NATIONAL QUALITY FORUM

TO: Perinatal and Reproductive Healthcare Endorsement Maintenance Steering Committee

FR: Reva Winkler, MD, MPH and Suzanne Theberge, MPH

RE: Comments on draft report *Perinatal and Reproductive Healthcare Endorsement Maintenance, 2011*

DA: January 23, 2012

On January 19, 2012, the 30-day comment period concluded for the 14 measures recommended in the draft report. The Steering Committee will discuss the comments received on a conference call on **Wednesday, February 1, 2012, 3-5 pm.**

NQF received 149 comments from a variety of stakeholders, including 19 member organizations and 53 organizations and private citizens who did are not NQF members. The commenting organizations (Table 1) represent a variety of stakeholders:

Consumers – 3	Professionals - 4
Purchasers - 2	Health Plans - 3
Providers - 1	QMRI – 2
Supplier and Industry - 0	Public & Community Health - 1
Non-NQF member organizations -28	Individuals - 23

Measure developer responses

The measure developers have been asked to respond to comments that pertain to the measure specifications, evidence, data collection, implementation, etc. The responses will be provided to the Committee prior to the February 1 conference call. Committee members should review the comments and responses and identify any comments for further discussion during the conference call.

COMMENTS

The comments include general comments or comments that address groups or classes of measures as well as comments specific to individual measures. NQF staff identified the following comments for further discussion:

GENERAL COMMENTS

Additional areas for measure development

Many comments were submitted suggesting areas for additional measure development or echoed the areas identified in the report. New areas suggested include:

- contraceptive use as an element of primary care, pre-conception and post-partum care;
- a paired measure for continued DVT prophylaxis, which may increase the benefit of the currently recommended measure;
- measures across the full episode of maternity care;
- measures at different levels of care (including clinicians and clinician groups);
- the management of the drug dependent expectant mother;
- maternal mortality; and
- composite measures for children with complex health conditions (i.e., children with special health care need) and very low birth weight babies.

Electronic Health Records

An EHR vendor submitted comments on all of the measures regarding the feasibility of each measure for a typical hospital or medical practice using an advanced EHR and the typical clinical users who will be recording the required information. They did not submit comments on the appropriateness, accuracy, or importance of the measures. They noted concerns or suggested minor modifications to the specifications for the following measures to improve the usability in EHRs.

STAFF NOTE: Currently, none of the measures under consideration are specified for use in EHRs; thus, the issues raised have been provided to the developers for their consideration as they move toward an electronic environment. NQF intends to require EHR specifications for all measure in the near future; additional details and guidance on those requirements are under consideration by the Consensus Standards Approval Committee.

Level of analysis

Several commenters requested additional level of analysis for three measures:

- 0469: PC-01 Elective Delivery (requesting clinician, clinician group, ACO, health plan)
    - Currently facility and population (national) level
- 0470: Incidence of Episiotomy (requesting clinician, clinician group, ACO, health plan)
    - Currently facility level

- 0471: PC-02 Cesarean Section (requesting clinician, clinician group, ACO, health plan)
    - Currently facility and population (national) level

The comments have been forwarded to the measure developers for a response.

ACTION ITEM: After reviewing the comments and responses from the developers, does the Committee wish to request additional levels of analysis for any of these measures?

Mandatory hospital reporting

Several comments noted the low numbers of participation by hospitals for the Joint Commission core set and urged mandatory reporting be required to provide stakeholders more information about the quality of maternity care.

NQF STAFF NOTE: Reporting on and implementation of measures are not within the purview of the NQF endorsement process. However, the NQF-convened National Priorities Partnership Maternity Action Team is seeking mandatory reporting as a priority action for 2012.

Target values

A commenter noted that it is hard to know how to interpret a hospital's episiotomy rates (#0470) or NTSV cesarean section rates (#0471). The interpretation of these measures and the manner in which they are used can greatly affect their validity for public reporting and/or quality improvement purposes. For example, if a low risk woman arrives in labor with a herpetic lesion she should have a cesarean section. Regions with higher rates of babies with macrosomia might also have more cesarean sections. Additionally, "routine" episiotomies should be avoided, but clinically indicated cases (albeit not in large numbers) are necessary.

The developer was asked to respond.

ACTION ITEM: What response does the Committee have for the comment? Does the current performance data or the evidence base for the measure suggest target rates of performance for these measures?

MEASURE SPECIFIC COMMENTS

0480: Exclusive Breast Milk Feeding

Measure evaluation form | Steering Committee evaluation summary

This measure received 18 comments. While ten commenters acknowledged the health benefits of breastfeeding, they were primarily concerned with "mandated breastfeeding" and suggested that it was a woman's right to choose whether or not to breastfeed, and the measure would prevent women who chose not to breastfeed from receiving proper education and information on alternatives. However, eight commenters supported the measure, stating that the health reasons for breastfeeding are well documented, that the measure would not mandate breastfeeding for all babies, and that performance for this measure is not expected to be at 100%.

> ***ACTION ITEM:*** After reviewing the comments, does the Steering Committee wish to reconsider their recommendation for measure 0480?

Health care acquired infection measures

- **0304: Late sepsis or meningitis in Very Low Birth Weight (VLBW) neonates (risk-adjusted)**
  - Measure evaluation form | Steering Committee evaluation summary
- **0478: Neonatal Blood Stream Infection Rate (NQI #3)**
  - Measure evaluation form | Steering Committee evaluation summary
- **1731: Health Care-Associated Bloodstream Infections in Newborns**
  - Measure evaluation form | Steering Committee evaluation summary

Three commenters raised concerns about having three separate measures on hospital acquired/late onset infections and requested that the measures be harmonized. While some of the comments agreed that the measures use different reporting streams, they suggested having three separate measures would cause confusion. One commenter agreed that there was a need for three separate measures and supported all three. A commenter noted that measures 0478 and 1731 would identify infants with late-onset sepsis, and that the population of infants that develop late onset meningitis is unique and general measures would not be efficacious for this population. Additionally, all three measures received comments and questions on the specifications, which were sent to the developers.

> ***ACTION ITEMS*:** After reviewing the comments and the measure developers' responses,
>
> - are the measures competing or related?
> - does the Committee think one of the three data sets produces more accurate and reliable results, or are they all equally valid?
> - does the Steering Committee wish to reconsider their recommendation for the measures?

0470: Incidence of Episiotomy

Measure evaluation form | Steering Committee evaluation summary

A commenter suggested additional exclusions for shortening the second stage of labor; the developer responded that the suggested exclusions did not align with ACOG guidelines and that it would be too complicated to captured using current data collection methods. Two comments were submitted in support of this measure.

> ***ACTION ITEM:*** After reviewing the comments, does the Committee wish to reconsider its recommendation of the measure?

0475: Hepatitis B Vaccine Coverage Among All Live Newborn Infants Prior to Hospital or Birthing Facility Discharge

Measure evaluation form | Steering Committee evaluation summary

This measure received three supportive comments and one comment noting concern with the exclusion of parental refusals, and requested that they be measured separately as a component of the numerator, as would be consistent with other NQF-endorsed immunization measures. This comment was forwarded to the developer for a response.

> ***ACTION ITEM:*** After reviewing the comments and the developer's response, does the Committee wish to reconsider its recommendation of the measure?

0476: Appropriate Use of Antenatal Steroids

Measure evaluation form | Steering Committee evaluation summary

A comment was submitted that supported the measure, but suggested that the specifications be altered to bring them in line with the new ACOG Committee Opinion (Feb 2011); the developer agreed that these specifications should be updated and responded that:

> "the denominator for this measure has been changed in the Specifications Manual for Joint Commission National Quality Measures (V2012B) to be published February 2012 to read: "Patients delivering live preterm newborns with >=24 and <32 weeks gestation completed".
>
> The notes for abstraction for the data element Gestational Age have been changed to: Gestational age should be rounded off to the nearest completed week, not the following week. For example, an infant born on the 5th day of the 36th week (35 weeks and 5/7 days) is at a gestational age of 35 weeks, not 36 weeks."

A second comment requested clarification on the list of reasons for the exclusion criteria "documented reason for not administering antenatal steroid," noting that without a specified list, there will be inconsistency in measurement with facilities, who will provide their own coding reasons. This comment has been forwarded to the developer for review.

ACTION ITEMS:

- Does the Committee agree with the proposed changes to the measure specifications?
- After reviewing the comments and the developer's response, does the Committee wish to reconsider its recommendation of the measure?

0477: Under 1500g infant Not Delivered at Appropriate Level of Care
Measure evaluation form | Steering Committee evaluation summary

This measure received two comments requesting expansion of the exclusion criteria to include reasons outside of the health care system's control for failure to transport to a hospital with appropriate levels of care services (e.g. very late presentation in active labor, lack of safe transportation, distance to NICU in rural areas). The comments have been forwarded to the developer for a response.

ACTION ITEM: After reviewing the comments and the developer's response, does the Committee wish to reconsider its recommendation of the measure?

0483: Proportion of infants 22 to 29 weeks gestation screened for retinopathy of prematurity.
Measure evaluation form | Steering Committee evaluation summary

A commenter raised concerns noting that their internal data (submitted for publication) does not support the added health care burden. Another commenter requested clarification on the exclusion criteria, stating that the exclusions "Outborn infants admitted to the reporting hospital more than 28 days after birth" and "Outborn infants who have been home prior to admission" do not appear aligned. This comment has been sent to the developer for a response.

ACTION ITEM: After reviewing the comments and the developer's response, does the Committee wish to reconsider its recommendation of the measure?

1746: Intrapartum Antibiotic Prophylaxis for Group B Streptococcus (GBS)

Measure evaluation form | Steering Committee evaluation summary

Commenters submitted questions on the details of the specifications, and on the ability of EHRs to manage the many different data elements required to calculate this measure. The comments were sent to the developer for a response.

> ***ACTION ITEM:*** After reviewing the comments and the developer's response, does the Committee wish to reconsider its recommendation of the measure?

MEASURES NOT RECOMMENDED

Three measures not recommended by the Committee received comments in support of the measures:

0479: Birth dose of hepatitis B vaccine and hepatitis B immune globulin for newborns of hepatitis B surface antigen (HBsAg) positive mothers

Measure evaluation form | Steering Committee evaluation summary

The measure developer, supported by 31 comments from a range of stakeholders, requests reconsideration of measure 0479. Commenters raised concerns about the disparities in care for babies born to HBsAg positive mothers; about the long-term implications of not measuring HBIG administration from a quality of care perspective; and the long-term implications of not measuring HBIG administration to prevent Hepatitis B infection. The Immunization Action Coalition submitted data noting that of the 24,000 born to mothers who are chronically infected, this measure could prevent an estimated 9,100 infants from developing chronic Hep B, including preventing an estimated 2,300 from dying of liver failure or liver cancer as adults. Other commenters noted that the CDC estimates that 1000 newborns a year are infected with HBV. Multiple comments noted that this measure would help achieve one of the primary goals of the DHHS "Action Plan for the Prevention, Care and Treatment of Viral Hepatitis".

> ***ACTION ITEM:*** After reviewing the comments, does the Steering Committee wish to reconsider on their recommendation for the measure?

0502: Pregnancy test for female abdominal pain patients

Measure evaluation form | Steering Committee evaluation summary

The developer requests that the Committee review and reconsider its recommendation of this measure, as it passed all of the four NQF evaluation criteria (see Table 2). The Committee did vote to pass all four criteria, but noted concerns with the quality of the evidence, the reliability and validity testing.

ACTION ITEM: The Committee should review their evaluation of the measure and determine whether the evaluation and recommendation are consistent and, if not, reconsider the evaluation of the measure.

0747: Admission to Neonatal Intensive Care Unit at Term

Measure evaluation form | Steering Committee evaluation summary

Two comments were submitted suggesting that this component of the composite Adverse Outcomes Index measure is an important measure and that it be endorsed on its own as a measure. Supporters voiced concerns with potential overuse of NICU facilities and the need for a measure to monitor the quality and appropriateness of NICU admissions. These comments were forwarded to the developer.

NQF STAFF NOTE: To recommend this measure as a stand-alone measure, the developers must be willing to support the measure, and the measure would need to be evaluated and pass all four evaluation criteria (Importance to Measure and Report; Scientific Acceptability of the Measure Properties; Usability; and Feasibility).

ACTION ITEM: After reviewing the comments and the developer's response, does the Committee wish to evaluate and consider the measure as a stand-along measure?

TABLE 1: ORGANIZATIONS SUBMITTING COMMENTS

Consumers:
- Childbirth Connection
- Lamaze International
- National Partnership for Women & Families

Purchasers:
- Centers for Medicare and Medicaid Services
- Pacific Business Group on Health

Providers:
- Aurora Health Care
- Intermountain Healthcare

Public and Community Health:
- Health Resources and Services Administration

Professionals:
- American Association of Birth Centers

- American College of Emergency Physicians
- American College of Nurse-Midwives
- Association of Women's Health, Obstetric and Neonatal Nurses

Health Plans:

- America's Health Insurance Plans
- Humana Inc.
- Kaiser Permanente

QMRI:

- California Maternal Quality Care Collaborative
- University of Kansas - National Database for Nursing Quality Indicators

Non-NQF Members:

- Academy of Nutrition and Dietetics
- Alpena Regional Medical Center
- Asian Liver Center at Stanford University
- Calhoun County Public Health Department
- Charles B Wang Community Health Center
- Children's Mercy Hospitals & Clinics
- Epic
- Greater New York Hospital Association
- Hepatitis B Foundation
- Idaho Immunization Program
- Immunization Action Coalition
- Immunization Program
- International Formula Council
- Loma Linda University Children's Hospital
- Los Angeles County Department of Public Health
- Manhattan Mamas
- Michigan Department of Community Health
- National Hepatitis B Task Force
- Viral Hepatitis Roundtable
- New York City Department of Health and Mental Hygiene
- NYU School of Medicine
- Reproductive Health Access Project
- Seattle Children’s Hospital
- University of California-San Francisco
- University of Pittsburgh
- War Memorial Hospital

TABLE 2: MEASURE EVALUATION SUMMARIES

0480 PC-05 Exclusive Breast Milk Feeding

Measure Submission Form

Description: This measure assesses the number of newborns exclusively fed breast milk feeding during the newborn´s entire hospitalization. This measure is a part of a set of five nationally implemented measures that address perinatal care (PC-01: Elective Delivery, PC-02: Cesarean Section, PC-03: Antenatal Steroids, PC-04: Health Care-Associated Bloodstream Infections in Newborns).
Numerator Statement: Newborns that were fed breast milk only since birth
Denominator Statement: Single term liveborn newborns discharged from the hospital with ICD-9-CM Principal Diagnosis Code or ICD-9-CM Other Diagnosis Codes for single liveborn newborn as defined in Appendix A, Table 11.20.1available at: http://manual.jointcommission.org
Exclusions:

- Admitted to the Neonatal Intensive Care Unit (NICU) at this hospital during the hospitalization
- ICD-9-CM Principal Diagnosis Code or ICD-9-CM Other Diagnosis Codes for galactosemia as defined in Appendix A, Table 11.21
- ICD-9-CM Principal Procedure Code or ICD-9-CM Other Procedure Codes for parenteral infusion as defined in Appendix A, Table 11.22
- Experienced death
- Length of Stay >120 days
- Enrolled in clinical trials
- Documented Reason for Not Exclusively Feeding Breast Milk
- Patients transferred to another hospital
- ICD-9-CM Principal Diagnosis Code or ICD-9-CM Other Diagnosis Codes for premature newborns as defined in Appendix A, Table 11.23

Adjustment/Stratification: No risk adjustment or risk stratification Not Applicable
Level of Analysis: Facility, Population : National
Type of Measure: Process
Data Source: Administrative claims, Electronic Clinical Data, Paper Records
Measure Steward: The Joint Commission

STEERING COMMITTEE MEETING 11/29-30/2011
Importance to Measure and Report: Y-21; N-3
(1a. High Impact: 1b. Performance Gap, 1c. Evidence)
1a. Impact: H-4; M-1; L-0; I-0; 1b. Performance Gap: H-4; M-1; L-0; I-0
1c. Evidence Quantity: H-4; M-1; L-0; I-0; Quality: H-5; M-0; L-0; I-0; Consistency: H-5; M-0; L-0; I-0
Rationale:

- Documented medical benefits to baby; some issues with intent and implementation of “exclusive”
- Exclusive breastfeeding during hospitalization and at discharge increases longer term breastfeeding
- Current performance = 41%
- Data presented on racial and ethnic disparities- large disparities; very susceptible to values of the patient population
- Large nursing component – a systems issue of the hospital environment
- Goal is not 100% -- Joint Commission set a 75% target

2. Scientific Acceptability of Measure Properties: Y-22; N-2
(2a. Reliability – precise specifications, testing; 2b. Validity – testing, threats to validity)
2a. Reliability: H-3; M-2; L-0; I-0 2b. Validity: H-5; M-0; L-0; I-0
Rationale:

- A Committee member noted that if the measure is “risk-adjusted” for race and educational level, 40% of the variance is removed
- Measure is not stratified for disparities – developers note lack of reliability in the data element for race needed for stratification. Some Committee members argued that “rules now exist” to assign race.
- Exclusions for NICU, HIV, multiple births, transfers, mom taking drugs or medications

0480 PC-05 Exclusive Breast Milk Feeding

- Sampling is allowed

3. Usability: H-16; M-6; L-2; I-0
(*Meaningful, understandable, and useful to the intended audiences for 3a. Public Reporting/Accountability and 3b. Quality Improvement)*
3a. Public Reporting: H-5; M-0; L-0; I-0
3b. QI: H-4; M-1; L-0; I-0
Rationale:

- Would also be good as a population –level measure – communities can facilitate change in attitudes and cultural values
- Health benefits for the child and the mother
- The bar may be too high for some users – consider intermediate process measures to facilitate adoption

4. Feasibility: H-9; M-12; L-3; I-0
(4a. Clinical data generated during care delivery; 4b. Electronic sources; 4c.Susceptibility to inaccuracies/ unintended consequences identified 4d. Data collection strategy can be implemented)
4a. Byproduct of Care Processes: H-4; M-1; L-0; I-0
4b. Electronic data sources: H-5; M-0; L-0; I-0
4c. Suscep inaccuracies, consequences: H-2; M-2; L-0; I-0
4d. Data collection strategy: H-3; M-2; L-0; I-0
Rationale:

- Possible encroachment on patient autonomy – overzealous insistence on breastfeeding can alienate mothers
- Labor intensive to collect data unless data collection (feeding) forms are designed well
- An important measure for Medicaid

Steering Committee Recommendation for Endorsement: Y-20; N-4
Rationale: Breast milk feeding confers many health benefits to mother and child. Current rates of breast milk feeding are low with much room for improvement. Supporting breast milk feeding requires strong systems support and significant nursing involvement.

0304 Late Sepsis or Meningitis in Very Low Birth Weight (VLBW) Neonates (risk-adjusted)

Measure Submission Form
Description: Standardized rate and standardized morbidity ratio for nosocomial bacterial infection after day 3 of life for very low birth weight infants, including infants with birth weights between 401 and 1500 grams and infants whose gestational age is between 22 and 29 weeks.
Numerator Statement: Eligible infants with one or more of the following criteria:
Criterion 1:
Bacterial Pathogen. A bacterial pathogen is recovered from a blood and/or cerebral spinal fluid culture obtained after Day 3 of life.
OR
Criterion 2:
Coagulase Negative Staphylococcus. The infant has all 3 of the following:
1. Coagulase negative staphylococcus is recovered from a blood culture obtained from either a central line, or peripheral blood sample and/or is recovered from cerebrospinal fluid obtained by lumbar puncture, ventricular tap or ventricular drain.
2. One or more signs of generalized infection (such as apnea, temperature instability, feeding intolerance, worsening respiratory distress or hemodynamic instability).
3. Teatment with 5 or more days of intravenous antibiotics after the above cultures were obtained. If the infant died, was discharged, or transferred prior to the completion of 5 days of intravenous antibiotics, this condition would still be met if the intention were to treat for 5 or more days.
Denominator Statement: Eligible infants who are in the reporting hospital after day 3 of life.

0304 Late Sepsis or Meningitis in Very Low Birth Weight (VLBW) Neonates (risk-adjusted)

Exclusions: Exclude patients who do not meet eligibility criteria for birth weight, gestational age or hospital admission, or if the infant is discharged home, is transferred or dies prior to day 3 of life.
Adjustment/Stratification: Statistical risk model The risk adjustment process begins by using logistic regression to model the infection measure on model covariates: gestational age and its squared term, small for gestational age (Yes/No), multiple gestation (Yes/No), APGAR score at 1 minute (0-10), infant gender (Female, Male), Maternal Race/Ethnicity (Black, Hispanic, White, Asian, Other), Vaginal Delivery (Yes/No), Major Birth Defect (Yes/No) and Birth Location (Inborn, Outborn).
An estimate is made of the "systematic variation" associated with the hospital standardized morbidity ratios (SMRs) using the method suggested by Martuzzi and Hills (Martuzzi M and Hills M, Estimating the degree of heterogeneity between event rates using likelihood, Am J of Epi, 1995, 141, 4, 369-374. This method assumes that the SMRs are distributed gamma, and that deviations from the gamma distribution are associated with random variation. The systematic variation is used to "shrink" center SMR values and their confidence limits based on the number of infants reported (see, e.g., Simpson J et al, Analysing differences in clinical outcomes between hospitals, Qual Saf Health Care, 2003, 12,
257-262. The values for centers with a smaller number of infants shrink more toward the mean of all centers than do centers with more infants. Values for estimates of the number of observed cases minus the number of expected cases (O-E) and control limits for O-E values are also shrunken using the systematic variation value.
The shrinkage method described above is the "gamma-Poisson" approach to filtering random variation associated with Nosocomial Bacterial Infection as a risk adjusted indicator of performance. This approach has been used in other settings for documenting hospital performance. N/A
Level of Analysis: Facility
Type of Measure: Outcome
Data Source: Electronic Clinical Data : Registry
Measure Steward: Vermont Oxford Network

STEERING COMMITTEE MEETING 11/29-30/2011
Importance to Measure and Report: Y-26; N-0
(1a. High Impact: 1b. Performance Gap, 1c. Evidence)
1a. Impact: H-3; M-2; L-0; I-0; 1b. Performance Gap: H-4; M-1; L-0; I-0
1c. Evidence Quantity: H-2; M-1; L-0; I-1; Quality: H-2; M-2; L-0; I-0; Consistency: H-4; M-0; L-0; I-0
Rationale:

- VLBW infants at much higher risk for infection – most vulnerable population
- Current performance – 15% infection rate
- A different measure from 478 and 1731 Because it focuses on the high-risk, VLBW babies who have higher infection rates. Measures 478 and 1731 address all newborns.

2. Scientific Acceptability of Measure Properties: Y-26; N-0
(2a. Reliability – precise specifications, testing; 2b. Validity – testing, threats to validity)
2a. Reliability: H-2; M-3; L-0; I-0 2b. Validity: H-1; M-4; L-0; I-0
Rationale:

- Risk model slightly different for this population compared to the overall population in measure 303.

3. Usability: H-13; M-11; L-1; I-0
(*Meaningful, understandable, and useful to the intended audiences for 3a. Public Reporting/Accountability and 3b. Quality Improvement)*
3a. Public Reporting: H-2; M-2; L-1; I-0
3b. QI: H-4; M-1; L-0; I-0
Rationale:

- 80% of VLBW infants in US enrolled in VON
- A number of states have focused on this VLBW measure

4. Feasibility: H-11; M-14; L-1; I-0
(4a. Clinical data generated during care delivery; 4b. Electronic sources; 4c.Susceptibility to inaccuracies/ unintended consequences identified 4d. Data collection strategy can be implemented)
4a. Byproduct of Care Processes: H-5; M-0; L-0; I-0
4b. Electronic data sources: H-1; M-3; L-1; I-0
4c. Suscep inaccuracies, consequences: H-3; M-1; L-0; I-1
4d. Data collection strategy: H-3; M-1; L-0; I-1

0304 Late Sepsis or Meningitis in Very Low Birth Weight (VLBW) Neonates (risk-adjusted)

Rationale:
80% of VLBW babies born in the US are currently reported to the VON registry. The data is already collected with benchmarking and feedback to the participants. VON data is not public reported.

Preliminary Assessment of Criteria Met/Suitable for Endorsement: Y-25; N-1
(All criteria met, but final recommendation pending further information and/or evaluation of related and competing measures)
Comments:

- VLBW infants are an important subgroup with very high risk of infection

5. Related and Competing Measures (*5a. Harmonization; 5b. Superior to competing measures*)
478 Nosocomial blood stream infections in neonates (NQI #3) (AHRQ)
1731 Healthcare-associated bloodstream infections in newborns (Joint Commission)
303 Late sepsis or meningitis in neonates (risk-adjusted) (VON)

Comments:

- 80% of VLBW infants are in VON registry; hospitals will continue participation
- VLBW infants a special population not captured independently in 478 or 1371 with high infection rates around 15%

Steering Committee Recommendation for Endorsement: Y-9; N-8
Rationale: The Committee agreed that this measure is addresses a special population not captured independently in 478 or 1731 with high infections rates (15%) but Committee members also note that VON data is not publicly available even though 80% of VLBW infants are included in the network.

0478 Neonatal Blood Stream Infection Rate (NQI #3)

Measure Submission Form
Description: Percentage of high-risk newborn discharges with an ICD-9-CM diagnosis code of bloodstream infection
Numerator Statement: Discharges among cases meeting the inclusion and exclusion rules for the denominator with an ICD-9-CM code for bloodstream infection in any secondary diagnosis field
Denominator Statement: All newborns and outborns with
1) Birth weight 500 to 1499g OR
2) Gestational age between 24 and 30 weeks OR
3) Birth weight greater than or equal to 1500g AND
- in-hospital death OR
- operating room procedure OR
- mechanical ventilation OR
- age in days less than 2 AND transferred from another health care facility
Exclusions: Exclude cases:
• with principal diagnosis code of sepsis or secondary diagnosis code present on admission
• with birth weight less than 500 grams
• with length of stay less than 2 days
• with missing data for (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
http://qualityindicators.ahrq.gov/Downloads/Software/SAS/V43/TechnicalSpecifications/PDI%20Appendices.pdf
Adjustment/Stratification: Statistical risk model The predicted value for each case is computed using a hierarchical model (logistic regression with hospital random effect) and covariates for gender, birthweight (500g groups), modified CMS DRG, congenital anomolies, transfer-in status and the availability of point of origin. The specific covariates retained in the model for this measure are listed below. The reference population used in the regression is the universe of discharges for states that participate in the HCUP State Inpatient Data (SID) for the years 2008, a database consisting of 43 states and approximately 6 million pediatric discharges. The expected rate is computed as the sum of the predicted value for each case divided by the number of cases for the unit of analysis of interest (i.e., hospital). The risk adjusted rate is computed using indirect standardization as the observed rate divided by the expected rate, multiplied

0478 Neonatal Blood Stream Infection Rate (NQI #3)

by the reference population rate.
Specific covariates used for this measure:

Birth Weight	1000 to 2499
Birth Weight	750 to 999
Birth Weight	<500 to 749
Modified DRG	1501 Neonates, died or transferred to another acute care facility
Congenital anomalies category	1 Gastrointestinal
Congenital anomalies category	5 Cardiovascular
Congenital anomalies category	8 Other
TRNSFER	Transfer-in
NOPOUB04	UB-04 Point-of-Origin Data Not Available Not applicable

Level of Analysis: Facility
Type of Measure: Outcome
Data Source: Administrative claims
Measure Steward: Agency for Healthcare Research and Quality

STEERING COMMITTEE MEETING 11/29-30/2011
Importance to Measure and Report: Y-25; N-0
(1a. High Impact: 1b. Performance Gap, 1c. Evidence)
1a. Impact: H-5; M-0; L-0; I-0; 1b. Performance Gap: H-4; M-1; L-0; I-0
1c. Evidence Quantity: H-4; M-1; L-0; I-0; Quality: H-2; M-3; L-0; I-0; Consistency: H-2; M-2; L-0; I-1
Rationale:

- Important patient safety-related outcome measure.
- Increased incidence of infection in VLBW babies

2. Scientific Acceptability of Measure Properties: Y-23; N-2
(2a. Reliability – precise specifications, testing; 2b. Validity – testing, threats to validity)
2a. Reliability: H-2; M-3; L-0; I-0 2b. Validity: H-1; M-4; L-0; I-0
Rationale:

- Uses discharge billing data
- No chart based validation; user feedback assessed.
- Risk model includes transfers into hospital. Some recent changes to the measure due to harmonization efforts – AHRQ estimates has very little impact on mean rates or distribution
- Exclusions for specific bacteria only if present on admission
- ICD-9 to ICD-10 conversion in draft; ICD-10 has more specific codes for certain bacteria
- Includes larger babies who have certain characteristics as proxy for " likely to have been in NICU"
- Developer notes coding for mechanical ventilation is generally good as it is justification for longer length of stay

3. Usability: H-13; M-11; L-0; I-0
(*Meaningful, understandable, and useful to the intended audiences for 3a. Public Reporting/Accountability and 3b. Quality Improvement)*
3a. Public Reporting: H-2; M-3; L-0; I-0
3b. QI: H-3; M-2; L-0; I-0
Rationale:

- Harmonized with new Joint Commission measure
- Transfers not a huge impact

4. Feasibility: H-18; M-7; L-0; I-0
(4a. Clinical data generated during care delivery; 4b. Electronic sources; 4c.Susceptibility to inaccuracies/ unintended consequences identified 4d. Data collection strategy can be implemented)
4a. Byproduct of Care Processes: H-4; M-1; L-0; I-0
4b. Electronic data sources: H-4; M-1; L-0; I-0
4c. Suscep inaccuracies, consequences: H-2; M-3; L-0; I-0
4d. Data collection strategy: H-4; M-1; L-0; I-0
Rationale:

0478 Neonatal Blood Stream Infection Rate (NQI #3)

- Based on administrative data.

Preliminary Assessment of Criteria Met/Suitable for Endorsement: Y-25; N-0
(All criteria met, but final recommendation pending further information and/or evaluation of related and competing measures)
Comments:

- Uses discharge billing data
- Important patient safety-related outcome measure.

5. Related and Competing Measures (*5a. Harmonization; 5b. Superior to competing measures*)
1731 Healthcare-associated bloodstream infections in newborns (Joint Commission)
303 Late sepsis or meningitis in neonates (risk-adjusted) (VON)
304 Late sepsis or meningitis in VLBW neonates (risk-adjusted) (VON)

Comments:
The different data streams are important for different users: states, Medicaid and purchasers do not have access to chart data and rely on administrative data; Registry measures provide more clinical detail for the feedback/quality improvement program. The combined coding and chart review of the Joint Commission is important for accreditation purposes.

Steering Committee Recommendation for Endorsement: Y-10; N-8 to recommend both 478 and 1731 as harmonized measures with different data streams
Steering Committee members acknowledged the added burden of multiple measures on hospitals and struggled with evaluating competing measures for hospital-acquired infections. The Committee noted that the variety of users with different data capabilities justify multiple, harmonized measure sat this time.

1731 Health Care-Associated Bloodstream Infections in Newborns

Measure Submission Form
Description: This measure assesses the number of staphylococcal and gram negative septicemias or bacteremias in high-risk newborns. This measure is a part of a set of five nationally implemented measures that address perinatal care (PC-01: Elective Delivery, PC-02: Cesarean Section, PC-03: Antenatal Steroids, PC-05: Exclusive Breast Milk Feeding).
Numerator Statement: Newborns with septicemia or bacteremia with an ICD-9-CM Other Diagnosis Codes for septicemias as defined in Appendix A, Table 11.10.1 OR one or more ICD-9-CM Other Diagnosis Codes for newborn septicemia or bacteremia as defined in Appendix A, Table 11.10 and one diagnosis code for newborn bacteremia from Table 11.11 available at: http://manual.jointcommission.org
Denominator Statement: Liveborn newborns with an ICD-9-CM Other Diagnosis Codes for birth weight between 500 and 1499g as defined in Appendix A, Table 11.12, 11.13 or 11.14 OR Birth Weight between 500 and 1499g OR an ICD-9-CM Other Diagnosis Codes for birth weight = 1500g as defined in Appendix A, Table 11.15, 11.16 or 11.17 OR Birth Weight = 1500g who experienced one or more of the following:

- Experienced death
- ICD-9-CM Principal Procedure Code or ICD-9-CM Other Procedure Codes for major surgery as defined in Appendix A, Table 11.18
- ICD-9-CM Principal Procedure Code or ICD-9-CM Other Procedure Codes for mechanical ventilation as defined in Appendix A, Table 11.19
- Transferred in from another acute care hospital or health care setting within 2 days of birth.

Exclusions:

- ICD-9-CM Principal Diagnosis Code for sepsis as defined in Appendix A, Table 11.10.2
- ICD-9-CM Principal Diagnosis Code for liveborn newborn as defined in Appendix A, Table 11.10.3 AND ICD-9-CM Other Diagnosis Codes for newborn septicemia or bacteremia as defined in Appendix A, Table 11.10
- ICD-9-CM Other Diagnosis Codes for birth weight < 500g as defined in Appendix A, Table 11.20 OR Birth Weight < 500g
- Length of Stay < 2 days OR > 120 days
- Enrolled in clinical trials

Adjustment/Stratification: Statistical risk model Logistic regression

1731 Health Care-Associated Bloodstream Infections in Newborns

Model Risk Factors:

Intercept	Intercept
Birth Weight	1250g to 2499g
Birth Weight	1000 to 1249g
Birth Weight	500 to 999g
Modified DRG	Newborn Transfers Out or Died
Congenital Anomaly	Gastrointestinal Anomaly
Congenital Anomaly	Cardiovascular Anomaly
Congenital Anomaly	Other Anomaly
Out-born Birth	Newborns Transfers In Not applicable, the measure is not stratified.

Level of Analysis: Facility, Population : National
Type of Measure: Outcome
Data Source: Administrative claims, Electronic Clinical Data, Paper Records
Measure Steward: The Joint Commission

STEERING COMMITTEE MEETING 11/29-30/2011
Importance to Measure and Report: Y-20; N-4
(1a. High Impact: 1b. Performance Gap, 1c. Evidence)
1a. Impact: H-3; M-1; L-0; I-0; 1b. Performance Gap: H-3; M-1; L-0; I-0
1c. Evidence Quantity: H-1; M-2; L-0; I-0; Quality: H-2; M-1; L-0; I-0; Consistency: H-2; M-1; L-0; I-0
Rationale:

- Significant problem especially for VLBW infants
- Infections increase LOS and costs
- Variable rates reported: 6-33%
- Very similar to measure 478 – harmonized within limits of data sources

2. Scientific Acceptability of Measure Properties: Y-21; N-0
(2a. Reliability – precise specifications, testing; 2b. Validity – testing, threats to validity)
2a. Reliability: H-1; M-3; L-0; I-0 2b. Validity: H-0; M-3; L-0; I-0
Rationale:

- Risk-adjusted outcome measure – not statistically significant results - Committee noted that measure implementers could change the reporting strategy such as using a 90% confidence interval rather than 95%
- Moderate reliability and validity
- Some coding issues noted.

3. Usability: H-9; M-12; L-0; I-0
(*Meaningful, understandable, and useful to the intended audiences for 3a. Public Reporting/Accountability and 3b. Quality Improvement)*
3a. Public Reporting: H-2; M-1; L-0; I-1
3b. QI: H-3; M-0; L-0; I-1
Rationale:

- Improvement seen with use of the measure.
- Several similar measures for healthcare-acquired infection in newborns. Measure is harmonized with claims-based measure 478.

4. Feasibility: H-7; M-14; L-0; I-0
(4a. Clinical data generated during care delivery; 4b. Electronic sources; 4c.Susceptibility to inaccuracies/ unintended consequences identified 4d. Data collection strategy can be implemented)
4a. Byproduct of Care Processes: H-3; M-1; L-0; I-0
4b. Electronic data sources: H-1; M-2; L-0; I-1
4c. Suscep inaccuracies, consequences: H-1; M-3; L-0; I-0
4d. Data collection strategy: H-4; M-0; L-0; I-0
Rationale:

- Requires some chart abstraction
-

Preliminary Assessment of Criteria Met/Suitable for Endorsement: Y-21; N-0

1731 Health Care-Associated Bloodstream Infections in Newborns

(All criteria met, but final recommendation pending further information and/or evaluation of related and competing measures)
Comments:

- This is an important, adverse outcome measure.

5. Related and Competing Measures (*5a. Harmonization; 5b. Superior to competing measures*)
478 Nosocomial blood stream infections in neonates (NQI #3) (AHRQ)
303 Late sepsis or meningitis in neonates (risk-adjusted) (VON)
304 Late sepsis or meningitis in VLBW neonates (risk-adjusted) (VON)

Comments:

- Committee had some difficulty comparing 478 and 1731 particularly for the exclusion of infection at the time of birth but once clarified were comfortable that the measure captured "health-care acquired" infections
- The different data streams are important for different users: states, Medicaid and purchasers do not have access to chart data and rely on administrative data; Registry measures provide more clinical detail for the feedback/quality improvement program. The combined coding and chart review of the Joint Commission is important for accreditation purposes.

Steering Committee Recommendation for Endorsement: Y-10; N-8 to recommend both 478 and 1731 due to harmonized measures with different data streams
Rationale:
Steering Committee members acknowledged the added burden of multiple measures on hospitals and struggled with evaluating competing measures for hospital-acquired infections. The Committee noted that the variety of users with different data capabilities justify multiple, harmonized measures at this time.

0470 Incidence of Episiotomy

Measure Submission Form
Description: Percentage of vaginal deliveries (excluding those coded with shoulder dystocia) during which an episiotomy is performed.
Numerator Statement: Number of episiotomy procedures (ICD-9 code 72.1, 72.21, 72.31, 72.71, 73.6; ICD-10 PCS:0W8NXZZ,0WQNXZZ,10D07Z3,10D07Z4,10D07Z5,10D07Z6) performed on women undergoing a vaginal delivery (excluding those with shoulder dystocia) during the analytic period- monthly,quarterly, yearly etc.
Denominator Statement: All vaginal deliveries during the analytic period- monthly, quarterly, yearly etc. excluding those coded with a shoulder dystocia.
Exclusions: Women who have a coded complication of shoulder dystocia. In the case of shoulder dystocia, an episiotomy is performed to free the shoulder and prevent/mitigate birth injury to the infant.
Adjustment/Stratification: No risk adjustment or risk stratification NA NA
Level of Analysis: Facility
Type of Measure: Outcome, Process
Data Source: Administrative claims, Paper Records
Measure Steward: Christiana Care Health System

STEERING COMMITTEE MEETING 11/29-30/2011
Importance to Measure and Report: Y-19; N-0
(1a. High Impact: 1b. Performance Gap, 1c. Evidence)
1a. Impact: H-5; M-4; L-0; I-0; 1b. Performance Gap: H-6; M-3; L-0; I-0
1c. Evidence Quantity: H-6; M-2; L-0; I-1; Quality: H-4; M-4; L-0; I-1; Consistency: H-6; M-1; L-0; I-1
Rationale:

- Significant literature against episiotomy; evidence for increased risk of 3rd and 4th degree lacerations with episiotomy.
- ACOG supports restricted use of episiotomy.
- Wide variation in provider performance: in 2010 the National Perinatal Information Center reported a national rate of 16.2% with tremendous inter center variation (4.3% to 34.6%).
- Committee members report that when this measure is implemented, rapid improvement is seen.

0470 Incidence of Episiotomy

2. Scientific Acceptability of Measure Properties: Y-19; N-0

(2a. Reliability – precise specifications, testing; 2b. Validity – testing, threats to validity)

2a. Reliability: H-8; M-1; L-0; I-0 2b. Validity: H-4; M-5; L-0; I-0

Rationale:

- Uses administrative data; CPT procedure codes are usually coded reliably.
- Developers comparison with charts: some mismatch but random whether over coding or under coding.
- Only exclusion is shoulder dystocia – an appropriate indication for episiotomy.
- Level of analysis at the facility level produces a stable result. Confidence intervals for individual clinicians is very unstable.

3. Usability: H-14; M-4; L-1; I-0

(*Meaningful, understandable, and useful to the intended audiences for 3a. Public Reporting/Accountability and 3b. Quality Improvement)*

3a. Public Reporting: H-5; M-1; L-3; I-0

3b. QI: H-5; M-4; L-0; I-0

Rationale:

- Easily understood by multiple audiences.
- NPIC data shows wide variation in episiotomy incidence.
- Where measure has been used, rates of episiotomy are dropping.

4. Feasibility: H-15; M-5; L-0; I-0

(4a. Clinical data generated during care delivery; 4b. Electronic sources; 4c.Susceptibility to inaccuracies/ unintended consequences identified 4d. Data collection strategy can be implemented)

4a. Byproduct of Care Processes: H-8; M-1; L-0; I-0

4b. Electronic data sources: H-8; M-1; L-0; I-0

4c. Suscep inaccuracies, consequences: H-8; M-0; L-1; I-0

4d. Data collection strategy: H-9; M-0; L-0; I-0

Rationale:

- High fidelity in coding..
- Measures is easy to collect and useful for comparisons

Steering Committee Recommendation for Endorsement: Y-19; N-1

Rationale: Current data indicates overuse of episiotomy and wide variation in performance. Evidence and ACOG guidelines support restricted use of episiotomy. When this measure is implemented, rapid performance improvement has been observed.

0475 Hepatitis B Vaccine Coverage Among All Live Newborn Infants Prior to Hospital or Birthing Facility Discharge

Measure Submission Form

Description: Percent of live newborn infants that receive hepatitis B vaccination before discharge at each single hospital/birthing facility during given time period (one year).

Numerator Statement: The number of live newborn infants administered hepatitis B vaccine prior to discharge from the hospital/birthing facility ("birth dose" of hepatitis B vaccine).

Denominator Statement: The number of live newborn infants born at the hospital/birthing facility during the reporting window (one calendar year)

Exclusions: a. Optional recommended adjusted MEASURE denominator: determine number of live newborn infants born at the hospital/birthing facility whose parent/guardian refused hepatitis B birth dose and exclude from the denominator. ICD-10 code for this information might include the following (link: http://www.icd10data.com/ICD10CM/Codes/Z00-Z99/Z20-Z28/Z28-/#Z28):

i. Z28.03 Immunization not carried out because of immune compromised state of patient

ii. Z28.04 Immunization not carried out because of patient allergy to vaccine or component

iii. Z28.1 Immunization not carried out because of patient decision for reasons of belief or group pressure

iv. Z28.20 Immunization not carried out because of patient decision for unspecified reason

0475 Hepatitis B Vaccine Coverage Among All Live Newborn Infants Prior to Hospital or Birthing Facility Discharge

v. Z28.21 Immunization not carried out because of patient refusal
vi. Z28.29 Immunization not carried out because of patient decision for other reason
vii. Z28.82 Immunization not carried out because of caregiver refusal
The results of this measure should be reported as a separate MEASURE identifying that the coverage excludes infants whose parent(s)/guardian(s) refused hepatitis B vaccine for their infant before hospital or facility discharge (or by 1 month of age if during a prolonged stay).
Adjustment/Stratification: No risk adjustment or risk stratification N/A N/A
Level of Analysis: Clinician : Group/Practice, Clinician : Individual, Facility, Health Plan
Type of Measure: Process
Data Source: Administrative claims, Electronic Clinical Data, Electronic Clinical Data : Electronic Health Record, Electronic Clinical Data : Pharmacy, Electronic Clinical Data : Registry
Measure Steward: Centers for Disease Control and Prevention

STEERING COMMITTEE MEETING 11/29-30/2011

Importance to Measure and Report: Y-22; N-2

(1a. High Impact: 1b. Performance Gap, 1c. Evidence)

1a. Impact: H-3; M-2; L-0; I-0; 1b. Performance Gap: H-3; M-2; L-0; I-0

1c. Evidence Quantity: H-3; M-2; L-0; I-0; Quality: H-1; M-4; L-0; I-0; Consistency: H-4; M-1; L-0; I-0

Rationale:

- Increasing number of pregnant women are found to be Hepatitis B Surface Antigen (HBsAg) positive (approximately 25,000/year)
- The 2010 National Immunization Study demonstrated that for 50 states and the District of Columbia, the calculated results for birth dose coverage were: median 66.7%; mean 65.7%; minimum 21.4%; maximum 83.3%. There is an APIC recommendation for neonatal immunization,
- Captures initial immunization in the series of three Hepatitis B vaccinations.
- Immunization prevents development of chronic hepatitis infection.

2. Scientific Acceptability of Measure Properties: Y-11; N-13 as written with optional exclusion for parent refusal;
If exclusions are mandatory Y=22; N=3

(2a. Reliability – precise specifications, testing; 2b. Validity – testing, threats to validity)

2a. Reliability: H-3; M-2; L-0; I-0 2b. Validity: H-3; M-2; L-0; I-0

Rationale:

- Optional exclusions affect standardization and reduce comparability. Developer reports that exclusions are included if hospitals can collect the data.
- Including refusals is important for validity as a performance measure – different perspective than for a public health surveillance measure.
- Developers report <3% refusal rate overall; some areas of 10-12% refusal.
- ICD-10 codes for parent refusal (none in ICD-9).

3. Usability: H-4; M-14 L-6; I-0

(*Meaningful, understandable, and useful to the intended audiences for 3a. Public Reporting/Accountability and 3b. Quality Improvement)*

3a. Public Reporting: H-1; M-3; L-1; I-0

3b. QI: H-1; M-3; L-1; I-0

Rationale:

- Not in use in public reporting
- Difficult to capture refusals until ICD-10

4. Feasibility: H-3; M-19; L-3; I-0

(4a. Clinical data generated during care delivery; 4b. Electronic sources; 4c.Susceptibility to inaccuracies/ unintended consequences identified 4d. Data collection strategy can be implemented)

4a. Byproduct of Care Processes: H-2; M-2; L-1; I-0

4b. Electronic data sources: H-1; M-3; L-1; I-0

0475 Hepatitis B Vaccine Coverage Among All Live Newborn Infants Prior to Hospital or Birthing Facility Discharge

4c. Suscep inaccuracies, consequences: H-0; M-3; L-1; I-1

4d. Data collection strategy: H-0; M-2; L-3; I-0

Rationale:

- Costly to review charts for refusals though numbers are small
- There is cost for initial programming for EHRs, but thereafter an advantage.

Steering Committee Recommendation for Endorsement: Y-22; N-3 with mandatory exclusion for parent refusal

Rationale: This measure conforms to APIC recommendations for neonatal immunization and national rates demonstrate wide variation and opportunity for improvement. The developer agreed to remove the "optional" aspect of exclusions for parental refusal.

0476 PC-03 Antenatal Steroids

Measure Submission Form

Description: This measure assesses patients at risk of preterm delivery at 24 0/7-32 0/7 weeks gestation receiving antenatal steroids prior to delivering preterm newborns. This measure is a part of a set of five nationally implemented measures that address perinatal care (PC-01: Elective Delivery, PC-02: Cesarean Section, PC-04: Health Care-Associated Bloodstream Infections in Newborns, PC-05: Exclusive Breast Milk Feeding).

Numerator Statement: Patients with a full course of antenatal steroids completed prior to delivering preterm newborns (refer to Appendix B, Table 11.0, antenatal steroid medications available at: http://manual.jointcommission.org)

Denominator Statement: Patients delivering live preterm newborns with 24 0/7-32 0/7 weeks gestation completed

Exclusions:

- Less than 8 years of age
- Greater than or equal to 65 years of age
- Length of Stay >120 days
- Enrolled in clinical trials
- Documented Reason for Not Administering Antenatal Steroid
- ICD-9-CM Principal Diagnosis Code or ICD-9-CM Other Diagnosis Codes for fetal demise as defined in Appendix A, Table 11.09.1 available at: http://manual.jointcommission.org

Adjustment/Stratification: No risk adjustment or risk stratification Not Applicable Not applicable, the measure is not stratified.

Level of Analysis: Facility, Population : National

Type of Measure: Process

Data Source: Electronic Clinical Data, Electronic Clinical Data : Registry, Paper Records

Measure Steward: The Joint Commission

STEERING COMMITTEE MEETING 11/29-30/2011

Importance to Measure and Report: Y-24; N-0

(1a. High Impact: 1b. Performance Gap, 1c. Evidence)

1a. Impact: H-5; M-0; L-0; I-0; 1b. Performance Gap: H-5; M-0; L-0; I-0

1c. Evidence Quantity: H-5; M-0; L-0; I-0; Quality: H-5; M-0; L-0; I-0; Consistency: H-5; M-0; L-0; I-0

Rationale:

- Strong data demonstrating the benefit of steroid use; NIH and ACOG recommend use of steroids.
- Change from the original endorsed measure:
  - Requires full course of treatment; (if no time for full course to be administered, patient is excluded)
  - 32-34 weeks with Premature Rupture of Membranes (PROM) not included
- There is no evidence or guidance for < 24 weeks
- From 2005-2007, data covering more than 90% of deliveries in California found that 23% of the more than 15,000 eligible infants did not receive antenatal steroids. Current Joint Commission data report 64.9% performance.
- Room for improvement; some improvement has been seen
- Another quality question might be whether steroids are overused in some patients. Need more information on the long-term impact of multiple steroid courses on the baby.

2. Scientific Acceptability of Measure Properties: Y-24; N-1

0476 PC-03 Antenatal Steroids

(2a. Reliability – precise specifications, testing; 2b. Validity – testing, threats to validity)

2a. Reliability: H-4; M-1; L-0; I-0 2b. Validity: H-5; M-0; L-0; I-0

Rationale:

- Testing indicates high reliability and moderate-high validity.
- The exclusion for patients who do not receive a complete course due to rapid delivery results in lack of credit to the provider for appropriate steroid therapy.

3. Usability: H-16; M-8; L-0; I-0

(*Meaningful, understandable, and useful to the intended audiences for 3a. Public Reporting/Accountability and 3b. Quality Improvement)*

3a. Public Reporting: H-5; M-0; L-0; I-0

3b. QI: H-5; M-0; L-0; I-0

Rationale:

- This measure is on the recommended list of Medicaid core measures.

4. Feasibility: H-6; M-16; L-2; I-0

(4a. Clinical data generated during care delivery; 4b. Electronic sources; 4c.Susceptibility to inaccuracies/ unintended consequences identified 4d. Data collection strategy can be implemented)

4a. Byproduct of Care Processes: H-3; M-2; L-0; I-0

4b. Electronic data sources: H-1; M-3; L-1; I-0

4c. Suscep inaccuracies, consequences: H-4; M-1; L-0; I-0

4d. Data collection strategy: H-4; M-0; L-1; I-0

Rationale:

- Some chart review is needed

Steering Committee Recommendation for Endorsement: Y-25; N-0

Rationale: There is significant room for improvement in performance for this evidence-based process of care that improves outcomes for premature infants. The measure is well-specified and demonstrates good reliability and validity.

0477 Under 1500g infant Not Delivered at Appropriate Level of Care

Measure Submission Form

Description: The number per 1,000 livebirths of <1500g infants delivered at hospitals not appropriate for that size infant.
Numerator Statement: Liveborn infants (<1500gms but over 24 weeks gestation) born at the given birth hospital
Denominator Statement: All live births over 24 weeks gestation at the given birth hospital. NICU Level III status is defined by the State Department of Health or similar body typically using American Academy of Pediatrics Criteria.
Exclusions: Stillbirths and livebirths <24weeks gestation.
Adjustment/Stratification: No risk adjustment or risk stratification n.a. none
Level of Analysis: Facility, Health Plan, Population : County or City, Population : National, Population : Regional, Population : State
Type of Measure: Outcome
Data Source: Electronic Clinical Data : Registry, Other
Measure Steward: California Maternal Quality Care Collaborative

STEERING COMMITTEE MEETING 11/29-30/2011

Importance to Measure and Report: Y-25; N-0

(1a. High Impact: 1b. Performance Gap, 1c. Evidence)

1a. Impact: H-5; M-0; L-0; I-0; 1b. Performance Gap: H-5; M-0; L-0; I-0

1c. Evidence Quantity: H-3; M-1; L-0; I-0; Quality: H-3; M-1; L-0; I-0; Consistency: H-4; M-0; L-0; I-0

Rationale:

- 2010 meta-analysis by CDC demonstrated a significant survival benefit for VLBW infants in Level 3 NICU (60% increase in mortality outside Level 3 NICU)
- Measure has been used at state-level for many years – regionalization of care ongoing for 30+ years but lately seeing de-regionalization due to economic factors
- In California (2008) the range of VLBW births in non-level III facilities was 0 to 15 per thousand with a mean of 4.8. The distribution is not evenly distributed.
- In California, developers found that failure to transfer is not common among rural hospitals but more frequent among urban hospitals where a Level 3 NICU is close by – likely economic factors rather than medical factors determine transfer.
- All states have networks for transfers.

2. Scientific Acceptability of Measure Properties: Y-25; N-0

(2a. Reliability – precise specifications, testing; 2b. Validity – testing, threats to validity)

2a. Reliability: H-5; M-0; L-0; I-0 2b. Validity: H-4; M-1; L-0; I-0

Rationale:

- This measure uses AAP definition of Level 3 NICU. States use various definitions.
- Specifications are precise
- Standard reporting under state vital statistics
- Excludes hospital with <50 deliveries – a single event distorts the results

3. Usability: H-17; M-8; L-0; I-0

(*Meaningful, understandable, and useful to the intended audiences for 3a. Public Reporting/Accountability and 3b. Quality Improvement)*

3a. Public Reporting: H-1; M-3; L-1; I-0

3b. QI: H-2; M-2; L-1; I-0

Rationale:

- EMTALA law concerns misinterpreted – requires evaluation but does not preclude indicated transfer.
- This measure addresses system and administrative accountability for coordinating maternal transport.
- Need to involve EMS in quality improvement as transfer protocols typically require transport to nearest hospital rather than most appropriate hospital.
- Public reporting of this information likely to have big impact on local community and hospital trustees.

4. Feasibility: H-23; M-2; L-0; I-0

(4a. Clinical data generated during care delivery; 4b. Electronic sources; 4c.Susceptibility to inaccuracies/ unintended consequences identified 4d. Data collection strategy can be implemented)

4a. Byproduct of Care Processes: H-5; M-0; L-0; I-0

0477 Under 1500g infant Not Delivered at Appropriate Level of Care

4b. Electronic data sources: H-3; M-2; L-0; I-0

4c. Suscep inaccuracies, consequences: H-4; M-1; L-0; I-0

4d. Data collection strategy: H-5; M-0; L-0; I-0

Rationale:

- Easy to report
- Collected in state birth data
- <1% missing data

Steering Committee Recommendation for Endorsement: Y-25; N-0

Rationale: This measure assesses appropriate transfer of VLBW babies to hospitals that greatly improve their chance of survival. In recent years, previously established regional transfer networks have been breaking down and transfer is not occurring, possibly due to economic rather than medical reasons. Current use of the measure in California indicates a large opportunity for improvement.

0483 Proportion of Infants 22 to 29 Weeks Gestation Screened for Retinopathy of Prematurity.

Measure Submission Form

Description: Proportion of infants 22 to 29 weeks gestation who were in the reporting hospital at the postnatal age recommended for retinopathy of prematurity (ROP) screening by the American Academy of Pediatrics (AAP) and who received a retinal examination for ROP prior to discharge.

Numerator Statement: Number of infants 22 to 29 weeks gestation who were in the reporting hospital at the postnatal age recommended for ROP screening by the AAP and who received a retinal exam for ROP prior to discharge.

Denominator Statement: All eligible infants 22 to 29 weeks gestation who were in the reporting hospital at the postnatal age recommended for ROP screening by the AAP.

Exclusions: 1. Infants outside the gestational age range of 22 to 29 weeks.
2. Outborn infants admitted to the reporting hospital more than 28 days after birth.
3. Outborn infants who have been home prior to admission.
4. Infants who die in the delivery room or initial resuscitation area prior to admission to the neonatal intensive care unit.
5. Infants not in the reporting hospital at the postnatal age recommended for ROP screening by the AAP.

Adjustment/Stratification: Stratification by risk category/subgroup N/A Reports are stratified by gestational age, birth location and birth weight category.

Level of Analysis: Facility

Type of Measure: Process

Data Source: Administrative claims, Electronic Clinical Data : Electronic Health Record, Electronic Clinical Data : Registry, Paper Records

Measure Steward: Vermont Oxford Network

STEERING COMMITTEE MEETING 11/29-30/2011

Importance to Measure and Report: Y-21; N-4

(1a. High Impact: 1b. Performance Gap, 1c. Evidence)

1a. Impact: H-4; M-1; L-0; I-0; 1b. Performance Gap: H-0; M-4; L-1; I-0

1c. Evidence Quantity: H-4; M-0; L-0; I-1; Quality: H-2; M-2; L-1; I-0; Consistency: H-3; M-2; L-0; I-0

Rationale:

- Screening recommended by AAP and AAO
- VON data – moderate opportunity for improvement (not published data); 79% performance at the 10th percentile.
- APP recommendation up to 30 6/7 weeks but VON eligibility criteria limits measure to 29 6/7 weeks
- Larger babies are often discharged or transferred prior to appropriate time of of screening and may be lost to follow-up; < 29 weeks targets babies who are still in hospital when screening should occur

0483 Proportion of Infants 22 to 29 Weeks Gestation Screened for Retinopathy of Prematurity.

- Risk is higher at lower gestational ages

2. Scientific Acceptability of Measure Properties: Y-23; N-2
(2a. Reliability – precise specifications, testing; 2b. Validity – testing, threats to validity)
2a. Reliability: H-4; M-1; L-0; I-0 2b. Validity: H-5; M-0; L-0; I-0
Rationale:

- Exclusion rate 21-24%; unknown how big the 30-32 weeks group recommended for screening that is not captured
- There are a small number of babies that are too sick to be screened at the appropriate time
- Credit is given for screening at whatever gestational age – not necessarily when recommended by AAP
- Excludes outborn infants >28 days due to VON eligibility criteria

3. Usability: H-11; M-13; L-1; I-0
(*Meaningful, understandable, and useful to the intended audiences for 3a. Public Reporting/Accountability and 3b. Quality Improvement)*
3a. Public Reporting: H-2; M-3; L-0; I-0
3b. QI: H-4; M-1; L-0; I-0
Rationale:

- Mainly used for internal QI. Hospital may share their VON data at their discretion.
- The measure is used in California Perinatal Quality Care Collaborative and is reported to the state.
- Questions regarding transition of this measure from registry to wider use – limited by registry criteria
- No public reporting known
- Does not address whether appropriate follow-up was done after screening.

4. Feasibility: H-15; M-9; L-1; I-0
(4a. Clinical data generated during care delivery; 4b. Electronic sources; 4c.Susceptibility to inaccuracies/ unintended consequences identified 4d. Data collection strategy can be implemented)
4a. Byproduct of Care Processes: H-5; M-0; L-0; I-0
4b. Electronic data sources: H-4; M-1; L-0; I-0
4c. Suscep inaccuracies, consequences: H-3; M-2; L-0; I-0
4d. Data collection strategy: H-5; M-0; L-0; I-0
Rationale:

- Currently used by VON registry participants. Clinical data is submitted to the registry.

Steering Committee Recommendation for Endorsement: Y-23; N-2
Rationale: Appropriate screening for retinopathy allows intervention to optimize vision. Although the data is not publicly available, the majority of hospitals with Level 3 NICUs participate in the VON registry.

1746 Intrapartum Antibiotic Prophylaxis for Group B Streptococcus (GBS)

Measure Submission Form
Description: Percentage of pregnant women who are eligible for and receive appropriate intrapartum antibiotic prophylaxis (IAP) for Group B Streptococcus (GBS)
Numerator Statement: All eligible patients who receive intrapartum antibiotic prophylaxis for GBS.
Denominator Statement: All women delivering live infants, except certain classes (described in response to 2a1.9 below) who are specifically deemed not to be at risk of vertical transmission of GBS.
Exclusions: Women not included in the denominator defined above, with specific exclusions as described below.
Adjustment/Stratification: No risk adjustment or risk stratification
Level of Analysis: Facility, Integrated Delivery System, Population : State
Type of Measure: Process
Data Source: Administrative claims, Electronic Clinical Data, Electronic Clinical Data : Electronic Health Record, Paper Records
Measure Steward: Massachusetts General Hospital

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1746 Intrapartum Antibiotic Prophylaxis for Group B Streptococcus (GBS)

Importance to Measure and Report: Y-26; N-0
(1a. High Impact: 1b. Performance Gap, 1c. Evidence)
1a. Impact: H-5; M-0; L-0; I-0; 1b. Performance Gap: H-2; M-3; L-0; I-0
1c. Evidence Quantity: H-3; M-2; L-0; I-0; Quality: H-3; M-2; L-0; I-0; Consistency: H-2; M-3; L-0; I-0
Rationale:

- New data from Massachusetts suggests more opportunity for improvement that previously thought.
- In use in Massachusetts – improved 71 to 87% over 3 years.
- CDC guidelines recommend prophylaxis for Group B Strep since it prevents lethal infection in newborns.

2. Scientific Acceptability of Measure Properties: Y-24; N-2
(2a. Reliability – precise specifications, testing; 2b. Validity – testing, threats to validity)
2a. Reliability: H-3; M-1; L-0; I-0 2b. Validity: H-3; M-1; L-0; I-0
Rationale:

- Intended to align with CDC guidelines; developer will clarify specifications especially for pre-term screening.
- Reliability and validity rated moderate-high.

3. Usability: H-14; M-11; L-1; I-0
(*Meaningful, understandable, and useful to the intended audiences for 3a. Public Reporting/Accountability and 3b. Quality Improvement)*
3a. Public Reporting: H-3; M-1; L-0; I-0
3b. QI: H-3; M-1; L-0; I-0
Rationale:

- In use in Massachusetts Medicaid program
- Unclear potential for unintended consequences: No data on long-term impact on children of exposure to antibiotics–. Though there is a not a clear relationship, gram negative infections have increased while GBS has declined.

4. Feasibility: H-6; M-19; L-1; I-0
(4a. Clinical data generated during care delivery; 4b. Electronic sources; 4c.Susceptibility to inaccuracies/ unintended consequences identified 4d. Data collection strategy can be implemented)
4a. Byproduct of Care Processes: H-4; M-0; L-0; I-0
4b. Electronic data sources: H-2; M-2; L-0; I-0
4c. Suscep inaccuracies, consequences: H-1; M-3; L-0; I-0
4d. Data collection strategy: H-3; M-1; L-0; I-0
Rationale:

- Requires manual chart abstraction

Steering Committee Recommendation for Endorsement: Y-26; N-0
Rationale: A measure of GBS prophylaxis was not recommended in the 2008 Perinatal project because data at that time indicated high performance. Newer data indicates that performance is not as high as previously thought. This measure aligns with evidence-based guidelines from CDC.

0479 Birth Dose of Hepatitis B Vaccine and Hepatitis B Immune Globulin for Newborns of Hepatitis B Surface Antigen (HBsAg) Positive Mothers

Measure Submission Form
Description: Percentage of infants born to hepatitis B surface antigen (HBsAg)-positive mothers who receive a birth dose of hepatitis B virus (HBV) vaccine and hepatitis B immune globulin (HBIG)
Numerator Statement: Number of infants born to HBsAg positive mothers who receive a birth dose of HBV vaccine and HBIG upon delivery

0479 Birth Dose of Hepatitis B Vaccine and Hepatitis B Immune Globulin for Newborns of Hepatitis B Surface Antigen (HBsAg) Positive Mothers

Denominator Statement: Number of infants born to mothers who tested positive for HBsAg during prenatal screening or upon admission to the hospital for delivery
Exclusions: Pregnancies of HBsAg positive mothers which result in any one of the following: stillbirths, voluntary abortions, miscarriages
Adjustment/Stratification: No risk adjustment or risk stratification. Given a large enough population, this measure does not require stratification for calculation. Stratification is only applicable when calculating estimates for specific populations. At minimum, the facility where HBIG and HBV vaccine was administered to the infant would be a variable for stratification. ´Facility´ is an appropriate stratification variable due to the policies specific to the facility (e.g., birth hospital) which would have specific policies and/or standing orders to the administration of the HBIG and HBV vaccine.
Level of Analysis: Facility
Type of Measure: Process
Data Source: Electronic Clinical Data, Electronic Clinical Data : Electronic Health Record, Electronic Clinical Data : Laboratory, Electronic Clinical Data : Pharmacy, Electronic Clinical Data : Registry, Paper Records
Measure Steward: California Department of Public Health

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Importance to Measure and Report: Y-6; N-20
(1a. High Impact: 1b. Performance Gap, 1c. Evidence)
1a. Impact: H-2; M-1; L-1; I-1; 1b. Performance Gap: H-0; M-1; L-4; I-0
1c. Evidence Quantity: H-3; M-0; L-0; I-2; Quality: H-3; M-1; L-0; I-1; Consistency: H-3; M-0; L-0; I-2
Rationale:

- In California >97% newborns receive it – translates to about 60 missed per year; uncertain about generalizability for national use – California has large Asian population at higher risk
- Not 100% preventive for vertical transmission
- More or less useful depending on population – regional differences; differences in carriers of Hepatits B e-antigen –more likely to transmit
- CDC priority – highly preventive action
- Small impact; small opportunity; already recommended measure 475 – this measure adds little additional benefit
- Small number with chart review burden

Steering Committee Recommendation for Endorsement: Did not pass Importance criteria
Rationale: The Committee noted a small impact and small opportunity for improvement. The immunization component is already covered in measure 475. This measure adds little additional benefit.

0502 Pregnancy Test for Female Abdominal Pain Patients.

Measure Submission Form
Description: Percentage of female patients aged 14 to 50 who present to the emergency department (ED) with a chief complaint of abdominal pain for whom a pregnancy test ordered
Numerator Statement: Number of patients in the denominator who have a pregnancy test (urine or serum) ordered in the ED
Denominator Statement: All women, ages 14 – 50 years old, who present to the ED with a chief complaint of abdominal pain.
Exclusions: i. Females for whom pregnancy is already documented or reported (verbal report by patient is acceptable).
ii. Females with documented or reported hysterectomy (verbal report by patient is acceptable).
iii. Females documented or reported to be post-menopausal (verbal report by patient is acceptable).
iv. Patient refusal
v. Patients who do not complete their ED evaluation (Left before completion, Left AMA, etc.)
Adjustment/Stratification: No risk adjustment or risk stratification n/a n/a
Level of Analysis: Clinician : Group/Practice, Clinician : Individual, Facility

0502 Pregnancy Test for Female Abdominal Pain Patients.

Type of Measure: Process
Data Source: Administrative claims, Electronic Clinical Data : Electronic Health Record, Paper Records
Measure Steward: American College of Emergency Physicians

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Importance to Measure and Report: Y-18; N-8

(1a. High Impact: 1b. Performance Gap, 1c. Evidence)

1a. Impact: H-4; M-1; L-1; I-0; 1b. Performance Gap: H-2; M-2; L-2; I-0

1c. Evidence Quantity: H-0; M-2; L-4; I-0 Quality: H-0; M-3; L-3; I-0; Consistency: H-1; M-3; L-2; I-0

Rationale:

- Limited data on current performance; a Committee member reported her unpublished data for women aged 11-50 years in 8 hospitals (180,000 patients per year) – current performance about 45%
- The selection of "test ordered" rather than "test performed" was questioned. Developer reported that "ordered" is used because it is specified as such for PQRS program
- Incidence of ectopic in the literature about 1%; higher in some populations
- No data on relationship to outcomes; death from ectopic pregnancy is falling; also good to screen prior to CT imaging for abdominal pain, but no direct evidence

2. Scientific Acceptability of Measure Properties: Y-17; N-9

(2a. Reliability – precise specifications, testing; 2b. Validity – testing, threats to validity)

2a. Reliability: H-1; M-5; L-0; I-0 2b. Validity: H-1; M-4; L-1; I-0

Rationale:

- Unclear on reliability and validity; different rates from different data sources were presented by the develop (hospital chart review compared to electronic data);

3. Usability: H-9; M-11; L-2; I-4

(*Meaningful, understandable, and useful to the intended audiences for 3a. Public Reporting/Accountability and 3b. Quality Improvement)*

3a. Public Reporting: H-2; M-3; L-1; I-0

3b. QI: H-2; M-2; L-1; I-0

Rationale:

- Easily captured in EHRs

4. Feasibility: H-1; M-14; L-8; I-3

(4a. Clinical data generated during care delivery; 4b. Electronic sources; 4c.Susceptibility to inaccuracies/ unintended consequences identified 4d. Data collection strategy can be implemented)

4a. Byproduct of Care Processes: H-3; M-2; L-1; I-0

4b. Electronic data sources: H-1; M-4; L-1; I-0;

4c. Suscep inaccuracies, consequences: H-0; M-4; L-2; I-0

4d. Data collection strategy: H-1; M-3; L-2; I-0

Rationale:

- Easier with EHR; burdensome chart review

Steering Committee Recommendation for Endorsement: Y-12; N-14

Rationale:

- Limited data on impact and relationship to outcomes – need more studies on benefit of measure

0747 Admission to Neonatal Intensive Care Unit at Term

Measure Submission Form

Description: Admission to NICU of neonate birthweight = 2500 grams and = 37 weeks gestational age (GA) for >1 day Inborns only BW = 2500 grams, GA = 37 weeks, and NICU admission (day or charge) within one day of birth for greater than a day. Excludes cases with congenital anomalies (DX codes 740-759.9) fetal hydrops (778.0), dwarfism (259.4), or neonatal abstinence syndrome (779.5)

0747 Admission to Neonatal Intensive Care Unit at Term

OR
Inborns with BW = 2500 grams and GA = 37 weeks and transferred to another hospital (UB92/UB04 disp=02 or =05) within 1 day of birth and excluding cases with congenital anomalies (DX codes 740-759.9), fetal hydrops (778.0), dwarfism (259.4) or neonatal abstinence syndrome (779.5)
Numerator Statement: All live inborns who meet the criteria, excluding those with congenital anomalies or fetal hydrops,dwarfism or neonatal abstinence syndrome.
Denominator Statement: All deliveries during occurring during the period under review
Exclusions: None
Adjustment/Stratification: No risk adjustment or risk stratification None
Level of Analysis: Clinician : Team, Facility
Type of Measure: Outcome
Data Source: Administrative claims, Electronic Clinical Data, Electronic Clinical Data : Electronic Health Record
Measure Steward: Beth Israel Deaconess Medical Center

Composite Component - Assessment of Criteria Met/Suitable for Endorsement: Y-11; N-13

Comments:

- Baseline rate = 6-8%; higher than other components – will overwhelm other components of AOI
- Variability in NICU admission – some is quality, some is system inefficiency, overuse, staffing
- No risk-adjustment