

Acute Stroke Mortality Rate

Technical Specifications

Inpatient Quality Indicators #17 (IQI #17)

AHRQ Quality Indicators™, Version 5.0

March 2015

Provider-Level Indicator

Type of Score: Rate

Description

In-hospital deaths per 1,000 hospital discharges with acute stroke as a principal diagnosis for patients ages 18 years and older. Includes metrics for discharges grouped by type of stroke. 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 three groups by the type of stroke:

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 Stroke Mortality the current hierarchy is as follows:

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

1. Stratum B (Intracerebral hemorrhage)
2. Stratum A (Subarachnoid hemorrhage)
3. Stratum C (Ischemic stroke)

Numerator

Overall:

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

Stratum A (Subarachnoid hemorrhage):

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

Stratum B (Intracerebral hemorrhage) :

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

Stratum C (Ischemic stroke):

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 a principal ICD-9-CM diagnosis code for subarachnoid hemorrhage or a principal ICD-9-CM diagnosis code for intracerebral hemorrhage or a principal ICD-9-CM diagnosis code for ischemic stroke.

ICD-9-CM Subarachnoid hemorrhage diagnosis codes:

430 SUBARACHNOID HEMORRHAGE

ICD-9-CM Intracerebral hemorrhage diagnosis codes:

431 INTRACEREBRAL HEMORRHAGE 4321 SUBDURAL HEMORRHAGE
4320 NONTRAUM EXTRADURAL HEM 4329 INTRACRANIAL HEMORR NOS

ICD-9-CM Ischemic stroke diagnosis codes:

43301 BASI ART OCCL W/ INFARCT 43391 PRECER OCCL NOS W/
INFRACT
43311 CAROTD OCCL W/ INFRACT 43401 CERE THROMBOSIS W/
INFRACT
43321 VERTB ART OCCL W/ INFRACT 43411 CERE EMBOLISM W/ INFRACT
43331 MULT PRECER OCCL W/ INFRACT 43491 CEREB OCCL NOS W/ INFRACT
43381 PRECER OCCL NEC W/ INFRACT

Note: For discharges prior to September 30, 2014 (FY2004 or earlier), the following code is included in the overall denominator. This code is not included in any stratum.

436 CVA

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)

[NOTE: Overall denominator may not match the sum of the strata denominators because the strata may not be mutually exclusive.]

Stratum A (Subarachnoid hemorrhage):

Discharges, for patients ages 18 years and older, with a principal ICD-9-CM diagnosis code for subarachnoid hemorrhage (see above).

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 B (Intracerebral hemorrhage) :

Discharges, for patients ages 18 years and older, with a principal ICD-9-CM diagnosis code for intracerebral hemorrhage stroke (see above).

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 C (Ischemic stroke):

Discharges, for patients ages 18 years and older, with a principal ICD-9-CM diagnosis code for ischemic stroke (see above).

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)