



Inpatient Quality Indicator 17 (IQI 17) Acute Stroke Mortality Rate

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Provider-Level Indicator

Type of Score: Rate

Prepared by:

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U.S. Department of Health and Human Services
www.qualityindicators.ahrq.gov

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 risk of 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 stroke.

Stroke diagnosis codes: (MRTCV2D)

430	SUBARACHNOID HEMORRHAGE	43331	MULT PRECER OCCL W/ INFRCT
431	INTRACEREBRAL	43381	PRECER OCCL NEC W/ INFRCT
4320	NONTRAUM EXTRADURAL HEM	43391	PRECER OCCL NOS W/ INFRCT
4321	SUBDURAL HEMORRHAGE	43401	CERE THROMBOSIS W/ INFRCT
4329	INTRACRANIAL HEMORR NOS	43411	CERE EMBOLISM W/ INFRCT
43301	BASI ART OCCL W/ INFARCT	43491	CEREB OCCL NOS W/ INFRCT
43311	CAROTD OCCL W/ INFRCT	436	CVA
43321	VERTB ART OCCL W/ INFRCT		

Subarachnoid hemorrhage diagnosis codes: (MRTCV2A)

430	SUBARACHNOID HEMORRHAGE
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Intracerebral hemorrhage diagnosis codes: (MRTCV3D)

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

Ischemic stroke diagnosis codes: (MRTCV4D)

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

Note: For discharges prior to September 30, 2014 (FY2014 or earlier), the following code is included in the overall denominator. This code is not included in any stratum.

436	CVA
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DENOMINATOR STRATUM A

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

DENOMINATOR STRATUM B

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

DENOMINATOR STRATUM C

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

DENOMINATOR EXCLUSIONS

Note: Denominator exclusions for Overall and Strata A, B and C are identical

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.]