NULL = No Response

				Search Term in Chapter 4		
48	TRANSFUS	Char	Blood transfusions Within 48 Hours Prior to Surgery	Variable Name:RBC Transfusions	Yes; No	NULL = No Response
49	MALIGNANCY	Char	Childhood Malignancy	Variable Name:Childhood Malignancy	Past history of cancer Current cancer or active treatment of cancer No current or prior history of cancer	NULL = No Response
50	NEONATE_TYPE	Char	Neonate Type	Variable Name:Neonate Type at Birth	Term Neonate (28 days old or younger born at 37 weeks complete gestation) Premature Neonate (up to 50 weeks post conceptual age born less than 37 weeks of completed gestation)	NULL = No Response
51	GESTATIONALAGE_BIRTH	Num	Gestational Age at Birth (weeks)	Variable Name:Gestational Age at Birth (in weeks)		-99 = No Response
52	GESTATIONALAGE_SURGERY	Num	Gestational Age at Surgery (weeks)	* Patient's post-conceptual age in weeks at time of surgery		-99 = No Response
53	NEONATE	Char	Neonate at Time of Surgery	* "YES" is entered when "Neonate Type" is "Term neonate" and operation date is <29 days after date of birth OR "Neonate Type" is "Premature neonate" and "Gestational Age At Surgery" is <51 weeks	Yes; No	NULL = No Response
54	SM_GESTATIONALAGE	Char	Small for Gestational Age	Variable Name:Small for Gestational Age	Yes; No	NULL = No Response
55	BIRTH_WGT_UNIT	Char	Birth Weight Unit	Variable Name:Birth Weight	lbs kg Unknown	NULL = No Response
56	BIRTH_WGT_LB	Num	Birth Weight in Pounds (lbs)	Variable Name:Birth Weight		-99 = No Response
57	BIRTH_WGT_OZ	Num	Birth Weight in Ounces (oz)	Variable Name:Birth Weight		-99 = No Response
58	BIRTH_WGT_KG	Num	Birth Weight in Kilograms (kgs)	Variable Name:Birth Weight		-99 = No Response
59	BIRTH_HGT	Num	Birth Height/Length Value	Variable Name:Birth Length		-99 = No Response
60	BIRTH_HGT_UNIT	Char	Birth Height/Length Unit	Variable Name:Birth Length	cm in	NULL = No Response
61	HEAD_CIRC	Num	Head Circumference Value	Variable Name:Head Circumference		-99 = No Response
62	HEAD_CIRC_UNIT	Char	Head Circumference Unit	Variable Name:Head Circumference	cm in	NULL = No Response
63	BIRTH_LOCATION	Char	Location of Birth	Variable Name:Location of Birth	Inborn; Outborn; Unknown	NULL = No Response
64	DELIVERY_MODE	Char	Mode of Delivery	Variable Name:Mode of Delivery	Vaginal Delivery Scheduled C-Section Unscheduled C-Section Unknown/Not Documented	NULL = No Response
65	APGAR_1MIN	Char	APGAR Score 1 Minute	Variable Name: Apgar Score 1 Minute	0-10; Unknown	NULL = No Response
66	APGAR_5MIN	Char	APGAR Score 5 Minutes	Variable Name: Apgar Score 5 Minutes	0-10; Unknown	NULL = No Response
67	PRSODM	Num	Preoperative Serum Sodium (mEq/L)	Variable Name:Preoperative Labs		-99 = Lab value not obtained or Unknown
68	DPRNA	Num	Days from Serum Sodium Preoperative Labs to Operation	* Days from Serum Sodium Preoperative Labs to Operation		-99 = Lab value not obtained or Unknown
69	PRBUN	Num	Preoperative BUN (mg/dL)	Variable Name:Preoperative Labs		-99 = Lab value not obtained or Unknown
70	DPRBUN	Num	Days from BUN Preoperative Labs to Operation	* Days from Blood Urea Nitrogen Preoperative Labs to Operation		-99 = Lab value not obtained or Unknown
71	PRCREAT	Num	Preoperative Serum Creatinine (mg/dL)	Variable Name:Preoperative Labs		-99 = Lab value not obtained or Unknown
72	DPRCREAT	Num	Days from Serum Creatinine Preoperative Labs to Operation	* Days from Serum Creatinine Preoperative Labs to Operation		-99 = Lab value not obtained or Unknown
73	PRALBUM	Num	Preoperative Albumin (g/dL)	Variable Name:Preoperative Labs		-99 = Lab value not obtained or Unknown
74	DPRALBUM	Num	Days from Albumin Preoperative Labs to Operation	* Days from Albumin Preoperative Labs to Operation		-99 = Lab value not obtained or Unknown
75	PRBILI	Num	Preoperative Total Bilirubin (mg/dL)	Variable Name:Preoperative Labs		-99 = Lab value not obtained or Unknown
76	DPRBILI	Num	Days from Total Bilirubin Preoperative Labs to Operation	* Days from Total Bilirubin Preoperative Labs to Operation		-99 = Lab value not obtained or Unknown
77	PRSGOT	Num	Preoperative AST/SGOT (U/L)	Variable Name:Preoperative Labs		-99 = Lab value not obtained or Unknown
78	DPRSGOT	Num	Days from AST/SGOT Preoperative Labs to Operation	* Days from AST/SGOT Preoperative Labs to Operation		-99 = Lab value not obtained or Unknown
79	PRALKPH	Num	Preoperative Alkaline Phosphatase (U/L)	Variable Name:Preoperative Labs		-99 = Lab value not obtained or Unknown
80	DPRALKPH	Num	Days from Alkaline Phosphatase Preoperative Labs to Operation	* Days from Alkaline Phosphatase Preoperative Labs to Operation		-99 = Lab value not obtained or Unknown
81	PRWBC	Num	Preoperative WBC (K/mm3)	Variable Name:Preoperative Labs		-99 = Lab value not obtained or Unknown
82	DPRWBC	Num	Days from WBC Preoperative Labs to Operation	* Days from White Blood Cell count Preoperative Labs to Operation		-99 = Lab value not obtained or Unknown
83	PRHCT	Num	Preoperative Hematocrit (%)	Variable Name:Preoperative Labs		-99 = Lab value not obtained or Unknown
84	DPRHCT	Num	Days from Hematocrit Preoperative Labs to Operation	* Days from Hematocrit Preoperative Labs to Operation		-99 = Lab value not obtained or Unknown
85	PRPLATE	Num	Preoperative Platelet Count (K/cumm)	Variable Name:Preoperative Labs		-99 = Lab value not obtained or Unknown
86	DPRPLATE	Num	Days from Platelet Count Preoperative Labs to Operation	* Days from Platelet Count Preoperative Labs to Operation		-99 = Lab value not obtained or Unknown
87	PRPT	Num	Preoperative Prothrombin Time (seconds)	Variable Name:Preoperative Labs		-99 = Lab value not obtained or Unknown
88	DPRPT	Num	Days from Prothrombin Time Preoperative Labs to Operation	* Days from Prothrombin Time Preoperative Labs to Operation		-99 = Lab value not obtained or Unknown
89	PRINR	Num	Preoperative INR	Variable Name:Preoperative Labs		-99 = Lab value not obtained or Unknown
90	DPRINR	Num	Days from INR Preoperative Labs to Operation	* Days from INR Preoperative Labs to Operation		-99 = Lab value not obtained or Unknown
91	PRPTT	Num	Preoperative PTT (seconds)	Variable Name:Preoperative Labs		-99 = Lab value not obtained or Unknown
92	DPRPTT	Num	Days from PTT Preoperative Labs to Operation	* Days from PTT Preoperative Labs to Operation		-99 = Lab value not obtained or Unknown
93	CASETYPE	Char	Case Acuity	Variable Name:Case Acuity	Elective Urgent Emergent	NULL = No Response

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94	WNDCLAS	Char	Wound Classification	Variable Name:Wound Classification	Clean Clean/Contaminated Contaminated Dirty/Infected	NULL = No Response
95	ASACLAS	Char	ASA Classification	Variable Name:ASA Classification	ASA 1 – Normal/Healthy ASA 2 – Mild Systemic Disease ASA 3 – Severe Systemic Disease ASA 4 – Severe Systemic Disease Threat ASA 5 – Moribund ASA Not Assigned	NULL = No Response
96	ANESURG	Num	Duration from Anesthesia Start to Surgery Start (min)	* Duration from Anesthesia Start to Surgery Start in minutes		-99 = No Response
97	SURGANE	Num	Duration from Surgery Stop to Anesthesia Stop (min)	* Duration from Surgery Stop to Anesthesia Stop in minutes		-99 = No Response
98	DPATRM	Num	Duration Patient is in Operating Room (min)	* Duration Patient is in Room in minutes		-99 = No Response
99	ANETIME	Num	Duration of Anesthesia (min)	* Duration of Anesthesia in minutes		-99 = No Response
100	OPTIME	Num	Total Operation Time (min)	* Total operation time in minutes		-99 = No Response
101	OTHERCPT1	Char	Other CPT Code 1	Variable Name:Other Procedures		NULL = No Procedure/No Response
102	OTHERPROC1	Char	Other Procedure Description - 1	Variable Name:Other Procedures		NULL = No Procedure/No Response
103	OTHERWRVU1	Num	Other Work Relative Value Unit 1	* Other Work Relative Value Unit 1		-99 = No Procedure/No Response
104	OTHERCPT2	Char	Other CPT Code 2	Variable Name:Other Procedures		NULL = No Procedure/No Response
105	OTHERPROC2	Char	Other Procedure Description - 2	Variable Name:Other Procedures		NULL = No Procedure/No Response
106	OTHERWRVU2	Num	Other Work Relative Value Unit 2	* Other Work Relative Value Unit 2		-99 = No Procedure/No Response
107	OTHERCPT3	Char	Other CPT Code 3	Variable Name:Other Procedures		NULL = No Procedure/No Response
108	OTHERPROC3	Char	Other Procedure Description - 3	Variable Name:Other Procedures		NULL = No Procedure/No Response
109	OTHERWRVU3	Num	Other Work Relative Value Unit 3	* Other Work Relative Value Unit 3		-99 = No Procedure/No Response
110	OTHERCPT4	Char	Other CPT Code 4	Variable Name:Other Procedures		NULL = No Procedure/No Response
111	OTHERPROC4	Char	Other Procedure Description - 4	Variable Name:Other Procedures		NULL = No Procedure/No Response
112	OTHERWRVU4	Num	Other Work Relative Value Unit 4	* Other Work Relative Value Unit 4		-99 = No Procedure/No Response
113	OTHERCPT5	Char	Other CPT Code 5	Variable Name:Other Procedures		NULL = No Procedure/No Response
114	OTHERPROC5	Char	Other Procedure Description - 5	Variable Name:Other Procedures		NULL = No Procedure/No Response
115	OTHERWRVU5	Num	Other Work Relative Value Unit 5	* Other Work Relative Value Unit 5		-99 = No Procedure/No Response
116	OTHERCPT6	Char	Other CPT Code 6	Variable Name:Other Procedures		NULL = No Procedure/No Response
117	OTHERPROC6	Char	Other Procedure Description - 6	Variable Name:Other Procedures		NULL = No Procedure/No Response
118	OTHERWRVU6	Num	Other Work Relative Value Unit 6	* Other Work Relative Value Unit 6		-99 = No Procedure/No Response
119	OTHERCPT7	Char	Other CPT Code 7	Variable Name:Other Procedures		NULL = No Procedure/No Response
120	OTHERPROC7	Char	Other Procedure Description - 7	Variable Name:Other Procedures		NULL = No Procedure/No Response
121	OTHERWRVU7	Num	Other Work Relative Value Unit 7	* Other Work Relative Value Unit 7		-99 = No Procedure/No Response
122	OTHERCPT8	Char	Other CPT Code 8	Variable Name:Other Procedures		NULL = No Procedure/No Response
123	OTHERPROC8	Char	Other Procedure Description - 8	Variable Name:Other Procedures		NULL = No Procedure/No Response
124	OTHERWRVU8	Num	Other Work Relative Value Unit 8	* Other Work Relative Value Unit 8		-99 = No Procedure/No Response
125	OTHERCPT9	Char	Other CPT Code 9	Variable Name:Other Procedures		NULL = No Procedure/No Response
126	OTHERPROC9	Char	Other Procedure Description - 9	Variable Name:Other Procedures		NULL = No Procedure/No Response
127	OTHERWRVU9	Num	Other Work Relative Value Unit 9	* Other Work Relative Value Unit 9		-99 = No Procedure/No Response
128	OTHERCPT10	Char	Other CPT Code 10	Variable Name:Other Procedures		NULL = No Procedure/No Response
129	OTHERPROC10	Char	Other Procedure Description - 10	Variable Name:Other Procedures		NULL = No Procedure/No Response
130	OTHERWRVU10	Num	Other Work Relative Value Unit 10	* Other Work Relative Value Unit 10		-99 = No Procedure/No Response
131	CONCPT1	Char	Concurrent CPT 1	Variable Name:Concurrent Procedures		NULL = No Procedure/No Response
132	CONCURR1	Char	Concurrent Procedure Description - 1	Variable Name:Concurrent Procedures		NULL = No Procedure/No Response
133	CONWRVU1	Num	Concurrent Work Relative Value Unit 1	* Concurrent Work Relative Value Unit 1		-99 = No Procedure/No Response
134	CONCPT2	Char	Concurrent CPT 2	Variable Name:Concurrent Procedures		NULL = No Procedure/No Response
135	CONCURR2	Char	Concurrent Procedure Description - 2	Variable Name:Concurrent Procedures		NULL = No Procedure/No Response
136	CONWRVU2	Num	Concurrent Work Relative Value Unit 2	* Concurrent Work Relative Value Unit 2		-99 = No Procedure/No Response
137	CONCPT3	Char	Concurrent CPT 3	Variable Name:Concurrent Procedures		NULL = No Procedure/No Response
138	CONCURR3	Char	Concurrent Procedure Description - 3	Variable Name:Concurrent Procedures		NULL = No Procedure/No Response
139	CONWRVU3	Num	Concurrent Work Relative Value Unit 3	* Concurrent Work Relative Value Unit 3		-99 = No Procedure/No Response
140	CONCPT4	Char	Concurrent CPT 4	Variable Name:Concurrent Procedures		NULL = No Procedure/No Response
141	CONCURR4	Char	Concurrent Procedure Description - 4	Variable Name:Concurrent Procedures		NULL = No Procedure/No Response
142	CONWRVU4	Num	Concurrent Work Relative Value Unit 4	* Concurrent Work Relative Value Unit 4		-99 = No Procedure/No Response
143	CONCPT5	Char	Concurrent CPT 5	Variable Name:Concurrent Procedures		NULL = No Procedure/No Response
144	CONCURR5	Char	Concurrent Procedure Description - 5	Variable Name:Concurrent Procedures		NULL = No Procedure/No Response
145	CONWRVU5	Num	Concurrent Work Relative Value Unit 5	* Concurrent Work Relative Value Unit 5		-99 = No Procedure/No Response
146	CONCPT6	Char	Concurrent CPT 6	Variable Name:Concurrent Procedures		NULL = No Procedure/No Response
147	CONCURR6	Char	Concurrent Procedure Description - 6	Variable Name:Concurrent Procedures		NULL = No Procedure/No Response
148	CONWRVU6	Num	Concurrent Work Relative Value Unit 6	* Concurrent Work Relative Value Unit 6		-99 = No Procedure/No Response
149	CONCPT7	Char	Concurrent CPT 7	Variable Name:Concurrent Procedures		NULL = No Procedure/No Response
150	CONCURR7	Char	Concurrent Procedure Description - 7	Variable Name:Concurrent Procedures		NULL = No Procedure/No Response
151	CONWRVU7	Num	Concurrent Work Relative Value Unit 7	* Concurrent Work Relative Value Unit 7		-99 = No Procedure/No Response
152	CONCPT8	Char	Concurrent CPT 8	Variable Name:Concurrent Procedures		NULL = No Procedure/No Response
153	CONCURR8	Char	Concurrent Procedure Description - 8	Variable Name:Concurrent Procedures		NULL = No Procedure/No Response
154	CONWRVU8	Num	Concurrent Work Relative Value Unit 8	* Concurrent Work Relative Value Unit 8		-99 = No Procedure/No Response
155	CONCPT9	Char	Concurrent CPT 9	Variable Name:Concurrent Procedures		NULL = No Procedure/No Response
156	CONCURR9	Char	Concurrent Procedure Description - 9	Variable Name:Concurrent Procedures		NULL = No Procedure/No Response
157	CONWRVU9	Num	Concurrent Work Relative Value Unit 9	* Concurrent Work Relative Value Unit 9		-99 = No Procedure/No Response
158	CONCPT10	Char	Concurrent CPT 10	Variable Name:Concurrent Procedures		NULL = No Procedure/No Response

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159	CONCURR10	Char	Concurrent Procedure Description - 10	Variable Name:Concurrent Procedures		NULL = No Procedure/No Response
160	CONWRVU10	Num	Concurrent Work Relative Value Unit 10	* Concurrent Work Relative Value Unit 10		-99 = No Procedure/No Response
161	PODIAG10	Char	Postoperative Diagnosis (ICD 10)	Variable Name:Postoperative Diagnosis ICD Code		NULL = No Response
162	PODIAGTX10	Char	Postoperative Diagnosis Text (ICD 10)	Variable Name:Postoperative Diagnosis ICD Code		NULL = No Response
163	HDISDT	Char	Hospital Discharge Year	Variable Name:Acute Hospital Discharge Date		NULL = No Response
164	DOptoDis	Num	Days from Operation to Discharge	* Days from Operation to Discharge		-99 = No Response
165	DISCHDEST	Char	Discharge Destination	Variable Name:Hospital Discharge Destination	Acute Care Hospital Against Medical Advice (AMA) Expired Home/Permanent Residence Other Facility Unknown	NULL = No Response
166	TOTHLOS	Num	Length of Total Hospital Stay	* Length of total hospital stay		-99 = No Response
167	STILLINHOSP	Char	Still in Hospital > 30 Days	Variable Name:Still In Hospital > 30 Days	Yes	NULL = No Response
168	OXYGEN_AT_DISCHARGE	Char	Oxygen at Discharge or at 30 Days	Variable Name:Oxygen at Discharge or at 30 Days	Yes; No	NULL = No Response
169	NUTRITION_AT_DISCHARGE	Char	Nutritional Requirement at Discharge or at 30 Days	Variable Name:Nutritional Requirement at Discharge or at 30 Days	Yes; No	NULL = No Response
170	DEATH30YN	Char	Death in 30 Days	Variable Name:30-Day Mortality	Yes; No	NULL = No Response
171	YRDEATH	Char	Year of Death	Variable Name:Date of Death		NULL = No Response
172	DEATH30DTUNK	Char	Date of Death is Unknown	Variable Name:Date of Death	Yes	NULL = No Response
173	DOpertoD	Num	Days from Operation to Death	* Days from Operation to Death		-99 = No Response
174	IO_CDARREST	Char	Intraoperative Occurrences CPR During Operation	Variable Name:CPR during operation	CPR during operation; No Complication	NULL = No Response
175	IO_UNPLANNEDEXTUB	Char	Intraoperative Occurrences Unplanned Extubation	Variable Name:Unplanned Extubation	Unplanned Extubation; No Complication	NULL = No Response
176	SUPINFEC	Char	Occurrences Superficial Incisional SSI	Variable Name:Superficial Incisional SSI	Superficial Incisional SSI; No Complication	NULL = No Response
177	NSUPINFEC	Num	Number of Superficial Incisional SSI Occurrences	* Number of Superficial Incisional SSI Occurrences		
178	DSUPINFEC	Num	Days from Operation until Superficial Incisional SSI Complication	* Days from Operation until Superficial Incisional SSI Complication		-99 = No Response
179	WNDINFD	Char	Occurrences Deep Incisional SSI	Variable Name:Deep Incisional SSI	Deep Incisional SSI; No Complication	NULL = No Response
180	NWNDINFD	Num	Number of Deep Incisional SSI Occurrences	* Number of Deep Incisional SSI Occurrences		
181	DWNDINFD	Num	Days from Operation until Deep Incisional SSI Complication	* Days from Operation until Deep Incisional SSI Complication		-99 = No Response
182	ORGSPCSSI	Char	Occurrences Organ/Space SSI	Variable Name:Organ/Space SSI	Organ/Space SSI; No Complication	NULL = No Response
183	NORGSPCSSI	Num	Number of Organ/Space SSI Occurrences	* Number of Organ/Space SSI Occurrences		
184	DORGSPCSSI	Num	Days from Operation until Organ/Space SSI Complication	* Days from Operation until Organ/Space SSI Complication		-99 = No Response
185	DEHIS	Char	Occurrences Wound Disruption/Dehiscence	Variable Name:Wound Disruption/Dehiscence	Wound Disruption; No Complication	NULL = No Response
186	NDEHIS	Num	Number of Wound Disruption/Dehiscence Occurrences	* Number of Wound Disruption/Dehiscence Occurrences		
187	DDEHIS	Num	Days from Operation until Wound Disruption/Dehiscence Complication	* Days from Operation until Wound Disruption/Dehiscence Complication		-99 = No Response
188	OUPNEUMO	Char	Occurrences Pneumonia	Variable Name:Pneumonia	Pneumonia; No Complication	NULL = No Response
189	NOUPNEUMO	Num	Number of Pneumonia Occurrences	* Number of Pneumonia Occurrences		
190	DOUPNEUMO	Num	Days from Operation until Pneumonia Complication	* Days from Operation until Pneumonia Complication		-99 = No Response
191	REINTUB	Char	Occurrences Unplanned Intubation	Variable Name:Unplanned Intubation	Unplanned Intubation; No Complication	NULL = No Response
192	NREINTUB	Num	Number of Unplanned Intubation Occurrences	* Number of Unplanned Intubation Occurrences		
193	DREINTUB	Num	Days from Operation until Unplanned Intubation Complication	* Days from Operation until Unplanned Intubation Complication		-99 = No Response
194	ONVENT48HRS	Char	Occurrences On Ventilator > 48 Hours	Variable Name:On Ventilator > 48 Hours	On Ventilator > 48 Hours; No Complication	NULL = No Response
195	NONVENT48HRS	Num	Number of On Ventilator > 48 Hours Occurrences	* Number of On Ventilator > 48 Hours Occurrences		
196	DONVENT48HRS	Num	Days from Operation until On Ventilator > 48 Hours Complication	* Days from Operation until On Ventilator > 48 Hours Complication		-99 = No Response
197	RENAINSF	Char	Occurrences Progressive Renal Insufficiency	Variable Name:Progressive Renal Insufficiency	Progressive Renal Insufficiency; No Complication	NULL = No Response
198	NRENAINSF	Num	Number of Progressive Renal Insufficiency Occurrences	* Number of Progressive Renal Insufficiency Occurrences		
199	DRENAINSF	Num	Days from Operation until Progressive Renal Insufficiency Complication	* Days from Operation until Progressive Renal Insufficiency Complication		-99 = No Response
200	OPRENAFL	Char	Occurrences Acute Renal Failure	Variable Name:Acute Renal Failure	Acute Renal Failure; No Complication	NULL = No Response
201	NOPRENAFL	Num	Number of Acute Renal Failure Occurrences	* Number of Acute Renal Failure Occurrences		
202	DOPRENAFL	Num	Days from Operation until Acute Renal Failure Complication	* Days from Operation until Acute Renal Failure Complication		-99 = No Response
203	URNINFEC	Char	Occurrences Urinary Tract Infection	Variable Name:Urinary Tract Infection	Urinary Tract Infection; No Complication	NULL = No Response
204	NURNINFEC	Num	Number of Urinary Tract Infection Occurrences	* Number of Urinary Tract infection Occurrences		
205	DURNINFEC	Num	Days from Operation until Urinary Tract Infection Complication	* Days from Operation until Urinary Tract Infection Complication		-99 = No Response
206	CNSCOMA	Char	Coma > 24 Hours	Variable Name:Coma > 24 Hours	Coma >24 hours; No Complication	NULL = No Response
207	NCNSCOMA	Num	Number of Coma > 24 Hours Occurrences	* Number of Coma > 24 Hours Occurrences		
208	DCNSCOMA	Num	Days from Operation until Coma > 24 Hours Complication	* Days from Operation until Coma > 24 Hours Complication		-99 = No Response
209	CNSCVA	Char	CVA/Stroke or Intracranial Hemorrhage	Variable Name:Cerebral Vascular Accident/Stroke or Intracranial Hemorrhage	Stroke/CVA with neurological deficit; No Complication	NULL = No Response

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210	NCNSCVA	Num	Number of CVA/Stroke or Intracranial Hemorrhage Occurrences	* Number of CVA/Stroke Occurrences		
211	DCNSCVA	Num	Days from Operation until CVA/Stroke or Intracranial Hemorrhage Complication	* Days from Operation until CVA/Stroke Complication		-99 = No Response
212	CSZRE	Char	Seizure Disorder	Variable Name:Seizure	Seizure; No Complication	NULL = No Response
213	NSZRE	Num	Number of Seizure Occurrences	* Number of Seizure Occurrences		
214	DSZRE	Num	Days from Operation until Seizure Complication	* Days from Operation until Seizure complication		-99 = No Response
215	NEURODEF	Char	Nerve Injury	Variable Name:Nerve Injury (Peripheral)	Nerve Injury ; No Complication	NULL = No Response
216	NNEURODEF	Num	Number of Nerve Injury Occurrences	* Number of Nerve Injury Occurrences		
217	DNEURODEF	Num	Days from Operation until Nerve Injury Complication	* Days from Operation until Nerve Injury Complication		-99 = No Response
218	CIVHG1	Char	Occurrences IVH Grade 1	Variable Name:Neonatal Intraventricular Hemorrhage (IVH) Grade	IVH Grade 1; No Complication	NULL = No Response
219	NIVHG1	Num	Number of IVH Grade 1 Occurrences	* Number of IVH Grade 1 Occurrences		
220	DIVHG1	Num	Days from Operation until IVH Grade 1 Complication	* Days from Operation until IVH Grade 1 Complication		-99 = No Response
221	CIVHG2	Char	Occurrences IVH Grade 2	Variable Name:Neonatal Intraventricular Hemorrhage (IVH) Grade	IVH Grade 2; No Complication	NULL = No Response
222	NIVHG2	Num	Number of IVH Grade 2 occurrences	* Number of IVH Grade 2 Occurrences		
223	DIVHG2	Num	Days from Operation until IVH Grade 2 Complication	* Days from Operation until IVH Grade 2 Complication		-99 = No Response
224	CIVHG3	Char	Occurrences IVH Grade 3	Variable Name:Neonatal Intraventricular Hemorrhage (IVH) Grade	IVH Grade 3; No Complication	NULL = No Response
225	NIVHG3	Num	Number of IVH Grade 3 Occurrences	* Number of IVH Grade 3 Occurrences		
226	DIVHG3	Num	Days from Operation until IVH Grade 3 Complication	* Days from Operation until IVH Grade 3 Complication		-99 = No Response
227	CIVHG4	Char	Occurrences IVH Grade 4	Variable Name:Neonatal Intraventricular Hemorrhage (IVH) Grade	IVH Grade 4; No Complication	NULL = No Response
228	NIVHG4	Num	Number of IVH Grade 4 Occurrences	* Number of IVH Grade 4 Occurrences		
229	DIVHG4	Num	Days from Operation until IVH Grade 4 Complication	* Days from Operation until IVH Grade 4 Complication		-99 = No Response
230	CIVHUNK	Char	Occurrences IVH Grade Unknown	Variable Name:Neonatal Intraventricular Hemorrhage (IVH) Grade	Unknown/Specific grade not documented; No Complication	NULL = No Response
231	NIVHUNK	Num	Number of IVH Grade Unknown Occurrences	* Number of IVH Grade Unknown Occurrences		
232	DIVHUNK	Num	Days from Operation until IVH Grade Unknown Complication	* Days from Operation until IVH Grade Unknown Complication		-99 = No Response
233	CDARREST	Char	Occurrences Cardiac Arrest Requiring CPR	Variable Name:Cardiac Arrest Requiring CPR	Cardiac Arrest Requiring CPR; No Complication	NULL = No Response
234	NCDARREST	Num	Number of Cardiac Arrest Requiring CPR Occurrences	* Number of Cardiac Arrest Requiring CPR Occurrences		
235	DCDARREST	Num	Days from Operation until Cardiac Arrest Requiring CPR Complication	* Days from Operation until Cardiac Arrest Requiring CPR Complication		-99 = No Response
236	OTHBLEED	Char	Occurrences Bleeding/Transfusion	Variable Name:Blood Transfusion	Bleeding/Transfusions; No Complication	NULL = No Response
237	NOTHBLEED	Num	Number of Bleeding/Transfusion Occurrences	* Number of Bleeding/Transfusion Occurrences		
238	DOTHBLEED	Num	Days from Operation until Bleeding/Transfusion Complication	* Days from Operation until Bleeding/Transfusion Complication		-99 = No Response
239	BLEED_ML_TOT	Num	Total Blood Transfused (mL)	* Total blood (mL) transfused during bleeding complications		-99 = No Response "Cell Saver and/or Salvage and/or Autologous" and "Allogeneic" quantities have been combined into total amounts (mL) for this variable.
240	BLEEDING_AUTOLOGOUS	Num	Cell Saver Blood Used in Transfusion (mL)	Variable Name:Blood Transfusion		-99 = No Response
241	BLEEDING_ALLOGENEIC	Num	Allogeneic Blood Used in Transfusion (mL)	Variable Name:Blood Transfusion		-99 = No Response
242	OTHVT	Char	Occurrences VT	Variable Name:Venous Thrombosis Requiring Therapy	VT Requiring Therapy; No Complication	NULL = No Response
243	NOTHVT	Num	Number of VT Occurrences	* Number of VT Occurrences		
244	DOTHVT	Num	Days from Operation until VT Complication	* Days from Operation until VT Complication		-99 = No Response
245	OTHCDIFF	Char	Occurrence of C.diff Colitis	Variable Name:C.diff Colitis	C.diff; No Complication	NULL = No Response
246	NOTHCDIFF	Num	Number of C.diff Colitis Occurrences	* Number of C.diff Colitis Occurrences		
247	DOTHCDIFF	Num	Days from Operation until C.diff Colitis Complication	* Days from Operation until C.diff Colitis Complication		-99 = No Response
248	OTHSYSEP	Char	Occurrences Sepsis	Variable Name:Postoperative Systemic Sepsis	Systemic Sepsis; No Complication	NULL = No Response
249	NOTHSYSEP	Num	Number of Sepsis Occurrences	* Number of Sepsis Occurrences		
250	DOTHSYSEP	Num	Days from Operation until Sepsis Complication	* Days from Operation until Sepsis Complication		-99 = No Response
251	OTHSESHOCK	Char	Occurrences Septic Shock	Variable Name:Postoperative Septic Shock	Septic Shock; No Complication	NULL = No Response
252	NOTHSESHOCK	Num	Number of Septic Shock Occurrences	* Number of Septic Shock Occurrences		
253	DOTHSESHOCK	Num	Days from Operation until Septic Shock Complication	* Days from Operation until Septic Shock Complication		-99 = No Response
254	OTHCLAB	Char	Occurrences CL Associated Bloodstream Infection	Variable Name:Central-Line Associated Bloodstream Infection	CL Associated Bloodstream Infection; No Complication	NULL = No Response
255	NOTHCLAB	Num	Number of CL Associated Bloodstream Infection Occurrences	* Number of CL Associated Bloodstream Infection Occurrences		
256	DOTHCLAB	Num	Days from Operation until CL Associated Bloodstream Infection Complication	* Days from Operation until CL Associated Bloodstream Infection		-99 = No Response
257	READMISSION1	Char	Any Readmssion 1	Variable Name:30-Day Readmission	Yes; No	NULL = No Response
258	READMPODAYS1	Num	Days from Operation to Any Readmission 1	* Days from primary procedure to Any Readmission 1		-99 = No Response
259	UNPLANNEDREADMISSION1	Char	Unplanned Readmission 1	Variable Name:30-Day Readmission	Yes; No	NULL = No Response
260	READMRELATED1	Char	Related Readmission 1	Variable Name:30-Day Readmission	Yes; No	NULL = No Response

				Search Term in Chapter 4		
261	READMREASON1	Char	Primary Suspected Reason for Readmission 1	Variable Name:30-Day Readmission	Superficial Incisional SSI	NULL = No Response
					Deep Incisional SSI	
					Organ/Space SSI	
					Wound Disruption/Dehiscence	
					Pneumonia	
					Unplanned Intubation	
					Progressive Renal Insufficiency	
					Acute Renal Failure	
					Urinary Tract Infection	
					Coma > 24 hours	
					Cerebral Vascular Accident/Stroke or Intercranial Hemorrhage	
					Seizure	
					Nerve Injury	
					Neonatal IVH Grade 1	
					Neonatal IVH Grade 2	
					Neonatal IVH Grade 3	
					Neonatal IVH Grade 4	
					Neonatal IVH Grade unknown/Specific Grade not documented	
					Cardiac Arrest Requiring CPR	
					Blood Transfusion	
					Venous Thrombosis requiring Therapy	
					C.diff Colitis	
					Postoperative Systemic Sepsis	
					Septic Shock	
					Central-Line Associated Bloodstream Infection	
					Other (ICD 10 code)	
262	READMRELICD101	Char	Readmission Other Related ICD-10 Code 1	Variable Name:30-Day Readmission		NULL = No Response
263	READMISSION2	Char	Any Readmssion 2	Variable Name:30-Day Readmission	Yes; No	NULL = No Response
264	READMPODAYS2	Num	Days from Operation to Any Readmission 2	* Days from primary procedure to Any Readmission 2		-99 = No Response
265	UNPLANNEDREADMISSION2	Char	Unplanned Readmission 2	Variable Name:30-Day Readmission	Yes; No	NULL = No Response
266	READMRELATED2	Char	Related Readmission 2	Variable Name:30-Day Readmission	Yes; No	NULL = No Response
267	READMREASON2	Char	Primary Suspected Reason for Readmission 2	Variable Name:30-Day Readmission	See 'Primary Suspected Reason for Readmission 1'	NULL = No Response
268	READMRELICD102	Char	Readmission Other Related ICD-10 Code 2	Variable Name:30-Day Readmission		NULL = No Response
269	READMISSION3	Char	Any Readmssion 3	Variable Name:30-Day Readmission	Yes; No	NULL = No Response
270	READMPODAYS3	Num	Days from Operation to Any Readmission 3	* Days from primary procedure to Any Readmission 3		-99 = No Response
271	UNPLANNEDREADMISSION3	Char	Unplanned Readmission 3	Variable Name:30-Day Readmission	Yes; No	NULL = No Response
272	READMRELATED3	Char	Related Readmission 3	Variable Name:30-Day Readmission	Yes; No	NULL = No Response
273	READMREASON3	Char	Primary Suspected Reason for Readmission 3	Variable Name:30-Day Readmission	See 'Primary Suspected Reason for Readmission 1'	NULL = No Response
274	READMRELICD103	Char	Readmission Other Related ICD-10 Code 3	Variable Name:30-Day Readmission		NULL = No Response
275	READMISSION4	Char	Any Readmssion 4	Variable Name:30-Day Readmission	Yes; No	NULL = No Response
276	READMPODAYS4	Num	Days from Operation to Any Readmission 4	* Days from primary procedure to Any Readmission 4		-99 = No Response
277	UNPLANNEDREADMISSION4	Char	Unplanned Readmission 4	Variable Name:30-Day Readmission	Yes; No	NULL = No Response
278	READMRELATED4	Char	Related Readmission 4	Variable Name:30-Day Readmission	Yes; No	NULL = No Response
279	READMREASON4	Char	Primary Suspected Reason for Readmission 4	Variable Name:30-Day Readmission	See 'Primary Suspected Reason for Readmission 1'	NULL = No Response
280	READMRELICD104	Char	Readmission Other Related ICD-10 Code 4	Variable Name:30-Day Readmission		NULL = No Response
281	READMISSION5	Char	Any Readmssion 5	Variable Name:30-Day Readmission	Yes; No	NULL = No Response
282	READMPODAYS5	Num	Days from Operation to Any Readmission 5	* Days from primary procedure to Any Readmission 5		-99 = No Response
283	UNPLANNEDREADMISSION5	Char	Unplanned Readmission 5	Variable Name:Hospital Readmission	Yes; No	NULL = No Response
284	READMRELATED5	Char	Related Readmission 5	Variable Name:Hospital Readmission	Yes; No	NULL = No Response
285	READMREASON5	Char	Primary Suspected Reason for Readmission 5	Variable Name:Hospital Readmission	See 'Readmission Related Suspected Reason 1'	NULL = No Response
286	READMRELICD105	Char	Readmission Other Related ICD-10 Code 5	Variable Name:Hospital Readmission		NULL = No Response
287	REOPERATION	Char	Unplanned Reoperation 1	Variable Name:30-Day Unplanned Return to OR	Yes; No	NULL = No Response
288	RETORPODAYS	Num	Days from Operation to Unplanned Reoperation 1	* Days from operation to Unplanned Reoperation 1		-99 = No Response
289	REOPORCPT1	Char	Unplanned Reoperation 1 CPT	Variable Name:30-Day Unplanned Return to OR		NULL = No Response
290	RETORRELATED	Char	Related Unplanned Reoperation 1	Variable Name:30-Day Unplanned Return to OR	Yes; No	NULL = No Response
291	REOPORICD101	Char	Unplanned Reoperation 1 ICD-10 Code	Variable Name:30-Day Unplanned Return to OR		NULL = No Response
292	REOPERATION2	Char	Unplanned Reoperation 2	Variable Name:30-Day Unplanned Return to OR	Yes; No	NULL = No Response
293	RETOR2PODAYS	Num	Days from Operation to Unplanned Reoperation 2	* Days from operation to Unplanned Reoperation 2		-99 = No Response
294	REOPOR2CPT1	Char	Unplanned Reoperation 2 CPT	Variable Name:30-Day Unplanned Return to OR		NULL = No Response
295	RETOR2RELATED	Char	Related Unplanned Reoperation 2	Variable Name:30-Day Unplanned Return to OR	Yes; No	NULL = No Response
296	REOPOR2ICD101	Char	Unplanned Reoperation 2 ICD-10 Code	Variable Name:30-Day Unplanned Return to OR		NULL = No Response
297	REOPERATION3	Char	More than 2 Unplanned Reoperations	Variable Name:30-Day Unplanned Return to OR	Yes; No	NULL = No Response

				Search Term in Chapter 4		
298	PREOP_COVID	Char	Preoperative Diagnosis of COVID-19	Variable Name:Preop COVID-19 Diagnosis	Yes, lab-confirmed diagnosis (or ICD-10 code U07.1)	
					Yes, suspected diagnosis (or ICD-10 code U07.2)	
					No	
299	POSTOP_COVID	Char	Postoperative Diagnosis of COVID-19	Variable Name: New Postop COVID-19 Diagnosis	Yes, lab-confirmed diagnosis (or ICD-10 code U07.1)	
					Yes, suspected diagnosis (or ICD-10 code U07.2)	
					No	
300	OPIOID_DISCHARGE	Char	Opioid at Discharge	Variable Name: Opioid at Discharge	Yes; No	NULL = No Response
301	OPIOID_TYPE_1	Char	Opioid Type 1	Variable Name: Type of Opioid	Codeine	NULL = No Response
					Hydrocodone	
					Hydromorphone	
					Oxycodone	
					Tramadol	
					Oral Morphine	
					Other	
302	OPIOID_TYPE_2	Char	Opioid Type 2	Variable Name: Type of Opioid	Codeine	NULL = No Response
					Hydrocodone	
					Hydromorphone	
					Oxycodone	
					Tramadol	
					Oral Morphine	
					Other	
303	OPIOID_TYPE_3	Char	Opioid Type 3	Variable Name: Type of Opioid	Codeine	NULL = No Response
					Hydrocodone	
					Hydromorphone	
					Oxycodone	
					Tramadol	
					Oral Morphine	
					Other	
304	OPIOID_TYPE_4	Char	Opioid Type 4	Variable Name: Type of Opioid	Codeine	NULL = No Response
					Hydrocodone	
					Hydromorphone	
					Oxycodone	
					Tramadol	
					Oral Morphine	
					Other	
305	OPIOID_TYPE_5	Char	Opioid Type 5	Variable Name: Type of Opioid	Codeine	NULL = No Response
					Hydrocodone	
					Hydromorphone	
					Oxycodone	
					Tramadol	
					Oral Morphine	
					Other