Heart Failure Admission Rate
Technical Specifications

Prevention Quality Indicators #8 (PQI #8)
AHRQ Quality Indicators™, Version 4.5, May 2013
Area-Level Indicator
Type of Score: Rate

Description

Admissions with a principal diagnosis of heart failure per 100,000 population, ages 18 years and older. Excludes cardiac procedure admissions, obstetric admissions, and transfers from other institutions.

[NOTE: The software provides the rate per population. However, common practice reports the measure as per 100,000 population. The user must multiply the rate obtained from the software by 100,000 to report admissions per 100,000 population.]

Numerator

Discharges, for patients ages 18 years and older, with a principal ICD-9-CM diagnosis code for heart failure.

[NOTE: By definition, discharges with a principal diagnosis of heart failure are precluded from an assignment of MDC 14 by grouper software. Thus, obstetric discharges should not be considered in the PQI rate, though the AHRQ QITM software does not explicitly exclude obstetric cases.]

For discharges prior to October 1, 2002, heart failure is defined as follows:

ICD-9-CM Heart failure diagnosis codes:
40201  MAL HYPERT HRT DIS W HF
40211  BENIGN HYP HT DIS W HF
40291  HYP HT DIS NOS W HT FAIL
40401  MAL HYP HT/KD I-IV W HF
40403  MAL HYP HT/KD STG V W HF
40411  BEN HYP HT/KD I-IV W HF
40413  BEN HYP HT/KD STG V W HF
40491  HYP HT/KD NOS I-IV W HF
40493  HYP HT/KD NOS ST V W HF

For discharges on or after October 1, 2002, heart failure is defined as follows:

ICD-9-CM Heart failure diagnosis codes:
39891  RHEUMATIC HEART FAILURE
4280  CHF NOS
4281  LEFT HEART FAILURE
42820  SYSTOLIC HRT FAILURE NOS
42821  AC SYSTOLIC HRT FAILURE
42822  CHR SYSTOLIC HRT FAILURE
42823  AC ON CHR SYST HRT FAIL
42830  DIASTOLC HRT FAILURE NOS
42831  AC DIASTOLIC HRT FAILURE
42832  CHR DIASTOLIC HRT FAIL
42833  AC ON CHR DIAST HRT FAIL
42840  SYST/DIAST HRT FAIL NOS
Exclude cases:

- with any-listed ICD-9-CM procedure codes for cardiac procedure
- transfer from a hospital (different facility)
- transfer from a Skilled Nursing Facility (SNF) or Intermediate Care Facility (ICF)
- transfer from another health care facility
- with missing gender (SEX=missing), age (AGE=missing), quarter (DQTR=missing), year (YEAR=missing), principal diagnosis (DX1=missing), or county (PSTCO=missing)

See *Prevention Quality Indicators Appendices*:
- Appendix A – Admission Codes for Transfers
- Appendix B – Cardiac Procedure Codes

**Denominator**

Population ages 18 years and older in metropolitan area† or county. Discharges in the numerator are assigned to the denominator based on the metropolitan area or county of the patient residence, not the metropolitan area or county of the hospital where the discharge occurred.

† The term “metropolitan area” (MA) was adopted by the U.S. Census in 1990 and referred collectively to metropolitan statistical areas (MSAs), consolidated metropolitan statistical areas (CMSAs) and primary metropolitan statistical areas (PMSAs). In addition, “area” could refer to either 1) FIPS county, 2) modified FIPS county, 3) 1999 OMB Metropolitan Statistical Area or 4) 2003 OMB Metropolitan Statistical Area. Micropolitan Statistical Areas are not used in the QI software.