User Guide for the

2019 Participant Use Data File (PUF)

Released: October 2020

Contents

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1. Introduction

within the Data Use Agreement. The Data Use Agreement can be read from this page or the three-page document can be downloaded. 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 center in which they are currently employed and in what capacity, as well as how the requestor plans to utilize the PUF data. Once all of the required fields are completed, the requestor clicks "Submit."

5. Upon approval 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).

6. The file will be available in three different formats (Text, SPSS, SAS) and depending on the user's internet connection speed should take between 5 and 30 minutes to download.

7. 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

The PUF consists of five distinct datasets which are referred to as main, reoperation, readmission, intervention, and BMI, respectively. Each dataset is available in one of three different formats - Text, SAS, and SPSS. The main dataset is a flat file containing preoperative, intraoperative, and postoperative patient and procedure characteristics for all metabolic and bariatric surgical cases that were eligible for the PUF in 2019. The reoperation, readmission, intervention, and BMI datasets are available in long form (i.e., multiple rows per case), and contain detailed information on readmissions, reoperations, interventions, and post-operative BMI measurements, respectively, associated with cases in the main dataset. All five datasets contain a unique key matching variable, CASEID, which allows users to merge datasets as necessary.

Postoperative BMI measurements recorded in the BMI dataset were taken in the 30-day follow-up time period, which runs from 0 to 30 days from the date of the index procedure. All postoperative events or outcomes (e.g., death, sepsis, reoperation, readmission, intervention, postop BMI, etc.) recorded in the main, reoperation, readmission, and intervention datasets are 30-day outcomes (i.e., occurred within 30 days of the index procedure).

The main dataset contains three variables (REOP30, READ30, and INTV30) derived from the reoperation, readmission, and intervention datasets, respectively. These variables represent whether at least one reoperation, readmission, or intervention occurred, respectively, for any reason, within 30 days of the index procedure. Investigators interested in other facets of reoperation, readmission, or intervention will need to manipulate the long datasets and merge them with the main dataset in a manner which is appropriate to the specified research question. For example, suppose a researcher is interested in estimating the overall 30-day related reoperation rate for metabolic and bariatric surgical procedures. The specific research question

is: "What is the 30-day related reoperation rate for all cases included in the main dataset?" To answer this question, the researcher could use the variable REOP_RELATED_BAR in the

5. Participation and Case Exclusion Criteria

Case Collection Process

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). The following items represent the most salient limitations of the data:

- While the sex and race distributions are reasonably representative of the national surgery patient population, only patients over the age of 10 are available for assessment, so the age distribution is somewhat truncated. Patients over the age of 80 also have their ages de-identified in the PUF (age is set to missing with an indicator variable included to identify patients over the age of 80).
- 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 are recoded into Days to Discharge from Hospital Admit).
- In order to comply with the Participation Agreement (PA) that is agreed to between the ACS and participating centers, facility identifiers as well as geographic information regarding the case have been removed. The PA stipulates that the ACS does not identify participating centers. Facility 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 centers that are participating in the MBSAQIP and do not represent a statistically valid nationally representative sample.
- Many patients do not receive all possible preoperative laboratory tests, so some of these variables have a high percentage of missing values (10% to 70%, 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 Rasa Krapikas, MS, MBSAQIP Data Registry Manager, at rkrapikas@facs.org.

8.   Frequently Asked Questions

Request Process

Q: Who has access to this file?

A: Any individual from an actively participating MBSAQIP center will be given access to the file following completion of the PUF Data Use Agreement and a short set of questions that are available on the website.

Q: Is the file available to individuals from nonparticipating centers?

A: At this time the data files are only available to individuals at MBSAQIP participating centers.

Q: Is the PUF only available to the MBSAQIP-accredited centers?

A: The only requirement is that centers must be actively participating in the MBSAQIP either as a data collection or accredited center. PUF access is not contingent on accreditation status.

Q: I am at a participating MBSAQIP center and would like to work on a research project with others from a different center 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 participating MBSAQIP centers.

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 each file?

A: Each file contains Health Insurance Portability and Accountability Act (HIPAA) de-identified data from centers participating in the MBSAQIP that were eligible for the corresponding SAR period. See the PUF User Guide Table in Section 9 of this document for a list.

Q: What procedures (CPTs) are included in the PUF?

A: See Appendix B: Case Inclusion and Follow-up within the MBSAQIP Data Registry Operations Manual for a listing of procedure types. Any primary or revisional case that meets inclusion criteria for creation as a "New Case" is included in the PUF.

Q: Are revisional procedures included in the PUF?

A: Yes. All cases that meet inclusion criteria for creation as a "New Case" (see Appendix B: Case Inclusion and Follow-up within the MBSAQIP Data Registry Operations Manual) are included in the PUF.

Q: Does the PUF contain long-term (1 year, 2 year, 3 year, etc.) outcomes?
A: At this time the 2019 PUF only contains 30-day outcomes.

Q: How is the PUF different from the SAR?
A: The Main PUF is a raw, flat file of HIPAA-compliant variables captured within the data registry. The data has been cleaned (e.g., removal of invalid dates, truncation of variable bounds, etc.), but no analysis (e.g., risk adjustment, quality assessments, etc.) has been performed.

Q: Can we publish data from the PUF?
A: Yes. Please see the terms of the PUF Data Use Agreement within the PUF request portal.

Q: Can we publish data from the PUF individually or collaboratively?
A: Pursuant to the MBSAQIP PUF Data Use Agreement, centers will not grant access to or share the PUF either in its entirety or as a subset to any party who is not an employee of the participating center at which the Data Recipient is employed, and centers will not sublease or permit other parties to use the PUF without advance written approval of the ACS MBSAQIP.

Q: Are other MBSAQIP PUF data sets available?
A: Yes, the 2015 PUF was the first MBSAQIP PUF available. Subsequent PUFs have been released on a yearly basis.

Q: Are center identifiers included in the database?
A: At this time we do not provide any geographic or center-specific identification. We took this approach to ensure the privacy of both the participating MBSAQIP centers 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 centers 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 year of operation) for dates directly related to an individual.

Q: I am the MBS Director from a center that has records in the PUF and would like to know which specific records are ours.
A: At this time we do not provide center identification of any cases in the PUF, even self-identification.
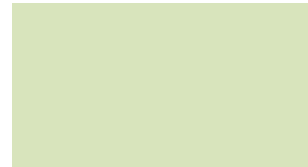
9.   PUF User Guide Table

The PUF User Guide Table provides a variable-by-variable description for each of the five datasets available in the PUF. This table contains a column titled "Page Number in Variables and Definitions." To provide investigators with ready access to complete and authoritative variable definitions, the "Page Number in Variables and Definitions" column contains the page number that will locate the complete definition in the MBSAQIP PUF Variables and Definitions Manual

The MBSAQIP PUF Variables and Definitions Manual is derived directly from Chapter 4 of the MBSAQIP Operations Manual - the authoritative variable definition reference manual used by the Metabolic and Bariatric Surgical Clinical Reviewers (MBSCRs). Please be aware that these definitions are year specific, though dramatic changes are rare. Investigators receiving the PUF will have the opportunity to download the PUF Variables and Definitions Manual corresponding to the specific PUF year.

The PUF User Guide Table also contains a column titled "Search Term in Variables and Definitions." As an alternative to searching for variable definitions by page number in the PUF Variables and Definitions Manual, users can copy the entire text within an individual cell from the "Search Term in Variables and Definitions" column in the PUF User Guide Table, and paste it into a search field (you can create a search field by simultaneously hitting Ctrl and F on your keyboard) in the PUF Variables and Definitions Manual. Once the text is copied into the search field and enter is hit, you will see the variable definition and other information pertinent to that particular variable. Appropriate definitions are provided in the "Search Term in Variables and Definitions" column for those variables that are constructed specifically for the PUF and do not exist in Chapter 4 of the MBSAQIP Operations Manual.

The PUF Variables and Definitions Manual will be made available to you for download with the rest of your requested PUF files. Data Use Agreements apply to the use and distribution of the PUF Variables and Definitions Manual as well as all PUF datasets

	Variable added in 2016		Notable Data Updates				
Main	Variable added in 2017						

Position #	Variable Name	Data Type	Variable Label	Search Term in Variables and Definitions	Page Number in Variables and Definitions	Variable Options	Comments
1	CASEID	Num	Case Identification Number	Each case or record in the database has a unique CaseID number.			
2	SEX	Char	Sex	Variable Name: Gender	2	Male; Female	
3	AGE	Num	Age	Variable Name: Date of Birth	1		Values capped between 10 and 80
4	ageGT80	Char	Age Greater Than 80 Years	Indicator for patients with recorded age greater than 80	1	Yes; No	
						White	
						Black or African American	

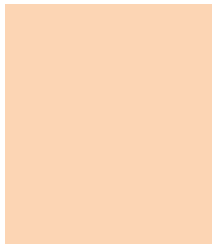| Position #	Variable Name	Data Type	Variable Label	Search Term in Variables and Definitions	Page Number in Variables and Definitions	Variable Options	Comments
42	COPD	Char	Pre-Op history of COPD	Variable Name: History of Severe COPD	24	Yes; No	
43	OXYGEN_DEPENDENT	Char	Pre-Op Oxygen Dependent	Variable Name: Preoperative Oxygen Dependent	25	Yes; No	
44	HISTORY_PE	Char	History of PE	Variable Name: History of Pulmonary Embolism	26	Yes; No	
45	SLEEP_APNEA	Char	Pre-Op Obstructive Sleep Apnea	Variable Name: Preoperative Obstructive Sleep Apnea Requiring CPAP/BiPAP (or similar technology)	27	Yes; No	
46	CHRONIC_STEROIDS	Char	Pre-Op Steroid/Immunosuppressant Use for Chronic Condition	Variable Name: Preoperative Steroid/Immunosuppressant Use for a Chronic Condition	41	Yes; No	
47	PREV_ORGTRANS	Char	Previous Organ Transplant	Variable Name: Previous Organ Transplant	45	Yes; No	
48	IVC_FILTER	Char	Pre-Op IVC Filter	Variable Name: Preoperative Does the patient have an IVC filter	38	Yes; No IVC filter placed in anticipation of the metabolic or bariatric procedure IVC filter was preexisting Unknown	
50	ALBUMIN	Num	Pre-op Albumin Lab Value	Variable Name: Preoperative Lab Value Information	46		Values capped between 1 and 10
51	DPRALBUM	Num	Days from Albumin Pre-Op Labs to Operation	Days from pre-operative Albumin to initial bariatric surgery operation date	46		Operation

Position #	Variable Name	Data Type	Variable Label	Search Term in Variables and Definitions	Page Number in Variables and Definitions	Variable Options	Comments
78	OTHCPT7	Char	Other CPT 7	Variable Name: Other Procedure			
79	OTHCPT8	Char	Other CPT 8	Variable Name: Other Procedure			
80	OTHCPT9	Char	Other CPT 9	Variable Name: Other Procedure			
81	OTHCPT10	Char	Other CPT 10	Variable Name: Other Procedure			
82	CONCPT1	Char	Concurrent CPT 1	Variable Name: Concurrent Procedure			
83	CONCPT2	Char	Concurrent CPT 2	Variable Name: Concurrent Procedure			
84	CONCPT3	Char	Concurrent CPT 3	Variable Name: Concurrent Procedure			
85	CONCPT4	Char	Concurrent CPT 4	Variable Name: Concurrent Procedure			
86	CONCPT5	Char	Concurrent CPT 5	Variable Name: Concurrent Procedure			
87	CONCPT6	Char	Concurrent CPT 6	Variable Name: Concurrent Procedure			
88	CONCPT7	Char	Concurrent CPT 7	Variable Name: Concurrent Procedure			
89	CONCPT8	Char	Concurrent CPT 8	Variable Name: Concurrent Procedure			
90	CONCPT9	Char	Concurrent CPT 9	Variable Name: Concurrent Procedure			
91	CONCPT10	Char	Concurrent CPT 10	Variable Name: Concurrent Procedure			
92	DTOP	Num	Days to operation from hospital admit	Days to initial bariatric or metabolic surgery operation date from hospital admission date			Values capped between 0 and 30
93	DTDISCH_OP	Num	Days to discharge from operation	Days to hospital discharge from initial bariatric or metabolic surgery date			Values capped between 0 and 150
94	DTDISCH_ADMIT	Num	Days to discharge from hospital admit	Days to hospital discharge from hospital admission date			Values capped between 0 and 180
95	DTDEATH_OP	Num	Days to death from operation	Days to death from initial bariatric surgery operation date			Values capped between 0 and 30
96	DTASSESS_OP	Num	Days to Post-Op assessment from operation	Days to post-operative assessment from initial bariatric surgery operation date			Values capped between 0 and 30
97	OPYEAR	Num	Year of Operation	Year of initial bariatric or metabolic surgery			
98	OPLENGTH	Num	Operation Length (minutes)	Length of bariatric/metabolic surgery, in minutes	55		Values capped between 1 and 720

Monitored anesthesia care (MAC)/IV Sedation
General
Unknown
Other
Topical
None
Metabolic and Bariatric Surgeon
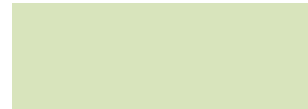General Surgeon
Gastroenterologist

Position #	Variable Name	Data Type	Variable Label	Search Term in Variables and Definitions	Page Number in Variables and Definitions	Variable Options	Comments
129	WOUNDDISRUPTION	Char	Wound Disruption	Variable Name: Wound Disruption	71	Yes; No	
130	UNPLANNEDADMISSIONICU30	Char	Unplanned Admission to ICU within 30 days	Variable Name: Postoperative Unplanned Admission to ICU within 30 Days	102	Yes; No	
131	CDIFF	Char	Clostridium difficile (C. diff) Colitis	Variable Name: Postoperative Clostridium difficile (C.diff) Colitis Variable Name: Postoperative Clostridium difficile (C.diff) Colitis	92	Yes; No Toxin DNA Other-C. diff Unknown None	
133	CDIFF_TSTRSLT	Char	Result of C. diff Test	Variable Name: Postoperative Clostridium difficile (C.diff) Colitis	92	Positive; Negative	If CDIFF = "No" then this variable will be missing
134	CDIFF_TRTMT	Char	Was the patient given treatment for C. diff?	Variable Name: Postoperative Clostridium difficile (C.diff) Colitis	92	Yes; No	If CDIFF = "No" then this variable will be missing
135	CDIFF_DIA	Char	Did the patient have diarrhea/loose stools?	Variable Name: Postoperative Clostridium difficile (C.diff) Colitis	92	Yes; No	If CDIFF = "No" then this variable will be missing
136	DEHYD_TRTMT_OUT	Char	Did the patient receive treatment for dehydration (nausea and vomiting, fluid, electrolyte, or nutritional depletion) as an outpatient?	Variable Name: Did the Patient Receive Treatment for Dehydration (Nausea and Vomiting, Fluid, Electrolyte, or Nutritional Depletion) as an Outpatient?	108	Yes; No	
137	DEHYD_NUM_TRTMTS	Num	Number of times the patient received treatment for dehydration (nausea and vomiting, fluid, electrolyte, or nutritional depletion) as an outpatient	Variable Name: Did the Patient Receive Treatment for Dehydration (Nausea and Vomiting, Fluid, Electrolyte, or Nutritional Depletion) as an Outpatient?	108		
138	EMERG_VISIT_OUT	Char	Was the patient seen in an emergency department (ED) which did not result in an inpatient admission?	Variable Name: Was the Patient Seen in any Emergency Department (ED) which did not result in an Inpatient Admission?	109	Yes; No	
139	EMERG_NUM_TIMES	Num	Number of times the patient was seen in an emergency department (ED) which did not result in an inpatient admission	Variable Name: Was the Patient Seen in any Emergency Department (ED) which did not result in an Inpatient Admission?	109		
140	DEATH30	Char	Death during Operation (Intra-Op Death) or Post-Op Death within 30 Days of Procedure	Variable Name: Death During Operation (Intraoperative Death) OR Postoperative Death w/in 30 Days of Procedure	104	Yes; No	
141	DEATH_RELATED_BAR	Char	Death Likely Related to the Operation	Variable Name: Was the Death Likely Related to the Operation	105	Yes; No	
142	DEATH_CAUSE_BAR	Char	Most likely cause of death	Variable Name: Most Likely Cause of Death	106	See "Most Likely Cause of Death Guidance Table" on page 106 in Variables and Definitions	
143	DEATHREVIEW_BAR	Char	Death reviewed by the bariatric committee within 60 days of death	Variable Name: Was the Death Reviewed by the Bariatric Committee within 60 Days of Death?	107	Yes; No Skilled care, not home Unskilled facility, not home Facility which was home Home Separate acute care Rehab Expired Unknown	
145	FOLLOW_30DAYS_BAR	Char	Able to follow the patient for the full 30 days	Variable Name: Were you able to follow the patient for the full 30 days?	125	Yes; No	
146	EXAM_PERFORMED_PERSON_BAR	Char	Exam performed by a bariatric physician or PA/NP	Variable Name: Was the Postoperative Exam Performed by a Bariatric Physician, Nurse Practitioner, or Physician's Assistant?	126	Yes; No	
147	REOP30	Char	At least one reoperation within 30 days of op	Variable Name: Did the Patient have a Reoperation within the 30 Day Postoperative Period?	113	Yes; No	
148	READ30	Char	At least one readmission within 30 days of op	Variable Name: Did the Patient have a Hospital Readmission within 30 days of the Principal Procedure?	110	Yes; No	
149	INTV30	Char	At least one intervention within 30 days of op	Variable Name: Did the Patient have an Intervention within the 30 day Postoperative Period?	118	Yes; No	
150	ANTICOAGULATION_INITIATED_BAR	Char	Anticoagulation initiated or presumed/confirmed vein thrombosis/PE	Variable Name: Was Anticoagulation Initiated for Presumed/Confirmed Venous Thrombosis/PE Postoperatively	128	Yes; No	
151			196			Yes; No	

Position #	Variable Name	Data Type	Variable Label	Search Term in Variables and Definitions	Page Number in Variables and Definitions	Variable Options	Comments
157	DTPOSTOPPNEUMONIA	Num	Days from operation date to first recorded date of Pneumonia	Days to first recorded Pneumonia occurrence from initial bariatric surgery operation date			Values capped between 0 and 30. If POSTOPPNEUMONIA = 0 then this variable will be missing
158	DTPOSTOPSEPSIS	Num	Days from operation date to first recorded date of Sepsis	Days to first recorded Sepsis occurrence from initial bariatric surgery operation date			Values capped between 0 and 30. If POSTOPSEPSIS = 0 then this variable will be missing
159	DTPOSTOPSEPTICSHOCK	Num	Days from operation date to first recorded date of Septic Shock	Days to first recorded Septic Shock occurrence from initial bariatric surgery operation date			Values capped between 0 and 30. If POSTOPSEPTICSHOCK = 0 then this variable will be missing
160	DTPOSTOPUTI						

Position #	Variable Name	Data Type	Variable Label	Search Term in Variables and Definitions	Page Number in Variables and Definitions	Variable Options	Comments

Reoperation

Position #	Variable Name	Data Type	Variable Label	Search Term in Variables and Definitions	Page Number in Variables and Definitions	Variable Options	Comments
1	CASEID	Num	Case Identification Number	Each case or record in the database has a unique CaseID number.			
2	REOP_INFORMATION_SOURCE_BAR	Char	Information Source	Variable Name: Information Source for Reoperation	117	Medical record; Patient/Family Report; Other	
3	REOP_RELATED_BAR	Char	Reoperation related to metabolic/bariatric procedure	Variable Name: Was this Reoperation likely related to a Metabolic or Bariatric procedure?	113	Yes; No	
4	REOP_SUSPECTED_REASON_BAR	Char	Most likely reason for reoperation	Variable Name: Most Likely Reason for Reoperation	116	See "Most Likely Reason for Reoperation Guidance Table" on page 116 in Variables and Definitions	
5	REOP_CODE_BAR	Char	Reoperation Type	Variable Name: Reoperation Type	114	See Table on page 114 in Variables and Definitions	
6	REOP_CPT_BAR	Char	Reoperation CPT	Variable Name: CPT code for Reoperation	114		
7	REOP_UNPLANNED	Char	Unplanned reoperation	Variable Name: Was this reoperation unplanned at the time of the principal procedure?	115	Yes; No	
8	REOP_CENTER	Char	Reoperation performed at reporting center	Variable Name: Was this reoperation performed at your hospital?	113	Yes; No	
9	REOP_EMERGENCY	Char	Emergency Reoperation	Variable Name: Reoperation Emergency Case	113	Yes; No	
10	REOP_STAPLING_PROC	Char	Reoperation Stapling Procedure	Variable Name: Was this Reoperation a Stapling Procedure?	113	Yes; No	
11	REOP_REVCONV_PROC	Char	Reoperation Revision/Conversion	Was this procedure a Revision/Conversion?	113	Yes; No	
12	REOP_MINILOOP	Char	Reoperation Mini-Loop Gastric Bypass	Was this procedure a mini-loop gastric bypass?	113	Yes; No	
13	REOP_GAS_PLICATION	Char	Reoperation Gastric Plication	Was this procedure a gastric plication?	113	Yes; No	
14	REOP_ENDO_THER	Char	Reoperation Endoscopic Therapy	Was this procedure an endoscopic therapy?	113	Yes; No	
15	DTREOP	Num	Days to Reoperation	Days from initial bariatric or metabolic surgery procedure to reoperation.			Values capped between 0 and 30

Readmission

Position #	Variable Name	Data Type	Variable Label	Search Term in Variables and Definitions	Page Number in Variables and Definitions	Variable Options	Comments
1	CASEID	Num	Case Identification Number	Each case or record in the database has a unique CaseID number.			
2	READ_INFO_SOURCE	Char	Information Source	Variable Name: Information Source for Readmission	110	Medical record; Patient/Family Report; Other	
3	READ_RELATED	Char	Readmission related to metabolic/bariatric procedure	Variable Name: Did the Patient have a Hospital Readmission within 30 days of the Principal Procedure?	110	Yes; No	
4	SUSPREASON	Char	Most Likely Reason for Readmission	Variable Name: Did the Patient have a Hospital Readmission within 30 days of the Principal Procedure?	110	See "Most Likely Reason for Readmission Guidance Table" on page 111 -112 in Variables and Definitions	
5	READ_UNPLANNED	Char	Unplanned Readmission	Was this readmission unplanned at the time of the principal procedure ?	110	Yes; No	
6	READ_HOSPITAL	Char	Readmission Occurred at Reporting Center	Did this readmission occur at your hospital?	110	Yes; No	
7	DTREAD	Num	Days from Operation date to Readmission	Days from initial bariatric or metabolic surgery procedure to readmission	110		Values capped between 0 and 30
8	DTREAD_DISCH	Num	Days from Original Discharge to Readmission	Days to readmission from original hospital stay discharge			Values capped between 0 and 30
9	DTDISDT_READ	Num	Days from Readmission to Readmission Discharge	Days to readmission discharge from readmission date			Values capped between 0 and 150

Intervention

Position #	Variable Name	Data Type	Variable Label	Search Term in Variables and Definitions	Page Number in Variables and Definitions	Variable Options	Comments
1	CASEID	Num	Case Identification Number	Each case or record in the database has a unique CaseID number.			
2	INTV_INFORMATION_SOURCE_BAR	Char	Information Source	Variable Name: Information Source for Intervention	124	Medical Record; Patient/Family Report; Other	
3	INTV_RELATED_BAR	Char	Intervention related to metabolic/bariatric procedure	Variable Name: Was the Intervention likely related to a Metabolic or Bariatric procedure?	118	Yes; No	
4	INTV_REASON_BAR	Char	Most Likely Reason for Intervention	Variable Name: Most Likely Reason for Intervention	122	See "Most Likely Reason for Intervention Guidance Table" on pages 122 and 123 in Variables and Definitions	
5	INTV_CODE_BAR	Char	Intervention Type	Variable Name: Intervention Type	120	See options on page 120 in Variables and Definitions	
6	INTV_UNPLANNED_BAR	Char	Unplanned Intervention	Variable Name: Was this intervention unplanned at the time of the principal procedure?	119	Yes; No	
7	INTV_EMERGENCY_BAR	Char	Emergency Intervention	Variable Name: Intervention Emergency Case	118	Yes; No	
8	INTV_THER_BAR	Char	Intervention Therapeutic Endoscopy	Therapeutic Endoscopy	120		If INTV_CODE_BAR does not equal "Therapeutic Endoscopy" then this variable will be missing
9	DTINTV	Num	Days from Operation date to Intervention	Days from the initial metabolic and bariatric surgical operation to the intervention procedure			Values capped between 0 and 30

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Position #	Variable Name	Data Type	Variable Label	Search Term in Variables and Definitions	Page Number in Variables and Definitions	Variable Options	Comments

BMI

1	CASEID	Num	Case Identification Number	Each case or record in the database has a unique CaseID number.			
2	HGT	Num	Height	Variable Name: Preoperative Height	18		Same variable found in the main dataset
3	HGTUNIT	Char	Height Unit	Height Measurement Units	18	in, cm	Same variable found in the main dataset
4	WGT_CLOSEST	Num	Pre-Op Weight closest to bariatric surgery	Variable Name: Weight Closest to Surgery	20		Same variable found in the main dataset
5	WGTUNIT_CLOSEST	Char	Pre-Op Weight closest to bariatric surgery Unit	Closest to Surgery Pre-op Weight Measurement Units	20	lbs, kg	Same variable found in the main dataset
6	WGT_HIGH_BAR	Num	Highest Pre-Op Weight recorded	Variable Name: Highest Recorded Weight within 1 year at the Program	19		Same variable found in the main dataset
7	WGT_HIGH_UNIT_BAR	Char	Highest Pre-Op Weight recorded Unit	Highest Recorded Pre-op Weight Measurement Units	19	lbs, kg	Same variable found in the main dataset
8	WGT_DISCH	Num	Post-Op Weight	Variable Name: Postoperative Weight	127		
9	WGTUNIT_DISCH	Char	Post-Op Weight Unit	Post-op Weight Measurement Units	127	lbs, kg	
10	BMI	Num	Pre-Op BMI closest to bariatric surgery	Calculated from closest to surgery recorded pre-op weight and height			Same variable found in the main dataset. Values capped between 15 and 150
11	BMI_HIGH_BAR	Num	Highest Recorded Pre-Op BMI	Calculated from highest recorded pre-op weight and height			Same variable found in the main dataset. Values capped between 15 and 150
12	BMI_DISCH	Num	Post-Op BMI	Calculated from post-op weight and height			Values capped between 15 and 150
13	DTBMI	Num	Days from bariatric surgery to Post-Op BMI measurement	Days from bariatric or metabolic surgery to post-op BMI measurement			Values capped between 0 and 30

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