



# **Inpatient Quality Indicator 11 (IQI 11) Abdominal Aortic Aneurysm (AAA) Repair Mortality Rate**

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**Provider-Level Indicator**

**Type of Score: Rate**

**Prepared by:**

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[www.qualityindicators.ahrq.gov](http://www.qualityindicators.ahrq.gov)

**DESCRIPTION**

In-hospital deaths per 1,000 discharges with abdominal aortic aneurysm (AAA) repair, ages 18 years and older. Includes metrics for discharges grouped by type of diagnosis and procedure. Excludes obstetric discharges and transfers to another hospital.

*[NOTE: The software provides the rate per hospital discharge. However, common practice reports the measure as per 1,000 discharges. The user must multiply the rate obtained from the software by 1,000 to report in-hospital deaths per 1,000 hospital discharges.]*

**Stratification of Indicator**

The indicator is stratified into four groups by 1) type of AAA repair (open vs. endovascular) and 2) AAA rupture status.

Strata are mutually exclusive. Patients cannot qualify for more than one stratum. If patients qualify for more than one procedure, patients are assigned to the stratum with the highest risk of mortality (Stratum Open/Ruptured, Endo/Ruptured, Open/Intact, Endo/Intact)

Strata hierarchy (listed from highest mortality to lowest mortality):

1. Stratum Open/Ruptured (Open repair of ruptured AAA)
2. Stratum Endo/Unruptured (Endovascular repair of ruptured AAA)
3. Stratum Open/Intact (Open repair of unruptured AAA)
4. Stratum Endo/Intact (Endovascular repair of unruptured AAA)

### **NUMERATOR OVERALL**

Number of deaths (DISP=20) among cases meeting the inclusion and exclusion rules for the denominator.

Note: The indicator is stratified into four groups by 1) type of AAA repair (open vs. endovascular) and 2) AAA rupture status

#### **STRATUM Open/Ruptured: (Open repair of ruptured AAA)**

Number of deaths (DISP=20) among cases meeting the inclusion and exclusion rules for the denominator.

#### **STRATUM Open/Intact: (Open repair of unruptured AAA)**

Number of deaths (DISP=20) among cases meeting the inclusion and exclusion rules for the denominator.

#### **STRATUM Endo/Ruptured: (Endovascular repair of ruptured AAA)**

Number of deaths (DISP=20) among cases meeting the inclusion and exclusion rules for the denominator.

#### **STRATUM Endo/Intact: (Endovascular repair of unruptured AAA)**

Number of deaths (DISP=20) among cases meeting the inclusion and exclusion rules for the denominator.

### **DENOMINATOR OVERALL**

Discharges, for patients ages 18 years and older, with the following

- any-listed ICD-10-CM diagnosis codes for ruptured AAA (*PRAAARD*<sup>\*</sup>) and any-listed ICD-10-PCS procedure code for open AAA repair; (*PRAAARP*<sup>\*</sup>) or
- any-listed ICD-10-CM diagnosis codes for ruptured AAA (*PRAAA2D*<sup>\*</sup>) and any-listed ICD-10-PCS procedure codes for open AAA repair; (*PRAAARP*<sup>\*</sup>) or
- any-listed ICD-10-CM diagnosis codes for ruptured AAA (*PRAAARD*<sup>\*</sup>) and any-listed ICD-10-PCS procedure codes for endovascular AAA repair; (*PRAAA2P*<sup>\*</sup>) or
- any-listed ICD-10-CM diagnosis codes for unruptured AAA (*PRAAA2D*<sup>\*</sup>) and any-listed ICD-10-PCS procedure codes for endovascular AAA repair (*PRAAA2P*<sup>\*</sup>)

## **DENOMINATOR STRATA**

Note: The indicator is stratified into four groups by 1) type of AAA repair (open vs. endovascular) and 2) AAA rupture status

### **STRATUM Open/Ruptured: (Open repair of ruptured AAA)**

Discharges otherwise qualifying for the denominator, with any-listed ICD-10-CM diagnosis code for ruptured AAA (*PRAAA2D*<sup>\*</sup>) and any-listed ICD-10-PCS procedure code for open AAA repair (*PRAAA2P*<sup>\*</sup>).

### **STRATUM Open/Intact: (Open repair of unruptured AAA)**

Discharges otherwise qualifying for the denominator, with any-listed ICD-10-CM diagnosis code for un-ruptured AAA (*PRAAA2D*<sup>\*</sup>) and any-listed ICD-10-PCS procedure code for open AAA repair (*PRAAA2P*<sup>\*</sup>).

### **STRATUM Endo/Ruptured: (Endovascular repair of ruptured AAA)**

Discharges otherwise qualifying for the denominator, with any-listed ICD-10-CM diagnosis code for un-ruptured AAA (*PRAAA2D*<sup>\*</sup>) and any-listed ICD-10-PCS procedure code for endovascular AAA repair (*PRAAA2P*<sup>\*</sup>).

### **STRATUM Endo/Intact: (Endovascular repair of unruptured AAA)**

Discharges otherwise qualifying for the denominator, with any-listed ICD-10-CM diagnosis code for un-ruptured AAA (*PRAAA2D*<sup>\*</sup>) and any-listed ICD-10-PCS procedure code for endovascular AAA repair (*PRAAA2D*<sup>\*</sup>).

## **DENOMINATOR EXCLUSIONS**

Exclude cases:

- transferring to another short-term hospital (DISP=2)
- MDC 14 (pregnancy, childbirth, and puerperium)
- with missing discharge disposition (DISP=missing), gender (SEX=missing), age (AGE=missing), quarter (DQTR=missing), year (YEAR=missing) or principal diagnosis (DX1=missing)

\* See below for code list