Dehydration Admission Rate
Technical Specifications

Prevention Quality Indicators #10 (PQI #10)
AHRQ Quality Indicators[TM], Version 4.5, May 2013
Area-Level Indicator
Type of Score: Rate

Description

Admissions with a principal diagnosis of dehydration per 100,000 population, ages 18 years and older. Excludes 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 either
- a principal ICD-9-CM diagnosis code for dehydration; or
- any secondary ICD-9-CM diagnosis codes for dehydration and a principal ICD-9-CM diagnosis code for hyperosmolality and/or hypernatremia, gastroenteritis, or acute kidney injury

[NOTE: By definition, discharges with a principal diagnosis of dehydration, hyperosmolality and/or hypernatremia, gastroenteritis, or acute kidney injury 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 QI[TM] software does not explicitly exclude obstetric cases.]

ICD-9-CM Dehydration diagnosis codes[1]:

2765	*HYPOVOLEMIA*	27651	DEHYDRATION
27650	VOLUME DEPLETION NOS	27652	HYPOVOLEMIA

[1] The procedure or diagnosis codes are continuously updated. The current list of ICD-9-CM codes is valid for October 2012 through September 2013. Italicized codes are not active in Fiscal Year 2013.

ICD-9-CM Hyperosmolality and/or hypernatremia diagnosis codes:

2760   HYPEROSMOLALITY

ICD-9-CM Gastroenteritis diagnosis codes:

00861	INTES INFEC ROTAVIRUS	00869	OTHER VIRAL INTES INFEC
00862	INTES INFEC ADENOVIRUS	0088	VIRAL ENTERITIS NOS
00863	INT INF NORWALK VIRUS	0090	INFECTIOUS ENTERITIS NOS
00864	INT INF OTH SML RND VRUS	0091	ENTERITIS OF INFECT ORIG
00865	ENTERITIS D/T CALICIVIRS	0092	INFECTIOUS DIARRHEA NOS
00866	INTES INFEC ASTROVIRUS	0093	DIARRHEA OF INFECT ORIG
00867	INT INF ENTEROVIRUS NEC	5589	NONINF GASTROENTERIT NEC

ICD-9-CM Acute kidney injury diagnosis codes:

5845	AC KIDNY FAIL, TUBR NECR	5849	ACUTE KIDNEY FAILURE, NOS
5846	AC KIDNY FAIL, CORT NECR	586	RENAL FAILURE NOS
5847	AC KIDNY FAIL, MEDU NECR	9975	SURG COMPL-URINARY TRACT
5848	ACUTE KIDNEY FAILURE NEC		

Exclude cases:

- 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 any-listed ICD-9-CM diagnosis codes for chronic renal failure
- 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

ICD-9-CM Chronic renal failure diagnosis codes[1]:

40300	MAL HY KID W CR KID I-IV	40411	BEN HYP HT/KD I-IV W HF
40301	MAL HYP KID W CR KID V	40412	BEN HY HT/KD ST V W/O HF
40310	BEN HY KID W CR KID I-IV	40413	BEN HYP HT/KD STG V W HF
40311	BEN HYP KID W CR KID V	40490	HY HT/KD NOS I-IV W/O HF
40390	HY KID NOS W CR KID I-IV	40491	HYP HT/KD NOS I-IV W HF
40391	HYP KID NOS W CR KID V	40492	HY HT/KD NOS ST V W/O HF
40400	MAL HY HT/KD I-IV W/O HF	40493	HYP HT/KD NOS ST V W HF
40401	MAL HYP HT/KD I-IV W HF	*585*	*CHRONIC RENAL FAILURE*
40402	MAL HY HT/KD ST V W/O HF	5855	CHRON KIDNEY DIS STAGE V
40403	MAL HYP HT/KD STG V W HF	5856	END STAGE RENAL DISEASE
40410	BEN HY HT/KD I-IV W/O HF		

[1] The procedure or diagnosis codes are continuously updated. The current list of ICD-9-CM codes is valid for October 2012 through September 2013. Italicized codes are not active in Fiscal Year 2013.

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.