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)

Version 4.3a is a maintenance release of Version 4.3. The differences between the two versions are:

- Version 4.3a includes Version 29 of the Limited License edition of the 3M™ APR-DRG Grouper. This grouper corrects an issue found in Version 28 of the Limited License edition of the 3M™ APR-DRG Grouper. The grouper is only used with the Inpatient Quality Indicator (IQI) mortality measures. Version 4.3 includes Version 28 of the Limited License edition of the 3M™ APR-DRG Grouper, which was incorrectly assigning a Risk of Mortality (ROM) subclass for cases dated on or after 10/1/10.
- Version 4.3a allows users to calculate area-level indicators for years 2010 and 2011, correcting an issue previously identified in Version 4.3.

All other aspects of the software, including measure specifications, remain the same. Thus this document (related to Version 4.3) remains unchanged.

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

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

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

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
- 04110 STAPHYLOCOCCUS UNSPCFIED
- 04111 MTH SUS STPH AUR ELS/NOS
- 04119 OTHER STAPHYLOCOCCUS
- 0413 KLEBSIELLA INFECT N
- 0414 E. COLI INFECT NOS
- 0417 PSEUDOMONAS INFECT NOS
- 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
- 76524 27-28 COMPLETED WEEKS OF GESTATION

ICD-9-CM Mechanical ventilation procedure codes:
- 9670 CONTINUOUS MECHANICAL VENTILATION OF UNSPEC DURATION
- 9671 CONTINUOUS MECHANICAL VENTILATION FOR LESS THAN 96 HOURS OR MORE
- 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

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