

# Central Venous Catheter-Related Blood Stream Infection Rate Technical Specifications

## Patient Safety Indicators 23 (PSI 23)

AHRQ Quality Indicators™, Version 4.5a, July 2014

Area-Level Indicator

Type of Score: Rate

## Description

Central venous catheter-related bloodstream infections per 100,000 population, ages 18 years and older. Excludes cases with an immunocompromised state and cases with cancer.

*[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 events per 100,000 population.]*

## Numerator

Surgical and medical discharges, for patients ages 18 years and older or MDC 14 (pregnancy, childbirth, and puerperium), with any-listed ICD-9-CM diagnosis codes for selected infections. Surgical and medical discharges are defined by specific DRG or MS-DRG codes.

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

**ICD-9-CM Hospital-associated infection diagnosis codes<sup>1</sup>:**

99662 REACT-OTH VASC DEV/GRAFT 9993 OTHER INFECTION (end 2007)

<sup>1</sup> The procedure or diagnosis codes are continuously updated. Italicized codes are not active in Fiscal Year 2013.

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

**ICD-9-CM Central venous catheter-related blood stream infection diagnosis code:**

99931 OTH/UNS INF-CEN VEN CATH

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

**ICD-9-CM Central venous catheter-related blood stream infection diagnosis codes:**

99931 OTH/UNS INF-CEN VEN CATH 99932 BLOOD INF DT CEN VEN CTH

See *Patient Safety Indicators Appendices*:

- Appendix B – Medical Discharge DRGs
- Appendix C – Medical Discharge MS-DRGs
- Appendix D – Surgical Discharge DRGs
- Appendix E – Surgical Discharge MS-DRGs

Exclude cases:

- with any-listed ICD-9-CM diagnosis codes for cancer
- with any-listed ICD-9-CM diagnosis codes or any-listed ICD-9-CM procedure codes for immunocompromised state
- with missing gender (SEX=missing), age (AGE=missing), quarter (DQTR=missing), year (YEAR=missing), principal diagnosis (DX1=missing), or county (PSTCO=missing)

See *Patient Safety Indicators Appendices*:

- Appendix H – Cancer Diagnosis Codes
- Appendix I – Immunocompromised State Diagnosis and Procedure Codes

## **Denominator**

Population ages 18 years and older in metropolitan area<sup>†</sup> 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.

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<sup>†</sup> 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.