



**AHRQ Quality Indicators™ (AHRQ QI™)
ICD-9-CM and ICD-10-CM/PCS
Specification Enhanced Version 5.0**

**Pediatric Quality Indicator #12 (PDI #12)
Central Venous Catheter-Related
Blood Stream Infection Rate**

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Provider-Level Indicator
Type of Score: Rate**

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PDI #12 Central Venous Catheter-Related Blood Stream Infection Rate

DESCRIPTION

Central venous catheter-related bloodstream infections (secondary diagnosis) per 1,000 medical and surgical discharges for patients ages 17 years and younger. Includes metrics for discharges grouped by risk category. Excludes cases with a principal diagnosis of a central venous catheter-related bloodstream infection, cases with a secondary diagnosis of a central venous catheter-related bloodstream infection present on admission, normal newborns, neonates with a birth weight of less than 500 grams, cases with stays less than two (2) days, and obstetric cases.

[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 events per 1,000 hospital discharges.]

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NUMERATOR OVERALL

Note: The Numerator definition is identical for High, Intermediate, and Low Risk Categories and Overall.

Discharges, among cases meeting the inclusion and exclusion rules for the denominator, with any secondary ICD-9-CM or ICD-10-CM diagnosis codes for selected infections.

For discharges prior to October 1, 2007, the selected infections are:

Hospital-associated infection diagnosis codes: (IDTMCID)

ICD-9-CM	Description	ICD-10-CM	Description
99662	DUE TO OTHER VASCULAR DEVICE, IMPLANT, AND GRAFT		<i>Not applicable for ICD-10-CM</i>
9993	OTHER INFECTION		

For discharges on or after October 1, 2007, but before October 1, 2011, the selected infection is:

Central venous catheter-related blood stream infection diagnosis code: (IDTMC2D)

ICD-9-CM	Description	ICD-10-CM	Description
99931	INFECTION DUE TO CENTRAL VENOUS CATHETER		<i>Not applicable for ICD-10-CM</i>

For discharges on or after October 1, 2011, the selected infections are:

Central venous catheter-related blood stream infection diagnosis code: (IDTMC3D)

ICD-9-CM	Description	ICD-10-CM	Description
99932	BLOODSTREAM INFECTION DUE TO CENTRAL VENOUS CATHETER	T80211A	Bloodstream infection due to central venous catheter, initial encounter

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NUMERATOR EXCLUSIONS
<i>Not Applicable</i>

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DENOMINATOR OVERALL

Surgical and medical discharges, for patients ages 17 years and younger. Surgical and medical discharges are defined by specific DRG or MS-DRG codes.

[Appendix B - Surgical DRGS](#)

[Appendix C - Surgical MS-DRGS](#)

[Appendix D - Medical DRGS](#)

[Appendix E - Medical MS-DRGS](#)

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DENOMINATOR EXCLUSIONS

Note: The Denominator Exclusions are identical for Overall, High, Intermediate and Low Risk Categories.

Exclude cases:

- with a principal ICD-9-CM or ICD-10-CM diagnosis code (or secondary diagnosis present on admission) for selected infections (as defined by the numerator, see above)
- normal newborns
- neonates with birth weight less than 500 grams (Birth Weight Category 1)
- with length of stay less than two (2) days
- MDC 14 (pregnancy, childbirth, and puerperium)
- with missing gender (SEX=missing), age (AGE=missing), quarter (DQTR=missing), year (YEAR=missing) or principal diagnosis (DX1=missing)

[Appendix I - Definitions of Neonate, Newborn, Normal Newborn, and Outborn](#)

[Appendix L - Low Birth Weight Categories](#)

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DENOMINATOR HIGH RISK CATEGORY

Surgical and medical discharges, for patients ages 17 years and younger, with any-listed ICD-9-CM or ICD-10-CM diagnosis codes for high risk immunocompromised state or any-listed ICD-9-CM or ICD-10-PCS procedure codes for high-risk immunocompromised state (transplant) or any-listed ICD-9-CM or ICD-10-CM diagnosis codes for cancer. Surgical and medical discharges are defined by specific DRG or MS-DRG codes.

[Appendix B - Surgical DRGS](#)

[Appendix C - Surgical MS-DRGS](#)

[Appendix D - Medical DRGS](#)

[Appendix E - Medical MS-DRGS](#)

[Appendix F - High-Risk Immunocompromised States](#)

[Appendix M - Cancer](#)

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DENOMINATOR INTERMEDIATE RISK CATEGORY

Surgical and medical discharges, for patients ages 17 years and younger, with either:

- any-listed ICD-9-CM or ICD-10-CM diagnosis codes for intermediate-risk immunocompromised state;
- or
- any-listed ICD-9-CM or ICD-10-CM diagnosis codes for cirrhosis and hepatic failure; or
 - any-listed ICD-9-CM or ICD-10-CM diagnosis codes for cystic fibrosis; or
 - any-listed ICD-9-CM or ICD-10-CM diagnosis codes for hemophilia

Surgical and medical discharges are defined by specific DRG or MS-DRG codes.

[Appendix B - Surgical DRGS](#)

[Appendix C - Surgical MS-DRGS](#)

[Appendix D - Medical DRGS](#)

[Appendix E - Medical MS-DRGS](#)

[Appendix G - Intermediate-Risk Immunocompromised States](#)

Cirrhosis and hepatic failure diagnosis codes: (HEPFA2D)

ICD-9-CM	Description	ICD-10-CM	Description
5712	ALCOHOLIC CIRRHOSIS OF LIVER	K702	Alcoholic fibrosis and sclerosis of liver
5715	CIRRHOSIS OF LIVER WITHOUT MENTION OF ALCOHOL	K7030	Alcoholic cirrhosis of liver without ascites
5716	BILIARY CIRRHOSIS	K7031	Alcoholic cirrhosis of liver with ascites
		K740	Hepatic fibrosis
		K743	Primary biliary cirrhosis
		K744	Secondary biliary cirrhosis
		K745	Biliary cirrhosis, unspecified
		K7460	Unspecified cirrhosis of liver

K7469 Other cirrhosis of liver

Cirrhosis and hepatic failure diagnosis codes: (HEPFA3D)

ICD-9-CM	Description	ICD-10-CM	Description
5722	HEPATIC COMA	K7040	Alcoholic hepatic failure without coma
5724	HEPATORENAL SYNDROME	K7041	Alcoholic hepatic failure with coma
		K7110	Toxic liver disease with hepatic necrosis, without coma
		K7111	Toxic liver disease with hepatic necrosis, with coma
		K7200	Acute and subacute hepatic failure without coma
		K7201	Acute and subacute hepatic failure with coma
		K7210	Chronic hepatic failure without coma
		K7211	Chronic hepatic failure with coma
		K7290	Hepatic failure, unspecified without coma
		K7291	Hepatic failure, unspecified with coma
		K767	Hepatorenal syndrome

Cystic fibrosis diagnosis codes: (ACSCYFD)

ICD-9-CM	Description	ICD-10-CM	Description
27700	CYSTIC FIBROS W/O ILEUS	E840	Cystic fibrosis with pulmonary manifestations
27701	CYSTIC FIBROS W ILEUS	E8411	Meconium ileus in cystic fibrosis
27702	CYSTIC FIBROS W PUL MAN	E8419	Cystic fibrosis with other intestinal manifestations
27703	CYSTIC FIBROSIS W GI MAN	E848	Cystic fibrosis with other manifestations
27709	CYSTIC FIBROSIS NEC	E849	Cystic fibrosis, unspecified

Hemophilia diagnosis codes: (HEMOPHD)

ICD-9-CM	Description	ICD-10-CM	Description
2860	CONG FACTOR VIII DIORD	D66	Hereditary factor VIII deficiency
2861	CONG FACTOR IX DISORDER	D67	Hereditary factor IX deficiency
2862	CONG FACTOR XI DISORDER	D680	Von Willebrands disease

2863	CONG DEF CLOT FACTOR NEC	D681	Hereditary factor XI deficiency
2864	VON WILLEBRANDS DISEASE	D682	Hereditary deficiency of other clotting factors

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DENOMINATOR LOW RISK CATEGORY

Surgical and medical discharges, for patients ages 17 years and younger, not meeting the inclusion criteria for the High Risk Category or the Intermediate Risk Category. Surgical and medical discharges are defined by specific DRG or MS-DRG codes.

- [*Appendix B - Surgical DRGS*](#)
- [*Appendix C - Surgical MS-DRGS*](#)
- [*Appendix D - Medical DRGS*](#)
- [*Appendix E - Medical MS-DRGS*](#)