



# **Prevention Quality Indicator 12 (PQI 12) Urinary Tract Infection Admission Rate**

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**Area-Level Indicator**

**Type of Score: Rate**

## **Prepared by:**

Agency for Healthcare Research and Quality

U.S. Department of Health and Human Services

[www.qualityindicators.ahrq.gov](http://www.qualityindicators.ahrq.gov)

## **DESCRIPTION**

Admissions with a principal diagnosis of urinary tract infection per 100,000 population, ages 18 years and older. Excludes kidney or urinary tract disorder admissions, other indications of immunocompromised state 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-10-CM diagnosis code for urinary tract infection (*ACSUTID*<sup>\*</sup>).

*[NOTE: By definition, discharges with a principal diagnosis of urinary tract infection 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™ software does not explicitly exclude obstetric cases.]*

## NUMERATOR EXCLUSIONS

Exclude cases:

- transfer from a hospital (different facility) (*Appendix A*)
- transfer from a Skilled Nursing Facility (SNF) or Intermediate Care Facility (ICF) (*Appendix A*)
- transfer from another health care facility (*Appendix A*)
- with any-listed ICD-10-CM diagnosis codes for kidney/urinary tract disorder (*KIDNEY*\*)
- with any-listed ICD-10-CM diagnosis codes (*Appendix C*) or any-listed ICD-10-PCS procedure codes for immunocompromised state (*Appendix C*)
- with missing gender (SEX=missing), age (AGE=missing), quarter (DQTR=missing), year (YEAR=missing), principal diagnosis (DX1=missing), or county (PSTCO=missing)

[\*Appendix A – Admission Codes for Transfers\*](#)

[\*Appendix C - Immunocompromised State Diagnosis and 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.

\* See below for code list

***Urinary tract infection diagnosis codes: (ACSUTID)***

N10	Acute tubulo-interstitial nephritis	N2885	Pyeloureteritis cystica
N119	Chronic tubulo-interstitial nephritis, unspecified	N2886	Ureteritis cystica
N12	Tubulo-interstitial nephritis, not specified as acute or chronic	N3000	Acute cystitis without hematuria
N151	Renal and perinephric abscess	N3001	Acute cystitis with hematuria
N159	Renal tubulo-interstitial disease, unspecified	N3090	Cystitis, unspecified without hematuria
N16	Renal tubulo-interstitial disorders in diseases classified elsewhere	N3091	Cystitis, unspecified with hematuria
N2884	Pyelitis cystica	N390	Urinary tract infection, site not specified

***Kidney or urinary tract disorder diagnosis codes: (KIDNEY)***

N110	Nonobstructive reflux-associated chronic pyelonephritis	Q6231	Congenital ureterocele, orthotopic
N111	Chronic obstructive pyelonephritis	Q6232	Cecoureterocele
N118	Other chronic tubulo-interstitial nephritis	Q6239	Other obstructive defects of renal pelvis and ureter
N119	Chronic tubulo-interstitial nephritis, unspecified	Q624	Agenesis of ureter
N130	Hydronephrosis with ureteropelvic junction obstruction	Q625	Duplication of ureter
N136	Pyonephrosis	Q6260	Malposition of ureter, unspecified
N1370	Vesicoureteral-reflux, unspecified	Q6261	Deviation of ureter
N1371	Vesicoureteral-reflux without reflux nephropathy	Q6262	Displacement of ureter
N13721	Vesicoureteral-reflux with reflux nephropathy without hydroureter, unilateral	Q6263	Anomalous implantation of ureter
N13722	Vesicoureteral-reflux with reflux nephropathy without hydroureter, bilateral	Q6269	Other malposition of ureter
N13729	Vesicoureteral-reflux with reflux nephropathy without hydroureter, unspecified	Q627	Congenital vesico-uretero-renal reflux
N13731	Vesicoureteral-reflux with reflux nephropathy with hydroureter, unilateral	Q628	Other congenital malformations of ureter
N13732	Vesicoureteral-reflux with reflux nephropathy with hydroureter, bilateral	Q630	Accessory kidney
N13739	Vesicoureteral-reflux with reflux nephropathy with hydroureter, unspecified	Q631	Lobulated, fused and horseshoe kidney
N139	Obstructive and reflux uropathy, unspecified	Q632	Ectopic kidney
Q600	Renal agenesis, unilateral	Q633	Hyperplastic and giant kidney
Q601	Renal agenesis, bilateral	Q638	Other specified congenital malformations of kidney
Q602	Renal agenesis, unspecified	Q639	Congenital malformation of kidney, unspecified
Q603	Renal hypoplasia, unilateral	Q6410	Exstrophy of urinary bladder, unspecified
Q604	Renal hypoplasia, bilateral	Q6411	Supravesical fissure of urinary bladder
Q605	Renal hypoplasia, unspecified	Q6412	Cloacal extrophy of urinary bladder
Q606	Potter's syndrome	Q6419	Other extrophy of urinary bladder
Q6100	Congenital renal cyst, unspecified	Q642	Congenital posterior urethral valves
Q6101	Congenital single renal cyst	Q6431	Congenital bladder neck obstruction
Q6102	Congenital multiple renal cysts	Q6432	Congenital stricture of urethra
Q6111	Cystic dilatation of collecting ducts	Q6433	Congenital stricture of urinary meatus
Q6119	Other polycystic kidney, infantile type	Q6439	Other atresia and stenosis of urethra and bladder neck
Q612	Polycystic kidney, adult type	Q645	Congenital absence of bladder and urethra
Q613	Polycystic kidney, unspecified	Q646	Congenital diverticulum of bladder
Q614	Renal dysplasia	Q6470	Unspecified congenital malformation of bladder and urethra
Q615	Medullary cystic kidney	Q6471	Congenital prolapse of urethra
Q618	Other cystic kidney diseases	Q6472	Congenital prolapse of urinary meatus

Q619	Cystic kidney disease, unspecified	Q6473	Congenital urethrorectal fistula
Q620	Congenital hydronephrosis	Q6474	Double urethra
Q6210	Congenital occlusion of ureter, unspecified	Q6475	Double urinary meatus
Q6211	Congenital occlusion of ureteropelvic junction	Q6479	Other congenital malformations of bladder and urethra
Q6212	Congenital occlusion of ureterovesical orifice	Q648	Other specified congenital malformations of urinary system
Q622	Congenital megaureter	Q649	Congenital malformation of urinary system, unspecified