Neonatal Blood Stream Infection Rate

Neonatal Quality Indicators #3
Technical Specifications
Provider-Level Indicator
AHRQ Quality Indicators, Version 4.3, August 2011
(Revised September 1, 2011)

Numerator

Discharges with selected infections defined by specific ICD-9-CM codes in any secondary diagnosis field among cases meeting the inclusion and exclusion rules for the denominator. Any secondary diagnosis ICD-9-CM code for:

03810	STAPHYLCOCC SEPTICEM NOS	03843	PSEUDOMONAS SEPTICEMIA
03811	METH SUSC STAPH AUR SEPT	03844	SERRATIA SEPTICEMIA
03819	STAPHYLCOCC SEPTICEM NEC	03849	GRAM-NEG SEPTICEMIA NEC
03840	GRAM-NEG SEPTICEMIA NOS	1125	DISSEMINATED CANDIDIASIS
03842	E COLI SEPTICEMIA		

---OR--

Patients with one or more of the following secondary diagnosis ICD-9-CM codes:

77181	NB SEPTICEMIA [SEPSIS]	7907	BACTEREMIA
77183	BACTEREMIA OF NEWBORN		

---and--

One of the following secondary diagnosis ICD-9-CM codes among cases meeting the inclusion and exclusion rules for the denominator:

04104	ENTEROCOCCUS GROUP D	0413	KLEBSIELLA INFECT N
04110	STAPHYLOCOCCUS UNSPCFIED	0414	E. COLI INFECT NOS
04111	MTH SUS STPH AUR ELS/NOS	0417	PSEUDOMONAS INFECT NOS
04119	OTHER STAPHYLOCOCCUS	04185	OTH GRAM NEGATV BACTERIA

Denominator

All newborns and outborns with a birth weight 500 to 1499 g (Birth Weight Categories 2, 3, 4 and 5) **OR** gestational age between 24 and 30 weeks, except exclusions (see below).

Include also newborns and outborns with a birth weight greater than or equal to 1500 g (Birth Weight Category 6, 7, 8, or 9), if the infant experienced death (DISP=20), major surgery, mechanical ventilation, or transfer to an acute care facility (DISP=2), except exclusions (see below).

See *Pediatric Quality Indicators Appendices*:
* Appendix A – Operating Room Procedure Codes
* Appendix I – Definitions of Neonate, Newborn, Normal Newborn, and Outborn
* Appendix L – Low Birth Weight Categories

ICD-9-CM Gestation age between 24 and 30 weeks diagnosis codes:
76522   24 COMPLETED WEEKS OF GESTATION

76523	25-26 COMPLETED WEEKS OF GESTATION		76525	29-30 COMPLETED WEEKS OF GESTATION
76524	27-28 COMPLETED WEEKS OF GESTATION			

ICD-9-CM Mechanical ventilation procedure codes:

9670	CONTINUOUS MECHANICAL VENTILATION OF UNSPEC DURATION			CONSECUTIVE HRS
9671	CONTINUOUS MECHANICAL VENTILATION FOR LESS THAN 96		9672	CONTINUOUS MECHANICAL VENTILATION FOR 96 CONSECUTIVE HOURS OR MORE

Exclude cases:
- with principal diagnosis of sepsis or infection (Appendix H) or secondary diagnosis present on admission
- with birth weight less than 500 grams (Birth Weight Category 1)
- with length of stay less than 2 days
- with missing discharge gender (SEX=missing), age (AGE=missing), quarter (DQTR=missing), year (YEAR=missing) or principal diagnosis (DX1=missing)

See *Pediatric Quality Indicators Appendices*:
- Appendix L – Low Birth Weight Categories

ICD-9-CM Sepsis diagnosis codes:

0380	STREPTOCOCCAL SEPTICEMIA
0381	STAPHYLOCOCCAL SEPTICEMIA
03810	STAPHYLOCOCCAL SEPTICEMIA, UNSPECIFIED
03811	METHICILLIN SUSCEPTIBLE STAPHYLOCOCCUS AUREUS SEPTICEMIA (OCT08)
03812	METHICILLIN RESISTANT STAPHYLOCOCCUS AUREUS SEPTICEMIA (OCT08)
03819	OTHER STAPHYLOCOCCAL SEPTICEMIA
0382	PNEUMOCOCCAL SEPTICEMIA (STREPTOCOCCUS PNEUMONIAE SEPTICEMIA)
0383	SEPTICEMIA DUE TO ANAEROBES
78552	SEPTIC SHOCK
78559*	SHOCK WITHOUT MENTION OF TRAUMA, OTHER
9980	POSTOPERATIVE SHOCK

Septicemia due to:

03840	GRAM-NEGATIVE ORGANISM, UNSPECIFIED
03841	HEMOPHILUS INFLUENZAE
03842	ESCHERICHIA COLI
03843	PSEUDOMONAS
03844	SERRATIA
03849	SEPTICEMIA DUE TO OTHER GRAM-NEGATIVE ORGANISMS
0388	OTHER SPECIFIED SEPTICEMIAS
0389	UNSPECIFIED SEPTICEMIA
99591	SYSTEMIC INFLAMMATORY RESPONSE SYNDROME DUE TO INFECTIOUS PROCESS W/O ORGAN DYSFUNCTION
99592	SYSTEMIC INFLAMMATORY RESPONSE SYNDROME DUE TO INFECTIOUS PROCESS W/ ORGAN DYSFUNCTION

*Not valid for discharges effective October 1, 2004

See *Pediatric Quality Indicators Appendices:*
- Appendix H – Infection Diagnosis Codes