

# Abdominal Aortic Aneurysm (AAA) Repair Mortality Rate Technical Specifications

## Inpatient Quality Indicators #11 (IQI #11)

AHRQ Quality Indicators™, Version 5.0

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Provider-Level Indicator

Type of Score: Rate

### 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

Cases are assigned to strata according to a hierarchy based on mortality, with cases being assigned to the stratum with the highest mortality for which the case qualifies. In the case of AAA Repair Mortality the current hierarchy is as follows:

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

1. Stratum A (Open repair of ruptured AAA)
2. Stratum C (Endovascular repair of ruptured AAA)
3. Stratum B (Open repair of unruptured AAA)
4. Stratum D (Endovascular repair of unruptured AAA)

### Numerator

#### Overall:

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

### **Stratum A (Open repair of ruptured AAA):**

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

### **Stratum B (Open repair of unruptured AAA):**

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

### **Stratum C (Endovascular repair of ruptured AAA):**

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

### **Stratum D (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-9-CM diagnosis codes for ruptured AAA and any-listed ICD-9-CM procedure code for open AAA repair; or
- any-listed ICD-9-CM diagnosis codes for unruptured AAA and any-listed ICD-9-CM procedure codes for open AAA repair; or
- any-listed ICD-9-CM diagnosis codes for ruptured AAA and any-listed ICD-9-CM procedure codes for endovascular AAA repair; or
- any-listed ICD-9-CM diagnosis codes for unruptured AAA and any-listed ICD-9-CM procedure codes for endovascular AAA repair

#### **ICD-9-CM Un-ruptured AAA diagnosis code:**

4414      ABDOM AORTIC ANEURYSM

#### **ICD-9-CM Ruptured AAA diagnosis codes:**

4413      RUPT ABD AORTIC ANEURYSM

#### **ICD-9-CM Open AAA repair procedure codes:**

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3834	AORTA RESECTION & ANAST	3844	RESECT ABDM AORTA W REPL
3864	EXCISION OF AORTA		

**ICD-9-CM Endovascular AAA repair procedure codes:**

3971	ENDO IMPL GRFT ABD AORTA	3978	ENDOVAS IMPLN GRFT AORTA
3977	TEMP ENDOVSC OCCLS VESSEL		

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)

**Stratum A (Open repair of ruptured AAA):**

Discharges, for patients ages 18 years and older, with any-listed ICD-9-CM diagnosis code for ruptured AAA (see above) and any-listed ICD-9-CM procedure code for open AAA repair (see above).

**Stratum B (Open repair of unruptured AAA):**

Discharges, for patients ages 18 years and older, with any-listed ICD-9-CM diagnosis code for un-ruptured AAA (see above) and any-listed ICD-9-CM procedure code for open AAA repair (see above).

**Stratum C (Endovascular repair of ruptured AAA):**

Discharges, for patients ages 18 years and older, with any-listed ICD-9-CM diagnosis code for ruptured AAA (see above) and any-listed ICD-9-CM procedure code for endovascular AAA repair (see above).

**Stratum D (Endovascular repair of unruptured AAA):**

Discharges, for patients ages 18 years and older, with any-listed ICD-9-CM diagnosis code for un-ruptured AAA (see above) and any-listed ICD-9-CM procedure code for endovascular AAA repair (see above).