ACS NSQIP

User Guide for the 2010 Participant Use Data File

American College of Surgeons
National Surgical Quality
Improvement Program

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Contents

1. Introduction

This document is designed to accompany the 2010 Participant Use Data File (PUF) available for download on the American College of Surgeons National Surgical Quality Improvement Program (ACS NSQIP) website (www.acsnsqip.org). The sections contained herein will provide the user with information on how to request the 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 2010 PUF. Hospitals utilizing the 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 site and wants to obtain a copy of the PUF can do so by visiting www.acsnsqip.org and following the steps listed below:

1. The requestor can select the "Resources" and "ACS NSQIP Data" tab that appears on the far left side of the www.acsnsqip.org homepage.
2. Following a brief introduction, the requestor will access the Participant Use Data File 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.
3. Requestors will 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 PUF data.
4. ACS NSQIP staff will review the request in a timely manner. Requestors and program contacts at participating sites may be contacted at this time to confirm the requestor's affiliation with the hospital.
5. Following receipt and confirmation of the information submitted, an email will be sent to the requestor containing the URL visit to download the data. The web link will be active from the time of the email for 10 full days (240 hours).
6. The file will be available in 3 different formats (Text, SPSS, SAS) and depending on the connection speed should take between 5 and 30 minutes to download.

7. Once the file has been downloaded, it will need to be unzipped (multiple free zipping programs are available online) prior to importing it into a statistical software package. Excel cannot handle this data file.
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 summer/fall a PUF will be made available for the previous calendar year's data. The PUF is available in 1 of 3 different formats - Text, SAS, and SPSS. In 2008, we provided an additional file that contains SAS and SPSS codes for constructing RACE variable that was available in previous years. The 2010 file contains 240 variables for each case, and a variable-by-variable description is provided starting on page 11. A brief description of the different formats follows:

File Name	Type	Uncompressed File Size	Description
ACS_NSQIP_PUF10.txt	tab delimited TXT file	499 MB	Contains 240 HIPAA compliant variables on 363,431 cases submitted from 258 sites in 2010.
ACS_NSQIP_PUF10.sas7bdat	SAS 9.2 data file	1.9 GB	Same information as stated above in SAS data format.
ACS_NSQIP_PUF10.sav	SPSS 16.0 data file	753 MB	Same information as stated above in SPSS data format.
Construct_RACE_Codes.txt	Notepad file	3KB	Contains SAS and SPSS codes for constructing RACE variable that was available in 2005, 2006 and 2007.

4. Data Collection Background and Data Quality

The ACS NSQIP collects data on 135 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 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 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 data.

To ensure the data collected are of the highest quality, the ACS NSQIP has developed a host of different training mechanisms for the SCRs and conducts an Inter-Rater Reliability (IRR) Audit of select participating sites. In addition to an initial web-based training program, the ACS NSQIP requires SCRs to complete a set of 7 web-based training modules. The modules 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 IRR Audit is a fundamental tool of ACS NSQIP to assess the quality of the data collected at participating sites. The process involves the review of 20 charts, some of which are selected randomly and others selected based on criteria designed to identify potential reporting errors. For example, cases with 5 or more preoperative risk factors and no reported mortality or morbidity or cases with 2 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 1.8% for all assessed program variables. The ACS NSQIP has determined that an IRR Audit disagreement rate of 5% or less is acceptable. Sites that have higher than a 5% disagreement rate are not provided an Observed-to-Expected (O/E) ratio in the ACS NSQIP Semi Annual Report and may be required to undergo an additional audit following recommendations from the ACS NSQIP.

5. Sampling Process and Case Inclusion/Exclusion Criteria

Sites participating in the ACS NSQIP can do so in either the general vascular surgery module or the multispecialty module. Each of these modules includes 2 different volume categories: high or low volume. The systematic sampling process is described below.

Systematic Sampling Process

Many hospitals are not able to capture all of the surgical cases that meet the program's inclusion criteria. 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 operative log. The schedule works as

follows: If the first cycle begins on a Monday, it continues through to the following Monday (an 8-day period of time). The next cycle begins on Tuesday and continues through to the following Tuesday, and so on. There are 46 8-day cycles in 1 year, and the program requires that data be submitted for 42 of those cycles. The process ensures that cases have an equal chance of being selected from each day of the week. Case selection and case mix are monitored by the program on a weekly basis to ensure that the sampling is appropriate.

Sampling Process for General and Vascular Only

- Hospitals with a high volume of general and vascular surgery cases capture the first 40 consecutive cases meeting the inclusion/exclusion criteria in the 8-day cycle for a total of 1,680 cases annually.
- Hospitals participating in the general and vascular low volume model are required to submit all general and vascular cases that meet the inclusion/exclusion criteria collected in the 8-day cycle. A minimum of 900 cases must be submitted annually.

Sampling Process for Multispecialty

- Hospitals participating in the multispecialty high volume model must submit approximately 20% of each of the following ten subspecialties: general, gynecologic, neurologic, orthopaedic, otolaryngologic, plastic, cardiac*, thoracic, urologic, and vascular. If 20% of the hospital's surgical volume is less than 1,680 cases annually, the hospital must submit a higher percentage of cases to reach a minimum of 1,680 cases annually.
- Hospitals participating in the multispecialty low volume model must submit the maximum number of cases across the ten subspecialties that meet the inclusion/exclusion criteria with a minimum of 900 cases submitted annually. For more information on the different methods for hospitals to participate in the ACS NSQIP, please visit the program website (www.acsnsqip.org).

Case Inclusion Criteria

The following inclusion criteria were applied to cases collected in 2010. For the current inclusion/exclusion criteria please contact the ACS NSQIP Clinical Support Team at clinicalsupport@acsnsqip.org.

The ACS NSQIP includes all Major Cases. Major Cases are defined as:

- Cases performed under the following anesthesia types:
  General
  Spinal
  Epidural

- The following cases *regardless* of anesthesia type:
  Carotid endarterectomy
  Inguinal herniorrhaphy
  Parathyroidectomy
  Thyroidectomy
  Breast lumpectomy
  Endovascular AAA repair

Case Exclusion Criteria

The following exclusion criteria were applied to cases collected in 2010. For the current inclusion/exclusion criteria please contact the ACS NSQIP Clinical Support Team at clinicalsupport@acsnsqip.org.

- Minor Cases (all cases that are not considered Major)
- Patients under the age of 18 years
- More than 3 inguinal herniorrhaphies in an 8-day period
- More than 3 breast lumpectomies in an 8-day period
- Trauma Cases - Specifically: A patient who is admitted to the hospital with acute trauma and has a surgical procedure(s) for that trauma will be excluded. Any operation performed after the patient has been discharged from the trauma stay will be included.
- Transplant Cases - Specifically: A patient who is admitted to the hospital for a transplant and has a transplant procedure and any additional surgical procedure during the transplant hospitalization will be excluded. Any operation performed after the patient has been discharged from the transplant stay will be included.
- ASA 6 (brain-dead organ donors)
- Concurrent Cases - An additional operative procedure performed by a different surgical team under the same anesthetic (for example, coronary artery bypass graft procedure on a patient who is also undergoing a carotid endarterectomy). An assessment is not required on the concurrent procedure; however, additional procedures would be repeated as "concurrent" in the operative section for the assessed case.
- Cases with CPT codes on the CPT Code Exclusion List
- SCR on vacation - Each site is allowed to assign 4 of the 8-day cycles as vacation cycles and therefore does not need to collect cases during those cycles.

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 PUF. These cases go through an additional level of scrutiny as they are passed from data collection to statistical analysis. A site is excluded from the odds ratio calculations and the PUF if it fits any of the following criteria:

- 30-day follow-up rate is under 80%
- Inter-Rater Reliability Audit disagreement rate is over 5%

6. Data Limitations

While every effort has been made to make the 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.

- While the sex and race distributions are reasonably representative of the national surgery patient population, only patients over the age of 16 are available for assessment, so the age distribution is somewhat truncated. Patients over the age of 90 are also grouped into a 90+ category to prevent cases from being identifiable due to unique data.

- 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 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 underestimation 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 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 (15% to 45%, 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 User Guide or PUF, as well as comments and suggestions for improvements are welcome and may be directed to Whitney Watson, ACS NSQIP Project Leader via email at wwatson@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 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 sites.

Q: I am at a 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: No. At this time use of the file is restricted to individuals at fully participating sites.

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: 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 that received odds ratios in 2010. Each record includes 240 variables. The variable name, variable label, data definition, and other pertinent information are provided in Section 10: Data Variables and Definitions.

Q: Are other PUF data sets available?
A: Four other PUF files are available for download:
2005/2006 PUF – 152,490 cases from 121 sites
2007 PUF – 211,407 cases from 183 sites
2008 PUF – 271,368 cases from 211 sites
2009 PUF – 336,190 cases from 237 sites
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 PUF exclude specific dates?
A: In order to release the 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 quarter of admission and year) for dates directly related to an individual. For more information on the 18 data elements that are

required for removal, please visit http://privacyruleandresearch.nih.gov/ or http://privacyruleandresearch.nih.gov/pdf/HIPAA_Booklet_4-14-2003.pdf.

Q: The ACS NSQIP program collects 135 variables, but the database contains 240 variables. What are the additional variables?

A: The additional variables contained in the 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 requires the use of 3 different variables in the database. There are a few other data elements collected in the ACS NSQIP that require multiple variables in the database. In 2008, we've removed RACE variable but added RACE_NEW and ETHNICITY_HISPANIC variables to comply with the CMS standard.

Q: I am the Surgeon Champion or Surgical Clinical Reviewer from a site that has records in the PUF and would like to know which specific records are ours.

A: You may contact Brett Beemer, ACS NSQIP Application Support Specialist, via email at bbeemer@facs.org to request a file that will contain the Case IDs from your facility.

Values in the Data

Q: For each of the following complications, Pneumonia, On Ventilator > 48 hours, Urinary Tract Infection, and Bleeding Transfusion, one case did not have a known duration from operation to complication. Why is that?

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

Q: What are the probability scores for mortality and morbidity and how often are they calculated?

A: The probabilities of mortality and morbidity are provided in this database for general and vascular surgery cases in 2010. These probabilities are derived using hierarchical regression analysis. They represent the probability (0 to1) that a case will experience a morbid or mortal event based on the pre-existing conditions. These probabilities are calculated every 6 months for the previous 12 months of data so the algorithm used to generate the predicted values changes over time as does the data used to create the algorithm.

Q: Which calculated probabilities of mortality and morbidity are supplied in this data set?

A: The probabilities of mortality and morbidity for general and vascular surgical cases used in the risk-adjusted analysis in 2010 are provided. Future versions of the PUF may contain a more complete set of predictive values.

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 5 digit CPT code but a CPT description set to NULL?

A: If the case has a valid 5 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 file, an SPSS file, and an SAS file.

*** 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	Variable Definition	Variable Options at Entry	Comments
1	CaseID	Num	Case Identification Number	Each case or record in the database has a unique CaseID number.		
2	SEX	Char	Gender	Gender	Male; Female	NULL = Unknown
3	RACE_NEW	Char	New Race	Race	American Indian or Alaska Native Asian Black or African American Native Hawaiian or Pacific Islander Unknown White	NULL = No Response
4	ETHNICITY_HISPANIC	Char	Ethnicity Hispanic	Ethnicity Hispanic	Yes; No	NULL = Unknown
5	PRNCPTX	Char	Principal operative procedure CPT code description	The principal operative procedure is the most complex of all the procedures performed by the primary operating team during the trip to the operating room. Additional procedures requiring separate CPT codes and/or concurrent procedures will be entered separately in the “Other Procedures” or “Concurrent Procedures” categories.		
6	CPT	Char	CPT	The CPT code of the principal operative procedure.		
7	WORKRVU	Num	Work Relative Value Unit	Work Relative Value Unit		-99 = Unknown
8	INOUT	Char	Inpatient/outpatient	The hospital’s definition of inpatient and outpatient status.	Outpatient; Inpatient	NULL = Unknown
9	TRANST	Char	Transfer status	The patient's transfer status which includes the following options: Admitted directly from home (Includes patients arriving from another hospital's emergency department); If the patient was transferred from another facility and was considered an inpatient at that facility Acute Care Hospital, VA Acute Care Hospital, Chronic Care Facility, and VA Chronic Care Facility are acceptable. If the kind of facility could not be determined ‘Other’ is entered.	From acute care hospital inpatient Not transferred (admitted from home) Nursing home - Chronic care - Intermediate care Outside emergency department Transfer from other Unknown	NULL = No Response Definition change from 2009
10	Age	Char	Age of patient with patients over 89 coded as 90+	Age of patient with patients over 89 coded as 90+. No patients under 15 are included.		-99 = Unknown
11	AdmYR	Num	Year of Admission	Year of admission to the hospital		-99 = Unknown
12	AdmSYR	Num	Year of Admission to Surgery	Year of admission to the surgical service		Historical variable, no longer used
13	OperYR	Num	Year of Operation	Year the surgical procedure is performed		-99 = Unknown
14	ANESTHES	Char	Principal anesthesia technique	The principal anesthesia technique used. General anesthesia takes precedence over all other forms of anesthesia.	Epidural General Local Monitored Anesthesia care None Other Regional Spinal Unknown	NULL = No Response
15	ATTEND	Char	Level of Residency Supervision	Highest level of supervision provided by the attending staff surgeon for the case. Attending alone: Staff practitioner performed the procedure; resident not present; Attending in OR: Staff practitioner is scrubbed and present in the procedure/operating room; Attending in OR Suite: Staff practitioner is present in the procedural/surgical suite and available for consultation; Attending Not Present, but Available: Staff practitioner is not present, but immediately available on campus.	Attending & Resident in OR Attending Alone Attending Not Present, but Available	NULL = Unknown Definition change from 2009
16	SURGSPEC	Char	Surgical Specialty	The surgical specialty of the primary surgeon performing the procedure.	Cardiac Surgery General Surgery	

Position #	Variable Name	Data Type	Variable Label	Variable Definition	Variable Options at Entry	Comments
					Gynecology Neurosurgery Orthopedics Otolaryngology (ENT) Plastics Thoracic Urology Vascular Other	
17	HEIGHT	Num	Height	The patient's most recent height documented in the medical record in inches (in).		-99 = Unknown
18	WEIGHT	Num	Weight	The patient's most recent weight documented in the medical record in pounds (lbs).		-99 = Unknown
19	DIABETES	Char	Diabetes mellitus with oral agents or insulin	The treatment regimen of the patient's chronic, long-term management. Diabetes mellitus is a metabolic disorder of the pancreas whereby the individual requires daily dosages of exogenous parenteral insulin or an oral hypoglycemic agent to prevent a hyperglycemia/metabolic acidosis. A patient is not included if diabetes is controlled by diet alone. No: no diagnosis of diabetes or diabetes controlled by diet alone; Oral: a diagnosis of diabetes requiring therapy with an oral hypoglycemic agent; Insulin: a diagnosis of diabetes requiring daily insulin therapy.	INSULIN; NO; NON-INSULIN	NULL = Unknown Definition change from 2009
20	SMOKE	Char	Current smoker within one year	If the patient has smoked cigarettes in the year prior to admission for surgery "YES" entered. Patients who smoke cigars or pipes or use chewing tobacco are not included.	Yes; No	NULL = Unknown
21	PACKS	Num	Pack-years of smoking	If the patient has ever been a smoker, the total number of pack/years of smoking for this patient is provided. Pack-years are defined as the number of packs of cigarettes smoked per day times the number of years the patient has smoked. If the patient has never been a smoker, "0" is entered. If pack-years are > 200, 200 is entered. If smoking history cannot be determined, "-99" is entered. The possible range for number of pack-years is 0 to 200. If the chart documents differing values for pack year cigarette history or ranges for either packs per day or number of years patient has smoked, the highest value is documented.		-99 = Unknown
22	ETOH	Char	EtOH > 2 drinks/day in 2 wks before admission	"YES" is entered if 2 drinks per day in the two weeks prior to admission: The patient admits to drinking >2 ounces of hard liquor or > two 12 oz. cans of beer or > two 6 oz. glasses of wine per day in the two weeks prior to admission. If the patient is a binge drinker, the numbers of drinks during the binge are divided by seven days and then the definition is applied.	Yes; No	NULL = Unknown
23	DYSPNEA	Char	Dyspnea	"YES" is entered if the patient described difficult, painful, or labored breathing. Dyspnea may be symptomatic of numerous disorders that interfere with adequate ventilation or perfusion of the blood with oxygen. The dyspneic patient is subjectively aware of difficulty with breathing. One of the following categories are selected that best indicates the patient's subjective experience coupled with objective assessment: The time frame is at the time the patient is being considered as a candidate for surgery (which is no longer than 30 days prior to surgery). If the patient's dyspnea status worsens prior to surgery, most severe is reported.	AT REST; MODERATE EXERTION; NO	NULL = Unknown

Position #	Variable Name	Data Type	Variable Label	Variable Definition	Variable Options at Entry	Comments
24	DNR	Char	Do not resuscitate (DNR) status	“YES” is entered if the patient has had a Do-Not-Resuscitate (DNR) order written in the physician’s order sheet of the patient’s chart and it has been signed or co-signed by an attending physician in the 30 days prior to surgery. If the DNR order as defined above was rescinded immediately prior to surgery in order to operate on the patient, “YES” is entered. “NO” is entered if DNR discussions are documented in the progress note, but no official DNR order has been written in the physician order sheet or if the attending physician has not signed the official order.	Yes; No	NULL = Unknown
25	FNSTATUS1	Char	Functional health status Prior to Current Illness	This variable focuses on the patient’s abilities to perform activities of daily living (ADLs) in the 30 days prior to surgery. Activities of daily living are defined as ‘the activities usually performed in the course of a normal day in a person’s life’. ADLs include: bathing, feeding, dressing, toileting, and mobility. The corresponding level of self-care for activities of daily living demonstrated by the patient for the following two time points are reported: (a) prior to the current illness, and (b) at the time the patient is being considered as a candidate for surgery (which is no longer than 30 days prior to surgery). If the patient’s status changes prior to surgery, the change is reflected in the assessment of (b). For each of these time points, the level of functional health status as defined by the following criteria is reported. All patients with psychiatric illnesses are evaluated for their ability to function with or without assistance with ADLs just as the non-psychiatric patient. For instance, if a patient with schizophrenia is able to care for him/herself without the assistance of nursing care, he/she is considered independent. Independent: The patient does not require assistance from another person for any activities of daily living. This includes a person who is able to function independently with prosthetics, equipment, or devices; Partially dependent: The patient requires some assistance from another person for activities of daily living. This includes a person who utilizes prosthetics, equipment, or devices but still requires some assistance from another person for ADLs; Totally dependent: The patient requires total assistance for all activities of daily living.	Independent Partially dependent Totally dependent	Historical variable, no longer used
26	FNSTATUS2	Char	Functional health status Prior to Surgery	Refer to "Functional health status Prior to Current Illness" Definition	Independent; Partially Dependent; Totally Dependent; Unknown	NULL = No Response
27	VENTILAT	Char	Ventilator dependent	"YES" is entered if a preoperative patient required ventilator-assisted respiration at any time during the 48 hours preceding surgery. This does not include the treatment of sleep apnea with CPAP.	Yes; No	NULL = Unknown
28	HXCOPD	Char	History of severe COPD	"YES" is entered for patients with chronic obstructive pulmonary disease (such as emphysema and/or chronic bronchitis) resulting in any one or more of the following: -Functional disability from COPD (e.g., dyspnea, inability to perform ADLs) -Hospitalization in the past for treatment of COPD -Requires chronic bronchodilator therapy with oral or inhaled agents. -An FEV_1 of <75% of predicted on pulmonary function testing. Patients are not included whose only pulmonary disease is asthma, an acute and chronic inflammatory disease of the airways resulting in bronchospasm. Patients are not included with diffuse interstitial fibrosis or sarcoidosis.	Yes; No	NULL = Unknown

Position #	Variable Name	Data Type	Variable Label	Variable Definition	Variable Options at Entry	Comments
29	CPNEUMON	Char	Current pneumonia	"YES" is entered for patients who have evidence of pneumonia at the time the patient is brought to the OR. Patients with pneumonia must meet ONE of the following two criteria: **Criterion 1.** Rales or dullness to percussion on physical examination of chest AND any of the following: a. New onset of purulent sputum or change in character of sputum b. Organism isolated from blood culture c. Isolation of pathogen from specimen obtained by transtracheal aspirate, bronchial brushing, or biopsy **OR Criterion 2.** Chest radiographic examination shows new or progressive infiltrate, consolidation, cavitation, or pleural effusion AND any of the following: a. New onset of purulent sputum or change in character of sputum b. Organism isolated from blood culture c. Isolation of pathogen from specimen obtained by transtracheal aspirate, bronchial brushing, or biopsy d. Isolation of virus or detection of viral antigen in respiratory secretions. e. Diagnostic single antibody titer (IgM) or fourfold increase in paired serum samples (IgG) for pathogen f. Histopathologic evidence of pneumonia.	Yes; No	NULL = Unknown
30	ASCITES	Char	Ascites	"YES" is entered for patients with the presence of fluid accumulation in the peritoneal cavity noted on physical examination, abdominal ultrasound, or abdominal CT/MRI within 30 days prior to the operation.	Yes; No	NULL = Unknown
31	ESOVAR	Char	Esophageal varices	"YES" is entered for patients with esophageal varices present preoperatively and documented on an EGD or CT scan performed within 6 months prior to the surgical procedure. Esophageal varices are engorged collateral veins in the esophagus that bypass a scarred liver to carry portal blood to the superior vena cava. A sustained increase in portal pressure results in esophageal varices that are most frequently demonstrated by direct visualization at esophagoscopy.	Yes; No	NULL = Unknown
32	HXCHF	Char	Congestive heart failure (CHF) in 30 days before surgery	"YES" is entered in patients with congestive heart failure. Congestive heart failure is the inability of the heart to pump a sufficient quantity of blood to meet the metabolic needs of the body or can do so only at increased ventricular filling pressure. Only newly diagnosed CHF within the previous 30 days or a diagnosis of chronic CHF with new signs or symptoms in the 30 days prior to surgery fulfills this definition. Common manifestations are: -Abnormal limitation in exercise tolerance due to dyspnea or fatigue -Orthopnea (dyspnea on lying supine) -Paroxysmal nocturnal dyspnea (PND-awakening from sleep with dyspnea) -Increased jugular venous pressure -Pulmonary rales on physical examination -Cardiomegaly -Pulmonary vascular engorgement.	Yes; No	NULL = Unknown
33	HXMI	Char	History of myocardial infarction 6 mos prior to surgery	"Yes" is entered for patients with a history of a non-Q wave or a Q wave infarct in the six months prior to surgery as diagnosed in the patient's medical record.	Yes; No	NULL = Unknown
34	PRVPCI	Char	Previous PCI	"YES" is entered for patient who have undergone percutaneous coronary intervention (PCI) at any time (including any attempted PCI). This includes either balloon dilatation or stent placement. This does not include valvuloplasty procedures.	Yes; No	NULL = Unknown
35	PRVPCS	Char	Previous cardiac surgery	"YES" is entered if the patient has had any major cardiac surgical procedures (performed either as an 'off-pump' repair or utilizing cardiopulmonary bypass). This includes coronary artery bypass graft surgery, valve replacement or repair, repair of atrial or ventricular septal defects, great thoracic vessel repair, cardiac transplant, left ventricular aneurysmectomy, insertion of left ventricular assist devices (LVAD), etc. Not include are pacemaker insertions or automatic implantable cardioverter defibrillator (AICD) insertions.	Yes; No	NULL = Unknown

Position #	Variable Name	Data Type	Variable Label	Variable Definition	Variable Options at Entry	Comments
36	HXANGINA	Char	History of angina in 1 month before surgery	"YES" is entered if patient reports pain or discomfort between the diaphragm and the mandible resulting from myocardial ischemia. Typically angina is a dull, diffuse (fist-sized or larger) substernal chest discomfort precipitated by exertion or emotion and relieved by rest or nitroglycerine. Radiation to the arms and shoulders often occurs, and occasionally to the neck, jaw (mandible, not maxilla), or interscapular region. For patients on anti-anginal medications, 'YES' is entered only if the patient has had angina at any time within one month prior to surgery.	Yes; No	NULL = Unknown
37	HYPERMED	Char	Hypertension requiring medication	"YES" is entered for patients with a persistent elevation of systolic blood pressure > 140 mm Hg or a diastolic blood pressure > 90 mm Hg or requires an antihypertensive treatment (e.g., diuretics, beta blockers, ACE inhibitors, calcium channel blockers) at the time the patient is being considered as a candidate for surgery (which should be no longer than 30 days prior to surgery).	Yes; No	NULL = Unknown
38	HXPVD	Char	History of revascularization/amputation for periph. vascular disease	"YES" is entered for a patient with any type of angioplasty (including stent placement) or revascularization procedure for atherosclerotic peripheral vascular disease (PVD) (e.g., aorta-femoral, femoral-femoral, femoral-popliteal) or a patient who has had any type of amputation procedure for PVD (e.g., toe amputations, transmetatarsal amputations, below the knee or above the knee amputations). Patients who have had amputation for trauma or a resection of abdominal aortic aneurysms should not be included.	Yes; No	NULL = Unknown
39	RESTPAIN	Char	Rest pain/gangrene	"YES" is entered for a patient with rest pain or Gangrene. Rest pain is a more severe form of ischemic pain due to occlusive disease, which occurs at rest and is manifested as a severe, unrelenting pain aggravated by elevation and often preventing sleep. Gangrene is a marked skin discoloration and disruption indicative of death and decay of tissues in the extremities due to severe and prolonged ischemia. Patients included with ischemic ulceration and/or tissue loss related to peripheral vascular disease. Fournier's gangrene are not included.	Yes; No	NULL = Unknown
40	RENAFAIL	Char	Acute renal failure (post-op)	"YES" is entered if the patient has the clinical condition associated with rapid, steadily increasing azotemia (increase in BUN) and a rising creatinine of above 3 mg/dl. Acute renal failure should be noted within 24 hours prior to surgery.	Yes; No	NULL = Unknown
41	DIALYSIS	Char	Currently on dialysis (pre-op)	"YES" is entered if the patient has acute or chronic renal failure requiring treatment with peritoneal dialysis, hemodialysis, hemofiltration, hemodiafiltration, or ultrafiltration within 2 weeks prior to surgery.	Yes; No	NULL = Unknown
42	IMPSENS	Char	Impaired sensorium	"YES" is entered if patient is acutely confused and/or delirious and responds to verbal and/or mild tactile stimulation. Patients is noted to have developed an impaired sensorium if they have mental status changes, and/or delirium in the context of the current illness. Patients with chronic or long-standing mental status changes secondary to chronic mental illness (e.g., schizophrenia) or chronic dementing illnesses (e.g., multi-infarct dementia, senile dementia of the Alzheimer's type) are not included. This assessment of the patient's mental status is within 48 hours prior to the surgical procedure. Example: A patient is admitted to the orthopedics service after a fall with a fractured hip. The patient is also noted to be dehydrated and febrile. He is disoriented to place and time and seems confused. His family reports that he has been oriented and alert prior to the fall. This patient has an impaired sensorium on the basis of his confusion and disorientation.	Yes; No	NULL = Unknown

Position #	Variable Name	Data Type	Variable Label	Variable Definition	Variable Options at Entry	Comments
43	COMA	Char	Coma >24 hours	"YES" is entered if patient is unconscious, or postures to painful stimuli, or is unresponsive to all stimuli entering surgery. This does not include drug-induced coma.	Yes; No	NULL = Unknown
44	HEMI	Char	Hemiplegia	"YES" is entered if patient has sustained acute or chronic neuromuscular injury resulting in total or partial paralysis or paresis (weakness) of one side of the body. 'YES' is entered if the patient has hemiplegia/hemiparesis (that has not recovered or been rehabilitated) upon arrival to the OR. "YES" is entered, if there is hemiplegia or hemiparesis associated with a CVA/Stroke also.	Yes; No	NULL = Unknown
45	HXTIA	Char	History of transient ischemic attacks (TIA)	"YES" is entered if patient has transient ischemic attacks (TIAs). TIAs are focal neurologic deficits (e.g. numbness of an arm or amaurosis fugax) of sudden onset and brief duration (usually <30 minutes) that usually reflects dysfunction in a cerebral vascular distribution. These attacks may be recurrent and, at times, may precede a stroke.	Yes; No	NULL = Unknown
46	CVA	Char	CVA/Stroke with neurological deficit	"YES" is entered if patient has a history of a cerebrovascular accident (embolic, thrombotic, or hemorrhagic) with persistent residual motor, sensory, or cognitive dysfunction. (e.g., hemiplegia, hemiparesis, aphasia, sensory deficit, impaired memory). If the neurological deficit is hemiplegia/hemiparesis, 'YES' is entered to Hemiplegia/Hemiparesis in addition to CVA/Stroke.	Yes; No	NULL = Unknown
47	CVANO	Char	CVA/Stroke with no neurological deficit	"YES" is entered if the patient has a history of a cerebrovascular accident (embolic, thrombotic, or hemorrhagic) with neurologic deficit(s) lasting at least 30 minutes, but no current residual neurologic dysfunction or deficit.	Yes; No	NULL = Unknown
48	TUMORCNS	Char	Tumor involving CNS	"YES" is entered if patient has a space-occupying tumor of the brain or spinal cord, which may be benign (e.g., meningiomas, ependymoma, oligodendroglioma) or primary (e.g., astrocytoma, glioma, glioblastoma multiform) or secondary malignancies (e.g., metastatic lung, breast, malignant melanoma). Other tumors that may involve the CNS include lymphomas and sarcomas. "YES" is entered even if the tumor was not treated.	Yes; No	NULL = Unknown
49	Para	Char	Paraplegia	"YES" is entered if the patient has sustained acute or chronic neuromuscular injury resulting in total or partial paralysis or paresis (weakness) of the lower extremities.	Yes; No	NULL = Unknown
50	QUAD	Char	Quadriplegia	"YES" is entered if the patient has sustained acute or chronic neuromuscular injury resulting in total or partial paralysis or paresis (weakness) of all four extremities.	Yes; No	NULL = Unknown
51	DISCANCR	Char	Disseminated cancer	"YES" is entered for patients who have cancer that: (1) Has spread to one site or more sites in addition to the primary site AND (2) In whom the presence of multiple metastases indicates the cancer is widespread, fulminant, or near terminal. The following are reported as Disseminated Cancer: Acute Lymphocytic Leukemia (ALL), Acute Myelogenous Leukemia (AML), and Stage IV Lymphoma. The following are not reported as Disseminated Cancer: Chronic Lymphocytic Leukemia (CLL), Chronic Myelogenous Leukemia (CML), Stages I through III Lymphomas or Multiple Myeloma. Example: A patient with a primary breast cancer with positive nodes in the axilla does NOT qualify for this definition. She has spread of the tumor to a site other than the primary site, but does not have widespread metastases. A patient with primary breast cancer with positive nodes in the axilla AND liver metastases does qualify, because she has both spread of the tumor to the axilla and other major organs.	Yes; No	NULL = Unknown

Position #	Variable Name	Data Type	Variable Label	Variable Definition	Variable Options at Entry	Comments
52	WNDINF	Char	Open wound/wound infection	"YES" is entered for patietns with evidence of an open wound that communicates to the air by direct exposure, with or without cellulitis or purulent exudate. This does not include osteomyelitis or localized abscesses.	Yes; No	NULL = Unknown
53	STEROID	Char	Steroid use for chronic condition	"YES" is entered for patient who required regular administration of oral or parenteral **corticosteroid** medications (e.g., Prednisone, Decadron) in the 30 days prior to surgery for a chronic medical condition (e.g., COPD, asthma, rheumatologic disease, rheumatoid arthritis, inflammatory bowel disease). Topical corticosteroids applied to the skin or corticosteroids administered by inhalation or rectally are not included. Patients who only receive short course steroids (duration 10 days or less) in the 30 days prior to surgery are not included.	Yes; No	NULL = Unknown
54	WTLOSS	Char	>10% loss body weight in last 6 months	"YES" is entered for patients with a greater than 10% decrease in body weight in the six month interval immediately preceding surgery as manifested by serial weights in the chart, as reported by the patient, or as evidenced by change in clothing size or severe cachexia. Patients who have intentionally lost weight as part of a weight reduction program do not qualify.	Yes; No	NULL = Unknown
55	BLEEDDIS	Char	Bleeding disorders	"YES" is entered for patients with any condition that places the patient at risk for excessive bleeding requiring hospitalization due to a deficiency of blood clotting elements (e.g., vitamin K deficiency, hemophilias, thrombocytopenia, chronic anticoagulation therapy that has not been discontinued prior to surgery)**.** Patients not included who are on chronic aspirin therapy. If there is **no** documentation of **discontinuation** of medication, "YES" is entered for bleeding disorder.	Yes; No	NULL = Unknown
56	TRANSFUS	Char	Transfusion >4 units PRBCs in 72 hours before surgery	"YES" is entered for patients with preoperative loss of blood necessitating a minimum of 5 units of whole blood/packed red cells transfused during the 72 hours prior to surgery including any blood transfused in the emergency room.	Yes; No	NULL = Unknown
57	CHEMO	Char	Chemotherapy for malignancy in <= 30 days pre-op	"YES" entered if the patient had any chemotherapy treatment for cancer in the 30 days prior to surgery. Chemotherapy may include, but is not restricted to, oral and parenteral treatment with chemotherapeutic agents for malignancies such as colon, breast, lung, head and neck, and gastrointestinal solid tumors as well as lymphatic and hematopoietic malignancies such as lymphomas, leukemia, and multiple myeloma. Patient is not included if treatment consists solely of hormonal therapy.	Yes; No	NULL = Unknown
58	RADIO	Char	Radiotherapy for malignancy in last 90 days	"YES" entered if the patient had any radiotherapy treatment for cancer in the 90 days prior to surgery. Count If the patient had radiation seeds implanted and the implantation was within 90 days prior to the operation.	Yes; No	NULL = Unknown
59	PRSEPIS	Char	Systemic Sepsis	Sepsis is a vast clinical entity that takes a variety of forms. The spectrum of disorders spans from relatively mild physiologic abnormalities to septic shock. The most significant level is reported using the following criteria: **SIRS** (Systemic Inflammatory Response Syndrome): SIRS is a widespread inflammatory response to a variety of severe clinical insults. This syndrome is clinically recognized by the presence of two or more of the following within the same time frame: ☐Te ☐RR >20 breaths/min or PaCO2 <32 mmHg(<4.3 kPa) ☐WBC >12,000 cell/mm3, <4000 cells/mm3, or >10% immature (band) forms ☐Anio acidosis: this is defined by either: [Na + K] – [CL + HCO3 (or serum CO2]. If this number is greater than 16, then an anion gap acidosis is present. Na – [CL + HCO3 (or serum CO2].	SIRS; Sepsis; Septic Shock; None	NULL = Unknown

Position #	Variable Name	Data Type	Variable Label	Variable Definition	Variable Options at Entry	Comments
				If this number is greater than 12, then An anion gap acidosis is present. **Sepsis**: Sepsis is the systemic response to infection. This variable reported if the patient has clinical signs and symptoms of SIRS listed above and one of the following: . Positive blood culture. Clinical documentation of purulence or positive culture from any site thought to be causative; **Severe Sepsis/Septic Shock**: Sepsis is considered severe when it is associated with organ and/or circulatory dysfunction. This variable reported if the patient has the clinical signs and symptoms of SIRS or sepsis AND documented organ and/or circulatory dysfunction. Examples of organ dysfunction include: oliguria, acute alteration in mental status, acute respiratory distress. Examples of circulatory dysfunction include: hypotension, requirement of inotropic or vasopressor agents.		
60	Pregnancy	Char	Pregnancy	"YES" entered if pregnant. Pregnancy is determined by one of the following: . Administration of a blood or urine pregnancy test with a positive result . Visualization of the fetus by ultrasound . Indication of fetal heart rate by ultrasound or fetal heart monitoring Pregnancy takes approximately 40 weeks between the time of the last menstrual cycle and delivery.	Yes; No	NULL = Not applicable or not documented because variable was added in July 2006
61	PrOper30	Char	Prior Operation within 30 days	"YES" entered if the patient has had any major surgical procedure performed within 30 days prior to the assessed operation that would meet the following NSQIP criteria: Operation was performed utilizing general, spinal, or epidural anesthesia or operation performed included any of the following: carotid endarterectomy, inguinal hernia repair, parathyroidectomy, thyroidectomy, breast lumpectomy, or endovascular AAA repair Operation was not listed on the NSQIP CPT Exclusion list. Also **included** are any transplant procedures or trauma procedures if performed within 30 days prior to the assessed operation.	Yes; No	NULL = Not applicable or not documented because variable was added in July 2006
62	DPRNA	Num	Days from Na Preoperative Labs to Operation	Days from Na Preoperative Labs to Operation		-99 = Lab value not obtained or Unknown
63	DPRBUN	Num	Days from BUN Preoperative Labs to Operation	Days from BUN Preoperative Labs to Operation		-99 = Lab value not obtained or Unknown
64	DPRCREAT	Num	Days from Creatinine Preoperative Labs to Operation	Days from Creatinine Preoperative Labs to Operation		-99 = Lab value not obtained or Unknown
65	DPRALBUM	Num	Days from Albumin Preoperative Labs to Operation	Days from Albumin Preoperative Labs to Operation		-99 = Lab value not obtained or Unknown
66	DPRBILI	Num	Days from Bilirubin Preoperative Labs to Operation	Days from Bilirubin Preoperative Labs to Operation		-99 = Lab value not obtained or Unknown
67	DPRSGOT	Num	Days from SGOT Preoperative Labs to Operation	Days from SGOT Preoperative Labs to Operation		-99 = Lab value not obtained or Unknown
68	DPRALKPH	Num	Days from ALKPHOS Preoperative Labs to Operation	Days from ALKPHOS Preoperative Labs to Operation		-99 = Lab value not obtained or Unknown
69	DPRWBC	Num	Days from WBC Preoperative Labs to Operation	Days from WBC Preoperative Labs to Operation		-99 = Lab value not obtained or Unknown
70	DPRHCT	Num	Days from HCT Preoperative Labs to Operation	Days from HCT Preoperative Labs to Operation		-99 = Lab value not obtained or Unknown
71	DPRPLATE	Num	Days from PlateCount Preoperative Labs to Operation	Days from PlateCount Preoperative Labs to Operation		-99 = Lab value not obtained or Unknown
72	DPRPTT	Num	Days from PTT Preoperative Labs to Operation	Days from PTT Preoperative Labs to Operation		-99 = Lab value not obtained or Unknown
73	DPRPT	Num	Days from PT Preoperative Labs to Operation	Days from PT Preoperative Labs to Operation		-99 = Lab value not obtained or Unknown
74	DPRINR	Num	Days from INR Preoperative Labs to Operation	Days from INR Preoperative Labs to Operation		-99 = Lab value not obtained or Unknown

Position #	Variable Name	Data Type	Variable Label	Variable Definition	Variable Options at Entry	Comments
75	PRSODM	Num	Pre-operative serum sodium	Pre-operative serum sodium		-99 = Lab value not obtained or Unknown
76	PRBUN	Num	Pre-operative BUN	Pre-operative BUN		-99 = Lab value not obtained or Unknown
77	PRCREAT	Num	Pre-operative serum creatinine	Pre-operative serum creatinine		-99 = Lab value not obtained or Unknown
78	PRALBUM	Num	Pre-operative serum albumin	Pre-operative serum albumin		-99 = Lab value not obtained or Unknown
79	PRBILI	Num	Pre-operative total bilirubin	Pre-operative total bilirubin		-99 = Lab value not obtained or Unknown
80	PRSGOT	Num	Pre-operative SGOT	Pre-operative SGOT		-99 = Lab value not obtained or Unknown
81	PRALKPH	Num	Pre-operative alkaline phosphatase	Pre-operative alkaline phosphatase		-99 = Lab value not obtained or Unknown
82	PRWBC	Num	Pre-operative WBC	Pre-operative WBC		-99 = Lab value not obtained or Unknown
83	PRHCT	Num	Pre-operative hematocrit	Pre-operative hematocrit		-99 = Lab value not obtained or Unknown
84	PRPLATE	Num	Pre-operative platelet count	Pre-operative platelet count		-99 = Lab value not obtained or Unknown
85	PRPTT	Num	Pre-operative PTT	Pre-operative PTT		-99 = Lab value not obtained or Unknown
86	PRINR	Num	Pre-operative International Normalized Ratio (INR) of PT values	Pre-operative International Normalized Ratio (INR) of PT values		-99 = Lab value not obtained or Unknown
87	PRPT	Num	Pre-operative PT	Pre-operative PT		-99 = Lab value not obtained or Unknown
88	OTHERPROC1	Char	Other Procedure 1	An additional operative procedure performed by the **same surgical team** (i.e., the same specialty/service) **under the same anesthetic** which has a CPT code different from that of the Principal Operative Procedure (e.g., a splenectomy performed in the course of a cholecystectomy). **ALL additional procedures/CPT codes for the OR visit are reported.**		NULL = No Procedure
89	OTHERCPT1	Char	Other CPT Code 1	CPT Code		NULL = No Procedure
90	OTHERWRVU1	Num	Other Work Relative Value Unit 1	Other Work Relative Value Unit 1		-99 = No Procedure/Unknown
91	OTHERPROC2	Char	Other Procedure 2	See 'Other Procedure 1'		NULL = No Procedure
92	OTHERCPT2	Char	Other CPT Code 2	CPT Code		NULL = No Procedure
93	OTHERWRVU2	Num	Other Work Relative Value Unit 2	Other Work Relative Value Unit 2		-99 = No Procedure/Unknown
94	OTHERPROC3	Char	Other Procedure 3	See 'Other Procedure 1'		NULL = No Procedure
95	OTHERCPT3	Char	Other CPT Code 3	CPT Code		NULL = No Procedure
96	OTHERWRVU3	Num	Other Work Relative Value Unit 3	Other Work Relative Value Unit 3		-99 = No Procedure/Unknown
97	OTHERPROC4	Char	Other Procedure 4	See 'Other Procedure 1'		NULL = No Procedure
98	OTHERCPT4	Char	Other CPT Code 4	CPT Code		NULL = No Procedure
99	OTHERWRVU4	Num	Other Work Relative Value Unit 4	Other Work Relative Value Unit 4		-99 = No Procedure/Unknown
100	OTHERPROC5	Char	Other Procedure 5	See 'Other Procedure 1'		NULL = No Procedure
101	OTHERCPT5	Char	Other CPT Code 5	CPT Code		NULL = No Procedure
102	OTHERWRVU5	Num	Other Work Relative Value Unit 5	Other Work Relative Value Unit 5		-99 = No Procedure/Unknown
103	OTHERPROC6	Char	Other Procedure 6	See 'Other Procedure 1'		NULL = No Procedure
104	OTHERCPT6	Char	Other CPT Code 6	CPT Code		NULL = No Procedure
105	OTHERWRVU6	Num	Other Work Relative Value Unit 6	Other Work Relative Value Unit 6		-99 = No Procedure/Unknown
106	OTHERPROC7	Char	Other Procedure 7	See 'Other Procedure 1'		NULL = No Procedure
107	OTHERCPT7	Char	Other CPT Code 7	CPT Code		NULL = No Procedure
108	OTHERWRVU7	Num	Other Work Relative Value Unit 7	Other Work Relative Value Unit 7		-99 = No Procedure/Unknown
109	OTHERPROC8	Char	Other Procedure 8	See 'Other Procedure 1'		NULL = No Procedure
110	OTHERCPT8	Char	Other CPT Code 8	CPT Code		NULL = No Procedure
111	OTHERWRVU8	Num	Other Work Relative Value Unit 8	Other Work Relative Value Unit 8		-99 = No Procedure/Unknown

Position #	Variable Name	Data Type	Variable Label	Variable Definition	Variable Options at Entry	Comments
112	OTHERPROC9	Char	Other Procedure 9	See 'Other Procedure 1'		NULL = No Procedure
113	OTHERCPT9	Char	Other CPT Code 9	CPT Code		NULL = No Procedure
114	OTHERWRVU9	Num	Other Work Relative Value Unit 9	Other Work Relative Value Unit 9		-99 = No Procedure/Unknown
115	OTHERPROC10	Char	Other Procedure 10	See 'Other Procedure 1'		NULL = No Procedure
116	OTHERCPT10	Char	Other CPT Code 10	CPT Code		NULL = No Procedure
117	OTHERWRVU10	Num	Other Work Relative Value Unit 10	Other Work Relative Value Unit 10		-99 = No Procedure/Unknown
118	CONCURR1	Char	Concurrent Procedure 1	An additional operative procedure performed by a **different surgical team** (i.e., a different specialty/service) **under the same anesthetic** which has a CPT code different from that of the Principal Operative Procedure (e.g., Coronary Artery Bypass Graft procedure on a patient who is also undergoing a Carotid Endarterectomy).		NULL = No Procedure
119	CONCPT1	Char	Concurrent CPT 1	Concurrent CPT 2		NULL = No Procedure
120	CONWRVU1	Num	Concurrent Work Relative Value Unit 1	Concurrent Work Relative Value Unit 2		-99 = No Procedure/Unknown
121	CONCURR2	Char	Concurrent Procedure 2	Concurrent Procedure 3		NULL = No Procedure
122	CONCPT2	Char	Concurrent CPT 2	Concurrent CPT 3		NULL = No Procedure
123	CONWRVU2	Num	Concurrent Work Relative Value Unit 2	Concurrent Work Relative Value Unit 3		-99 = No Procedure/Unknown
124	CONCURR3	Char	Concurrent Procedure 3	Concurrent Procedure 4		NULL = No Procedure
125	CONCPT3	Char	Concurrent CPT 3	Concurrent CPT 4		NULL = No Procedure
126	CONWRVU3	Num	Concurrent Work Relative Value Unit 3	Concurrent Work Relative Value Unit 4		-99 = No Procedure/Unknown
127	CONCURR4	Char	Concurrent Procedure 4	Concurrent Procedure 5		NULL = No Procedure
128	CONCPT4	Char	Concurrent CPT 4	Concurrent CPT 5		NULL = No Procedure
129	CONWRVU4	Num	Concurrent Work Relative Value Unit 4	Concurrent Work Relative Value Unit 5		-99 = No Procedure/Unknown
130	CONCURR5	Char	Concurrent Procedure 5	Concurrent Procedure 6		NULL = No Procedure
131	CONCPT5	Char	Concurrent CPT 5	Concurrent CPT 6		NULL = No Procedure
132	CONWRVU5	Num	Concurrent Work Relative Value Unit 5	Concurrent Work Relative Value Unit 6		-99 = No Procedure/Unknown
133	CONCURR6	Char	Concurrent Procedure 6	Concurrent Procedure 7		NULL = No Procedure
134	CONCPT6	Char	Concurrent CPT 6	Concurrent CPT 7		NULL = No Procedure
135	CONWRVU6	Num	Concurrent Work Relative Value Unit 6	Concurrent Work Relative Value Unit 7		-99 = No Procedure/Unknown
136	CONCURR7	Char	Concurrent Procedure 7	Concurrent Procedure 8		NULL = No Procedure
137	CONCPT7	Char	Concurrent CPT 7	Concurrent CPT 8		NULL = No Procedure
138	CONWRVU7	Num	Concurrent Work Relative Value Unit 7	Concurrent Work Relative Value Unit 8		-99 = No Procedure/Unknown
139	CONCURR8	Char	Concurrent Procedure 8	Concurrent Procedure 9		NULL = No Procedure
140	CONCPT8	Char	Concurrent CPT 8	Concurrent CPT 9		NULL = No Procedure
141	CONWRVU8	Num	Concurrent Work Relative Value Unit 8	Concurrent Work Relative Value Unit 9		-99 = No Procedure/Unknown
142	CONCURR9	Char	Concurrent Procedure 9	Concurrent Procedure 10		NULL = No Procedure
143	CONCPT9	Char	Concurrent CPT 9	Concurrent CPT 10		NULL = No Procedure
144	CONWRVU9	Num	Concurrent Work Relative Value Unit 9	Concurrent Work Relative Value Unit 10		-99 = No Procedure/Unknown
145	CONCURR10	Char	Concurrent Procedure 10	Concurrent Procedure 11		NULL = No Procedure
146	CONCPT10	Char	Concurrent CPT 10	Concurrent CPT 11		NULL = No Procedure
147	CONWRVU10	Num	Concurrent Work Relative Value Unit 10	Concurrent Work Relative Value Unit 11		-99 = No Procedure/Unknown
148	OPNOTE	Char	Surgeon who dictated the operative note.	Surgeon who dictated the operative note.	Attending Resident Not Available	Historical variable, no longer used
149	PGY	Num	Highest Level of Resident Surgeon	Report the highest Post-Graduate Year (PGY) of the resident(s) who scrubbed for the surgical procedure. Choose from 1 – 10. Enter '0' if there is no resident scrubbed on the surgical procedure.	0-10	-99 = Unknown
150	EMERGNCY	Char	Emergency case	"YES" if the surgeon and anesthesiologist report the case as emergent. An emergency case is usually performed as soon as possible and no later than 12 hours after the patient has been admitted to the hospital or after the onset of related preoperative symptomatology.	Yes; No	NULL = Unknown
151	WNDCLAS	Char	Wound classification	Indicates whether the primary surgeon has classified the wound as: (1) **Clean:** An uninfected operative wound in which no inflammation is encountered and the	1-Clean 2-Clean/Contaminated	NULL = Unknown

Position #	Variable Name	Data Type	Variable Label	Variable Definition	Variable Options at Entry	Comments
				respiratory, alimentary, genital, or uninfected urinary tract is not entered. In addition, clean wounds are primarily closed and, if necessary, drained with closed drainage. Operative incisional wounds that follow nonpenetrating (blunt) trauma should be included in this category if they meet the criteria. (2) **Clean/Contaminated:** An operative wound in which the respiratory, alimentary, genital, or urinary tracts are entered under controlled conditions and without unusual contamination. Specifically, operations involving the biliary tract, appendix, vagina, and oropharynx are included in this category, provided no evidence of infection or major break in technique is encountered. **(3) Contaminated**: Open, fresh, accidental wounds. In addition, operations with major breaks in sterile technique (e.g., open cardiac massage) or gross spillage from the gastrointestinal tract, and incisions in which acute, nonpurulent inflammation is encountered including necrotic tissue without evidence of purulent drainage (e.g. dry gangrene) are included in this category. **(4) Dirty/Infected**: Old traumatic wounds with retained devitalized tissue and those that involve existing clinical infection or perforated viscera. This definition suggests that the organisms causing postoperative infection were present in the operative field before the operation.	3-Contaminated 4-Dirty/Infected	
152	ASACLAS	Char	ASA classification	The American Society of Anesthesiology (ASA) Physical Status Classification of the patient's present physical condition on a scale from 1-5 as it appears on the anesthesia record. The classifications are as follows: **ASA 1** -Normal healthy patient **ASA 2** -Patient with mild systemic disease **ASA 3** -Patient with severe systemic disease **ASA 4** -Patient with severe systemic disease that is a constant threat to life **ASA 5** -Moribund patient who is not expected to survive without the operation.	1 -No Disturb 2 -Mild Disturb 3 -Severe Disturb 4 -Life Threat 5 -Moribund None assigned	NULL= Unknown
153	AIRTRA	Char	Airway trauma	The code corresponding to trauma resulting from the endotracheal intubation process is entered.	None Lip laceration or hematoma Tooth chipped, loosened or lost Tongue laceration or hematoma Pharyngeal laceration Laryngeal laceration Failure to intubate	Historical variable, no longer used
154	MALLAMP	Num	Mallampati scale	The Mallampati classification relates tongue size to pharyngeal size. This test is performed with the patient in sitting position, the head held in a neutral position, the mouth wide open, and the tongue protruding to the maximum. The subsequent classification is assigned based upon the pharyngeal structures that are visible: **Class I** – visualization of the soft palate, fauces, uvula, and anterior and posterior pillars. **Class II** – visualization of the soft palate, fauces, and uvula. **Class III** – visualization of the soft palate and the base of the uvula. **Class IV** – soft palate is not visible at all.	1; 2; 3; 4	Historical variable, no longer used
155	MORTPROB	Num	Estimated Probability of Mortality	Probability of mortality is developed for general and vascular surgical cases based on a logistic regresion analysis using the patient's preopeartive characteristics as the independent or predictive variables. Only general and vascular cases used in the logistic regression analysis will have the associated probabilities of mortality.		System missing = case was not included in the logistic regression analysis

Position #	Variable Name	Data Type	Variable Label	Variable Definition	Variable Options at Entry	Comments
156	MORBPROB	Num	Estimated Probability of Morbidity	Probability of morbidity is developed for general and vascular surgical cases based on a logistic regresion analysis using the patient's preopeartive characteristics as the independent or predictive variables. Only the general and vascular cases used in the logistic regression analysis will have the associated probabilities of morbidity.		System missing = case was not included in the logistic regression analysis
157	RBC	Num	Number of RBC units given intraoperative	The number of packed or whole red blood cells given during the operative procedure as it appears on the anesthesia record. The amount of blood reinfused from the cell saver is also noted. For a cell saver, every 500 cc's of fluid will equal 1 unit of packed cells. If there is less than 250 cc of fluid, 0 is entered.		Historical variable, no longer used
158	ANESURG	Num	Duration from Anesthsia start to Surgery start	Duration from Anesthsia start to Surgery start in minutes		-99 = Unknown
159	SURGANE	Num	Duration from Surgery stop to Anesthia Stop	Duration from Surgery stop to Anesthia Stop in minutes		-99 = Unknown
160	DPATRM	Num	Duration patient is in Room	Duration patient is in Room in minutes		-99 = Unknown
161	ANETIME	Num	Duration of Anesthesia	Duration of Anesthesia in minutes		-99 = Unknown
162	OPTIME	Num	Total operation time	Total operation time in minutes		-99 = Unknown
163	TYPEINTOC	Char	Type of Intraoperative Occurrence	One of the three following intraoperative occurrences can be selected. Cardiac Arrest Requiring CPR is defined as the absence of cardiac rhythm or presence of chaotic cardiac rhythm that results in loss of consciousness requiring the initiation of any component of basic and/or advanced cardiac life support. Patients with automatic implantable cardioverter defibrillator that fire but the patient has no loss of consciousness should be excluded. Myocardial Infarction is defined as a new transmural acute myocardial infarction occurring during surgery as manifested by nnew Q-waves on ECG. Unplanned Intubatino for Respirator/Cardiac Failure is defined as a patient requiring placement of an endotracheal tube and mechanical or assisted ventilation because of the onset of respiratory or cardiac failure manifested by severe respiratory distress, hypoxia, hypercarbia, or respiratory acidosis.	Cardiac Arrest Requiring CPR Myocardial Infarction Unplanned Intubation	NULL = None of the three occurred
164	SDISDT	Num	Year discharged/transferred from surgical service	Year discharged/transferred from surgical service		Historical variable, no longer used
165	HDISDT	Num	Hospital discharge Year	Hospital discharge Year		
166	YRDEATH	Num	Year of death	Year of death		-99 = Patient alive at 30 days
167	TOTHLOS	Num	Length of total hospital stay	Length of total hospital stay		
168	AdmQtr	Num	Quarter of Admission	Quarter of Admission	1; 2; 3; 4	-99 = Unknown
169	HtoODay	Num	Days from Hospital Admission to Operation	Days from Hospital Admission to Operation		-99 = Unknown
170	StoODay	Num	Days from Surgical Admission to Operation	Days from Surgical Admission to Operation		Historical variable, no longer used
171	TOTSLOS	Num	Length of total surgical stay	Length of total surgical stay		Historical variable, no longer used
172	NSUPINFEC	Num	Number of Wound Occurrences	Number of Superficial Wound Occurrences		

Position #	Variable Name	Data Type	Variable Label	Variable Definition	Variable Options at Entry	Comments
173	SUPINFEC	Char	Superficial surgical site infection	Superficial incisional SSI is an infection that occurs within 30 days after the operation and the infection involves only skin or subcutaneous tissue of the incision and at least one of the following: -Purulent drainage, with or without laboratory confirmation, from the superficial incision. -Organisms isolated from an aseptically obtained culture of fluid or tissue from the superficial incision. -At least one of the following signs or symptoms of infection: pain or tenderness, localized swelling, redness, or heat AND superficial incision is deliberately opened by the surgeon, unless incision is culture-negative. -Diagnosis of superficial incisional SSI by the surgeon or attending physician. Do not report the following conditions as SSI: -Stitch abscess (minimal inflammation and discharge confined to the points of suture penetration). -Infected burn wound. -Incisional SSI that extends into the fascial and muscle layers (see deep incisional SSI).	No Complication; Superficial Incisional SSI	
174	DSUPINFEC	Num	Days from Operation until Superficial Incisional SSI Complication	Days from Operation until Superficial Incisional SSI Complication		-99 = Patient did not experience this complication at or before 30 days post operation
175	NWNDINFD	Num	Number of Deep Incisional SSI Occurrences	Number of Deep Incisional SSI Occurrences		
176	WNDINFD	Char	Occurrences Deep Incisional SSI	Deep Incision SSI is an infection that occurs within 30 days after the operation and the infection appears to be related to the operation and infection involved deep soft tissues (e.g., fascial and muscle layers) of the incision and at least one of the following: -Purulent drainage from the deep incision but not from the organ/space component of the surgical site. -A deep incision spontaneously dehisces or is deliberately opened by a surgeon when the patient has at least one of the following signs or symptoms: fever (> 38 C), localized pain, or tenderness, unless site is culture-negative. -An abscess or other evidence of infection involving the deep incision is found on direct examination, during reoperation, or by histopathologic or radiologic examination. -Diagnosis of a deep incision SSI by a surgeon or attending physician. Note: -Infection that involves both superficial and deep incision sites is reported as deep incisional SSI. -An organ/space SSI that drains through the incision is reported as a deep incisional SSI.	Deep Incisional SSI; No Complication	
177	DWNDINFD	Num	Days from Operation until Deep Incisional SSI Complication	Days from Operation until Deep Incisional SSI Complication		-99 = Patient did not experience this complication at or before 30 days post operation
178	NORGSPCSSI	Num	Number of Organ/Space SSI Occurrences	Number of Organ/Space SSI Occurrences		
179	ORGSPCSSI	Char	Occurrences Organ Space SSI	Organ/Space SSI is an infection that occurs within 30 days after the operation and the infection appears to be related to the operation and the infection involves any part of the anatomy (e.g., organs or spaces), other than the incision, which was opened or manipulated during an operation and at least one of the following: -Purulent drainage from a drain that is placed through a stab wound into the organ/space. -Organisms isolated from an aseptically obtained culture of fluid or tissue in the organ/space. -An abscess or other evidence of infection involving the organ/space that is found on direct examination, during reoperation, or by histopathologic or radiologic examination. -Diagnosis of an organ/space SSI by a surgeon or attending physician.	Organ/Space SSI; No Complication	
180	DORGSPCSSI	Num	Days from Operation until Organ/Space SSI Complication	Days from Operation until Organ/Space SSI Complication		-99 = Patient did not experience this complication at or before 30 days post operation

Position #	Variable Name	Data Type	Variable Label	Variable Definition	Variable Options at Entry	Comments
181	NDEHIS	Num	Number of Wound Disruption Occurrences	Number of Wound Disruption Occurrences		
182	DEHIS	Char	Occurrences Wound Disrupt	Separation of the layers of a surgical wound, which may be partial or complete, with disruption of the fascia within 30 days of the operation.	Wound Disruption; No complication	
183	DDEHIS	Num	Days from Operation until Wound Disruption Complication	Days from Operation until Wound Disruption Complication		-99 = Patient did not experience this complication at or before 30 days post operation
184	NOUPNEUMO	Num	Number of Pneumonia Occurrences	Number of Pneumonia Occurrences		
185	OUPNEUMO	Char	Occurrences Pneumonia	Inflammation of the lungs caused primarily by bacteria, viruses, and/or chemical irritants, usually manifested by chills, fever, pain in the chest, cough, purulent, bloody sputum within 30 days of the operation. The patient has pneumonia if their symptoms meet the definition of pneumonia below AND pneumonia is not present preoperatively. Pneumonia must meet one of the following TWO criteria: Criterion 1: Rales or dullness to percussion on physical examination of chest AND any of the following: a. New onset of purulent sputum or change in character of sputum b. Organism isolated from blood culture c. Isolation of pathogen from specimen obtained by transtracheal aspirate, bronchial brushing, or biopsy OR Criterion 2: Chest radiographic examination shows new or progressive infiltrate, consolidation, cavitation, or pleural effusion AND any of the following: a. New onset of purulent sputum or change in character of sputum b. Organism isolated from blood culture c. Isolation of pathogen from specimen obtained by transtracheal aspirate, bronchial brushing, or biopsy d. Isolation of virus or detection of viral antigen in respiratory secretions e. Diagnostic single antibody titer (IgM) or fourfold increase in paired serum samples (IgG) for pathogen f. Histopathologic evidence of pneumonia	Pneumonia; No complication	
186	DOUPNEUMO	Num	Days from Operation until Pneumonia Complication	Days from Operation until Pneumonia Complication		-99 = Patient did not experience this complication at or before 30 days post operation (One case with a pneumonia complication had an unknown date within 30 days and thus the duration was set to -99)
187	NREINTUB	Num	Number of Unplanned Intubation Occurrences	Number of Unplanned Intubation Occurrences		
188	REINTUB	Char	Occurrences Unplanned Intubation	Patient required placement of an endotracheal tube and mechanical or assisted ventilation because of the onset of respiratory or cardiac failure manifested by severe respiratory distress, hypoxia, hypercarbia, or respiratory acidosis within 30 days of the operation. In patients who were intubated for their surgery, unplanned intubation occurs after they have been extubated after surgery. In patients who were not intubated during surgery, intubation at any time after their surgery is considered unplanned.	Unplanned Intubation; No Complication	
189	DREINTUB	Num	Days from Operation until Unplanned Intubation Complication	Days from Operation until Unplanned Intubation Complication		-99 = Patient did not experience this complication at or before 30 days post operation
190	NPULEMBOL	Num	Number of Pulmonary Embolism Occurrences	Number of Pulmonary Embolism Occurrences		

Position #	Variable Name	Data Type	Variable Label	Variable Definition	Variable Options at Entry	Comments
191	PULEMBOL	Char	Occurrences Pulmonary Embolism	Lodging of a blood clot in a pulmonary artery with subsequent obstruction of blood supply to the lung parenchyma. The blood clots usually originate from the deep leg veins or the pelvic venous system within 30 days of the operation. PE documented if the patient has a V-Q scan interpreted as high probability of pulmonary embolism or a positive CT spiral exam, pulmonary arteriogram or CT angiogram. Treatment usually consists of: -Initiation of anticoagulation therapy -Placement of mechanical interruption (e.g. Greenfield Filter), for patients whom anticoagulation is contraindicated or already instituted.	Pulmonary Embolism; No Complication	
192	DPULEMBOL	Num	Days from Operation until Pulmonary Embolism Complication	Days from Operation until Pulmonary Embolism Complication		-99 = Patient did not experience this complication at or before 30 days post operation
193	NFAILWEAN	Num	Number of On Ventilator > 48 Hours Occurrences	Number of On Ventilator > 48 Hours Occurrences		
194	FAILWEAN	Char	Occurrences Ventilator > 48Hours	Total duration of ventilator-assisted respirations during postoperative hospitalization was greater than 48 hours. This can occur at any time during the 30-day period postoperatively. This time assessment is CUMULATIVE, not necessarily consecutive. Ventilator-assisted respirations can be via endotracheal tube, nasotracheal tube, or tracheostomy tube.	On Ventilator greater than 48 Hours; No Complication	
195	DFAILWEAN	Num	Days from Operation until On Ventilator > 48 Hours Complication	Days from Operation until On Ventilator > 48 Hours Complication		-99 = Patient did not experience this complication at or before 30 days post operation (One case with a fail to wean complication had an unknown date within 30 days and thus the duration was set to -99)
196	NRENAINSF	Num	Number of Progressive Renal Insufficiency Occurrences	Number of Progressive Renal Insufficiency Occurrences		
197	RENAINSF	Char	Occurrences Progressive Renal Insufficiency	The reduced capacity of the kidney to perform its function as evidenced by a rise in creatinine of >2 mg/dl from preoperative value, but with no requirement for dialysis within 30 days of the operation.	Progressive Renal Insufficiency; No Complication	
198	DRENAINSF	Num	Days from Operation until Progressive Renal Insufficiency Complication	Days from Operation until Progressive Renal Insufficiency Complication		-99 = Patient did not experience this complication at or before 30 days post operation
199	NOPRENAFL	Num	Number of Acute Renal Failure Occurrences	Number of Acute Renal Failure Occurrences		
200	OPRENAFL	Char	Occurrences Acute Renal Fail	In a patient who did not require dialysis preoperatively, worsening of renal dysfunction postoperatively requiring hemodialysis, peritoneal dialysis, hemofiltration, hemodiafiltration,or ultrafiltration within 30 days of the operation.	Acute Renal Failure; No Complication	
201	DOPRENAFL	Num	Days from Operation until Acute Renal Failure Complication	Days from Operation until Acute Renal Failure Complication		-99 = Patient did not experience this complication at or before 30 days post operation
202	NURNINFEC	Num	Number of Urinary Tract infection Occurrences	Number of Urinary Tract infection Occurrences		

Position #	Variable Name	Data Type	Variable Label	Variable Definition	Variable Options at Entry	Comments
203	URNINFEC	Char	Occurrences Urinary Tract Infection	Postoperative symptomatic urinary tract infection must meet one of the following TWO criteria within 30 days of the operation: 1. One of the following: . fever (>38 degrees C) . urgency . frequency . dysuria . suprapubic tenderness AND a urine culture of > 10^5 colonies/ml urine with no more than two species of organisms **OR** 2. Two of the following: . fever (>38 degrees C) . urgency . frequency . dysuria . suprapubic tenderness AND any of the following: -Dipstick test positive for leukocyte esterase and/or nitrate -Pyuria (>10 WBCs/cc or > 3 WBC/hpf of unspun urine) -Organisms seen on Gram stain of unspun urine -Two urine cultures with repeated isolation of the same uropathogen with >10^2 colonies/ml urine in non-voided specimen -Urine culture with < 10^5 colonies/ml urine of single uropathogen in patient being treated with appropriate antimicrobial therapy -Physician's diagnosis -Physician institutes appropriate antimicrobial therapy.	Urinary Tract Infection; No Complication	
204	DURNINFEC	Num	Days from Operation until Urinary Tract Infection Complication	Days from Operation until Urinary Tract Infection Complication		-99 = Patient did not experience this complication at or before 30 days post operation (One case with a UTI complication had an unknown date within 30 days and thus the duration was set to -99)
205	NCNSCVA	Num	Number of Stroke/CVA Occurrences	Number of Stroke/CVA Occurrences		
206	CNSCVA	Char	CVA/Stroke with neurological deficit	Patient develops an embolic, thrombotic, or hemorrhagic vascular accident or stroke with motor, sensory, or cognitive dysfunction (e.g., hemiplegia, hemiparesis, aphasia, sensory deficit, impaired memory) that persists for 24 or more hours within 30 days of the operation.	Stroke/CVA; No Complication	
207	DCNSCVA	Num	Days from Operation until Stroke/CVA Complication	Days from Operation until Stroke/CVA Complication		-99 = Patient did not experience this complication at or before 30 days post operation
208	NCNSCOMA	Num	Number of Coma > 24 Hours Occurrences	Number of Coma > 24 Hours Occurrences		
209	CNSCOMA	Char	Coma >24 hours	Patient is unconscious, or postures to painful stimuli, or is unresponsive to all stimuli (exclude transient disorientation or psychosis) for greater than 24 hours. Drug-induced coma (e.g. Propofol drips) are not entered within 30 days of the operation.	Coma greater than 24 hours; No Complication	
210	DCNSCOMA	Num	Days from Operation until Coma > 24 Hours Complication	Days from Operation until Coma > 24 Hours Complication		-99 = Patient did not experience this complication at or before 30 days post operation
211	NNEURODEF	Num	Number of Peripheral Nerve Injury Occurrences	Number of Peripheral Nerve Injury Occurrences		
212	NEURODEF	Char	Peripheral Nerve Injury	Peripheral nerve damage may result from damage to the nerve fibers, cell body, or myelin sheath during surgery. Peripheral nerve injuries which result in motor deficits to the cervical plexus, brachial plexus, ulnar plexus, lumbar-sacral plexus (sciatic nerve), peroneal nerve, and/or the femoral nerve should be included.	Peripheral nerve injury ; No Complication	
213	DNEURODEF	Num	Days from Operation until Peripheral Nerve Injury Complication	Days from Operation until Peripheral Nerve Injury Complication		-99 = Patient did not experience this complication at or before 30 days post operation
214	NCDARREST	Num	Number of Cardiac Arrest Requiring CPR Occurrences	Number of Cardiac Arrest Requiring CPR Occurrences		

Position #	Variable Name	Data Type	Variable Label	Variable Definition	Variable Options at Entry	Comments
215	CDARREST	Char	Occurrences Cardiac Arrest Requiring CPR	The absence of cardiac rhythm or presence of chaotic cardiac rhythm that results in loss of consciousness requiring the initiation of any component of basic and/or advanced cardiac life support within 30 days of the operation. Patients with automatic implantable cardioverter defibrillator (AICD) that fire but the patient has no loss of consciousness should be excluded.	Cardiac Arrest Requiring CPR; No Complication	
216	DCDARREST	Num	Days from Operation until Cardiac Arrest Requiring CPR Complication	Days from Operation until Cardiac Arrest Requiring CPR Complication		-99 = Patient did not experience this complication at or before 30 days post operation
217	NCDMI	Num	Number of Myocardial Infarction Occurrences	Number of Myocardial Infarction Occurrences		
218	CDMI	Char	Occurrences Myocardial Infarction	A new transmural acute myocardial infarction occurring during surgery or within 30 days as manifested by new Q-waves on ECG.	Myocardial Infarction; No Complication	
219	DCDMI	Num	Days from Operation until Myocardial Infarction Complication	Days from Operation until Myocardial Infarction Complication		-99 = Patient did not experience this complication at or before 30 days post operation
220	NOTHBLEED	Num	Number of Bleeding Transfusions Occurrences	Number of Bleeding Transfusions Occurrences		
221	OTHBLEED	Char	Occurrences Bleeding Transfusions	Any transfusion (including autologous) of packed red blood cells or whole blood given from the time the patient leaves the operating room up to and including 72 hours postoperatively. Bleeding Transfusion entered for five or more units of packed red blood cell units in the postoperative period including hanging blood from the OR that is finished outside of the OR. If the patient receives shed blood, autologous blood, cell saver blood or pleurovac postoperatively, this is counted if greater than four units. The blood may be given for any reason.	Transfusions/Intraop/Postop; No Complication	Definition change from 2009
222	DOTHBLEED	Num	Days from Operation until Bleeding Transfusions Complication	Days from Operation until Bleeding Transfusions Complication		-99 = Patient did not experience this complication at or before 30 days post operation (One case which had a Bleeding Transfusion complication had an unknown date and thus the duration was set to -99)
223	NOTHGRAFL	Num	Number of Graft/Prosthesis/Flap Failure Occurrences	Number of Graft/Prosthesis/Flap Failure Occurrences		
224	OTHGRAFL	Char	Occurrences Graft/Prosthesis/FF	Mechanical failure of an extracardiac graft or prosthesis including myocutaneous flaps and skin grafts requiring return to the operating room, interventional radiology, or a balloon angioplasty within 30 days of the operation.	Graft/Prosthesis/Flap Failure; No Complication	
225	DOTHGRAFL	Num	Days from Operation until Graft/Prosthesis/Flap Failure Complication	Days from Operation until Graft/Prosthesis/Flap Failure Complication		-99 = Patient did not experience this complication at or before 30 days post operation
226	NOTHDVT	Num	Number of DVT/Thrombophlebitis Occurrences	Number of DVT/Thrombophlebitis Occurrences		
227	OTHDVT	Char	Occurrences DVT/Thrombophlebitis	The identification of a new blood clot or thrombus within the venous system, which may be coupled with inflammation wihtin 30 days of the operation. This diagnosis is confirmed by a duplex, venogram or CT scan. The patient must be treated with anticoagulation therapy and/or placement of a vena cava filter or clipping of the vena cava.	DVT Requiring Therapy; No Complication	
228	DOTHDVT	Num	Days from Operation until DVT/Thrombophlebitis Complication	Days from Operation until DVT/Thrombophlebitis Complication		-99 = Patient did not experience this complication at or before 30 days post operation
229	NOTHSYSEP	Num	Number of Sepsis Occurrences	Number of Sepsis Occurrences		

Position #	Variable Name	Data Type	Variable Label	Variable Definition	Variable Options at Entry	Comments
230	OTHSYSEP	Char	Occurrences Sepsis	For Sepsis and Septic Shock within 30 days of the operation, please report the most significant level using the criteria that follow. Sepsis is the systemic response to infection. Report this variable if the patient has has two of the following clinical signs and symptoms of SIRS: - Temp >38 degrees C or <36 degrees C ☐H kPa) ☐V forms - Anion gap acidosis: this is defined by either: - [Na + K] – [CL + HCO3 (or serum CO2]. If this number is greater than16, then an anion gap acidosis is present. - Na – [CL + HCO3 (or serum CO2]. If this number is greater than 12, then an anion gap acidosis is present. **AND** one of the following: ☐pos blood culture ☐ site thought to be causative.	Sepsis; No Complication	
231	DOTHSYSEP	Num	Days from Operation until Sepsis Complication	Days from Operation until Sepsis Complication		-99 = Patient did not experience this complication at or before 30 days post operation
232	NOTHSESHOCK	Num	Number of Septic Shock Occurrences	Number of Septic Shock Occurrences		
233	OTHSESHOCK	Char	Occurrences Septic Shock	For Sepsis and Septic Shock within 30 days of the operation, please report the most significant level using the criteria that follow. Severe Sepsis/Septic Shock: Sepsis is considered severe when it is associated with organ and/or circulatory dysfunction. Report this variable if the patient has the clinical signs and symptoms of SIRS or sepsis **AND** documented organ and/or circulatory dysfunction. Examples of organ dysfunction include: oliguria, acute alteration in mental status, acute respiratory distress. Examples of circulatory dysfunction include: hypotension, requirement of inotropic or vasopressor agents. For the patient that had sepsis preoperatively, worsening of any of the above signs postoperatively would be reported as a postoperative sepsis.	Septic Shock; No Complication	
234	DOTHSESHOCK	Num	Days from Operation until Septic Shock Complication	Days from Operation until Septic Shock Complication		-99 = Patient did not experience this complication at or before 30 days post operation
235	PODIAG	Char	Post-op diagnosis (ICD 9)	The appropriate ICD-9-CM code corresponding to the condition noted as the postoperative diagnosis in the brief operative note, operative report, and/or after the return of the pathology reports are entered.		
236	PODIAGTX	Char	Post-op Diagnosis Text	Post-op Diagnosis text		
237	RETURNOR	Char	Return to OR	Returns to the operating room within 30 days include all major surgical procedures that required the patient to be taken to the surgical operating room for intervention of any kind. “Major surgical procedures” are defined as those cases in any and all surgical subspecialties that meet Program criteria for inclusion.	Yes; No	
238	DSDtoHD	Num	Days from Surgical Discharge (Acute Care Discharge) to Hospital Discharge	Days from Surgical Discharge to Hospital Discharge		Historical variable, no longer used
239	DOpertoD	Num	Days from Operation to Death	Days from Operation to Death		-99 = Patient did not die at or before 30 days
240	DOptoDis	Num	Days from Operation to Discharge	Days from Operation to Discharge		-99 = Unknown

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