

Data Completeness and Star Ratings – Adult Cardiac Surgery Database

In order to assure the highest level of accuracy when reporting operative mortality, thresholds were implemented to determine eligibility for a composite score in the summer of 2016.

If the following fields are missing or coded as “unknown”, then the record is considered incomplete.

Adult Cardiac Surgery Database (Seq. # are from version 2.81 and are subject to change depending on version)

- Discharge Status (5010)
- Status at 30 Days after Surgery (5015)
- Operative Death (5025)

Operative Mortality includes: (1) ALL deaths, regardless of cause, occurring during the hospitalization in which the operation was performed, even if after 30 days (including patients transferred to other acute care facilities); and (2) ALL deaths, regardless of cause, occurring after discharge from the hospital, but before the end of the thirtieth postoperative day.

Star Ratings

In order to receive a composite score (Star rating) each of the following must be met:

1. Operative Mortality data completeness for AVR, AVR +CABG, CABG – must meet yearly thresholds for each procedure type
2. Applicable NQF Measures – must have a 95% completeness rate on all measures (**CABG cases only, see below**)
3. Volume number –
 - Must have at least 10 cases during 1 year rolling period for Isolated CABG
 - Must have at least 10 cases during 3 year rolling period for Isolated AVR and AVR + CABG

For each procedure, if a participant fails to meet any of the above criteria, its data will be completely removed from analysis used to calculate the star ratings and thus the participant will not receive any star ratings for that specific procedure.

In addition, to be considered an eligible patient, a patient must have **gender and age** entered in the record. If a patient has more than one record, with surgery dates less than 30 days apart, the second record, (or potentially third/fourth/fifth etc.) will be excluded from analysis.

Data completeness thresholds apply to all cases. In order to receive any star rating, the data completeness thresholds must also be met when the data are stratified by procedure (currently isolated AVR, isolated CABG, AVR + CABG).

NQF Measures – Isolated CABG only

For isolated CABG procedures, the fields listed below are required in order to receive a star rating. These fields cannot have more than 5% missing data.

- Preoperative beta blockers (1060)
- Discharge Antiplatelets (5060 or 5065 or 5070 or 5075; has to be missing all to be considered missing)

- Discharge Beta Blockers (5105)
- Discharge Lipids (5115)
- IMA Use (2655)

Data Quality Report

Please note: the percentage completeness provided in the DQR is an OVERALL percentage based on all the data submitted in the harvest. **NO** analysis has been done on the data (i.e., ineligible cases and patients removed). If the percentage is close to the threshold you may be at risk of not receiving a composite score.

Example:

100 cases are submitted to DCRI (50 CABGs, 20 AVRs, 15 AVR + CABG, 10 TAVRs, 5 MVRs). The DQR (pre analysis) reports the data completeness thresholds as:

- 2015: 8%
- 2016: 4%

During analysis the 10 TAVRs are removed from analysis. The 5 MVRs are not moved to composite score analysis; leaving 50 CABGs, 20 AVRs, & 15 AVR + CABG cases.

For 2015 the following was submitted:

CABG – 35 cases, 32 with no missing information = 91.4%
AVR – 15 cases, 13 with no missing information = 86.6%
AVR + CABG – 13 cases, 11 with no missing information = 84.6%

For 2016 the following was submitted:

CABG – 15 cases, 15 with no missing information = 100%
AVR – 5 cases, 4 with no missing information = 80.0%
AVR + CABG – 2 cases, 1 with no missing information = 50.0%

This site would receive a star rating for CABG but not for AVR or AVR + CABG.