

Urinary Tract Infection Admission Rate

Technical Specifications

Pediatric Quality Indicators #18 (PDI #18)

AHRQ Quality Indicators™, Version 4.5, May 2013

Area-Level Indicator

Type of Score: Rate

Description

Admissions with a principal diagnosis of urinary tract infection per 100,000 population, ages 3 months to 17 years. Excludes cases with kidney or urinary tract disorders, cases with a high- or intermediate-risk immunocompromised state, cases with cirrhosis and hepatic failure with a diagnosis of coma or hepatorenal syndrome, cases with transplants, transfers from other institutions, and obstetric admissions.

[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 3 months through 17 years, with a principal ICD-9-CM diagnosis code for urinary tract infection.

ICD-9-CM Urinary tract infection diagnosis codes:

59010	AC PYELONEPHRITIS NOS	59081	PYELONEPHRIT IN OTH DIS
59011	AC PYELONEPHR W MED NECR	5909	INFECTION OF KIDNEY NOS
5902	RENAL/PERIRENAL ABSCESS	5950	ACUTE CYSTITIS
5903	PYELOURETERITIS CYSTICA	5959	CYSTITIS NOS
59080	PYELONEPHRITIS NOS	5990	URIN TRACT INFECTION NOS

Exclude cases:

- with any-listed ICD-9-CM diagnosis codes for kidney/urinary tract disorder
- with any-listed ICD-9-CM diagnosis codes for high-risk immunocompromised state
- with any-listed ICD-9-CM diagnosis codes for intermediate-risk immunocompromised state
- with any-listed ICD-9-CM procedure codes for transplant
- with any-listed ICD-9-CM diagnosis codes for cirrhosis and any-listed ICD-9-CM diagnosis codes for hepatic failure consisting of a diagnosis of coma or hepatorenal syndrome
- transfer from a hospital (different facility)
- transfer from a Skilled Nursing Facility (SNF) or Intermediate Care Facility (ICF)
- transfer from another health care facility

- neonates if age in days is missing
- MDC 14 (pregnancy, childbirth, and puerperium)
- with missing gender (SEX=missing), age (AGE=missing), quarter (DQTR=missing), year (YEAR=missing), principal diagnosis (DX1=missing), or county (PSTCO=missing)

See *Pediatric Quality Indicators Appendices*:

- Appendix F – High-Risk Immunocompromised States
- Appendix G – Intermediate-Risk Immunocompromised States
- Appendix I – Definitions of Neonate, Newborn, Normal Newborn, and Outborn
- Appendix J – Admission Codes for Transfers

ICD-9-CM Kidney/urinary tract disorder diagnosis codes:

59000	CHR PYELONEPHRITIS NOS	75317	MEDULLARY SPONGE KIDNEY
59001	CHR PYELONEPH W MED NECR	75319	CYSTIC KIDNEY DISEAS NEC
59370	VESCOURETRL RFLUX UNSPCF	75320	OBS DFCT REN PLV&URT NOS
59371	VSCURT RFLX NPHT UNILTRL	75321	CONGEN OBST URTROPLV JNC
59372	VSCOURTL RFLX NPHT BLTRL	75322	CONG OBST URETEROVES JNC
59373	VSCOURTL RFLX W NPHT NOS	75323	CONGENITAL URETEROCELE
7530	RENAL AGENESIS	75329	OBST DEF REN PLV&URT NEC
75310	CYSTIC KIDNEY DISEAS NOS	7533	KIDNEY ANOMALY NEC
75311	CONGENITAL RENAL CYST	7534	URETERAL ANOMALY NEC
75312	POLYCYSTIC KIDNEY NOS	7535	BLADDER EXSTROPHY
75313	POLYCYST KID-AUTOSOM DOM	7536	CONGEN URETHRAL STENOSIS
75314	POLYCYST KID-AUTOSOM REC	7538	CYSTOURETHRAL ANOM NEC
75315	RENAL DYSPLASIA	7539	URINARY ANOMALY NOS
75316	MEDULLARY CYSTIC KIDNEY		

ICD-9-CM Transplant procedure codes¹:

335	<i>LUNG TRANSPLANT</i>	4105	ALLO HEM STEM CT W/O PUR
3350	LUNG TRANSPLANT NOS	4106	CORD BLD STEM CELL TRANS
3351	UNILAT LUNG TRANSPLANT	4107	AUTO HEM STEM CT W PURG
3352	BILAT LUNG TRANSPLANT	4108	ALLO HEM STEM CT W PURG
336	COMB HEART/LUNG TRANSPLA	4109	AUTO BONE MT W PURGING
375	<i>HEART TRANSPLANTATION</i>	5051	AUXILIARY LIVER TRANSPL
3751	HEART TRANSPLANTATION	5059	LIVER TRANSPLANT NEC
410	<i>OPERATIONS ON BONE MAROW AND SPLEEN</i>	5280	PANCREAT TRANSPLANT NOS
4100	BONE MARROW TRNSPLNT NOS	5281	REIMPLANT PANCREATIC TIS
4101	AUTO BONE MT W/O PURG	5282	PANCREATIC HOMOTRANSPLAN
4102	ALO BONE MARROW TRNSPLNT	5283	PANCREATIC HETEROTRANSPL
4103	ALLOGRFT BONE MARROW NOS	5285	ALLOTRNSPLNT ISLETS LANG
4104	AUTO HEM STEM CT W/O PUR	5286	TRNSPLNT ISLETS LANG NOS
		5569	KIDNEY TRANSPLANT NEC

¹The 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 Cirrhosis diagnosis codes:

5712	ALCOHOLIC CIRRHOSIS OF LIVER	5716	BILIARY CIRRHOSIS
5715	CIRRHOSIS OF LIVER NOS		

ICD-9-CM Hepatic failure consisting of a diagnosis of coma or hepatorenal syndrome diagnosis codes:

5722	HEPATIC ENCEPHALOPATHY	5724	HEPATORENAL SYNDROME
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Denominator

Population ages 3 months through 17 years 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.