STS Adult Cardiac Surgery Database V2.81 Current as of: 02/08/2018 Update 01/29/2020

Procedure Identification Table – Modified for QMTF Mitral Valve Population

Note, fields in green are new in v2.81

Note: fields modified from original ProcID definition are in blue /

Note: 1/29/2020: for VSTV/Optricus and PROCID=3,5,7,8 we have made a correction: Unplanned are only valid for Replacements if Unplanned due to Surgical Complications. Previous table (\dcri\outcomes\sts\asw27\procid\ ProcID\_v281\_Mod 14NOV2017.docx) was wrong. Highlighted in pink. (*Previous table said: Yes, unplanned due to unsuspected disease or anatomy).*

Note: 2/7/2020: For CABG (PROCID=1,4,5,8): due to an oversight, operations that included CABG procedures that were unplanned due to unsuspected disease or anatomy were not being allowed into any of the defined Procedure ID groups. The STS-QMTF decided to recalculate Procedure ID to correct for this error, but only in version 2.9. Changes in older versions would have required vendors to recertify on data versions that are no longer in use, and this was determined to be impractical. We have removed this part from OPCAB row and PROCID columns 1,4,5,8, since these specifications refer to data version 2.81. Highlighted in pink.

| Variable Short Name | Isolated CAB(ProcID=1) | Isolated AVR(ProcID=2) | Isolated MVR(ProcID=3) | AVR + CAB(ProcID=4) |
| --- | --- | --- | --- | --- |
| OpCAB | * Yes, planned
* ~~Yes, unplanned due to unsuspected disease/anatomy~~
 | * No
* Yes, unplanned due to surgical complication
* Missing
 | * No
* Yes, unplanned due to surgical complication
* Missing
 | * Yes, planned
* ~~Yes, unplanned due to unsuspected disease/anatomy~~
 |
| OpValve | <Not used in this calculation> | * Yes
 | * Yes
 | * Yes
 |
| VSAV | * No
* Yes, unplanned due to surgical complication
* Missing
 | * Yes, planned
* Yes, unplanned due to unsuspected disease or anatomy
 | * No
* Yes, unplanned due to surgical complication
* Missing
 | * Yes, planned
* Yes, unplanned due to unsuspected disease or anatomy
 |
| VSAVPr | <Not used in this calculation> | * Replacement
 | <Not used in this calculation> | * Replacement
 |
| VSMV | * No
* Yes, unplanned due to surgical complication
* Missing
 | * No
* Yes, unplanned due to surgical complication
* Missing
 | * Yes, planned
* Yes, unplanned due to unsuspected disease or anatomy
 | * No
* Yes, unplanned due to surgical complication
* Missing
 |
| VSMVPr | <Not used in this calculation> | <Not used in this calculation> | * Replacement
 | <Not used in this calculation> |
| OCarCongProc1 | * Missing
* PFO, Primary closure
* Anomalous origin of coronary artery from pulmonary artery repair
* Anomalous aortic origin of coronary artery from aorta (AAOCA) repair
 | * Missing
* PFO, Primary closure
 | * Missing
* PFO, Primary closure
* ASD repair, Primary closure
* ASD repair, Patch
 | * Missing
* PFO, Primary closure
* Anomalous origin of coronary artery from pulmonary artery repair
* Anomalous aortic origin of coronary artery from aorta (AAOCA) repair
 |
| OCarCongProc2 | * Missing
* PFO, Primary closure
* Anomalous origin of coronary artery from pulmonary artery repair
* Anomalous aortic origin of coronary artery from aorta (AAOCA) repair
 | * Missing
* PFO, Primary closure
 | * Missing
* PFO, Primary closure
* ASD repair, Primary closure
* ASD repair, Patch
 | * Missing
* PFO, Primary closure
* Anomalous origin of coronary artery from pulmonary artery repair
* Anomalous aortic origin of coronary artery from aorta (AAOCA) repair
 |
| OCarCongProc3 | * Missing
* PFO, Primary closure
* Anomalous origin of coronary artery from pulmonary artery repair
* Anomalous aortic origin of coronary artery from aorta (AAOCA) repair
 | * Missing
* PFO, Primary closure
 | * Missing
* PFO, Primary closure
* ASD repair, Primary closure
* ASD repair, Patch
 | * Missing
* PFO, Primary closure
* Anomalous origin of coronary artery from pulmonary artery repair
* Anomalous aortic origin of coronary artery from aorta (AAOCA) repair
 |
| Tricuspid Procedures: VSTV and OpTricus | Only repairs/replacements that were unplanned due to surgical complications are allowed.VSTV:* No
* Yes, unplanned due to surgical complication
* Missing
 | Only repairs/replacements that were unplanned due to surgical complications are allowed.VSTV:* No
* Yes, unplanned due to surgical complication
* Missing
 | All tricuspid repairs are allowed. Tricuspid replacements and valvecotomies are only allowed if the tricuspid procedure was unplanned due to surgical complications. Must satisfy at least one of (1) or (2)1. OpTricus:
* Missing
* Annuloplasty only
* Reconstruction with Annuloplasty
* Reconstruction without Annuloplasty
1. VSTV: Yes, unplanned due surgical complications
 | Only repairs/replacements that were unplanned due to surgical complications are allowed.VSTV:* No
* Yes, unplanned due to surgical complication
* Missing
 |
| VSPV | * No
* Yes, unplanned due to surgical complication
* Missing
 |
| PrevVADExp | * Yes, not during this procedure
* No
* Missing
 |
| VADImpTmg | * Pre-Operative (during same hospitalization but not same OR trip as CV surgical procedure)
* In conjunction with CV surgical procedure (same trip to the OR)- unplanned
* Post-Operative (after surgical procedure during reoperation)
* Missing
 |
| VADImpTmg2 | * Pre-Operative (during same hospitalization but not same OR trip as CV surgical procedure)
* In conjunction with CV surgical procedure (same trip to the OR)- unplanned
* Post-Operative (after surgical procedure during reoperation)
* Missing
 |
| VADImpTmg3 | * Pre-Operative (during same hospitalization but not same OR trip as CV surgical procedure)
* In conjunction with CV surgical procedure (same trip to the OR)- unplanned
* Post-Operative (after surgical procedure during reoperation)
* Missing
 |
| VExp | * Yes, not during this procedure
* No
* Missing
 |
| VExp2 | * Yes, not during this procedure
* No
* Missing
 |
| VExp3 | * Yes, not during this procedure
* No
* Missing
 |
| OCarLVA | * No
* Missing
 |
| OCarVSD | * No
* Missing
 |
| AortProc | * No
* Yes, unplanned due to surgical complication
* Missing
 |
| AortProcTEVAR | * No
* Missing
 |
| OCarAFibIntraLes | * No
* Missing
 | * No
* Missing
 | <Not used in this calculation> | * No
* Missing
 |
| OCarAFibLesLoc | * Primarily epicardial
* Missing
 | * Primarily epicardial
* Missing
 | <Not used in this calculation> | * Primarily epicardial
* Missing
 |
| OCarASDSec | * No
* Missing
 | * No
* Missing
 | <Not used in this calculation> | * No

Missing |
| OCarACD | <Not used in this calculation> | <Not used in this calculation> | * No
* Missing
* Permanent Pacemaker
 | <Not used in this calculation> |
| OCarACDLE | * Yes, unplanned due to surgical complication
* No
* Missing
 |
| OCarLasr | <Not used in this calculation> | <Not used in this calculation> | * No
* Missing
 | <Not used in this calculation> |
| OCPulThromDis | * No
* Missing
 |
| OCarSubaStenRes | * No
* Missing
 |
| OCarSVR | * No
* Missing
 |
| OCarCrTx | * No
* Missing
 |
| OCarTrma | * No
* Missing
 |
| OCTumor | * No
* Missing
 |
| OCarOthr | * No
* Missing
 |
| VSTCV | * No
* Missing
 |
| VSTCVMit | * No
* Missing
 |
| VSTCVTri | * No
* Missing
 |
| VSTCVPu | * No
* Missing
 |
| CCancCase | * No
* Missing
 |
| ONCCarEn | * No
* Yes, unplanned due to surgical complication
* Missing
 |
| ONCOVasc | * No
* Yes, unplanned due to surgical complication
* Missing
 |
| ONCOThor | * No
* Yes, unplanned due to surgical complication
* Missing
 |
| ONCOther | * No
* Yes, unplanned due to surgical complication
* Missing
 |

| Variable Short Name | MVR + CAB(ProcID=5) | AVR + MVR(ProcID=6) | MV Repair(ProcID=7) | MV Repair + CAB(ProcID=8) |
| --- | --- | --- | --- | --- |
| OpCAB | * Yes, planned
* ~~Yes, unplanned due to unsuspected disease/anatomy~~
 | * No
* Yes, unplanned due to surgical complication
* Missing
 | * No
* Yes, unplanned due to surgical complication
* Missing
 | * Yes, planned
* ~~Yes, unplanned due to unsuspected disease/anatomy~~
 |
| OpValve | * Yes
 | * Yes
 | * Yes
 | * Yes
 |
| VSAV | * No
* Yes, unplanned due to surgical complication
* Missing
 | * Yes, planned
* Yes, unplanned due to unsuspected disease or anatomy
 | * No
* Yes, unplanned due to surgical complication
* Missing
 | * No
* Yes, unplanned due to surgical complication
* Missing
 |
| VSAVPr | <Not used in this calculation> | * Replacement
 | <Not used in this calculation> | <Not used in this calculation> |
| VSMV | * Yes, planned
* Yes, unplanned due to unsuspected disease or anatomy
 | * Yes, planned
* Yes, unplanned due to unsuspected disease or anatomy
 | * Yes, planned
* Yes, unplanned due to unsuspected disease or anatomy
 | * Yes, planned
* Yes, unplanned due to unsuspected disease or anatomy
 |
| VSMVPr | * Replacement
 | * Replacement
 | * Repair
 | * Repair
 |
| OCarCongProc1 | * Missing
* PFO, Primary closure
* Anomalous origin of coronary artery from pulmonary artery repair
* Anomalous aortic origin of coronary artery from aorta (AAOCA) repair
* ASD repair, Primary closure
* ASD repair, Patch
 | * Missing
* PFO, Primary closure
* ASD repair, Primary closure
* ASD repair, Patch
 | * Missing
* PFO, Primary closure
* ASD repair, Primary closure
* ASD repair, Patch
 | * Missing
* PFO, Primary closure
* Anomalous origin of coronary artery from pulmonary artery repair
* Anomalous aortic origin of coronary artery from aorta (AAOCA) repair
* ASD repair, Primary closure
* ASD repair, Patch
 |
| OCarCongProc2 | * Missing
* PFO, Primary closure
* Anomalous origin of coronary artery from pulmonary artery repair
* Anomalous aortic origin of coronary artery from aorta (AAOCA) repair
* ASD repair, Primary closure
* ASD repair, Patch
 | * Missing
* PFO, Primary closure
* ASD repair, Primary closure
* ASD repair, Patch
 | * Missing
* PFO, Primary closure
* ASD repair, Primary closure
* ASD repair, Patch
 | * Missing
* PFO, Primary closure
* Anomalous origin of coronary artery from pulmonary artery repair
* Anomalous aortic origin of coronary artery from aorta (AAOCA) repair
* ASD repair, Primary closure
* ASD repair, Patch
 |
| OCarCongProc3 | * Missing
* PFO, Primary closure
* Anomalous origin of coronary artery from pulmonary artery repair
* Anomalous aortic origin of coronary artery from aorta (AAOCA) repair
* ASD repair, Primary closure
* ASD repair, Patch
 | * Missing
* PFO, Primary closure
* ASD repair, Primary closure
* ASD repair, Patch
 | * Missing
* PFO, Primary closure
* ASD repair, Primary closure
* ASD repair, Patch
 | * Missing
* PFO, Primary closure
* Anomalous origin of coronary artery from pulmonary artery repair
* Anomalous aortic origin of coronary artery from aorta (AAOCA) repair
* ASD repair, Primary closure
* ASD repair, Patch
 |
| Tricuspid Procedures: VSTV and OpTricus | All tricuspid repairs are allowed. Tricuspid replacements and valvecotomies are only allowed if the tricuspid procedure was unplanned due to surgical complications. Must satisfy at least one of (1) or (2)1. OpTricus:
* Missing
* Annuloplasty only
* Reconstruction with Annuloplasty
* Reconstruction without Annuloplasty
1. VSTV: Yes, unplanned due surgical complications
 | All tricuspid repairs are allowed. Tricuspid replacements and valvecotomies are only allowed if the tricuspid procedure was unplanned due to surgical complications. Must satisfy at least one of (1) or (2)1. OpTricus:
* Missing
* Annuloplasty only
* Reconstruction with Annuloplasty
* Reconstruction without Annuloplasty
1. VSTV: Yes, unplanned due surgical complications
 | All tricuspid repairs are allowed. Tricuspid replacements and valvecotomies are only allowed if the tricuspid procedure was unplanned due to surgical complications. Must satisfy at least one of (1) or (2)1. OpTricus:
* Missing
* Annuloplasty only
* Reconstruction with Annuloplasty
* Reconstruction without Annuloplasty
1. VSTV: Yes, unplanned due surgical complications
 | All tricuspid repairs are allowed. Tricuspid replacements and valvecotomies are only allowed if the tricuspid procedure was unplanned due to surgical complications. Must satisfy at least one of (1) or (2)1. OpTricus:
* Missing
* Annuloplasty only
* Reconstruction with Annuloplasty
* Reconstruction without Annuloplasty
1. VSTV: Yes, unplanned due surgical complications
 |
| VSPV | * No
* Yes, unplanned due to surgical complication
* Missing
 |
| PrevVADExp | * Yes, not during this procedure
* No
* Missing
 |
| VADImpTmg | * Pre-Operative (during same hospitalization but not same OR trip as CV surgical procedure)
* In conjunction with CV surgical procedure (same trip to the OR)- unplanned
* Post-Operative (after surgical procedure during reoperation)
* Missing
 |
| VADImpTmg2 | * Pre-Operative (during same hospitalization but not same OR trip as CV surgical procedure)
* In conjunction with CV surgical procedure (same trip to the OR)- unplanned
* Post-Operative (after surgical procedure during reoperation)
* Missing
 |
| VADImpTmg3 | * Pre-Operative (during same hospitalization but not same OR trip as CV surgical procedure)
* In conjunction with CV surgical procedure (same trip to the OR)- unplanned
* Post-Operative (after surgical procedure during reoperation)
* Missing
 |
| VExp | * Yes, not during this procedure
* No
* Missing
 |
| VExp2 | * Yes, not during this procedure
* No
* Missing
 |
| VExp3 | * Yes, not during this procedure
* No
* Missing
 |
| OCarLVA | * No
* Missing
 |
| OCarVSD | * No
* Missing
 |
| AortProc | * No
* Yes, unplanned due to surgical complication
* Missing
 |
| AortProcTEVAR | * No/Missing
 |
| OCarAFibIntraLes | <Not used in this calculation> | <Not used in this calculation> | <Not used in this calculation> | <Not used in this calculation> |
| OCarAFibLesLoc | <Not used in this calculation> | <Not used in this calculation> | <Not used in this calculation> | <Not used in this calculation> |
| OCarASDSec | <Not used in this calculation> | <Not used in this calculation> | <Not used in this calculation> | * <Not used in this calculation>
 |
| OCarACD | * No
* Missing
* Permanent Pacemaker
 | * No
* Missing
* Permanent Pacemaker
 | * No
* Missing
* Permanent Pacemaker
 | * No
* Missing
* Permanent Pacemaker
 |
| OCarACDLE | * Yes, unplanned due to surgical complication
* No
* Missing
 |
| OCarLasr | * No
* Missing
 | * No
* Missing
 | * No
* Missing
 | * No
* Missing
 |
| OCPulThromDis | * No
* Missing
 |
| OCarSubaStenRes | * No
* Missing
 |
| OCarSVR | * No
* Missing
 |
| OcarCrTx | * No
* Missing
 |
| OcarTrma | * No
* Missing
 |
| OCTumor | * No
* Missing
 |
| OCarOthr | * No
* Missing
 |
| VSTCV | * No
* Missing
 |
| VSTCVMit | * No
* Missing
 |
| VSTCVTri | * No
* Missing
 |
| VSTCVPu | * No
* Missing
 |
| CCancCase | * No
* Missing
 |
| ONCCarEn | * No
* Yes, unplanned due to surgical complication
* Missing
 |
| ONCOVasc | * No
* Yes, unplanned due to surgical complication
* Missing
 |
| ONCOThor | * No
* Yes, unplanned due to surgical complication
* Missing
 |
| ONCOther | * No
* Yes, unplanned due to surgical complication
* Missing
 |

The field OpONCard is still being collected, but is no longer used in the ProcID calculation, replaced by component variables, ONCCarEn, ONCOVasc, ONCOThor, and ONCOther.

The following fields are no longer collected:

EndoProc – replaced by AortProcTEVAR

ResectSubA – replaced by OCarSubAStenRes

OCarASD – replaced by OCarASDPFO and OCarASDSec

OCarASDTy – replaced by OCarASDPFO and OCarASDSec

OCarAFibSur – replaced by OCarAFibIntraLes, OCarAFibEpLes and OCarAFibLesLoc

OCarAFibAProc– replaced by OCarAFibIntraLes, OCarAFibEpLes and OCarAFibLesLoc

UnplProc – replaced by options for procedure variables

UnplVAD– replaced by options for procedure variables

UnplCABG– replaced by options for procedure variables

UnplAV– replaced by options for procedure variables

UnplMV– replaced by options for procedure variables

UnplAo– replaced by options for procedure variables

UnplOth– replaced by options for procedure variables

OCAoProcType – replaced by AortProc and AortaDisease