Transfusion Reaction Rate
Technical Specifications

Patient Safety Indicators 26 (PSI 26)
AHRQ Quality Indicators™, Version 4.5a, July 2014
Area-Level Indicator
Type of Score: Rate

Description

Transfusion reactions per 100,000 population, ages 18 years and older.

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

ICD-9-CM Transfusion reaction diagnosis codes¹:

9996   ABO INCOMPATIBILITY REACTION(end 2010)
99960  ABO INCOMP REACT NOS
99961  ABO INCOMP/HTR NEC
99962  ABO INCOMP/ACUTE HTR
99963  ABO INCOMP REACTN NEC
99969  ABO INCOMPAT REACTN NEC
9997   RH INCOMPATIBILITY REACTION
99970  RH INCOMPAT REACTION NOS
99971  RH INCOMP/HTR NEC
99972  RH INCOMP/ACUTE HTR
99973  RH INCOMP/Delay HTR
99974  RH INCOMP REACTION NEC
E8760  MISMATCHED BLOODTRANSFUSN

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.

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 missing gender (SEX=missing), age (AGE=missing), quarter (DQTR=missing), year (YEAR=missing), principal diagnosis (DX1=missing), or county (PSTCO=missing)
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.