Neonatal Blood Stream Infection Rate

Neonatal Quality Indicators #3
Technical Specifications
Provider-Level Indicator
AHRQ Quality Indicators, Version 4.4, March 2012

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

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

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

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AND
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One of the following secondary diagnosis ICD-9-CM codes among cases meeting the inclusion and exclusion rules for the denominator1:

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

1Italicized codes are not active in the current fiscal year.

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 COMP WEEKS GESTATION
- 76523 25-26 COMP WKS GESTATION
- 76524 27-28 COMP WKS GESTATION
- 76525 29-30 COMP WKS GESTATION

ICD-9-CM Mechanical ventilation procedure codes:

- 9670 CON INV MEC VEN-UNSP DUR
- 9671 CONT INV MEC VEN <96 HRS
- 9672 CONT INV MEC VEN 96+ HRS

Exclude cases:
- with principal diagnosis of sepsis or infection 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)
* Only for cases that otherwise qualify for the numerator

See Pediatric Quality Indicators Appendices:
- Appendix H – Infection Diagnosis Codes
- Appendix L – Low Birth Weight Categories

ICD-9-CM Sepsis diagnosis codes1,2:

- 0380 STREPTOCOCCAL SEPTICEMIA
- 0381 STAPHYLOCOCCAL SEPTICEMIA
- 03810 STAPHYLCOCC SEPTICEMIA NOS
- 03811 METH SUSC STAPH AUR SEPT
- 03812 MRSA SEPTICEMIA
- 03819 STAPHYLCOCC SEPTICEMIA NEC
- 0382 PNEUMOCOCCAL SEPTICEMIA
- 0383 ANAEROBIC SEPTICEMIA
- 78552 SEPTIC SHOCK
- 78559* SHOCK W/O TRAUMA NEC
- 9980 POSTOPERATIVE SHOCK
- 99800 POSTOPERATIVE SHOCK, NOS
- 99802 POSTOP SHOCK, SEPTIC

Septicemia due to:
- 03840 GRAM-NEG SEPTICEMIA NOS
- 03841 H. INFLUENAE SEPTICEMIA
- 03842 E COLI SEPTICEMIA
- 03843 PSEUDOMONAS SEPTICEMIA
- 03844 SERRATIA SEPTICEMIA
- 03849 GRAM-NEG SEPTICEMIA NEC
- 0388 SEPTICEMIA NEC
- 0389 SEPTICEMIA NOS
- 99591 SEPSIS
- 99592 SEVERE SEPSIS

*Valid for discharges prior to October 1, 2011

1 Italicized codes are not active in the current fiscal year.
2 Bolded codes are new to the current fiscal year.