



**METABOLIC AND BARIATRIC SURGERY
ACCREDITATION AND QUALITY IMPROVEMENT PROGRAM**

User Guide for the 2020 Participant Use Data File (PUF)

Released: November 2021

PROPRIETARY AND CONFIDENTIAL

This document is the sole property of the American College of Surgeons (ACS). Only the making of copies for classroom, scholarship or research is permitted. Production of any derivative or copying of this document intended to be “consumable” for distribution by public sale or other transfer of ownership by rental, lease, or lending is strictly prohibited.

Contents

| Section | Page |
|------------------------------------------------|------|
| 1. Introduction | 3 |
| 2. Data Request Process | 3 |
| 3. File Description | 4 |
| 4. Data Collection Background and Data Quality | 6 |
| 5. Participation and Case Exclusion Criteria | 6 |
| Case Collection Process | 6 |
| Case Exclusion Criteria | 7 |
| Hospital Exclusion Criteria | 7 |
| 6. Data Limitations | 8 |
| 7. Contact Information | 8 |
| 8. Frequently Asked Questions | 9 |
| Request Process | 9 |
| Contents of the Files | 9 |
| Values in the Data | 11 |
| File Formats | 11 |
| General | 12 |
| 9. PUF User Guide Tables | 12 |
| Main | 13 |
| Reoperation | 18 |
| Readmission | 19 |
| Intervention | 19 |

1. Introduction

The Metabolic and Bariatric Surgery Accreditation and Quality Improvement Program (MBSAQIP[®]) is pleased to introduce the 2020 Participant Use Data File (PUF) – including cases with operation dates between January 1, 2020 and December 31, 2020. The PUF is a Health Insurance Portability and Accountability Act (HIPAA)-compliant data file containing cases submitted to the MBSAQIP Registry. The PUF contains patient-level data and does not identify hospitals, health care providers, or patients. The intended purpose of these files is to provide researchers at participating centers with a data resource they can use to investigate and advance the quality of care delivered to the metabolic and bariatric surgical patient through the analysis of cases captured by MBSAQIP. The PUF is provided at no additional cost to employees (surgeons, researchers, bariatric program staff, etc.) of MBSAQIP participant centers. With over 165,000 metabolic and bariatric cases captured each year, the MBSAQIP PUF is the largest, bariatric-specific, clinical dataset in the country and serves as an invaluable resource to investigators looking to answer important clinical questions in this field. It is part of the mission of the MBSAQIP to make this data available to all participants to improve the power and reliability of clinical research and further propel innovation in the field of metabolic and bariatric surgery.

This guide is designed to accompany the 2020 Participant Use Data File available for download via the MBSAQIP website (<https://www.facs.org/quality-programs/mbsaqip/participant-use>). The sections contained herein will provide the user with information on how to request the PUF, contents of the data files, data collection background, data limitations, and answers to frequently asked questions.

This user guide applies specifically to the 2020 PUF and will be updated with each subsequent PUF. All historical user guides remain available at the MBSAQIP website (<https://www.facs.org/quality-programs/mbsaqip/participant-use>). Please note that a new MBSAQIP data registry was launched January 1, 2020. These represent the first PUF documents reflecting the new registry, and, as such, may differ considerably from historical versions. It is the responsibility of the researcher to identify nuances between variables across different file years and versions.

2. Data Request Process

An individual who has an official role at an actively enrolled MBSAQIP center and wants to obtain a copy of the MBSAQIP PUF can do so by visiting <https://www.facs.org/quality-programs/mbsaqip/participant-use> and following the steps listed below:

1. From the MBSAQIP main page (www.facs.org/quality-programs/mbsaqip) the requestor can click on the “Participant Use Data File (PUF)” link. This will take you to the PUF information and request page.
2. Following a brief introduction and explanation of the PUF, the requestor can click on “Request PUF.”

3. This will take the requestor to the Data Use Agreement. This is a three page document that implements the data protections of the Health Insurance Portability and Accountability Act of 1996 (HIPAA) and the MBSAQIP Participation Agreement. Delivery of the PUF is contingent on agreement to the terms and conditions specified 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 four distinct datasets which are referred to as main, reoperation, readmission, and intervention, 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 2020. The reoperation, readmission, and intervention datasets are available in long form (i.e., multiple rows per case), and contain detailed information on readmissions, reoperations, and interventions, respectively, associated with cases in the main dataset. All four datasets contain a unique key matching variable, CASEID, which allows users to merge datasets as necessary.

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 *unplanned* reoperation rate for metabolic and bariatric surgical procedures. The specific research question

is: “What is the 30-day unplanned reoperation rate for all cases included in the main dataset?” To answer this question, the researcher could use the variable REOP_UNPLANNED in the reoperation dataset to identify and create a flat file of cases where at least one 30-day reoperation was recorded as unplanned following the index procedure. This flat file would then be merged (using the unique key matching variable CASEID) with the main dataset to construct a variable, say UNPLANNED_REOP30, taking values of either “Yes” or “No” to indicate whether at least one unplanned 30-day reoperation occurred for each case in the main dataset. The 30-day unplanned reoperation rate for all metabolic and bariatric surgical procedures could then be estimated by calculating the proportion of cases in the main dataset where UNPLANNED_REOP30 = “Yes.”

Using the CASEID variable, other readmission, reoperation, or intervention-specific variables, or combinations thereof, can be merged to the main PUF dataset. A variable-by-variable description for each dataset is provided in the PUF User Guide Tables in Section 9 of this document. A brief description of each dataset follows:

| Dataset | File Types Available | Uncompressed File Size | Description |
|------------------|-----------------------------|--------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| MBSAQIP_PUF_Main | SAS, SPSS, TXT | SAS: 1.2 GB SPSS: 1.3 GB TXT: 121 MB | Contains 183 HIPAA compliant variables on 168,568 cases submitted from 885 centers in 2020. Each row represents one case and there is exactly one row per case. |
| MBSAQIP_PUF_Read | SAS, SPSS, TXT | SAS: 1.3 MB SPSS: 1.3 MB TXT: 345 KB | Contains 7 HIPAA compliant variables on 6,038 readmissions. Each row represents a 30-day readmission associated with some case from the Main file. Multiple rows per case are possible in this file. |
| MBSAQIP_PUF_Reop | SAS, SPSS, TXT | SAS: 1.2 MB SPSS: 1.2 MB TXT: 325 KB | Contains 14 HIPAA compliant variables on 2,337 reoperations. Each row represents a 30-day reoperation associated with some case from the Main file. Multiple rows per case are possible in this file. |
| MBSAQIP_PUF_Intv | SAS, SPSS, TXT | SAS: 640 KB SPSS: 602 KB TXT: 170 KB | Contains 10 HIPAA compliant variables on 1,782 interventions. Each row represents a 30-day intervention associated with some case from the Main file. Multiple rows per case are possible in this file. |

4. Data Collection Background and Data Quality

MBSAQIP collects data on over 200 variables including preoperative risk factors, intraoperative variables, and 30-day postoperative mortality and morbidity outcomes for patients undergoing metabolic and bariatric surgical procedures in both the inpatient and outpatient setting.

Required data elements are entered via a web-based data collection tool. 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 Metabolic and Bariatric Surgical Clinical Reviewers (MBSCRs), at their hospital for detailed information on how the hospital collects its MBSAQIP data.

To ensure the data collected are of the highest quality, the MBSAQIP has developed a host of different training mechanisms for the MBSCRs and conducts a data integrity audit of selected participating centers. The MBSAQIP requires MBSCRs to complete a series of web-based training modules followed by an annual certification exam. The modules and certification exam focus on the program, processes, and analysis; preoperative, intraoperative, and postoperative definitions and case studies. These modules are complemented by the availability of MBSAQIP Clinical Support Registered Nurse (RN) Specialists who are available to MBSCRs on an ongoing basis for one-on-one data abstraction support and web-based training. The Clinical Support staff makes available a host of written educational resources available through the MBSAQIP Resource Portal through a support system designed to ensure MBSCRs have the knowledge and resources available to collect high-quality data.

The data integrity audit is a fundamental tool of the MBSAQIP to assess the quality of the data collected at participating centers. The process involves the review of multiple charts, some of which are selected randomly, and others selected based on criteria designed to identify potential reporting errors.

MBSAQIP has determined that a data integrity audit disagreement rate of 5% or less is acceptable. Centers that have higher than a 5% disagreement rate are not included in the MBSAQIP Semiannual Report and may be required to undergo an additional audit following training and education recommendations from the MBSAQIP.

5. Participation and Case Exclusion Criteria

Case Collection Process

All metabolic and bariatric surgical procedures and interventions, including those performed by non-metabolic and bariatric surgery credentialed general surgeons or other physician practitioners (i.e. gastroenterologists), must be entered into the MBSAQIP Registry. Documentation of each hospitalization and surgical procedure is required to obtain valid outcomes data. Data collection is ultimately the responsibility of the Metabolic and Bariatric Surgery (MBS) Director working collaboratively with the Metabolic and Bariatric Surgical Clinical Reviewers (MBSCRs), the physician offices, and institutional departments to ensure accurate short and long-term results. Data is collected at 30 days, six months, one year, and annually thereafter.

Case Exclusion Criteria

The following exclusion criteria were applied to cases collected in 2020. For the current inclusion/exclusion criteria, please contact the MBSAQIP Clinical Support Team at clinicalsupport@mbsaqip.org.

Procedures which would not meet metabolic or bariatric inclusion criteria:

- Cancer cases: Any patient who is admitted to the hospital and has an included procedure to address cancer.
- Trauma cases: Any patient who is admitted to the hospital and has an included procedure to address a traumatic injury.
- Patient is under 5 years of age.
- Primary Procedure not performed by the reporting site.
- Multiple MBSAQIP assessed cases within 30 days: Any patient who had an MBSAQIP assessed procedure entered within the previous 30 days at the center, the additional metabolic or bariatric procedure performed within 30 days is only entered as a reoperation or intervention. Only one MBSAQIP procedure can be entered as a new case into the data registry per patient, per 30 days, for a center.
- Cases completed due to complication or occurrences from a prior metabolic and bariatric procedure (with the exception of GERD). For example, cases in which a portion of the metabolic and bariatric procedure was revised, or the metabolic and bariatric procedure was converted due to ulcer, perforation, stricture, nausea, vomiting, or excessive weight loss, the procedure would not be captured on a case form, rather captured as a Reoperation or Intervention. Note: Only Reoperations and Interventions which occurred within the 30 day postoperative timeframe of a case captured on a case form are included in the PUF.

Hospital Exclusion Criteria

In addition to the case inclusion/exclusion criteria, center inclusion/exclusion criteria are also imposed. To maintain the highest level of data quality, only cases that are saved as complete on a case form in the MBSAQIP registry 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 center's cases may also be excluded from the PUF if the center meets any of the following criteria:

- 30-day follow-up rate is under 80% for the SAR timeframe
- Data Integrity Audit disagreement rate is over 5%
- The MBSCR(s) at the center does not successfully complete the annual MBSCR Certification Exam
- The center is found not to be in compliance with MBSAQIP Standard 6, “Data Collection”

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 5 are available for assessment, so the age distribution is somewhat truncated. Patients under the age of 13 and over the age of 80 also have their ages de-identified in the PUF (age is set to missing with added indicator variables included to identify patients under the age of 13 and over the age of 80, respectively).
- 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 >50%, depending on the tests). This high percentage of missing data can make it problematic to use these variables in traditional logistic regression models 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 3 of this document for a step-by-step approach on how to do so.

Q: Is there a time limit for downloading the files after the PUF request is approved?

A: Yes, users have 10 days from the time the PUF approval notification is sent to download the files.

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 Tables 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, conversion, 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 2020 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 have 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.

Q: Are other PUF data sets available?

A: There are five previous MBSAQIP PUF files available for request / download:

| PUF Year | PUF Type | Cases | Centers |
|----------|----------|---------|---------|
| 2019 | MBSAQIP | 206,570 | 868 |
| 2018 | MBSAQIP | 204,837 | 854 |
| 2017 | MBSAQIP | 200,374 | 832 |
| 2016 | MBSAQIP | 186,772 | 791 |
| 2015 | MBSAQIP | 168,903 | 742 |

Values in the Data

Q: Why is age missing for some records in the main dataset?

A: Records will have a missing value for age if the calculated age of the patient was less than 13 years or greater than 80 years.

Q: Why are some records in the main dataset missing a pre-op BMI measurement?

A: Records will have a missing pre-op BMI measurement (either closest to surgery or highest recorded within one year prior to the surgery) if the pre-op BMI was unknown or the calculated pre-op BMI was less than 15 or greater than 150.

Q: Some of the duration variables (e.g., Days from Operation Date to Readmission, Days from Operation Date to Reoperation, etc.) have unknown durations. Why is that?

A: Records will have unknown durations for duration variables if an unknown or invalid date was entered which inhibited the calculation of duration. The duration (i.e., number of days) will be missing for such records.

Q: Some of the required variables have missing values. Why is that?

A: In the processing of large amounts of data, a small percentage of descriptions or data fields are inadvertently removed through either software glitches, automated uploader issues, or data entry errors. The program continues to improve the data collection software to minimize the potential for such issues and errors.

File Formats

Q: In what file formats are the data available?

A: The datasets are made available as tab delimited TXT files, SPSS data files, or SAS data files. Please note that SAS or SPSS files require special software. You can run the Text file, then save, and convert to an Excel File.

Q: Do you provide training on how to use these file formats?

A: MBSAQIP does not provide training, instruction, or guidance in the use of statistical analysis software.

General

Q: As an MBSAQIP Accredited Center, do we have any obligation to request or use the PUF?

A: No. The PUF is solely a benefit of participation for centers who are interested in using the data for research purposes. There are no PUF requirements related to your center's MBSAQIP Accreditation status.

9. PUF User Guide Tables

The PUF User Guide Tables provides a variable-by-variable description for each of the four datasets available in the PUF. This tables 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. 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 Tables 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

MBSAQIP 2020 PUF USER GUIDE | NOVEMBER 2021

MAIN

| 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: Sex | 2 | Male; Female; Non-binary | |
| 3 | AGE | Num | Age (years) | Variable Name: Date of Birth | 1 | | Values capped between 13 and 80 |
| 4 | ageLT13 | Char | Age Less Than 13 Years | Indicator for patients with recorded age less than 13 | | Yes; No | |
| 5 | ageGT80 | Char | Age Greater Than 80 Years | Indicator for patients with recorded age greater than 80 | | Yes; No | |
| 6 | RACE_PUF | Char | Race | Variable Name: Race | 3 | White Black or African American American Indian or Alaska Native Native Hawaiian or Other Pacific Islander Asian Some Other Race Unknown/Not Reported | Field is multi-select. Selections are separated by " ~ ". Any unique categories with frequency < 50 are set to 'Race combinations with low frequency'. |
| 7 | HISPANIC | Char | Hispanic Ethnicity | Variable Name: Hispanic Ethnicity | 4 | Yes; No; Unknown | |
| 8 | PROCEDURE_TYPE | Char | Procedure Type | Variable Name: Procedure Type | 7 | Conversion; Initial; Revision | Please refer to the Case Exclusion Criteria section in the accompanying User Guide for procedure types and cases eligible for inclusion in these data files. |
| 9 | CPT | Char | Primary Procedure CPT | Variable Name: Primary Procedure | 8 | | |
| 10 | CPT_DESCR | Char | Primary Procedure CPT Description | Variable Name: Primary Procedure | 8 | | |
| 11 | INIT_PROC_DESC | Char | Initial Procedure Description | Variable Name: Initial Procedure Description | 9 | See "Variable Name: Initial Procedure Description" "Options" List on page 9 of Variables and Definitions | Required if 43659 or 43999 is entered for the Primary Procedure CPT®. If PROCEDURE_TYPE not = 'Initial', then this field will be missing. |
| 12 | CONV_PREV_PROC | Char | Conversion Previous Procedure | Variable Name: Conversions Previous Procedure | 10 | See "Variable Name: Conversions Previous Procedure" "Options" List on page 10 of Variables and Definitions | Field is multi-select. Selections are separated by " ~ ". If PROCEDURE_TYPE not = 'Conversion', then this field will be missing. |
| 13 | CONV_CURR_PROC | Char | Conversion Current Primary Procedure | Variable Name: Conversions Current Primary Procedure | 11 | See "Variable Name: Conversions Current Primary Procedure" "Options" List on page 11 of Variables and Definitions | If PROCEDURE_TYPE not = 'Conversion', then this field will be missing. |
| 14 | REV_PROC | Char | Revision Procedure Type | Variable Name: Revisions Procedure Type | 12 | See "Variable Name: Revisions Procedure Type" "Options" List on page 12 of Variables and Definitions | If PROCEDURE_TYPE not = 'Revision', then this field will be missing. |
| 15 | REV_CONV_EMERGCASE | Char | Revision/Conversion Emergency Case | Variable Name: Emergency Case | 13 | Yes; No | If PROCEDURE_TYPE = 'Initial', this field will be missing. |
| 16 | REV_CONV_FININDIC | Char | Revision/Conversion Final Indication | Variable Name: Final Indication | 14 | See "Variable Name: Final Indication" "Options" List on page 14 of Variables and Definitions | If PROCEDURE_TYPE = 'Initial', this field will be missing. |
| 17 | OTHcpt1 | Char | Other CPT 1 | Variable Name: Other Procedures | 15 | | Any additional CPT® code. If none entered field will be 'NULL'. |
| 18 | OTHcpt2 | Char | Other CPT 2 | | | | |
| 19 | OTHcpt3 | Char | Other CPT 3 | | | | |
| 20 | OTHcpt4 | Char | Other CPT 4 | | | | |
| 21 | OTHcpt5 | Char | Other CPT 5 | | | | |
| 22 | OTHcpt6 | Char | Other CPT 6 | | | | |
| 23 | OTHcpt7 | Char | Other CPT 7 | | | | |
| 24 | OTHcpt8 | Char | Other CPT 8 | | | | |
| 25 | OTHcpt9 | Char | Other CPT 9 | | | | |
| 26 | OTHcpt10 | Char | Other CPT 10 | | | | |
| 27 | CONcpt1 | Char | Concurrent CPT 1 | Variable Name: Concurrent Procedures | 16 | | Any additional CPT® code. If none entered field will be 'NULL'. |
| 28 | CONcpt2 | Char | Concurrent CPT 2 | | | | |
| 29 | CONcpt3 | Char | Concurrent CPT 3 | | | | |
| 30 | CONcpt4 | Char | Concurrent CPT 4 | | | | |
| 31 | CONcpt5 | Char | Concurrent CPT 5 | | | | |
| 32 | CONcpt6 | Char | Concurrent CPT 6 | | | | |
| 33 | CONcpt7 | Char | Concurrent CPT 7 | | | | |
| 34 | CONcpt8 | Char | Concurrent CPT 8 | | | | |
| 35 | CONcpt9 | Char | Concurrent CPT 9 | | | | |
| 36 | CONcpt10 | Char | Concurrent CPT 10 | | | | |
| 37 | STAPLING_PROC | Char | Stapler Used/Anastomosis Completed | Variable Name: Stapler Used/Anastomosis Completed | 17 | Yes; No | |

MBSAQIP 2020 PUF USER GUIDE | NOVEMBER 2021

| | | | | | | | |
|----|-----------------------------|------|---------------------------------------------------------------------|--------------------------------------------------------------------------------------------|----|-------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|
| 38 | DISCHARGE_DESTINATION | Char | Discharge Destination | Variable Name: Hospital Discharge Destination | 20 | Expired Facility which was home Home Rehab Separate acute care Skilled care, not home Unknown Unskilled facility, not home | |
| 39 | SURGSPECIALTY_BAR | Char | Medical specialty of the physician performing the Primary Procedure | Variable Name: Medical Specialist | 21 | Gastroenterologist General surgeon Interventional radiologist Metabolic and bariatric surgeon Other | |
| 40 | OPYEAR | Num | Year of Operation | Year of initial bariatric or metabolic surgery | 6 | | |
| 41 | DTOP | Num | Days to operation from hospital admit date | Days to initial bariatric or metabolic surgery operation date from hospital admission date | 18 | | Values capped between 0 and 30. |
| 42 | DTDISCH_OP | Num | Days to discharge from operation date | Days to hospital discharge from initial bariatric or metabolic surgery date | 19 | | Values capped between 0 and 150. |
| 43 | DTDISCH_ADMIT | Num | Days to discharge from hospital admit date | Days to hospital discharge from hospital admission date | 19 | | Values capped between 0 and 180. |
| 44 | HGT | Num | Height | Variable Name: Height | 22 | | |
| 45 | HGTUNIT | Char | Height Unit | Variable Name: Height | 22 | cm; in | |
| 46 | WGT_HIGH_BAR | Num | Highest Pre-Op Weight recorded | Variable Name: Highest Recorded Weight | 23 | | |
| 47 | WGT_HIGH_UNIT_BAR | Char | Highest Pre-Op Weight recorded Unit | Variable Name: Highest Recorded Weight | 23 | kg; lbs | |
| 48 | BMI_HIGH_BAR | Num | Highest Recorded Pre-Op BMI | Calculated from highest recorded pre-op weight and height | 23 | | Values capped between 15 and 150. |
| 49 | WGT_CLOSEST | Num | Pre-Op Weight closest to bariatric surgery | Variable Name: Weight Closest to Procedure | 24 | | |
| 50 | WGTUNIT_CLOSEST | Char | Pre-Op Weight closest to bariatric surgery Unit | Variable Name: Weight Closest to Procedure | 24 | kg; lbs | |
| 51 | BMI | Num | Pre-Op BMI closest to bariatric surgery | Calculated from pre-op weight closest to procedure and height | 24 | | Values capped between 15 and 150. |
| 52 | FUNSTATPRESURG | Char | Pre-Op Functional Health Status | Variable Name: Functional Health Status | 25 | Independent Partially dependent Totally dependent Unknown | |
| 53 | SMOKER | Char | Current smoker within one year | Variable Name: Current Smoker | 26 | Yes; No | |
| 54 | DIABETES | Char | Pre-Op Diabetes Mellitus | Variable Name: Diabetes Mellitus | 27 | Yes, insulin Yes, non-insulin No | |
| 55 | CHRONIC_STEROIDS | Char | Pre-Op Steroid/Immunosuppressant Use for Chronic Condition | Variable Name: Steroid/Immunosuppressant for Chronic Condition | 28 | Yes; No | |
| 56 | COPD | Char | Pre-Op history of COPD | Variable Name: History of Severe COPD | 30 | Yes; No | |
| 57 | HISTORY_PE | Char | History of PE | Variable Name: History of Pulmonary Embolism | 31 | Yes; No | |
| 58 | SLEEP_APNEA | Char | Pre-Op Sleep Apnea | Variable Name: Sleep Apnea | 32 | Yes; No | |
| 59 | GERD | Char | Pre-Op GERD | Variable Name: GERD | 33 | Yes; No | |
| 60 | PREVIOUS_SURGERY | Char | Previous Foregut Surgery | Variable Name: Previous Foregut Surgery | 34 | Yes; No | |
| 61 | MI_ALL_HISTORY | Char | History of MI | Variable Name: History of Myocardial Infarction | 35 | Yes; No | |
| 62 | PTC | Char | Previous PCI/PTCA | Variable Name: Previous PCI/PTCA | 36 | Yes; No | |
| 63 | PCARD | Char | Previous Cardiac Surgery | Variable Name: Previous Cardiac Surgery | 37 | Yes; No | |
| 64 | HIP | Char | Pre-Op Hypertension | Variable Name: Hypertension | 38 | Yes; No | |
| 65 | NBHTN_MEDS | Char | Number of Anti-Hypertensive Medications | Variable Name: Number of Anti-Hypertensive Medications | 39 | 0 1 2 3 or more | |
| 66 | HYPERLIPIDEMIA | Char | Pre-Op Hyperlipidemia | Variable Name: Hyperlipidemia | 40 | Yes; No | |
| 67 | HISTORY_DVT | Char | Pre-Op Vein Thrombosis Requiring Therapy | Variable Name: Vein Thrombosis Requiring Therapy | 41 | Yes; No | |
| 68 | THERAPEUTIC_ANTICOAGULATION | Char | Pre-Op Therapeutic Anticoagulation | Variable Name: Therapeutic Anticoagulation | 42 | Yes; No | |
| 69 | VENOUS_STASIS | Char | Pre-Op Venous Stasis | Variable Name: Venous Stasis | 44 | Yes; No | |
| 70 | IVC_FILTER | Char | Pre-Op IVC Filter | Variable Name: IVC Filter | 45 | Yes; No | |
| 71 | IVC_TIMING | Char | Pre-Op IVC Filter Timing | Variable Name: IVC Filter | 45 | IVC filter placed in anticipation of the metabolic or bariatric procedure IVC filter was preexisting Unknown | If IVC_FILTER = "No" then this variable will be missing. |
| 72 | DIALYSIS | Char | Pre-Op Requiring or on dialysis | Variable Name: Currently Requiring/On Dialysis | 46 | Yes; No | |
| 73 | RENAL_INSUFFICIENCY | Char | Pre-Op Renal Insufficiency | Variable Name: Renal Insufficiency | 47 | Yes; No | |
| 74 | ALBUMIN | Num | Pre-Op Albumin Lab Value (g/dL) | Variable Name: Preoperative Lab Value Information | 48 | | Values capped between 1 and 10. |
| 75 | DPRALBUM | Num | Days from Albumin Pre-Op Labs to Operation | Days from pre-operative Albumin to initial bariatric surgery operation date | 48 | | Values capped between 0 and 180. |

MBSAQIP 2020 PUF USER GUIDE | NOVEMBER 2021

| | | | | | | | |
|-----|--------------------------------|------|----------------------------------------------------------------|---------------------------------------------------------------------------------------|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
| 76 | CREATININE | Num | Pre-Op Creatinine Lab Value (mg/dL) | Variable Name: Preoperative Lab Value Information | 48 | | Values capped between 0.1 and 15. |
| 77 | DPRCREAT | Num | Days from Creatinine Pre-Op Labs to Operation | Days from pre-operative Creatinine to initial bariatric surgery operation date | 48 | | Values capped between 0 and 180. |
| 78 | HCT | Num | Pre-Op Hematocrit Lab Value (%) | Variable Name: Preoperative Lab Value Information | 48 | | Values capped between 8 and 60. |
| 79 | DPRHCT | Num | Days from Hematocrit Pre-Op Labs to Operation | Days from pre-operative Hematocrit to initial bariatric surgery operation date | 48 | | Values capped between 0 and 180. |
| 80 | HEMO | Num | Pre-Op Hemoglobin A1c Value | Variable Name: Preoperative Lab Value Information | 48 | | Values capped between 4 and 20. |
| 81 | DPRHEMO | Num | Days from Hemoglobin A1c Pre-Op Labs to Operation | Days from pre-operative Hemoglobin A1c to initial bariatric surgery operation date | 48 | | Values capped between 0 and 180. |
| 82 | ASACCLASS | Char | ASA Class | Variable Name: ASA Classification | 49 | ASA I - Normal/Healthy ASA II - Mild systemic disease ASA III - Severe systemic disease ASA IV - Severe systemic disease threat to life ASA V - Moribund None assigned | |
| 83 | ANESTYPE | Char | Intra gastric Balloon Anesthesia Type | Variable Name: Intra gastric Balloon Anesthesia Type | 50 | General Monitored anesthesia care/IV None Other Local | If INIT_PROC_DESC not = 'Intra gastric balloon placement' then this field will be missing. |
| 84 | BALLOON_TYPE | Char | Intra gastric Balloon Type | Variable Name: Intra gastric Balloon Type | 51 | Absorbable Adjustable Air-filled Fluid-filled | If INIT_PROC_DESC not = 'Intra gastric balloon placement' then this field will be missing. |
| 85 | SURGICAL_APPROACH | Char | Procedural Approach | Variable Name: Procedural Approach | 52 | Endoscopic Laparoscopic Open | |
| 86 | ROBOTIC_ASST | Char | Robotic Assist | Variable Name: Procedural Approach | 52 | Yes; No | |
| 87 | APPROACH_CONVERTED | Char | Procedure converted to another approach | Variable Name: Procedure Converted to Another Approach | 53 | Yes; No | |
| 88 | CONVERSION | Char | Procedure Converted - Final Procedural Approach | Variable Name: Procedure Converted to Another Approach | 53 | Endoscopic Laparoscopic Open | If APPROACH_CONVERTED = "No" then this variable will be missing. |
| 89 | ROBOTIC_ASST_CONV | Char | Procedure Converted - Final Procedural Approach Robotic Assist | Variable Name: Procedure Converted to Another Approach | 53 | Yes; No | If APPROACH_CONVERTED = "No" then this variable will be missing. |
| 90 | DRAIN_PLACED | Char | Drain Placed | Variable Name: Drain Placed | 54 | Yes; No | |
| 91 | ANASTOMOSIS_CHECKED | Char | Anastomosis/Staple Line Leak Test | Variable Name: Anastomosis/Staple Line Leak Test | 55 | Yes; No | |
| 92 | OPLNGTH | Num | Operation Length (minutes) | Length of bariatric/metabolic surgery, in minutes | 56 | | Values capped between 1 and 720. |
| 93 | METH_VTEPROPHYL | Char | VTE Prophylaxis Method(s) | Variable Name: VTE Prophylaxis | 57 | Mechanical only Pharmacologic only Mechanical and pharmacologic None | |
| 94 | OCCURRENCE_POST_YN | Char | Intraop/Postop Occurrence | Postprocedural Information – Occurrences | 58 | Yes; No | |
| 95 | POSTOPSUPERFICIALINCISIONALSSI | Num | Number of Post-Op Superficial Incisional SSI occurrences | Variable Name: Superficial Incisional SSI | 59 | | |
| 96 | SSSIPATOS | Char | Superficial Incisional SSI PATOS | Variable Name: Superficial Incisional SSI – PATOS | 61 | Yes; No | |
| 97 | POSTOPDEEPIPNCISIONALSISI | Num | Number of Post-Op Deep Incisional SSI occurrences | Variable Name: Deep Incisional SSI | 62 | | |
| 98 | DSSIPATOS | Char | Deep Incisional SSI PATOS | Variable Name: Deep Incisional SSI – PATOS | 64 | Yes; No | |
| 99 | POSTOPORGANSPACESSI | Num | Number of Post-Op Organ/Space SSI occurrences | Variable Name: Organ/Space SSI | 65 | | |
| 100 | OSSIPATOS | Char | Organ/Space SSI PATOS | Variable Name: Organ/Space SSI – PATOS | 67 | Yes; No | |
| 101 | POSTOPANASTLSLEAK | Num | Number of Post-Op Anastomotic/Staple Line Leak occurrences | Variable Name: Anastomotic/Staple Line Leak | 68 | | Post-op Organ/Space SSI occurrence must be assigned in order to assign Anastomotic/Staple Line Leak. |
| 102 | WOUNDISRUPTION | Num | Number of Post-Op Wound Disruption occurrences | Variable Name: Wound Disruption | 69 | | |
| 103 | POSTOPPNEUMONIA | Num | Number of Post-Op Pneumonia occurrences | Variable Name: Pneumonia | 70 | | |
| 104 | PNAPATOS | Char | Pneumonia PATOS | Variable Name: Pneumonia – PATOS | 73 | Yes; No | |
| 105 | UNPLINTUBATION | Num | Number of Post-Op Unplanned Intubation occurrences | Variable Name: Unplanned Intubation | 74 | | |
| 106 | PULMONARYEMBOLISM | Num | Number of Post-Op Pulmonary Embolism occurrences | Variable Name: Pulmonary Embolism | 76 | | |
| 107 | POSTOPVENTILATOR | Char | Post-Op On Ventilator > 48 hours | Variable Name: On Ventilator > 48 Hours | 77 | Yes; No | |
| 108 | VENTPATOS | Char | On Ventilator > 48 hours PATOS | Variable Name: On Ventilator > 48 Hours – PATOS | 78 | Yes; No | |
| 109 | PROGRSRENALINSUF | Char | Progressive Renal Insufficiency | Variable Name: Progressive Renal Insufficiency/Acute Renal Failure Requiring Dialysis | 79 | Yes; No | |
| 110 | ACTERENALFAILURE | Char | Acute Renal Failure | Variable Name: Progressive Renal Insufficiency/Acute Renal Failure Requiring Dialysis | 79 | Yes; No | |

MBSAQIP 2020 PUF USER GUIDE | NOVEMBER 2021

| | | | | | | | |
|-----|----------------------------|------|---------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|-----|-------------------------------|-----------------------------------------------------------------------------------------------------------------|
| 111 | POSTOPUTI | Num | Number of Post-Op Urinary Tract Infection occurrences | Variable Name: Urinary Tract Infection | 80 | | |
| 112 | UTIPATOS | Char | Urinary Tract Infection PATOS | Variable Name: UTI – PATOS | 82 | Yes; No | |
| 113 | CVA | Num | Number of Post-Op Stroke/CVA occurrences | Variable Name: Stroke/CVA | 83 | | |
| 114 | CARDIACARRESTCPR | Num | Number of Intra-Op or Post-Op Cardiac Arrest Requiring CPR occurrences | Variable Name: Cardiac Arrest Requiring CPR | 84 | | |
| 115 | MYOCARDIALINFR | Num | Number of Intra-op or Post-op Myocardial Infarction occurrences | Variable Name: Myocardial Infarction | 85 | | |
| 116 | TRANSFINTOPPSTOP | Char | Transfusion Intra-op/Post-Op (72h of surgery start time) | Variable Name: Blood Transfusion | 87 | Yes; No | |
| 117 | BLEEDING_UNITS | Num | Number of Blood Units Transfused | Variable Name: Blood Transfusion | 87 | | If TRANSFINTOPPSTOP = "Yes", values capped between 1 and 20. If TRANSFINTOPPSTOP = "No" then this variable = 0. |
| 118 | VEINTHROMBREQTER | Num | Number of Post-Op Vein Thrombosis Requiring Therapy occurrences | Variable Name: Vein Thrombosis Requiring Therapy | 89 | | |
| 119 | POSTOPSEPSIS | Char | Post-Op Sepsis | Variable Name: Sepsis | 92 | Yes; No | |
| 120 | SEPSISPATOS | Char | Sepsis PATOS | Variable Name: Sepsis – PATOS | 95 | Yes; No | |
| 121 | POSTOPSEPTICSHOCK | Char | Post-Op Septic Shock | Variable Name: Septic Shock | 96 | Yes; No | |
| 122 | SEPSHOCKPATOS | Char | Septic Shock PATOS | Variable Name: Septic Shock – PATOS | 97 | Yes; No | |
| 123 | UNPLANNEDADMISSIONICU30 | Num | Number of Unplanned Admission to ICU occurrences | Variable Name: Unplanned Admission to ICU | 98 | | |
| 124 | GITRACTBLEED | Num | Number of Post-Op GI Tract Bleeding occurrences | Variable Name: Gastrointestinal Tract Bleeding | 99 | | |
| 125 | BOWELOBSTRUCTION | Num | Number of Post-Op Bowel Obstruction occurrences | Variable Name: Bowel Obstruction | 100 | | |
| 126 | CDIFF | Char | Clostridium difficile (C.diff) Colitis | Variable Name: C. diff Colitis | 90 | Yes; No | |
| 127 | CDIFF_TRTMT | Char | C. diff Treatment Given | Variable Name: C. diff Colitis | 90 | Yes; No | If CDIFF = "No" then this variable will be missing. |
| 128 | REOP30 | Char | At Least One Reoperation within 30 days of operation | Any Reoperation date recorded within 30 days from initial bariatric surgery operation date | 111 | Yes; No | See separate Reoperation file. |
| 129 | READ30 | Char | At Least One Readmission within 30 days of operation | Any Readmission date recorded within 30 days from initial bariatric surgery operation date | 107 | Yes; No | See separate Readmission file. |
| 130 | INTV30 | Char | At Least One Intervention within 30 days of operation | Any Intervention date recorded within 30 days from initial bariatric surgery operation date | 120 | Yes; No | See separate Intervention file. |
| 131 | DEHYD_TRTMT_OUT | Char | IV Treatment as an Outpatient | Variable Name: IV Treatment as an Outpatient | 101 | Yes; No | |
| 132 | DEHYD_NUM_TRTMTS | Char | Number of IV Treatment Outpatient visits | Variable Name: IV Treatment as an Outpatient | 101 | 1 2 3 4 5 or more | If DEHYD_TRTMT_OUT = 'No' then this variable will be missing. |
| 133 | EMERG_VISIT_OUT | Char | Emergency Department (ED) Visits | Variable Name: Emergency Department (ED) Visits | 102 | Yes; No | |
| 134 | EMERG_NUM_TIMES | Num | Number of Emergency Department (ED) Visits | Variable Name: Emergency Department (ED) Visits | 102 | | If EMERG_VISIT_OUT= 'No' then this variable will be missing. |
| 135 | ED_VSTNM_1 | Char | Discharge Diagnosis - ED Visit 1 | Variable Name: Emergency Department (ED) Visits | 102 | | See Options list on page 129 in Variables MBSAQIP PUF Definitions |
| 136 | ED_VSTNM_2 | Char | Discharge Diagnosis - ED Visit 2 | | | | |
| 137 | ED_VSTNM_3 | Char | Discharge Diagnosis - ED Visit 3 | | | | |
| 138 | ED_VSTNM_4 | Char | Discharge Diagnosis - ED Visit 4 | | | | |
| 139 | ED_VSTNM_5 | Char | Discharge Diagnosis - ED Visit 5 | | | | |
| 140 | ED_VSTNM_6 | Char | Discharge Diagnosis - ED Visit 6 | | | | |
| 141 | ED_VSTNM_7 | Char | Discharge Diagnosis - ED Visit 7 | | | | |
| 142 | ED_VSTNM_8 | Char | Discharge Diagnosis - ED Visit 8 | | | | |
| 143 | ED_VSTNM_9 | Char | Discharge Diagnosis - ED Visit 9 | | | | |
| 144 | DT_EDVISIT_1 | Num | Days from operation date to ED Visit 1 | Variable Name: Emergency Department (ED) Visits | 102 | | Values capped between 0 and 30. |
| 145 | DT_EDVISIT_2 | Num | Days from operation date to ED Visit 2 | | | | |
| 146 | DT_EDVISIT_3 | Num | Days from operation date to ED Visit 3 | | | | |
| 147 | DT_EDVISIT_4 | Num | Days from operation date to ED Visit 4 | | | | |
| 148 | DT_EDVISIT_5 | Num | Days from operation date to ED Visit 5 | | | | |
| 149 | DT_EDVISIT_6 | Num | Days from operation date to ED Visit 6 | | | | |
| 150 | DT_EDVISIT_7 | Num | Days from operation date to ED Visit 7 | | | | |
| 151 | DT_EDVISIT_8 | Num | Days from operation date to ED Visit 8 | | | | |
| 152 | DT_EDVISIT_9 | Num | Days from operation date to ED Visit 9 | | | | |
| 153 | DTPOSTOPSUPERFNCSSI | Num | Days from operation date to first recorded date of Superficial Incisional SSI | Days to first recorded Superficial Incisional SSI occurrence from initial bariatric surgery operation date | | | Values capped between 0 and 30. If POSTOPSUPERFICIALINCISIONALSSI = 0 then this variable will be missing. |
| 154 | DTPOSTOPDEEPPINCISIONALSSI | Num | Days from operation date to first recorded date of Deep Incisional SSI | Days to first recorded Deep Incisional SSI occurrence from initial bariatric surgery operation date | | | Values capped between 0 and 30. If POSTOPDEEPPINCISIONALSSI = 0 then this variable will be missing. |
| 155 | DTPOSTOPORGANSPACESI | Num | Days from operation date to first recorded date of Organ/Space SSI | Days to first recorded Organ/Space SSI occurrence from initial bariatric surgery operation date | | | Values capped between 0 and 30. If POSTOPORGANSPACESI = 0 then this variable will be missing. |
| 156 | DTANASTSLLEAK | Num | Days from operation date to first recorded date of Anastomotic/Staple Line Leak | Days to first recorded Anastomotic/Staple Line Leak occurrence from initial bariatric surgery operation date | | | Values capped between 0 and 30. If POSTOPANASTSLLEAK = 0 then this variable will be missing. |

MBSAQIP 2020 PUF USER GUIDE | NOVEMBER 2021

| | | | | | | | |
|-----|----------------------|------|--------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|--------|-------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| 157 | DTPOSTOPVENTILATOR | Num | Days from operation date to first recorded date of On Ventilator > 48 Hours | Days to first recorded On Ventilator > 48 Hours occurrence from initial bariatric surgery operation date | | | Values capped between 0 and 30. If DTPPOSTOPVENTILATOR = 0 then this variable will be missing. |
| 158 | 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. |
| 159 | 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. |
| 160 | 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. |
| 161 | DTPOSTOPUTI | Num | Days from operation date to first recorded date of Urinary Tract Infection | Days to first recorded Urinary Tract Infection occurrence from initial bariatric surgery operation date | | | Values capped between 0 and 30. If POSTOPUTI = 0 then this variable will be missing. |
| 162 | DTWOUNDISRUPTION | Num | Days from operation date to first recorded date of Wound Disruption | Days to first recorded Wound Disruption occurrence from initial bariatric surgery operation date | | | Values capped between 0 and 30. If WOUNDISRUPTION = "No" then this variable will be missing. |
| 163 | DTUNPLINTUBATION | Num | Days from operation date to first recorded date of Unplanned Intubation | Days to first recorded Unplanned Intubation occurrence from initial bariatric surgery operation date | | | Values capped between 0 and 30. If UNPLINTUBATION = "No" then this variable will be missing. |
| 164 | DTPULMONARYEMBOLISM | Num | Days from operation date to first recorded date of Pulmonary Embolism | Days to first recorded Pulmonary Embolism occurrence from initial bariatric surgery operation date | | | Values capped between 0 and 30. If PULMONARYEMBOLISM = "No" then this variable will be missing. |
| 165 | DTPROGRSRENALINSUF | Num | Days from operation date to Progressive Renal Insufficiency | Days to Progressive Renal Insufficiency occurrence from initial bariatric surgery operation date | | | Values capped between 0 and 30. If PROGRSRENALINSUF = "No" then this variable will be missing. |
| 166 | DTACTERENALFAILURE | Num | Days from operation date to Acute Renal Failure | Days to Acute Renal Failure occurrence from initial bariatric surgery operation date | | | Values capped between 0 and 30. If ACTERENALFAILURE = "No" then this variable will be missing. |
| 167 | DTCVA | Num | Days from operation date to first recorded date of Stroke/CVA | Days to first recorded Stroke/CVA occurrence from initial bariatric surgery operation date | | | Values capped between 0 and 30. If CVA = "No" then this variable will be missing. |
| 168 | DTCARDIACARRESTCPR | Num | Days from operation date to first recorded date of Cardiac Arrest Requiring CPR | Days to first recorded Cardiac Arrest Requiring CPR occurrence from initial bariatric surgery operation date | | | Values capped between 0 and 30. If CARDIACARRESTCPR = "No" then this variable will be missing. |
| 169 | DTMYOCARDIALINFR | Num | Days from operation date to first recorded date of Myocardial Infarction | Days to first recorded Myocardial Infarction occurrence from initial bariatric surgery operation date | | | Values capped between 0 and 30. If MYOCARDIALINFR = "No" then this variable will be missing. |
| 170 | DTTRANSFINTOPPSTOP | Num | Days from operation date to Blood Transfusion (72h) | Days to Blood Transfusion (72h) occurrence from initial bariatric surgery operation date | | | Values capped between 0 and 3. If TRANSFINTOPPSTOP = "No" then this variable will be missing. |
| 171 | DTVEINTHROMBREQTER | Num | Days from operation date to first recorded date of Vein Thrombosis Requiring Therapy | Days to first recorded Vein Thrombosis Requiring Therapy occurrence from initial bariatric surgery operation date | | | Values capped between 0 and 30. If VEINTHROMBREQTER = "No" then this variable will be missing. |
| 172 | DTUNPLANADMICU | Num | Days from operation date to first recorded date of Unplanned Admission to ICU | Days to first recorded Unplanned Admission to ICU occurrence from initial bariatric surgery operation date | | | Values capped between 0 and 30. If UNPLANNEDADMISSIONICU30 = 0 then this variable will be missing. |
| 173 | DTGITTRACTBLEED | Num | Days from operation date to first recorded date of GI Tract Bleed | Days to first recorded Gastrointestinal Tract Bleeding occurrence from initial bariatric surgery operation date | | | Values capped between 0 and 30. If GITTRACTBLEED = 0 then this variable will be missing. |
| 174 | DTBOWELOBSTSTRUCTION | Num | Days from operation date to first recorded date of Bowel Obstruction | Days to first recorded Bowel Obstruction occurrence from initial bariatric surgery operation date | | | Values capped between 0 and 30. If BOWELOBSTSTRUCTION = 0 then this variable will be missing. |
| 175 | DTCDIFF | Num | Days from operation date to C. diff Infection | Days to C. diff Infection occurrence from initial bariatric surgery operation date | | | Values capped between 0 and 30. If CDIFF = "No" then this variable will be missing. |
| 176 | FOLLOW_30DAYS_BAR | Char | Follow-up data (30 Day) Captured | Variable Name: Morbidity Occurrences, Events, and Mortality Data Captured | 103 | Yes; No | |
| 177 | WGT_CLOSEST30D | Num | Post-Op Weight Closest to Day 30 | Variable Name: Weight Closest to Day 30 | 105 | | |
| 178 | WGTUNIT_CLOSEST30D | Char | Post-Op Weight Closest to Day 30 Unit | Variable Name: Weight Closest to Day 30 | 105 | kg; lbs | |
| 179 | BMI_CLOSEST30D | Num | Post-Op BMI Closest to Day 30 | Calculated from weight closest to day 30 post-op and height | 105 | | Values capped between 15 and 150. |
| 180 | DTBMI_30D | Num | Days from bariatric surgery to Post-Op BMI measurement | Days from bariatric surgery to Post-Op BMI Closest to Day 30 measurement | | | Values capped between 0 and 30. |
| 181 | PHYSASS_30D | Char | Post-Op Physical Assessment (30 Day) | Variable Name: Physical Assessment Completed | 106 | Yes; No | |
| 182 | DTDEATH_OP | Num | Days to death from operation date | Days to death from initial bariatric surgery operation date | 6, 127 | | Values capped between 0 and 30. |
| 183 | DEATH_CAUSE_BAR | Char | Most Likely Cause of Death | Variable Name: Cause of Death | 128 | See Options list on page 129 in Variables MBSAQIP PUF Definitions | |

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_CENTER | Char | Reoperation Performed at Reporting Site | Variable Name: Performed at Your Site | 5 | Yes; No | |
| 3 | REOP_WEIGHTLOSS_MNFUT | Char | Reoperation To Maintain or for Future Weight Loss | Variable Name: To Maintain or for Future Weight Loss | 110 | Yes; No | |
| 4 | REOP_UNPLANNED | Char | Unplanned Reoperation | Variable Name: Unplanned Reoperation | 111 | Yes; No | |
| 5 | REOP_EMERGENCY | Char | Reoperation Emergency Case | Variable Name: Emergency Case (Reoperation form) | 112 | Yes; No | |
| 6 | REOP_STAPLING_PROC | Char | Reoperation Stapler Used/Anastomosis Completed | Variable Name: Stapler Used or Anastomosis Completed (Reoperation form) | 113 | Yes; No | |
| 7 | REOP_SURGICAL_APPROACH | Char | Reoperation Final Procedural Approach | Variable Name: Final Surgical Approach (Reoperation form) | 114 | Endoscopic Laparoscopic Open | |
| 8 | REOP_ROBOTICASST | Char | Reoperation Robotic Assist | Variable Name: Final Surgical Approach (Reoperation form) | 114 | Yes; No | |
| 9 | REOP_DIAGNOSIS | Char | Reoperation Postprocedural Diagnosis | Variable Name: Postprocedural Diagnosis (Reoperation form) | 115 | See Options list on page 129 in Variables MBSAQIP PUF Definitions | |
| 10 | REOP_TYPE | Char | Reoperation Type | Variable Name: Reoperation Type | 116 | See Table on page 116 in MBSAQIP PUF Definitions | |
| 11 | REOP_CPT | Char | Reoperation CPT Code | Variable Name: Reoperation Type | 116 | CPT® code. LH - If REOP_CENTER= 'No' then this variable will be missing | |
| 12 | REOP_PREV_PROC | Char | Reoperation Previous Metabolic or Bariatric Procedure | Variable Name: Conversions - Previous Metabolic and Bariatric Procedure (Reoperation form) | 118 | See Options list on page 118 in Variables MBSAQIP PUF Definitions | |
| 13 | REOP_CURR_PROC | Char | Reoperation Current Procedure | Variable Name: Conversions - Current Procedure (Reoperation form) | 119 | See Options list on page 119 in Variables MBSAQIP PUF Definitions | |
| 14 | 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 | | | | |
| 2 | READ_HOSPITAL | Char | Readmission Occurred at Reporting Center | Variable Name: Readmission | 107 | Yes; No | |
| 3 | READ_UNPLANNED | Char | Unplanned Readmission | Variable Name: Unplanned Readmission | 109 | Yes; No | |
| 4 | READ_DIAGNOSIS | Char | Readmission Discharge Diagnosis | Variable Name: Readmission | 107 | See Options list on page 129 in Variables MBSAQIP PUF Definitions | |
| 5 | DTREAD | Num | Days from Operation date to Readmission | Days from initial bariatric or metabolic surgery procedure to readmission | | | Values capped between 0 and 30. |
| 6 | DTREAD_DISCH | Num | Days from Original Discharge to Readmission | Days to readmission from original hospital stay discharge | | | Values capped between 0 and 30. |
| 7 | 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_CENTER | Char | Intervention Performed at Reporting Site | Variable Name: Performed at Your Site | 5 | Yes; No | |
| 3 | INTV_WEIGHTLOSS_MNFUT | Char | Intervention To Maintain or for Future Weight Loss | Variable Name: To Maintain or for Future Weight Loss | 110 | Yes; No | |
| 4 | INTV_UNPLANNED_BAR | Char | Unplanned Intervention | Variable Name: Unplanned Intervention | 121 | Yes; No | |
| 5 | INTV_EMERGENCY_BAR | Char | Intervention Emergency Case | Variable Name: Emergency Case (Intervention form) | 122 | Yes; No | |
| 6 | INTV_ANESTYPE | Char | Intervention Intra gastric Balloon Anesthesia Type | Variable Name: Intra gastric Balloon Anesthesia Type (Intervention form) | 123 | General Local Monitored anesthesia care/IV sedation None Other | If INTV_TYPE not = 'Intra gastric balloon adjustment', 'Intra gastric balloon placement', or 'Intra gastric balloon removal', then this variable |
| 7 | INTV_IGBALLOON_TYPE | Char | Intervention Intra gastric Balloon Type | Variable Name: Intra gastric Balloon Type (Intervention form) | 124 | Absorbable Adjustable Air-filled Fluid-filled | If INTV_TYPE not = 'Intra gastric balloon adjustment', 'Intra gastric balloon placement', or 'Intra gastric balloon |
| 8 | INTV_TYPE | Char | Intervention Type | Variable Name: Intervention Type | 125 | | |
| 9 | INTV_DIAGNOSIS | Char | Intervention Postprocedural Diagnosis | Variable Name: Postprocedural Diagnosis (Intervention form) | 126 | See Options list on page 129 in Variables MBSAQIP PUF Definitions | |
| 10 | 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. |

MBSAQIP[®]

**METABOLIC AND BARIATRIC SURGERY
ACCREDITATION AND QUALITY IMPROVEMENT PROGRAM**



100+years

AMERICAN COLLEGE OF SURGEONS

*Inspiring Quality:
Highest Standards, Better Outcomes*

