

Perinatal and Reproductive Health 2015-2016

FINAL REPORT

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**NATIONAL
QUALITY FORUM**

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Executive Summary

The United States ranks 61st in the world for maternal health, despite the fact that it spends more on perinatal healthcare than any other health sector (\$111 billion in 2010). In 2014, there were nearly 4 million births in the U.S. In 2011, of the 7.6 million hospital stays with Medicaid as the primary payer, 29 percent (or 3 of the top 5 conditions) were related to pregnancy and childbirth: newborn infant, trauma to the perineum and vulva caused by childbirth, and delivery following a cesarean section. For the 61 million women of reproductive age in the U.S., access to high-quality care before and between pregnancies, including pregnancy planning, contraception, and preconception care, can reduce the risk of pregnancy-related complications, including maternal and infant mortality.

The National Quality Forum's (NQF) portfolio of measures for Perinatal and Reproductive Health includes measures for reproductive health; pregnancy, labor and delivery; high-risk pregnancy; newborn, premature, or low birthweight newborns; and postpartum patients (see [Appendix B](#)).

For this project, the Standing Committee evaluated nine newly submitted measures and 15 measures undergoing maintenance review against NQF's standard evaluation criteria. Eighteen measures were endorsed, and five measures were not recommended; one measure was not recommended by the Committee and was withdrawn by the developer after the comment period.

The 18 endorsed measures include the following:

Reproductive Health

- 0033: Chlamydia Screening in Women (CHL)
- 2903: Contraceptive Care – Most & Moderately Effective Methods
- 2902: Contraceptive Care – Postpartum
- 2904: Contraceptive Care – Access to LARC (Long Acting Reversible Contraception)

Labor and Delivery

- 0469: PC-01 Elective Delivery
- 0469:2829: PC-01 Elective Delivery [eMeasure]
- 0470: Incidence of Episiotomy
- 0471: PC-02 Cesarean Section

Labor and Delivery: High-Risk Pregnancy

- 0476: PC-03 Antenatal Steroids

Newborn

- 0716: Unexpected Complications in Term Newborns

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

Newborn: Premature/Low Birthweight

- 1382: Percentage of low birthweight births
- 0304: Late sepsis or meningitis in Very Low Birth Weight (VLBW) neonates (risk-adjusted)
- 0478: Neonatal Blood Stream Infection Rate (NQI #3)
- 1731: PC-04 Health Care-Associated Bloodstream Infections in Newborns
- 0483: Proportion of infants 22 to 29 weeks gestation screened for retinopathy of prematurity

Postpartum

- 0480: PC-05 Exclusive Breast Milk Feeding
- 0480:2830: PC-05 Exclusive Breast Milk Feeding [eMeasure]

The Committee did not recommend the following measures:

Pregnancy

- 1391: Frequency of Ongoing Prenatal Care (FPC) – This measure was withdrawn from consideration by the developer after the NQF Member and Public Comment period.
- 1517: Prenatal & Postpartum Care (PPC)

Labor and Delivery

- 2892: Birthrisk Cesarean Birth Measure

Labor and Delivery: High-Risk Pregnancy

- 2896: Structural Attributes of Facility in which High Risk Women Deliver Newborns: A PQMP Measure

Newborn: Premature/Low Birthweight

- 2895: Thermal Condition of Low Birthweight Neonates Admitted to Level 2 or Higher Nurseries in the First 24 Hours of Life: A PQMP Measure
- 2893: Neonatal Intensive Care All-Condition Readmissions

Brief summaries of the measures reviewed are included in the body of the report; detailed summaries of the Committee's discussion and ratings of the criteria for each measure are in [Appendix A](#).

Introduction

For the 61 million women of reproductive age in the U.S., access to high-quality care before and between pregnancies, including pregnancy planning, contraception and preconception care, can reduce the risk of pregnancy-related complications, including maternal and infant mortality.¹ Disparities in access to quality reproductive and perinatal care, and in outcomes among different racial and ethnic groups in the U.S., as well as sociodemographic disparities, are major topics of interest for quality measurement.² Deaths during pregnancy and childbirth have doubled for all U.S. women in the past 20 years. Figures compiled by the Centers for Disease Control and Prevention (CDC) show that black women are nearly four times more likely to die from pregnancy-related causes than white women.³ Moreover, numerous studies have documented persistent racial, ethnic, and socioeconomic disparities in maternal morbidity and mortality, preterm births, low birthweight infants, access to contraception and reproductive healthcare, and other adverse outcomes.

Research suggests that morbidity and mortality associated with pregnancy and childbirth are largely preventable through adherence to existing evidence-based guidelines. Lower quality care during pregnancy, labor and delivery, and the postpartum period can translate into unnecessary complications, prolonged lengths of stay, costly neonatal intensive care unit (NICU) admissions, and anxiety and suffering for patients and families. However, without appropriate information about performance at a national level, perinatal quality improvement efforts will be unfocused and incentives for improvement limited.

Trends and Performance

The CDC monitors trends in a variety of perinatal indicators:

- The preterm birth rate fell slightly in 2014 to 9.57 percent of births, down 8 percent from the 2007 high. Preterm rates declined among most race and Hispanic origin groups during 2007-2014. The 2014 rate of low birthweight (less than 2,500 grams) was 3 percent lower than the 2006 high (8.26 percent).⁴
- Cesarean section rates for low-risk women (same measure as NQF #0471) peaked in 2009 at 28.1 percent and have declined to 26.9 percent in 2013. The rates were down for more than half of U.S. states and for all term gestational ages (37 or more completed weeks). The largest decline was at 38 weeks, down 9 percent. Rates for all maternal age groups and race and Hispanic origin groups were also down. The largest declines were for women under 40 (6 percent to 8 percent) and for non-Hispanic white women (6 percent).⁵
- Women with no previous cesarean delivery who had vaginal deliveries had lower rates for all maternal morbidities compared with those who had cesarean deliveries. Rates per 100,000 of transfusion (525.1) and ICU admission (383.1) were highest for primary cesarean deliveries, while rates of ruptured uterus (88.9) and unplanned hysterectomy (143.1) were highest for repeat cesarean deliveries. Higher rates of maternal morbidity for cesarean compared with vaginal deliveries were found for nearly all maternal age groups and for women of all races and ethnicities.⁶

National Healthcare Quality and Disparities Report

The 2015 National Healthcare Quality and Disparities Report⁷ identified several trends and disparities in the quality of obstetric care:

- From 2001 to 2013, the rate of obstetric trauma associated with instrument-assisted vaginal deliveries fell overall and for all racial/ethnic groups.
- Blacks and Hispanics had lower rates of obstetric trauma associated with instrument-assisted vaginal deliveries than whites did in all years.
- The gap between the Asian or Pacific Islander rate and the white rate was not statistically significant in 2001 but grew larger over time.

NQF Portfolio of Performance Measures for Perinatal and Reproductive Health

The Perinatal and Reproductive Health Standing Committee (see [Appendix D](#)) oversees NQF's portfolio of measures for Perinatal and Reproductive Health and includes measures for reproductive health; pregnancy, labor, and delivery; high-risk pregnancy; newborns; postpartum care; and premature or low birthweight neonates (see [Appendix B](#)). At the close of this project, the portfolio contained 19 measures: 10 process measures, six outcome measures, two intermediate outcome measures, and one structural measure.

Table 1. NQF Perinatal and Reproductive Health Portfolio of Measures

	Process	Outcome	Intermediate Clinical Outcome	Structure	Composite
Reproductive Health	1	0	2	1	0
Pregnancy	0	0	0	0	0
Labor and Delivery	4	1		0	0
High-Risk Pregnancy	1	0	0	0	0
Newborn	1	1	0	0	0
Premature/Low Birthweight	1	4	0	0	0
Postpartum	2	0	0	0	0
Total	10	6	2	1	0

Additional measures related to perinatal and reproductive health are assigned to other projects. These include various diabetes assessment and screening measures (the Health and Well Being and Behavioral Health projects) and complications and outcomes measures (Surgery project).

National Quality Strategy

NQF-endorsed measures for perinatal and reproductive health support the [National Quality Strategy \(NQS\)](#). NQS serves as the overarching framework for guiding and aligning public and private efforts across all levels (local, state, and national) to improve the quality of healthcare in the U.S. The NQS establishes the "triple aim" of better care, affordable care, and healthy people/communities, focusing on six priorities to achieve those aims: *Safety, Person and Family Centered Care, Communication and Care Coordination, Effective Prevention and Treatment of Illness, Best Practices for Healthy Living, and Affordable Care*.

Quality measures for perinatal and reproductive health align with several of the NQS priorities, including:

- Making care safer by reducing harm caused in the delivery of care: Reducing rates of cesarean births and early elective deliveries reduces the potential harms to mothers and babies.
- Promoting the most effective prevention and treatment practices for the leading causes of mortality:
 - Low birthweight babies have high mortality, morbidity, and costs, and the declining rate of low birthweight babies reflects improved prevention practices and cost savings.
 - Pregnancy planning and preconception care improve perinatal outcomes. Three new contraception measures will address a gap in this important area of prevention.

Use of Measures in the Portfolio

Endorsement of measures by NQF is valued not only because the evaluation process itself is both rigorous and transparent, but also because evaluations are conducted by multistakeholder committees comprised of clinicians and other experts from the full range of healthcare providers, employers, health plans, public agencies, community coalitions, and patients—many of whom use measures on a daily basis to ensure better care. Moreover, NQF-endorsed measures undergo routine "maintenance" (i.e., re-evaluation) to ensure that they remain the best-available measures and reflect current science. Importantly, federal law requires that preference be given to NQF-endorsed measures for use in federal public reporting and performance-based payment programs. NQF-endorsed measures also are used by a variety of stakeholders in the private sector, including hospitals, health plans, and communities.

Many of the measures in the perinatal and reproductive health portfolio are in use in at least one federal program. Additionally, several of the reproductive health, pregnancy, labor and delivery, and premature/low birthweight measures have been included in the Medicaid Adult and Child Core Set by the NQF-convened Measure Applications Partnership (MAP). [Appendix C](#) provides details of federal programs that currently use NQF-endorsed perinatal measures.

Improving NQF's Perinatal and Reproductive Health Portfolio

Committee Input on Gaps in the Portfolio

There are many priority areas for quality measurement and improvement that still need measures; perinatal and reproductive health is a particularly large measurement gap area, especially given the size of the population this topic impacts. During the Perinatal and Reproductive Health Standing Committee

discussions, the Committee identified numerous areas where additional measure development is needed. During the 30-day public commenting period, many commenters noted the lack of measures for perinatal and reproductive healthcare and suggested specific areas for measure development. One commenter suggested endorsement of eMeasure versions for all endorsed measures. The Committee agreed to incorporate the additional measure gaps identified by commenters into the list of gaps.

Reproductive Health

- Preconception care measures as a subset of women’s health, taking existing preventive measures and creating either a formal or an informal preconception measure set
- Measures to track whether women were screened for pregnancy intention and desire to use a contraceptive measure and a patient-reported experience of contraceptive care composite measure that captures whether women felt respected, whether they were informed, and whether they experienced shared decision making
- Chlamydia screening measures for men

Pregnancy and Prenatal Care

- Prenatal care measures that assess quality and are meaningful and demand higher performance, including counseling for nutrition, weight gain, self-care; HIV testing (at entry to prenatal care); risk screening and management for behavioral risks, depression, intimate partner violence or domestic violence, opioid use; assessment of gestational age; and timeliness of care
- Measures for gestational diabetes management and documentation of maternal treatment and infant prophylaxis with anti-HIV medication
- Measures related to care for women who do not need extensive intervention
- Measures for care of women with unintended pregnancy including options for abortion care and measures related to the access and availability of abortion care including medication abortion, and post-abortion access to contraceptives and contraceptive counseling

Labor and Birth

- Measure of the availability and rate of vaginal birth after cesarean (VBAC) birth
- Measures indicating whether women have access to a choice among pharmacologic and nonpharmacologic methods of comfort and pain relief and support for their methods of choice
- Measures of many underused evidence-based intrapartum care practices, including guidance on delaying admission to active labor, use of intermittent auscultation, access to and use of tubs and showers, support for being upright and moving about in labor, use of nonsupine positions for giving birth, and early maternal-newborn skin-to-skin contact
- Risk-adjusted measures for all cesarean births
- CAHPS Maternity adaptations of CAHPS facility, clinician/group, and health plan experience of care surveys for maternal-newborn care
- Measures of intrapartum nursing care of childbearing women and newborns

Over/Appropriate Use Measures

- Overuse of procedures such as induction of labor
- Access to care at the appropriate level

Postpartum Care

- Postpartum care measures that are meaningful and that demand higher performance including timeliness of care, outcomes and rates of longer-term breastfeeding, and maternal depression screening, referral, and treatment

Outcome Measures

- Patient-centered outcome measures that include women's perspectives of their own pregnancy care such as a composite woman-reported measure of outcomes of the full episode of maternity care collected at about six weeks postpartum
- Maternal morbidity measures
- Neonatal readmissions at the health plan level of analysis

Person- and Family-Centered Care

- Measures of culturally sensitive care, or care that accords with women's desires and measures of shared decision making and care coordination across all phases of maternity care
- Measures at the clinician and group level for prenatal, intrapartum, and postpartum phases of maternity care, including those that align with existing measures at facility, health plan, and other levels
- Measures that can evaluate the impact of different payment and care delivery models on women's reproductive health

Measure Applications Partnership (MAP): Reproductive Health Measure Gaps in the Medicaid Adult and Child Core Sets

Reproductive health is the most frequently measured topic across the Medicaid Child and Adult Core Sets, and [MAP's 2016 recommendations](#) would expand these measures even further. Measures of contraceptive access and use gained strong, albeit conditional, support from MAP because of the robust and growing evidence that well-timed, intentional pregnancies are associated with better health outcomes for both the mother and the infant. Additionally, there is significant opportunity for improvement and cost effectiveness in this area. For example, 11 states have made specific policy changes to encourage placement of long-acting reversible contraception immediately postpartum, with the potential for other states to follow.

MAP also identified specific gaps in current perinatal and reproductive health measure sets intended to communicate MAP's vision for the future of perinatal and reproductive health measurement.

- Inter-conception care to address risk factors
- Poor birth outcomes (e.g., premature birth)
- Postpartum complications
- Support with breastfeeding after hospitalization

Perinatal and Reproductive Health Measure Evaluation

On May 2-3, 2016, the Perinatal and Reproductive Health Standing Committee evaluated nine new measures and 15 measures undergoing maintenance review against [NQF's standard evaluation criteria](#).

To begin the evaluation process, the Committee met via conference call in four smaller workgroups to conduct preliminary reviews of the measures against the evaluation criteria.

Comments Received Prior to Committee Evaluation

NQF solicits comments on endorsed measures on an ongoing basis through the [Quality Positioning System \(QPS\)](#). In addition, NQF solicits comments prior to the evaluation of measures via an online tool located on the project webpage. For this evaluation cycle, the pre-evaluation comment period was open from March 22 to April 5, 2016, for all 24 of the measures under review. NQF received seven pre-evaluation comments ([Appendix G](#)).

All submitted comments were provided to the Committee prior to its initial deliberations during the workgroup calls.

Refining the NQF Measure Evaluation Process

To streamline and improve the periodic evaluation of currently endorsed measures, NQF has updated guidance for the evaluation of measures for maintenance of endorsement effective October 1, 2015. NQF's endorsement criteria have not changed, and all measures continue to be evaluated using the same criteria. However, the new approach shifts the emphasis for evaluation of currently endorsed measures:

- **Evidence.** If the developer attests that the evidence for a measure has not changed since its previous endorsement evaluation, there is a decreased emphasis on evidence, meaning that the Committee may accept the prior evaluation of this criterion without further discussion or need for a vote. This applies only to measures that previously passed the evidence criterion without an exception. If a measure was granted an evidence exception, the evidence for that measure must be revisited.
- **Opportunity for Improvement (Gap).** For re-evaluation of endorsed measures, there is increased emphasis on current performance and opportunity for improvement. Endorsed measures that are “topped out” with little opportunity for further improvement are eligible for Inactive Endorsement with Reserve Status.
- **Reliability**
 - Specifications. There is no change in the evaluation of the current specifications.
 - Testing. If the developer has not presented additional testing information, the Committee may accept the prior evaluation of the testing results without further discussion or need for a vote.
- **Validity.** There is less emphasis on this criterion if the developer has presented no additional testing information, and the Committee may accept the prior evaluation of this subcriterion without further discussion and vote. However, the Committee still considers whether the specifications are consistent with the evidence. Also, for outcome measures, the Committee discusses questions required for the [SDS Trial](#) even if no change in testing is presented.
- **Feasibility.** The emphasis on this criterion is the same for both new and previously endorsed measures, since feasibility issues might have arisen as endorsed measures have been implemented.
- **Usability and Use.** For re-evaluation of endorsed measures, there is increased emphasis on the use of the measure, especially use for accountability purposes. There also is an increased

emphasis on improvement in results over time and on unexpected findings, both positive and negative.

Committee Evaluation

Of the nine new measures and 15 measures undergoing maintenance of endorsement considered by the Committee at its May 2-3, 2016 meeting, 18 were recommended for endorsement and six were not recommended. Table 2 summarizes the results of the Committee's evaluation.

Table 2. Perinatal and Reproductive Health Measure Evaluation Summary

	Maintenance	New	Total
Measures under consideration	15	9	24
Endorsed measures	13	5	18
Measures not recommended for endorsement	2	4	6
Measures withdrawn from consideration	7 (1 withdrawn after comment)	0	7
Reasons for not recommending	Importance – 2 Scientific Acceptability – 0 Overall – 0 Competing Measure – 0	Importance – 2 Scientific Acceptability –1 Overall – 1 Competing Measure – 0	

Overarching Issues

During the Standing Committee's discussion of the measures, several overarching issues emerged that were factored into the Committee's ratings and recommendations for multiple measures.

Competing Measures of Neonatal Infection

The Committee determined that three similar measures of neonatal infection all met NQF's criteria, and it recommended all three for endorsement: measure #0307, #0478, and #1731. The Committee strongly agreed that these multiple measures were burdensome for hospitals and looked to the developers to create a single measure. Ultimately, the Committee agreed that, for the time being, all three measures should remain endorsed for the following reasons:

- planned changes in the specifications of measure #0478 to achieve further harmonization;
- update of specifications to ICD-10 CM codes and the lack of information regarding the effect of revised coding on the measures;
- the population of hospitals reporting on measure #1731 was much larger this year —the greater experience will provide more information on the usefulness of the measure; and
- the need for data to compare the slightly different populations captured in each measure.

Given concerns about measurement burden, the Committee directed the developers to work together to arrive at a single measure with supporting data in 18 months for the Committee to consider during an off-cycle review.

Additionally, the Committee noted that the majority of babies born are larger babies that also develop infections but at a lower rate compared to the premature babies, so measures that focus only on the smaller babies miss the opportunity to improve processes and reduce infections in many facilities that do not care for very low birthweight babies. See [Appendix A](#) for full details of the Committee discussion.

Need for “Balancing” Measures

The Committee noted a potential concern that some measures may have unintended consequences that can be addressed by a “balancing measure” that would identify potential unintended effects. Balancing measures ensure that changes made in response to one measure do not worsen outcomes in another area. For example, a decrease in cesarean sections, which is considered a positive outcome, should not increase compromised newborns or stillbirths.

Measures for Normal Pregnancies

Many of the measures under review focused on high-risk mothers or babies, yet the vast majority of pregnancies, deliveries, and newborns are not high-risk. Committee members noted the need for measures that assess normal, healthy pregnancies and babies, in part to assess and improve the quality of care that most patients and families are receiving, and in part to ensure that the majority of the population is not excluded from quality improvement and measurement.

Impact of ICD-10 CM Coding

The maintenance measures in this project were all recently updated to ICD-10 CM codes; however, performance data using ICD-10 CM coding are not yet available. Committee members were hopeful that the new codes would improve accuracy and ease of reporting but, without data, concerns remain over the accuracy, burden, gap, and actual performance of many of the measures.

Need for Better Measures

Committee members noted that the measurement world has changed dramatically since NQF’s 2012 Perinatal project. While all of the measures evaluated had some opportunity for improvement, the Committee highlighted the need for measures that “raise the bar” to further improve care and demand a higher level of performance. In addition, it noted a need for more measures of outcomes that matter to patients and families.

Summary of Measure Evaluation

The following brief summaries of the measure evaluations (organized by subtopic area) highlight the major issues that the Committee considered. Details of the Committee’s discussion and ratings of the criteria for each measure are included in [Appendix A](#).

Reproductive Health

0033 Chlamydia Screening in Women (CHL) (National Committee for Quality Assurance): Endorsed

Description: The percentage of women 16-24 years of age who were identified as sexually active and who had at least one test for chlamydia during the measurement year. **Measure Type:** Process; **Level of Analysis:** Health Plan, Integrated Delivery System; **Setting of Care:** Ambulatory Care: Clinician

Office/Clinic; **Data Source:** Administrative claims, Electronic Clinical Data, Electronic Clinical Data: Imaging/Diagnostic Study, Electronic Clinical Data: Laboratory, Electronic Clinical Data: Pharmacy

This measure assesses the percentage of sexually active women 16-24 years of age who had at least one test for chlamydia during the measurement year. This longstanding HEDIS measure appears in both the Medicaid Adult and Child Core Sets, with different age groups reported in each one. The Committee agreed that the underlying evidence continues to suffice despite a reduction to grade B by the U.S. Preventive Services Task Force (USPSTF). The Committee expressed concerns about the exclusive focus on women and the unintended consequences of not including men in this measure. The Committee highlighted that the USPSTF recommendation acknowledged the importance of men in this population, citing extensively the CDC recommendations in screening and treating men, but recognized the limitation of current data. The Committee noted that even though the developer presents evidence from the literature that describes racial/ethnic differences in screening rates (higher in African-Americans and Hispanics) and prevalence of the disease (higher in African-Americans and Mexican-Americans), the developer did not collect performance data stratified by race, ethnicity, or language. The Committee noted that this measure may be affected by the new Pap smear screening guidelines that reduce patient visits and may also reduce opportunities for chlamydia screening. The Committee suggested that the two measures--cervical cancer screening and chlamydia screening— be monitored together. The Committee questioned how this measure would account for transgender individuals and females between 16 and 24 years who are using contraception for noncontraceptive benefits. The developer clarified that teenagers sometimes state that they are using oral contraceptives for noncontraceptive reasons, but because of confidentiality and privacy concerns, may not disclose that they are sexually active. Overall, the Committee agreed that the measure meets the NQF criteria and recommended NQF #0033 for continued endorsement.

2903 Contraceptive Care – Most & Moderately Effective Methods (U.S. Office of Population Affairs): Endorsed

Description: The percentage of women aged 15-44 years at risk of unintended pregnancy that is provided a most effective (i.e., sterilization, implants, intrauterine devices or systems (IUD/IUS) or moderately effective (i.e., injectables, oral pills, patch, ring, or diaphragm) FDA-approved method of contraception. The proposed measure is an intermediate outcome measure because it represents a decision that is made at the end of a clinical encounter about the type of contraceptive method a woman will use, and because of the strong association between type of contraceptive method used and risk of unintended pregnancy. **Measure Type:** Intermediate Clinical Outcome; **Level of Analysis:** Facility, Health Plan, Population: Regional, Population: State; **Setting of Care:** Other, Primary Care and Reproductive Health Settings; **Data Source:** Administrative claims.

This new measure assesses the percentage of women at risk of unintended pregnancy who are provided a method of contraception considered either “most effective” or “moderately effective.” Contraceptive care is important because it prevents teen and unintended pregnancy and improves birth spacing. The developer classifies this measure as an intermediate outcome measure because it reflects a decision after a discussion between the provider and client/patient. The use of those methods considered “moderately” or “most” effective is strongly associated with reduced risk of unintended pregnancy.

Contraceptive access and use is important because of the robust and growing evidence that well-timed, intentional pregnancies are associated with better health outcomes for both the mother and the infant. The Committee noted that although a high percentage of women will choose one of the “most” or “moderately” effective methods, some women will choose other, less effective, methods— a choice that must be respected— so the goal for this measure is not 100 percent. The goal is improvement over time rather than a specific target. The Committee noted that only 24 states have full access to contraception for teenagers, and access to certain methods is limited by payers. The measure is intended to be used by plans, systems, and family planning programs such as the federal Title X program. The measure has been extensively piloted by two state Medicaid programs and is being reported by 13 state Medicaid programs. Those Medicaid programs are funded by the Center for Medicaid and Children’s Health Insurance Program (CHIP) Services (CMCS), and the measures are being reported from 2015 to 2018 as part of the Maternal and Infant Health initiative. The developer and the Committee discussed at length the concern of potential coercion of patients. The developer noted that CDC-OPA (Office of Population Affairs) recommendations describe in detail how to provide client-centered, noncoercive contraceptive counseling, and efforts to support use of the measure should be accompanied by efforts to increase awareness of the CDC-OPA recommendations (CDC/OPA 2014). Further, OPA has funded the development of training on how to provide client-centered training, which is available to all providers on the OPA-supported training website (www.fpntc.org). This measure is based on administrative data that cannot determine a woman’s desire for pregnancy, and the Committee welcomed the developer’s plan to develop an electronic or hybrid measure in the near future. To estimate the number of women at risk for pregnancy within a plan or system, data from the National Survey of Family Growth (NSFG) can be used to interpret the measure rates. The Committee recommended this measure because of its importance to women’s health.

2904 Contraceptive Care - Access to LARC (U.S. Office of Population Affairs): Endorsed

Description: Percentage of women aged 15-44 years at risk of unintended pregnancy that is provided a long-acting reversible method of contraception (i.e., implants, intrauterine devices or systems (IUD/IUS). It is an access measure because it is intended to identify situations in which women do not have access to the long-acting reversible methods of contraception (LARC), i.e., contraceptive implants and intrauterine devices. **Measure Type:** Structure; **Level of Analysis:** Facility, Health Plan; Population: Regional; Population: State; **Setting of Care:** Other, Primary Care and Reproductive Health Settings; **Data Source:** Administrative claims

The new measure covers the same population as measure #2903 Contraceptive Care – Most & Moderately Effective Methods, but it focuses in on a subset of contraceptives, focusing on access to long-acting reversible contraceptive methods (LARCs)—IUDs and contraceptive implants. Availability of LARCs varies and depends on payer coverage and availability of trained providers. The measure encourages health systems to look at reporting units with very low rates of provision of LARC to identify unnecessary barriers to LARCs. A low rate indicates a lack of access to LARCs. The Committee agreed that, while there are a few issues specific to LARCs as a form of contraception (including side effects particular to these contraceptive methods), the overarching issues surrounding the evidence were addressed in the discussion of NQF #2903: Contraceptive Care – Most & Moderately Effective Methods. This measure is used to identify women who do not have access to LARCs. The Committee discussed the

use of the population denominator versus the encounters as the denominator. The developer explained that it chose the population versus the encounter because provision of the contraceptive is not always readily attributed to just one encounter or one type of provider. The Committee noted that this measure provides a good metric for access, not necessarily quality, since there are many different factors that contribute to provider quality of care. The Committee expressed serious concerns about coercive practices in which women are not offered a complete choice of methods and are pressured into using a LARC method. The developer stated that coercion is unlikely because the focus is on ensuring access to these methods by monitoring very low or zero rates, and the measure is not intended to be used for benchmarking. Ultimately, the Committee agreed that the measure meets the NQF criteria and recommended NQF #2904 for endorsement.

2902 Contraceptive Care - Postpartum (U.S. Office of Population Affairs): Endorsed

Description: Among women ages 15 through 44 who had a live birth, the percentage that is provided: 1) A most effective (i.e., sterilization, implants, intrauterine devices or systems (IUD/IUS) or moderately (i.e., injectables, oral pills, patch, ring, or diaphragm) effective method of contraception within 3 and 60 days of delivery. 2) A long-acting reversible method of contraception (LARC) within 3 and 60 days of delivery. Two time periods are proposed (i.e., within 3 and within 60 days of delivery) because each reflects important clinical recommendations from the U.S. Centers for Disease Control and Prevention (CDC) and the American College of Obstetricians and Gynecologists (ACOG). The 60 day period reflects ACOG recommendations that women should receive contraceptive care at the 6 week postpartum visit. The 3 day period reflects CDC and ACOG recommendations that the immediate postpartum period (i.e., at delivery, while the woman is in the hospital) is a safe time to provide contraception, which may offer greater convenience to the client and avoid missed opportunities to provide contraceptive care.

Measure Type: Intermediate Clinical Outcome; **Level of Analysis:** Health Plan, Population: Regional; **Setting of Care:** Other, Primary Care and Reproductive Health Settings; **Data Source:** Administrative claims

This new intermediate outcome measure assesses the percentage of women provided a “most” or “moderately” effective method of contraceptive or a long-acting reversible method of contraception (LARC) after childbirth. Contraceptive care for postpartum women is important to facilitate birth spacing, and this measure identifies women more clearly at risk for pregnancy. Two separate time periods are measured: the 60-day period reflects ACOG recommendations that women should receive contraceptive care at the six-week postpartum visit; and the three-day period reflects CDC and ACOG recommendations that the immediate postpartum period (at delivery, while the woman is in the hospital) is a safe time to provide contraception, which may offer greater convenience and avoid missed opportunities to provide contraceptive care. Eleven states have made specific policy changes to encourage placement of LARC immediately postpartum, with the potential for other states to follow these policy changes. The Committee agreed that patient choice must be respected, thus 100 percent is not an appropriate target.

Pregnancy

1517 Prenatal & Postpartum Care (PPC) (National Committee for Quality Assurance): Not Recommended

Description: The percentage of deliveries of live births between November 6 of the year prior to the measurement year and November 5 of the measurement year. For these women, the measure assesses the following facets of prenatal and postpartum care: Rate 1: Timeliness of Prenatal Care. The percentage of deliveries that received a prenatal care visit as a member of the organization in the first trimester or within 42 days of enrollment in the organization. Rate 2: Postpartum Care. The percentage of deliveries that had a postpartum visit on or between 21 and 56 days after delivery. **Measure Type:** Process; **Level of Analysis:** Health Plan, Integrated Delivery System; **Setting of Care:** Ambulatory Care: Clinician Office/Clinic; **Data Source:** Administrative claims, Electronic Clinical Data, Paper Medical Records

This measure was originally endorsed in 2011 and is currently used in programs for both health plan and state reporting. This measure assesses the timing of prenatal and postpartum visits, but not the content of those visits. The Committee agreed that ACOG guidelines recommend a schedule of prenatal visits that is based primarily on expert opinion rather than empirical evidence. The Committee acknowledged that while data show that patients who have no prenatal care have worse outcomes, there is no evidence for the timing of visits. The Committee invoked the exception to the evidence criterion and agreed that empirical evidence is not needed to hold providers accountable for the measure. The Committee also noted performance for prenatal care was about the same for Medicaid and commercial plans at 80-85 percent, but postpartum visits are lower for both: commercial plans reported 73-76 percent, and Medicaid plans reported 61-63 percent. The Committee noted that early postpartum care before 21 days may be important for wound care, breastfeeding support, depression screening, follow-up of blood pressure, and contraception. The Committee noted that women also are being seen for depression screening and breastfeeding support during their babies' pediatric visits. They expressed concerns about the validity of the measure, noting the limited number of codes, as well as the fact that the measure is not addressing the content of the visits. The Committee also identified concerns with the Usability and Use criteria because the measure potentially discourages earlier postpartum care and it is unclear whether quality is improving. The Committee did not reach consensus on the suitability for continued endorsement of NQF #1517. Despite significant concerns, several Committee members were reluctant to remove endorsement until better measures for prenatal care are available.

During the NQF member and public comment period, this measure received 10 comments: six supported endorsement, three did not support endorsement, and one did not specify. During the post-comment call, the Committee continued to have concerns similar to those discussed at the in-person meeting, including the timeframe; the fact the measure is based on expert consensus, not empirical evidence; and the emphasis on quantity, not content of visits. These concerns were contrasted with the lack of existing measures in this area or any in the measure development pipeline; the large gap in performance; the unlikelihood that randomized controlled trials (RCTs) will be conducted on this topic; and the fact that if patients are not receiving care, it is definitely poor quality. Despite extensive discussion, the Committee was again unable to achieve consensus on either validity or an overall recommendation. The measure moved forward as "consensus not reached" to NQF member vote. NQF

members voted not to recommend the measure. As per NQF policy, CSAC made the final recommendation for or against endorsement. After discussion, CSAC voted not to recommend the measure, so endorsement was removed.

1391 Frequency of Ongoing Prenatal Care (FPC) (National Committee for Quality Assurance): Withdrawn

Description: The percentage of Medicaid deliveries that had the following number of expected prenatal visits:

- less than 21 percent of expected visits.
- 21 percent–40 percent of expected visits.
- 41 percent–60 percent of expected visits.
- 61 percent–80 percent of expected visits.
- greater than or equal to 81 percent of expected visits.

Measure Type: Process; **Level of Analysis:** Health Plan, Integrated Delivery System; **Setting of Care:** Ambulatory Care: Clinician Office/Clinic; **Data Source:** Administrative claims, Electronic Clinical Data, Paper Medical Records

This health plan measure was originally endorsed in 2011 and is used in programs for both Medicaid plans and state reporting. The Committee agreed that ACOG guidelines recommend a schedule of prenatal visits that are based primarily on expert consensus. The Committee adds that there is no empirical evidence for the visit schedule or that the number of visits is associated with improvement in outcomes for mothers and babies. The measure is considered a “proxy for access” ; however, it does not assess the capacity of a plan to provide prenatal care, but it reflects the challenges women face in accessing care, such as taking time off work, transportation, and childcare. The Committee emphasized that frequency does not equal quality and that this measure inhibits innovative strategies and new models of care delivery. Overall, the Committee agreed that the measure did not meet the Evidence criterion and did not recommend NQF #1391 for continued endorsement. After the NQF member and public comment period, the developer withdrew this measure from consideration of endorsement. Endorsement was removed from this measure.

Labor and Delivery

0469 PC-01 Elective Delivery (The Joint Commission): Endorsed

Description: This measure assesses patients with elective vaginal deliveries or elective cesarean births at ≥ 37 and < 39 weeks of gestation completed. This measure is a part of a set of five nationally implemented measures that address perinatal care (PC-02: Cesarean Birth, PC-03: Antenatal Steroids, PC-04: Health Care-Associated Bloodstream Infections in Newborns, PC-05: Exclusive Breast Milk Feeding); **Measure Type:** Process; **Level of Analysis:** Facility, Population: National; **Setting of Care:** Hospital/Acute Care Facility; **Data Source:** Electronic Clinical Data, Paper Medical Records

This endorsed, facility-level measure assesses the number of infants delivered electively between 37 weeks and 38 weeks and six days gestation, providing an assessment of providers’ adherence to the American College of Obstetricians and Gynecologists (ACOG) guidelines restricting elective delivery (i.e.,

deliveries without maternal or fetal indication for delivery before the onset of spontaneous labor) prior to 39 completed weeks' gestation. Evidence shows that early elective, nonmedically indicated delivery carries increased risks for the newborn, and new evidence shows that reducing the number of elective deliveries before 39 weeks does not increase the rate of stillbirths. Data from The Joint Commission (TJC) shows a decline in performance from 13.6 percent in 166 hospitals in 2011 to 3.3 percent in 1,388 hospitals in 2014. The developer reported that the greatest decline is for repeat cesarean births at 37 weeks. In 2016, an additional 821 hospitals are required to report this measure. The Committee agreed with the developer that the goal is not to reach zero elective deliveries, as there will always be circumstances for which an early elective delivery is appropriate. Some Committee members suggested that the measure is approaching that limit at 3 percent, and there may be little room for further improvement though most agreed that measurement is needed to assure continued high levels of performance. The Committee noted that not all agree with the appropriateness of some exclusions and that inappropriate use of the exclusion codes occurs. Some Committee members expressed concern with the lack of reduction in NICU admissions and cesarean births that, according to the evidence, should occur with the significant decline in early elective deliveries. The developer notes that National Center for Health Statistics data demonstrates overall reduction in deliveries at 37 and 38 weeks. Some updates were made to the measure specifications, including a check for the presence of labor and a new data element for prior uterine surgery as well as additional codes for exclusions. The Committee noted that it is not yet clear how the change to ICD-10 may affect the reliability. The Committee agreed that the public can easily understand this measure and that it effectively captures the attention of policymakers. The Committee unanimously recommended measure #0469 for continued endorsement.

0469:2829 [eMeasure] PC-01 Elective Delivery (The Joint Commission): Endorsed

Description: This measure assesses patients with elective vaginal deliveries or elective cesarean births at ≥ 37 and < 39 weeks of gestation completed. This measure is a part of a set of five nationally implemented measures that address perinatal care (PC-02: Cesarean Section, PC-03: Antenatal Steroids, PC-04: Health Care-Associated Bloodstream Infections in Newborns, PC-05: Exclusive Breast Milk Feeding). PC-01, Elective Delivery is one of two of the measures in this set that have been reengineered as eQMs and are included in the EHR Incentive Program and Hospital Inpatient Quality Reporting Program. **Measure Type:** Process; **Level of Analysis:** Facility, Population: National; **Setting of Care:** Hospital/Acute Care Facility; **Data Source:** Electronic Clinical Data, Electronic Clinical Data: Electronic Health Record; Electronic Clinical Data: Pharmacy

This is the new eMeasure version of measure #0469: PC-01 Elective Delivery. The information on evidence and opportunity for improvement is the same as for measure #0469. NQF's technical review found this eMeasure to have appropriate specifications and value sets, and an adequate feasibility assessment that addressed the data elements and measure logic. The Committee found the results of the BONNIE testing in a simulated data set provided by the developers acceptable. The developer reported that seven healthcare organizations reported this eMeasure to The Joint Commission in 2015, and 69 healthcare organizations will be reporting the eMeasure in 2016.

0470 Incidence of Episiotomy (National Perinatal Information Center): Endorsed

Description: Percentage of vaginal deliveries (excluding those coded with shoulder dystocia) during which an episiotomy is performed. **Measure Type:** Process; **Level of Analysis:** Facility; **Setting of Care:** Hospital/Acute Care Facility; **Data Source:** Administrative claims, Paper Medical Records

This measure of overuse has been endorsed since 2008. Episiotomy is associated with increased perineal trauma and subsequent pain, sexual dysfunction, and anal incontinence, without evidence of benefit. While there has been a significant decrease in episiotomies overall, there continues to be considerable variation among facilities. Data from 63 hospitals reporting to the National Perinatal Information Center (NPIC) found results ranging from 0.8 to 22.1 percent in 2014. Committee members reported fewer third and fourth degree lacerations in their facilities when episiotomy rates declined. Several Committee members shared their experiences using clinician-level measure results and peer-to-peer education to change behaviors in their institutions, but agreed that the measure is best used at the facility level for accountability. Committee members noted that conversion to ICD-10 CM will address some coding issues, and that the procedure is easy to code. The Leapfrog Group is publicly reporting this measure for nearly 1,000 hospitals. The Committee unanimously recommended this measure for continued endorsement.

0471 PC-02 Cesarean Birth (The Joint Commission): Endorsed

Description: This measure assesses the number of nulliparous women with a term, singleton baby in a vertex position delivered by cesarean birth. This measure is part of a set of five nationally implemented measures that address perinatal care (PC-01: Elective Delivery, PC-03: Antenatal Steroids, PC-04: Health Care-Associated Bloodstream Infections in Newborns, PC-05: Exclusive Breast Milk Feeding). **Measure Type:** Outcome; **Level of Analysis:** Facility, Population: National; **Setting of Care:** Hospital/Acute Care Facility; **Data Source:** Paper Medical Records

This measure assesses the rate of cesarean births in a subset of pregnant women thought to be at low risk for an operative delivery. ACOG has said that this is the “optimal measure” for cesarean birth because it focuses on first-time, uncomplicated pregnancy and assesses the outcome of labor management. The Committee compared the Healthy People 2020 target of 23.9 percent and the 2014 mean result of 26.8 percent for 1,388 hospitals reporting to The Joint Commission. The variation among hospitals is still quite large (10th percentile is 17.6 percent and the 90th percentile is 36.3 percent) and disparities exist (African Americans have higher cesarean birth rates). The Committee cautioned that tying payment to a specific target value, such as the Healthy People target of 23.9 percent, might lead to poor outcomes. The developer has revised the measure to remove the age stratification after considering data from California and Massachusetts that demonstrated lack of effect of age on hospital performance. The Committee discussed, at length, the possible need for additional risk adjustment. Some Committee members reported anecdotal data that varied in terms of whether additional risk factors affected the cesarean birth rate or not. The developer stated that exclusion for participation in clinical trials is no longer in the measure. The Committee pointed out that this cesarean birth measure needs a balancing measure, such as #0716 Unexpected Complications in the Term Newborn, to monitor potential unintended consequences during efforts to reduce the cesarean birth rate. Committee members noted that ACOG and the Society for Maternal and Fetal Medicine (SMFM) use this measure.

The developer explained that they are working out details for public reporting, but specific dates for this are not available. The Committee suggested that the brief measure title may be misleading and a more descriptive title such as “Nulliparous, Term, Singleton, Vertex (NTSV) Cesarean Birth” would be helpful for wider audiences.

This measure received 25 comments during the post comment period. Of these, seven organizations supported the Committee’s recommendation, noting continued disparities in care, the risks associated with cesarean sections, and evidence-based processes to reduce cesarean birth rates safely. The measure received 17 comments from 11 individuals disagreeing with the Committee’s recommendation of the measure; these primarily focused on two issues: the lack of risk adjustment in the measure and concerns over the Healthy People 2020 target rate of 23.9 percent. Although this target rate was not set by the measure developer or by NQF, a number of commenters indicated that without risk adjustment, this may not be an appropriate target. During the post-comment call, the Committee noted that the target rate is set by Healthy People 2020 and therefore is not in the control of either the developer or NQF. The Committee agreed it did not have any concerns with the measure as it is specified, without the age adjustment. Committee members noted that measure #0716 Unexpected Complications in Term Newborn, is a balancing measure that could provide a signal for overzealous reductions in cesarean birth rates.

2892 Birthrisk Cesarean Birth Measure (Birthrisk.com, LLC.): Not Recommended

Description: This is a measure of the effect that obstetrical care providers’ labor management strategies have on their laboring patients’ risk for cesarean birth. The target population is limited to women who attempt labor with a singleton vertex pregnancy without a history of a prior cesarean birth and give birth between 37 and 42 weeks of gestation. **Measure Type:** Outcome; **Level of Analysis:** Facility, Clinician: Individual; **Setting of Care:** Hospital/Acute Care Facility; **Data Source:** Other

This new measure uses a different approach to measuring cesarean birth rates that includes all mothers undergoing labor; it is not limited to first time mothers and excludes elective repeat cesarean births. The Committee had no reference data to evaluate the results calculated by the developer using birth certificate data from New York State in 2005-2007. Committee members indicated that many of the birth certificate data fields used in this measure, such as previous cesarean birth, induction of labor and attempt of labor, are known to be unreliable. This hospital- and clinician-level measure also uses a fee-based, proprietary method of risk adjustment using cohort comparisons. Committee members were unfamiliar with this methodology and found the information provided to be inadequate to understand the data presented. The developer notes that efforts to have the method published have been unsuccessful. Given concerns regarding the proprietary nature of the risk adjustment method and the use of 10-year-old data, the Committee did not recommend this measure for endorsement.

Labor and Delivery: High-Risk Pregnancy

0476 PC-03 Antenatal Steroids (The Joint Commission): Endorsed

Description: This measure assesses patients at risk of preterm delivery at ≥ 24 and < 34 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

Birth, PC-04: Health Care-Associated Bloodstream Infections in Newborns, PC-05: Exclusive Breast Milk Feeding). **Measure Type:** Process; **Level of Analysis:** Facility, Population: National; **Setting of Care:** Hospital/Acute Care Facility; **Data Source:** Paper Medical Records

This measure has been endorsed since 2008. Steroids are given to mothers at risk of premature delivery to improve the lung function of premature newborns. The measure has been changed to capture initiation of antenatal steroids rather than “antenatal steroids administered.” The developers found that if the first dose of steroids is given, then the follow-up doses are also given, and this change reduces the burden of data collection. In response to the 2013 ACOG Practice Bulletin on Premature Rupture of Membranes (PROM), the developer expanded the denominator to include patients delivering live preterm newborns up to 34 weeks. The updates allow for data collection from medical records, vital records, delivery logs, and clinical information systems as acceptable data sources to help hospitals identify all cases 24-34 weeks of gestation. Committee members expressed concern that the exclusion for “documented reason” is too readily used and will result in a premature newborn not receiving the benefits of steroid therapy. They also noted that mothers with hypertension and diabetes who need immediate delivery may be harmed by waiting the 48 hours for full benefit of the steroids prior to delivery. Although hospitals with lower delivery volumes will be required to report on this measure, it is unlikely to capture many more cases because these high-risk patients are generally cared for in hospitals with higher volumes. This measure is included in the Medicaid Adult Core Set of measures.

2896 Structural Attributes of Facility in which High Risk Women Deliver Newborns: A PQMP Measure (Collaboration for Pediatric Quality Measures [CAPQuaM]): Not Recommended

Description: This measure characterizes the facility that is the site of delivery of newborn infants born to high risk women by four key structural characteristics. These four characteristics were identified as critical structures by a national expert panel who served CAPQuaM’s 360 degree process for measure development. This work was undertaken in the context of developing innovative measures of the availability of High Risk Obstetrical (HROB) care as assigned by AHRQ and CMS. The four key structures are: (a) Level 3 or higher NICU services on campus. Level 3 NICU is defined as meeting either the American Academy of Pediatrics (AAP) criteria or a locally used set of explicit criteria recognized by that state’s Department of Health. (b) 24/7 on-site blood banking services/transfusion services that are always available for obstetrical patients. By 24/7 blood banking/transfusion services we mean that the following are always available to obstetrical patients: testing of blood group and Rh Type; cross matching; antibody testing; transfusion with on-site and available blood, either ABO specified or O-Rh-negative; transfusion with fresh frozen plasma; and transfusion with cryoprecipitate. (c) 24/7 in-house physician dedicated to labor and delivery who is capable of safely managing labor and delivery, and of performing a cesarean section, including an emergent cesarean section. (d) 24/7 in-house physician coverage dedicated to the obstetrical service by an anesthesiologist who is qualified to provide obstetrical anesthesia. **Measure Type:** Composite; **Level of Analysis:** Population: Community, Population: County or City, Health Plan, Integrated Delivery System, Population: National, Population: Regional, Population: State; **Setting of Care:** Hospital/Acute Care Facility, Other; **Data Source:** Administrative claims, Healthcare Provider Survey

This new composite measure includes four components of care delivery for high-risk mothers. The Committee did not agree that this is a measure of quality or accountability for providers. The evidence provided for the four components is expert opinion, not empirical evidence. The Committee noted that the information may be important as a designation of care provision. The developers stated that this is a “population measure de-linked from individual patient care” and “the measure does not make a distinction between good care and bad care.” The Committee also noted that the measure includes mothers with birth complications that are mostly unpredictable and patients cannot always be transferred to a different facility after birth. The developer presented no measure results for any plans or systems. The Committee agreed that directing high-risk mothers and high-risk babies to facilities most capable of caring for them may affect outcomes; however, the Committee agreed that this measure needs further development to become an accountability measure.

Newborn

0716 Unexpected Complications in Term Newborns (California Maternal Quality Care Collaborative): Endorsed

Description: This is a hospital level performance score reported as the percent of infants with Unexpected Newborn Complications among full term newborns with no preexisting conditions, typically calculated per year. **Measure Type:** Outcome; **Level of Analysis:** Facility, Integrated Delivery System, Population: Regional, Population: State; **Setting of Care:** Hospital/Acute Care Facility; **Data Source:** Administrative claims

This measure was originally endorsed as #0716 Healthy Term Newborn in 2012. The developer has since inverted the measure to report on the unexpected outcomes for healthy, full-term newborns. The developer explained that the reason to invert the measure is to focus attention on the 3-6 percent of babies with unexpected complications. The Committee agreed that this is an important outcome measure and that the rate is not expected to be zero. The Committee also suggested that this was a good balancing measure that should be used to monitor newborn outcomes as practices change. This outcome measure is not risk-adjusted. The developers provided an analysis of potential risk adjustors but concluded that “while there are some individual factors that can statistically affect the score, when examined together at the hospital level, they cancel each other out or are distributed evenly among hospitals so as not to significantly affect the rankings.” The data source is administrative claims linked to vital statistics; unlike the underused ICD codes for gestational age, the birth certificate data fields for “Best Obstetric Gestational Age” and “Birthweight” have high degrees of completeness and accuracy. The measure is currently in use in several states, and the Committee agreed that reframing the measure is more meaningful to audiences. The Committee unanimously recommended the revised measure for continued endorsement.

0475 Hepatitis B Vaccine Coverage Among All Live Newborn Infants Prior to Hospital or Birthing Facility Discharge (Centers for Disease Control and Prevention): Endorsed

Description: Percent of live newborn infants that receive Hepatitis B vaccination before discharge (or within 1 month of life, if the infant had an extended hospital stay) at each single hospital/birthing facility during given time period (one year). **Measure Type:** Process; **Level of Analysis:** Facility; **Setting of Care:** Hospital/Acute Care Facility; **Data Source:** Electronic Clinical Data, Electronic Clinical Data: Electronic

Health Record, Other, Paper Medical Records, Electronic Clinical Data: Pharmacy, Electronic Clinical Data: Registry

Almost 90 percent of infants who are infected with Hepatitis B virus during birth will develop chronic infections, which carry about a 25 percent lifetime risk for premature death from liver failure or liver cancer. Immunization at birth prevents development of chronic Hepatitis B infection. The developer has revised the measure to exclude parent refusals since the goal is to measure how many babies are protected. Data from the 2014 National Immunization Survey reported a mean performance rate of 72.4 percent—down from the rate of 74.2 percent in 2013. Testing shows that the measure reliability is improved when refusals are removed from the measure; however, hospitals may have some challenges with the measure if parents and pediatricians prefer that a newborn be immunized in the pediatrician's office rather than the hospital. The Committee emphasized the preventive and public health importance of this immunization measure and unanimously recommended the measure, without excluding parental refusals, for continued endorsement.

Newborn: Premature Low Birthweight

1382 Percentage of low birthweight births (Centers for Disease Control and Prevention): Endorsed

Description: The percentage of births with birthweight <2,500 grams; **Measure Type:** Outcome; **Level of Analysis:** Population: County or City, Population: National, Population: Regional; **Setting of Care:** Hospital/Acute Care Facility, Other; **Data Source:** Patient Reported Data/Survey

This is a population outcome measure reported by the National Center for Health Statistics to monitor low birthweight babies. The Committee noted this is a global indicator of quality that has shown a slow improvement since a high of 8.26 percent in 2006 to 8 percent in 2014. The U.S. percentage of low birthweight births is substantially higher than in most other developed countries. Differences in low birthweight vary significantly by race and ethnicity: white: 7 percent, black: 12.8 percent, Hispanic: 7.1 percent, American Indian/Alaskan native: 8.1 percent, Asian/Pacific Islander: 8.1 percent. The Committee noted that this state-level measure is not a direct reflection of quality of care for specific providers, but rather it is a reflection of perinatal care in general that is important to measure and track at the state and national levels. The gradual decline of low birthweight babies is likely a result of the aggregate efforts of many participants—clinicians, plans, educators, etc. In addition, from a public health and planning point of view, it is helpful to know how many babies are going to need NICU care and support services. The Committee unanimously recommended this measure for continued endorsement.

2895 Thermal Condition of Low Birthweight Neonates Admitted to Level 2 or Higher Nurseries in the First 24 Hours of Life: A PQMP Measure (Collaboration for Pediatric Quality Measures [CAPQuaM]): Not Recommended

Description: This measure describes in terms of admission temperature the status of live-born neonates less than 2,500 grams that are admitted to a level 2 or higher nursery. This measure reports on the temperature at admission. Temperatures are reported both in categorical terms and as a distribution. The distribution should be presented as a cumulative incidence curve with a chart to present key moments in the distribution. The categorization data may be presented in chart or graphical form, such as a pie chart, with parents. Each admission is categorized into one of five strata on the basis of their

admission temperature. The strata, which were defined by our expert panel, are cold (<34.5), very cool (34.51-35.50), cool (35.51-36.50), about right (36.51-37.50) and overly warm (>37.5). All temperatures are analyzed using degrees Celsius and reported to one decimal place. The FIRST temperature taken in the nursery is to be recorded and used. To avoid the potential for gaming the measure by delaying a recorded temperature after arrival, the results are stratified in three ways:

- Main Stratum: Time between arrival at level 2 or higher nursery is between 0 and 15 minutes.
- Delayed stratum: Time between arrival at level 2 or higher nursery is more than 15 minutes.
- Other: Inadequate documentation to determine timing of temperature; **Measure Type:** Outcome; **Level of Analysis:** Population: Community, Population: County or City, Facility, Health Plan, Integrated Delivery System, Population: Regional, Population: State; **Setting of Care:** Hospital/Acute Care Facility, Other; **Data Source:** Administrative claims, Electronic Clinical Data: Electronic Health Record, Other, Paper Medical Records

This new, intermediate outcome measure for newborn temperature management reports the distribution of temperatures on arrival to the NICU for babies weighing less than 2,500 grams. Strong evidence has shown that low birthweight babies who are allowed to lose body heat are at increased risk for morbidity and mortality. Data from the test population in New York provided by the developer demonstrated variation in performance. The Committee did not reach consensus on the reliability and validity of the measure due to multiple concerns: temperature strata determined by expert consensus rather than empirical evidence; difficulty in interpreting the measure results that are intended to be displayed as a distribution in a table and cumulative distribution curve rather than a single numerical result; the validity testing performed on a variant of the measure; and confusion as to how to interpret the measure results for accountability purposes. The Committee agreed that temperature data are readily collected in the medical record; however, extracting that data would be challenging for this measure. The developer reported that it is creating a web portal to submit data. The Committee agreed that neonatal temperature management is an important topic but did not recommend this measure as constructed for endorsement.

0304 Late sepsis or meningitis in Very Low Birth Weight (VLBW) neonates (risk-adjusted) (Vermont Oxford Network): Endorsed

Description: Standardized morbidity ratio and observed minus expected measure for nosocomial bacterial infection after day 3 of life in very low birth weight infants; **Measure Type:** Outcome; **Level of Analysis:** Facility; **Setting of Care:** Hospital/Acute Care Facility; **Data Source:** Electronic Clinical Data: Registry

This outcome measure was last endorsed in 2012. Low birthweight babies are particularly vulnerable to infection, and the Committee agreed that while the mean rate of infection has declined from 19.2 percent in 2006 to 10.8 percent in 2014, according to the Vermont Oxford Network (VON) data, a gap remains. VON data also show that rates of hospital acquired bacterial infection varied by race/ethnicity of the mother, ranging from 11.4 percent for infants with black mothers to 8.9 percent for infants with Asian mothers. The developer noted that updated reliability testing (signal-to-noise = 0.63) was lower than expected, suggesting “that the definition may not be applied in the same manner across all infants in all hospitals.” This VON measure contains proprietary algorithms available only to VON members. The

requirement for VON membership raised some concerns for the Committee for feasibility and usability, but as most hospital NICUs are VON members, they ultimately agreed it was feasible, but did not achieve consensus on usability. The measure is not publicly reported. The Committee voted to recommend measure #0304 for continued endorsement.

This measure is similar to two other measures #0478 Neonatal Blood Stream Infection Rate (NQI 03) and #1731 PC-04 Health Care-Associated Bloodstream Infections in Newborns. Many hospital NICUs are reporting the three different measures, which the Committee noted is an unnecessary measurement burden. The Committee held an extensive discussion on which of the three was best in class. Ultimately, due to changes in the AHRQ measure, the update to ICD-10 CM, the expanded number of facilities reporting, and the slightly different populations included, the Committee agreed that, for the time being, all three measures should remain endorsed, since they report slightly different information. However, they directed the three developers to work together to create a single measure and bring back new data in 18 months for an off-cycle review.

0478 Neonatal Blood Stream Infection Rate (NQI 03) (Agency for Healthcare Research and Quality): Endorsed

Description: Discharges with healthcare-associated blood stream infection per 1,000 discharges for newborns and outborns with birth weight of 500 grams or more but less than 1,500 grams; with gestational age between 24 and 30 weeks; or with birth weight of 1,500 grams or more and death, an operating room procedure, mechanical ventilation, or transferring from another hospital within two days of birth. Excludes discharges with a length of stay less than 3 days and discharges with a principal diagnosis of sepsis, sepsis or bacteremia, or newborn bacteremia. **Measure Type:** Outcome; **Level of Analysis:** Facility; **Setting of Care:** Hospital/Acute Care Facility; **Data Source:** Administrative claims

This risk-adjusted outcome measure, initially endorsed in 2008, is based on administrative claims to assess infection in low birthweight newborns. Data are collected from 48 states via the Agency for Healthcare Research and Quality's (AHRQ) Healthcare Cost and Utilization Project (HCUP) dataset. For more than 1,200 hospitals, the mean results have declined from 11.53 per 1,000 in 2011 to 9.15 per 1,000 in 2013. The developer presented measure results stratified by gender, zip code median income, rural versus urban, payment source, and region. Lower rates were found for females, highest income quartile, rural facility, self pay/no insurance and the Northeast. Updated reliability testing reported an overall signal-to-noise rate of 0.63 with higher reliability with larger sample sizes.

This measure is similar to two other measures, #0304 Late sepsis or meningitis in Very Low Birth Weight (VLBW) neonates (risk-adjusted) and #1731 PC-04 Health Care-Associated Bloodstream Infections in Newborns. Many hospital NICUs are reporting the three different measures, which the Committee noted is an unnecessary measurement burden. The Committee held an extensive discussion on which of the three was best in class. Ultimately, due to the changes in the AHRQ measure, the update to ICD-10, the expanded number of facilities reporting, and the slightly different populations included, the Committee agreed that for the time being all three measures should remain endorsed, since they report slightly different information. However, they directed the three developers to work together to create a single measure and bring back new data in 18 months for an off-cycle review.

1731 PC-04 Health Care-Associated Bloodstream Infections in Newborns (The Joint Commission): Endorsed

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 Birth, PC-03: Antenatal Steroids, PC-05: Exclusive Breast Milk Feeding). **Measure Type:** Outcome; **Level of Analysis:** Facility, Population: National; **Setting of Care:** Hospital/Acute Care Facility; **Data Source:** Paper Medical Records

This outcome measure has been endorsed since 2012. National aggregate data for newborn infection from 1,218 hospitals in 2014 reported to TJC was 3.2 percent. The mean hospital rate in 2014 was 2.98 percent, and the range was 0-7.1 percent. The Committee agreed that there is a significant opportunity for improvement as the national results have worsened since 2011. The developer explained that additional, smaller hospitals are now reporting (as of 2016, all hospitals with more than 300 births annually are required to report), so new gaps are appearing. The measure was recently updated to ICD-10 CM, and some changes were made to the specifications, but the Committee agreed that these changes were appropriate. The Committee also agreed that the measure is feasible and usable, especially with the updates to the specifications, although it noted that data to compare the ICD-9 CM based results and ICD-10 CM based results are not yet available.

This measure is similar to two other measures, #0478 Neonatal Blood Stream Infection Rate (NQI 03) and #0304 Late Sepsis or Meningitis in Very Low Birth Weight Neonates (Risk Adjusted). Many hospital NICUs are reporting the three different measures, which the Committee noted is an unnecessary measurement burden. The Committee held an extensive discussion on which of the three was best in class. Ultimately, due to the changes in the AHRQ measure, the update to ICD-10 CM, the expanded number of facilities reporting, and the slightly different populations included, the Committee agreed that for the time being all three measures should remain endorsed, since they report slightly different information. However, they directed the three developers to work together to create a single measure and bring back new data in 18 months for an off-cycle review.

0483 Proportion of infants 22 to 29 weeks gestation screened for retinopathy of prematurity. (Vermont Oxford Network): Endorsed

Description: Proportion of infants born from 22 weeks, 0 days to 29 weeks, 6 days gestational age who were in the reporting hospital at the postnatal age recommended for screening for retinopathy of prematurity (ROP) by the American Academy of Pediatrics (AAP) and who received a retinal examination for ROP prior to discharge. **Measure Type:** Process; **Level of Analysis:** Facility; **Setting of Care:** Hospital/Acute Care Facility; **Data Source:** Electronic Clinical Data: Registry

The endorsed process measure from the Vermont Oxford Network (VON) assesses whether premature infants who are at risk for eye complications due to prematurity have had an eye evaluation prior to hospital discharge. The Committee noted that the data collected is a simple yes/no and does not include the date or gestational age. The Committee discussed alternative methods for the eye evaluation because of shortages of pediatric ophthalmologists in some areas. For the 916 hospitals in the VON network, average performance on this measure improved slightly from 90.1 percent in 2006 to 91.8 percent in 2014. Reliability testing of the measure score indicates higher reliability for larger sample

sizes. For VON members, this measure requires chart abstraction and submission to VON, but the measure specifications can be used by any hospital to calculate their own performance. The Committee was concerned that this measure is not publicly reported; however, due to the importance of preventing eye problems for premature babies, the Committee recommended this measure for continued endorsement.

2893 Neonatal Intensive Care All-Condition Readmissions (The Children’s Hospital of Philadelphia): Not Recommended

Description: The NICU Readmissions metric assess the hospital- or state-level readmission rate at 30 days after a stay in the Neonatal Intensive Care Unit. **Measure Type:** Outcome; **Level of Analysis:** Facility, Population: State; **Setting of Care:** Hospital/Acute Care Facility; **Data Source:** Administrative claims, Electronic Clinical Data: Electronic Health Record, Other

This new outcome measure assesses readmission to the hospital for infants discharged from the Neonatal Intensive Care Unit (NICU). The Committee agreed that transitions of care are important; discharge planning and outpatient care coordination can influence the outcome; readmission is sensitive to racial/ethnic disparities; and there is significant variation in care. The Committee noted that there are numerous readmission measures for adults and children; however, newborns may be cared for in two types of NICUs: a maternity/birth hospital that does not readmit neonates and a general acute care facility that does readmit neonates (though the infants are typically readmitted to the general pediatrics unit rather than the NICU). This measure is specified for facilities/hospitals that may not be able to track readmissions to other facilities. Though health information exchanges may improve the data capture in the future, the Committee noted that insurers, managed care organizations, and Medicaid may be better able to track readmissions across facilities. The measure relies on hospital data linked to vital statistics, which may not be available in all locations. The Committee was concerned that the measure does not account for planned readmissions or planned transfers and does not differentiate between a hospitalization and an observation stay—both are included as readmissions. The developer indicated “accurate implementation of this metric will require new data collection linkage with birth certificates or more widespread and standardized use of the EHR for publicly reported measures.” The Committee did not recommend the measure because of the questions around reliability of data capture. It instead recommended further development of this important measure. The Committee also suggested including larger babies that may not have been in the NICU, but who experience a significant number of readmissions.

Postpartum

0480 PC-05 Exclusive Breast Milk Feeding (The Joint Commission): Endorsed

Description: PC-05 assesses the number of newborns exclusively fed breast milk 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 Birth, PC-03: Antenatal Steroids, PC-04: Health Care-Associated Bloodstream Infections in Newborns). **Measure Type:** Process; **Level of Analysis:** Facility, Population: National; **Setting of Care:** Hospital/Acute Care Facility; **Data Source:** Electronic Clinical Data, Paper Medical Records

This process measure was last endorsed in 2012. Numerous studies have demonstrated the benefits of breastfeeding, including reductions in asthma, diarrheal illness, and childhood obesity. Committee members noted that not all mothers are able to breastfeed and agreed with the developer that a target goal rate for the measure of 70 percent of patients exclusively breastfeeding during their hospital stay is reasonable. Data reported to TJC demonstrated wide variation in performance and, in over half the hospitals reporting, rates have not yet reached 50 percent. This measure engendered extensive discussion about patient choice, external circumstances that affect a woman's ability to breastfeed (such as the availability of maternity leave and the ability of working mothers to pump), and concerns about pressuring mothers and about the availability and quality of counseling. A Committee member summarized the concerns around the measure as the tension between pressure on mothers whose circumstances do not support breastfeeding (such as women who have less than four weeks leave or who have jobs where they cannot pump) and promoting the health benefits for the baby by keeping the goal at 70 percent to move the nation forward. The measure was recently updated to ICD-10 CM, and the submeasure, exclusion of mothers who declined to breastfeed, was removed because stakeholders felt it was too much burden to get the data. As the measure is currently in widespread use, it was agreed it was both usable and feasible. Despite some concerns, the Committee ultimately voted to recommend the measure for continued endorsement, highlighting the lifetime benefits, and the many ways that process improvements can positively affect a facility's rates.

0480:2830 [eMeasure] PC-05 Exclusive Breast Milk Feeding (The Joint Commission): Endorsed

Description: PC-05 assesses the number of newborns exclusively fed breast milk 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). PC-05, Exclusive Breast Milk Feeding, is one of two measures in this set that have been reengineered as eQMs and are included in the EHR Incentive Program and Hospital Inpatient Quality Reporting Program. **Measure Type:** Process; **Level of Analysis:** Facility, Population: National; **Setting of Care:** Hospital/Acute Care Facility; **Data Source:** Electronic Clinical Data, Electronic Clinical Data: Electronic Health Record

This is the eMeasure version of measure #0480 PC-05 Exclusive Breast Milk Feeding. The information on evidence and opportunity for improvement is the same as for measure #0480. The technical review found this eMeasure to have appropriate specifications and value sets, and an adequate feasibility assessment that addressed the data elements and measure logic. The Committee found the results of the BONNIE testing in a simulated data set provided by the developers acceptable. The developer reported that six healthcare organizations reported this eMeasure to The Joint Commission in 2015 and 31 healthcare organizations will be reporting the eMeasure in 2016.

Comments Received After Committee Evaluation

After the Committee's evaluation of the measures, NQF solicited comments on the draft report via an online tool from June 7, 2016, through July 6, 2016. During this period, NQF received 178 comments from 10 member organizations and 35 members of the public (both organizations and individuals). Comments included support for Committee recommendations, as well as comments supporting harmonization of the competing measures, comments noting the importance of patient choice for

breastfeeding and contraception measures, additional measure gaps, and measure-specific issues. Measure-specific comments are included in the Appendix A measure discussions.

Measures Withdrawn from Consideration

Six measures previously endorsed by NQF were not re-submitted for maintenance of endorsement. One additional measure was withdrawn after the comment period. Endorsement for these measures was removed.

Measure	Reason for withdrawal
0472: Appropriate Prophylactic Antibiotic Received Within One Hour Prior to Surgical Incision – Cesarean section.	Unable to continue as steward. Would be willing to transfer ownership to another willing steward.
0477: Under 1500g infant Not Delivered at Appropriate Level of Care	The developer indicated that resubmission was too much work for a measure that the steward itself is not using, uncertainty that others were truly using it as a quality measure, and that the best role seemed to be as a population-level measure rather than a hospital-level measure, which is the steward's main interest.
0567: Appropriate Work up Prior to Endometrial Ablation Procedure	No reason provided.
0651: Ultrasound determination of pregnancy location for pregnant patients with abdominal pain	No reason provided.
1391: Frequency of Ongoing Prenatal Care (FPC)	NCQA has opted to remove the Frequency of Prenatal Care (#1391) measure from consideration for re-endorsement.
1395: Chlamydia Screening and Follow Up	NCQA is not currently using this measure in other major programs to the extent that would justify the level of effort required to maintain endorsement.
1746: Intrapartum Antibiotic Prophylaxis for Group B Streptococcus (GBS)	Unable to continue as steward. Would be willing to transfer ownership to another willing steward.

References

- ¹ Johnson K, Posner SF, Biemann J, et al. Recommendations to improve preconception health and health care – United states. A report of the CDC/ATSDR Preconception Care Work Group and the Select Panel on Preconception Care. *MMWR Recomm Rep*. 2006;55(RR-6):1-23.
- ² Dehlendorf C, Rodriguez MI, Levy K, et al. Disparities in family planning. *American J Obstet Gynecol*. 2010;202(3):214-220. Available at <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2835625/>. Last accessed October 2015.
- ³ Centers for Disease Control and Prevention (CDC). Pregnancy mortality surveillance system website. <http://www.cdc.gov/reproductivehealth/maternalinfanthealth/pmss.html>. Last accessed October 2015.
- ⁴ Martin JA, Hamilton BE, Osterman MJK. Births in the United States, 2014. NCHS Data Brief. 2015;(216):1-8. Available at <http://www.cdc.gov/nchs/data/databriefs/db216.htm>. Last accessed May 2016
- ⁵ Osterman MJK, Martin JA. Trends in low-risk cesarean delivery in the United States, 1990-2013. *NI Vital Stat Rep*. 2014;63(6):1-16. Available at http://www.cdc.gov/nchs/data/nvsr/nvsr63/nvsr63_06.pdf. Last accessed May 2016.
- ⁶ Curtin SC, Gregory KD, Korst LM, et al. Maternal morbidity for vaginal and cesarean deliveries, according to previous cesarean history: new data from the birth certificate, 2013. *NI Vital Stat Rep*. 2015;64(4):1-3. Available at http://www.cdc.gov/nchs/data/nvsr/nvsr64/nvsr64_04.pdf. Last accessed May 2016.
- ⁷ Agency for Healthcare Research and Quality (AHRQ). National healthcare quality & disparities reports website. <http://www.ahrq.gov/research/findings/nhqrd/index.html>. Last accessed May 2016.

Appendix A: Details of Measure Evaluation

Rating Scale: H=High; M=Moderate; L=Low; I=Insufficient; NA=Not Applicable; Y=Yes; N=No

Endorsed Measures

0033 Chlamydia Screening in Women (CHL)

[Submission](#) | [Specifications](#)

Description: The percentage of women 16–24 years of age who were identified as sexually active and who had at least one test for chlamydia during the measurement year.

Numerator Statement: Females who were tested for chlamydia during the measurement year.

Denominator Statement: Females 16-24 years who had a claim or encounter indicating sexual activity.

Exclusions: Females who received a pregnancy test to determine contraindications for medication (isotretinoin) or x-ray.

Adjustment/Stratification: No risk adjustment or risk stratification

Level of Analysis: Health Plan, Integrated Delivery System

Setting of Care: Ambulatory Care: Clinician Office/Clinic

Type of Measure: Process

Data Source: Administrative claims, Electronic Clinical Data, Electronic Clinical Data: Imaging/Diagnostic Study, Electronic Clinical Data: Laboratory, Electronic Clinical Data: Pharmacy

Measure Steward: National Committee for Quality Assurance

STANDING COMMITTEE MEETING [May 02 2016]

1. Importance to Measure and Report: The measure meets the Importance criteria

(1a. Evidence, 1b. Performance Gap)

1a. Evidence: **Previous Evidence Evaluation Accepted**; 1b. Performance Gap: **H-21; M-6; L-0; I-0**

Rationale:

- The developer provided updated US Preventative Services Task Force (USPSTF) (2014) recommendations for screening for chlamydia in sexually active females aged 24 years or younger and in older women who are at increased risk for infection. Evidence synthesis concluded, “Chlamydia screening in young women may reduce pelvic inflammatory disease.” USPSTF notes “the studies it reviewed on the direct effects of screening for chlamydia, including one new good-quality RCT, showed mixed results. This led to the change in grade for screening for chlamydia, which is now based on “moderate” certainty of a moderate net benefit rather than “high certainty” of a substantial net benefit.”
- Although the USPSTF recommendation has been changed to a “B” level, the Committee agreed that the underlying evidence presented appears to be directionally the same since the last NQF endorsement review.
- The Committee highlighted that only 38% of the visits in one cohort in 2014 had appropriate testing, signaling a significant gap in care.

- The Committee expressed concerns about the exclusive focus on women and the unintended consequences for not including men in the measure. The developer clarified that the Task Force evaluated this before this measure was originally approved and the evidence for a direct health benefit was limited to women. The Committee highlighted that the USPSTF recommendation acknowledged the importance of men in this population, citing extensively the CDC recommendations in screening and treating men but recognized the limitation of data.
- The Committee noted that even though the developer presents evidence from the literature that describes racial/ethnic differences in screening rates (higher in African-Americans and Hispanics) and prevalence of the disease (higher in African-Americans and Mexican-Americans), the developer did not collect performance data stratified by race, ethnicity, or language. The developer explained that they are very interested in having data that would help propel the improvement and elimination of disparities and the release of the Medicare Advantage data by race and ethnicity is a huge step forward, and one that they are closely tracking to leverage into opportunities for displaying data in stratified ways to push improvement. The developer also noted that health plans are able to stratify the data by race/ethnicity or any other variables they desire.

2. Scientific Acceptability of Measure Properties: The measure meets the Scientific Acceptability criteria

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

2a. Reliability: **Previous Reliability Evaluation Accepted** 2b. Validity: **Previous Validity Evaluation Accepted**

Rationale:

- The developer noted several updates to the specification codes (HCPCS, LOIN, ICD-10 diagnosis codes) since the prior evaluation.
- The Committee noted the specifications state a patient only needs to be identified in 2 methods (i.e., pharmacy data and claim/encounter data indicating sexual activity) to be eligible for this measure. The Committee questioned how this measure would account for transgender individuals and females between 16 and 24 who are using some types of contraception for non-contraceptive benefits.
 - The developer clarified that teenagers sometimes state that they are using oral contraceptives for non-contraceptive reasons, but because of confidentiality and privacy concerns, may not disclose that they are in fact sexually active. The developer found that the algorithm was a reasonable proxy and that the false negative rates were quite low.
- There was no updated testing for reliability and validity. The developer previously conducted empirical testing at the measure score level and face validity. The prior testing demonstrated high reliability and adequate validity. The Committee agreed the measure was reliable and valid.

3. Feasibility: H-21; M-5; L-1; I-0

(3a. Clinical data generated during care delivery; 3b. Electronic sources; 3c. Susceptibility to inaccuracies/unintended consequences identified 3d. Data collection strategy can be implemented)

Rationale:

- The Committee agreed the measure is feasible, since it is based on administrative claims data for which data collection is generally considered to be feasible and low burden. No concerns regarding feasibility were noted.

4. Usability and Use: H-13; M-14; L-0; I-0

(Used and useful to the intended audiences for 4a. Accountability and Transparency; 4b. Improvement; and 4c. Benefits outweigh evidence of unintended consequences)

Rationale:

- This measure is publicly reported and used in the Medicaid Adult and Child Core Sets and California's Value Based Pay for Performance Program.
- The Committee had no concerns about unintended consequences of continued use.

5. Related and Competing Measures

- No related or competing measures noted.

Standing Committee Recommendation for Endorsement: Y-27; N-0

Rationale

- The Committee agreed that this measure meets all the NQF criteria for continued endorsement.

6. Public and Member Comment: June 7 – July 6, 2016

Comments Received

- This measure received 6 comments, generally supporting continued endorsement, but also raising some concerns focused around the exclusions and suggestions for updates, as well as how "sexually active" is defined. Comments recommended improvements such as expanding the age range, including males, and establishing appropriate benchmarks.

Developer Response

- The measure's age range aligns with the US Preventive Services Task Force screening recommendation and corresponds to the age groups with highest chlamydia prevalence. In females, the highest chlamydia infection rates occur in those aged 20-24 years, followed by those 15-19 years (CDC. 2012 Sexually Transmitted Diseases Surveillance. Atlanta, GA: U.S. Department of Health and Human Services, CDC; 2014. Accessed at www.cdc.gov/std/stats12/default.htm).
- The measure uses 2 administrative methods to identify sexual activity: claims/encounters that suggest sexual activity (pregnancy codes, sexual activity codes) and pharmacy data (contraceptives). For those who qualify based on a pregnancy test alone, if the test was used to rule out pregnancy for x-rays or retinoid prescription, those females are excluded. This method to assess sexual activity using an administrative algorithm was tested and found to reasonably identify sexually active females. Women who have sex with women and meet any of the criteria specified would be included in the denominator.

Committee Response

- The Committee agreed they were comfortable with the age range in the measure because that is the range of the data provided. Committee members agreed that screening men is crucial to stopping transmission of chlamydia, but since the Committee is not able to change the measure

to include men, they did not want to not recommend it for that reason alone. The Committee has added a new gap to the measure gaps list, a chlamydia screening measure for men.

7. Consensus Standards Approval Committee (CSAC) Vote: Y-17; N-0

Decision: Approved for continued endorsement

8. NQF Board of Directors Vote: Yes (October 25, 2016)

Decision: Ratified for continued endorsement

9. Appeals

No appeals were received.

0304 Late sepsis or meningitis in Very Low Birth Weight (VLBW) neonates (risk-adjusted)

[Submission](#) | [Specifications](#)

Description: Standardized morbidity ratio and observed minus expected measure for nosocomial bacterial infection after day 3 of life in very low birth weight infants

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. Treatment 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.

Exclusions: Infants 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

Level of Analysis: Facility

Setting of Care: Hospital/Acute Care Facility

Type of Measure: Outcome

Data Source: Electronic Clinical Data : Registry

Measure Steward: Vermont Oxford Network

STANDING COMMITTEE MEETING [05/02/2016]

1. Importance to Measure and Report: The measure meets the Importance criteria

(1a. Evidence, 1b. Performance Gap)

1a. Evidence: **Previous Evidence Evaluation Accepted**; 1b. Performance Gap: **H-15; M-9; L-1; I-0**

Rationale:

- The Committee noted the evidence was updated with 11 observational and quasi-experimental studies and one clinical guideline further supporting the evidence of this measure, and that there are specific things that providers can do to reduce infections.
- The developer noted that the measure looks at bacterial infections in blood or cerebral spinal fluid, and it is based on clinical data, not claims. While members of Vermont Oxford Network have made improvements, some hospitals still have high rates. The developer is working creating an eMeasure version.
- The mean rate of infection has been reduced (2006 mean rate =0.192; 2014 mean rate = 0.108) but there continues to be variation between the minimum and maximum performance, and disparities remain.

2. Scientific Acceptability of Measure Properties: The measure meets the Scientific Acceptability criteria

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

2a. Reliability: **H-2; M-21; L-2; I-0** 2b. Validity: **M-20; L-4; I-0**

Rationale:

- The developer provided additional reliability testing using split-half analysis to assess signal-to-noise. The result of 0.63 was lower than expected.
- The Committee had some questions about the definition of infection, and noted that the measure was tested for babies weighing between 500-1,500 grams, but is being implemented for babies 400-1,500 grams.
- The Committee asked why meningitis had been added and how many cases it contributed, since this is the only one of the 3 infection measures that included it. The developer said they do not distinguish how many cases were meningitis from other infections; the definition includes positive blood culture or positive CSF but the measure does not differentiate between them.

3. Feasibility: H-4; M-20; L-2; I-0

(3a. Clinical data generated during care delivery; 3b. Electronic sources; 3c. Susceptibility to inaccuracies/unintended consequences identified 3d. Data collection strategy can be implemented)

Rationale:

- This measure is collected by the Vermont Oxford Network (VON) registry. The proprietary risk-adjustment method is available only to members. Members must pay a fee to belong to VON.

4. Usability and Use: H-2; M-12; L-10; I-0

(Used and useful to the intended audiences for 4a. Accountability and Transparency; 4b. Improvement; and 4c. Benefits outweigh evidence of unintended consequences)

Rationale:

- This measure is currently in use, but only within the VON Network. While it does capture 85% of birth hospital NICUs, 25% of neonatal care is provided by freestanding children's hospitals, not all of which are part of Vermont Oxford Network. Babies may be born at a VON center and then transferred out to a specialized hospital for further care, which would not be counted in this measure.
- The developer stated that they were looking into producing a publically reported panel that a hospital could put out if they would like, and which would include this measure. Further, while they will not publically report results (as per their member contract), they will make it easier for their members to publically report results if they would like to. They are working with AAP, CDC, NQF, Leapfrog, and other organizations to report on the data without reporting results from a particular hospital.
- Clarification was provided that the measure includes all admissions before day 28, and that the data includes which hospital the infant developed the infection at, if they are later admitted to a second hospital.
- The measure did not achieve consensus on usability and use.

5. Related and Competing Measures

- This measure competes with 0478: Neonatal Blood Stream Infection Rate (NQI 03) (AHRQ) and #1731: PC-04 Health Care-Associated Bloodstream Infections in Newborns (The Joint Commission).
- The Committee had an extensive discussion on the 3 competing measures. NQF provided guidance on the related/competing measure process.
- The Joint Commission and AHRQ have done some work on harmonization. The Joint Commission (TJC) compared the 2 measures, #1731, which uses partial chart review and administrative data, and #0478, which only uses administrative data, and found the measure using chart review was able to identify more cases that had not been included in the other measure due to coding issues. In addition, #0478 excludes cases diagnosed 7 days or less after birth and #1731 measure excludes only 2 days or less, which they thought accounted for about 10% of the difference. (#0478 is now 3 days or less.) The Joint Commission stated that while the measures are similar, since codes are not uniformly assigned, their measure, which also uses chart review is able to identify more cases. This comparison was done using ICD-9 CM codes, and they think that that there will be less discrepancy between the two measures with the use of ICD-10 CM codes.

- AHRQ noted that they had made changes to #0478 based in part on the analysis done with TJC, and that the measure will also change with ICD-10 CM, and that the current versions are more aligned. In addition, #0478 looks at all causes and cases of sepsis, while #1731 focuses on those associated with central lines. In addition, the AHRQ measure is not reported at a hospital level.
- A Committee member related some of the history of this measure, noting that the AHRQ measure was originally endorsed and brought into The Joint Commission's core set, and then turned into a clinical data measure. During the previous review and discussion of competing measures, Medicaid programs stated that they could not collect the data unless it was administrative, and that is why there were 2 endorsed measures.
- Committee members requested more information on the change to ICD-10 CM, in particular wondering if this would now have less chart review burden, and the developer stated it was too soon to tell, especially with the learning curve associated with changing coding guidelines. It was also noted that with ICD-10 CM, "suspected" or "probable" is no longer included (cases are yes/no) which should reduce gaming.
- For the chart review concern, Committee members who are using the measure did not think it was a large burden due to the very small number of charts that have to be reviewed, especially since hospitals would be reviewing all of these charts anyway as they work to reduce infection rates. Coding for neonatal sepsis is complicated and the chart review is used to make the measure more accurate. In addition, the developer noted, hospitals like to be able to exclude false positives. It was noted that false negatives are a larger issue.
- After discussion, the Committee felt there is not yet enough data on the performance of either measure under ICD-10 CM and that ICD-10 CM has the potential to reduce a lot of the burden associated with manual chart review. In addition, many new, smaller facilities (300 deliveries) are just beginning to report on this measure so current performance rates are not yet available (although these very small facilities are unlikely to be caring for these babies, who would be transferred).
- The Committee noted that EHRs are not yet to the point where this data can be automatically pulled out.
- The Committee then discussed the ways in which the VON measure, #0304, differs from the other 2 measures. Measure #0304 does not include babies more than 1,500 grams, and does include meningitis; however, it is not clear how big the group of babies with meningitis actually is. Currently the measure requires either a positive blood or CSF culture and is not collected separately, although the developer agreed that might be a good idea. The VON measure is risk adjusted, which allows for more even comparisons across facilities. However, the major issue with the VON measure is that it is not publically reported and requires a registration fee.
- The Committee noted they were struggling with the question of whether one was best, especially with the changes to the measures. Committee members using the measures noted they focus on slightly different populations. For example, there are about 40,000 VLBW babies born in each year and bloodstream infections are most prevalent in this population, but there are many more, larger babies born each year even if the infection rates are smaller. One Committee member stated that to actually move the needle, the VLBW babies are the target population, but only about a quarter of the NICUs in the country treat these babies, with the remaining three-fourths of NICUs treating LBW and premature babies. Another Committee member noted that focusing on the smaller, high-prevalence population misses the opportunity to improve processes and reduce infections in many facilities.

- Ultimately, due to the changes in the AHRQ measure, the update to ICD-10, the expanded number of facilities reporting, and the slightly different populations included, the Committee agreed that for the time being all 3 measures should remain endorsed, since they are being used for different things. In terms of burden, it was noted that the high-level NICUs are all already reporting to VON; that almost everyone has to report to the Joint Commission; and that there is no burden for hospitals for the AHRQ measure since it comes out of billing data and is reported by the state data organizations.
- The Committee requested that, for the next year, a specific effort be made to get the data from those facilities that collect and report on 2 or 3 of the measures in order to allow a more accurate comparison. VON noted that they do a member survey and they will ask members that are collecting on the other measures as well. They also offered to work with The Joint Commission to compare the data.
- Committee members emphasized that while it is easy for them to understand the differences between the measures and rates, it may not be so clear to the public, and they reiterated the need for a single measure.
- The Committee requested that the developers provide more information and new data in 18 months for the Committee to relook at the measures during an off-cycle review. They further requested that the developers work together toward a single future measure.

Standing Committee Recommendation for Endorsement: Y-21; N-3

Rationale

- The Committee agreed that this measure meets all the NQF criteria for continued endorsement.

6. Public and Member Comment: June 7 - July 6, 2016

Comments Received

- One commenter submitted 1 comment on each of the 3 measures agreeing with the Committee's decision to recommend, but urging the developers to coordinate or combine measures.

Developer Response

- *Agency for Healthcare Research and Quality:* AHRQ appreciates the suggestion to compare the AHRQ, The Joint Commission (TJC), and Vermont Oxford Network's measures of neonatal blood stream infection, AHRQ's NQI 03 Neonatal Blood Stream Infection Rate (NQF 0478), TJC's PC-04 Health Care-Associated Bloodstream Infections in Newborns (NQF 1731), and Vermont Oxford Network's Late Sepsis or Meningitis in Very Low Birth Weight (VLBW) Neonates (NQF 0304). These three NQF endorsed measures were each developed for specific and different purposes and for different data sources, which has led to deviations in specifications. As noted in the NQF submission materials to the Perinatal Committee, AHRQ engaged with TJC to harmonize the measures NQF 0478 (AHRQ) and NQF 1731 (TJC) where possible. In some cases, differences in the data source or intended purpose of the measures favor measures that are not fully harmonized. In other cases, harmonization is feasible while maintaining the integrity of the measure for the intended use and data source. As suggested by the committee, AHRQ will continue to explore the feasibility and desirability of further harmonization of the measures.
- *The Joint Commission:* Thank you for your feedback. We have done extensive work and these measures have been harmonized to the extent possible at this time.

- *Vermont Oxford Network*: Thank you for your comment. The developers of the 3 infection measures agreed to work together to harmonize these measures before the next submission period. This measure is specific to Vermont Oxford Network members, but we do work with health systems and plans to provide reports of our measures with appropriate permissions from our members.

Committee Response

- The Committee agrees that harmonization of these 3 measures is important to reduce the burden of reporting. The developers have been directed to work together over the next 18 months to arrive at a single measure with supporting data, to be presented to the Committee during an off-cycle review.

7. Consensus Standards Approval Committee (CSAC) Vote: Y-17; N-0

Decision: Approved for continued endorsement

8. NQF Board of Directors Vote: Yes (October 25, 2016)

Decision: Ratified for continued endorsement

9. Appeals

No appeals were received.

0469 PC-01 Elective Delivery

[Submission](#) | [Specifications](#)

Description: This measure assesses patients with elective vaginal deliveries or elective cesarean births at ≥ 37 and < 39 weeks of gestation completed. This measure is a part of a set of five nationally implemented measures that address perinatal care (PC-02: Cesarean Birth, PC-03: Antenatal Steroids, PC-04: Health Care-Associated Bloodstream Infections in Newborns, PC-05: Exclusive Breast Milk Feeding)

Numerator Statement: Patients with elective deliveries with ICD-10-PCS Principal Procedure Code or ICD-10-PCS Other Procedure Codes for one or more of the following:

- Medical induction of labor as defined in Appendix A, Table 11.05 available at: <http://manual.jointcommission.org/releases/TJC2016A/> while not in Labor prior to the procedure
- Cesarean birth as defined in Appendix A, Table 11.06 and all of the following:
 - not in Labor
 - no history of a Prior Uterine Surgery available at: <http://manual.jointcommission.org/releases/TJC2015B2/>

Denominator Statement: Patients delivering newborns with ≥ 37 and < 39 weeks of gestation completed with ICD-10-PCS Principal or Other Procedure Codes for delivery as defined in Appendix A, Table 11.01.1 available at: <http://manual.jointcommission.org/releases/TJC2016A/> and with ICD-10-CM Principal Diagnosis Code or ICD-10-CM Other Diagnosis Codes for planned cesarean birth in labor as

defined in Appendix A, Table 11.06.1 available at:
<http://manual.jointcommission.org/releases/TJC2016A/>

Exclusions:

- ICD-10-CM Principal Diagnosis Code or ICD-10-CM Other Diagnosis Codes for conditions possibly justifying elective delivery prior to 39 weeks gestation as defined in Appendix A, Table 11.07
- Less than 8 years of age
- Greater than or equal to 65 years of age
- Length of Stay >120 days
- Gestational Age < 37 or >= 39 weeks or UTD

Adjustment/Stratification: No risk adjustment or risk stratification

Level of Analysis: Facility, Population : National

Setting of Care: Hospital/Acute Care Facility

Type of Measure: Process

Data Source: Electronic Clinical Data, Paper Medical Records

Measure Steward: The Joint Commission

STANDING COMMITTEE MEETING [05/03/2016]

1. Importance to Measure and Report: The measure meets the Importance criteria

(1a. Evidence, 1b. Performance Gap)

1a. Evidence: **Previous Evidence Evaluation Accepted**; 1b. Performance Gap: **H-10; M-13; L-2; I-0**

Rationale:

- The developer did not submit new evidence during this maintenance review, but Committee members noted that ACOG recently reaffirmed the practice bulletin for timing of elective induction of labor at >39 weeks.
- While performance is improving, there is still a gap in care in this area (2014 data for 1,388 hospitals have a national mean= 3.3%, range 0-8.7%.) Committee members noted that as of January 2016, more hospitals are reporting on this measure (now 80% of all birthing hospitals), so they expect more variation to appear. Committee members noted that one of the major drivers of morbidity was repeat elective C-sections at 37 weeks, and that number had dropped significantly.
- There was some discussion about whether this measure is “topped out” but Committee members agreed the change was very new and that it was too soon to retire this measure, both because there are many outliers and because the improvement is too recent to ensure it will continue. In addition, it was noted this is a very good measure to educate people outside of healthcare about quality improvement. Further, it is relatively newly recognized that babies born at 37-39 weeks do, in fact, have more problems and much education remains to be done for parents and other stakeholders.

2. Scientific Acceptability of Measure Properties: The measure meets the Scientific Acceptability criteria

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

2a. Reliability: **M-25; L-1; I-0** 2b. Validity: **Previous Validity Evaluation Accepted**

Rationale:

- The measure has recently been converted to ICD-10 CM, and it was noted that it is not yet clear how this may affect the measure.
- Some changes have been made to the specifications to further clarify and refine the measure, including now excluding patients with no prenatal care (since gestational age cannot be determined). Committee members noted that sampling for small populations can be problematic and that the measure is more reliable when the full population is used.
- Some Committee members questioned the appropriateness of some of the exclusions, i.e. “Patients with ICD-10-CM Principal Diagnosis Code or Other Diagnosis Codes for conditions for possibly justifying elective delivery are excluded” including poor obstetric history, biliary disease, pregnancy after miscarriage, etc.

3. Feasibility: H-15; M-10; L-0; I-0

(3a. Clinical data generated during care delivery; 3b. Electronic sources; 3c. Susceptibility to inaccuracies/unintended consequences identified 3d. Data collection strategy can be implemented)

Rationale:

- Committee members noted that while the measure does require some manual chart review, it has been used for several years and the new codes should reduce the burden.
- The developer clarified that gestational age is based on best obstetric estimate, generally ultrasound, and that it should be counted from gestational age at delivery (not the date the baby leaves the hospital). Electronic records should reduce the possibility of gaming if the wrong date is written at the time of delivery.

4. Usability and Use: H-21; M-4; L-0; I-0

(Used and useful to the intended audiences for 4a. Accountability and Transparency; 4b. Improvement; and 4c. Benefits outweigh evidence of unintended consequences)

Rationale:

- This measure is in widespread use in Quality Check, Hospital Compare, accreditation, and hospital and patient quality reporting. In addition, it is measure easily understood by the public.
- It was noted some of the improvements to the measure made it more usable.

5. Related and Competing Measures

- No related or competing measures noted.

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

Rationale

- The Committee agreed that this measure meets all the NQF criteria for continued endorsement.

6. Public and Member Comment: June 7 - July 6, 2016

Comments Received

- A total of 12 comments were received on both the electronic and paper versions of the measure. Generally, the comments were in support, and several noted that while rates have improved, much remains to be done. However, a pair of comments noted concerns with the

measure exclusions. A second pair of comments noted that elective delivery/induction may be preferable in very rural areas that lack access to secondary and tertiary facilities.

Developer Response

- Over the last several years The Joint Commission has responded to suggestions from the obstetrics community to adjust the specifications for PC-01: Elective Delivery to allow for a wider array of exclusions. Some of these have resulted in new ICD codes being added and others have required the addition of new exclusions that can only be determined by chart reviews (an unfortunate but currently needed situation). The Joint Commission continues to receive numerous requests for “appeals” and new exclusions which are uncommon or rare conditions justifying the need for an early-term elective delivery. While many of these conditions have been incorporated into the current PC-01 specifications, medical issues are varied enough that it is impossible to enumerate 100% of the potential circumstances that could justify an early-term elective delivery. For example, a mother with a malignancy and need to start chemotherapy might require a delivery before 39 weeks. Although these cases are rare their occurrence can be such to generate an early-term elective delivery rate of 2-4%. This supports the rationale for not expecting this measure to consistently reach 0% elective deliveries. The Joint Commission has worked closely with a technical advisory panel (TAP) since the inception of this project. The TAP is comprised of leading national perinatal care experts including obstetricians, pediatricians, neonatologists and nurse clinicians. Recently, the TAP reaffirmed the goal of 5% which is supported by the 2013 study by Clark, et. al, validating the denominator exclusion criteria for PC-01.
- There are currently 2 sets of ICD-10-CM diagnosis codes on Table 11.07 which should be used for pre-labor (preterm) rupture of membranes: the first set is O42.011, O42.012, O42.013, O42.02, O42.911, O42.912, O42.913 and O42.92 and for prolonged rupture: the second set is O42.111, O42.112, O42.113 and O42.12. The coders should be applying these codes when there is appropriate documentation that SROM occurred without commencement of labor. As a result the case would be excluded from the measure. Documentation of spontaneous rupture of membranes without onset of labor should be taken at face value according to ACOG. The 2013 ACOG definition of Preterm Rupture of Membranes (PROM is rupture of membranes before the onset of labor. Membrane rupture that occurs before 37 weeks of gestation is referred to as preterm PROM. Membrane rupture that occurs at 37 weeks of gestation or later is referred to as term PROM. In 2014, ACOG re-named premature rupture of membranes to pre-labor rupture of membranes in order to further clarify the meaning of PROM. We consider ACOG an authoritative source. Based on the ACOG definition one of the codes from the first set applies to all cases with SROM regardless of gestational age, and only the absence of labor should be required to use this code. If the ruptured membranes are >24 hours then one of the codes from the second set applies.”
- Requiring gestational age and careful scrutiny (chart reviews) for exclusions does preclude the use of claims data but there is progress in creating an eMeasure version. However, because of the small sample size for this measure for a given health plan within a given hospital it will unlikely be a practical measure at the plan level.
- While this has been proposed as a potential concern, rural hospitals in general have done very well on this measure. In general, there are few logistical reasons that truly need elective delivery prior to 39 weeks of gestation. In any case, the federal mandate for reporting of this measure for MediCare P4P specifically excludes Critical Access Hospitals.

7. Consensus Standards Approval Committee (CSAC) Vote: Y-17; N-0

Decision: Approved for continued endorsement

8. NQF Board of Directors Vote: Yes (October 25, 2016)

Decision: Ratified for continued endorsement

9. Appeals

No appeals were received.

0470 Incidence of Episiotomy

[Submission](#) | [Specifications](#)

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 performed on women undergoing a vaginal delivery (excluding those with shoulder dystocia ICD-10; O66.0) 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 ICD-1: O66.0).

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

Level of Analysis: Facility

Setting of Care: Hospital/Acute Care Facility

Type of Measure: Process

Data Source: Administrative claims, Paper Medical Records

Measure Steward: Christiana Care Health System

STANDING COMMITTEE MEETING [05/02/2016]**1. Importance to Measure and Report: The measure meets the Importance criteria**

(1a. Evidence, 1b. Performance Gap)

1a. Evidence: **Previous Evidence Evaluation Accepted**; 1b. Performance Gap: **H-20; M-4; L-0; I-0**;

Rationale:

- The evidence has not changed from the Cochrane Review and ACOG bulletins cited in the original submission that report an increased risk of perineal trauma with episiotomy.
- Committee members noted while there has been a 33% decrease in episiotomies, there is still great variation in performance between hospitals (0.8 - 22%) and much room remains for

improvement. Committee members shared their experience with providing individual clinician results and peer teaching as effective in changing behavior to reduce episiotomies.

- A Committee member suggested that episiotomy and vacuum deliveries should be linked.

2. Scientific Acceptability of Measure Properties: The measure meets the Scientific Acceptability criteria

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

2a. Reliability: **Previous Reliability Evaluation Accepted** 2b. Validity: **Previous Validity Evaluation Accepted**

Rationale:

- The measure has been recently converted to ICD-10 CM.
- No changes to the specifications have been made and no new testing data was offered. Data element validity had been tested comparing the coded data to medical record “gold standard” and face validity.

3. Feasibility: H-25; M-2; L-0; I-0

(3a. Clinical data generated during care delivery; 3b. Electronic sources; 3c. Susceptibility to inaccuracies/unintended consequences identified 3d. Data collection strategy can be implemented)

Rationale:

- Committee members noted that because this is a procedure, it is easy to code (yes/no). It is included in discharge data and administrative data sets.
- The developer noted that updating to ICD-10 CM codes helps make the measure more feasible by addressing some coding issues that had come up in the past.

4. Usability and Use: H-25; M-2; L-0; I-0

(Used and useful to the intended audiences for 4a. Accountability and Transparency; 4b. Improvement; and 4c. Benefits outweigh evidence of unintended consequences)

Rationale:

- The Leapfrog Group has been publically reporting this measure for close to 1,000 hospitals.
- Several Committee members have had experience using this measure to educate providers and hospitals and reduce rates, and all commented favorably about the usability. It was also noted that peer-to-peer education is the most effective way of changing performance.

5. Related and Competing Measures

- No related or competing measures noted.

Standing Committee Recommendation for Endorsement: Y-27; N-0

Rationale

- The Committee agreed that this measure meets all the NQF criteria for continued endorsement.

6. Public and Member Comment: June 7 – July 6, 2016

Comments Received

- This measure received 4 comments, all in support of endorsement. One comment suggested the additional exclusion of fetal distress requiring more rapid delivery.

Developer Response

- Fetal distress requiring more rapid delivery should NOT be an exclusion for this measure. This is a hospital level measure and the inclusion of these cases will not have a material impact on a hospital's rate and runs the risk of over coding fetal distress.

7. Consensus Standards Approval Committee (CSAC) Vote: Y-17; N-0

Decision: Approved for continued endorsement

8. NQF Board of Directors Vote: Yes (October 25, 2016)

Decision: Ratified for continued endorsement

9. Appeals

No appeals were received.

0471 PC-02 Cesarean Birth

[Submission](#) | [Specifications](#)

Description: This measure assesses the number of nulliparous women with a term, singleton baby in a vertex position delivered by cesarean birth. This measure is part of a set of five nationally implemented measures that address perinatal care (PC-01: Elective Delivery, PC-03: Antenatal Steroids, PC-04: Health Care-Associated Bloodstream Infections in Newborns, PC-05: Exclusive Breast Milk Feeding).

Numerator Statement: The outcome being measured is: Patients with cesarean births with ICD-10-PCS Principal Procedure Code or ICD-10-PCS Other Procedure Codes for cesarean birth as defined in Appendix A, Table 11.06 available at:

<http://manual.jointcommission.org/releases/TJC2016A/>

Denominator Statement: The outcome target population being measured is: Nulliparous patients delivered of a live term singleton newborn in vertex presentation ICD-10-PCS Principal or Other Diagnosis Codes for delivery as defined in Appendix A, Tables 11.01.1 available at:

[http://manual.jointcommission.org/releases/TJC2016A /](http://manual.jointcommission.org/releases/TJC2016A/)

Exclusions:

- ICD-10-CM Principal Diagnosis Code or ICD-10-CM Other Diagnosis Codes for multiple gestations and other presentations as defined in Appendix A, Table 11.09
- Less than 8 years of age
- Greater than or equal to 65 years of age
- Length of Stay >120 days
- Gestational Age < 37 weeks or UTD

Adjustment/Stratification: No risk adjustment or risk stratification

Level of Analysis: Facility, Population : National

Setting of Care: Hospital/Acute Care Facility

Type of Measure: Outcome

Data Source: Paper Medical Records

Measure Steward: The Joint Commission

STANDING COMMITTEE MEETING [May/03/2016]

1. Importance to Measure and Report: The measure meets the Importance criteria

(1a. Evidence, 1b. Performance Gap)

1a. Evidence: **Previous Evidence Evaluation Accepted**; 1b. Performance Gap: **H-23; M-3; L-0; I-0**

Rationale:

- The prior maintenance evaluation noted that “ACOG says this is the “optimal measure” for Cesarean section (C-section) because it focuses on first-time, uncomplicated pregnancy. The measure looks at the outcome of labor management. The developer reported that, “Among primary cesarean deliveries, more subjective indications (non-reassuring fetal status and arrest of dilation) contributed larger proportions than more objective indications (malpresentation, maternal-fetal, and obstetric conditions).” Cesarean sections are associated with increased risk of obstetric hemorrhage, uterine infection, and increased costs to the healthcare system.
- The Committee questioned whether this measure should be classified as an intermediate outcome measure instead of an outcome measure.
- The Committee highlighted that the Healthy People2020 target is 23.9%, and the 2014 data with 1,388 hospitals reporting is 26.8%. Additionally, the Committee noted that the variation for this measure is quite large since the performance was 14% at the 10th percentile and 40% at the 90th percentile.

2. Scientific Acceptability of Measure Properties: The measure meets the Scientific Acceptability criteria

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

2a. Reliability: **H-23; M-3; L-0; I-0** 2b. Validity: **H-10; M-14; L-2; I-0**

Rationale:

- The developer has changed the specifications since the last NQF endorsement review. The specifications have been updated to ICD-10 CM and the initial patient population is now identified with ICD-10-PCS-Principal or Other Procedure Codes for delivery instead of diagnosis codes for pregnancy, since the ICD-10-CM Principal or Other Diagnosis Codes do not indicate whether the delivery took place during the hospitalization. Additionally, cases with a gestational age of “unable to be determined (UTD)” are excluded, since UTD is highly correlated with no prenatal care.
- The Committee expressed concerns about the exclusions, including babies in clinical trials. The developer stated that clinical trials have been removed as an exclusion.
- The measure was tested using inter-rater reliability (IRR) by the ORYX vendor, for 108 hospitals with 13,279 records. IRR is an appropriate method of assessing data element reliability for chart abstraction. The agreement rate for the data element “Gestational age” was 89.75% and the data element “Parity” was 97.43%. The Committee agreed the reliability of the measure was demonstrated, with the developer providing reliability testing at data element levels (2012).

- The developer reported that continued face validity was determined through feedback from measure users as well as a website that picks up questions and issues from the field, and addresses them in a continuous process of clarification and refinement.
- The measure received a pre-meeting comment regarding adjustment for various demographic variables. To address this, the developer provided data from 231 California hospitals showing that hospitals with a higher concentration of older moms (over 35 years) were distributed across hospitals with higher, medium, and lower range measure results. This finding suggested that age is not a significant factor and performance is driven by other factors of labor management.
- The developer noted that they are eliminating the age stratification effective July 1, 2016.
- The Committee requested that the developer consider a balancing measure that monitors potential unintended adverse consequences. The developer noted that *NQF#0716 Unexpected Complications in the Term Newborn* is being used in this manner in California, Oregon, and Washington.
- The Committee expressed concerns that lowering C-section rates too much can be as bad as higher C-section rates. There may be variations based on medical issues that affect whether the babies tolerate labor and whether labor goes smoothly in a timely fashion that does not exhaust the baby or the placental reserve.
- The Committee cautioned that tying payment to certain percentage of Cesarean birth rate (i.e., Healthy People 2020 target of 23.9%) might lead to bad outcomes.
- The Committee discussed possibilities for risk-adjustment and questioned whether contraindications for a vaginal delivery should be excluded from the measure moving forward. The developer clarified that they looked extensively at other diagnoses that could be contraindications for vaginal delivery such as placenta previa and HIV+, which are both included in the coding. The developer found only 56 cases in all of California that were coded as HIV with the several codes for HIV in pregnancy nulliparous to term, suggesting they were very under-coded. Additionally, only a few hospitals reported 2% - 3% of their patients had placenta previa; half of those were delivered vaginally -- the coding was indicative of a placenta previa being present on ultrasound in the first or second trimester that was coded on the delivery chart. Because of the lack of good quality data for many of the contraindications for vaginal delivery, the developer decided to keep this measure simple and only include conditions that are accurately coded.

3. Feasibility: H-15; M-11; L-0; I-0

(3a. Clinical data generated during care delivery; 3b. Electronic sources; 3c. Susceptibility to inaccuracies/unintended consequences identified 3d. Data collection strategy can be implemented)

Rationale:

- The Committee noted that the developer is working on an eMeasure that will be tested this year, which would be a good addition to the field.
- The Committee agreed all data elements are in defined fields in electronic sources. No concerns regarding feasibility were noted.

4. Usability and Use: H-21; M-6; L-0; I-0

(Used and useful to the intended audiences for 4a. Accountability and Transparency; 4b. Improvement; and 4c. Benefits outweigh evidence of unintended consequences)

Rationale:

- The measure is in use in The Joint Commission’s Hospital Accreditation Program, is publically reported in the Joint Commission’s Annual Report, America’s Hospitals: Improving Quality and Safety, and is used for internal quality improvement via the Perinatal Care Certification program run by the Joint Commission. This measure is also included in the Medicaid Child Core Set.
- The Committee expressed the need to have this measure publicly reported beyond what is done voluntarily. The developer stated that their public reporting system is set up for process measures and they are trying to figure out how to accurately report this outcome measure publicly as well as some others, so that they make sense to the public.
- The Committee noted some challenges with reporting outcome measures such as determining the expected rate versus the actual rate and reporting that in a way that makes sense to people.

5. Related and Competing Measures

- This measure is similar to the newly submitted measure #2892: Birthrisk Cesarean Birth Measure. The Committee did not discuss the competing measure issue since NQF #2892 was not recommended.

Standing Committee Recommendation for Endorsement: Y-26; N-1

Rationale

- The Committee agreed that this measure meets all the NQF criteria for endorsement.

6. Public and Member Comment

Comments Received

- This measure received 25 comments during the post comment period. Of these, 7 organizations commented in support of the Committee’s recommendation, noting continued disparities in care, the risks associated with cesarean sections, and evidence-based processes to reduce Cesarean birth rates safely.
- The measure received 17 comments from 11 individuals disagreeing with the Committee’s decision to recommend the measure. The concerns raised focused on 2 issues: the lack of risk adjustment in the measure and concerns over the Healthy People 2020 target rate of 23.9%. Since this target rate was not set by the measure developer or NQF, neither is able to change it; however, a number of commenters indicated that without risk adjustment, this rate may not be an appropriate target. Commenters urged the measure to include risk adjustment for patient factors that impact the likelihood of Cesarean birth, including patient characteristics such as age or obesity, or medical factors such as diabetes, hypertensive disorders, LGA or SGA fetuses with/without growth restriction, etc.
- One commenter noted the need for more exclusions to cover cases where Cesarean births are medically indicated, such as “mal-presentation that could not be corrected, placenta previa, contracted pelvis, previous perineal reconstruction, fetal anomalies incompatible with vaginal birth, or other contraindications to vaginal birth.”

Developer Response

- The Joint Commission has had numerous, detailed communications with the commenter on this subject, and is of the opinion that current evidence contradicts his contentions. The final decision to remove all risk-adjustment from this measure was made after submitting the measure to NQF and is based on evidence from two recent studies^{1,2} which have shown that hospitals with a high maternal age population also have a low body mass index (BMI) and

conversely, those with low maternal age have a high BMI (at the time of the first birth). Because when tested against a more robust risk adjusted model (age, BMI, race, hypertension, diabetes), the studies found differences limited to 1-2%, the Joint Commission's Perinatal Care Technical Advisory Panel has recommended using the simple cesarean birth rates without further risk adjustment. Therefore, effective with discharges beginning July 1, 2016, The Joint Commission has removed all risk adjustments until such time as data are available demonstrating the need for risk adjustment and the feasibility of collecting any risk factors required.

¹ Caceres IA, Arcaya M, Declercq E, Belanoff CM, Janakiraman V, et al. (2013) Hospital Differences in Cesarean Deliveries in Massachusetts (US) 2004–2006: The Case against Case-Mix Artifact. PLoS ONE 8(3): e57817. doi:10.1371/journal.pone.0057817

² Main E. (2014) Nulliparous, Term, Singleton, Vertex (NTSV) Cesarean Birth Rates: extreme hospital variation is not changed by adjustment for case-mix. Oral Presentation: Pacific Coast Obstetrics and Gynecology Society

- The Cesarean Birth measure (PC-02) is designed to measure the rates of cesarean births among a subset of the general obstetric population of women while also keeping the burden of data collection to a minimum. The measure focuses on mothers having their first birth who are at the highest risk of primary cesarean birth when compared to mothers who have experienced a previous vaginal birth. By setting aside twins, breech presentations, and premature births, this measure focuses on a more homogeneous group of women where the greatest improvement opportunity exists. Because the measure focuses on nulliparous women with a term, singleton baby in a vertex position, the only exclusions to the denominator population are multiple gestations and presentations other than a vertex position, which are realized through the use of specific ICD-10-CM diagnosis codes found on Table 11.09 in Appendix A of the Specifications Manual for Joint Commission National Quality Core Measures. Extensive testing by The Joint Commission made it clear that there is no need to exclude for all known indications for performing cesareans, since these types of medical conditions are less common and would not significantly increase a hospital's adjusted cesarean rates. Maternal age, race, and weight are known cesarean risk factors for individuals but do not impact hospital PC-02 rates. Thus, including a comprehensive set of maternal medical exclusions would add data collection burden without commensurate benefit.
- There are also no ideal target rates for this outcome measure. Instead, the measure is designed to be an accurate way for leaders to identify whether a hospital's rate of cesarean births for women included in this select population is consistent with the rate of cesareans within this same population at another hospital. Hospitals whose cesarean birth measure rates are higher than they wish them to be are encouraged to explore and evaluate differences in the medical and nursing management of women in labor.
- Since there is currently no risk adjustment for this measure, inclusion of expected versus observed results is not indicated.
- The Joint Commission has not set this as a target for cesarean birth rates, nor does it establish benchmarks for any of its measures. The intent of this measure is for hospitals to understand their baseline rate of performance in order to determine if performance improvement efforts are indicated and, when they are, effective over time.

Committee response

- During the post-comment call, the Committee reaffirmed that they recommend the measure with the age adjustment removed. The Committee agreed they did not have any concerns with the measure with the updated specifications. Committee members noted that measure #0716, *Unexpected Complications in Term Newborn*, is a balancing measure for this measure and could provide a signal for overzealous reductions in Cesarean birth rates.

- The Committee noted that the target rate mentioned in the comments is set by Healthy People 2020 and is not in the control of either The Joint Commission or NQF.

7. Consensus Standards Approval Committee (CSAC) Vote: Y-17; N-0

Decision: Approved for continued endorsement

8. NQF Board of Directors Vote: Yes (October 25, 2016)

Decision: Ratified for continued endorsement

9. Appeals

No appeals were received.

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

[Submission](#) | [Specifications](#)

Description: Percent of live newborn infants that receive Hepatitis B vaccination before discharge (or within 1 month of life, if the infant had an extended hospital stay) 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 (or within 1 month of life, if the infant had an extended hospital stay) 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. 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 will include the following (link: <http://www.icd10data.com/ICD10CM/Codes/Z00-Z99/Z20-Z28/Z28-/#Z28>):

i. Z28.82 Immunization not carried out because of caregiver refusal

Adjustment/Stratification: No risk adjustment or risk stratification

Level of Analysis: Facility

Setting of Care: Hospital/Acute Care Facility

Type of Measure: Process

Data Source: Electronic Clinical Data, Electronic Clinical Data : Electronic Health Record, Other, Paper Medical Records, Electronic Clinical Data : Pharmacy, Electronic Clinical Data : Registry

Measure Steward: Centers for Disease Control and Prevention

STANDING COMMITTEE MEETING [05/02/2016]

1. Importance to Measure and Report: The measure meets the Importance criteria

(1a. Evidence, 1b. Performance Gap)

1a. Evidence: **Previous Evidence Evaluation Accepted**; 1b. Performance Gap: **H-18; M-8; L-0; I-0**

Rationale:

- The developer submitted new evidence during this review, which includes 4 systematic reviews, that agree and demonstrate that hepatitis B vaccine administered shortly after birth effectively prevents perinatal hepatitis B transmission.
- Data from the 2014 National Immunization Survey shows the national Hepatitis B vaccine birth dose coverage overall was 72.4%.
- The developers provided disparities literature for the measure, that in the 22 states evaluated, approximately 16,500 births were estimated to be from HBV-infected women; 80.6% of these were foreign-born women.

2. Scientific Acceptability of Measure Properties: The measure meets the Scientific Acceptability criteria

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

2a. Reliability: **H-26; M-1; L-0; I-0** 2b. Validity: **Previous Validity Evaluation Accepted**

Rationale:

- The developer removed the exclusion for parent refusal from the measure that was in the previous version of this measure. The CDC wants to measure the babies protected by vaccination. The Committee agreed with the change in specifications.
- The Committee found the specifications to be detailed and consistent with the evidence. The measure is specified for electronic clinical data, registry and abstraction from electronic health records with all the codes necessary to calculate the measure presented (ICD-9 CM and ICD-10 CM and CPT II codes).
- Reliability testing was conducted at the performance measure score. For measure score reliability, the score ranged from 0.981 and 1.000, indicating very high reliability, indicating that variability between hospitals regarding the Hepatitis B vaccine birth dose is due to actual performance differences rather than measurement error. The Committee agreed the reliability testing provided was sufficient.
- Face validity of the measure score was assessed by a 22-member expert panel, with a 63.6% response rate, who agreed that the measure could distinguish quality of care.
- The Committee stressed that by excluding refusals to vaccinate within the denominator of the measure, the health community would have a more accurate vision of challenges facing vaccination. This would also encourage better communication and shared decision making between providers and patients. Members highlighted that while some facilities might have a measure performance score of 90%, they could potentially be excluding 50% of the measurement population.

3. Feasibility: H-20; M-7; L-0; I-0

(3a. Clinical data generated during care delivery; 3b. Electronic sources; 3c. Susceptibility to inaccuracies/unintended consequences identified 3d. Data collection strategy can be implemented)

Rationale:

- The Committee agreed the measure is well specified and is in use by the New York City Department of Health and Mental Hygiene. Data elements are in defined fields in a combination of electronic sources and also in paper medical records, including EHRs.

4. Usability and Use: H-24; M-3; L-0; I-0

(Used and useful to the intended audiences for 4a. Accountability and Transparency; 4b. Improvement; and 4c. Benefits outweigh evidence of unintended consequences)

Rationale:

- The measure is currently used by the New York City Department of Health and Mental Hygiene. The developer presented data from the National Immunization Survey, demonstrating that Hepatitis B birth dose coverage has improved from 64.1% (+/-1.3) in 2010 to 72.4% (+/-1.5) in 2014.

5. Related and Competing Measures

- No related or competing measures noted.

Standing Committee Recommendation for Endorsement: Y-27; N-0

Rationale

- The Committee recommended measure 0475: Hepatitis B Vaccine Coverage Among All Live Newborn Infants Prior to Hospital or Birthing Facility Discharge for continued endorsement.

6. Public and Member Comment: June 7 – July 6, 2016

Comments Received

- This measure received 4 comments, generally supporting endorsement. One comment noted that the measure as specified does not adequately reflect the immunization of infants who had deferred vaccination until the infant's first visit to the pediatrician. Another comment raised the issue that babies who are transferred for a higher level of care are often transferred prior to the birthing facility having the opportunity to administer the vaccine; the comment urged the exclusion of newborns who are transferred to a tertiary care facility. One of the supportive comments suggested that the measure be modified to "recommend educational material be provided to parents regarding efficacy of vaccines since some parents decide to not vaccinate."

Developer Response

- We thank you for your response and agree that educational materials for parents are helpful. Vaccine Information Statements are required (by federal law) to be given to the patient, parent, or legal representative prior to administration of certain vaccines, including HepB vaccine. The Vaccine Information Statements provide information about the benefits and risks of specific vaccines, and include general information on vaccine efficacy (note that Vaccine Information Statements are generally written at a 10th grade reading level). Hospitals or birthing facilities may elect to provide additional information to parents regarding HepB vaccine efficacy.
- While we are open to excluding newborns who are transferred to a tertiary care facility from the denominator, we feel that this is unnecessary. Overall, the number of infants transferred out of a hospital (compared to the total number of infants born at a hospital) is low. The numerator specifies number of infants administered HepB vaccine prior to discharge, or within 1 month of life if the infant had an extended hospital stay. The majority of infants needing a transfer will have an extended hospital stay, and therefore have ample opportunity to receive the birth dose at the receiving hospital. The birthing hospital could obtain records regarding

HepB vaccine receipt from the receiving hospital and/or an immunization registry. As such, this issue should not affect the measure in any meaningful way.

- We agree that the measure would not reflect immunization of infants who had deferred vaccination until the infant's first visit to the pediatric office. However, delay of the HepB birth dose should occur only in very rare circumstances. The Advisory Committee on Immunization Practices states "on a case-by-case basis and only in rare circumstances, the first dose may be delayed until after hospital discharge for an infant who weighs greater than or equal to 2,000 grams and whose mother is HBsAg negative." Administration of a birth dose in the hospital (even without HBIG) serves as a safety net to prevent perinatal infection among infants born to positive mothers who are not identified because of errors in testing or reporting. Administration of a birth dose has also been associated with higher rates of on-time completion of the HepB vaccine series and improved completion rates for other vaccines.

7. Consensus Standards Approval Committee (CSAC) Vote: Y-17; N-0

Decision: Approved for continued endorsement

8. NQF Board of Directors Vote: Yes (October 25, 2016)

Decision: Ratified for continued endorsement

9. Appeals

No appeals were received.

0476 PC-03 Antenatal Steroids

[Submission](#) | [Specifications](#)

Description: This measure assesses patients at risk of preterm delivery at ≥ 24 and < 34 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 Birth, PC-04: Health Care-Associated Bloodstream Infections in Newborns, PC-05: Exclusive Breast Milk Feeding).

Numerator Statement: Patients with antenatal steroids initiated prior to delivering preterm newborns (refer to Appendix C, Table 11.0, antenatal steroid medications available at: <http://manual.jointcommission.org/releases/TJC2016A/>)

Denominator Statement: Patients delivering live preterm newborns with ≥ 24 and < 34 weeks gestation completed with ICD-10-PCS Principal or Other Procedure Codes for delivery as defined in Appendix A, Table 11.01.1 available at: <http://manual.jointcommission.org/releases/TJC2016A/>

Exclusions:

- Less than 8 years of age
- Greater than or equal to 65 years of age
- Length of Stay > 120 days
- Documented Reason for Not Initiating Antenatal Steroids

- ICD-10-CM Principal Diagnosis Code or ICD-10-CM Other Diagnosis Codes for fetal demise as defined in Appendix A, Table 11.09.1 available at: <http://manual.jointcommission.org>
- Gestational Age < 24 or >= 34 weeks or UTD

Adjustment/Stratification: No risk adjustment or risk stratification

Level of Analysis: Facility, Population : National

Setting of Care: Hospital/Acute Care Facility

Type of Measure: Process

Data Source: Paper Medical Records

Measure Steward: The Joint Commission

STANDING COMMITTEE MEETING [05/03/2016]

1. Importance to Measure and Report: The measure meets the Importance criteria

(1a. Evidence, 1b. Performance Gap)

1a. Evidence: **Previous Evidence Evaluation Accepted**; 1b. Performance Gap: **H-7; M-14; L-5; I-0**

Rationale:

- The developer reports that the measure has been changed to reflect the 2013 ACOG Practice Bulletin for Premature Rupture of Membranes that recommends antenatal steroids up to 34 weeks (change from 32 weeks).
- In January 2014, the measure became mandatory for all hospitals with more than 1,100 births per year. The measure performance increased from 54% in 2011 to 82% in 2014.
- The developer provides literature references rather than data from use of this measure. A 2011 report on births in California found that Hispanic mothers (25.6%), mothers younger than age 20 (27.6%), and those without prenatal care (52.2%) were less likely to receive antenatal steroids. Mothers giving birth vaginally (26.8%) and mothers with a diagnosis of fetal distress (26.5%) were also less likely to receive antenatal steroids.
- The Committee acknowledged that there is still a significant gap in performance.

2. Scientific Acceptability of Measure Properties: The measure meets the Scientific Acceptability criteria

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

2a. Reliability: **M-22; L-3; I-0** 2b. Validity: **H-14; M-11; L-0; I-0**

Rationale:

- The specifications were detailed and consistent with the evidence. The measure is specified for paper medical records, Vital Records reports, and delivery logs and clinical information systems. All the codes necessary to calculate the measure are presented (ICD-9 CM and ICD-10 CM and CPT II codes).
- The developer made the following updates to the measure specifications: The single numerator data element "Antenatal Steroids Administered" was changed to "Antenatal Steroids Initiated" to capture initiation of antenatal steroids instead of a full course. The denominator statement was changed from patients delivering live preterm newborns with >=24 and <32 weeks gestation completed to patients delivering live preterm newborns with >=24 and <34 weeks gestation based on the 2013 ACOG Practice Bulletin on Premature Rupture of Membranes (PROM).

- Reliability testing was conducted at the data element level. For data element reliability, the developer performed inter-rater reliability by ORXY vendor re-abstraction for 108 hospitals comprising 13,279 records. The agreement rate for the data element “Antenatal steroids administered” was 99.16%.
- Empirical validity of the measure score was assessed using the Spearman rank-order correlation to correlate the results from this measure with other measures in the Joint Commission’s perinatal set. The correlation of PC-03 with the other PC measures in the PC measure set indicates that the correlations with two other PC measures are moderate and statistically significant.
- The developer confirmed that clinical trials will be removed as an exclusion.

3. Feasibility: H-15; M-10; L-0; I-0

(3a. Clinical data generated during care delivery; 3b. Electronic sources; 3c Susceptibility to inaccuracies/unintended consequences identified 3d. Data collection strategy can be implemented)

Rationale:

- The Committee agreed the measure is well specified for public reporting and accountability programs. According to the developer, “Hospitals using this performance measure generally collect measure data via manual review of the paper medical record, the EMR or a combination of both.”
- The Committee did caution that data collection might be burdensome for smaller facilities.

4. Usability and Use: H-22; M-4; L-0; I-0

(Used and useful to the intended audiences for 4a. Accountability and Transparency; 4b. Improvement; and 4c. Benefits outweigh evidence of unintended consequences)

Rationale:

- The measure is currently used in public reporting and accountability programs such as Quality Check® and The Joint Commission’s Hospital Accreditation Program. The Joint Commission presented ORYX performance measurement data demonstrating that the rate of patients receiving antenatal steroids prior to premature deliveries has improved from 63.3% in 2010 with 114 hospitals reporting to 91.6% in 2014 with 1,133 hospitals reporting.
- The developer reports on 3 unexpected findings during measure implementation:
 - Cases failed when the repeat dose of antenatal steroids was not given due to the delivery occurring prior to the routinely scheduled repeat dose being ordered. In response to this problem, the developer changed the data element “Antenatal Steroids Administered” to “Antenatal Steroids Initiated” to capture initiation of antenatal steroids instead of a full course.
 - Patients who did not receive prenatal care were inappropriately included in the measure denominator, as the gestational age data element was abstracted as “UDT.” In response to this, the developer removed “undetermined cases” from the measure denominator.
 - Hospitals have reported lower rates due to small denominator populations as a result of sampling. In response to this, the developer added Vital Records reports, delivery logs, and clinical information systems as acceptable data sources to help hospitals identify all cases with at least 24 and less than 34 weeks gestation, so that 100% of these cases could be reviewed to increase the denominator population size.

5. Related and Competing Measures

- No related or competing measures noted.

Standing Committee Recommendation for Endorsement: Y-26; N-0

Rationale

- The Committee recommends measure 0476: PC-03 Antenatal Steroids for continued endorsement.

6. Public and Member Comment: June 7 - July 6, 2016

Comments Received

- Of the 5 comments received on this measure, 4 were fully in support. One comment raised concerns with the measure's numerator and denominator: first, with the denominator exclusion of "a documented reason for not giving steroids," pointing out that this could allow exclusions for facility structural issues, knowledge deficiencies on the part of the provider, or an "improper attitude" on the part of the provider or hospital unit. The comment also raised the issue of potential gaming, noting that the numerator captures use of steroids at any time, but they are optimally effective if given 24 hours to 7 days prior to early preterm birth.

Developer Response

- The purpose of the measure is to evaluate that patients at risk of preterm delivery at ≥ 24 and < 34 weeks gestation receive antenatal steroids prior to delivering preterm newborns. The measure is not constructed to evaluate other aspects of established guidelines. Hospitals would need to use other measures or evaluation methods to determine adherence to additional guidelines.

7. Consensus Standards Approval Committee (CSAC) Vote: Y-17; N-0

Decision: Approved for continued endorsement

8. NQF Board of Directors Vote: Yes (October 25, 2016)

Decision: Ratified for continued endorsement

9. Appeals

No appeals were received.

0478 Neonatal Blood Stream Infection Rate (NQI 03)

[Submission](#) | [Specifications](#)

Description: Discharges with healthcare-associated blood stream infection per 1,000 discharges for newborns and outborns with birth weight of 500 grams or more but less than 1,500 grams; with gestational age between 24 and 30 weeks; or with birth weight of 1,500 grams or more and death, an operating room procedure, mechanical ventilation, or transferring from another hospital within two

days of birth. Excludes discharges with a length of stay less than 3 days and discharges with a principal diagnosis of sepsis, sepsis or bacteremia, or newborn bacteremia.

Numerator Statement: Discharges, among cases meeting the inclusion and exclusion rules for the denominator, with either:

- any secondary ICD-9-CM or ICD-10 CM diagnosis codes for other septicemia; or
- any secondary ICD-9-CM or ICD-10 CM diagnosis codes for newborn septicemia or bacteremia and
- any secondary ICD-9-CM or ICD-10 CM diagnosis codes for staphylococcal or Gram-negative bacterial infection

Denominator Statement: All newborns and outborns with either:

- a birth weight of 500 to 1,499 grams (Birth Weight Categories 2, 3, 4 and 5); or
- any-listed ICD-9-CM or ICD-10 CM diagnosis codes for gestational age between 24 and 30 weeks; or
- a birth weight greater than or equal to 1,500 grams (Birth Weight Category 6, 7, 8, or 9) and death (DISP=20); or
- a birth weight greater than or equal to 1,500 grams (Birth Weight Category 6, 7, 8, or 9) and any-listed ICD-9-CM or ICD-10 PCS procedure codes for operating room procedure; or
- a birth weight greater than or equal to 1,500 grams (Birth Weight Category 6, 7, 8, or 9) and any-listed ICD-9-CM or ICD-10 PCS procedure codes for mechanical ventilation; or
- a birth weight greater than or equal to 1,500 grams (Birth Weight Category 6, 7, 8, or 9) and transferring from another health care facility within two days of birth

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

Exclusions: Exclude cases:

- with a principal ICD-9-CM or ICD-10-CM diagnosis code (or secondary diagnosis present on admission†) for sepsis
- with a principal ICD-9-CM or ICD-10-CM diagnosis code (or secondary diagnosis present on admission†) for sepsis or bacteremia
- with a principal ICD-9-CM or ICD-10-CM diagnosis code (or secondary diagnosis present on admission†) for staphylococcal or Gram-negative bacterial infection
- with birth weight less than 500 grams (Birth Weight Category 1)
- with length of stay less than 3 days
- with missing 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.

Adjustment/Stratification: Statistical risk model

Level of Analysis: Facility

Setting of Care: Hospital/Acute Care Facility

Type of Measure: Outcome

Data Source: Administrative claims

Measure Steward: Agency for Healthcare Research and Quality

STANDING COMMITTEE MEETING [05/02/2016]

1. Importance to Measure and Report: The measure meets the Importance criteria

(1a. Evidence, 1b. Performance Gap)

1a. Evidence: **Previous Evidence Evaluation Accepted**; 1b. Performance Gap: **H-14; M-9; L-0; I-0**

Rationale:

- The developer reports that the evidence supporting this measure consists of 11 nonrandomized studies that demonstrate that effective preventive measures for decreasing blood infection “range from simple hand-washing protocols or closed medication delivery systems to more elaborate multidisciplinary quality improvement plans involving hand-washing, nutrition, skin care, respiratory care, vascular access, and diagnostic practices”.
- The average hospital neonatal blood stream infection rate decreased from 11.53 per 1,000 in 2011 to 9.15 per 1,000 in 2013. The Committee acknowledged that there is still a significant gap in performance, noting that there are disparities between urban and rural populations, and between Medicaid, private insurance and the uninsured.

2. Scientific Acceptability of Measure Properties: The measure meets the Scientific Acceptability criteria

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

2a. Reliability: **Previous Reliability Evaluation Accepted** 2b. Validity: **Previous Validity Evaluation Accepted**

Rationale:

- The specifications were detailed and consistent with the evidence. The measure is specified for administrative claims. All the codes necessary to calculate the measure are presented (ICD-9 CM and ICD-10 CM and CPT II codes).
- The developer updated the measure by adding data from the AHRQ 2013 Healthcare Cost and Utilization Project (HCUP) State Inpatient Databases (SID).
- Reliability testing was conducted at the measure score level. Signal to noise was utilized to assess the reliability of the measure. In 2013 for 943 hospitals comprising on average 72.3 discharges per hospital, reliability testing found a signal-to-noise average of 0.63.
- Face validity was assessed using a multi-specialty panel with a rating scale from 1 - 9. The panel agreed that the measure would be useful for rating the usefulness for internal QI improvement and for comparative purposes.
- This measure is risk adjusted. The developer utilized a multivariable model with covariates grouped into four categories, then estimated on the pediatric analytic data using a backward stepwise bootstrap approach. C-statistic = 0.752.

3. Feasibility: **Previous Feasibility Evaluation Accepted**

(3a. Clinical data generated during care delivery; 3b. Electronic sources; 3c. Susceptibility to inaccuracies/unintended consequences identified 3d. Data collection strategy can be implemented)

Rationale:

- The Committee agreed the measure is well specified for public reporting and accountability programs.
- The Committee did not raise concerns about the feasibility of this measure.

4. Usability and Use: H-16; M-7; L-0; I-0

(Used and useful to the intended audiences for 4a. Accountability and Transparency; 4b. Improvement; and 4c. Benefits outweigh evidence of unintended consequences)

Rationale:

- The measure is currently used in public reporting and accountability programs including the Wisconsin Hospital Association (WHA) Information Center and the Wisconsin Hospital Association (WHA) Quality Indicators Report.
- The developer presented data exhibiting improved performance. The average hospital neonatal blood stream infection rate decreased from 11.53 per 1,000 in 2011 to 9.15 per 1,000 in 2013.

5. Related and Competing Measures

- This measure competes with #1731: PC-04 Health Care-Associated Bloodstream Infections in Newborns and #0304: Late sepsis or meningitis in Very Low Birth Weight (VLBW) neonates.
- The Committee had an extensive discussion on the 3 competing measures. NQF provided guidance on the related/competing measure process.
- The Joint Commission (TJC) and AHRQ have done some work on harmonization. TJC compared measures #1731, which uses partial chart review and administrative data, and #0478, which only uses administrative data, and found the measure using chart review was able to identify more cases that had not been included in #1731 due to coding issues. In addition, the #0478 measure excludes cases diagnosed 7 days or less after birth and measure #1731 excludes only 2 days or less, which they thought accounted for about 10% of the difference. (#0478 is now 3 days or less.) The Joint Commission stated that the measures are similar; however, since codes are not uniformly assigned, their measure, which also uses chart review, is able to identify more cases. However, this comparison was done using ICD-9 CM codes, and they think that that there will be less discrepancy between the 2 measures with the use of ICD-10 CM codes.
- AHRQ noted that they had made changes to #0478 based in part on the analysis done with TJC, that the measure will change with ICD-10 CM, and that the current versions are more aligned. In addition, #0478 looks at all causes and cases of sepsis, while #1731 focuses on those associated with central lines. In addition, the AHRQ measure is not reported at a hospital level.
- A Committee member related some of the history of this measure, noting that the AHRQ measure was originally endorsed and brought into The Joint Commission's core set, and then turned into a clinical data measure. During the previous review and discussion of competing measures, Medicaid programs stated that they could not collect the data unless it was administrative, and that is why there were 2 endorsed measures.
- Committee members requested more information on the change to ICD-10 CM, in particular whether this would now have less chart review burden. The developer stated it was too soon to tell, especially with the learning curve associated with changing coding guidelines. It was also noted that with ICD-10 CM, "suspected" or "probable" is no longer included (cases are yes/no), which should reduce gaming.
- Committee members who are using the measure did not think chart review was a large burden due to the very small number of charts that have to be reviewed, especially since hospitals would already be reviewing all of these charts as they work to reduce infection rates. Coding for neonatal sepsis is complicated and the chart review is used to make the measure more accurate.

In addition, the developer noted, hospitals like to be able to exclude false positives. It was noted that false negatives are a larger issue.

- After discussion, the Committee felt there is not yet enough data on the performance of either measure under ICD-10 CM and that ICD-10 CM has the potential to reduce a lot of the burden associated with manual chart review. In addition, many new, smaller facilities (> 300 deliveries per year) are just beginning to report on this measure so current performance rates are not yet available (although these very small facilities are unlikely to be caring for these babies since they would be expected to be transferred).
- The Committee noted that EHRs are not yet to the point where this data can be automatically pulled out.
- The Committee then discussed the ways in which the VON measure, #0304, differs from the other 2 measures. Measure #0304 does not include babies more than 1,500 grams, and does include meningitis; however, the number of meningitis cases is not clear. Currently the measure requires either a positive blood or CSF culture, not collected separately, although the developer agreed that might be a good idea. The VON measure is risk adjusted, which allows for more even comparisons across facilities. However, the major issue with the VON measure is that it is not publically reported and requires a registration fee.
- The Committee noted they were struggling with the question of whether one was best, especially with the changes to the measures. Committee members using the measures noted they focus on slightly different populations. For example, there are about 40,000 VLBW babies born each year and bloodstream infections are most prevalent in this population, but there are also larger babies at risk for infection though the rates are lower. One Committee member stated that to actually move the needle, the VLBW babies are the target population, but only about a quarter of the NICUs in the country treat these babies, with the remaining three-fourths of NICUs treating LBW and premature babies. Another Committee member noted that focusing on the smaller, high-prevalence population misses the opportunity to improve processes and reduce infections in many facilities.
- Ultimately, due to the changes in the AHRQ measure, the update to ICD-10 CM, the expanded number of facilities reporting, and the slightly different populations included, the Committee agreed that for the time being all three measures should remain endorsed, since they are being used for different things. In terms of burden, it was noted that all high-level NICUs are already reporting to VON; that almost everyone has to report to The Joint Commission; and that there is no burden for hospitals for the AHRQ measure since it comes out of billing data and is reported by the state data organizations.
- The Committee requested that, for the next year, a specific effort be made to get the data from those facilities that collect and report on 2 or 3 of the measures in order to allow a more accurate comparison. VON noted that they do a member survey and will ask members that are collecting on the other measures as well. They also offered to work with The Joint Commission to compare the data.
- Committee members highlighted that while it is easy for them to understand the differences between the measures and rates, it may not be so clear to the public, and they reiterated the need for a single measure.
- The Committee requested that the developers provide more information and new data in 18 months for the Committee to relook at the measures during an off-cycle review. They further requested that the developers work together toward a single future measure.

Standing Committee Recommendation for Endorsement: Y-22; N-1**Rationale**

- The Committee agreed that this measure meets all the NQF criteria for endorsement.

6. Public and Member Comment: June 7 – July 6, 2016**Comments Received**

- One commenter submitted a comment on each of the 3 competing measures agreeing with the Committee’s decision to recommend, but urging the developers to coordinate or combine measures.

Developer Response

- AHRQ appreciates the suggestion to compare the AHRQ, The Joint Commission (TJC), and Vermont Oxford Network’s measures of neonatal blood stream infection, AHRQ’s NQI 03 Neonatal Blood Stream Infection Rate (NQF 0478), TJC’s PC-04 Health Care-Associated Bloodstream Infections in Newborns (NQF 1731), and Vermont Oxford Network’s Late Sepsis or Meningitis in Very Low Birth Weight (VLBW) Neonates (NQF 0304). These 3 NQF endorsed measures were each developed for specific and different purposes and for different data sources, which has led to deviations in specifications. As noted in the NQF submission materials to the Perinatal Committee, AHRQ engaged with TJC to harmonize the measures NQF 0478 (AHRQ) and NQF 1731 (TJC) where possible. In some cases, differences in the data source or intended purpose of the measures favor measures that are not fully harmonized. In other cases, harmonization is feasible while maintaining the integrity of the measure for the intended use and data source. As suggested by the committee, AHRQ will continue to explore the feasibility and desirability of further harmonization of the measures.

Committee Response

- The Committee agrees that harmonization of these 3 measures is important to reduce the burden of reporting. The developers have been directed to work together over the next 18 months to arrive at a single measure with supporting data, to be presented to the Committee during an off-cycle review.

7. Consensus Standards Approval Committee (CSAC) Vote: Y-17; N-0**Decision: Approved for continued endorsement**

8. NQF Board of Directors Vote: Yes (October 25, 2016)**Decision: Ratified for continued endorsement**

9. Appeals

No appeals were received.

0480 PC-05 Exclusive Breast Milk Feeding

[Submission](#) | [Specifications](#)

Description: PC-05 assesses the number of newborns exclusively fed breast milk 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 Birth, 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 alive from the hospital with ICD-10-CM Principal Diagnosis Code for single liveborn newborn as defined in Appendix A, Table 11.20.1 available at: <http://manual.jointcommission.org/releases/TJC2016A/>

Exclusions:

- Admitted to the Neonatal Intensive Care Unit (NICU) at this hospital during the hospitalization
- ICD-10-CM Other Diagnosis Codes for galactosemia as defined in Appendix A, Table 11.21
- ICD-10-PCS Principal Procedure Code or ICD-10-PCS Other Procedure Codes for parenteral infusion as defined in Appendix A, Table 11.22
- Experienced death
- Length of Stay >120 days
- Patients transferred to another hospital
- Patients who are not term or with < 37 weeks gestation completed

Adjustment/Stratification: No risk adjustment or risk stratification

Level of Analysis: Facility, Population : National

Setting of Care: Hospital/Acute Care Facility

Type of Measure: Process

Data Source: Electronic Clinical Data, Paper Medical Records

Measure Steward: The Joint Commission

STANDING COMMITTEE MEETING [05/03/2016]

1. Importance to Measure and Report: The measure meets the Importance criteria

(1a. Evidence, 1b. Performance Gap)

1a. Evidence: **Previous Evidence Evaluation Accepted**; 1b. Performance Gap: **H-X=18; M-5; L-1; I-0**

Rationale:

- The goal for performance of the measure is 70%, and in over half of The Joint Commission hospitals that reported this measure, rates are less than 50%. In the 10th percentile, hospitals are at 22%.
- More hospitals are reporting now (1,400, up from 166), so there are more opportunities for improvement.
- Committee members noted concerns around patient choice, and that an issue with this measure is that it puts pressure on patients to breastfeed when it may not be appropriate due to circumstances outside the control of the hospital (for example, work circumstances that do not allow pumping).

- Committee members discussed the resources available for hospitals as they work to improve performance on this measure, such as toolkits, and that one key focus is training staff to ensure they are counseling patients appropriately.
- The Committee discussed the potential for a balancing measure.

2. Scientific Acceptability of Measure Properties: The measure meets the Scientific Acceptability criteria

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

2a. Reliability: **M-21; L-2; I-0** 2b. Validity: **H-8; M-12; L-2; I-0**

Rationale:

- The measure was updated to ICD-10 CM. The sub-measure, exclusion of mothers who declined to breastfeed, was removed because stakeholders felt it was too much burden to get the data.
- Committee members discussed validity extensively, with one noting the measure reflects what patients chose to do, not the actual action or quality of care provided, and another stating that almost all measures can be said to reflect patient choices (for example, the choice to take medicine, have a procedure, etc.).
- One Committee member noted doubts about the validity of results when facilities report more than 95% rates, but the developer stated only one hospital reported rates that high, and reiterated the goal of 70%, noting that due to both choice and medical conditions, 100% is not the goal; however, many hospitals are at 70%. One Committee member noted that she audits hospitals and is confident in the data, even those reporting at high rates.
- Committee members were interested in the possibility of measures that report on percent of women still breastfeeding longer-term. Despite many limitations in women's ability to breastfeed long-term, Committee members noted that circumstances are improving and that this measure can be used to improve accommodations that allow more mothers to breastfeed for longer.
- A Committee member summarized the issue as the tension between pressure on mothers whose circumstances do not allow breastfeeding (such as women who have less than 4 weeks leave or who have jobs where they cannot pump) and keeping the threshold at 70% to move the nation forward.
- This is a population health measure with lifetime benefits. A Committee member stated that pressure on women has to do with a lack of process, and that in Baby-Friendly Hospitals it is easy to opt-out; therefore, pressure is a system issue that can be improved. Other Committee members agreed there are many process issues that can be addressed within the healthcare system.

3. Feasibility: H-18; M-5; L-0; I-0

(3a. Clinical data generated during care delivery; 3b. Electronic sources; 3c. Susceptibility to inaccuracies/unintended consequences identified 3d. Data collection strategy can be implemented)

Rationale:

- The measure is used by Quality Check, The Joint Commission, the Hospital Inpatient Reporting Program; the Committee felt it was quite feasible.

4. Usability and Use: H-14; M-8; L-1; I-0

(Used and useful to the intended audiences for 4a. Accountability and Transparency; 4b. Improvement; and 4c. Benefits outweigh evidence of unintended consequences)

Rationale:

- As the measure is in use, there were no usability concerns.

5. Related and Competing Measures

- No related or competing measures noted.

Standing Committee Recommendation for Endorsement: Y-21; N-2

Rationale

- The Committee agreed that this measure meets all the NQF criteria for endorsement.

6. Public and Member Comment: June 7 – July 6, 2016

Comments Received

- A total of 13 comments were received on both the paper and electronic version of this measure. Comments were generally supportive of both the electronic and paper versions of the measure, but a number of concerns were raised, including issues around maternal choice, exclusions for the measure, and the need for implementation within a family-centered decision making process. Commenters also encouraged the development of a measure on longer-term breastfeeding.

Developer Response

- This measure was designed as an in-patient quality measure. The Joint Commission has no means of tracking this post-discharge activity. Much evidence has now focused on the prenatal and intrapartum period as critical for the success of exclusive (or any) breastfeeding. (Centers for Disease Control and Prevention [CDC], 2007; Petrova et al., 2007; Shealy et al., 2005; Taveras et al., 2004).
- PC-05 does not exclude maternal medical conditions. These conditions are unusual (~2% of patients), and they cannot be modeled in the electronic Clinical Quality Measure (eCQM) version of PC-05. The removal of measure exclusions will also significantly reduce the burden of data abstraction. The revised measure is similar in construct to PC-02: Cesarean Birth, which reports the cesarean birth rate with no exclusions. As a result of some mothers declining exclusive breast milk feeding and by removing exclusions, The Joint Commission does not anticipate or expect that measure rates for PC-05 will reach near 100% as has been the case for many other measures. Available evidence suggests that a 70% threshold may be a more reasonable target for many organizations.
- It is important to note that The Joint Commission does not establish benchmarks for any of the core measures. The goal is for hospitals to understand their baseline rate of performance for each measure in order to determine if performance improvement efforts are effective over time when their baseline is higher or lower than the national performance (depending on the desired direction for improvement).

Committee Response

- The Committee agrees that measures of continued breastfeeding after hospital discharge are important and this has been added to the measure gaps list.

7. Consensus Standards Approval Committee (CSAC) Vote: Y-17; N-0

Decision: Approved for continued endorsement

8. NQF Board of Directors Vote: Yes (October 25, 2016)

Decision: Ratified for continued endorsement

9. Appeals

No appeals were received.

0483 Proportion of infants 22 to 29 weeks gestation screened for retinopathy of prematurity.

[Submission](#) | [Specifications](#)

Description: Proportion of infants born from 22 weeks, 0 days to 29 weeks, 6 days gestational age who were in the reporting hospital at the postnatal age recommended for screening for retinopathy of prematurity (ROP) by the American Academy of Pediatrics (AAP) and who received a retinal examination for ROP prior to discharge.

Numerator Statement: Number of infants born from 22 weeks, 0 days to 29 weeks, 6 days gestational age 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 born from 22 weeks, 0 days to 29 weeks, 6 days gestational age 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

Level of Analysis: Facility

Setting of Care: Hospital/Acute Care Facility

Type of Measure: Process

Data Source: Electronic Clinical Data : Registry

Measure Steward: Vermont Oxford Network

STANDING COMMITTEE MEETING [May/02/2016]

1. Importance to Measure and Report: The measure meets the Importance criteria

(1a. Evidence, 1b. Performance Gap)

1a. Evidence: **Previous Evidence Evaluation Accepted**; 1b. Performance Gap: **H-12; M-12; L-2; I-0**

Rationale:

- This previously endorsed process measure from the Vermont Oxford Network (VON) assesses whether premature infants who are at risk for eye complications due to prematurity have had an eye evaluation prior to hospital discharge in alignment with guidelines from American Academy of Pediatrics.
- For the 916 hospitals in the VON network, average performance on this measure improved slightly, from 90.1% in 2006 to 91.8% in 2014.

2. Scientific Acceptability of Measure Properties: The measure meets the Scientific Acceptability criteria

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

2a. Reliability: **H-8; M-16; L-2; I-0** 2b. Validity: **Previous Validity Evaluation Accepted**

Rationale:

- The Committee noted that the data collected is a simple yes/no and does not include the date or gestational age.
- The Committee discussed alternative methods for the eye evaluation because of shortages of pediatric ophthalmologists in some areas.
- Reliability testing of the measure scores indicates higher reliability for larger sample sizes.

3. Feasibility: **H-4; M-20; L-2; I-0**

(3a. Clinical data generated during care delivery; 3b. Electronic sources; 3c. Susceptibility to inaccuracies/unintended consequences identified 3d. Data collection strategy can be implemented)

Rationale:

- For VON members, this measure requires chart abstraction and submission to VON, but the measure specifications can be used by any hospital to calculate their own performance.

4. Usability and Use: **H-5; M-15; L-6; I-0**

(Used and useful to the intended audiences for 4a. Accountability and Transparency; 4b. Improvement; and 4c. Benefits outweigh evidence of unintended consequences)

Rationale:

- The measure is currently used only for internal QI within the membership of VON.
- The Committee was concerned that this measure is not publicly reported.

5. Related and Competing Measures

- No related or competing measures noted.

Standing Committee Recommendation for Endorsement: Y-24; N-2

Rationale

- Due to the importance of preventing eye problems for premature babies, the Committee recommended this measure for continued endorsement.

6. Public and Member Comment: June 7 – July 6, 2016

Comments Received:

- This measure received one comment supporting endorsement.

7. Consensus Standards Approval Committee (CSAC) Vote: Y-17; N-0

Decision: Approved for continued endorsement

8. NQF Board of Directors Vote: Yes (October 25, 2016)

Decision: Ratified for continued endorsement

9. Appeals

No appeals were received.

0716 Unexpected Complications in Term Newborns

[Submission](#) | [Specifications](#)

Description: This is a hospital level performance score reported as the percent of infants with Unexpected Newborn Complications among full term newborns with no preexisting conditions, typically calculated per year.

Numerator Statement: Numerator: The numerator is divided into two categories: Severe complications and moderate complications.

Severe complications include neonatal death, transfer to another hospital for higher level of care, extremely low Apgar Scores (≤ 3 at either 5 or 10 minutes of life), severe birth injuries such as intracranial hemorrhage or nerve injury, neurologic damage, severe respiratory and infectious complications such as sepsis. Parents of such babies may often worry about short or long term infant outcomes.

Moderate complications include diagnoses or procedures that raise concern but at a lower level than the list for severe (e.g. use of CPAP or bone fracture). For inclusion in the numerator, most require an infant length of stay that exceeds that of the mother, validating that these are indeed significant complications. Examples include less severe respiratory complications (e.g. Transient Tachypnea of the Newborn), or infections with a longer length of stay not including sepsis. As a “safety net” to capture cases who were under-coded, the numerator also includes infants who have a prolonged length of stay of over 5 days to capture the “seemingly normal” infants with neither any form of jaundice nor a social reason for staying in the hospital (e.g. family disruption or adoption).

Denominator Statement: The denominator is comprised of singleton, live born babies who are at least 37.0 weeks of gestation, and over 2500g in birth weight. The denominator excludes most serious fetal conditions that are “preexisting” (present before labor), including prematurity, multiple gestations, poor

fetal growth, congenital malformations, genetic disorders, other specified fetal and maternal conditions and infants exposed to maternal drug use in-utero. The final denominator population consists of babies who are expected to do well following labor and delivery and go home routinely with their mothers.

Exclusions:

- a) Babies not born in hospitals are excluded as this is a hospital quality performance measure
- b) Babies who are part of multiple gestation pregnancies are excluded.
- c) Premature infants (babies born before 37 weeks gestational age) are excluded
- d) Low birth weight babies ($\leq 2500\text{g}$) are excluded
- e) Babies with congenital malformations and genetic diseases are excluded
- f) Babies with pre-existing fetal conditions such as IUGR are excluded
- g) Babies who were exposed to maternal drug use in-utero are excluded

Adjustment/Stratification: No risk adjustment or risk stratification

Level of Analysis: Facility, Integrated Delivery System, Population : Regional, Population : State

Setting of Care: Hospital/Acute Care Facility

Type of Measure: Outcome

Data Source: Administrative claims

Measure Steward: California Maternal Quality Care Collaborative

STANDING COMMITTEE MEETING [May/02/2016]

1. Importance to Measure and Report: The measure meets the Importance criteria

(1a. Evidence, 1b. Performance Gap)

1a. Evidence: **Previous Evidence Evaluation Accepted**; 1b. Performance Gap: **H-16; M-8; L-0; I-0**

Rationale:

- This maintenance measure was originally endorsed in 2012 as a measure titled Healthy Term Newborn. It has since been inverted to report on the unexpected outcomes for healthy, full-term newborns. The revised measure reports the same information in a different format. The developer noted that performance rates on the previous measure were 94-97% and while this reflects strong performance, they wanted to focus attention on the 3-6% of babies that have unexpected complications, so they reversed the measure.
- Committee members reviewed the 2013 and 2014 data submitted by the developer and noted there is still room for improvement, although the rate is not expected to be zero. Committee members discussed some of the reasons for variation, including how neonatal sepsis is handled. It was also noted that African American women have slightly higher rates.
- They also noted the need for a measure that looks at healthy pregnancies.

2. Scientific Acceptability of Measure Properties: The measure meets the Scientific Acceptability criteria

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

2a. Reliability: **Previous Reliability Evaluation Accepted** 2b. Validity: **H-18; M-7; L-0; I-0**

Rationale:

- The Committee had questions about the exclusions and risk adjustment, noting that outcomes can be affected by the patient’s health as opposed to provider actions. The developer explained they had reviewed adjusting for hypertension, diabetes, birth weight, and a variety of other factors, but they found that only insulin-requiring, pre-gestational diabetics were at risk.
- The developer noted that this measure is most useful as a balancing measure: a measure used for following a hospital over time as they change practices, to ensure that outcomes are worsened, rather than comparing a performance of 5% vs. 4% to rank hospitals.
- Committee members noted the new reliability testing was useful but requested more information on the number of deliveries cutoff. The developer explained that less than 200 births annually was too small to provide accurate information; that 200-500 births is a “grey zone” in that the reliability is lower, but the measure is still useful for comparing performance over time. The Committee and developer agreed that in hospitals with small numbers the measure is a “case finding tool” and that most deliveries are happening in hospitals with more than 500 births annually, where the measure is reliable.
- New empirical validity testing compared the results of this measure to a similar measure from the National Perinatal Information Center (admissions to NICU) and found similar results. Also, in 3 hospital quality improvement projects trying to reduce the Cesarean birth rate, this measure declined thus offering reassurance that there were not unintended consequences for the baby.
- The data source is administrative claims linked to Vital Statistics; unlike the underused ICD codes for gestational age, the birth certificate data fields for “Best Obstetric Gestational Age” and “Birthweight” have high degrees of completeness and accuracy.

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

(3a. Clinical data generated during care delivery; 3b. Electronic sources; 3c. Susceptibility to inaccuracies/unintended consequences identified 3d. Data collection strategy can be implemented)

Rationale:

- This measure has complicated numerators and denominators and the Committee had some questions about how it was implemented, especially at small hospitals. The developer explained that it was easier to implement at higher levels of analysis using state data.
- Committee members who are currently using the measure in large systems noted that it was feasible to use and not too difficult to set up.

4. Usability and Use: H-21; M-4; L-0; I-0

(Used and useful to the intended audiences for 4a. Accountability and Transparency; 4b. Improvement; and 4c. Benefits outweigh evidence of unintended consequences)

Rationale:

- The measure is currently in use in several states, including California, Washington, Oregon, Alaska, and Montana.
- The Committee noted the addition of birth certificate data makes the measure easier to use.
- It was also noted that the reframing makes it a more consumer-friendly measure.

5. Related and Competing Measures

- No related or competing measures noted.

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

Rationale

- The Committee agreed that this measure meets all the NQF criteria for endorsement.

6. Public and Member Comment: June 7 – July 6, 2016

Comments Received:

- This measure received one comment supporting endorsement.

7. Consensus Standards Approval Committee (CSAC) Vote: Y-17; N-0

Decision: Approved for continued endorsement

8. NQF Board of Directors Vote: Yes (October 25, 2016)

Decision: Ratified for continued endorsement

9. Appeals

No appeals were received.

1382 Percentage of low birthweight births

[Submission](#) | [Specifications](#)

Description: The percentage of births with birthweight <2,500 grams

Numerator Statement: The number of babies born weighing <2,500 grams at birth in the study population

Denominator Statement: All births in the study population

Exclusions: None

Adjustment/Stratification: No risk adjustment or risk stratification

Level of Analysis: Population : County or City, Population : National, Population : Regional

Setting of Care: Hospital/Acute Care Facility, Other

Type of Measure: Outcome

Data Source: Patient Reported Data/Survey

Measure Steward: Centers for Disease Control and Prevention

STANDING COMMITTEE MEETING [May/02/2016]

1. Importance to Measure and Report: The measure meets the Importance criteria

(1a. Evidence, 1b. Performance Gap)

1a. Evidence: **Previous Evidence Evaluation Accepted**; 1b. Performance Gap: **H-15; M-9; L-1; I-0**

Rationale:

- This is a population-level measure monitored by the National Center for Health Statistics.
- The Committee noted that there is little variability at any moment in time, but that in the US there has been a downward trend in the incidence of low birthweight, suggesting that incidence of low birthweight is modifiable, as well as the fact that US levels are very different from those seen in other countries.
- The Committee highlighted that there is substantial opportunity for improvement in this measure since rates have edged down only slightly over the last few years, and there are substantial variations across race and ethnicity.
- The Committee questioned whether the developer considered gestational age since the US ranks very low among industrial countries in terms of infant mortality rate and maternal mortality rate.

2. Scientific Acceptability of Measure Properties: The measure meets the Scientific Acceptability criteria

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

2a. Reliability: **Previous Reliability Evaluation Accepted** 2b. Validity: **Previous Validity Evaluation Accepted**

Rationale:

- The Committee agreed the underlying method and results for the measure had not significantly changed since the last NQF endorsement review. Data element validity was assessed by direct comparison of birth certificate data to medical records. Sensitivity, specificity, positive predictive value (PPV), and negative predictive value (NPV) were computed.
- Data element validity tested against a “gold standard” such as the medical record also counts for reliability. The Committee accepted the validity testing conducted at the data element level for the last NQF endorsement review.
- The Committee accepted the prior evaluation of the reliability and validity criteria without further discussion.

3. Feasibility: H-24; M-1; L-0; I-0

(3a. Clinical data generated during care delivery; 3b. Electronic sources; 3c. Susceptibility to inaccuracies/unintended consequences identified 3d. Data collection strategy can be implemented)

Rationale:

- The Committee agreed the measure is feasible since the data are collected by law and is universally available.

4. Usability and Use: H-18; M-7; L-1; I-0

(Used and useful to the intended audiences for 4a. Accountability and Transparency; 4b. Improvement; and 4c. Benefits outweigh evidence of unintended consequences)

Rationale:

- This measure is publicly reported by the CDC National Vital Statistics System.
- The Committee noted that this measure assesses perinatal healthcare in general rather than specific providers, yet it is important to measure and track. For example, from a public health and planning point of view, it is helpful to know how many babies are going to need NICU follow up and potentially, future support services; this measure can assist in predicting that need.

- Some Committee members noted that birth certificate data are not very reliable for many of the maternal indicators. However, birthweight and gestational age are quite accurate on the birth certificate.

5. Related and Competing Measures

- No related or competing measures noted.

Standing Committee Recommendation for Endorsement: Y-26; N-0

Rationale

- The Committee agreed that this measure meets all the NQF criteria for endorsement.

6. Public and Member Comment: June 7 – July 6, 2016

Comments Received

- This measure received 4 comments, 2 of which were fully supportive. One comment suggested replacing birthweight with gestational age, as that is now widely available. The fourth comment did not agree with the recommendation for endorsement, noting “this measure has not influenced outcome over the past several years in US”, and that “Additional maternal and neonatal info would be necessary to provide any meaningful outcomes.”

Developer Response

- Agree, gestational age is now a better measure of outcome and should replace this measure.

Committee Response

- The Committee agrees with the commenter and developer that a measure of gestational age would be a better outcome measure, and this has been added to the measure gaps list. However, since that measure does not currently exist and is not development, the Committee elected to continue to recommend this measure as they agreed it is an important topic.

7. Consensus Standards Approval Committee (CSAC) Vote: Y-17; N-0

Decision: Approved for continued endorsement

8. NQF Board of Directors Vote: Yes (October 25, 2016)

Decision: Ratified for continued endorsement

9. Appeals

No appeals were received.

1731 PC-04 Health Care-Associated Bloodstream Infections in Newborns

[Submission](#) | [Specifications](#)

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 Birth, PC-03: Antenatal Steroids, PC-05: Exclusive Breast Milk Feeding).

Numerator Statement: The outcome being measured is: Newborns with septicemia or bacteremia with ICD-10-CM Other Diagnosis Codes for newborn septicemia or bacteremia as defined in Appendix A, Table 11.10 with a Bloodstream Infection Confirmed OR ICD-10-CM Other Diagnosis Codes for sepsis as defined in Appendix A, Table 11.10.1 with a Bloodstream Infection Confirmed available at: <http://manual.jointcommission.org/releases/TJC2016A/>

The only national hospital quality measure currently requiring patient-level risk adjustment is the Health Care-Associated Bloodstream Infections in Newborns (PC-04) outcome measure in the perinatal care measure set.

Denominator Statement: The outcome target population being measured is: Liveborn newborns with ICD-10-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 ICD-10-CM Other Diagnosis Codes for birth weight = > 1500g as defined in Appendix A, Table 11.15 or 11.16 OR Birth Weight = > 1500g who experienced one or more of the following:

- Experienced death
- ICD-10-PCS Principal Procedure Code or ICD-10-PCS Other Procedure Codes for major surgery as defined in Appendix A, Table 11.18
- ICD-10-PCS Principal Procedure Code or ICD-10-PCS 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-10-CM Principal Diagnosis Code for septicemias or bacteremias as defined in Appendix A, Table 11.10.2
- ICD-10-CM Other Diagnosis Codes for septicemias or bacteremias as defined in Appendix A, Table 11.10.2 or ICD-10-CM Principal or Other Diagnosis Codes for newborn septicemia or bacteremia as defined in Appendix A, Table 11.10 with a Bloodstream Infection Present on Admission
- ICD-10-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

Adjustment/Stratification: Statistical risk model

Level of Analysis: Facility, Population : National

Setting of Care: Hospital/Acute Care Facility

Type of Measure: Outcome

Data Source: Paper Medical Records

Measure Steward: The Joint Commission

STANDING COMMITTEE MEETING [May/03/2016]

1. Importance to Measure and Report: The measure meets the Importance criteria

(1a. Evidence, 1b. Performance Gap)

1a. Evidence: **Previous Evidence Evaluation Accepted**; 1b. Performance Gap: **H-17; M-5; L-1; I-0**

Rationale:

- It was generally agreed there is still a significant opportunity for improvement on performance with this measure. The Committee noted the increase in the gap since 2011, and the developer explained that in 2014 this measure became mandatory for all hospitals with more than 1,100 births annually (as of 2016, it is now all hospitals with more than 300 births). With 1,000 more hospitals reporting, more cases are identified.

2. Scientific Acceptability of Measure Properties: The measure meets the Scientific Acceptability criteria

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

2a. Reliability: **M-22; L-1; I-0** 2b. Validity: **H-14; M-9; L-0; I-0**

Rationale:

- The measure has been updated to ICD-10 CM.
- There have been changes to the specifications. The numerator included population now requires a check to confirm that the bloodstream infection was health care-associated after the first 48 hours when infection codes are present on Table 11.10 or 11.10.1 with a new data element Bloodstream Infection Confirmed, since infection codes are also applied for infections resulting from other newborn medical conditions that are not health care-associated, i.e., necrotizing enterocolitis, pneumonia, urosepsis, etc. The exclusion for hospitalization greater than 120 days was removed and another exclusion was added to exclude newborns with bloodstream infection present on admission. The Committee had no concerns with the changes.
- The measure is risk-adjusted using 6 factors: 2 birthweight categories, transfers out or died, congenital anomalies of the GI or CV systems and transfers in. The C-statistic is 0.654.
- Race and ethnicity were SDS factors found to be statistically significant in the risk model, changing the c-statistic to 0.702. Race and ethnicity were not included in the final model.
- This measure does not correlate with the other measures in the Joint Commission perinatal core set, but the Committee agreed that would not be expected.

3. Feasibility: **H-15; M-8; L-0; I-0**

(3a. Clinical data generated during care delivery; 3b. Electronic sources; 3c. Susceptibility to inaccuracies/unintended consequences identified 3d. Data collection strategy can be implemented)

Rationale:

- The Committee had no concerns about the feasibility.

4. Usability and Use: **H-15; M-8; L-0; I-0**

(Used and useful to the intended audiences for 4a. Accountability and Transparency; 4b. Improvement; and 4c. Benefits outweigh evidence of unintended consequences)

Rationale:

- Committee members noted the measure has been improved, with expanded data sources, and some changes to the specifications. The developer noted that the new version of the measure should be more accurate but they could not yet compare the newest data with data from the prior version.

5. Related and Competing Measures

- This measure competes with #0304: Late sepsis or meningitis in Very Low Birth Weight (VLBW) neonates and #0478: Neonatal Blood Stream Infection Rate (NQI 03) (AHRQ).
- The Committee had an extensive discussion on the 3 competing measures. NQF provided guidance on the related/competing measure process.
- The Joint Commission (TJC) and AHRQ have done some work on harmonization. TJC compared #1731, which uses partial chart review and administrative data, and #0478, which uses only administrative data. They found the measure using chart review was able to identify more cases that had not been included in the other measure due to coding issues. In addition, #0478 excludes cases diagnosed 7 days or less after birth and #1731 excludes only 2 days or less, which they thought accounted for about 10% of the difference. (#0478 is now 3 days or less.) The Joint Commission stated that the measures are similar; however, since codes are not uniformly assigned, their measure, which also uses chart review is able to identify more cases. This comparison was done using ICD-9 CM codes, and they think that that there will be less discrepancy between the 2 measures with the use of ICD-10 CM codes.
- AHRQ noted that they had made changes to #0478 based in part on the analysis done with TJC, that the measure will change with ICD-10 CM, and that the current versions are more aligned. In addition, #0478 looks at all causes and cases of sepsis, while #1731 focuses on those associated with central lines. In addition, the AHRQ measure is not reported at a hospital level.
- A Committee member related some of the history of this measure, noting that the AHRQ measure was originally endorsed and brought into The Joint Commission's core set, and then turned into a clinical data measure. During the previous review and discussion of competing measures, Medicaid program representatives stated that they could not collect the data unless it was administrative, and that is why there were two endorsed measures.
- Committee members requested more information on the change to ICD-10 CM, in particular questioning if this would now have less chart review burden. The developer stated it was too soon to tell, especially with the learning curve associated with changing coding guidelines. It was also noted that with ICD-10 CM, "suspected" or "probable" is no longer included (cases are yes/no) which should reduce gaming.
- For the chart review, Committee members who are using the measure did not think it was a large burden due to the very small number of charts that have to be reviewed, and that hospitals would be reviewing all of these charts as they work to reduce infection rates. Coding for neonatal sepsis is complicated and the chart review is used to make the measure more accurate. In addition, the developer noted, hospitals like to be able to exclude false positives. It was noted that false negatives are a larger issue.
- After discussion, the Committee felt there is not yet enough data on the performance of either measure under ICD-10 CM and that ICD-10 CM has the potential to reduce burden associated with manual chart review. In addition, many new, smaller facilities (>300 deliveries per year) are just beginning to report on this measure so current performance rates are not yet available

(although these very small facilities are unlikely to be caring for these babies, who would be transferred).

- The Committee noted that EHRs are not yet to the point where these data can be automatically pulled out.
- The Committee then discussed the ways in which the VON measure, #0304, differs from the other two. 0304 does not include babies more than 1,500 grams, and does include meningitis; however, it is not clear the size of that group. Currently the measure requires either a positive blood or CSF culture and is not collected separately, although the developer agreed that might be a good idea. The VON measure is risk adjusted, which allows for more even comparisons across facilities. However, the major issue with the VON measure is that it is not publically reported and requires a registration fee.
- The Committee noted they were struggling with the question of whether one was best, especially with the changes to the measures. Committee members using the measures noted they focus on slightly different populations. For example, there are about 40,000 VLBW babies born in each year and bloodstream infections are most prevalent in this population, but larger babies born are also at risk for infection even if the infection rates are smaller. One Committee member stated that to actually move the needle, the VLBW babies are the target population, but only about a quarter of the NICUs in the country treat these babies, with the remaining three-fourths of NICUs treating LBW and premature babies. Another Committee member noted that focusing on the smaller, high-prevalence population misses the opportunity to improve processes and reduce infections in many facilities.
- Ultimately, due to the changes in the AHRQ measure, the update to ICD-10 CM, the expanded number of facilities reporting, and the slightly different populations included, the Committee agreed that for the time being all three measures should remain endorsed, since they are being used for different things. In terms of burden, it was noted that the high-level NICUs are all already reporting to VON; that almost everyone has to report to the Joint Commission; and that there is no burden for hospitals for the AHRQ measure since it comes out of billing data and is reported by the state data organizations.
- The Committee requested that, for the next year, a specific effort be made to get the data from those facilities that collect and report on 2 or 3 of the measures in order to allow a more accurate comparison. VON noted that they do a member survey and they will ask members that are collecting on the other measures as well. They also offered to work with The Joint Commission to compare the data.
- Committee members highlighted that while it is easy for them to understand the differences between the measures and rates, it may not be so clear to the public, and they reiterated the need for a single measure.
- The Committee requested that the developers provide more information and new data in 18 months for the Committee to relook at the measures during an off-cycle review. They further requested that the developers work together toward a single measure.

Standing Committee Recommendation for Endorsement: Y-23; N-0**Rationale**

- The Committee agreed that this measure meets all the NQF criteria for endorsement.

6. Public and Member Comment: June 7- July 6, 2016

Comments Received

- One commenter submitted a comment on each of the 3 measures agreeing with the Committee's decision to recommend, but urging the developers to coordinate or combine measures.

Developer Response

- Thank you for your feedback. We have done extensive work and these measures have been harmonized to the extent possible at this time.

Committee Response

- The Committee agrees that harmonization of these 3 measures is important to reduce the burden of reporting. The developers have been directed to work together over the next 18 months to arrive at a single measure with supporting data, to be presented to the Committee during an off-cycle review.

7. Consensus Standards Approval Committee (CSAC) Vote: Y-17; N-0

Decision: Approved for continued endorsement

8. NQF Board of Directors Vote: Yes (October 25, 2016)

Decision: Ratified for continued endorsement

9. Appeals

No appeals were received.

0469: 2829 PC-01 Elective Delivery

[Submission](#) | [Specifications](#)

Description: This measure assesses patients with elective vaginal deliveries or elective cesarean births at ≥ 37 and < 39 weeks of gestation completed. This measure is a part of a set of five nationally implemented measures that address perinatal care (PC-02: Cesarean Section, PC-03: Antenatal Steroids, PC-04: Health Care-Associated Bloodstream Infections in Newborns, PC-05: Exclusive Breast Milk Feeding). PC-01, Elective Delivery is one of two of the measures in this set that have been reengineered as eQMs and are included in the EHR Incentive Program and Hospital Inpatient Quality Reporting Program.

Numerator Statement: Patients with elective deliveries by either:

- Medical induction of labor while not in labor prior to the procedure
- Cesarean birth while not in labor and with no history of a prior uterine surgery

Denominator Statement: The Denominator is patients who deliver newborns with ≥ 37 and < 39 weeks of gestation completed.

Exclusions: ICD-9-CM, ICD-10-CM, or SNOMED CT codes for conditions possibly justifying elective delivery prior to 39 weeks gestation.

Adjustment/Stratification: No risk adjustment or risk stratification

Level of Analysis: Facility, Population : National

Setting of Care: Hospital/Acute Care Facility

Type of Measure: Process

Data Source: Electronic Clinical Data, Electronic Clinical Data : Electronic Health Record, Electronic Clinical Data : Pharmacy

Measure Steward: The Joint Commission

STANDING COMMITTEE MEETING [May/03/2016]

1. Importance to Measure and Report: The measure meets the Importance criteria

(1a. Evidence, 1b. Performance Gap)

1a. Evidence: **Previous Evidence Evaluation Accepted**; 1b. Performance Gap: **H-10; M-13; L-2; I-0**

Rationale:

- This measure is the eMeasure version of NQF#480 and the information for evidence and opportunity for improvement is the same:
 - The developer did not submit new evidence during this review, but Committee members noted that ACOG recently reaffirmed the practice bulletin for timing of elective induction of labor.
 - While the performance is improving, there is still a gap in care in this area, and Committee members noted that as of January 2016, more hospitals are reporting on this measure (now 80% of all birthing hospitals), so they expect more variation to appear. Committee members noted that one of the major drivers of morbidity was repeat elective C-sections at 37 weeks, and that number had dropped significantly.

2. Scientific Acceptability of Measure Properties: The measure meets the Scientific Acceptability criteria

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

2a. Reliability: **M-22; L-2; I-1** 2b. Validity: **M-23; L-1; I-1**

Rationale:

- NQF eMeasure technical review found this eMeasure to have appropriate specifications and value sets, and an adequate feasibility assessment that addressed the data elements and measure logic.
- The developer explained that because this measure was tested using BONNIE simulated data set, the testing was looking to confirm that the measure specifications are accurately implemented and that the measure performs as it should.
- Since there is no sampling with the eMeasure and 100% of cases are used, performance should be more reliable.
- Actual performance information is not yet available to compare with the paper version of the measure. Thus far, 7 hospitals submitted data on 2015 performance in March 2016, and 69 hospitals will submit 2016 data in 2017. Committee members noted the importance of good training for coders as the measure is implemented.

3. Feasibility: H-2; M-16; L-0; I-7

(3a. Clinical data generated during care delivery; 3b. Electronic sources; 3c. Susceptibility to inaccuracies/unintended consequences identified 3d. Data collection strategy can be implemented)

Rationale:

- Given the limited use of the measure thus far, the Committee found it difficult to comment on feasibility. The developer noted that some of the major EHR vendors submit feedback on the eMeasures each year and they are using that feedback to improve the measure.

4. Usability and Use: H-21; M-4; L-0; I-0

(Used and useful to the intended audiences for 4a. Accountability and Transparency; 4b. Improvement; and 4c. Benefits outweigh evidence of unintended consequences)

Rationale:

- The Committee thought the usability of the eMeasure would be similar to the medical record abstraction measure.

5. Related and Competing Measures

- No related or competing measures noted.

Standing Committee Recommendation for Endorsement: Y-22; N-3

Rationale

- The Committee agreed that this measure meets all the NQF criteria for endorsement.

6. Public and Member Comment: June 7 – July 6, 2016

Comments Received

- A total of 12 comments were received on both versions of the measure. Generally, the comments were in support, and several noted that while rates have improved, much remains to be done. However, a pair of comments noted concerns with the measure exclusions. A second pair of comments noted that elective delivery/induction may be preferable in very rural areas that lack access to secondary and tertiary facilities.

Developer Response

- Over the last several years The Joint Commission has responded to suggestions from the obstetrics community to adjust the specifications for PC-01: Elective Delivery to allow for a wider array of exclusions. Some of these have resulted in new ICD codes being added and others have required the addition of new exclusions that can only be determined by chart reviews (an unfortunate but currently needed situation). The Joint Commission continues to receive numerous requests for “appeals” and new exclusions which are uncommon or rare conditions justifying the need for an early-term elective delivery. While many of these conditions have been incorporated into the current PC-01 specifications, medical issues are varied enough that it is impossible to enumerate 100% of the potential circumstances that could justify an early-term elective delivery. For example, a mother with a malignancy and need to start chemotherapy might require a delivery before 39 weeks. Although these cases are rare their occurrence can be such to generate an early-term elective delivery rate of 2-4%. This supports the rationale for not expecting this measure to consistently reach 0% elective

deliveries. The Joint Commission has worked closely with a technical advisory panel (TAP) since the inception of this project. The TAP is comprised of leading national perinatal care experts including obstetricians, pediatricians, neonatologists and nurse clinicians. Recently, the TAP reaffirmed the goal of 5% which is supported by the 2013 study by Clark, et. al, validating the denominator exclusion criteria for PC-01.

- There are currently 2 sets of ICD-10-CM diagnosis codes on Table 11.07 which should be used for pre-labor (preterm) rupture of membranes: the first set is O42.011, O42.012, O42.013, O42.02, O42.911, O42.912, O42.913 and O42.92 and for prolonged rupture: the second set is O42.111, O42.112, O42.113 and O42.12. The coders should be applying these codes when there is appropriate documentation that SROM occurred without commencement of labor. As a result the case would be excluded from the measure. Documentation of spontaneous rupture of membranes without onset of labor should be taken at face value according to ACOG. The 2013 ACOG definition of Preterm Rupture of Membranes (PROM is rupture of membranes before the onset of labor. Membrane rupture that occurs before 37 weeks of gestation is referred to as preterm PROM. Membrane rupture that occurs at 37 weeks of gestation or later is referred to as term PROM. In 2014, ACOG re-named premature rupture of membranes to pre-labor rupture of membranes in order to further clarify the meaning of PROM. We consider ACOG an authoritative source. Based on the ACOG definition one of the codes from the first set applies to all cases with SROM regardless of gestational age, and only the absence of labor should be required to use this code. If the ruptured membranes are >24 hours then one of the codes from the second set applies.”
- Requiring gestational age and careful scrutiny (chart reviews) for exclusions does preclude the use of claims data but there is progress in creating an eMeasure version. However, because of the small sample size for this measure for a given health plan within a given hospital it will unlikely be a practical measure at the plan level.
- Thank you for the support. We agree that measures of patient engagement and documentation of consent would be an attractive next step but we don’t have measures fully developed in those areas yet.
- While this has been proposed as a potential concern, rural hospitals in general have done very well on this measure. In general there are few logistical reasons that truly need elective delivery prior to 39 weeks of gestation. In any case, the federal mandate for reporting of this measure for MediCare P4P specifically excludes Critical Access Hospitals.

7. Consensus Standards Approval Committee (CSAC) Vote: Y-17; N-0

Decision: Approved for endorsement

8. NQF Board of Directors Vote: Yes (October 25, 2016)

Decision: Ratified for endorsement

9. Appeals

No appeals were received.

0480: 2830 PC-05 Exclusive Breast Milk Feeding

[Submission](#) | [Specifications](#)

Description: PC-05 assesses the number of newborns exclusively fed breast milk 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). PC-05, Exclusive Breast Milk Feeding, is one of two measures in this set that have been reengineered as eQMs and are included in the EHR Incentive Program and Hospital Inpatient Quality Reporting Program.

Numerator Statement: Newborns that were fed breast milk only since birth

Denominator Statement: Single term newborns discharged from the hospital who did not have a diagnosis of galactosemia, were not subject to parenteral nutrition, and had a length of stay of less than or equal to 120 days

Exclusions:

- Newborns who were admitted to the Neonatal Intensive Care Unit (NICU)
- Newborns who were transferred to an acute care facility
- Newborns who expired during the hospitalization

Adjustment/Stratification: No risk adjustment or risk stratification

Level of Analysis: Facility, Population : National

Setting of Care: Hospital/Acute Care Facility

Type of Measure: Process

Data Source: Electronic Clinical Data, Electronic Clinical Data : Electronic Health Record

Measure Steward: The Joint Commission

STANDING COMMITTEE MEETING [May/03/2016]

1. Importance to Measure and Report: The measure meets the Importance criteria

(1a. Evidence, 1b. Performance Gap)

1a. Evidence: **Previous Evidence Evaluation Accepted**; 1b. Performance Gap: **H-0=18; M-5; L-1; I-0**

Rationale:

- As this is the eMeasure version of measure 0480: Exclusive Breast Feeding, the information for evidence and gap are the same:
 - The goal for performance of the measure is 70%, and in over half of The Joint Commission hospitals that reported this measure, rates are less than 50%. In the 10th percentile, hospitals are at 22%.
 - More hospitals are reporting now (1,400, up from 166), so there are more opportunities for improvement.
 - Committee members noted concerns around patient choice, and that one issue with this measure is that it puts pressure on patients to breastfeed when it may not be appropriate due to circumstances outside the control of the hospital (for example, work circumstances that do not allow pumping).

- Committee members discussed the resources available for hospitals as they work to improve performance on this measure, such as toolkits, and that one key focus is training staff to ensure they are counseling patients appropriately.
- The Committee discussed the potential for a balancing measure.

2. Scientific Acceptability of Measure Properties: The measure meets the Scientific Acceptability criteria

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

2a. Reliability: **M-17; L-1; I-1** 2b. Validity: **M-15; L-4; I-0**

Rationale:

- NQF eMeasure technical review found this eMeasure to have appropriate specifications and value sets, and an adequate feasibility assessment that addressed the data elements and measure logic.
- This eMeasure has been tested through BONNIE and as such, the Committee noted similar concerns as with the other eMeasures. During the BONNIE testing, 528 cases passed at 100%.
- It has HQMF specifications, was vetted through USAC, and is used in meaningful use, so the Committee agreed the quality construct is present and the measure meets the scientific acceptability criteria.

3. Feasibility: H-18; M-5; L-0; I-0

(3a. Clinical data generated during care delivery; 3b. Electronic sources; 3c. Susceptibility to inaccuracies/unintended consequences identified 3d. Data collection strategy can be implemented)

Rationale:

- Given the limited use of the measure thus far, the Committee found it difficult to comment on feasibility. The developer noted that some of the major EHR vendors submit feedback on the eMeasures each year and they are using that feedback to improve the measure.

4. Usability and Use: H-14; M-8; L-1; I-0

(Used and useful to the intended audiences for 4a. Accountability and Transparency; 4b. Improvement; and 4c. Benefits outweigh evidence of unintended consequences)

Rationale:

- The Committee thought the usability of the eMeasure would be similar to the medical record abstraction measure.

5. Related and Competing Measures

- No related or competing measures noted.

Standing Committee Recommendation for Endorsement: Y-18; N-2

Rationale

- The Committee agreed that this measure meets all the NQF criteria for endorsement.

6. Public and Member Comment: June 7 – July 6, 2016

Comments Received

- A total of 13 comments were received on the paper and electronic version of these measures. Comments were generally supportive of both the electronic and paper versions of the measure, but a number of concerns were raised, including issues around maternal choice, exclusions for the measure, and the need for implementation within a family-centered decision making process. Commenters also encouraged the development of a measure on longer-term breastfeeding.

Developer Response

- This measure was designed as an in-patient quality measure. The Joint Commission has no means of tracking this post-discharge activity. Much evidence has now focused on the prenatal and intrapartum period as critical for the success of exclusive (or any) breastfeeding. (Centers for Disease Control and Prevention [CDC], 2007; Petrova et al., 2007; Shealy et al., 2005; Taveras et al., 2004).
- PC-05 does not exclude maternal medical conditions. These conditions are unusual (~2% of patients), and they cannot be modeled in the electronic Clinical Quality Measure (eCQM) version of PC-05. The removal of measure exclusions will also significantly reduce the burden of data abstraction. The revised measure is similar in construct to PC-02: Cesarean Birth, which reports the cesarean birth rate with no exclusions. As a result of some mothers declining exclusive breast milk feeding and by removing exclusions, The Joint Commission does not anticipate or expect that measure rates for PC-05 will reach near 100% as has been the case for many other measures. Available evidence suggests that a 70% threshold may be a more reasonable target for many organizations.
- It is important to note that The Joint Commission does not establish benchmarks for any of the core measures. The goal is for hospitals to understand their baseline rate of performance for each measure in order to determine if performance improvement efforts are effective over time when their baseline is higher or lower than the national performance (depending on the desired direction for improvement).

Committee Response

- The Committee agrees that measures of continued breastfeeding after hospital discharge are important and this has been added to the measure gaps list.

7. Consensus Standards Approval Committee (CSAC) Vote: Y-17; N-0

Decision: Approved for endorsement

8. NQF Board of Directors Vote: Yes (October 25, 2016)

Decision: Ratified for endorsement

9. Appeals

No appeals were received.

2902 Contraceptive Care – Postpartum

[Submission](#) | [Specifications](#)

Description: Among women ages 15 through 44 who had a live birth, the percentage that is provided:

1) A most effective (i.e., sterilization, implants, intrauterine devices or systems (IUD/IUS)) or moderately (i.e., injectables, oral pills, patch, ring, or diaphragm) effective method of contraception within 3 and 60 days of delivery.

2) A long-acting reversible method of contraception (LARC) within 3 and 60 days of delivery.

Two time periods are proposed (i.e., within 3 and within 60 days of delivery) because each reflects important clinical recommendations from the U.S. Centers for Disease Control and Prevention (CDC) and the American College of Obstetricians and Gynecologists (ACOG). The 60-day period reflects ACOG recommendations that women should receive contraceptive care at the 6-week postpartum visit. The 3-day period reflects CDC and ACOG recommendations that the immediate postpartum period (i.e., at delivery, while the woman is in the hospital) is a safe time to provide contraception, which may offer greater convenience to the client and avoid missed opportunities to provide contraceptive care.

Numerator Statement: Primary measure: Women ages 15 through 44 who had a live birth and were provided a most (sterilization, intrauterine device, implant) or moderately (pill, patch, ring, injectable, diaphragm) effective method of contraception within 3 and 60 days of delivery.

Sub-measure: Women ages 15 through 44 who had a live birth and were provided a long-acting reversible method of contraception (LARC) within 3 and 60 days of delivery.

Denominator Statement: Women ages 15 through 44 who had a live birth in a 12-month measurement year.

Exclusions: The following categories are excluded from the denominator: (1) deliveries that did not end in a live birth (i.e., miscarriage, ectopic, stillbirth or induced abortion); and (2) deliveries that occurred during the last two months of the measurement year.

Adjustment/Stratification: No risk adjustment or risk stratification

Level of Analysis: Health Plan, Population : Regional

Setting of Care: Other, Primary Care and Reproductive Health Settings

Type of Measure: Intermediate Clinical Outcome

Data Source: Administrative claims

Measure Steward: US Office of Population Affairs

STANDING COMMITTEE MEETING [05/02/2016]

1. Importance to Measure and Report: The measure meets the Importance criteria

(1a. Evidence, 1b. Performance Gap)

1a. Evidence: **Y-24; N-1**; 1b. Performance Gap: **H-21; M-6; L-0; I-0**

Rationale:

- This measure assesses a subpopulation of measures #2903 and #2904: it covers the population of women who have given birth in the last 60 days.
- As with measures #2903 and #2904, the Committee noted a large body of evidence demonstrated a relationship between contraception and reducing unintended pregnancy, which is no different for the postpartum period.

- The Committee highlighted that the provision of most or moderately effective methods does not address patient preference.
- One Committee member questioned why the measure excludes mothers who gave birth less than 60 days from the end of the year. The developer explained that they excluded women who delivered with only 2 months left in the measurement year as the developer wanted to make sure that providers had enough time after delivery to see the woman while ensuring that the measure aligns with ACOG's recommendations.
- The Committee requested that the developer clarify whether this is 2 different measures (within 3 days and within 60 days) or combined into one result. Conceptually, the developer explained, this is a stratification of a single measure into 2 different timeframes.
- One Committee member requested that the developer harmonize this measure with the HEDIS measure of postpartum visits to widen the timeframe since it is hard to get the timely postpartum visit. The developer stated that they would consider this in the next iteration of the measure.
- The Committee noted that the performance gap is actually larger for the postpartum population than the general population and has more room for improvement.

2. Scientific Acceptability of Measure Properties: The measure meets the Scientific Acceptability criteria

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

2a. Reliability: **H-8; M-14; L-2; I-0**; 2b. Validity: **M-17; L-6; I-1**

Rationale:

- The Committee agreed that the reliability and validity for this measure was similar to NQF #2903: Contraceptive Care – Most & Moderately Effective Methods and #2904: Access to LARC. However, one Committee member asked that the developer clarify the reliability for this measure. The developer explained that for these measures in particular high numbers (several hundreds) were required to achieve a high reliability of 0.9, or 0.7 for a moderate level of reliability, which is acceptable or widely acceptable level of reliability.
- The Committee noted that, similar to the other measures, the same reasoning applies in terms of providers being responsible for their patients' decision-making regardless of the clinic process and counseling.

3. Feasibility: H-20; M-5; L-0; I-0

(3a. Clinical data generated during care delivery; 3b. Electronic sources; 3c. Susceptibility to inaccuracies/unintended consequences identified 3d. Data collection strategy can be implemented)

Rationale:

- The Committee acknowledged the measure is feasible.

4. Usability and Use: H-15; M-12; L-0; I-0

(Used and useful to the intended audiences for 4a. Accountability and Transparency; 4b. Improvement; and 4c. Benefits outweigh evidence of unintended consequences)

Rationale:

- The Committee voiced no concerns regarding usability and use.

5. Related and Competing Measures

- This measure directly relates to NQF #2903: Contraceptive Care – Most & Moderately Effective Methods and #2904: Access to LARC. These measures are from the same developer and harmonized.

Standing Committee Recommendation for Endorsement: Y-24; N-3

Rationale

- The Committee agreed that this measure meets all the NQF criteria for endorsement.

6. Public and Member Comment: June 7 – July 6, 2016

Comments Received

- This measure received 25 comments, all supporting the endorsement of the measure. A number of the comments highlighted the gap in contraceptive measures, noting there are no currently endorsed measures in the NQF portfolio. Several of the comments also noted some concern with the measure, including: the need to ensure women's choices are informed and respected and the need for the balancing measure of woman-reported experience of contraceptive care currently under development; these comments reiterated that the performance should not be 100%. In addition, commenters submitted requests to align the timing for postpartum coverage with other measures of postpartum care and for minor changes to the age range. One commenter stated this is not appropriate for a health plan level measure "given that health care decisions are best made between the providers and their patients;" another noted "that the contraceptive measures as currently specified are most appropriately reported at a population level and are not appropriate for "pay for performance" programs."

Developer Response

- We appreciate the reviewer's support for the measure. The reviewer has raised an important issue, which OPA will be delighted to consider over the coming years as we gain more experience using the measure and consider whether any changes are needed when it goes before NQF for maintenance review in 3 years. Our intention is to form and convene an Expert Work Group in the interim period to review the use of the measure in various settings (Medicaid, Title X, other programs) and give us advice on what changes may be justified.
- The reviewer is correct in noting that Medicaid and other health plans that rely on claims-based reporting of the measure would not capture 'free contraception' -- however, this is likely to be a very small number of patients. Programs such as OPA's Title X program that do provide 'free' contraception can adapt the measure to their own data systems so that the 'free' methods are identified. We will consider submitting a Title X adaptation of the contraceptive measure to NQF when we submit for measure maintenance in 3 years.
- We appreciate the reviewer's support for this measure, and share their concern that contraceptive care be offered in a client-centered manner. Of note, existing research has shown that method effectiveness is important to many women and, as such, is one of many aspects of client centered care. For example, a recent study showed that nearly 90% of women reported that method effectiveness was an 'extremely important' characteristic (Jackson 2016).
- We do not fully understand the context of the comment that the measure is appropriate for population level but not health plan level, and welcome additional information from the reviewer. The primary purpose of the measures is to encourage removal of barriers to contraceptive access in the provider- and systems-level so that women are offered a wide range

of methods in a client-centered manner, preferably on a same-day, onsite basis. It seems to us that these barriers could exist in a health plan, and therefore could be addressed at a health plan level as well as at the population level. We agree that benchmarking for this measure will require careful consideration so that comparisons across reporting units are done in a fair manner that does not put undue pressure on providers to ‘coerce’ women; we intend to convene an Expert Work Group in the intervening period before measure maintenance review, to help us consider the issue of benchmarking. If we are overlooking some other important aspect, we welcome additional information from the reviewer.

- We can see the potential benefit of aligning the postpartum contraceptive measure with the HEDIS postpartum measure, and will be delighted to consult with the Expert Work Group about this as preparation for submitting for measure maintenance in 3 years. However, the 3-day window is important to ensure women have access to contraception in the immediate postpartum period. This is a period in which there have been a number of barriers to providing the full range of contraceptive methods.

7. Consensus Standards Approval Committee (CSAC) Vote: Y-17; N-0

Decision: Approved for endorsement

8. NQF Board of Directors Vote: Yes (October 25, 2016)

Decision: Ratified for continued endorsement

9. Appeals

No appeals were received.

2903 Contraceptive Care – Most & Moderately Effective Methods

[Submission](#) | [Specifications](#)

Description: The percentage of women aged 15-44 years at risk of unintended pregnancy that is provided a most effective (i.e., sterilization, implants, intrauterine devices or systems (IUD/IUS)) or moderately effective (i.e., injectables, oral pills, patch, ring, or diaphragm) FDA-approved methods of contraception.

The proposed measure is an intermediate outcome measure because it represents a decision that is made at the end of a clinical encounter about the type of contraceptive method a woman will use, and because of the strong association between type of contraceptive method used and risk of unintended pregnancy.

Numerator Statement: Women aged 15-44 years of age at risk of unintended pregnancy who are provided a most (sterilization, intrauterine device, implant) or moderately (pill, patch, ring, injectable, diaphragm) effective method of contraception.

Denominator Statement: Women aged 15-44 years of age who are at risk of unintended pregnancy.

Exclusions: The following categories of women are excluded from the denominator: (1) those who are infecund for non-contraceptive reasons; (2) those who had a live birth in the last 2 months of the

measurement year; or (3) those who were still pregnant or their pregnancy outcome was unknown at the end of the year.

Adjustment/Stratification: No risk adjustment or risk stratification

Level of Analysis: Facility, Health Plan, Population : Regional, Population : State

Setting of Care: Other, Primary Care and Reproductive Health Settings

Type of Measure: Intermediate Clinical Outcome

Data Source: Administrative claims

Measure Steward: US Office of Population Affairs

STANDING COMMITTEE MEETING [05/02/2016]

1. Importance to Measure and Report: The measure meets the Importance criteria

(1a. Evidence, 1b. Performance Gap)

1a. Evidence: **Y-24; N-1**; 1b. Performance Gap: **H-13; M-10; L-1; I-0**

Rationale:

- The Committee noted that the evidence demonstrated strong support for providing LARCs to demonstrate that clinics are providing greater access to a wide range of contraception options.
- The Committee highlighted that the evidence has shown that the type of counseling can be associated with the choice of method selected but did note that measuring the provision of most or moderately effective methods does not address patient preference. The Committee expressed concerns that this measure is assessing providers based on patients' clinical decision-making, which could lead to unintended consequences such as penalizing providers for patients' choices and preferences. Additionally, there might be resistance against contraception (e.g. Catholic systems or patient religious beliefs), which is not factored into the decision-making. The developer stated that the evidence is very strong that when counseling a woman about the range of options that most women will chose to use those most or moderately effective methods. In addition, the benchmark for this measure is 63%, so that patient preferences are respected.
- The developer also explained that this is a voluntary measure and it is possible that Catholic hospitals will not use this measure. However, 99% of women who identify a religious affiliation, including Catholic, have used birth control; 89% of Catholics report currently using contraception if they are at risk of unintended pregnancy; and 68% of Catholic women are using a highly effective method (i.e., sterilization, pill or other hormonal method, or IUD). Only 3% of Catholic women who are at risk of unintended pregnancy are using natural family planning.
- The Committee questioned why the focus is on actual provision of most or moderately effective methods and LARC versus offering other methods. The developer explained provision is the most reliable data available and can be captured in administrative data.
- The Committee asked the developer to explain the measure's postpartum exclusion, when those women are often the highest risk of repeat pregnancy. The developer explained that they developed NQF #2902: Contraceptive Care - Postpartum specifically for that purpose. Additionally, ACOG's recommendation is to provide contraception at the six-week postpartum visit, so to be fair to providers, the developer excluded postpartum for this measure.
- The Committee noted that the percentage of women of reproductive age who are at risk of unintended pregnancy is 38 million and 51% of 6.7 million pregnancies each year are

unintended. Additionally, there are gaps in unintended pregnancy especially for teens and unmarried women.

2. Scientific Acceptability of Measure Properties: The measure meets the Scientific Acceptability criteria

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

2a. Reliability: **H-8; M-14; L-2; I-0** 2b. Validity: **M-17; L-6; I-1**

Rationale:

- One Committee member noted the significant barriers to contraceptive care for adolescents, specifically limited access to birth control for adolescents under the age of 18. Therefore, it is unfair to penalize providers based on these access limitations. The developer explained that adolescents under the age of 18 were included to align with the Medicaid Adult and Child Core Sets, so the measure could be stratified differently to capture this particular subpopulation.
- The Committee noted that the definition for "at risk" is unclear and it is missing from the measure specifications, specifically the denominator statements. The developer defined "at risk" as having ever had sex, fecund/able to become pregnant, not pregnant, and seeking pregnancy.
- The Committee questioned if condoms for women who want to prevent STIs, vasectomy as a form of birth control, oral contraceptives for menstrual cramps, young people and parents of young people with developmental disabilities using contraceptive method to control menstruation, and same-sex relationships where birth control is not an issue, were subpopulations that were excluded from this measure. The developer explained that they are considering a hybrid measure that will be better able to address these issues, but this measure relies on claims data, so they were unable to address those issues in this measure. The developer noted that there were some limitations using this strictly claims-based measure.
- The developer reported that the measure was tested with approximately 800,000 clients in Planned Parenthood across 25 affiliates, 3 state Medicaid programs, and Title X programs.
- Systematic assessment of face validity by 9 experts agreed that this measure would provide an accurate reflection of quality.
- One Committee member asked the developer to explain how the measure handles situations in which patients have access to multiple healthcare systems and would be included in the denominator for both: which provider system or specialty care would be responsible for the prescribing of the contraceptive, and who would be penalized if the other prescribed first. The developer explained that the measure was tested at the Medicaid plan level looking at performance overall but the measure has not been tested at other levels of analysis (e.g., medical groups, clinicians). The Committee stressed that this measure needs to explicitly state that it is not appropriate for hospital level or provider level comparison.
- The Committee questioned whether this measure would capture over-the-counter oral contraceptives and pharmacy claims since states like California and Oregon are allowing this.
- One Committee member suggested that a pure provision measure would be better, especially since the measure is not accounting for women who were provided LARC in a previous measurement year or discontinuation of other methods. The developer stated that they would consider this in the next iteration of the measure.

3. Feasibility: H-20; M-5; L-0; I-0

(3a. Clinical data generated during care delivery; 3b. Electronic sources; 3c. Susceptibility to inaccuracies/unintended consequences identified 3d. Data collection strategy can be implemented)

Rationale:

- The data source is administrative claims data, so the Committee agreed that this measure was feasible.

4. Usability and Use: H-10; M-12; L-3; I-0

(Used and useful to the intended audiences for 4a. Accountability and Transparency; 4b. Improvement; and 4c. Benefits outweigh evidence of unintended consequences)

Rationale:

- The Committee expressed concern about how consumers and patients might perceive this measure, particularly since over the past 5 years there have been significant examples of coercion in contraception counseling (e.g., forced sterilization in the prison system in California). One Committee member referenced a particular study that demonstrated that contraceptive counseling differed for women of different races and providers were biased towards providing LARC methods to African-American patients.
- The developer noted that they are funding a study to develop a patient-reported outcome measure looking at possible coercion as one dimension of the entire client experience related to contraceptive care. Another Committee member stated that it is not always coercion but limitation of contraceptive choices. For example, the provider offers 1 or 2 methods out of the whole range of options, rather than offering comprehensive contraceptive counseling that explains all of the options and allows patients to choose from a full range.
- Committee members noted that contraceptive counseling for women is probably one of the most intimate services that providers offer, and unfortunately, many providers are unskilled at doing that well regardless of the available guidelines.

5. Related and Competing Measures

- This measure directly relates to NQF #2902: Contraceptive Care – Postpartum and #2904: Access to LARC. These measures are from the same developer and harmonized.

Standing Committee Recommendation for Endorsement: Y-20; N-5

Rationale

- The Committee agreed that this measure meets all the NQF criteria for endorsement.

6. Public and Member Comment: June 7 – July 6, 2016

Comments Received

- This measure received 23 comments. As with measure #2902, the comments were all in favor, but highlighted the importance of ensuring that women are not coerced into using contraceptives and the need for a women-reported contraceptive access measure. In addition, commenters requested the exclusion of women who refuse contraceptives.

Developer Response

- Our intention is to form and convene an Expert Work Group in the interim period to review the use of the measure in various settings (Medicaid, Title X, other programs) and give us advice on what changes may be justified.
- We do not fully understand the context of the reviewer's comment that the measure should exclude members that refuse listed contraceptives, and welcome additional information from the reviewer. If the member refused the listed contraceptive because their preferred method(s) were not available, then we think this may be a barrier that could be reduced by use of the measure over time. Some clients will choose to not use any contraception at all – and the measure is designed to respect their right to do so – but those refusals would be captured by setting a benchmark below 100%. If there is some other nuance that we do not currently understand, we will be delighted to consider some other alternative.
- We share their concern that contraceptive care be offered in a client-centered manner. Of note, existing research has shown that method effectiveness is important to many women and, as such, is one of many aspects of client centered care. For example, a recent study showed that nearly 90% of women reported that method effectiveness was an 'extremely important' characteristic (Jackson 2016).
- OPA is fully committed to doing everything it can to ensure that the performance measures are used in a manner that supports the delivery of client-centered care. As the measure steward, we will take every opportunity (e.g., on the steward's measure webpage, in presentations, in publications) to explain how the measures are intended to be used. Key messages will include: no specific benchmark has been set for the most/moderately effective method but OPA does not expect it to reach 100%; the interpretation of the LARC measure should be focused solely on identifying areas with extremely low levels of LARC provision and should not be used to encourage high rates of use; and it is not appropriate to use the LARC measure in a pay-for-performance context. We will also highlight the importance of following Federal recommendations, especially CDC-OPA's recommendations for how to provide quality family planning (QFP), for how to provide contraceptive care in a client-centered manner.
- We also agree with the reviewer's note of the need for a measure of client experience that will 'balance' the current measures focused on contraceptive provision. In fact, OPA recently awarded a 3-year cooperative agreement to the University of San Francisco to develop a patient-reported outcome performance measure (PRO-PM) for contraceptive care. The PRO-PM will focus on the client's experience with care and identify situations in which the woman's preference was not respected; it will serve to 'balance' the current measures that focus on what contraceptive methods were provided. A rigorous plan of testing and validation of the PRO-PM measure is planned, and we expect it will be ready for submission within 3 years. We look forward to learning more in the coming years about how to best use the two sets of measures in tandem so that women receive high quality, client-centered care.
- It seems to us that these barriers could exist in a health plan, and therefore could be addressed at a health plan level as well as at the population level. We agree that benchmarking for this measure should be voluntary; no specific benchmark has been set for the most/moderately effective method but OPA does not expect it to reach 100%; the interpretation of the LARC measure should be focused solely on identifying areas with extremely low levels of LARC provision and should not be used to encourage high rates of use; and it is not appropriate to use the LARC measure in a pay-for-performance context. We will be consulting with our Expert Work Group on this over the coming years, and welcome additional input.

7. Consensus Standards Approval Committee (CSAC) Vote: Y-17; N-0

Decision: Approved for endorsement

8. NQF Board of Directors Vote: Yes (October 25, 2016)

Decision: Ratified for endorsement

9. Appeals

No appeals were received.

2904 Contraceptive Care - Access to LARC

[Submission](#) | [Specifications](#)

Description: Percentage of women aged 15-44 years at risk of unintended pregnancy that is provided a long-acting reversible method of contraception (i.e., implants, intrauterine devices or systems (IUD/IUS). It is an access measure because it is intended to identify situations in which women do not have access to the long-acting reversible methods of contraception (LARC), i.e., contraceptive implants and intrauterine devices.

Numerator Statement: Women aged 15-44 years of age at risk of unintended pregnancy who were provided a long-acting reversible method of contraception (LARC), i.e., intrauterine device or implant.

Denominator Statement: All women aged 15-44 years of age who are at risk of unintended pregnancy.

Exclusions: The following categories of women are excluded from the denominator: (1) those who are infecund for non-contraceptive reasons; (2) women who had a live birth in the last 2 months of the measurement year; or (3) women were still pregnant or their pregnancy outcome was unknown at the end of the year.

Adjustment/Stratification: No risk adjustment or risk stratification

Level of Analysis: Facility, Health Plan, Population : Regional, Population : State

Setting of Care: Other, Primary Care and Reproductive Health Settings

Type of Measure: Structure

Data Source: Administrative claims

Measure Steward: US Office of Population Affairs

STANDING COMMITTEE MEETING [05/02/2016]**1. Importance to Measure and Report: The measure meets the Importance criteria**

(1a. Evidence, 1b. Performance Gap)

1a. Evidence: **Y-24; N-1**; 1b. Performance Gap: **H-18; M-7; L-0; I-0**

Rationale:

- This new measure is a subset of measure #2903, but has a different goal: to assess access to LARC methods of contraception. This measure focuses on the percentage of women at risk for

unintended pregnancy that are provided a long-acting reversible method of contraception (i.e., implants, intrauterine devices or systems (IUD/IUS)).

- The Committee agreed that the overarching issues surrounding the evidence were addressed in the discussion of NQF #2903: Contraceptive Care – Most & Moderately Effective Methods. However, the Committee requested that, in the future, the developer include more evidence for adolescent and around issues relating to side effects particular to LARCs, patients’ fear of having IUD/IUS, and the non-contraceptive benefits of LARCs.
- The Committee agreed there were gaps in terms of unintended pregnancy rates among women of reproductive age and opportunities for improvement.

2. Scientific Acceptability of Measure Properties: The measure meets the Scientific Acceptability criteria

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

2a. Reliability: **H-8; M-1; L-0; I-0**; 2b. Validity: **M-17; L-6; I-1**

Rationale:

- This measure is used to identify women who do not have access to LARCs.
- The Committee discussed the use of the population denominator versus the encounters as the denominator. The developer explained that the reason they chose population versus encounter was primarily because attribution could not be made to one encounter or one type of provider.
- The Committee noted that this measure provides a good metric for access, not necessarily quality, since there are many different factors that contribute to quality of care.

3. Feasibility: H-20; M-5; L-0; I-0

(3a. Clinical data generated during care delivery; 3b. Electronic sources; 3c. Susceptibility to inaccuracies/unintended consequences identified 3d. Data collection strategy can be implemented)

Rationale:

- The Committee noted that the data required are routinely generated and/or used during care delivery, therefore data collection is feasible. This measure does not represent an undue burden to collect and can be implemented without much administrative burden.

4. Usability and Use: H-12; M-11; L-2; I-0

(Used and useful to the intended audiences for 4a. Accountability and Transparency; 4b. Improvement; and 4c. Benefits outweigh evidence of unintended consequences)

Rationale:

- The Committee noted the potential for coercive practices in which women are not offered a complete choice of methods and are pressured into using a LARC method. The developer stated that they do not think this will be a concern since the measure focus is on ensuring access to these methods by monitoring very low rates (well below the median) and the measure is not intended to be used for benchmarking.

5. Related and Competing Measures

- This measure directly relates to NQF #2902: Contraceptive Care – Postpartum and #2903: Contraceptive Care – Most & Moderately Effective Methods. These measures are from the same developer and are harmonized.

Standing Committee Recommendation for Endorsement: Y-20; N-5**Rationale**

- The Committee agreed that this measure is useable as a marker of access to LARC methods.

6. Public and Member Comment: June 7 – July 6, 2016**Comments Received**

- This measure received 24 comments. Almost all of the comments were supportive, and many raised similar concerns as with #2902 and #2903. Concerns were raised for this measure, including the fact that some insurers and health systems restrict access to LARC. One comment noted that IUDs and implants require different insertion skills and the measure should differentiate between them. Commenters both agreed and disagreed that this is a measure of access; one noted a concern that it may be misinterpreted and encourage providers to provide LARCs without appropriate counseling.
- One comment noted continuing concerns such a measure has the “potential to encourage coercion, which remains an ongoing reality for many, including low-income women, women of color, young women, immigrant women, LGBT people, and incarcerated women. We request that this measure be paired with a woman-reported “balancing measure” of experience of receiving contraceptive care. Such a measure can be expected to help identify and/or check inappropriate pressure from the health care system. We understand that OPA is developing such a measure and encourage its rapid completion and submission for endorsement. We recommend that proposed measure #2904 be held back until the measure of the experience of receiving contraceptive care is in place.”

Developer Response

- For purposes of simplicity and because we did not want to imply one LARC method was preferred over the other, we combined both methods into a single LARC measure. However, there may be benefits to looking at the methods separately in the future as the measure is used more widely, to ensure that women are being given a choice of both IUDs and implants. We will consult with the Expert Work Group that will be considering the measure over the coming years, and welcome additional input.
- Research has shown that method effectiveness is important to many women and, as such, is one of many aspects of client centered care. For example, a recent study showed that nearly 90% of women reported that method effectiveness was an ‘extremely important’ characteristic (Jackson 2016).
- OPA is fully committed to doing everything it can to ensure that the performance measures are used in a manner that supports the delivery of client-centered care. As the measure steward, we will take every opportunity (e.g., on the steward’s measure webpage, in presentations, in publications) to explain how the measures are intended to be used. Key messages will include: no specific benchmark has been set for the most/moderately effective method but OPA does not expect it to reach 100%; the interpretation of the LARC measure should be focused solely on identifying areas with extremely low levels of LARC provision and should not be used to encourage high rates of use; and it is not appropriate to use the LARC measure in a pay-for-performance context. We will also highlight the importance of following Federal recommendations, especially CDC-OPA’s recommendations for how to provide quality family planning (QFP), for how to provide contraceptive care in a client-centered manner.
- We also agree with the reviewer’s note of the need for a measure of client experience that will ‘balance’ the current measures focused on contraceptive provision. In fact, OPA recently

awarded a 3-year cooperative agreement to the University of San Francisco to develop a patient-reported outcome performance measure (PRO-PM) for contraceptive care. The PRO-PM will focus on the client's experience with care and identify situations in which the woman's preference was not respected; it will serve to 'balance' the current measures that focus on what contraceptive methods were provided. A rigorous plan of testing and validation of the PRO-PM measure is planned, and we expect it will be ready for submission within 3 years. We look forward to learning more in the coming years about how to best use the two sets of measures in tandem so that women receive high quality, client-centered care.

- It seems to us that these barriers could exist in a health plan, and therefore could be addressed at a health plan level as well as at the population level. We agree that benchmarking for this measure should be voluntary; no specific benchmark has been set for the most/moderately effective method but OPA does not expect it to reach 100%; the interpretation of the LARC measure should be focused solely on identifying areas with extremely low levels of LARC provision and should not be used to encourage high rates of use; and it is not appropriate to use the LARC measure in a pay-for-performance context. We will be consulting with our Expert Work Group on this over the coming years, and welcome additional input.

Committee Response

- The Committee agreed that the measure developer is making concerted efforts to ensure that the measure not be used for coercion. They reiterated that the benchmark should absolutely not be 100%. The Committee strongly encouraged the developer to continue work on the patient-reported outcome measure of contraceptive care.

7. Consensus Standards Approval Committee (CSAC) Vote: Y-17; N-0

Decision: Approved for endorsement

8. NQF Board of Directors Vote: Yes (October 25, 2016)

Decision: Ratified for endorsement

9. Appeals

No appeals were received.

Measures Not Recommended

1517 Prenatal & Postpartum Care (PPC)

[Submission](#)

Description: The percentage of deliveries of live births between November 6 of the year prior to the measurement year and November 5 of the measurement year. For these women, the measure assesses the following facets of prenatal and postpartum care:

Rate 1: Timeliness of Prenatal Care. The percentage of deliveries that received a prenatal care visit as a member of the organization in the first trimester or within 42 days of enrollment in the organization.

Rate 2: Postpartum Care. The percentage of deliveries that had a postpartum visit on or between 21 and 56 days after delivery.

Numerator Statement: This measure assesses whether pregnant women had timely prenatal and postpartum care visits. It has two rates, one assessing the timeliness of prenatal visits, and one assessing the timeliness of postpartum visits.

Denominator Statement: The percentage of deliveries of live births between November 6 of the year prior to the measurement year and November 5 of the measurement year.

Exclusions: Non-live births

Adjustment/Stratification: No risk adjustment or risk stratification

Level of Analysis: Health Plan, Integrated Delivery System

Setting of Care: Ambulatory Care : Clinician Office/Clinic

Type of Measure: Process

Data Source: Administrative claims, Electronic Clinical Data, Paper Medical Records

Measure Steward: National Committee for Quality Assurance

STANDING COMMITTEE MEETING [05/02/2016]

1. Importance to Measure and Report: The measure meets the Importance criteria

(1a. Evidence, 1b. Performance Gap)

1a. Evidence: **H-0; M-3; L-2; I-21**; Evidence Exception: **Y-16; N-10**

1b. Performance Gap: **H-7; M-15; L-1; I-2**;

Rationale:

- The Committee that previously evaluated this maintenance measure during noted that this measure only assesses visits but not the content of those visits. The current Committee agreed that ACOG guidelines recommend a schedule of prenatal visits based primarily on expert opinion. The Committee acknowledged that data does show that patients who have no prenatal care have worse outcomes.
- The current Committee noted that there was no evidence for the timing of visits; however, the Committee agreed that empirical evidence is not needed to hold providers accountable for the measure. Therefore, the measure moved forward on Insufficient Evidence with Exception.

- The measure contains 2 rates: timeliness of prenatal care and postpartum care. The Committee noted the low adherence to the measure and missing care for women, which highlights that there is room for improvement:
 - Timeliness of prenatal care (2015): 85% Commercial plans; 82% Medicaid plans
 - Postpartum care (2015): 73% Commercial plans; 62% Medicaid plans

2. Scientific Acceptability of Measure Properties: Consensus was not reached on the Scientific Acceptability criteria

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

2a. Reliability: **Previous Reliability Votes Accepted** 2b. Validity: **M-14; L-10; I-2**

Rationale:

- The measure has 2 rates: one for timeliness of prenatal care and one for postpartum care. The developer has changed the specifications since the last NQF endorsement review. The use of infant claims to identify deliveries was removed and the developer clarified the tests that must be included to meet criteria for an obstetric panel in the medical record specification. These are as follows: hematocrit, differential WBC count, platelet count, hepatitis B surface antigen, rubella antibody, syphilis test, RBC antibody screen, Rh, and ABO blood typing.
- The Committee agreed the reliability of the measure was demonstrated, with the developer providing reliability testing at the measure score level. Reliability for commercial plans is 0.99 and for Medicaid plans 0.92-0.95.
- The Committee expressed major concerns about validity, specifically the limited number of codes and lack of information about the content of the visits.

3. Feasibility: H-4; M-14; L-7; I-1

(3a. Clinical data generated during care delivery; 3b. Electronic sources; 3c. Susceptibility to inaccuracies/unintended consequences identified 3d. Data collection strategy can be implemented)

Rationale:

- The developer states that, “To allow for widespread reporting across health plans and healthcare practices, this measure is collected through multiple data sources (administrative data, electronic clinical data, paper records).”
- The Committee noted that collecting this measure using administrative claims was feasible and the burden of paper medical record review is considerable.

4. Usability and Use: H-2; M-14; L-8; I-2

(Used and useful to the intended audiences for 4a. Accountability and Transparency; 4b. Improvement; and 4c. Benefits outweigh evidence of unintended consequences)

Rationale

- The measure is actively used in programs for both health plan and state reporting.
- The Committee noted that early prenatal care is important for peri-partum depression screening, contraception, and life planning.
- The Committee agreed that this measure is problematic because it discourages earlier care and it is unclear whether quality is improving.

5. Related and Competing Measures

- Related measure NQF #1391: Frequency of Ongoing Prenatal Care (FPC) has been withdrawn.

Standing Committee Recommendation for Endorsement: Y-12; N-14 CONSENSUS NOT REACHED

Rationale

- Overall, the Committee did not reach consensus on this measure. Despite the various problems raised with the measure, several Committee members were reluctant to remove endorsement until better measures are available.

6. Public and Member Comment: June 7 – July 6, 2016

Comments Received

- The measure received 10 comments; 6 were in support, 3 did not support, and 1 did not specify. Many of the comments noted that the quality of the visits is not being assessed and urged NQF to “raise the bar;” comments suggested issues that should be addressed within the visits. Of the comments in support of the measure, urging the Committee to recommend it, commenters noted the importance of the measure in ensuring access to both prenatal and postpartum care, and “it doesn't matter how high the quality of care is if women do not access care early enough to benefit from it”. Other comments suggested that holding health systems at least partially responsible for access to prenatal care is crucial, and that to not do so “contradicts national efforts to reduce maternal morbidity and mortality.” Noting the lack of measures in this area, commenters urged the Committee to recommend this measure in the interim while improved measures are developed.
- Comments urging the Committee not to recommend the measure noted that the schedule of both prenatal and postpartum visits is based on expert opinion, not evidence, and the content and quality are not evaluated. Several commenters suggested new timeframes, and noted the need for earlier postpartum visits for breastfeeding support or caesarean section wound care as well as the difficulty of gathering this data via billing codes.
- Commenters also recommended splitting the measure into two separate measures, one on prenatal care and one on postpartum care.

Developer Response

- We agree that measures addressing the content of perinatal care are needed. We hope to develop better perinatal measures in the future in order to complement this current access/availability of care measure, which we believe is still useful in the meantime.
- There is variation in recommendations for timing of postpartum visits. Organizations have typically recommended a visit 4-6 weeks post-delivery unless there are specific complications or risk factors. Our advisory panels recommended a 3-8 week timeframe as appropriate for capturing timely postpartum care without inadvertently counting visits for post C-section wound checks, which they concluded did not meet the intent of the measure. ACOG notes that a comprehensive postpartum visit should include a full assessment of physical, social and psychological well-being, with guidance given on issues such as contraception and postpartum concerns.
- The measure is currently reported as two rates: timeliness of prenatal care and postpartum care. Results for each rate can be viewed separately in order to understand a plan's performance on each.

Committee Response

- The Committee continues to have similar concerns as were discussed at the in-person meeting, including the timeframe, the fact the measure is based on expert consensus, not empirical evidence, and the emphasis on quantity, not content of visits. This was contrasted with the lack of measures in this area, the large gap in performance, the unlikelihood that RCTs will be conducted on this topic, and the fact that if patients are not receiving care, it is definitely poor quality.
- The Committee again requested splitting the measure into 2 separate measures. The prenatal care measure was not a concern.
- The Committee found the time range specified in the postpartum measure to be problematic as patients receiving postpartum care a few days on either side of the window are not receiving poor care. A two-week postpartum visit (14 days) also may be appropriate for some patients.
- Committee members report that improving the results for the postpartum measures is difficult even in the face of payment penalties.
- Despite extensive discussions, the Committee was unable to achieve consensus on their re-votes on either validity or an overall recommendation:
 - Validity: M–11 (52%); L-7; I– 3
 - Overall: Y–10 (48%) N-12 (52%)
- The measure will move forward as “consensus not reached” to NQF Member Vote. CSAC will make the final recommendation for or against endorsement.

7. Consensus Standards Approval Committee (CSAC) Vote: Y-3; N-13

- **CSAC did not recommend the measure for endorsement.** Concerns raised by CSAC members included the lack of empirical evidence for the timing; validity issues; the potential for unintended consequences; and the inadequate consensus at all levels of consideration. However, CSAC members in favor of the measure noted the importance of measuring access to care, particularly for Medicaid MCOs, and the low performance/significant room for improvement in performance.

1391 Frequency of Ongoing Prenatal Care (FPC)

[Submission](#)

Description: The percentage of Medicaid deliveries that had the following number of expected prenatal visits:

- less than 21 percent of expected visits.
- 21 percent–40 percent of expected visits.
- 41 percent–60 percent of expected visits.
- 61 percent–80 percent of expected visits.
- greater than or equal to 81 percent of expected visits.

Numerator Statement: Women who had the appropriate number of expected prenatal visits

Denominator Statement: The percentage of deliveries of live births between November 6 of the year prior to the measurement year and November 5 of the measurement year.

Exclusions: Exclude non-live births

Adjustment/Stratification: No risk adjustment or risk stratification

Level of Analysis: Health Plan, Integrated Delivery System

Setting of Care: Ambulatory Care : Clinician Office/Clinic

Type of Measure: Process

Data Source: Administrative claims, Electronic Clinical Data, Paper Medical Records

Measure Steward: National Committee for Quality Assurance

STANDING COMMITTEE MEETING [05/02/2016]

1. Importance to Measure and Report: The measure does not meet the Importance criteria

(1a. Evidence, 1b. Performance Gap)

1a. Evidence: **H-1; M-1; L-9; I-15**; 1b. Performance Gap: **H-0; M-0; L-0; I-0**

Rationale:

- The Committee that previously evaluated this maintenance measure noted that this measure only assesses the number of visits but not the content of those visits. The Committee agreed that ACOG guidelines recommend a schedule of prenatal visits that are based primarily on expert consensus. The prior Committee questioned the relationship of the visit groups defined in this measure to patient outcomes. The current Committee acknowledged that data does show that patients who have no prenatal care have worse outcomes.
- The current Committee noted the deficiency of the evidence, specifically the frequency of visits being based on expert consensus and not empiric evidence. The Committee noted that there is no empiric evidence in terms of the visit schedule or the number of visits being associated with improvement in outcomes for mothers and babies.
- This measure is considered a proxy for access to care; however, the measure does not assess the capacity of a plan to provide prenatal care. The measure reflects the challenges women face in accessing care, such as taking time off work, transportation, and childcare.
- The Committee noted that frequency does not equal quality and that this measure inhibits innovative strategies and new models of care.
- The measure did not pass the Evidence criterion.

2. Scientific Acceptability of Measure Properties:

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

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

Rationale:

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

(3a. Clinical data generated during care delivery; 3b. Electronic sources; 3c. Susceptibility to inaccuracies/unintended consequences identified 3d. Data collection strategy can be implemented)

Rationale:

4. Usability and Use: H-0; M-0; L-0; I-0

(Used and useful to the intended audiences for 4a. Accountability and Transparency; 4b. Improvement; and 4c. Benefits outweigh evidence of unintended consequences)

Rationale:

5. Related and Competing Measures

Standing Committee Recommendation for Endorsement: Y-0; N-0 DID NOT PASS IMPORTANCE

Rationale

- The Committee did not recommend this measure because the number/frequency of visits was not demonstrated to equal quality or improve outcomes.
-

6. Public and Member Comment: June 7 – July 6, 2016

Comments Received

- This measure received 3 comments agreeing with the Committee’s concerns and their decision not to recommend the measure for endorsement. The measure did not pass Evidence (H-1; M-1; L-9; I-15). Two commenters disagreed with the Committee’s recommendation. One comment agreed there are shortcomings with the measure, but noted that it is considered a basic measure of appropriate maternity care and there are no alternatives to replace it; this commenter urged the development of an improved measure as soon as possible. The final commenter raised concerns stating that the measure has been the basis for successful public health programs since the 1930s, and noting that gaps in care remain. In addition, the commenter stated, the loss of the measure could “lead to further disregard of PNC utilization in US healthcare plans, diminished primary and preventive care for women during pregnancy, and exacerbate reproductive health and health care inequity in the US.” This commenter also suggested simplifications to improve the measure.

Developer Response

- NCQA has withdrawn the Frequency of Prenatal Care (#1391) measure from consideration for re-endorsement.

NQF Response

- This measure has been withdrawn from consideration. Endorsement will be removed.
-

2892 Birthrisk Cesarean Birth Measure

[Submission](#) |

Description: This is a measure of the effect that obstetrical care provider’s labor management strategies have on their laboring patient’s risk for cesarean birth. The target population is limited to women who attempt labor with a singleton vertex pregnancy without a history of a prior cesarean birth and give birth between 37 and 42 weeks of gestation.

Numerator Statement: Number of cesarean births.

Denominator Statement: Women without a history of a prior cesarean birth who attempted labor and gave birth to a single baby in vertex presentation between 37 and 42 weeks of gestation.

Exclusions: The denominator excludes women with any of the following:

1. Gestational age at birth of less than 37 weeks or greater than 42 weeks.
2. History of a prior cesarean birth.
3. Multiple gestation.
4. Not in vertex presentation.
5. Did not attempt to have a vaginal birth by attempting labor.

Adjustment/Stratification: Cohort comparison

Level of Analysis: Facility, Clinician : Individual

Setting of Care: Hospital/Acute Care Facility

Type of Measure: Outcome

Data Source: Other

Measure Steward: Birthrisk.com, LLC.

STANDING COMMITTEE MEETING [May/03/2016]

1. Importance to Measure and Report: The measure does not meet the Importance criteria

(1a. Evidence, 1b. Performance Gap)

1a. Evidence: **Y-26; N-1**; 1b. Performance Gap: **H-2; M-7; L-13; I-5**

Rationale:

- This new measure uses a novel approach to measuring Cesarean birth rates (as opposed to the currently endorsed measure, #0470) as this measure includes all mothers undergoing labor and is not limited to first time mothers.
- The Committee had no reference data to evaluate the results calculated by the developer, which was completed using birth certificate data from New York State in 2005-2007. This hospital and clinician-level measure also uses a fee-based, proprietary method of risk adjustment using cohort comparisons.
- The data presented was from 2005-2007 and is now 10 years old.
- The developer notes that efforts to have the method published have not been successful.
- The measure did not pass Performance Gap.

2. Scientific Acceptability of Measure Properties:

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

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

Rationale:

3. Feasibility: **H-0; M-0; L-0; I-0**

(3a. Clinical data generated during care delivery; 3b. Electronic sources; 3c. Susceptibility to inaccuracies/unintended consequences identified 3d. Data collection strategy can be implemented)

Rationale:

4. Usability and Use: H-0; M-0; L-0; I-0

(Used and useful to the intended audiences for 4a. Accountability and Transparency; 4b. Improvement; and 4c. Benefits outweigh evidence of unintended consequences)

Rationale:

5. Related and Competing Measures

Standing Committee Recommendation for Endorsement: DID NOT PASS IMPORTANCE

Rationale

- The Committee did not recommend this proprietary measure in which the only data presented was a decade old.
-

6. Public and Member Comment: June 7 – July 6, 2016

Comments Received

- This measure received 2 comments supporting the Committee’s recommendation not to endorse.
-

7. Consensus Standards Approval Committee (CSAC) Vote: Y-1; N-15

Decision: Not approved for endorsement

2893 Neonatal Intensive Care All-Condition Readmissions

[Submission](#) |

Description: The NICU Readmissions metric assess the hospital- or state-level readmission rate at 30 days after a stay in the Neonatal Intensive Care Unit.

Numerator Statement: Number of infants with a gestational age between 23-34 weeks who were readmitted to the hospital within 30 days of discharge. These time periods are assessed cumulatively, such that readmissions occurring within prior time periods are included. Reliability is strongest if each health care unit has at least 50 discharges per time unit studied.

Denominator Statement: Number of newborns with a gestational age between 23-34 weeks discharged from the NICU, based on gestational age field contained in the birth certificate record (best obstetrical estimate).

Exclusions: Infants with a specified congenital anomaly are excluded from the target population.

Infants with a missing gestational age are excluded from the primary analysis. Information about multiple imputation methods to allow for their inclusion are presented in the testing attachment, section 2b7.

Infants who expired during the neonatal intensive care period are not eligible for a hospital readmission and excluded.

The smallest level of measurement (i.e. hospital, state, etc.) must have a minimum of 50 patients eligible for readmission in a single calendar year.

Adjustment/Stratification: Statistical risk model

Level of Analysis: Facility, Population : State

Setting of Care: Hospital/Acute Care Facility

Type of Measure: Outcome

Data Source: Administrative claims, Electronic Clinical Data : Electronic Health Record, Other

Measure Steward: The Children's Hospital of Philadelphia

STANDING COMMITTEE MEETING [05/03/2016]

1. Importance to Measure and Report: The measure meets the Importance criteria

(1a. Evidence, 1b. Performance Gap)

1a. Evidence: **Y-26; N-1**; 1b. Performance Gap: **H-14; M-11; L-1; I-0**

Rationale:

- The Committee agreed that transitions of care are important; that discharge planning and outpatient care coordination can influence the outcome; and there is significant variation in care.
 - There are racial/ethnic disparities, particularly for African Americans.
-

2. Scientific Acceptability of Measure Properties: The measure does not meet the Scientific Acceptability criteria

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

2a. Reliability: **H-1; M-7; L-17; I-2** 2b. Validity: **H-0; M-0; L-0; I-0**

Rationale:

- The Committee noted that there are numerous readmission measures for adults and children, however, newborns may be cared for in 2 types of NICUs: a maternity/birth hospital that does not readmit neonates and a general acute care facility that does readmit neonates (though the infants are typically readmitted to the general pediatrics floor rather than the NICU).
- This measure is specified for facilities/hospitals, and not all of these may be able to track readmissions to other facilities. Though health information exchanges may improve the ability to capture and share data in the future, the Committee noted that insurers, managed care organizations and Medicaid may be better able to track readmissions across facilities than the facilities themselves.
- The measure relies on hospital data linked to vital statistics, which may not be available in all locations. The Committee was concerned that the measure does not account for planned readmissions or planned transfers and does not differentiate between a hospitalization and an observation stay since both are included as readmissions.
- The developer indicated that "accurate implementation of this metric will require new data collection linkage with birth certificates or more widespread and standardized use of the EHR for publicly reported measures."
- The measure did not pass Reliability.

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

(3a. Clinical data generated during care delivery; 3b. Electronic sources; 3c. Susceptibility to inaccuracies/unintended consequences identified 3d. Data collection strategy can be implemented)

Rationale:

4. Usability and Use: H-0; M-0; L-0; I-0

(Used and useful to the intended audiences for 4a. Accountability and Transparency; 4b. Improvement; and 4c. Benefits outweigh evidence of unintended consequences)

Rationale:

5. Related and Competing Measures

- No related or competing measures noted.
-

Standing Committee Recommendation for Endorsement: DID NOT PASS RELIABILITY

Rationale

- The Committee did not recommend the measure because of the questions around reliability of data capture and recommends further development of this important measure. The Committee also suggested including larger babies, that may not have been in the NICU, but who experience a significant number of readmissions.
-

6. Public and Member Comment: June 7 – July 6, 2016

- This measure received one comment supporting the measure, but it did not provide any further data in support of the measure.
-

7. Consensus Standards Approval Committee (CSAC) Vote: Y-0; N-16

Decision: Not approved for endorsement

2895 Thermal Condition of Low Birthweight Neonates Admitted to Level 2 or Higher Nurseries in the First 24 Hours of Life: A PQMP Measure

[Submission](#) |

Description: This measure describes in terms of admission temperature the status of live-born neonates less than 2,500 grams that are admitted to a Level 2 or higher nursery.

This measure reports on the temperature at admission. Temperatures are reported both in categorical terms and as a distribution. The distribution should be presented as a cumulative incidence curve with a chart to present key moments in the distribution. The categorization data may be presented in chart or graphical form, such as a pie chart, with parents. Each admission is categorized into one of five strata on the basis of their admission temperature. The strata, which were defined by our expert panel, are cold (<34.5), very cool (34.51-35.50), cool (35.51-36.50), about right (36.51-37.50) and overly warm (>37.5).

All temperatures are analyzed using degrees Celsius and reported to one decimal place. The FIRST temperature taken in the nursery is to be recorded and used.

To avoid the potential for gaming the measure by delaying a recorded temperature after arrival, the results are stratified in three ways:

- Main Stratum: Time between arrival at Level 2 or higher nursery is between 0 and 15 minutes.
- Delayed stratum: Time between arrival at Level 2 or higher nursery is more than 15 minutes.
- Other: Inadequate documentation to determine timing of temperature

Numerator Statement: The metric of interest is the temperature upon arrival to the Level 2 or higher nursery that is being assessed. This measure does not have the form of numerator and denominator. It is a distribution. We ask for reporting of the distribution in terms of five categories across the distribution, in terms of key moments in the distribution, and as a graphical presentation of the distribution. This is an information rich measure. Accountability entities may choose to use any of various components for their emphasis (alone or in combination), including percent “about right,” mean or median temperatures, or value of the 10th or 25th percentiles, and the inter-percentile range.

There is an eligible population of newborns, which could be considered the denominator.

In lieu of a numerator, this measure reports the distribution of temperatures, using both numbers and a graph. In order to allow for reporting of key factors of interest to the accountability entity, this measure is specified to report that distribution in a variety of ways. This measure offers users (the accountability entity) the option to focus on one or more key substantive aspects of thermal outcomes in the defined population.

Data Elements:

- Temperature to first decimal place
- Units of temperature (Celsius, Fahrenheit). Those measured in Fahrenheit should be converted to Celsius. Celsius=(Fahrenheit less 32) times 5 divided by 9.
- Time that temperature was measured
- Time of arrival to the nursery (not time that admission was done)
- State and County of residence OR zip code of mother
- Optional: Method of temperature measurement (axillary, rectal, skin, tympanic)

Denominator Statement: All newborn infants born in a medical facility with birthweights less than 2,500 grams and admitted to a level 2 or higher nursery within 24 hours of life, other than those excluded.

Exclusions: Neonates with anencephaly, who receive only comfort care in the Level 2 or higher nursery, or those who die or are placed intentionally on a pre-existing hypothermia protocol prior to the 15 minute after arrival specification time.

Adjustment/Stratification: Stratification by risk category/subgroup

Level of Analysis: Population : Community, Population : County or City, Facility, Health Plan, Integrated Delivery System, Population : Regional, Population : State

Setting of Care: Hospital/Acute Care Facility, Other

Type of Measure: Outcome

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

Measure Steward: University Hospitals Cleveland Medical Center

STANDING COMMITTEE MEETING [05/02/2016]

1. Importance to Measure and Report: The measure meets the Importance criteria

(1a. Evidence, 1b. Performance Gap)

1a. Evidence: **Y-25; N-0**; 1b. Performance Gap: **H-14; M-10; L-2; I-0**

Rationale:

- This new, intermediate outcome measure for newborn temperature management reports the distribution of temperatures on arrival to the NICU for babies weighing less than 2,500 grams.
- Strong evidence has shown that low birthweight babies who are allowed to lose body heat are at increased risk for morbidity and mortality.
- Data from the test population in New York provided by the developer demonstrated variation in performance.

2. Scientific Acceptability of Measure Properties: The measure did not reach consensus for the Scientific Acceptability criteria

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

2a. Reliability: **M-13; L-8; I-4** 2b. Validity: **H-3; M-8; L-4; I-10**

Rationale:

- The Committee did not reach consensus on the reliability and validity of the measure due to multiple concerns:
 - the temperature strata were determined by expert consensus rather than empirical evidence;
 - difficulty in interpreting the measure results that are intended to be displayed as a distribution - in a table and cumulative distribution curve rather than a single numerical result;
 - the validity testing was performed on a variant of the measure; and
 - confusion as to how to interpret the measure results for accountability purposes.

3. Feasibility: **H-3; M-15; L-5; I-2**

(3a. Clinical data generated during care delivery; 3b. Electronic sources; 3c. Susceptibility to inaccuracies/unintended consequences identified 3d. Data collection strategy can be implemented)

Rationale:

- The Committee agreed that temperature data are readily collected in the medical record, however, extracting that data would be challenging for this measure. The developer reported that they are creating a web portal to submit data.

4. Usability and Use: **H-2; M-13; L-9; I-1**

(Used and useful to the intended audiences for 4a. Accountability and Transparency; 4b. Improvement; and 4c. Benefits outweigh evidence of unintended consequences)

Rationale:

- Committee members were not clear as to how a distribution result recommended by the developer could be used for making comparisons and accountability.

5. Related and Competing Measures

- No related or competing measures noted.

Standing Committee Recommendation for Endorsement: Y-7; N-18

Rationale

- The Committee agreed that neonatal temperature management is an important topic but did not recommend this measure, as constructed, for endorsement.

6. Public and Member Comment: June 7 – July 6, 2016

- This measure received 1 comment supporting the Committee’s decision not to recommend the measure.

7. Consensus Standards Approval Committee (CSAC) Vote: Y-0; N-16

Decision: Not approved for endorsement

2896 Structural Attributes of Facility in which High Risk Women Deliver Newborns: A PQMP Measure

[Submission](#) |

Description: This measure characterizes the facility that is the site of delivery of newborn infants born to high risk women by four key structural characteristics. These four characteristics were identified as critical structures by a national expert panel who served CAPQuAM’s 360 degree process for measure development. This work was undertaken in the context of developing innovative measures of the availability of High Risk Obstetrical (HROB) care as assigned by AHRQ and CMS.

The four key structures are:

- (a) Level 3 or higher NICU services on campus. Level 3 NICU is defined as meeting either the American Academy of Pediatrics (AAP) criteria or a locally used set of explicit criteria recognized by that state’s Department of Health.
- (b) 24/7 on-site blood banking services/transfusion services that are always available for obstetrical patients. By 24/7 blood banking/transfusion services we mean that the following are always available to obstetrical patients: testing of blood group and Rh Type; cross matching; antibody testing; transfusion with on-site and available blood, either ABO specified or O-Rh-negative; transfusion with fresh frozen plasma; and transfusion with cryoprecipitate.
- (c) 24/7 in - house physician dedicated to labor and delivery who is capable of safely managing labor and delivery, and of performing a cesarean section, including an emergent cesarean section.
- (d) 24/7 in - house physician coverage dedicated to the obstetrical service by an anesthesiologist who is qualified to provide obstetrical anesthesia.

Numerator Statement: Number of eligible newborn deliveries that occur in facilities with:

- (a) Level 3 or higher NICU services on campus. Level 3 NICU is defined as meeting either the American Academy of Pediatrics (AAP) criteria or a locally used set of explicit criteria recognized by that state's Department of Health.
- (b) 24/7 on-site blood banking services/transfusion services that are always available for obstetrical patients. By 24/7 blood banking/transfusion services we mean that the following are always available to obstetrical patients: testing of blood group and Rh Type; cross matching; antibody testing; transfusion with on-site and available blood, either ABO specified or O-Rh-negative; transfusion with fresh frozen plasma; and transfusion with cryoprecipitate.
- (c) 24/7 in - house physician dedicated to labor and delivery who is capable of safely managing labor and delivery, and of performing a cesarean section, including an emergent cesarean section.
- (d) 24/7 in - house physician coverage dedicated to the obstetrical service by an anesthesiologist who is qualified to provide obstetrical anesthesia.

Measure: Meets all four criteria.

Stratifications:

- a. Meets none
- b. Includes a
- c. Includes b
- d. includes c
- e. includes d

Numerator Elements:

Number of eligible deliveries

Maternal and infant ICD-9 codes

Response to survey question identified on technical specifications or Other valid self-report of structural characteristics as specified

No Numerator Exclusions

Denominator Statement: Overall number of newborn deliveries in health care facilities that are born to women whose pregnancy meets the criteria for high risk. While qualification for the denominator requires that the birth occur in a health care facility this measure is not specified to assess performance of individual facilities.

Exclusions: None

Adjustment/Stratification: No risk adjustment or risk stratification

Level of Analysis: Population : Community, Population : County or City, Health Plan, Integrated Delivery System, Population : National, Population : Regional, Population : State

Setting of Care: Hospital/Acute Care Facility, Other

Type of Measure: Composite

Data Source: Administrative claims, Healthcare Provider Survey

Measure Steward: University Hospitals Cleveland Medical Center

STANDING COMMITTEE MEETING [05/02/2016]

1. Importance to Measure and Report: The measure did not meet the Importance criteria

(1a. Evidence, 1b. Performance Gap)

1a. Evidence: **H-1; M-6; L-3; I-15**; 1b. Performance Gap: **H-0; M-0; L-0; I-0**; Evidence Exception: **Y-11; N-14**

Rationale:

- This new composite measure includes 4 structural components of care delivery for high-risk mothers.
- The Committee did not agree that this is a measure of quality or accountability for providers. The Committee noted that the information may be important as a designation of care provision.
- The evidence provided for the 4 components is expert opinion, not empirical evidence.
- The developers stated that this is a “population measure de-linked from individual patient care” and “the measure does not make a distinction between good care and bad care.”
- The Committee noted that the measure includes mothers with birth complications that are mostly unpredictable and care cannot be redirected to a different facility after birth.
- No measure results for any plans/systems were presented by the developer. The Committee agreed that directing high-risk mothers and high-risk babies to the facilities most capable of caring for them may impact outcomes but this measure needs further development to become an accountability measure.

2. Scientific Acceptability of Measure Properties:

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

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

Rationale:

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

(3a. Clinical data generated during care delivery; 3b. Electronic sources; 3c. Susceptibility to inaccuracies/unintended consequences identified 3d. Data collection strategy can be implemented)

Rationale:

4. Usability and Use: H-0; M-0; L-0; I-0

(Used and useful to the intended audiences for 4a. Accountability and Transparency; 4b. Improvement; and 4c. Benefits outweigh evidence of unintended consequences)

Rationale:

5. Related and Competing Measures

- No related or competing measures noted.

Standing Committee Recommendation for Endorsement: DID NOT PASS IMPORTANCE

Rationale

- The Committee agreed that directing high-risk mothers and high-risk babies to the facilities most capable of caring for them may impact outcomes, but this measure needs further development to become an accountability measure.

6. Public and Member Comment: June 7 – July 6, 2016

- This measure received 1 comment supporting the Committee’s decision not to recommend the measure.

7. Consensus Standards Approval Committee (CSAC) Vote: Y-0; N-15

Decision: Not approved for endorsement

Appendix B: NQF Perinatal and Reproductive Health Portfolio

Newly endorsed measures are shaded and marked with an asterisk.

Reproductive Health

Measure Number	Measure Title	Measure Steward
0033	Chlamydia Screening in Women (CHL)	National Committee for Quality Assurance
2902*	Contraceptive Care - Postpartum	U.S. Office of Population Affairs
2903*	Contraceptive Care – Most & Moderately Effective Methods	U.S. Office of Population Affairs
2904*	Contraceptive Care - Access to LARC	U.S. Office of Population Affairs

Labor and Delivery

Measure Number	Measure Title	Measure Steward
0469	PC-01 Elective Delivery	The Joint Commission
0469:2829*	PC-01 Elective Delivery [eMeasure]	The Joint Commission
0470	Incidence of Episiotomy	National Perinatal Information Center
0471	PC-02 Cesarean Birth	The Joint Commission
0473	Appropriate DVT prophylaxis in women undergoing cesarean delivery	Hospital Corporation of America

Labor and Delivery: High-Risk Pregnancy

Measure Number	Measure Title	Measure Steward
0476	PC-03 Antenatal Steroids	The Joint Commission

Newborn

Measure Number	Measure Title	Measure Steward
0716	Unexpected Complications in Term Newborns	California Maternal Quality Care Collaborative
0475	Hepatitis B Vaccine Coverage Among All Live Newborn Infants Prior to Hospital or Birthing Facility Discharge	Centers for Disease Control and Prevention

Newborn: Premature/ Low Birthweight

Measure Number	Measure Title	Measure Steward
1382	Percentage of low birthweight births	Centers for Disease Control and Prevention
0483	Proportion of infants 22 to 29 weeks gestation screened for retinopathy of prematurity	Vermont Oxford Network
0304	Late sepsis or meningitis in Very Low Birth Weight (VLBW) neonates (risk-adjusted)	Vermont Oxford Network
1731	PC-04 Health Care-Associated Bloodstream Infections in Newborns	The Joint Commission
0478	Neonatal Blood Stream Infection Rate (NQI #3)	Agency for Healthcare Research and Quality

Postpartum

Measure Number	Measure Title	Measure Steward
0480	PC-05 Exclusive Breast Milk Feeding	The Joint Commission
0480:2830*	PC-05 Exclusive Breast Milk Feeding [eMeasure]	The Joint Commission

Appendix C: Perinatal and Reproductive Health Portfolio—Use in Federal Programs

NQF #	Title	Federal Programs: Finalized as of May 11, 2016
0033	Chlamydia Screening for Women	Children’s Health Insurance Program Reauthorization Act Quality Reporting; Initial Core Set of Health Care Quality Measures for Medicaid-Eligible Adults; Meaningful Use (EHR Incentive Program) - Eligible Professionals;#Physician Feedback; Physician Quality Reporting System (PQRS); Value-Based Payment Modifier Program
0469	PC-01 Elective Delivery	Hospital Inpatient Quality Reporting; Initial Core Set of Health Care Quality Measures for Medicaid-Eligible Adults; Meaningful Use (EHR Incentive Program) - Hospitals, CAHs
0471	PC-02 Cesarean Section	Children’s Health Insurance Program Reauthorization Act Quality Reporting
0476	PC-03 Antenatal Steroids	Initial Core Set of Health Care Quality Measures for Medicaid-Eligible Adults
0480	PC-05 Exclusive Breast Milk Feeding and the subset measure PC-05a Exclusive Breast Milk Feeding Considering Mother’s Choice	Hospital Inpatient Quality Reporting; Meaningful Use (EHR Incentive Program) - Hospitals, CAHs
0716	Healthy Term Newborn	Hospital Inpatient Quality Reporting; Meaningful Use (EHR Incentive Program) - Hospitals, CAHs
1382	Percentage of low birthweight births	Children’s Health Insurance Program Reauthorization Act Quality Reporting

Appendix D: Project Standing Committee and NQF Staff

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Appendix E: Measure Specifications

0033 Chlamydia Screening in Women (CHL)

STEWARD

National Committee for Quality Assurance

DESCRIPTION

The percentage of women 16–24 years of age who were identified as sexually active and who had at least one test for chlamydia during the measurement year.

TYPE

Process

DATA SOURCE

Claims (Only), Electronic Health Record (Only), Imaging-Diagnostic, Laboratory, Pharmacy This measure is based on administrative claims collected in the course of providing care to health plan members. NCQA collects the Healthcare Effectiveness Data and Information Set (HEDIS) data for this measure directly from Health Management Organizations and Preferred Provider Organizations via NCQA's online data submission system.

No data collection instrument provided Attachment 0033_CHL_Value_Sets.xlsx

LEVEL

Health Plan, Integrated Delivery System

SETTING

Clinician Office/Clinic

NUMERATOR STATEMENT

Females who were tested for chlamydia during the measurement year.

NUMERATOR DETAILS

Females who had at least one test for chlamydia (see attached: Chlamydia Tests Value Set) during the measurement year.

DENOMINATOR STATEMENT

Females 16-24 years who had a claim or encounter indicating sexual activity.

DENOMINATOR DETAILS

All female patients 16-24 years as of December 31 of the measurement year and who were identified as sexually active during the measurement year.

Sexually active: Two methods are used to identify sexually active women: pharmacy data (see CHL-A: Prescriptions to Identify Contraceptives) and claim/encounter data (see attached: Pregnancy Value Set, Sexual Activity Value Set, and Pregnancy Tests Value Set). Both methods

are used to identify the eligible population; however, a patient only needs to be identified in one method to be eligible for the measure.

Table CHL-A: Prescriptions to Identify Contraceptives

--Contraceptives: Desogestrel-ethinyl estradiol; Dienogest-estradiol multiphasic; Drospirenone-ethinyl estradiol; Drospirenone-ethinyl estradiol-levomefolate biphasic; Ethinyl estradiol-ethynodiol; Ethinyl estradiol-etonogestrel; Ethinyl estradiol-levonorgestrel; Ethinyl estradiol-norelgestromin; Ethinyl estradiol-norethindrone; Ethinyl estradiol-norgestimate; Ethinyl estradiol-norgestrel; Etonogestrel; Levonorgestrel; Medroxyprogesterone; Mestranol-norethindrone; Norethindrone

--Diaphragm

--Spermicide: Nonxynol 9

EXCLUSIONS

Females who received a pregnancy test to determine contraindications for medication (isotretinoin) or x-ray.

EXCLUSION DETAILS

Exclude members from the denominator who were identified as sexually active based on a pregnancy test alone (see attached: Pregnancy Tests Value Set) AND who meet either of the following:

- 1) A pregnancy test (see attached: Pregnancy Test Exclusion Value Set) during the measurement year AND a prescription for isotretinoin (see Table CHL-E: Medications to Identify Exclusions) on the date of the pregnancy test or the 6 days after the pregnancy test.
- 2) A pregnancy test (see attached: Pregnancy Test Exclusion Value Set) during the measurement year AND a x-ray (see attached: Diagnostic Radiology Value Set) on the date of the pregnancy test or the 6 days after the pregnancy test.

Table CHL-E: Medications to Identify Exclusions

Retinoid: Isotretinoin

RISK ADJUSTMENT

No risk adjustment or risk stratification

NA

STRATIFICATION

The measure includes two age stratifications and a total rate:

- 1) 16-20 years.
- 2) 21-24 years.
- 3) Total

TYPE SCORE

Rate/proportion better quality = higher score

ALGORITHM

Refer to items S.9 (Denominator details) and S.2b (Data Dictionary) for tables.

Step 1 Determine the eligible population. To do so, identify all female patients in the specified age range who had a claim/encounter indicating sexual activity (Pregnancy Value Set, Sexual Activity Value Set, Pregnancy Tests Value Set) and/or were dispensed prescription contraceptives (Table CHL-A) during the measurement year.

Step 2 Exclude patients who qualified for the eligible population based on a pregnancy test (Pregnancy Tests Value Set) alone AND who meet either of the following: (1) A pregnancy test (Pregnancy Test Exclusion Value Set) during the measurement year AND a prescription for isotretinoin (Table CHL-E) on the date of the pregnancy test or the 6 days after the pregnancy test, (2) A pregnancy test (Pregnancy Test Exclusion Value Set) during the measurement year AND an x-ray (Diagnostic Radiology Value Set) on the date of the pregnancy test or the 6 days after the pregnancy test.

Step 3 Determine the numerator. Determine the number of patients in the remaining eligible population who had at least one chlamydia test (Chlamydia Tests Value Set) during the measurement year.

Step 4 Report two age stratifications (16-20 years and 21-24 years), and a total rate. The total is the sum of the age stratifications. No diagram provided

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0304 Late sepsis or meningitis in Very Low Birth Weight (VLBW) neonates (risk-adjusted)

STEWARD

Vermont Oxford Network

DESCRIPTION

Standardized morbidity ratio and observed minus expected measure for nosocomial bacterial infection after day 3 of life in very low birth weight infants

TYPE

Outcome

DATA SOURCE

Registry Vermont Oxford Network Database
No data collection instrument provided Attachment 0304_ICD_Code_Tables.xlsx

LEVEL

Facility

SETTING

Hospital

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. Treatment 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.

NUMERATOR DETAILS

Infants whose birth weight is between 401 and 1500 grams or whose gestational age is between 22 weeks 0 days and 29 weeks 6 days are included if they have coagulase negative staphylococcus or one of the bacterial pathogens listed below after day 3 of life, provided they meet one of the following criteria:

1. They are born at the reporting hospital.

OR

2. They are admitted to any location in the reporting hospital within 28 days of birth, without first having gone home.

Bacterial Pathogens List:

1. Achromobacter species [including Achromobacter xylosoxidans (also known as Alcaligenes xylosoxidans) and others]
2. Acinetobacter species
3. Aeromonas species
4. Alcaligenes species [Alcaligenes xylosoxidans and others]
5. Bacteroides species
6. Burkholderia species [Burkholderia cepacia and others]
7. Campylobacter species [Campylobacter fetus, C. jejuni and others]
8. Chryseobacterium species
9. Citrobacter species [Citrobacter diversus, C. freundii, C. koseri and others]

10. Clostridium species
11. Enterobacter species [Enterobacter aerogenes, E. cloacae, and others]
12. Enterococcus species [Enterococcus faecalis (also known as Streptococcus faecalis), E. faecium, and other Enterococcus species]
13. Escherichia coli
14. Flavobacterium species
15. Haemophilus species [Haemophilus influenzae and others]
16. Klebsiella species [Klebsiella oxytoca, K. pneumoniae and others]
17. Listeria monocytogenes
18. Moraxella species [Moraxella catarrhalis (also known as Branhamella catarrhalis) and others]
19. Neisseria species [Neisseria meningitidis, N. gonorrhoeae and others]
20. Pasteurella species
21. Prevotella species
22. Proteus species [Proteus mirabilis, P. vulgaris and others]
23. Providencia species [Providencia rettgeri, and others]
24. Pseudomonas species [Pseudomonas aeruginosa and others]
25. Ralstonia species
26. Salmonella species
27. Serratia species [Serratia liquefaciens, S. marcescens and others]
28. Staphylococcus coagulase positive [aureus]
29. Stenotrophomonas maltophilia
30. Streptococcus species [including Streptococcus Group A, Streptococcus Group B, Streptococcus Group D, Streptococcus pneumoniae, Strep milleri and others]

DENOMINATOR STATEMENT

Eligible infants who are in the reporting hospital after day 3 of life.

DENOMINATOR DETAILS

Infants whose birth weights are between 401 and 1500 grams or whose gestational ages are between 22 weeks 0 days and 29 weeks 6 days are included if they are in the reporting hospital after day 3 of life, provided they meet one of the following criteria:

1. They are born at the reporting hospital.

OR

2. They are admitted to any location in the reporting hospital within 28 days of birth, without first having gone home.

EXCLUSIONS

Infants 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.

EXCLUSION DETAILS

1. Any infant who meets neither of the following conditions is excluded:
 - Birth weight between 401 and 1500 grams
 - Gestational age between 22 and 29 weeks.
2. Outborn infants who are admitted to the reporting hospital more than 28 days after birth are excluded.
3. Outborn infants who have been home prior to admission to the reporting hospital are excluded.
4. Infants discharged home on or before day 3 of life are excluded.
5. Infants who die on or before day 3 of life are excluded.
6. Infants who transfer to another hospital on or before day 3 of life and who are not readmitted to the reporting hospital.
7. Infants who transfer more than once prior to day 3 of life.

RISK ADJUSTMENT

Statistical risk model

Logistic regression with shrinkage estimate - see S. 15a

Provided in response box S.15a

STRATIFICATION

N/A

TYPE SCORE

Other Standardized morbidity ratio and observed minus expected values with confidence bounds better quality = lower score

ALGORITHM

1. Determine the number of infants for a reporting period who meet the population criteria described above. This number is termed N.
2. Using the definitions in the Network Manual of Operations, determine the number of infants who had nosocomial bacterial infection after day 3 of life and prior to discharge home for each of the N infants. This is the number of eligible infants who were diagnosed as having either coagulase negative staphylococcus and/or a late bacterial pathogen after day 3 of life. The number identified as having nosocomial bacterial infection is termed the “observed number with infection” or O for short.
3. For each of the N infants, calculate the expected value of infection by multiplying the coefficient times its covariate value for each covariate (coefficients provided on request). The covariates include:
 - Gestational Age in completed weeks (GA)
 - GA squared
 - Small for Gestational Age (data table provided on request)
 - Major birth defect (0=No, 1=Yes)
 - APGAR score at 1 minute (0 to 10)

Birth location (0=Inborn, 1=Outborn)

Multiple gestation (0=No, 1=Yes)

Infant gender (0=Female, 1=Male)

Mode of delivery (0=C-Section, 1=Vaginal)

4. Add the expected values for each of the N infants to calculate the number of expected cases of nosocomial bacterial infection. This number is termed the “expected number with infection” or E for short.

5. Calculate the standardized morbidity ratio (SMRshrnk) for nosocomial bacterial infection using the values for O and E and applying the estimate for systematic variation (v_2), determined from Vermont Oxford Network analyses (provided on request).

$$\text{SMRshrnk} = (O + v_2) / (E + v_2)$$

with standard error $\text{SESMRshrnk} = \sqrt{1/(E + (1/v_2))}$;

6. Calculate the shrunken, adjusted nosocomial bacterial infection rate (Rateshrnk) and its 95% confidence interval.

$$\text{Rateshrnk} = (\text{SMRshrnk} \times E) / N$$

with standard error (SERateshrnk) equal to $\text{SESMRshrnk} \times E / N$.

and 95% confidence interval for Rateshrnk equal to

$$\text{Rateshrnk} \pm 1.96 \times \text{SERateshrnk}.$$

7. Calculate the number of observed minus expected cases of nosocomial bacterial infection, adjusting for case mix and systematic variation ($O - \text{Eshrnk}$), and calculate the 95% control limits for $O - \text{Eshrnk}$.

$$O - \text{Eshrnk} = E / \text{SMRshrnk}$$

with 95% control limits equal to $O - \text{Eshrnk} \pm 1.96 \times \text{SESMRshrnk} \times E$. URL

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0469 PC-01 Elective Delivery

STEWARD

The Joint Commission

DESCRIPTION

This measure assesses patients with elective vaginal deliveries or elective cesarean births at ≥ 37 and < 39 weeks of gestation completed. This measure is a part of a set of five nationally implemented measures that address perinatal care (PC-02: Cesarean Birth, PC-03: Antenatal Steroids, PC-04: Health Care-Associated Bloodstream Infections in Newborns, PC-05: Exclusive Breast Milk Feeding)

TYPE

Process

DATA SOURCE

Electronic Health Record (Only), Paper Records Each data element in the data dictionary includes suggested data sources. The data are collected using contracted Performance Measurement Systems (vendors) that develop data collection tools based on the measure specifications. The tools are verified and tested by Joint Commission staff to confirm the accuracy and conformance of the data collection tool with the measure specifications. The vendor may not offer the measure set to hospitals until verification has been passed.

No data collection instrument provided Attachment PC01_ICD_Code_Tables.xlsx

LEVEL

Facility, Other

SETTING

Hospital

NUMERATOR STATEMENT

Patients with elective deliveries with ICD-10-PCS Principal Procedure Code or ICD-10-PCS Other Procedure Codes for one or more of the following:

- Medical induction of labor as defined in Appendix A, Table 11.05 available at: <http://manual.jointcommission.org/releases/TJC2016A/> while not in Labor prior to the procedure
- Cesarean birth as defined in Appendix A, Table 11.06 and all of the following:
 - o not in Labor
 - o no history of a Prior Uterine Surgery available at: <http://manual.jointcommission.org/releases/TJC2016A/>

NUMERATOR DETAILS

Four data elements are used to calculate the numerator:

1. ICD-10-PCS Other Procedure Codes - The International Classification of Diseases, Tenth Revision, Procedure Coding System code that identifies significant procedures performed other than the principal procedure during this hospitalization.
2. ICD-10-PCS Principal Procedure Code - The International Classification of Diseases, Tenth Revision, Procedure Coding System code that identifies the principal procedure performed during this hospitalization. The principal procedure is the procedure performed for definitive treatment rather than diagnostic or exploratory purposes, or which is necessary to take care of a complication.
3. Labor- Documentation that the patient was in labor prior to induction and/or cesarean birth. Allowable values: Yes or No/UTD.
4. Prior Uterine Surgery- Documentation that the patient had undergone prior uterine surgery which includes: a prior classical cesarean birth defined as a vertical incision into the upper uterine segment, a prior myomectomy, a prior uterine surgery resulting in a perforation of the uterus due to an accidental injury, a history of a uterine window or thinning of the uterine wall noted during prior uterine surgery or during ultrasound, a history of uterine rupture requiring surgical repair, a history of a cornual ectopic pregnancy or history of a transabdominal cerclage. Allowable Values: Yes or No/UTD

Patients are eligible for the numerator population with ICD-10-PCS Other Procedure Codes or ICD-10-PCS Principal Procedure Code for medical induction or with ICD-10-PCS Other Procedure Codes or ICD-10-PCS Principal Procedure Code for cesarean birth when the allowable value equals “no” for the data elements Labor and Prior Uterine Surgery.

Updates available at: <http://manual.jointcommission.org/releases/TJC2016A/>

DENOMINATOR STATEMENT

Patients delivering newborns with ≥ 37 and < 39 weeks of gestation completed with ICD-10-PCS Principal or Other Procedure Codes for delivery as defined in Appendix A, Table 11.01.1 available at: <http://manual.jointcommission.org/releases/TJC2016A/> and with ICD-10-CM Principal Diagnosis Code or ICD-10-CM Other Diagnosis Codes for planned cesarean birth in labor as defined in Appendix A, Table 11.06.1 available at: <http://manual.jointcommission.org/releases/TJC2016A/>

DENOMINATOR DETAILS

Six data elements are used to calculate the denominator:

1. Admission Date – The month, day and year of admission to acute inpatient care.
2. Birthdate - The month, day and year the patient was born.
3. Discharge Date – The month day and year the patient was discharged from acute care, left against medical advice or expired during the stay.
4. Gestational Age – Documentation of the weeks of gestation completed at the time of delivery. Allowable Values: 1-50 or UTD.
5. ICD-10-CM Other Diagnosis Codes - The International Classification of Diseases, Tenth Revision, Clinical Modification codes associated with the secondary diagnoses for this hospitalization.
6. ICD-10-CM Principal Diagnosis Code - The International Classification of Diseases, Tenth Revision, Clinical Modification code associated with the diagnosis established after study to be chiefly responsible for occasioning the admission of the patient for this hospitalization.

Updates available at: <http://manual.jointcommission.org/releases/TJC2016A/>

EXCLUSIONS

- ICD-10-CM Principal Diagnosis Code or ICD-10-CM Other Diagnosis Codes for conditions possibly justifying elective delivery prior to 39 weeks gestation as defined in Appendix A, Table 11.07
- Less than 8 years of age
- Greater than or equal to 65 years of age
- Length of Stay >120 days
- Gestational Age < 37 or ≥ 39 weeks or UTD

EXCLUSION DETAILS

- Patients with ICD-10-CM Principal Diagnosis Code or Other Diagnosis Codes for conditions for possibly justifying elective delivery are excluded.
- The patient age in years is equal to the Admission Date minus the Birthdate. Patients less than 8 years of age or greater or equal to 65 years of age are excluded.

- Length of stay (LOS) in days is equal to the Discharge Date minus the Admission Date. If the LOS is greater than 120 days, the patient is excluded.
- Patients with a Gestational Age less than 37 weeks or equal to or greater than 39 weeks or UTD are excluded from the measure.

RISK ADJUSTMENT

No risk adjustment or risk stratification
Not Applicable

STRATIFICATION

Not Applicable

TYPE SCORE

Rate/proportion better quality = lower score

ALGORITHM

1. Start processing. Run cases that are included in the PC-Mother Initial Patient Population and pass the edits defined in the Transmission Data Processing Flow: Clinical through this measure.
2. Check ICD-10-CM Principal or Other Diagnosis Codes
 - a. If at least one of the ICD-10-CM Principal or Other Diagnosis Codes is on Table 11.07, the case will proceed to a Measure Category Assignment of B and will not be in the Measure Population. Stop processing.
 - b. If none of the ICD-10-CM Principal or Other Diagnosis Code is on Table 11.07, continue processing and proceed to Gestational Age.
3. Check Gestational Age
 - a. If Gestational Age is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop Processing.
 - b. If Gestational Age is less than 37 or greater than or equal to 39 or equal to a Not Unable to Determine Value, the case will proceed to a Measure Category Assignment of B and will not be in the measure population. Stop Processing.
 - c. If Gestational Age is greater than or equal to 37 and less than 39, continue processing and proceed to recheck ICD-10-CM Principal Procedure or Other Diagnosis Codes.
4. Recheck ICD-10-CM Principal or Other Diagnosis Codes
 - a. If at least one of the ICD-10-CM Principal or Other Diagnosis Code is on Table 11.06.1, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop processing.
 - b. If none of the ICD-10-CM Principal or Other Diagnosis Code is on Table 11.06.1, continue processing and proceed to ICD-10-CM Principal or Other Procedure Codes.
5. Check ICD-10-PCS Principal or Other Procedure Codes
 - a. If all of the ICD-10-PCS Principal or Other Procedure Codes are missing, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop Processing.
 - b. If at least one of the ICD-10-PCS Principal or Other Procedure Codes is on Table 11.05, continue processing and proceed to Labor

- i. If Labor is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop Processing.
- ii. If Labor equals No, the case will proceed to a Measure Category Assignment of E and will be in the Numerator Population. Stop Processing.
- c. If none of the ICD-9-CM Principal Procedure Codes is on Table 11.05, continue processing and proceed to recheck ICD-10-PCS Principal or Other Procedure Codes.
- 6. Recheck ICD-10-PCS Principal or Other Procedure Codes
 - a. If none of the ICD-10-PCS Principal or Other Procedure Code is on Table 11.06, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop Processing.
 - b. If at least one of the ICD-10-PCS Principal or Other Procedure Code is on Table 11.06, continue processing and proceed to Labor.
- 7. Check Labor
 - a. If Labor is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop Processing.
 - b. If Labor equals Yes, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop processing.
 - c. If Labor equals No, continue processing and proceed to Spontaneous Rupture of Membranes.
- 8. Check Prior Uterine Surgery
 - a. If Prior Uterine Surgery is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop Processing.
 - b. If Prior Uterine Surgery equals Yes, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop processing.
 - c. If Prior Uterine Surgery equals No, the case will proceed to a Measure Category Assignment of E and will be in the Numerator Population. Stop Processing. Available at measure-specific web page URL identified in S.1

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0470 Incidence of Episiotomy

STEWARD

Christianity Care Health System

DESCRIPTION

Percentage of vaginal deliveries (excluding those coded with shoulder dystocia) during which an episiotomy is performed.

TYPE

Process

DATA SOURCE

Claims (Only), Paper Records UB04 claims data.

No data collection instrument provided Attachment ICD-10_Codes_NQF_Episiotomy_FINAL_NQF_Submission.xlsx

LEVEL

Facility

SETTING

Hospital

NUMERATOR STATEMENT

Number of episiotomy procedures (ICD-9 code 72.1, 72.21, 72.31, 72.71, 73.6; ICD-10 PCS:0W8NXZZ performed on women undergoing a vaginal delivery (excluding those with shoulder dystocia ICD-10; O66.0) during the analytic period- monthly,quarterly, yearly etc.

NUMERATOR DETAILS

Any vaginal delivery with one of the ICD-9 codes for episiotomy- 72.1, 72.21, 72.31, 72.71, 73.6 (ICD-10 PCS:0W8NXZZ)

DENOMINATOR STATEMENT

All vaginal deliveries during the analytic period- monthly, quarterly, yearly etc. excluding those coded with a shoulder dystocia ICD-1: O66.0).

DENOMINATOR DETAILS

Any woman with a vaginal delivery calculated by either MS DRG 774,775,767,768

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.

EXCLUSION DETAILS

Vaginal deliveries coded with shoulder dystocia, ICD-9 code 660.41, 660.42(ICD-10 CM : O66.0)

RISK ADJUSTMENT

No risk adjustment or risk stratification

NA

URL

STRATIFICATION

NA

TYPE SCORE

Rate/proportion better quality = lower score

ALGORITHM

- A. Identify all vaginal deliveries for time period in question
- B. Exclude those coded with shoulder dystocia to obtain denominator cases
- C. Of the denominator cases, identify those coded with an episiotomy
- D Divide numerator by denominator and calculate the rate or convert a percent No diagram provided

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NA

0471 PC-02 Cesarean Birth

STEWARD

The Joint Commission

DESCRIPTION

This measure assesses the number of nulliparous women with a term, singleton baby in a vertex position delivered by cesarean birth. This measure is part of a set of five nationally implemented measures that address perinatal care (PC-01: Elective Delivery, PC-03: Antenatal Steroids, PC-04: Health Care-Associated Bloodstream Infections in Newborns, PC-05: Exclusive Breast Milk Feeding).

TYPE

Outcome

DATA SOURCE

Paper Records Each data element in the data dictionary includes suggested data sources. The data are collected using contracted Performance Measurement Systems (vendors) that develop data collection tools based on the measure specifications. The tools are verified and tested by Joint Commission staff to confirm the accuracy and conformance of the data collection tool with the measure specifications. The vendor may not offer the measure set to hospitals until verification has been passed.

No data collection instrument provided Attachment
PC02_ICD_Template_Nulliparous_Births.xlsx

LEVEL

Facility, Other

SETTING

Hospital

NUMERATOR STATEMENT

The outcome being measured is: Patients with cesarean births with ICD-10-PCS Principal Procedure Code or ICD-10-PCS Other Procedure Codes for cesarean birth as defined in Appendix A, Table 11.06 available at:

<http://manual.jointcommission.org/releases/TJC2016A/>

NUMERATOR DETAILS

Two data elements are used for the observed outcome and to calculate the numerator:

1. ICD-10-PCS Other Procedure Codes - The International Classification of Diseases, Tenth Revision, Procedure Coding System code that identifies significant procedures performed other than the principal procedure during this hospitalization.
2. ICD-10-PCS Principal Procedure Code - The International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) code that identifies the principal procedure performed during this hospitalization. The principal procedure is the procedure performed for definitive treatment rather than diagnostic or exploratory purposes, or which is necessary to take care of a complication.

DENOMINATOR STATEMENT

The outcome target population being measured is: Nulliparous patients delivered of a live term singleton newborn in vertex presentation ICD-10-PCS Principal or Other Diagnosis Codes for delivery as defined in Appendix A, Tables 11.01.1 available at:

<http://manual.jointcommission.org/releases/TJC2016A/>

DENOMINATOR DETAILS

Seven data elements are used to identify the outcome target population and to calculate the denominator:

1. Admission Date – The month, day and year of admission to acute inpatient care.
2. Birthdate - The month, day and year the patient was born.
3. Discharge Date – The month day and year the patient was discharged from acute care, left against medical advice or expired during the stay.
4. Gestational Age – Documentation of the weeks of gestation completed at the time of delivery. Allowable Values: 1-50 or UTD.
5. ICD-10-CM Other Diagnosis Codes - The International Classification of Diseases, Tenth Revision, Clinical Modification codes associated with the secondary diagnoses for this hospitalization.
6. ICD-9-CM Principal Diagnosis Code - The International Classification of Diseases, Tenth Revision, Clinical Modification code associated with the diagnosis established after study to be chiefly responsible for occasioning the admission of the patient for this hospitalization.
7. Number of Previous Live Births - The number of live deliveries the patient experienced prior to current hospitalization. Allowable Values: 0-50 or UTD.

Updates available at: <http://manual.jointcommission.org/releases/TJC2016A/>

EXCLUSIONS

- ICD-10-CM Principal Diagnosis Code or ICD-10-CM Other Diagnosis Codes for multiple gestations and other presentations as defined in Appendix A, Table 11.09
- Less than 8 years of age
- Greater than or equal to 65 years of age
- Length of Stay >120 days
- Gestational Age < 37 weeks or UTD

EXCLUSION DETAILS

- Patients with ICD-10-CM Principal Diagnosis Code or Other Diagnosis Codes for multiple gestations and other presentations are excluded.
- The patient age in years is equal to the Admission Date minus the Birthdate. Patients less than 8 years of age or greater or equal to 65 years of age are excluded.
- Length of stay (LOS) in days is equal to the Discharge Date minus the Admission Date. If the LOS is greater than 120 days, the patient is excluded.
- Patients with a Gestational Age less than 37 weeks or UTD are excluded from the measure.

RISK ADJUSTMENT

No risk adjustment or risk stratification
Not Applicable

STRATIFICATION

Not Applicable

TYPE SCORE

Rate/proportion better quality = lower score

ALGORITHM

1. Start processing. Run cases that are included in the PC-Mother Initial Patient Population and pass the edits defined in the Transmission Data Processing Flow: Clinical through this measure.
2. Check ICD-10-CM Principal or Other Diagnosis Codes
 - a. If at least one of the ICD-10-CM Principal or Other Diagnosis Code is on Table 11.09, the case will proceed to a Measure Category Assignment of B and will not be in the measure population. Stop processing.
 - b. If none of the ICD-10-CM Principal or Other Diagnosis Code is on Table 11.09, continue processing and proceed to recheck ICD-10-CM Principal or Other Diagnosis Codes.
3. Recheck ICD-10-CM Principal or Other Diagnosis Codes
 - a. If none of the ICD-10-CM Principal or Other Diagnosis Codes is on Table 11.08, the case will proceed to a Measure Category Assignment of B and will not be in the measure population. Stop processing.
 - b. If at least one of the ICD-10-CM Principal or Other Diagnosis Codes is on Table 11.08, continue processing and proceed to Gestational Age.
4. Check Gestational Age

- a. If Gestational Age is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
- b. If Gestational Age is less than 37 or equal to a Not Unable to Determine Value, the case will proceed to a Measure Category Assignment of B and will not be in the measure population. Stop processing.
- c. If Gestational Age is greater than or equal to 37, continue processing and proceed to Parity.
- 5. Check Number of Previous Live Births
 - a. If Number of Previous Live Births is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
 - b. If Number of Previous Live Births is greater than 0, the case will proceed to a Measure Category Assignment of B for and will not be in the measure population. Stop processing.
 - c. If Number of Previous Live Births equals a Non Unable to Determine Value, the case will proceed to a Measure Category Assignment of E and will be in the Numerator Population. Stop processing.
 - d. If Parity equals 0, continue processing and proceed to check ICD-10-PCS Principal or Other Procedure Codes.
- 6. Check ICD-10-PCS Principal or Other Procedure Codes
 - a. If all of the ICD-10-PCS Principal or Other Procedure Codes are missing or none of the ICD-10-PCS Principal or Other Procedure Codes is on Table 11.06, the case will proceed to a Measure Category Assignment of D and will be in the measure population. Stop processing.
 - b. If at least one of the ICD-10-PCS Principal or Other Procedure Code is on Table 11.06, the case will proceed to a Measure Category Assignment of E and will be in the Numerator Population. Stop processing. Available at measure-specific web page URL identified in S.1

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

STEWARDS

Centers for Disease Control and Prevention

DESCRIPTION

Percent of live newborn infants that receive Hepatitis B vaccination before discharge (or within 1 month of life, if the infant had an extended hospital stay) at each single hospital/birthing facility during given time period (one year).

TYPE

Process

DATA SOURCE

Electronic Health Record (Only), Other, Paper Records, Pharmacy, Registry N/A
No data collection instrument provided Attachment ICD9_10Codes.docx

LEVEL

Facility

SETTING

Hospital

NUMERATOR STATEMENT

The number of live newborn infants administered Hepatitis B vaccine prior to discharge (or within 1 month of life, if the infant had an extended hospital stay) from the hospital/birthing facility ("birth dose" of Hepatitis B vaccine).

NUMERATOR DETAILS

Per hospital/birthing facility, the number of live newborn infants, during a calendar year, who received a dose of Hepatitis B vaccine prior to hospital/birthing facility discharge (or within 1 month of life, if the infant had an extended hospital stay). Acceptable data sources include: pharmacy records, vaccine consent forms, medication administration records, claims data, nurses notes, electronic medical records, or other available records.

a. Suggested ICD-9 code V05.3 converts to ICD-10 code z23 (type of immunization given will be identified by the procedure code—effective October 1, 2013. Procedure code for viral hepatitis unknown. Suggest the use of ICD-10 code z23.9955 described as "prophylactic administration of vaccine against other diseases" or ICD-10 code z23.9959 described as "other vaccination or inoculation"): <http://www.icd10data.com/ICD10CM/Codes/Z00-Z99/Z20-Z28/Z23-/Z23>

b. CPT administration codes: 90744 (Hepatitis B vaccine) and 90471 (immunization administration code)

DENOMINATOR STATEMENT

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

DENOMINATOR DETAILS

a. The number of live births at the hospital/birthing facility during one calendar year can be determined from a variety of sources, including the paper or electronic patient records, nursery birth records, or other available records. ICD-10 codes can be used. Stillborn deliveries are not included in the definition of the measure.

i. ICD-10 codes to be used (link: <http://www.icd10data.com/ICD10CM/Codes/Z00-Z99/Z30-Z39/Z37-/#Z37> and <http://www.icd10data.com/ICD10CM/Codes/Z00-Z99/Z30-Z39/Z38-/#Z38>):

1. Z37.0 Single live birth
2. Z37.2 Twins, both live born
3. Z37.3 Twins, one live born and one stillborn

4. Z37.50 Multiple births, unspecified, all live born
5. Z37.51 Triplets, all live born
6. Z37.52 Quadruplets, all live born
7. Z37.53 Quintuplets, all live born
8. Z37.54 Sextuplets, all live born
9. Z37.59 Other multiple births, all live born
10. Z37.60 Multiple births, unspecified, some live born
11. Z37.61 Triplets, some live born
12. Z37.62 Quadruplets, some live born
13. Z37.63 Quintuplets, some live born
14. Z37.64 Sextuplets, some live born
15. Z37.69 Other multiple births, some live born
16. Z38.00 Single live born infant, delivered vaginally
17. Z38.01 Single live born infant, delivered by cesarean
18. Z38.1 Single live born infant, born outside hospital
19. Z38.2 Single live born infant, unspecified as to place of birth
20. Z38.30 Twin live born infant, delivered vaginally
21. Z38.31 Twin live born infant, delivered by cesarean
22. Z38.4 Twin live born infant, born outside hospital
23. Z38.5 Twin live born infant, unspecified as to place of birth
24. Z38.61 Triplet live born infant, delivered vaginally
25. Z38.62 Triplet live born infant, delivered by cesarean
26. Z38.63 Quadruplet live born infant, delivered vaginally
27. Z38.64 Quadruplet live born infant, delivered by cesarean
28. Z38.65 Quintuplet live born infant, delivered vaginally
29. Z38.66 Quintuplet live born infant, delivered by cesarean
30. Z38.68 Other multiple live born infant, delivered vaginally
31. Z38.69 Other multiple live born infant, delivered by cesarean
32. Z38.7 Other multiple live born infant, born outside hospital
33. Z38.8 Other multiple live born infant, unspecified as to place of birth

The results of this measure will identify that the coverage excludes infants whose parent/guardian refused Hepatitis B vaccine for their infant before hospital or facility discharge (or by 1 month of age if during a prolonged stay).

EXCLUSIONS

None.

EXCLUSION DETAILS

N/A

RISK ADJUSTMENT

No risk adjustment or risk stratification

N/A

STRATIFICATION

N/A

TYPE SCORE

Rate/proportion better quality = higher score

ALGORITHM

- a. Determine the number of live newborn infants at each hospital/birthing facility during one calendar year
- b. Determine the number of live newborn infants born at the same hospital/birthing facility during the same calendar year who received a dose of Hepatitis B vaccine before hospital discharge (or by 1 month of age if during a prolonged stay)
- c. Divide the number of live newborn infants born at the same hospital/birthing facility during the same time period who received a dose of Hepatitis B vaccine before hospital discharge (or by 1 month of age if during a prolonged stay)(b), by the number of live newborns at the same hospital/birthing facility during the same time period(a). No diagram provided

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0476 PC-03 Antenatal Steroids

STEWARD

The Joint Commission

DESCRIPTION

This measure assesses patients at risk of preterm delivery at ≥ 24 and < 34 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 Birth, PC-04: Health Care-Associated Bloodstream Infections in Newborns, PC-05: Exclusive Breast Milk Feeding).

TYPE

Process

DATA SOURCE

Paper Records Each data element in the data dictionary includes suggested data sources. The data are collected using contracted Performance Measurement Systems (vendors) that develop

data collection tools based on the measure specifications. The tools are verified and tested by Joint Commission staff to confirm the accuracy and conformance of the data collection tool with the measure specifications. The vendor may not offer the measure set to hospitals until verification has been passed.

No data collection instrument provided Attachment PC03_ICD_Code_Tables.xlsx

LEVEL

Facility, Other

SETTING

Hospital

NUMERATOR STATEMENT

Patients with antenatal steroids initiated prior to delivering preterm newborns (refer to Appendix C, Table 11.0, antenatal steroid medications available at: <http://manual.jointcommission.org/releases/TJC2016A/>)

NUMERATOR DETAILS

One data element is used to calculate the numerator:

1. Antenatal Steroids Initiated- Documentation that antenatal steroids were initiated before delivery. Initial antenatal steroid therapy is 12mg betamethasone IM or 6mg dexamethasone IM. Allowable values: Yes or No/UTD. Cases are eligible for the numerator population when allowable value = Yes is selected.

Updates available at: <http://manual.jointcommission.org/releases/TJC2016A/>

DENOMINATOR STATEMENT

Patients delivering live preterm newborns with ≥ 24 and < 34 weeks gestation completed with ICD-10-PCS Principal or Other Procedure Codes for delivery as defined in Appendix A, Table 11.01.1 available at: <http://manual.jointcommission.org/releases/TJC2016A/>

DENOMINATOR DETAILS

Seven data elements are used to calculate the denominator:

1. Admission Date – The month, day and year of admission to acute inpatient care.
2. Birthdate - The month, day and year the patient was born.
3. Discharge Date – The month day and year the patient was discharged from acute care, left against medical advice or expired during the stay.
4. Gestational Age – Documentation of the weeks of gestation completed at the time of delivery. Allowable Values: 1-50 or UTD.
5. ICD-10-CM Other Diagnosis Codes - The International Classification of Diseases, Tenth Revision, Clinical Modification codes associated with the secondary diagnoses for this hospitalization.
6. ICD-10-CM Principal Diagnosis Code - The International Classification of Diseases, Tenth Revision, Clinical Modification code associated with the diagnosis established after study to be chiefly responsible for occasioning the admission of the patient for this hospitalization.

7. Reason for Not Initiating Antenatal Steroids - Reasons for not initiating antenatal steroids before delivery are clearly documented in the medical record. Reasons for not initiating antenatal steroids may include fetal distress, imminent delivery or other reasons documented by physician/APN/PA/CNM. Allowable Values: Yes or No/UTD

Updates available at: <http://manual.jointcommission.org/releases/TJC2016A/>

EXCLUSIONS

- Less than 8 years of age
- Greater than or equal to 65 years of age
- Length of Stay >120 days
- Documented Reason for Not Initiating Antenatal Steroids
- ICD-10-CM Principal Diagnosis Code or ICD-10-CM Other Diagnosis Codes for fetal demise as defined in Appendix A, Table 11.09.1 available at: <http://manual.jointcommission.org>
- Gestational Age < 24 or ≥ 34 weeks or UTD

EXCLUSION DETAILS

- The patient age in years is equal to the Admission Date minus the Birthdate. Patients less than 8 years of age or greater or equal to 65 years of age are excluded.
- Length of stay (LOS) in days is equal to the Discharge Date minus the Admission Date. If the LOS is greater than 120 days, the patient is excluded.
- The data element Reason for Not Initiating Antenatal Steroids is used to determine if the patient had a documented reason for not receiving antenatal steroids.
- Patients with ICD-10-CM Principal Diagnosis Code or ICD-10-CM Other Diagnosis Codes for fetal demise are excluded.
- Patients with a Gestational Age less than 24 weeks or equal to or greater than 34 weeks or UTD are excluded from the measure.

RISK ADJUSTMENT

No risk adjustment or risk stratification

Not Applicable

STRATIFICATION

Not applicable, the measure is not stratified.

TYPE SCORE

Rate/proportion better quality = higher score

ALGORITHM

1. Start processing. Run cases that are included in the PC-Mother Initial Patient Population and pass the edits defined in the Transmission Data Processing Flow: Clinical through this measure.
2. Check ICD-10-CM Principal or Other Diagnosis Codes
 - a. If at least one of the ICD-10-CM Principal or Other Diagnosis Codes is on Table 11.09.1, the case will proceed to a Measure Category Assignment of B and will not be in the measure population. Stop processing.

- b. If none of the ICD-10-CM Principal or Other Diagnosis Codes is on Table 11.09.1, continue processing and proceed to Gestational Age.
- 3. Check Gestational Age
 - a. If Gestational Age is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
 - b. If Gestational Age is less than 24 or greater than or equal to 34 or equal to a Not Unable to Determine Value, the case will proceed to a Measure Category Assignment of B and will not be in the measure population. Stop processing.
 - c. If Gestational Age is greater than or equal to 24 and less than 34, continue processing and proceed to Antenatal Steroids Initiated.
- 4. Check Antenatal Steroids Initiated
 - a. If Antenatal Steroids Initiated is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
 - b. If Antenatal Steroids Initiated equals Yes, the case will proceed to a Measure Category Assignment of E and will be in the Numerator Population. Stop processing.
 - c. If Antenatal Steroids Initiated equals No, continue processing and proceed to Reason for Not Initiating Antenatal Steroids.
- 5. Check Reason for Not Initiating Antenatal Steroids
 - a. If Reason for Not Initiating Antenatal Steroids is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
 - b. If Reason for Initiating Antenatal Steroids equals Yes, the case will proceed to a Measure Category Assignment of B and will not be in the measure population. Stop processing.
 - c. If Reason for Not Initiating Antenatal Steroids equals No, the case will proceed to a Measure Category Assignment of D and will be in the measure population. Stop processing. Available at measure-specific web page URL identified in S.1

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0478 Neonatal Blood Stream Infection Rate (NQI 03)

STEWARD

Agency for Healthcare Research and Quality

DESCRIPTION

Discharges with healthcare-associated blood stream infection per 1,000 discharges for newborns and outborns with birth weight of 500 grams or more but less than 1,500 grams; with

gestational age between 24 and 30 weeks; or with birth weight of 1,500 grams or more and death, an operating room procedure, mechanical ventilation, or transferring from another hospital within two days of birth. Excludes discharges with a length of stay less than 3 days and discharges with a principal diagnosis of sepsis, sepsis or bacteremia, or newborn bacteremia.

TYPE

Outcome

DATA SOURCE

Claims (Only) While the measure is tested and specified using data from the Healthcare Cost and Utilization Project (HCUP) (see section 1.1 and 1.2 of the measure testing form), the measure specifications and software are specified to be used with any ICD-9-CM- or ICD-10-CM/PCS coded administrative billing/claims/discharge dataset.

Available at measure-specific web page URL identified in S.1 Attachment
NQI03_Tech_Specs_v6.1alpha_160211xlsx.xlsx

LEVEL

Facility

SETTING

Hospital

NUMERATOR STATEMENT

Discharges, among cases meeting the inclusion and exclusion rules for the denominator, with either:

- any secondary ICD-9-CM or ICD-10 CM diagnosis codes for other septicemia; or
- any secondary ICD-9-CM or ICD-10 CM diagnosis codes for newborn septicemia or bacteremia and
- any secondary ICD-9-CM or ICD-10 CM diagnosis codes for staphylococcal or Gram-negative bacterial infection

NUMERATOR DETAILS

Please see attached excel file in S.2b. for version 6.1 alpha specifications.

DENOMINATOR STATEMENT

All newborns and outborns with either:

- a birth weight of 500 to 1,499 grams (Birth Weight Categories 2, 3, 4 and 5); or
- any-listed ICD-9-CM or ICD-10 CM diagnosis codes for gestational age between 24 and 30 weeks; or
- a birth weight greater than or equal to 1,500 grams (Birth Weight Category 6, 7, 8, or 9) and death (DISP=20); or
- a birth weight greater than or equal to 1,500 grams (Birth Weight Category 6, 7, 8, or 9) and any-listed ICD-9-CM or ICD-10 PCS procedure codes for operating room procedure; or
- a birth weight greater than or equal to 1,500 grams (Birth Weight Category 6, 7, 8, or 9) and any-listed ICD-9-CM or ICD-10 PCS procedure codes for mechanical ventilation; or

- a birth weight greater than or equal to 1,500 grams (Birth Weight Category 6, 7, 8, or 9) and transferring from another health care facility within two days of birth

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

DENOMINATOR DETAILS

Please see attached excel file in S.2b. for version 6.1 alpha specifications.

EXCLUSIONS

Exclude cases:

- with a principal ICD-9-CM or ICD-10-CM diagnosis code (or secondary diagnosis present on admission†) for sepsis
- with a principal ICD-9-CM or ICD-10-CM diagnosis code (or secondary diagnosis present on admission†) for sepsis or bacteremia
- with a principal ICD-9-CM or ICD-10-CM diagnosis code (or secondary diagnosis present on admission†) for staphylococcal or Gram-negative bacterial infection
- with birth weight less than 500 grams (Birth Weight Category 1)
- with length of stay less than 3 days
- with missing 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.

EXCLUSION DETAILS

Please see attached excel file in S.2b. for version 6.1 alpha specifications.

RISK ADJUSTMENT

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 (in 500g groups), modified CMS DRG, congenital anomalies, transfer in status and Major Diagnosis

Available in attached Excel or csv file at S.2b

STRATIFICATION

Not applicable

TYPE SCORE

Rate/proportion better quality = lower score

ALGORITHM

The observed rate is the number of discharge records where the patient experienced the QI adverse event divided by the number of discharge records at risk for the event. The expected rate is a comparative rate that incorporates information about a reference population that is not part of the user's input dataset – what rate would be observed if the expected level of care

observed in the reference population and estimated with risk adjustment regression models, were applied to the mix of patients with demographic and comorbidity distributions observed in the user's dataset? The expected rate is calculated only for risk-adjusted indicators.

The expected rate is estimated for each person using a generalized estimating equations (GEE) approach to account for correlation at the hospital or provider level.

The risk-adjusted rate is a comparative rate that also incorporates information about a reference population that is not part of the input dataset – what rate would be observed if the level of care observed in the user's dataset were applied to a mix of patients with demographics and comorbidities distributed like the reference population? The risk adjusted rate is calculated using the indirect method as observed rate divided by expected rate multiplied by the reference population rate. The smoothed rate is the weighted average of the risk-adjusted rate from the user's input dataset and the rate observed in the reference population; the smoothed rate is calculated with a shrinkage estimator to result in a rate near that from the user's dataset if the provider's rate is estimated in a stable fashion with minimal noise, or to result in a rate near that of the reference population if the variance of the estimated rate from the input dataset is large compared with the hospital-to-hospital variance estimated from the reference population. Thus, the smoothed rate is a weighted average of the risk-adjusted rate and the reference population rate, where the weight is the signal-to-noise ratio. In practice, the smoothed rate brings rates toward the mean, and tends to do this more so for outliers (such as rural hospitals).

For additional information, please see the supplemental files for the Empirical Methods. No diagram provided

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0480 PC-05 Exclusive Breast Milk Feeding

STEWARD

The Joint Commission

DESCRIPTION

PC-05 assesses the number of newborns exclusively fed breast milk 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 Birth, PC-03: Antenatal Steroids, PC-04: Health Care-Associated Bloodstream Infections in Newborns).

TYPE

Process

DATA SOURCE

Electronic Health Record (Only), Paper Records Each data element in the data dictionary includes suggested data sources. The data are collected using contracted Performance Measurement Systems (vendors) that develop data collection tools based on the measure specifications. The tools are verified and tested by Joint Commission staff to confirm the

accuracy and conformance of the data collection tool with the measure specifications. The vendor may not offer the measure set to hospitals until verification has been passed.

No data collection instrument provided Attachment PC05_ICD_Code_Tables.xlsx

LEVEL

Facility, Other

SETTING

Hospital

NUMERATOR STATEMENT

Newborns that were fed breast milk only since birth

NUMERATOR DETAILS

One data element is used to calculate the numerator:

1. Exclusive Breast Milk Feeding - Documentation that the newborn was exclusively fed breast milk during the entire hospitalization. Allowable Values: Yes or No/UTD. Cases are eligible for the numerator when allowable value = yes. Updates available at: <http://manual.jointcommission.org/releases/TJC2016A/>

DENOMINATOR STATEMENT

Single term liveborn newborns discharged alive from the hospital with ICD-10-CM Principal Diagnosis Code for single liveborn newborn as defined in Appendix A, Table 11.20.1 available at: <http://manual.jointcommission.org/releases/TJC2016A/>

DENOMINATOR DETAILS

Ten data elements are used to calculate the denominator:

1. Admission Date – The month, day and year of admission to acute inpatient care.
2. Admission to NICU - Documentation that the newborn was admitted to the Neonatal Intensive Care Unit (NICU) at this hospital any time during the hospitalization. Allowable values: Yes or No/UTD
3. Birthdate - The month, day and year the patient was born.
4. Discharge Date – The month day and year the patient was discharged from acute care, left against medical advice or expired during the stay.
5. Discharge Disposition - The place or setting to which the patient was discharged.
6. ICD-10-CM Other Diagnosis Codes - The International Classification of Diseases, Tenth Revision, Clinical Modification codes associated with the secondary diagnoses for this hospitalization.
7. ICD-10-PCS Other Procedure Codes - The International Classification of Diseases, Tenth Revision, Procedure Coding System code that identifies significant procedures performed other than the principal procedure during this hospitalization.
8. ICD-10-CM Principal Diagnosis Code - The International Classification of Diseases, Tenth Revision, Clinical Modification code associated with the diagnosis established after study to be chiefly responsible for occasioning the admission of the patient for this hospitalization.

9. ICD-10-CM Principal Procedure Code - The International Classification of Diseases, Tenth Revision, Procedure Coding System code that identifies the principal procedure performed during this hospitalization. The principal procedure is the procedure performed for definitive treatment rather than diagnostic or exploratory purposes, or which is necessary to take care of a complication.

10. Term Newborn - Documentation that the newborn was at term or ≥ 37 completed weeks of gestation at the time of birth. Allowable values: Yes or No/UTD

Updates available at: <http://manual.jointcommission.org/releases/TJC2016A/>

EXCLUSIONS

- Admitted to the Neonatal Intensive Care Unit (NICU) at this hospital during the hospitalization
- ICD-10-CM Other Diagnosis Codes for galactosemia as defined in Appendix A, Table 11.21
- ICD-10-PCS Principal Procedure Code or ICD-10-PCS Other Procedure Codes for parenteral infusion as defined in Appendix A, Table 11.22
- Experienced death
- Length of Stay >120 days
- Patients transferred to another hospital
- Patients who are not term or with < 37 weeks gestation completed

EXCLUSION DETAILS

- The data element Admission to NICU is used to determine if the patient was admitted to the NICU.
- Patients with ICD-10-CM Other Diagnosis Codes for galactosemia are excluded.
- Patients with ICD-10-PCS Principal Procedure Code or ICD-10-PMS Other Procedure Codes for parenteral infusion are excluded.
- Length of stay (LOS) in days is equal to the Discharge Date minus the Admission Date. If the LOS is greater than 120 days the patient is excluded.
- The data element Discharge Disposition is used to determine if the patient was transferred to another hospital or expired.
- The data element Term Newborn is used to determine if the patient was not term or < 37 completed weeks of gestation.

RISK ADJUSTMENT

No risk adjustment or risk stratification

Not Applicable

STRATIFICATION

Not Applicable

TYPE SCORE

Rate/proportion better quality = higher score

ALGORITHM

1. Start processing. Run cases that are included in the PC-Newborn Initial Patient Newborns with Breast Feeding and pass the edits defined in the Transmission Data Processing Flow: Clinical through this measure.
2. Check Discharge Disposition
 - a. If Discharge Status equals 4, 6, the case will proceed to a Measure Category Assignment of B and will not be in the measure population. Stop processing.
 - b. If Discharge Status equals 1, 2, 3, 5, 7, 8, continue processing and proceed to Term Newborn.
3. Check Term Newborn
 - a. If Term Newborn is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
 - b. If Term Newborn equals Yes, the case will proceed to a Measure Category Assignment of B and will not be in the measure population. Stop processing.
 - c. If Term Newborn equals No, continue processing and proceed to Admission to NICU.
4. Check Admission to NICU
 - a. If Admission to NICU is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
 - b. If Admission to NICU equals Yes, the case will proceed to a Measure Category Assignment of B and will not be in the measure population. Stop processing.
 - c. If Admission to NICU equals No, continue processing and proceed to Exclusive Breast Milk Feeding.
5. Check Exclusive Breast Milk Feeding
 - a. If Exclusive Breast Milk Feeding is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
 - b. If Exclusive Breast Milk Feeding equals Yes, the case will proceed to a Measure Category Assignment of E and will be in the Numerator Population. Stop processing.
 - c. If Exclusive Breast Milk Feeding equals No, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop processing. Available at measure-specific web page URL identified in S.1

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0483 Proportion of infants 22 to 29 weeks gestation screened for retinopathy of prematurity.

STEWARD

Vermont Oxford Network

DESCRIPTION

Proportion of infants born from 22 weeks, 0 days to 29 weeks, 6 days gestational age who were in the reporting hospital at the postnatal age recommended for screening for retinopathy of prematurity (ROP) by the American Academy of Pediatrics (AAP) and who received a retinal examination for ROP prior to discharge.

TYPE

Process

DATA SOURCE

Registry Vermont Oxford Network Database

No data collection instrument provided Attachment 0483_ICD.xlsx

LEVEL

Facility

SETTING

Hospital

NUMERATOR STATEMENT

Number of infants born from 22 weeks, 0 days to 29 weeks, 6 days gestational age 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

NUMERATOR DETAILS

Number of infants born from 22 weeks, 0 days to 29 weeks, 6 days gestational age 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 born from 22 weeks, 0 days to 29 weeks, 6 days gestational age who were in the reporting hospital at the postnatal age recommended for ROP screening by the AAP

DENOMINATOR DETAILS

Any infant who is born at the reporting hospital and whose gestational age at birth is from 22 weeks, 0 days to 29 weeks, 6 days should be included if they are in the reporting hospital at the postnatal age recommended for ROP screening by the AAP.

Any outborn infant who is admitted to any location in the reporting hospital within 28 days of birth, without first having gone home, and whose gestational age is from 22 weeks, 0 days to 29 weeks, 6 days should be included if they are 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

EXCLUSION DETAILS

See S.10. above.

RISK ADJUSTMENT

Stratification by risk category/subgroup

N/A

STRATIFICATION

Reports are stratified by gestational age, birth location and birth weight category.

TYPE SCORE

Rate/proportion better quality = higher score

ALGORITHM

1. Identify the population of eligible infants: all infants whose gestational age at birth is from 22 weeks, 0 days, to 29 weeks, 6 days, who are born at or admitted to the hospital within 28 days of birth without having been discharged home and who are still hospitalized at the postnatal age at which the first retinal screening exam is recommended by the AAP guidelines.

a. Determine the infant's postnatal age at discharge. This is calculated in days as date of discharge minus date of admission +1. Divide by 7 to determine the postnatal age at discharge in weeks.

b. Compare each infant's postnatal age at discharge to the appropriate row in the following table adapted from: American Academy of Pediatrics, Section on Ophthalmology, American Academy of Ophthalmology, American Association for Pediatric Ophthalmology and Strabismus. Screening examination of premature infants for retinopathy of prematurity. Pediatrics. 2013;131:189.

Timing of First Eye Examination Based on Gestational Age at Birth

Gestational age at birth (completed weeks)	Postnatal Age (weeks) at initial ROP screening exam
22	9
23	8
24	7
25	6

Gestational age at birth (completed weeks)	Postnatal Age (weeks) at initial ROP screening exam
26	5
27	4
28	4
29	4

c. If the infant's postnatal age at discharge is greater than or equal to the postnatal age for initial ROP screening from the table, the infant is classified as "still hospitalized at the time of recommended initial ROP screening".

2. Among the population of eligible infants:

a. Count the number of infants in the population of eligible infants. This number is the denominator for the measure: DENOM.

b. Count the number of infants who had a retinal examination prior to discharge. This number is the numerator for the measure: NUM.

c. The measure is calculated as:

$\text{NUM} / \text{DENOM}$

This measure represents the proportion of infants 22 to 29 weeks gestation who were hospitalized at the age when ROP screening is recommended who were screened prior to discharge.

d. To stratify by gestational age, limit the counts and calculation to infants in the gestational age for the range 22-29 weeks. No diagram provided

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0716 Unexpected Complications in Term Newborns

STEWARD

California Maternal Quality Care Collaborative

DESCRIPTION

This is a hospital level performance score reported as the percent of infants with Unexpected Newborn Complications among full term newborns with no preexisting conditions, typically calculated per year.

TYPE

Outcome

DATA SOURCE

Claims (Only) This measure utilizes a linked dataset obtained from two separate data sources, patient discharge data and birth certificate files.

Patient Discharge Data:

Obtained from the Office of Statewide Planning and Discharge (OSHDP). This dataset does not include data on births from military/naval hospitals as they do not submit data to OSHDP.

Linked to:

Birth Certificate Files:

Obtained from the Center for Health Statistics

Attachment Unexpected_Newborn_Complications_Appendices-635908840574237076.xlsx

LEVEL

Facility, Integrated Delivery System, Population : Regional and State

SETTING

Hospital

NUMERATOR STATEMENT

Numerator: The numerator is divided into two categories: Severe complications and moderate complications.

Severe complications include neonatal death, transfer to another hospital for higher level of care, extremely low Apgar Scores (≤ 3 at either 5 or 10 minutes of life), severe birth injuries such as intracranial hemorrhage or nerve injury, neurologic damage, severe respiratory and infectious complications such as sepsis. Parents of such babies may often worry about short or long term infant outcomes.

Moderate complications include diagnoses or procedures that raise concern but at a lower level than the list for severe (e.g. use of CPAP or bone fracture). For inclusion in the numerator, most require an infant length of stay that exceeds that of the mother, validating that these are indeed significant complications. Examples include less severe respiratory complications (e.g. Transient Tachypnea of the Newborn), or infections with a longer length of stay not including sepsis. As a “safety net” to capture cases who were under-coded, the numerator also includes infants who have a prolonged length of stay of over 5 days to capture the “seemingly normal” infants with neither any form of jaundice nor a social reason for staying in the hospital (e.g. family disruption or adoption).

NUMERATOR DETAILS

In the full term neonatal population that excluded premature infants, low birth weight babies, infants with congenital malformations, fetuses with pre-existing conditions such as IUGR and babies exposed to maternal drug use, babies were selected for inclusion in the numerator in a hierarchical manner as follows:

PART A: Severe Complications: Identify and include the following in a hierarchical manner:

- a) Neonatal Deaths (Use patient discharge diagnosis data, specifically the disposition code for death)
- b) Neonatal Transfers (Use patient discharge diagnosis data, specifically the disposition code for transfer to a higher level of care)

c) Low Apgar Scores at 5 minutes or 10 minutes of ≤ 3 out of a possible 10 (Use Birth certificate to obtain Apgar scores)

d) Severe Morbidities: (Use patient discharge diagnosis data, examining both primary and other diagnosis and procedure fields for ICD-9 Codes defining an array of specific severe complications. Please refer to Appendix 3, Groups 3A through 3I as the codes are too numerous to include here)

e) Sepsis with a neonatal Length of Stay that exceeds 4 days (Use patient discharge diagnosis data, examining both primary and other diagnosis fields for the specific ICD-9 code defining sepsis. Note that neonatal stay is defined as the date of discharge minus the date of birth).

The neonates identified in Part A make up the “Severe Complications” component of the numerator.

In the remaining infants (those without severe morbidities), identify and include the following

PART B: Moderate Complications: Identify and include the following in a hierarchical manner:

a) Moderate complications not requiring a specific length of stay: Identify babies with moderate complications that do not require a specific length of stay for inclusion (Use Patient discharge Diagnosis data, examining both primary and other diagnosis and procedure fields for ICD-9 codes identifying specific moderate complications (see Appendix 4, Groups A through C as the codes are too numerous to include here)

b) Specific Prolonged neonatal length of Stay stratified by method of delivery. Among babies who were delivered vaginally, identify those who have a length of stay of over 2 days. Among babies delivered via Cesarean Section, identify those who have a length of stay of over 4 days. (Use V-code 30.00 to identify vaginal births, and V30.01 to identify Cesarean births. V-codes are found in patient discharge data. Neonatal length of stay is defined as the date of discharge minus the date of birth).

c) Moderate complications requiring a prolonged length of stay: Among the infants identified in step b, identify those with moderate complications (Use Patient discharge Diagnosis data, examining both primary and other diagnosis and procedure fields for ICD-9 codes identifying specific moderate complications that require a prolonged length of stay for inclusion in the numerator. See Appendix 4, Groups D through H)

d) Prolonged neonatal Length of Stay that Exceeds 5 days: In the remaining population, identify babies who have a prolonged length of stay that exceeds 5 days. (Use Patient Discharge Diagnosis Data to determine Length of Stay. Neonatal length of stay is defined as the date of discharge minus the date of birth).

e) Exclude infants with jaundice or social indications: Among babies identified as having a length of stay that exceeds 5 days, exclude those who have jaundice or are in hospital for social indications such as adoption or foster care. (See Appendix 5 on our web-page for jaundice and social exclusion codes)

DENOMINATOR STATEMENT

The denominator is comprised of singleton, live born babies who are at least 37.0 weeks of gestation, and over 2500g in birth weight. The denominator excludes most serious fetal conditions that are “preexisting” (present before labor), including prematurity, multiple gestations, poor fetal growth, congenital malformations, genetic disorders, other specified fetal and maternal conditions and infants exposed to maternal drug use in-utero. The final denominator population consists of babies who are expected to do well following labor and delivery and go home routinely with their mothers.

DENOMINATOR DETAILS

Step 1: Identify and include singleton, inborn, live births (Use Patient discharge Diagnosis data, specifically diagnosis Codes V30.00 or V30.01).

Step 2: Identify and include babies with birth weight \geq 2500g. (Use birth certificate or Patient Discharge data).

Step 3: Identify and include full term babies, \geq 37 weeks gestation (Use birth certificate variable called best obstetric estimate of gestational age).

Step 4: In less than 1% of cases, the best obstetric estimate of gestation age is missing. In these cases, use LMP-based gestational age to identify full term infants. (Use birth certificate or Patient Discharge data).

Step 5: If both sources of gestational age are missing, include only infants who are over 3000g, as they are more likely to be full term.

Step 6: In the singleton, full term, population obtained in steps 1 through 5, identify and exclude babies with all congenital malformations and genetic disorders (See Appendix 2, Group A for the list of congenital malformation and genetic disorder exclusions)

Step 7: After congenital malformations and genetic disorders are excluded, further exclude babies with fetal conditions such as IUGR (see Appendix 2, Group B for the list of preexisting fetal conditions to be excluded)

Step 8: After babies with congenital malformations, genetic disorders and fetal conditions are excluded, further exclude infants who were exposed to maternal drug use in-utero. (see Appendix 2, Group C for the list of maternal drug use exposures to be excluded)

****Note:** List of ICD-9 codes with individual descriptors is available in the Appendices on our web-page

EXCLUSIONS

- a) Babies not born in hospitals are excluded as this is a hospital quality performance measure
- b) Babies who are part of multiple gestation pregnancies are excluded.
- c) Premature infants (babies born before 37 weeks gestational age) are excluded
- d) Low birth weight babies (\leq 2500g) are excluded
- e) Babies with congenital malformations and genetic diseases are excluded
- f) Babies with pre-existing fetal conditions such as IUGR are excluded
- g) Babies who were exposed to maternal drug use in-utero are excluded

EXCLUSION DETAILS

a) Babies not born in hospitals are excluded as this is a hospital quality performance measure (Exclude all other live birth codes other than V30.00 and V30.01)

b) Babies who are part of multiple gestation pregnancies are excluded. (Exclude all other live birth codes other than V30.00 and V30.01)

c) Premature infants (babies born before 37 weeks gestational age) are excluded (use best obstetric estimate of gestational age found in the birth certificate to exclude all infants born before 37 weeks. If best obstetric of gestational age is missing, use the LMP gestational age variable instead to identify infants under 37 weeks)

d) Low birth weight babies (\leq 2500g) are excluded (Use birth certificate birth weight variable to identify infants under 2500g)

- e) Babies with congenital malformations and genetic diseases are excluded (Use ICD-9 codes listed in Appendix 2, Group A to exclude infants with these conditions)
- f) Babies with pre-existing fetal conditions such as IUGR are excluded (Use ICD-9 codes listed in Appendix 2, Group B to exclude infants with these conditions)
- g) Babies who were exposed to maternal drug use in-utero are excluded (Use ICD-9 codes listed in Appendix 2, Group C to exclude infants with these conditions)

RISK ADJUSTMENT

No risk adjustment or risk stratification
None

STRATIFICATION

Not applicable

TYPE SCORE

Rate/proportion better quality = lower score

ALGORITHM

STEP 1: Calculate Denominator Inclusions

- a) Identify and include singleton, inborn, live births (Use Patient discharge Diagnosis data, specifically diagnosis Codes V30.00 or V30.01 listed in Appendix 1).
- b) Next, identify and include babies with birth weight ≥ 2500 g. (Use birth certificate or Patient Discharge data).
- c) Next, identify and include full term babies, ≥ 37 weeks gestation (Use birth certificate variable called best obstetric estimate of gestational age). In less than 1% of cases, the best obstetric estimate of gestational age is missing. In these cases, use LMP-based gestational age to identify full term infants. (Use birth certificate or Patient Discharge data).
- d) If both sources of gestational age are missing, include only infants who are over 3000g, as they are more likely to be full term. (Use the birth certificate variable for birth weight).

STEP 2: Calculate Denominator Exclusions

- a) In the singleton, full term, population of neonates obtained in Step 1, identify and exclude babies with all congenital malformations and genetic disorders (Use codes listed in Appendix 2, Group A to exclude infants)
- b) After congenital malformations and genetic disorders are excluded, further exclude babies with fetal conditions such as IUGR (Use codes listed in Appendix 2, Group B to exclude infants)
- c) After babies with congenital malformations, genetic disorders and fetal conditions are excluded, further exclude infants who were exposed to maternal drug use in-utero. (Use codes listed in Appendix 2, Group C to exclude infants).
- d) This is the measure's final denominator population

Step 3: Numerator Inclusions: PART A: SEVERE COMPLICATIONS

- a) Identify and include Neonatal Deaths (Using patient discharge diagnosis data, specifically the disposition code for death)
- b) Identify and include neonatal transfers (Using patient discharge diagnosis data, specifically the disposition code for transfer to a higher level of care)

c) Identify and include babies with “Apgar at 5 minutes” OR “Apgar at 10 minutes” scores of less than 4 (Use Birth certificate or medical record to obtain Apgar scores)

d) Identify and include babies with Severe Morbidities (Use patient discharge diagnosis data, examining both primary and other diagnosis and procedure fields for specific ICD-9 Codes defining an array of specific severe complications. Please refer to Appendix 3, Groups 3A through 3I as the codes are too numerous to include here)

e) Identify and include babies with a Sepsis code and a length of stay that exceeds 4 days (Use patient discharge diagnosis data, examining both primary and other diagnosis fields for the specific ICD-9 code defining sepsis but also requiring a neonatal length of stay of over 4 days. Note that neonatal stay is defined as the date of discharge minus the date of birth).

The neonates identified in Step 3 comprise the “Severe Complications” component of the numerator.

Step 4: Numerator Inclusions: PART B: MODERATE COMPLICATIONS

In the remaining infants (those without severe morbidities), identify and include the following

a) Identify babies with moderate complications that do not require a specific length of stay for inclusion (Use Patient discharge Diagnosis data, examining both primary and other diagnosis and procedure fields for specific ICD-9 codes identifying specific moderate complications (see Appendix 4, Groups A through C)

b) Identify babies with a specified prolonged length of stay stratified by method of delivery. In the population of babies who were delivered vaginally, identify those who have a length of stay of over 2 days. Among babies delivered via Cesarean Section, identify those who have a length of stay of over 4 days.

c) Among babies identified as having a prolonged length of stay (stratified by method of delivery), identify and include those who have moderate complications (Use Patient discharge Diagnosis data, examining both primary and other diagnosis and procedure fields for specific ICD-9 codes identifying specific moderate complications. See Appendix 4, Groups D through H)

d) In the remaining population, identify babies who have a prolonged length of stay that exceeds 5 days. Use Patient Discharge Diagnosis Data to determine Length of Stay

e) Among babies identified as having a length of stay that exceeds 5 days, exclude those who have jaundice or are in hospital for social indications such as adoption or foster care (See Appendix 5 for jaundice and social exclusion codes)

Step 5: Calculation of Unexpected Complications in Term Newborns measure:

Unexpected Newborn Complications (Total): Rate per 100 live births.

$(\text{Severe Complications} + \text{Moderate Complications} / \text{Final Denominator}) \times 100$ Available in attached appendix at A.1

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1382 Percentage of low birthweight births

STEWARD

Centers for Disease Control and Prevention

DESCRIPTION

The percentage of births with birthweight <2,500 grams

TYPE

Outcome

DATA SOURCE

Patient Reported Data National Center for Health Statistics, Natality Detail file. These publicly available data files contain individual record data for the 4.2 million births in the United States each year. Data are from birth certificates.

URL URL

LEVEL

Population : Community, County or City, Other, Population : Regional and State

SETTING

Hospital, Other United States, states, counties

NUMERATOR STATEMENT

The number of babies born weighing <2,500 grams at birth in the study population

NUMERATOR DETAILS

Data are directly available from public-use data files of national birth certificate data produced by the National Center for Health Statistics.

DENOMINATOR STATEMENT

All births in the study population

DENOMINATOR DETAILS

Data are directly available from public-use data files of national birth certificate data produced by the National Center for Health Statistics.

EXCLUSIONS

None

EXCLUSION DETAILS

None

RISK ADJUSTMENT

No risk adjustment or risk stratification

N/A

STRATIFICATION

- Stratify the measure by single vs. multiple births
- Stratify the measure by birthweight of less than 1,500 grams (i.e. very low birthweight) vs. 1,500-2,499 grams (i.e. moderately low birthweight).

TYPE SCORE

Other Percentage better quality = lower score

ALGORITHM

The number of births weighing <2,500 grams/Total births at any birthweight * 100

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NA

1731 PC-04 Health Care-Associated Bloodstream Infections in Newborns

STEWARD

The Joint Commission

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 Birth, PC-03: Antenatal Steroids, PC-05: Exclusive Breast Milk Feeding).

TYPE

Outcome

DATA SOURCE

Paper Records Each data element in the data dictionary includes suggested data sources. The data are collected using contracted Performance Measurement Systems (vendors) that develop data collection tools based on the measure specifications. The tools are verified and tested by Joint Commission staff to confirm the accuracy and conformance of the data collection tool with the measure specifications. The vendor may not offer the measure set to hospitals until verification has been passed.

No data collection instrument provided Attachment PC04_ICD_Code_Tables.xlsx

LEVEL

Facility, Other

SETTING

Hospital

NUMERATOR STATEMENT

The outcome being measured is: Newborns with septicemia or bacteremia with ICD-10-CM Other Diagnosis Codes for newborn septicemia or bacteremia as defined in Appendix A, Table 11.10 with a Bloodstream Infection Confirmed OR ICD-10-CM Other Diagnosis Codes for sepsis as defined in Appendix A, Table 11.10.1 with a Bloodstream Infection Confirmed available at: <http://manual.jointcommission.org/releases/TJC2016A/>

The only national hospital quality measure currently requiring patient-level risk adjustment is the Health Care-Associated Bloodstream Infections in Newborns (PC-04) outcome measure in the perinatal care measure set.

NUMERATOR DETAILS

Two data elements are used for the observed outcome and to calculate the numerator:

1. Bloodstream Infection Confirmed- Confirmation that a health care-associated bloodstream infection occurred after the first 48 hours after admission.
2. ICD-10-CM Other Diagnosis Codes- The International Classification of Diseases, Tenth Revision, Clinical Modification codes associated with the secondary diagnoses for this hospitalization.

Cases are eligible for the numerator population with ICD-10-CM Other Diagnosis Code for newborn septicemia or bacteremia with the presence of a health care-associated bloodstream infection confirmed OR an ICD-10-CM Other Diagnosis Codes for sepsis with the presence of a health care-associated bloodstream infection confirmed.

Updates available at: <https://manual.jointcommission.org/releases/TJC2016A/>.

DENOMINATOR STATEMENT

The outcome target population being measured is: Liveborn newborns with ICD-10-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 ICD-10-CM Other Diagnosis Codes for birth weight = > 1500g as defined in Appendix A, Table 11.15 or 11.16 OR Birth Weight = > 1500g who experienced one or more of the following:

- o Experienced death
- o ICD-10-PCS Principal Procedure Code or ICD-10-PCS Other Procedure Codes for major surgery as defined in Appendix A, Table 11.18
- o ICD-10-PCS Principal Procedure Code or ICD-10-PCS Other Procedure Codes for mechanical ventilation as defined in Appendix A, Table 11.19
- o Transferred in from another acute care hospital or health care setting within 2 days of birth.

DENOMINATOR DETAILS

Ten data elements are used to identify the target population and to calculate the denominator:

1. Admission Date – The month, day and year of admission to acute inpatient care.
2. Birth Weight- The weight (in grams) of a newborn at the time of delivery.
3. Birthdate - The month, day and year the patient was born.
4. Bloodstream Infection Present on Admission- Documentation in the medical record that the patient had a bloodstream infection present on admission. This includes both patients with positive blood cultures or inconclusive blood cultures when the patient is suspected of having a

bloodstream infection or septicemia and is being treated for the condition. Allowable values: Yes or No/UTD

5. Discharge Date – The month day and year the patient was discharged from acute care, left against medical advice or expired during the stay.

6. Discharge Disposition - The place or setting to which the patient was discharged.

7. ICD-10-CM Other Diagnosis Codes - The International Classification of Diseases, Tenth Revision, Clinical Modification codes associated with the secondary diagnoses for this hospitalization.

8. ICD-10-PCS Other Procedure Codes - The International Classification of Diseases, Tenth Revision, Procedure Coding System code that identifies significant procedures performed other than the principal procedure during this hospitalization.

9. ICD-10-CM Principal Diagnosis Code - The International Classification of Diseases, Tenth Revision, Clinical Modification code associated with the diagnosis established after study to be chiefly responsible for occasioning the admission of the patient for this hospitalization.

10. ICD-10-PCS Principal Procedure Code - The International Classification of Diseases, Tenth Revision, Procedure Coding System code that identifies the principal procedure performed during this hospitalization. The principal procedure is the procedure performed for definitive treatment rather than diagnostic or exploratory purposes, or which is necessary to take care of a complication.

Updates available at: <https://manual.jointcommission.org/releases/TJC2016A/>.

EXCLUSIONS

- ICD-10-CM Principal Diagnosis Code for septicemias or bacteremias as defined in Appendix A, Table 11.10.2
- ICD-10-CM Other Diagnosis Codes for septicemias or bacteremias as defined in Appendix A, Table 11.10.2 or ICD-10-CM Principal or Other Diagnosis Codes for newborn septicemia or bacteremia as defined in Appendix A, Table 11.10 with a Bloodstream Infection Present on Admission
- ICD-10-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

EXCLUSION DETAILS

- Patients with ICD-10-CM Principal Diagnosis Code for septicemias or bacteremias are excluded.
- Patients with ICD-10-CM Other Diagnosis Codes for septicemias or bacteremias with a Bloodstream Infection Present on Admission are excluded.
- Patients with ICD-10-CM Principal or Other Diagnosis Codes for newborn septicemia or bacteremia with a Bloodstream Infection Present on Admission are excluded.
- Patients with ICD-10-CM Other Diagnosis Codes for birth weight <500 grams OR a birth weight <500 grams are excluded.
- Length of stay (LOS) in days is equal to the Discharge Date minus the Admission Date. If the LOS is less than 2 days, the patient is excluded.

RISK ADJUSTMENT

Statistical risk model

Logistic regression

Model Risk Factors Considered:

Intercept Intercept

Birth Weight 1250g to 2499g

Birth Weight 1000 to 1249g

Birth Weight 500 to 749g

Birth Weight 750 to 750g

Modified DRG Newborn Transfers Out or Died

Congenital Anomaly Gastrointestin

Available in attached Excel or csv file at S.2b

STRATIFICATION

Not applicable, the measure is not stratified.

TYPE SCORE

Rate/proportion better quality = lower score

ALGORITHM

1. Start processing. Run cases that are included in the PC-Newborn Initial Patient Newborns with BSI and pass the edits defined in the Transmission Data Processing Flow: Clinical through this measure.
2. Calculate Length of Stay. Length of Stay, in days, is equal to the Discharge Date minus the Admission Date.
3. Check Length of Stay
 - a. If Length of Stay is less than 2 days, the case will proceed to a Measure Category Assignment of B and will not be in the measure population. Stop processing.
 - b. If Length of Stay is greater than or equal to 2 days, continue processing and proceed to ICD-10-CM Principal or Other Diagnosis Codes.
4. Check ICD-10-CM Principal or Other Diagnosis Codes
 - a. If none of the ICD-10-CM Principal or Other Diagnosis Codes is on Table 11.10, continue processing and proceed to ICD-10-CM Other Diagnosis Codes
 1. If all of the ICD-10-CM Other Diagnosis Codes are missing or none of the ICD-10-CM Other Diagnosis Codes is on Table 11.10.2, continue processing and proceed to recheck ICD-10-CM Other Diagnosis Codes (Step 7).
 2. If at least one of the ICD-10-CM Other Diagnosis Codes is on Table 11.10.2, continue processing and proceed to Bloodstream Infection Present on Admission.
 - b. If at least one of the ICD-10-CM Principal or Other Diagnosis Codes is on Table 11.10, continue processing and proceed to Bloodstream Infection Present on Admission.
5. Check Bloodstream Infection Present on Admission
 - a. If Bloodstream Infection Present on Admission is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.

- b. If Bloodstream Infection Present on Admission equals Yes, the case will proceed to a Measure Category Assignment of B and will not be in the measure population. Stop processing.
- c. If Bloodstream Infection Present on Admission equals No, continue processing and proceed to check ICD-10-CM Other Diagnosis Codes.
- 6. Check ICD-10-CM Other Diagnosis Codes
 - a. If at least one of the ICD-10-CM Other Diagnosis Codes is on Table 11.12, 11.13, 11.14, continue processing and proceed to recheck ICD-10-CM Other Diagnosis Codes (Step 13).
 - b. If all of the ICD-10-CM Other Diagnosis Codes are missing, continue processing and proceed to Birth Weight.
 - c. If none of the ICD-10-CM Other Diagnosis Codes is on Table 11.12, 11.13, 11.14, continue processing and proceed to recheck ICD-10-CM Other Diagnosis Codes (Step 8).
- 7. Recheck ICD-10-CM Other Diagnosis Codes
 - a. If at least one of the ICD-10-CM Other Diagnosis Codes on table 11.15, 11.16, continue processing and proceed to ICD-10-CM Principal or Other Procedure Codes.
 - b. If none of the ICD-10-CM Other Diagnosis Codes on table 11.15, 11.16, continue processing and proceed to Birth Weight.
- 8. Check Birth Weight
 - a. If Birth Weight is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
 - b. If Birth Weight equals a Non Unable to Determine Value, the case will proceed to a Measure Category Assignment of E and will be in the Numerator Population. Stop processing.
 - c. If Birth Weight is less than 500, the case will proceed to a Measure Category Assignment of B and will not be in the measure population. Stop processing.
 - d. If Birth Weight is between 500 and 1499, continue processing and proceed to recheck ICD-10-CM Other Diagnosis Codes (Step 13).
 - e. If Birth Weight is greater than or equal to 1500, continue processing and proceed to ICD-10-PCS Principal or Other Procedure Codes.
- 9. Check ICD-10-PCS Principal or Other Procedure Codes
 - a. If at least one of the ICD-10-PCS Principal or Other Procedure Codes is on table 11.18 or 11.19, continue processing and proceed to recheck ICD-10-PCS Other Diagnosis Codes (Step 13).
 - b. If all of the ICD-10-PCS Principal or Other Procedure Codes are missing or none of the ICD-10-PCS Principal or Other Procedure Codes is on table 11.18 or 11.19, continue processing and proceed to ICD-10-CM Principal Diagnosis Code.
- 10. Check ICD-10-CM Principal Diagnosis Code
 - a. If ICD-10-CM Principal Diagnosis Code is not on table 11.10.3, continue processing and proceed to recheck ICD-10-CM Other Diagnosis Codes (Step 13).
 - b. If ICD-10-CM Principal Diagnosis Code is on table 11.10.3, continue processing and proceed to Discharge Disposition.
- 11. Check Discharge Disposition
 - a. If Discharge Disposition is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
 - b. If Discharge Disposition equals 1, 2, 3, 4, 5, 7, 8, the case will proceed to a Measure Category Assignment of B and will not be in the measure population. Stop processing.

c. If Discharge Disposition equals 6, continue processing and proceed to recheck ICD-10-CM Other Diagnosis Codes (Step13).

12. Recheck ICD-10-CM Other Diagnosis Codes

a. If at least one of the ICD-10-CM Other Diagnosis Codes is on table 11.10, continue processing and proceed to Bloodstream Infection Confirmed.

b. If all of the ICD-10-CM Other Diagnosis Codes are missing or none of the ICD-10-CM Other Diagnosis Codes is on table 11.10, continue processing and proceed to recheck ICD-10-CM Other Diagnosis Codes (Step14).

13. Recheck ICD-10-CM Other Diagnosis Codes

a. If at least one of the ICD-10-CM Other Diagnosis Codes is on table 11.10.1, continue processing and proceed to Bloodstream Infection Confirmed.

b. If all of the ICD-10-CM Other Diagnosis Codes are missing or none of the ICD-10-CM Other Diagnosis Codes is on table 11.10.1, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop processing.

14. Check Bloodstream Infection Confirmed

a. If Bloodstream Infection Confirmed is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.

b. If Bloodstream Infection Confirmed equals Yes, the case will proceed to a Measure Category Assignment of E and will be in the Numerator Population. Stop processing.

c. If Bloodstream Infection Confirmed equals No, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop processing.

Calculation of adjusted outcome:

Step 1 -- Identify the measure population through Measure Category Assignments.

Risk adjusted rate-based measure: Identify the numerator (Measure Category Assignment = E) and the denominator (Measure Category Assignment = D) cases using the information provided in the Measure Information Form (MIF). Risk adjusted continuous variable measure: Identify the number of cases in the measure population (Measure Category Assignment = D). At this time, there are no risk adjusted continuous outcome measures in any of the national hospital quality measure sets.

Note: Do not calculate a Predicted Value for a case if it is rejected by front-end edits or is rejected because one or more measures in the measure set evaluates to a Measure Category Assignment = X.

Step 2 -- Create risk factors for the measure.

Using the Risk Model Information File provided by the Joint Commission, identify all applicable EOC record data elements and the associated risk factor values for each of the EOC records identified in step 1. Risk factors include patient demographic and/or clinical factors, which can influence outcomes of care. Some examples of risk factors include age, sex, and comorbidities – such as diabetes or a history of hypertension. As an example, Figure 1 lists the data elements required for risk adjustment of generic measure ‘ABC’. Using the data for measure ‘ABC’, the performance measurement system must identify the risk factors at the EOC record-level, and create data subsets for each participating hospital. Available at measure-specific web page URL identified in S.1

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2829 PC-01 Elective Delivery

STEWARD

The Joint Commission

DESCRIPTION

This measure assesses patients with elective vaginal deliveries or elective cesarean births at ≥ 37 and < 39 weeks of gestation completed. This measure is a part of a set of five nationally implemented measures that address perinatal care (PC-02: Cesarean Section, PC-03: Antenatal Steroids, PC-04: Health Care-Associated Bloodstream Infections in Newborns, PC-05: Exclusive Breast Milk Feeding). PC-01, Elective Delivery is one of two of the measures in this set that have been reengineered as eCQMs and are included in the EHR Incentive Program and Hospital Inpatient Quality Reporting Program.

TYPE

Process

DATA SOURCE

Electronic Health Record (Only), Other, Pharmacy Hospitals report EHR data using Certified Electronic Health Record Technology (CEHRT), and by submitting Quality Reporting Document Architecture Category 1 (QRDA-1).

No data collection instrument provided Attachment

ElectiveDelivery_v4_Wed_Apr_01_14.49.44_CDT_2015-635908096518042002.xls

LEVEL

Facility, Other

SETTING

Hospital

NUMERATOR STATEMENT

Patients with elective deliveries by either:

- Medical induction of labor while not in labor prior to the procedure
- Cesarean birth while not in labor and with no history of a prior uterine surgery

NUMERATOR DETAILS

- Medical Induction of Labor is represented as a code from one of the following value sets and associated QDM datatype:
 - o Procedure, Performed: Medical Induction of Labor (OID 2.16.840.1.113883.3.117.1.7.1.288)
 - o Procedure, Performed: Artificial Rupture of Membranes (OID 2.16.840.1.113762.1.4.1045.57)
 - o Medication, Administered: Oxytocin (OID 2.16.840.1.113762.1.4.1045.55)
 - o Medication, Administered: Dinoprostone (OID 2.16.840.1.113762.1.4.1045.56)
 - Labor is represented with the QDM datatype and value set of “Physical Exam, Performed: Labor (OID 2.16.840.1.113883.3.117.1.7.1.281)
 - Cesarean Birth is represented with the QDM data type and value set of “Procedure, Performed: Cesarean Birth (OID: 2.16.840.1.113883.3.117.1.7.1.282)
 - Prior Uterine Surgery is represented as a code from one of the following value sets and associated QDM datatype:
 - o Diagnosis, Resolved: Perforation of Uterus (OID 2.16.840.1.113883.3.117.1.7.1.136)
 - o Diagnosis, Resolved: Uterine Window (OID 2.16.840.1.113883.3.117.1.7.1.137)
 - o Diagnosis, Resolved: Uterine Rupture (OID 2.16.840.1.113883.3.117.1.7.1.138)
 - o Diagnosis, Inactive: Cornual Ectopic Pregnancy (OID 2.16.840.1.113762.1.4.1045.27)
 - o Procedure, Performed: Classical Cesarean Birth (OID 2.16.840.1.113883.3.117.1.7.1.421)
 - o Procedure, Performed: Myomectomy (OID 2.16.840.1.113883.3.117.1.7.1.422)
 - o Procedure, Performed: Transabdominal Cerclage (OID 2.16.840.1.113762.1.4.1110.2)
- To access the value sets for the measure, please visit the Value Set Authority Center (VSAC), sponsored by the National Library of Medicine, at this link: <https://vsac.nlm.nih.gov/>.

DENOMINATOR STATEMENT

The Denominator is patients who deliver newborns with ≥ 37 and < 39 weeks of gestation completed.

DENOMINATOR DETAILS

- Estimated Gestational Age is represented with the QDM datatype and value set of Physical Exam, Performed: Estimated Gestational Age at Delivery (OID: 2.16.840.1.113762.1.4.1045.26)
- Time of Delivery is represented with the QDM datatype and value set of Physical Exam, Performed: Time of Delivery (OID: 2.16.840.1.113762.1.4.1045.28)

EXCLUSIONS

ICD-9-CM, ICD-10-CM, or SNOMED CT codes for conditions possibly justifying elective delivery prior to 39 weeks gestation.

EXCLUSION DETAILS

- Conditions possibly justifying elective delivery are represented with the QDM datatype and value set Diagnosis, Active: Conditional Possibly Justifying Elective Delivery Prior to 39 Weeks Gestation (OID: 2.16.840.1.113883.3.117.1.7.1.286)

RISK ADJUSTMENT

No risk adjustment or risk stratification

Not Applicable

STRATIFICATION

Not Applicable, the measure is not stratified

TYPE SCORE

Rate/proportion better quality = lower score

ALGORITHM

See attached HQMF file. Available at measure-specific web page URL identified in S.1

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2830 PC-05 Exclusive Breast Milk Feeding

STEWARD

The Joint Commission

DESCRIPTION

PC-05 assesses the number of newborns exclusively fed breast milk 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). PC-05, Exclusive Breast Milk Feeding, is one of two measures in this set that have been reengineered as eQMs and are included in the EHR Incentive Program and Hospital Inpatient Quality Reporting Program.

TYPE

Process

DATA SOURCE

Electronic Health Record (Only), Other Hospitals report EHR data using Certified Electronic Health Record Technology (CEHRT), and by submitting Quality Reporting Document Architecture Category 1 (QRDA-1).

No data collection instrument provided Attachment

ExclusiveBreastMilkFeeding_v4_Fri_Nov_13_10.29.14_CST_2015.xls

LEVEL

Facility, Other

SETTING

Hospital

NUMERATOR STATEMENT

Newborns that were fed breast milk only since birth

NUMERATOR DETAILS

- Administration of breast milk is represented with the QDM datatype and value set of Substance, Administered: Breast Milk (OID: 2.16.840.1.113883.3.117.1.7.1.30)
 - Administration of other dietary intake is represented with Substance, Administered: Dietary Intake Other than Breast Milk (OID: 2.16.840.1.113883.3.117.1.7.1.27)
- To access the value sets for the measure, please visit the Value Set Authority Center (VSAC), sponsored by the National Library of Medicine, at this link: <https://vsac.nlm.nih.gov/>

DENOMINATOR STATEMENT

Single term newborns discharged from the hospital who did not have a diagnosis of galactosemia, were not subject to parenteral nutrition, and had a length of stay of less than or equal to 120 days

DENOMINATOR DETAILS

Inpatient Encounters are represented using the QDM datatype and value set of Encounter, Performed: Encounter Inpatient (OID: 2.16.840.1.113883.3.117.1.7.1.25). Length of stay is calculated within the measure based on encounter start and end dates.

Single term newborns are represented by the following QDM datatypes and value sets:

- o Physical Exam, Performed: Estimated Gestational Age at Birth (Result>=37 weeks) using Estimated Gestational Age at Birth SNOMEDCT Value Set (OID: 2.16.840.1.113762.1.4.1045.47)
- o Diagnosis, Active: Single Live Birth using Single Live Birth SNOMEDCT Value Set (2.16.840.1.113883.3.117.1.7.1.25)
- o Diagnosis, Active Single Live Born Newborn Born in Hospital using Single Live Born Newborn Born in Hospital Grouping Value Set (2.16.840.1.113883.3.117.1.7.1.26)
- Galactosemia is represented using the QDM datatype and value set of Diagnosis, Active: Galactosemia (OID: 2.16.840.1.113883.3.117.1.7.1.35)
- Parenteral Nutrition is represented using the QDM datatype and value set of Procedure, Performed: Parenteral Nutrition (OID: 2.16.840.1.113883.3.117.1.7.1.38)

EXCLUSIONS

- Newborns who were admitted to the Neonatal Intensive Care Unit (NICU)
- Newborns who were transferred to an acute care facility
- Newborns who expired during the hospitalization

EXCLUSION DETAILS

NICU admissions, transfers to another facility, and patient expiration are all represented in QDM as attributes of the inpatient encounter.

- o facility location: Neonatal Intensive Care Unit (NICU) (OID: 2.16.840.1.113883.3.117.1.7.1.75)
- o discharge status: Patient Expired (OID: 2.16.840.1.113883.3.117.1.7.1.309)
- o discharge status: Discharge to Acute Care Facility (OID: 2.16.840.1.113883.3.117.1.7.1.87)

RISK ADJUSTMENT

No risk adjustment or risk stratification

Not Applicable

STRATIFICATION

Not Applicable

TYPE SCORE

Rate/proportion better quality = higher score

ALGORITHM

See attached HQMF file Available at measure-specific web page URL identified in S.1

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2902 Contraceptive Care - Postpartum

STEWARD

US Office of Population Affairs

DESCRIPTION

Among women ages 15 through 44 who had a live birth, the percentage that is provided:

1) A most effective (i.e., sterilization, implants, intrauterine devices or systems (IUD/IUS)) or moderately (i.e., injectables, oral pills, patch, ring, or diaphragm) effective method of contraception within 3 and 60 days of delivery.

2) A long-acting reversible method of contraception (LARC) within 3 and 60 days of delivery.

Two time periods are proposed (i.e., within 3 and within 60 days of delivery) because each reflects important clinical recommendations from the U.S. Centers for Disease Control and Prevention (CDC) and the American College of Obstetricians and Gynecologists (ACOG). The 60-

day period reflects ACOG recommendations that women should receive contraceptive care at the 6-week postpartum visit. The 3-day period reflects CDC and ACOG recommendations that the immediate postpartum period (i.e., at delivery, while the woman is in the hospital) is a safe time to provide contraception, which may offer greater convenience to the client and avoid missed opportunities to provide contraceptive care.

TYPE

Intermediate Clinical Outcome

DATA SOURCE

Claims (Only) Administrative claims data are used to calculate the measure. The data request should include an eligibility file, paid and denied claims with diagnosis codes and procedures codes (HCPCS, CPT, and ICD-9-PCS/ICD-10-PCS), as well as NDC codes.

Attachment Codes_2014_and_2015_Postpartum_Contraception.xlsx

LEVEL

Health Plan, Population : Regional and State

SETTING

Other primary care and reproductive health settings

NUMERATOR STATEMENT

Primary measure: Women ages 15 through 44 who had a live birth and were provided a most (sterilization, intrauterine device, implant) or moderately (pill, patch, ring, injectable, diaphragm) effective method of contraception within 3 and 60 days of delivery.

Sub-measure: Women ages 15 through 44 who had a live birth and were provided a long-acting reversible method of contraception (LARC) within 3 and 60 days of delivery.

NUMERATOR DETAILS

The target population is women ages 15- 44 who had a live birth and were provided a most or moderately effective method (primary measure) or a LARC method (sub-measure) of contraception. All claims codes are found in the attached Excel files. To identify the numerator, follow these steps:

Step 1 Use the codes in Table PCU-C to identify women who were provided a most (sterilization, IUD, implant) or moderately (injection, oral pills, patch, ring, or diaphragm) effective method of contraception in the measurement year. Use the codes in PCU-E to identify women who were provided a LARC method.

Step 2 The long-acting reversible contraceptive (LARC) methods of intrauterine devices (IUD) and implants can be removed at the woman's request so adjustments must be made to reflect this. Use the codes in Table PCU -D to identify women who had their IUD or implant removed at any point during the measurement year. Check to see if they had an IUD or implant reinserted on the same or a subsequent date.

[For the primary measure] If there is no code indicating reinsertion, use the codes in Table PCU - E to determine whether a woman was provided another most or moderately effective method. Do so by looking back over the 30 days prior to the removal (since a woman may receive a prescription for another method prior to the removal) as well as the period after the LARC

removal. If there is no code for reinsertion or provision of another most or moderately effective method, consider them as a non-user.

Step 3 Subtract the number of women identified as non-users of contraception in step 2 from those identified in step 1 to determine the numerator. Calculate the numerator separately for the two age groups: adolescents and adults.

DENOMINATOR STATEMENT

Women ages 15 through 44 who had a live birth in a 12-month measurement year.

DENOMINATOR DETAILS

The target population is women ages 15 through 44 who had a live birth in a 12-month measurement year. In a Medicaid population, this includes women who were enrolled from the date of delivery to 60 days postpartum.

EXCLUSIONS

The following categories are excluded from the denominator: (1) deliveries that did not end in a live birth (i.e., miscarriage, ectopic, stillbirth or induced abortion); and (2) deliveries that occurred during the last two months of the measurement year.

EXCLUSION DETAILS

Women are excluded from the denominator if they did not have an opportunity to receive contraception in the postpartum period (defined as within 60 days of delivery). All claims codes are found in the attached Excel files. Follow the steps below to identify the eligible population:

Step 1 Identify live births and deliveries by using codes in Table PCU-A (we used the codes developed for the HEDIS measure of Prenatal and Postnatal care). Some women may have more than one delivery in the measurement year; the measure is designed to identify unique live births (defined as those that occur >180 days apart) rather than women who had a live birth.

Step 2 Exclude deliveries that did not end in a live birth (i.e., miscarriage, ectopic, stillbirth, or pregnancy termination) by using the codes in Table PCU-B. We used the codes developed to identify live births for the HEDIS measure of Prenatal and Postnatal Care.

Step 3 Exclude deliveries that occurred during the last 2 months of the measurement year. These deliveries should be excluded from the denominator because there may not have been an opportunity to provide the mother with contraception during the postpartum period. A two-month period was selected because the American College of Obstetricians and Gynecologists (ACOG) recommends having a postpartum visit by 6 weeks, and an additional 2 weeks was added to allow for reasonable delays in attending the postpartum visit.

RISK ADJUSTMENT

No risk adjustment or risk stratification

We do not believe that risk adjustment is justified. Although there are possible variations in contraceptive provision by socio-demographic characteristics, the reason for those patterns is based on modifiable clinical and programmatic considerations

STRATIFICATION

The primary stratification variable is age, so that adolescents can be examined separately from adult women. We propose this stratification for purposes of QI but not as a method of risk adjustment. Teen pregnancy is worthy of a separate focus because

TYPE SCORE

Rate/proportion better quality = score within a defined interval

ALGORITHM

Step 1 Identify live births that occurred in the measurement year. Some women may have more than one delivery in the measurement year; the measure is designed to identify unique live births (defined as those that occur >180 days apart) rather than women who had a live birth.

Step 2 Exclude the following deliveries:

- Those that did not end in a live birth (i.e., miscarriage, ectopic, stillbirth, or pregnancy termination).
- Those that occurred during the last 2 months of the measurement year. These deliveries should be excluded from the denominator because there may not have been an opportunity to provide the mother with contraception during the postpartum period.

Step 3 Define the numerator by identifying women who were provided a most (sterilization, IUD, implant) or moderately (injection, oral pills, patch, ring, or diaphragm) effective method of contraception in the measurement year (primary measure). For the sub-measure, identify women who were provided a LARC method.

Step 4 Determine the date that the contraceptive method was provided, to identify women who were provided it: (a) within 3 day of delivery, and (b) within 60 days of delivery.

Step 5 Divide the number of women using a most or moderately effective method [or LARC, for the sub-measure] by the number of eligible women in the denominator. Calculate the rates separately for the two age groups: adolescents and adults. Available in attached appendix at A.1

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Not applicable

2903 Contraceptive Care – Most & Moderately Effective Methods

STEWARD

US Office of Population Affairs

DESCRIPTION

The percentage of women aged 15-44 years at risk of unintended pregnancy that is provided a most effective (i.e., sterilization, implants, intrauterine devices or systems (IUD/IUS)) or moderately effective (i.e., injectables, oral pills, patch, ring, or diaphragm) FDA-approved methods of contraception.

The proposed measure is an intermediate outcome measure because it represents a decision that is made at the end of a clinical encounter about the type of contraceptive method a woman will use, and because of the strong association between type of contraceptive method used and risk of unintended pregnancy.

TYPE

Intermediate Clinical Outcome

DATA SOURCE

Claims (Only) Administrative claims data are used to calculate the measure. The data request should include an eligibility file, paid and denied claims with diagnosis codes and procedures codes (HCPCS, CPT, and ICD-9-PCS/ICD-10-PCS), as well as NDC codes.

Available in attached appendix at A.1 Attachment Codes_2014_and_2015_MOST_MOD.xlsx

LEVEL

Facility, Health Plan, Population : Regional and State

SETTING

Other primary care and reproductive health settings

NUMERATOR STATEMENT

Women aged 15-44 years of age at risk of unintended pregnancy who are provided a most (sterilization, intrauterine device, implant) or moderately (pill, patch, ring, injectable, diaphragm) effective method of contraception.

NUMERATOR DETAILS

The target population is eligible women 15-44 years of age who are provided a most or moderately effective method of contraception. To identify the numerator, follow these steps:

Step 1 Define the numerator by identifying women who used a most (sterilization, IUD, implant) or moderately (injection, oral pills, patch, ring, or diaphragm) effective method of contraception in the measurement year. To do this, use the codes in Table UCM-E.

Step 2 Adjust for LARC removals and re-insertions. The LARC methods can be removed at the woman's request so adjustments must be made to reflect this. Use the codes in Table UCM-F to identify women who had their IUD or implant removed at any point during the measurement year. Check to see if they had an IUD or implant reinserted on the same or a subsequent date. If there is no code indicating reinsertion, use the codes in Table UCM-E to determine whether a woman was provided another most or moderately effective method. Do so by looking back over the 30 days prior to the removal (since a woman may receive a prescription for another method prior to the removal) as well as the period after the LARC removal (i.e., through the end of the measurement year). If there is no code for reinsertion or provision of another most or moderately effective method, consider them as a non-user.

Step 3 Calculate the rates by dividing the number of women who used a most or moderately effective method of contraception by the number of women in the denominator. Calculate the rates separately for adolescents and adults.

DENOMINATOR STATEMENT

Women aged 15-44 years of age who are at risk of unintended pregnancy.

DENOMINATOR DETAILS

The target population is women of reproductive age (i.e., ages 15–44 years). In a Medicaid population, this includes:

- Women in the general Medicaid program who were continuously enrolled during the measurement year, i.e., had no more than one gap in enrollment of up to 45 days. To determine continuous enrollment for a Medicaid enrollee for whom enrollment is verified monthly, the

enrollee may not have more than a 1-month gap in coverage (i.e., an enrollee whose coverage lapses for 2 months is not considered continuously enrolled)

- All women participating in a state-sponsored family planning-specific Section 1115 waiver or in a family-planning specific state plan amendment (SPA) program, even if they were not continuously enrolled. This is because the primary intent of these waiver and/or SPA programs is to provide family planning services, including contraception.

EXCLUSIONS

The following categories of women are excluded from the denominator: (1) those who are infecund for non-contraceptive reasons; (2) those who had a live birth in the last 2 months of the measurement year; or (3) those who were still pregnant or their pregnancy outcome was unknown at the end of the year.

EXCLUSION DETAILS

Follow the steps below to identify the denominator. The tables that are referenced are found in the attached Excel files (one file is for 2014 and the second is for 2015).

Step 1 Identify and exclude women who were infecund due to non-contraceptive reasons such as natural menopause or oophorectomy. To do this, use the codes listed in Table UCM-A.

Step 2 Identify women who were pregnant at any point in the measurement year by using the codes listed in Table UCM-B. We obtained this list of codes by reviewing the following documents, and including all pregnancy-related codes:

- CMS & NCHS (2011). ICD-9-CM Official Guidelines for Coding and Reporting, effective October 1, 2011. Available online at: http://www.cdc.gov/nchs/icd/icd9cm_addenda_guidelines.htm.
- CMS & NCHS (2016). ICD-10-CM Official Guidelines for Coding and Reporting FY 2016 Available online at: <http://www.cdc.gov/nchs/icd/icd10cm.htm>.

Step 3 Among women who were pregnant at any point in the measurement year, exclude those who:

- Had a live birth in the last 2 months of the measurement year because there may not have been an opportunity to provide them with contraception. A two-month period was selected because the American College of Obstetricians and Gynecologists (ACOG) recommends having a postpartum visit by 6 weeks, and an additional 2 weeks was added to allow for reasonable delays in attending the postpartum visit. To identify live births, use the codes listed in Table UCM-D. This list of codes is drawn from the HEDIS measure of Prenatal and Postnatal care.
- Were still pregnant at the end of the year because they did not have a pregnancy outcome code indicating a non-live birth (Table UCM-C) or a live birth (Table UCM-D). Codes for non-live births were also drawn from the HEDIS measure of Prenatal and Postnatal Care.

Once the exclusions are applied, the denominator includes women who:

- Were not pregnant at any point in the measurement year,
- Were pregnant during the measurement year but whose pregnancy ended in the first 10 months of the measurement year, since there was adequate time to provide contraception in the postpartum period.
- Were pregnant during the measurement year but whose pregnancy ended in an ectopic pregnancy, stillbirth, miscarriage, or induced abortion.

RISK ADJUSTMENT

No risk adjustment or risk stratification

We do not believe that risk adjustment is justified. Although there are some variations in contraceptive use by socio-demographic characteristics, the reason for those patterns is based on modifiable clinical and programmatic considerations rather than

STRATIFICATION

The primary stratification variable is age, so that adolescents can be examined separately from adult women. We recommend this for purposes of QI, rather than for purposes of risk stratification. Teen pregnancy is worthy of a separate focus because of t

TYPE SCORE

Rate/proportion better quality = higher score

ALGORITHM

Step 1 Identify all women aged 15-44 years of age who were enrolled in the health plan or program. In the case of general Medicaid, include women who were continuously enrolled (i.e., had no more than one gap in enrollment of up to 45 days). In the case of women enrolled in a family planning-specific expansion program (1115 waiver or state plan amendment), include all women even if they do not meet the continuous enrollment criteria because the reason for their visit is related to pregnancy prevention.

Step 2 Define the denominator by excluding women who: (a) are infecund for non-contraceptive reasons; (b) had a live birth in the last 2 months of the measurement year; or (c) were still pregnant or their pregnancy outcome was unknown at the end of the year. Once exclusions are applied, the following groups of women will be included in the denominator: (a) those who were not pregnant at any point in the measurement year; (b) those who had a live birth in the first 10 months of the measurement year; and (c) those who had a known miscarriage, stillbirth, ectopic pregnancy, or induced abortion during the measurement year.

Step 3 Define the numerator by using claims codes to identify women who adopted or continued use of one of the following methods of contraception in the measurement year: sterilization, IUD, implant, contraceptive injection, contraceptive pills, patch, ring, or diaphragm. Adjust for LARC removals, in the manner specified above.

Step 4 Calculate the rates by dividing the number who used a most or moderately effective method of contraception by the number of women in the denominator. Calculate the rates separately for adolescents and adults. Available in attached appendix at A.1

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Not applicable

2904 Contraceptive Care - Access to LARC

STEWARD

US Office of Population Affairs

DESCRIPTION

Percentage of women aged 15-44 years at risk of unintended pregnancy that is provided a long-acting reversible method of contraception (i.e., implants, intrauterine devices or systems (IUD/IUS).

It is an access measure because it is intended to identify situations in which women do not have access to the long-acting reversible methods of contraception (LARC), i.e., contraceptive implants and intrauterine devices.

TYPE

Structure

DATA SOURCE

Claims (Only) Administrative claims data are used to calculate the measure. The data request should include an eligibility file, paid and denied claims with diagnosis codes and procedures codes (HCPCS, CPT, and ICD-9-PCS/ICD-10-PCS), as well as NDC codes.

Available in attached appendix at A.1 Attachment Codes_2014_and_2015_LARC.xlsx

LEVEL

Facility, Health Plan, Population : Regional and State

SETTING

Other primary care and reproductive health settings

NUMERATOR STATEMENT

Women aged 15-44 years of age at risk of unintended pregnancy who were provided a long-acting reversible method of contraception (LARC), i.e., intrauterine device or implant.

NUMERATOR DETAILS

The target population is eligible women 15-44 years of age who were provided a long-acting reversible method of contraception (LARC). To identify the numerator, follow these steps:

Step 1 Define the numerator by identifying women who used a long-acting reversible method of contraception (LARC) in the measurement year. To do this, use the codes in Table UCM-E.

Step 2 Adjust for LARC removals and re-insertions. The LARC methods can be removed at the woman's request so adjustments must be made to reflect this. Use the codes in Table UCM-F to identify women who had their IUD or implant removed at any point during the measurement year. Check to see if they had an IUD or implant reinserted on the same or a subsequent date through the end of the measurement year. If there is no code for reinsertion or provision of another most or moderately effective method, consider them as a non-user of LARC.

Step 3 Calculate the rates by dividing the number of women who used a most or moderately effective method of contraception by the number of women in the denominator. Calculate the rates separately for adolescents and adults.

DENOMINATOR STATEMENT

All women aged 15-44 years of age who are at risk of unintended pregnancy.

DENOMINATOR DETAILS

The target population is women of reproductive age (i.e., ages 15–44 years). In a Medicaid population, this includes:

- Women in the general Medicaid program who were continuously enrolled during the measurement year, i.e., had no more than one gap in enrollment of up to 45 days. To determine continuous enrollment for a Medicaid enrollee for whom enrollment is verified monthly, the enrollee may not have more than a 1-month gap in coverage (i.e., an enrollee whose coverage lapses for 2 months is not considered continuously enrolled)
- All women participating in a state-sponsored family planning-specific Section 1115 waiver or in a family-planning specific state plan amendment (SPA) program, even if they were not continuously enrolled. This is because the primary intent of these waiver and/or SPA programs is to provide family planning services, including contraception.

EXCLUSIONS

The following categories of women are excluded from the denominator: (1) those who are infecund for non-contraceptive reasons; (2) women who had a live birth in the last 2 months of the measurement year; or (3) women were still pregnant or their pregnancy outcome was unknown at the end of the year.

EXCLUSION DETAILS

Follow the steps below to identify the denominator. The tables that are referenced are found in the attached Excel files (one file is for 2014 and the second is for 2015).

Step 1 Identify and exclude women who were infecund due to non-contraceptive reasons such as natural menopause or oophorectomy. To do this, use the codes listed in Table UCM-A.

Step 2 Identify women who were pregnant at any point in the measurement year by using the codes listed in Table UCM-B. We obtained this list of codes by reviewing the following documents, and including all pregnancy-related codes:

- CMS & NCHS (2011). ICD-9-CM Official Guidelines for Coding and Reporting, effective October 1, 2011. Available online at: http://www.cdc.gov/nchs/icd/icd9cm_addenda_guidelines.htm.
- CMS & NCHS (2016). ICD-10-CM Official Guidelines for Coding and Reporting FY 2016 Available online at: <http://www.cdc.gov/nchs/icd/icd10cm.htm>.

Step 3 Among women who were pregnant at any point in the measurement year, exclude those who:

- Had a live birth in the last 2 months of the measurement year because there may not have been an opportunity to provide them with contraception. A two-month period was selected because the American College of Obstetricians and Gynecologists (ACOG) recommends having a postpartum visit by 6 weeks, and an additional 2 weeks was added to allow for reasonable delays in attending the postpartum visit. To identify live births, use the codes listed in Table UCM-D. This list of codes is drawn from the HEDIS measure of Prenatal and Postnatal care.
- Were still pregnant at the end of the year because they did not have a pregnancy outcome code indicating a non-live birth (Table UCM-C) or a live birth (Table UCM-D). Codes for non-live births were also drawn from the HEDIS measure of Prenatal and Postnatal Care.

Once the exclusions are applied, the denominator includes women who: were not pregnant at any point in the measurement year; were pregnant during the measurement year but whose pregnancy ended in the first 10 months of the measurement year, since there was adequate time to provide contraception in the postpartum period; or were pregnant during the measurement year but whose pregnancy ended in an ectopic pregnancy, stillbirth, miscarriage, or induced abortion.

RISK ADJUSTMENT

No risk adjustment or risk stratification

We do not believe that risk adjustment is justified. Although there are some variations in LARC use by socio-demographic characteristics, the reason for those patterns is based on modifiable clinical and programmatic considerations rather than differing

STRATIFICATION

The primary stratification variable is age, so that adolescents can be examined separately from adult women. The is for purposes of quality improvement, and not risk adjustment. Teen pregnancy is worthy of a separate focus because of the large potential

TYPE SCORE

Rate/proportion better quality = score within a defined interval

ALGORITHM

Step 1 Identify all women aged 15-44 years of age who were enrolled in the health plan or program. In the case of general Medicaid, include women who were continuously enrolled (i.e., had no more than one gap in enrollment of up to 45 days). In the case of women enrolled in a family planning-specific expansion program (1115 waiver or state plan amendment), include all women even if they do not meet the continuous enrollment criteria because the reason for their visit is related to pregnancy prevention.

Step 2 Define the denominator by excluding women who: (a) are infertile for non-contraceptive reasons; (b) had a live birth in the last 2 months of the measurement year; or (c) were still pregnant or their pregnancy outcome was unknown at the end of the year. Once exclusions are applied, the following groups of women will be included in the denominator: (a) those who were not pregnant at any point in the measurement year; (b) those who had a live birth in the first 10 months of the measurement year; and (c) those who had a known miscarriage, stillbirth, ectopic pregnancy, or induced abortion during the measurement year.

Step 3 Define the numerator by using claims codes to identify women who adopted or continued use of a long-acting reversible method of contraception (LARC), i.e., IUD or implant. Adjust for LARC removals, in the manner specified above.

Step 4 Calculate the rates by dividing the number who used a long-acting reversible method of contraception (LARC) by the number of women in the denominator. Calculate the rates separately for adolescents and adults. Available in attached appendix at A.1

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Not applicable.

Appendix F1: Related and Competing Measures (tabular format)

Comparison of NQF 0033 and NQF 0409

	0033: Chlamydia Screening in Women (CHL)	0409: HIV/AIDS: Sexually Transmitted Diseases – Screening for Chlamydia, Gonorrhea, and Syphilis
Steward	National Committee for Quality Assurance	National Committee for Quality Assurance
Description	The percentage of women 16–24 years of age who were identified as sexually active and who had at least one test for chlamydia during the measurement year.	Percentage of patients aged 13 years and older with a diagnosis of HIV/AIDS, who have received chlamydia, gonorrhea, and syphilis screenings at least once since the diagnosis of HIV infection
Type	Process	Process
Data Source	Administrative claims, Electronic Clinical Data, Electronic Clinical Data : Imaging/Diagnostic Study, Electronic Clinical Data : Laboratory, Electronic Clinical Data : Pharmacy This measure is based on administrative claims collected in the course of providing care to health plan members. NCQA collects the Healthcare Effectiveness Data and Information Set (HEDIS) data for this measure directly from Health Management Organizations and Preferred Provider Organizations via NCQA's online data submission system. No data collection instrument provided Attachment 0033_CHL_Value_Sets.xlsx	Electronic Clinical Data : Electronic Health Record N/A No data dictionary
Level	Health Plan, Integrated Delivery System	Clinician : Group/Practice, Clinician : Individual
Setting	Ambulatory Care : Clinician Office/Clinic	Ambulatory Care : Clinician Office/Clinic
Numerator Statement	Females who were tested for chlamydia during the measurement year.	Patients who have received chlamydia, gonorrhea, and syphilis screenings at least once since the diagnosis of HIV infection
Numerator Details	Females who had at least one test for chlamydia (see attached: Chlamydia Tests Value Set) during the measurement year.	N/A
Denominator Statement	Females 16-24 years who had a claim or encounter indicating sexual activity.	All patients aged 13 years and older with a diagnosis of HIV/AIDS, who had at least two visits during the measurement year, with at least 90 days between visits
Denominator Details	All female patients 16-24 years as of December 31 of the measurement year and who were identified as sexually active during the measurement year. Sexually active: Two methods are used to identify sexually active women: pharmacy data (see CHL-A: Prescriptions to Identify Contraceptives) and	Definition of "Medical Visit" - any visit with a health care professional who provides routine primary care for the patient with HIV/AIDS (may be a primary care physician, ob/gyn, pediatrician or infectious diseases specialist)

	0033: Chlamydia Screening in Women (CHL)	0409: HIV/AIDS: Sexually Transmitted Diseases – Screening for Chlamydia, Gonorrhea, and Syphilis
	<p>claim/encounter data (see attached: Pregnancy Value Set, Sexual Activity Value Set, and Pregnancy Tests Value Set). Both methods are used to identify the eligible population; however, a patient only needs to be identified in one method to be eligible for the measure.</p> <p>Table CHL-A: Prescriptions to Identify Contraceptives</p> <p>--Contraceptives: Desogestrel-ethinyl estradiol; Dienogest-estradiol multiphasic; Drospirenone-ethinyl estradiol; Drospirenone-ethinyl estradiol-levomefolate biphasic; Ethinyl estradiol-ethynodiol; Ethinyl estradiol-etonogestrel; Ethinyl estradiol-levonorgestrel; Ethinyl estradiol-norelgestromin; Ethinyl estradiol-norethindrone; Ethinyl estradiol-norgestimate; Ethinyl estradiol-norgestrel; Etonogestrel; Levonorgestrel; Medroxyprogesterone; Mestranol-norethindrone; Norethindrone</p> <p>--Diaphragm</p> <p>--Spermicide: Nonoxynol 9</p>	
Exclusions	Females who received a pregnancy test to determine contraindications for medication (isotretinoin) or x-ray.	None
Exclusion Details	<p>Exclude members from the denominator who were identified as sexually active based on a pregnancy test alone (see attached: Pregnancy Tests Value Set) AND who meet either of the following:</p> <p>1) A pregnancy test (see attached: Pregnancy Test Exclusion Value Set) during the measurement year AND a prescription for isotretinoin (see Table CHL-E: Medications to Identify Exclusions) on the date of the pregnancy test or the 6 days after the pregnancy test.</p> <p>2) A pregnancy test (see attached: Pregnancy Test Exclusion Value Set) during the measurement year AND a x-ray (see attached: Diagnostic Radiology Value Set) on the date of the pregnancy test or the 6 days after the pregnancy test.</p> <p>Table CHL-E: Medications to Identify Exclusions</p> <p>Retinoid: Isotretinoin</p>	N/A

	0033: Chlamydia Screening in Women (CHL)	0409: HIV/AIDS: Sexually Transmitted Diseases – Screening for Chlamydia, Gonorrhea, and Syphilis
Risk Adjustment	No risk adjustment or risk stratification NA	No risk adjustment or risk stratification N/A
Stratification	The measure includes two age stratifications and a total rate: 1) 16-20 years. 2) 21-24 years. 3) Total	N/A
Type Score	Rate/proportion better quality = higher score	Rate/proportion better quality = higher score
Algorithm	<p>Refer to items S.9 (Denominator details) and S.2b (Data Dictionary) for tables.</p> <p>Step 1 Determine the eligible population. To do so, identify all female patients in the specified age range who had a claim/encounter indicating sexual activity (Pregnancy Value Set, Sexual Activity Value Set, Pregnancy Tests Value Set) and/or were dispensed prescription contraceptives (Table CHL-A) during the measurement year.</p> <p>Step 2 Exclude patients who qualified for the eligible population based on a pregnancy test (Pregnancy Tests Value Set) alone AND who meet either of the following: (1) A pregnancy test (Pregnancy Test Exclusion Value Set) during the measurement year AND a prescription for isotretinoin (Table CHL-E) on the date of the pregnancy test or the 6 days after the pregnancy test, (2) A pregnancy test (Pregnancy Test Exclusion Value Set) during the measurement year AND an x-ray (Diagnostic Radiology Value Set) on the date of the pregnancy test or the 6 days after the pregnancy test.</p> <p>Step 3 Determine the numerator. Determine the number of patients in the remaining eligible population who had at least one chlamydia test (Chlamydia Tests Value Set) during the measurement year.</p> <p>Step 4 Report two age stratifications (16-20 years and 21-24 years), and a total rate. The total is the sum of the age stratifications. No diagram provided</p>	<p>Measure Calculation</p> <p>For performance purposes, this measure is calculated by creating a fraction with the following components: Denominator, Numerator.</p> <p>Step 1: Determine the eligible population. The eligible population is all the patients, aged 13 years and older, with a diagnosis of HIV/AIDS.</p> <p>Step 2: Determine number of patients meeting the denominator criteria as specified in Section S.7 above.</p> <p>Step 3: Determine the number of patients who meet the numerator criteria as specified in section S.4 above. The numerator includes all patients in the denominator population who have received chlamydia, gonorrhea, and syphilis screenings at least once since the diagnosis of HIV/AIDS.</p> <p>Step 4: Calculate the rate by dividing the total from Step 3 by the total from Step 2.</p>
Submission items	<p>5.1 Identified measures: 0409 : HIV/AIDS: Sexually Transmitted Diseases – Screening for Chlamydia, Gonorrhea, and Syphilis</p> <p>5a.1 Are specs completely harmonized? Yes</p>	<p>5.1 Identified measures: 0033 : Chlamydia Screening in Women (CHL)</p> <p>1395 : Chlamydia Screening and Follow Up</p> <p>5a.1 Are specs completely harmonized? No</p>

	0033: Chlamydia Screening in Women (CHL)	0409: HIV/AIDS: Sexually Transmitted Diseases – Screening for Chlamydia, Gonorrhea, and Syphilis
	<p>5a.2 If not completely harmonized, identify difference, rationale, impact: NQF #0409 both address chlamydia screening. However, the measures differ in the target patient populations. NQF #0409 looks for chlamydia screenings among males and females aged 13 and older with a diagnosis of HIV/AIDS. This measure focuses on women aged 16-24 with an indication of sexual activity, which aligns with the U.S. Preventive Services Task Force guideline for chlamydia screening in a general population. The measures are aligned in how they define chlamydia screening.</p> <p>5b.1 If competing, why superior or rationale for additive value: NA</p>	<p>5a.2 If not completely harmonized, identify difference, rationale, impact: Measures 0033 and 1395 focus on sexually active female adolescents and young adults, while the HIV measure focuses on patients with HIV (both male and female) because patients with HIV are at higher risk for having a comorbid sexually transmitted infection. The frequency of screening also differs – because 0033 focuses on sexually active individuals, the screening frequency is yearly, whereas this measure measures screenings at least once since the diagnosis of HIV.</p> <p>5b.1 If competing, why superior or rationale for additive value:</p>

Comparison of NQF 0304, 0478, and NQF 1731

	0304: Late sepsis or meningitis in Very Low Birth Weight (VLBW) neonates (risk-adjusted)	0478: Neonatal Blood Stream Infection Rate (NQI 03)	1731: PC-04 Health Care-Associated Bloodstream Infections in Newborns
Steward	Vermont Oxford Network	Agency for Healthcare Research and Quality	The Joint Commission
Description	Standardized morbidity ratio and observed minus expected measure for nosocomial bacterial infection after day 3 of life in very low birth weight infants	Discharges with healthcare-associated blood stream infection per 1,000 discharges for newborns and outborns with birth weight of 500 grams or more but less than 1,500 grams; with gestational age between 24 and 30 weeks; or with birth weight of 1,500 grams or more and death, an operating room procedure, mechanical ventilation, or transferring from another hospital within two days of birth. Excludes discharges with a length of stay less than 3 days and discharges with a principal diagnosis of sepsis, sepsis or bacteremia, or newborn bacteremia.	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 Birth, PC-03: Antenatal Steroids, PC-05: Exclusive Breast Milk Feeding).
Type	Outcome	Outcome	Outcome
Data Source	Electronic Clinical Data : Registry Vermont Oxford Network Database No data collection instrument provided Attachment 0304_ICD_Code_Tables.xlsx	Administrative claims While the measure is tested and specified using data from the Healthcare Cost and Utilization Project (HCUP) (see section 1.1 and 1.2 of the measure testing form), the measure specifications and software are specified to be used with any ICD-9-CM- or ICD-10-CM/PCS coded administrative billing/claims/discharge dataset. Available at measure-specific web page URL identified in S.1 Attachment NQI03_Tech_Specs_v6.1alpha_160211xlsx.xlsx	Paper Medical Records Each data element in the data dictionary includes suggested data sources. The data are collected using contracted Performance Measurement Systems (vendors) that develop data collection tools based on the measure specifications. The tools are verified and tested by Joint Commission staff to confirm the accuracy and conformance of the data collection tool with the measure specifications. The vendor may not offer the measure set to hospitals until verification has been passed. No data collection instrument provided Attachment PC04_ICD_Code_Tables.xlsx

	0304: Late sepsis or meningitis in Very Low Birth Weight (VLBW) neonates (risk-adjusted)	0478: Neonatal Blood Stream Infection Rate (NQI 03)	1731: PC-04 Health Care-Associated Bloodstream Infections in Newborns
Level	Facility	Facility	Facility, Population : National
Setting	Hospital/Acute Care Facility	Hospital/Acute Care Facility	Hospital/Acute Care Facility
Numerator Statement	<p>Eligible infants with one or more of the following criteria:</p> <p>Criterion 1:</p> <p>Bacterial Pathogen. A bacterial pathogen is recovered from a blood and/or cerebral spinal fluid culture obtained after Day 3 of life.</p> <p>OR</p> <p>Criterion 2:</p> <p>Coagulase Negative Staphylococcus. The infant has all 3 of the following:</p> <ol style="list-style-type: none"> 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. Treatment 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 	<p>Discharges, among cases meeting the inclusion and exclusion rules for the denominator, with either:</p> <ul style="list-style-type: none"> • any secondary ICD-9-CM or ICD-10 CM diagnosis codes for other septicemia; or • any secondary ICD-9-CM or ICD-10 CM diagnosis codes for newborn septicemia or bacteremia and • any secondary ICD-9-CM or ICD-10 CM diagnosis codes for staphylococcal or Gram-negative bacterial infection 	<p>The outcome being measured is: Newborns with septicemia or bacteremia with ICD-10-CM Other Diagnosis Codes for newborn septicemia or bacteremia as defined in Appendix A, Table 11.10 with a Bloodstream Infection Confirmed OR ICD-10-CM Other Diagnosis Codes for sepsis as defined in Appendix A, Table 11.10.1 with a Bloodstream Infection Confirmed available at:</p> <p>http://manual.jointcommission.org/releases/TJC2016A/</p> <p>The only national hospital quality measure currently requiring patient-level risk adjustment is the Health Care-Associated Bloodstream Infections in Newborns (PC-04) outcome measure in the perinatal care measure set.</p>

	0304: Late sepsis or meningitis in Very Low Birth Weight (VLBW) neonates (risk-adjusted)	0478: Neonatal Blood Stream Infection Rate (NQI 03)	1731: PC-04 Health Care-Associated Bloodstream Infections in Newborns
	days.		
Numerator Details	<p>Infants whose birth weight is between 401 and 1500 grams or whose gestational age is between 22 weeks 0 days and 29 weeks 6 days are included if they have coagulase negative staphylococcus or one of the bacterial pathogens listed below after day 3 of life, provided they meet one of the following criteria:</p> <ol style="list-style-type: none"> 1. They are born at the reporting hospital. <p>OR</p> <ol style="list-style-type: none"> 2. They are admitted to any location in the reporting hospital within 28 days of birth, without first having gone home. <p>Bacterial Pathogens List:</p> <ol style="list-style-type: none"> 1. Achromobacter species [including Achromobacter xylosoxidans (also known as Alcaligenes xylosoxidans) and others] 2. Acinetobacter species 3. Aeromonas species 4. Alcaligenes species [Alcaligenes xylosoxidans and others] 5. Bacteroides species 6. Burkholderia species [Burkholderia capeciae and others] 7. Campylobacter species [Campylobacter fetus, C. jejuni and others] 8. Chryseobacterium species 9. Citrobacter species [Citrobacter diversus, C. freundii, C. koseri and others] 10. Clostridium species 	Please see attached excel file in S.2b. for version 6.1 alpha specifications.	<p>Two data elements are used for the observed outcome and to calculate the numerator:</p> <ol style="list-style-type: none"> 1. Bloodstream Infection Confirmed- Confirmation that a health care-associated bloodstream infection occurred after the first 48 hours after admission. 2. ICD-10-CM Other Diagnosis Codes- The International Classification of Diseases, Tenth Revision, Clinical Modification codes associated with the secondary diagnoses for this hospitalization. <p>Cases are eligible for the numerator population with ICD-10-CM Other Diagnosis Code for newborn septicemia or bacteremia with the presence of a health care-associated bloodstream infection confirmed OR an ICD-10-CM Other Diagnosis Codes for sepsis with the presence of a health care-associated bloodstream infection confirmed.</p> <p>Updates available at: https://manual.jointcommission.org/releases/TJC2016A/.</p>

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	11. Enterobacter species [Enterobacter aerogenes, E. cloacae, and others] 12. Enterococcus species [Enterococcus faecalis (also known as Streptococcus faecalis), E.faecium, and other Enterococcus species] 13. Escherichia coli 14. Flavobacterium species 15. Haemophilus species [Haemophilus influenzae and others] 16. Klebsiella species [Klebsiella oxytoca, K. pneumoniae and others] 17. Listeria monocytogenes 18. Moraxella species [Moraxella catarrhalis (also known as Branhamella catarrhalis) and others] 19. Neisseria species [Neisseria meningitidis, N. gonorrhoeae and others] 20. Pasteurella species 21. Prevotella species 22. Proteus species [Proteus mirabilis, P. vulgaris and others] 23. Providencia species [Providencia rettgeri, and others] 24. Pseudomonas species [Pseudomonas aeruginosa and others] 25. Ralstonia species 26. Salmonella species 27. Serratia species [Serratia liquefaciens, S. marcescens and others] 28. Staphylococcus coagulase positive [aureus]		

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	29. <i>Stenotrophomonas maltophilia</i> 30. <i>Streptococcus</i> species [including <i>Streptococcus</i> Group A, <i>Streptococcus</i> Group B, <i>Streptococcus</i> Group D, <i>Streptococcus pneumoniae</i> , <i>Strep milleri</i> and others]		
Denominator or Statement	Eligible infants who are in the reporting hospital after day 3 of life.	<p>All newborns and outborns with either:</p> <ul style="list-style-type: none"> • a birth weight of 500 to 1,499 grams (Birth Weight Categories 2, 3, 4 and 5); or • any-listed ICD-9-CM or ICD-10 CM diagnosis codes for gestational age between 24 and 30 weeks; or • a birth weight greater than or equal to 1,500 grams (Birth Weight Category 6, 7, 8, or 9) and death (DISP=20); or • a birth weight greater than or equal to 1,500 grams (Birth Weight Category 6, 7, 8, or 9) and any-listed ICD-9-CM or ICD-10 PCS procedure codes for operating room procedure; or • a birth weight greater than or equal to 1,500 grams (Birth Weight Category 6, 7, 8, or 9) and any-listed ICD-9-CM or ICD-10 PCS procedure codes for mechanical ventilation; or • a birth weight greater than or equal to 1,500 grams (Birth Weight Category 6, 7, 8, or 9) and transferring from another health care facility within two days of birth <p>See Pediatric Quality Indicators Appendices:</p> <ul style="list-style-type: none"> • Appendix A – Operating Room Procedure Codes • Appendix I – Definitions of Neonate, Newborn, Normal Newborn, and Outborn • Appendix L – Low Birth Weight Categories 	<p>The outcome target population being measured is: Liveborn newborns with ICD-10-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 ICD-10-CM Other Diagnosis Codes for birth weight = > 1500g as defined in Appendix A, Table 11.15 or 11.16 OR Birth Weight = > 1500g who experienced one or more of the following:</p> <ul style="list-style-type: none"> o Experienced death o ICD-10-PCS Principal Procedure Code or ICD-10-PCS Other Procedure Codes for major surgery as defined in Appendix A, Table 11.18 o ICD-10-PCS Principal Procedure Code or ICD-10-PCS Other Procedure Codes for mechanical ventilation as defined in Appendix A, Table 11.19 o Transferred in from another acute care hospital or health care setting within 2 days of birth.

	0304: Late sepsis or meningitis in Very Low Birth Weight (VLBW) neonates (risk-adjusted)	0478: Neonatal Blood Stream Infection Rate (NQI 03)	1731: PC-04 Health Care-Associated Bloodstream Infections in Newborns
Denominator or Details	<p>Infants whose birth weights are between 401 and 1500 grams or whose gestational ages are between 22 weeks 0 days and 29 weeks 6 days are included if they are in the reporting hospital after day 3 of life, provided they meet one of the following criteria:</p> <ol style="list-style-type: none"> 1. They are born at the reporting hospital. <p>OR</p> <ol style="list-style-type: none"> 2. They are admitted to any location in the reporting hospital within 28 days of birth, without first having gone home. 	<p>Please see attached excel file in S.2b. for version 6.1 alpha specifications.</p>	<p>Ten data elements are used to identify the target population and to calculate the denominator:</p> <ol style="list-style-type: none"> 1. Admission Date – The month, day and year of admission to acute inpatient care. 2. Birth Weight- The weight (in grams) of a newborn at the time of delivery. 3. Birthdate - The month, day and year the patient was born. 4. Bloodstream Infection Present on Admission- Documentation in the medical record that the patient had a bloodstream infection present on admission. This includes both patients with positive blood cultures or inconclusive blood cultures when the patient is suspected of having a bloodstream infection or septicemia and is being treated for the condition. Allowable values: Yes or No/UTD 5. Discharge Date – The month day and year the patient was discharged from acute care, left against medical advice or expired during the stay. 6. Discharge Disposition - The place or setting to which the patient was discharged. 7. ICD-10-CM Other Diagnosis Codes - The International Classification of Diseases, Tenth Revision, Clinical Modification codes associated with the secondary diagnoses for this hospitalization. 8. ICD-10-PCS Other Procedure Codes - The International Classification of Diseases, Tenth Revision, Procedure Coding System code that identifies significant procedures performed other than the principal

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			<p>procedure during this hospitalization.</p> <p>9. ICD-10-CM Principal Diagnosis Code - The International Classification of Diseases, Tenth Revision, Clinical Modification code associated with the diagnosis established after study to be chiefly responsible for occasioning the admission of the patient for this hospitalization.</p> <p>10. ICD-10-PCS Principal Procedure Code - The International Classification of Diseases, Tenth Revision, Procedure Coding System code that identifies the principal procedure performed during this hospitalization. The principal procedure is the procedure performed for definitive treatment rather than diagnostic or exploratory purposes, or which is necessary to take care of a complication.</p> <p>Updates available at: https://manual.jointcommission.org/releases/TJC2016A/.</p>
Exclusions	<p>Infants 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.</p>	<p>Exclude cases:</p> <ul style="list-style-type: none"> • with a principal ICD-9-CM or ICD-10-CM diagnosis code (or secondary diagnosis present on admission†) for sepsis • with a principal ICD-9-CM or ICD-10-CM diagnosis code (or secondary diagnosis present on admission†) for sepsis or bacteremia • with a principal ICD-9-CM or ICD-10-CM diagnosis code (or secondary diagnosis present on admission†) for staphylococcal or Gram-negative bacterial infection • with birth weight less than 500 grams (Birth Weight Category 1) 	<ul style="list-style-type: none"> • ICD-10-CM Principal Diagnosis Code for septicemias or bacteremias as defined in Appendix A, Table 11.10.2 • ICD-10-CM Other Diagnosis Codes for septicemias or bacteremias as defined in Appendix A, Table 11.10.2 or ICD-10-CM Principal or Other Diagnosis Codes for newborn septicemia or bacteremia as defined in Appendix A, Table 11.10 with a Bloodstream Infection Present on Admission • ICD-10-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

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		<ul style="list-style-type: none"> • with length of stay less than 3 days • with missing 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.	
Exclusion Details	1. Any infant who meets neither of the following conditions is excluded: <ul style="list-style-type: none"> - Birth weight between 401 and 1500 grams - Gestational age between 22 and 29 weeks. 2. Outborn infants who are admitted to the reporting hospital more than 28 days after birth are excluded. 3. Outborn infants who have been home prior to admission to the reporting hospital are excluded. 4. Infants discharged home on or before day 3 of life are excluded. 5. Infants who die on or before day 3 of life are excluded. 6. Infants who transfer to another hospital on or before day 3 of life and who are not readmitted to the reporting hospital. 7. Infants who transfer more than once prior to day 3 of life.	Please see attached excel file in S.2b. for version 6.1 alpha specifications.	<ul style="list-style-type: none"> • Patients with ICD-10-CM Principal Diagnosis Code for septicemias or bacteremias are excluded. • Patients with ICD-10-CM Other Diagnosis Codes for septicemias or bacteremias with a Bloodstream Infection Present on Admission are excluded. • Patients with ICD-10-CM Principal or Other Diagnosis Codes for newborn septicemia or bacteremia with a Bloodstream Infection Present on Admission are excluded. • Patients with ICD-10-CM Other Diagnosis Codes for birth weight <500 grams OR a birth weight <500 grams are excluded. • Length of stay (LOS) in days is equal to the Discharge Date minus the Admission Date. If the LOS is less than 2 days, the patient is excluded.
Risk Adjustment	Statistical risk model Logistic regression with shrinkage estimate - see S. 15a Provided in response box S.15a	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,	Statistical risk model Logistic regression Model Risk Factors Considered: Intercept Intercept Birth Weight 1250g to 2499g

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		<p>birthweight (in 500g groups), modified CMS DRG, congenital anomalies, transfer in status and Major Diagnosis</p> <p>Available in attached Excel or csv file at S.2b</p>	<p>Birth Weight 1000 to 1249g Birth Weight 500 to 749g Birth Weight 750 to 750g Modified DRG Newborn Transfers Out or Died Congenital Anomaly Gastrointestinal</p> <p>Available in attached Excel or csv file at S.2b</p>
Stratification	N/A	Not applicable	Not applicable, the measure is not stratified.
Type Score	Other Standardized morbidity ratio and observed minus expected values with confidence bounds better quality = lower score	Rate/proportion better quality = lower score	Rate/proportion better quality = lower score
Algorithm	<p>1.Determine the number of infants for a reporting period who meet the population criteria described above. This number is termed N.</p> <p>2.Using the definitions in the Network Manual of Operations, determine the number of infants who had nosocomial bacterial infection after day 3 of life and prior to discharge home for each of the N infants. This is the number of eligible infants who were diagnosed as having either coagulase negative staphylococcus and/or a late bacterial pathogen after day 3 of life. The number identified as having nosocomial bacterial infection is termed the “observed number with infection” or O for short.</p> <p>3.For each of the N infants, calculate the expected value of infection by multiplying the coefficient times its covariate value for each covariate (coefficients</p>	<p>The observed rate is the number of discharge records where the patient experienced the QI adverse event divided by the number of discharge records at risk for the event. The expected rate is a comparative rate that incorporates information about a reference population that is not part of the user’s input dataset – what rate would be observed if the expected level of care observed in the reference population and estimated with risk adjustment regression models, were applied to the mix of patients with demographic and comorbidity distributions observed in the user’s dataset? The expected rate is calculated only for risk-adjusted indicators.</p> <p>The expected rate is estimated for each person using a generalized estimating equations (GEE) approach to account for correlation at the hospital or provider level.</p> <p>The risk-adjusted rate is a comparative rate that also incorporates information about a reference population that is not part of the input dataset – what rate would be observed if the level of care observed in the user’s dataset were</p>	<p>1. Start processing. Run cases that are included in the PC-Newborn Initial Patient Newborns with BSI and pass the edits defined in the Transmission Data Processing Flow: Clinical through this measure.</p> <p>2. Calculate Length of Stay. Length of Stay, in days, is equal to the Discharge Date minus the Admission Date.</p> <p>3. Check Length of Stay</p> <p>a. If Length of Stay is less than 2 days, the case will proceed to a Measure Category Assignment of B and will not be in the measure population. Stop processing.</p> <p>b. If Length of Stay is greater than or equal to 2 days, continue processing and proceed to ICD-10-CM Principal or Other Diagnosis Codes.</p> <p>4. Check ICD-10-CM Principal or Other Diagnosis Codes</p> <p>a. If none of the ICD-10-CM Principal or Other Diagnosis Codes is on Table 11.10, continue processing and proceed to ICD-10-CM Other Diagnosis Codes</p>

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	<p>provided on request). The covariates include:</p> <p>Gestational Age in completed weeks (GA)</p> <p>GA squared</p> <p>Small for Gestational Age (data table provided on request)</p> <p>Major birth defect (0=No, 1=Yes)</p> <p>APGAR score at 1 minute (0 to 10)</p> <p>Birth location (0=Inborn, 1=Outborn)</p> <p>Multiple gestation (0=No, 1=Yes)</p> <p>Infant gender (0=Female, 1=Male)</p> <p>Mode of delivery (0=C-Section, 1=Vaginal)</p> <p>4. Add the expected values for each of the N infants to calculate the number of expected cases of nosocomial bacterial infection. This number is termed the “expected number with infection” or E for short.</p> <p>5. Calculate the standardized morbidity ratio (SMRshrnk) for nosocomial bacterial infection using the values for O and E and applying the estimate for systematic variation (v_2), determined from Vermont Oxford Network analyses (provided on request).</p> <p>$SMRshrnk = (O + v_2) / (E + v_2)$ with standard error</p> <p>$SESMRshrnk = \sqrt{1/(E + (1/v_2))}$;</p> <p>6. Calculate the shrunken, adjusted nosocomial bacterial infection rate (Rateshrnk) and its 95% confidence interval.</p> <p>$Rateshrnk = (SMRshrnk \times E) / N$</p>	<p>applied to a mix of patients with demographics and comorbidities distributed like the reference population? The risk adjusted rate is calculated using the indirect method as observed rate divided by expected rate multiplied by the reference population rate. The smoothed rate is the weighted average of the risk-adjusted rate from the user’s input dataset and the rate observed in the reference population; the smoothed rate is calculated with a shrinkage estimator to result in a rate near that from the user’s dataset if the provider’s rate is estimated in a stable fashion with minimal noise, or to result in a rate near that of the reference population if the variance of the estimated rate from the input dataset is large compared with the hospital-to-hospital variance estimated from the reference population. Thus, the smoothed rate is a weighted average of the risk-adjusted rate and the reference population rate, where the weight is the signal-to-noise ratio. In practice, the smoothed rate brings rates toward the mean, and tends to do this more so for outliers (such as rural hospitals). For additional information, please see the supplemental files for the Empirical Methods. No diagram provided</p>	<p>1. If all of the ICD-10-CM Other Diagnosis Codes are missing or none of the ICD-10-CM Other Diagnosis Codes is on Table 11.10.2, continue processing and proceed to recheck ICD-10-CM Other Diagnosis Codes (Step 7).</p> <p>2. If at least one of the ICD-10-CM Other Diagnosis Codes is on Table 11.10.2, continue processing and proceed to Bloodstream Infection Present on Admission.</p> <p>b. If at least one of the ICD-10-CM Principal or Other Diagnosis Codes is on Table 11.10, continue processing and proceed to Bloodstream Infection Present on Admission.</p> <p>5. Check Bloodstream Infection Present on Admission</p> <p>a. If Bloodstream Infection Present on Admission is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.</p> <p>b. If Bloodstream Infection Present on Admission equals Yes, the case will proceed to a Measure Category Assignment of B and will not be in the measure population. Stop processing.</p> <p>c. If Bloodstream Infection Present on Admission equals No, continue processing and proceed to check ICD-10-CM Other Diagnosis Codes.</p> <p>6. Check ICD-10-CM Other Diagnosis Codes</p> <p>a. If at least one of the ICD-10-CM Other Diagnosis Codes is on Table 11.12, 11.13, 11.14, continue processing and proceed to recheck ICD-10-CM Other Diagnosis Codes (Step 13).</p>

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	<p>with standard error (SERateshrnk) equal to $\text{SESMRshrnk} \times E / N$.</p> <p>and 95% confidence interval for Rateshrnk equal to</p> <p>$\text{Rateshrnk} \pm 1.96 \times \text{SERateshrnk}$.</p> <p>7. Calculate the number of observed minus expected cases of nosocomial bacterial infection, adjusting for case mix and systematic variation (O–Eshrnk), and calculate the 95% control limits for O–Eshrnk.</p> <p>$\text{O–Eshrnk} = E / \text{SMRshrnk}$</p> <p>with 95% control limits equal to $\text{O–Eshrnk} \pm 1.96 \times \text{SESMRshrnk} \times E$.</p> <p>URL</p>		<p>b. If all of the ICD-10-CM Other Diagnosis Codes are missing, continue processing and proceed to Birth Weight.</p> <p>c. If none of the ICD-10-CM Other Diagnosis Codes is on Table 11.12, 11.13, 11.14, continue processing and proceed to recheck ICD-10-CM Other Diagnosis Codes (Step 8).</p> <p>7. Recheck ICD-10-CM Other Diagnosis Codes</p> <p>a. If at least one of the ICD-10-CM Other Diagnosis Codes on table 11.15, 11.16, continue processing and proceed to ICD-10-CM Principal or Other Procedure Codes.</p> <p>b. If none of the ICD-10-CM Other Diagnosis Codes on table 11.15, 11.16, continue processing and proceed to Birth Weight.</p> <p>8. Check Birth Weight</p> <p>a. If Birth Weight is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.</p> <p>b. If Birth Weight equals a Non Unable to Determine Value, the case will proceed to a Measure Category Assignment of E and will be in the Numerator Population. Stop processing.</p> <p>c. If Birth Weight is less than 500, the case will proceed to a Measure Category Assignment of B and will not be in the measure population. Stop processing.</p> <p>d. If Birth Weight is between 500 and 1499, continue processing and proceed to recheck ICD-10-CM Other Diagnosis Codes (Step13).</p> <p>e. If Birth Weight is greater than or equal to 1500, continue processing and proceed to ICD-</p>

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			<p>10-PCS Principal or Other Procedure Codes.</p> <p>9. Check ICD-10-PCS Principal or Other Procedure Codes</p> <p>a. If at least one of the ICD-10-PCS Principal or Other Procedure Codes is on table 11.18 or 11.19, continue processing and proceed to recheck ICD-10-PCS Other Diagnosis Codes (Step 13).</p> <p>b. If all of the ICD-10-PCS Principal or Other Procedure Codes are missing or none of the ICD-10-PCS Principal or Other Procedure Codes is on table 11.18 or 11.19, continue processing and proceed to ICD-10-CM Principal Diagnosis Code.</p> <p>10. Check ICD-10-CM Principal Diagnosis Code</p> <p>a. If ICD-10-CM Principal Diagnosis Code is not on table 11.10.3, continue processing and proceed to recheck ICD-10-CM Other Diagnosis Codes (Step 13).</p> <p>b. If ICD-10-CM Principal Diagnosis Code is on table 11.10.3, continue processing and proceed to Discharge Disposition.</p> <p>11. Check Discharge Disposition</p> <p>a. If Discharge Disposition is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.</p> <p>b. If Discharge Disposition equals 1, 2, 3, 4, 5, 7, 8, the case will proceed to a Measure Category Assignment of B and will not be in the measure population. Stop processing.</p> <p>c. If Discharge Disposition equals 6, continue processing and proceed to recheck ICD-10-CM Other Diagnosis Codes (Step13).</p> <p>12. Recheck ICD-10-CM Other Diagnosis Codes</p>

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			<p>a. If at least one of the ICD-10-CM Other Diagnosis Codes is on table 11.10, continue processing and proceed to Bloodstream Infection Confirmed.</p> <p>b. If all of the ICD-10-CM Other Diagnosis Codes are missing or none of the ICD-10-CM Other Diagnosis Codes is on table 11.10, continue processing and proceed to recheck ICD-10-CM Other Diagnosis Codes (Step14).</p> <p>13. Recheck ICD-10-CM Other Diagnosis Codes</p> <p>a. If at least one of the ICD-10-CM Other Diagnosis Codes is on table 11.10.1, continue processing and proceed to Bloodstream Infection Confirmed.</p> <p>b. If all of the ICD-10-CM Other Diagnosis Codes are missing or none of the ICD-10-CM Other Diagnosis Codes is on table 11.10.1, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop processing.</p> <p>14. Check Bloodstream Infection Confirmed</p> <p>a. If Bloodstream Infection Confirmed is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.</p> <p>b. If Bloodstream Infection Confirmed equals Yes, the case will proceed to a Measure Category Assignment of E and will be in the Numerator Population. Stop processing.</p> <p>c. If Bloodstream Infection Confirmed equals No, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop processing.</p>

	0304: Late sepsis or meningitis in Very Low Birth Weight (VLBW) neonates (risk-adjusted)	0478: Neonatal Blood Stream Infection Rate (NQI 03)	1731: PC-04 Health Care-Associated Bloodstream Infections in Newborns
			<p>Calculation of adjusted outcome:</p> <p>Step 1 -- Identify the measure population through Measure Category Assignments.</p> <p>Risk adjusted rate-based measure: Identify the numerator (Measure Category Assignment = E) and the denominator (Measure Category Assignment = D) cases using the information provided in the Measure Information Form (MIF). Risk adjusted continuous variable measure: Identify the number of cases in the measure population (Measure Category Assignment = D). At this time, there are no risk adjusted continuous outcome measures in any of the national hospital quality measure sets.</p> <p>Note: Do not calculate a Predicted Value for a case if it is rejected by front-end edits or is rejected because one or more measures in the measure set evaluates to a Measure Category Assignment = X.</p> <p>Step 2 -- Create risk factors for the measure.</p> <p>Using the Risk Model Information File provided by the Joint Commission, identify all applicable EOC record data elements and the associated risk factor values for each of the EOC records identified instep 1. Risk factors include patient demographic and/or clinical factors, which can influence outcomes of care. Some examples of risk factors include age, sex, and comorbidities – such as diabetes or a history of hypertension. As an example,</p>

	0304: Late sepsis or meningitis in Very Low Birth Weight (VLBW) neonates (risk-adjusted)	0478: Neonatal Blood Stream Infection Rate (NQI 03)	1731: PC-04 Health Care-Associated Bloodstream Infections in Newborns
			Figure 1 lists the data elements required for risk adjustment of generic measure 'ABC'. Using the data for measure 'ABC', the performance measurement system must identify the risk factors at the EOC record-level, and create data subsets for each participating hospital. Available at measure-specific web page URL identified in S.1
Submission items	<p>5.1 Identified measures: 0478 : Neonatal Blood Stream Infection Rate (NQI 03)</p> <p>1731 : PC-04 Health Care-Associated Bloodstream Infections in Newborns</p> <p>5a.1 Are specs completely harmonized? No</p> <p>5a.2 If not completely harmonized, identify difference, rationale, impact: The target populations are different, as are the item definitions and risk adjustment methodology.</p> <p>5b.1 If competing, why superior or rationale for additive value: N/A</p>	<p>5.1 Identified measures: 1731 : PC-04 Health Care-Associated Bloodstream Infections in Newborns</p> <p>5a.1 Are specs completely harmonized?</p> <p>5a.2 If not completely harmonized, identify difference, rationale, impact:</p> <p>5b.1 If competing, why superior or rationale for additive value: Our understanding is that The Joint Commission (TJC) intends to submit "Health Care-Associated Bloodstream Infections in Newborns (PC-04)" under the call for measures. In anticipation of this, AHRQ and TJC have agreed to harmonize our measures to the extent feasible given alternative data sources. (The AHRQ QI is an existing NQF endorsed measure; the TJC measure is a newly submitted measure).</p> <p>There are three specification differences related to data availability in the TJC measure specification. First, hospitals report to TJC the actual birth weight from the medical record (rather than coded birth weight using ICD-9-CM); Second, hospitals report whether the patient has a signed consent form for participation in a clinical trial. Therefore,</p>	<p>5.1 Identified measures: 0304 : Late sepsis or meningitis in Very Low Birth Weight (VLBW) neonates (risk-adjusted)</p> <p>0478 : Neonatal Blood Stream Infection Rate (NQI 03)</p> <p>5a.1 Are specs completely harmonized? No</p> <p>5a.2 If not completely harmonized, identify difference, rationale, impact: Measure 0304 addresses infections in the newborn. Measure 0304 evaluates very low birth weight newborns for both late sepsis and meningitis with birth weights between 401 and 1500 Gms and a gestational age between 22 weeks 0 days and 28 weeks six days. Measure 0304 also evaluates all newborns who are in the hospital after 3 days of birth. Numerator inclusions for measure 0304 are a bacterial pathogen recovered from a blood culture and/or cerebrospinal fluid culture obtained after Day 3 of life OR all 3 of the following:</p> <p>1.) Coagulase Negative Staphylococcus recovered from a blood culture from either a central line or peripheral blood sample and/or is recovered from</p>

	0304: Late sepsis or meningitis in Very Low Birth Weight (VLBW) neonates (risk-adjusted)	0478: Neonatal Blood Stream Infection Rate (NQI 03)	1731: PC-04 Health Care-Associated Bloodstream Infections in Newborns
		<p>the TJC specification does not include an inclusion criteria related to gestational age as in the AHRQ QI (rather, actual birthweight is used as an alternative to coded birth weight). The TJC also includes an exclusion for enrollment in a clinical trial. The AHRQ QI contains no such exclusion. Finally, TJC excludes stays of more than 120 days for technical reasons related to the measure reporting period. This rationale does not apply to the AHRQ QI, and therefore the AHRQ QI has no such exclusion.</p>	<p>cerebrospinal fluid by lumbar puncture, ventricular tap or ventricular drain</p> <p>2.) One or more signs of generalized infection (i.e., apnea, temperature instability, feeding intolerance, worsening respiratory distress or hemodynamic instability) and</p> <p>3.) Treatment with 5 or more days of intravenous antibiotics. The major differences between measure 0304 and measure 1731 are:</p> <ul style="list-style-type: none"> • Measure 1731 does not include cases with meningitis based on results from cerebrospinal fluid cultures • Measure 1731 includes birth weights which are 500 Gms or more rather than 400 Gms or more, and measure 1731 also includes newborns 1500 gms or more with one or more specific medical indication: major surgery, mechanical ventilation, expired or transferred-in. • Measure 1731 excludes newborns born with infections within the first 48 hours of admission and newborns with bloodstream infections occurring after the first 48 hours after birth that are due to causes that are not health care-associated, i.e., necrotizing enterocolitis, urosepsis, etc. <p>5b.1 If competing, why superior or rationale for additive value: Measure 0478 is similar to this measure. The fundamental differences are that measure 0478 has been developed to collect all data elements using administrative data. Such an approach has led in some cases</p>

	0304: Late sepsis or meningitis in Very Low Birth Weight (VLBW) neonates (risk-adjusted)	0478: Neonatal Blood Stream Infection Rate (NQI 03)	1731: PC-04 Health Care-Associated Bloodstream Infections in Newborns
			to loss of specificity available through review of the medical record. The two measures have been harmonized to the extent possible; however, there are intrinsic differences which are addressed in a comparison table in the attachment found in Section A.1 Supplemental Materials.

Appendix F2: Related and Competing Measures (narrative format)

Comparison of NQF 0033 and NQF 0409

0033: Chlamydia Screening in Women (CHL)

0409: HIV/AIDS: Sexually Transmitted Diseases – Screening for Chlamydia, Gonorrhea, and Syphilis

Steward

0033: Chlamydia Screening in Women (CHL)

National Committee for Quality Assurance

0409: HIV/AIDS: Sexually Transmitted Diseases – Screening for Chlamydia, Gonorrhea, and Syphilis

National Committee for Quality Assurance

Description

0033: Chlamydia Screening in Women (CHL)

The percentage of women 16–24 years of age who were identified as sexually active and who had at least one test for chlamydia during the measurement year.

0409: HIV/AIDS: Sexually Transmitted Diseases – Screening for Chlamydia, Gonorrhea, and Syphilis

Percentage of patients aged 13 years and older with a diagnosis of HIV/AIDS, who have received chlamydia, gonorrhea, and syphilis screenings at least once since the diagnosis of HIV infection

Type

0033: Chlamydia Screening in Women (CHL)

Process

0409: HIV/AIDS: Sexually Transmitted Diseases – Screening for Chlamydia, Gonorrhea, and Syphilis

Process

Data Source

0033: Chlamydia Screening in Women (CHL)

Administrative claims, Electronic Clinical Data, Electronic Clinical Data : Imaging/Diagnostic Study, Electronic Clinical Data : Laboratory, Electronic Clinical Data : Pharmacy This measure is based on administrative claims collected in the course of providing care to health plan members. NCQA collects the Healthcare Effectiveness Data and Information Set (HEDIS) data for this measure directly from Health Management Organizations and Preferred Provider Organizations via NCQA's online data submission system.

No data collection instrument provided Attachment 0033_CHL_Value_Sets.xlsx

0409: HIV/AIDS: Sexually Transmitted Diseases – Screening for Chlamydia, Gonorrhea, and Syphilis

Electronic Clinical Data : Electronic Health Record N/A

No data dictionary

Level

0033: Chlamydia Screening in Women (CHL)

Health Plan, Integrated Delivery System

0409: HIV/AIDS: Sexually Transmitted Diseases – Screening for Chlamydia, Gonorrhea, and Syphilis

Clinician : Group/Practice, Clinician : Individual

Setting

0033: Chlamydia Screening in Women (CHL)

Ambulatory Care : Clinician Office/Clinic

0409: HIV/AIDS: Sexually Transmitted Diseases – Screening for Chlamydia, Gonorrhea, and Syphilis

Ambulatory Care : Clinician Office/Clinic

Numerator Statement

0033: Chlamydia Screening in Women (CHL)

Females who were tested for chlamydia during the measurement year.

0409: HIV/AIDS: Sexually Transmitted Diseases – Screening for Chlamydia, Gonorrhea, and Syphilis

Patients who have received chlamydia, gonorrhea, and syphilis screenings at least once since the diagnosis of HIV infection

Numerator Details

0033: Chlamydia Screening in Women (CHL)

Females who had at least one test for chlamydia (see attached: Chlamydia Tests Value Set) during the measurement year.

0409: HIV/AIDS: Sexually Transmitted Diseases – Screening for Chlamydia, Gonorrhea, and Syphilis

N/A

Denominator Statement

0033: Chlamydia Screening in Women (CHL)

Females 16-24 years who had a claim or encounter indicating sexual activity.

0409: HIV/AIDS: Sexually Transmitted Diseases – Screening for Chlamydia, Gonorrhea, and Syphilis

All patients aged 13 years and older with a diagnosis of HIV/AIDS, who had at least two visits during the measurement year, with at least 90 days between visits

Denominator Details

0033: Chlamydia Screening in Women (CHL)

All female patients 16-24 years as of December 31 of the measurement year and who were identified as sexually active during the measurement year.

Sexually active: Two methods are used to identify sexually active women: pharmacy data (see CHL-A: Prescriptions to Identify Contraceptives) and claim/encounter data (see attached: Pregnancy Value Set, Sexual Activity Value Set, and Pregnancy Tests Value Set). Both methods are used to identify the eligible population; however, a patient only needs to be identified in one method to be eligible for the measure.

Table CHL-A: Prescriptions to Identify Contraceptives

--Contraceptives: Desogestrel-ethinyl estradiol; Dienogest-estradiol multiphasic; Drospirenone-ethinyl estradiol; Drospirenone-ethinyl estradiol-levomefolate biphasic; Ethinyl estradiol-ethynodiol; Ethinyl estradiol-etonogestrel; Ethinyl estradiol-levonorgestrel; Ethinyl estradiol-norelgestromin; Ethinyl estradiol-norethindrone; Ethinyl estradiol-norgestimate; Ethinyl estradiol-norgestrel; Etonogestrel; Levonorgestrel; Medroxyprogesterone; Mestranol-norethindrone; Norethindrone

--Diaphragm

--Spermicide: Nonxynol 9

0409: HIV/AIDS: Sexually Transmitted Diseases – Screening for Chlamydia, Gonorrhea, and Syphilis

Definition of “Medical Visit” - any visit with a health care professional who provides routine primary care for the patient with HIV/AIDS (may be a primary care physician, ob/gyn, pediatrician or infectious diseases specialist)

Exclusions

0033: Chlamydia Screening in Women (CHL)

Females who received a pregnancy test to determine contraindications for medication (isotretinoin) or x-ray.

0409: HIV/AIDS: Sexually Transmitted Diseases – Screening for Chlamydia, Gonorrhea, and Syphilis

None

Exclusion Details

0033: Chlamydia Screening in Women (CHL)

Exclude members from the denominator who were identified as sexually active based on a pregnancy test alone (see attached: Pregnancy Tests Value Set) AND who meet either of the following:

- 1) A pregnancy test (see attached: Pregnancy Test Exclusion Value Set) during the measurement year AND a prescription for isotretinoin (see Table CHL-E: Medications to Identify Exclusions) on the date of the pregnancy test or the 6 days after the pregnancy test.
- 2) A pregnancy test (see attached: Pregnancy Test Exclusion Value Set) during the measurement year AND a x-ray (see attached: Diagnostic Radiology Value Set) on the date of the pregnancy test or the 6 days after the pregnancy test.

Table CHL-E: Medications to Identify Exclusions

Retinoid: Isotretinoin

0409: HIV/AIDS: Sexually Transmitted Diseases – Screening for Chlamydia, Gonorrhea, and Syphilis

N/A

Risk Adjustment

0033: Chlamydia Screening in Women (CHL)

No risk adjustment or risk stratification

NA

0409: HIV/AIDS: Sexually Transmitted Diseases – Screening for Chlamydia, Gonorrhea, and Syphilis

No risk adjustment or risk stratification

N/A

Stratification

0033: Chlamydia Screening in Women (CHL)

The measure includes two age stratifications and a total rate:

1) 16-20 years.

2) 21-24 years.

3) Total

0409: HIV/AIDS: Sexually Transmitted Diseases – Screening for Chlamydia, Gonorrhea, and Syphilis

N/A

Type Score

0033: Chlamydia Screening in Women (CHL)

Rate/proportion better quality = higher score

0409: HIV/AIDS: Sexually Transmitted Diseases – Screening for Chlamydia, Gonorrhea, and Syphilis

Rate/proportion better quality = higher score

Algorithm

0033: Chlamydia Screening in Women (CHL)

Refer to items S.9 (Denominator details) and S.2b (Data Dictionary) for tables.

Step 1 Determine the eligible population. To do so, identify all female patients in the specified age range who had a claim/encounter indicating sexual activity (Pregnancy Value Set, Sexual Activity Value Set, Pregnancy Tests Value Set) and/or were dispensed prescription contraceptives (Table CHL-A) during the measurement year.

Step 2 Exclude patients who qualified for the eligible population based on a pregnancy test (Pregnancy Tests Value Set) alone AND who meet either of the following: (1) A pregnancy test (Pregnancy Test Exclusion Value Set) during the measurement year AND a prescription for isotretinoin (Table CHL-E) on the date of the pregnancy test or the 6 days after the pregnancy test, (2) A pregnancy test (Pregnancy Test Exclusion Value Set) during the

measurement year AND an x-ray (Diagnostic Radiology Value Set) on the date of the pregnancy test or the 6 days after the pregnancy test.

Step 3 Determine the numerator. Determine the number of patients in the remaining eligible population who had at least one chlamydia test (Chlamydia Tests Value Set) during the measurement year.

Step 4 Report two age stratifications (16-20 years and 21-24 years), and a total rate. The total is the sum of the age stratifications. No diagram provided

0409: HIV/AIDS: Sexually Transmitted Diseases – Screening for Chlamydia, Gonorrhea, and Syphilis

Measure Calculation

For performance purposes, this measure is calculated by creating a fraction with the following components: Denominator, Numerator.

Step 1: Determine the eligible population. The eligible population is all the patients, aged 13 years and older, with a diagnosis of HIV/AIDS.

Step 2: Determine number of patients meeting the denominator criteria as specified in Section S.7 above.

Step 3: Determine the number of patients who meet the numerator criteria as specified in section S.4 above. The numerator includes all patients in the denominator population who have received chlamydia, gonorrhea, and syphilis screenings at least once since the diagnosis of HIV/AIDS.

Step 4: Calculate the rate by dividing the total from Step 3 by the total from Step 2.

Submission items

0033: Chlamydia Screening in Women (CHL)

5.1 Identified measures: 0409 : HIV/AIDS: Sexually Transmitted Diseases – Screening for Chlamydia, Gonorrhea, and Syphilis

5a.1 Are specs completely harmonized? Yes

5a.2 If not completely harmonized, identify difference, rationale, impact: NQF #0409 both address chlamydia screening. However, the measures differ in the target patient populations. NQF #0409 looks for chlamydia screenings among males and females aged 13 and older with a diagnosis of HIV/AIDS. This measure focuses on women aged 16-24 with an indication of sexual activity, which aligns with the U.S. Preventive Services Task Force guideline for chlamydia screening in a general population. The measures are aligned in how they define chlamydia screening.

5b.1 If competing, why superior or rationale for additive value: NA

0409: HIV/AIDS: Sexually Transmitted Diseases – Screening for Chlamydia, Gonorrhea, and Syphilis

5.1 Identified measures: 0033 : Chlamydia Screening in Women (CHL)

1395 : Chlamydia Screening and Follow Up

5a.1 Are specs completely harmonized? No

5a.2 If not completely harmonized, identify difference, rationale, impact: Measures 0033 and 1395 focus on sexually active female adolescents and young adults, while the HIV measure focuses on patients with HIV (both male and female) because patients with HIV

are at higher risk for having a comorbid sexually transmitted infection. The frequency of screening also differs – because 0033 focuses on sexually active individuals, the screening frequency is yearly, whereas this measure measures screenings at least once since the diagnosis of HIV.

5b.1 If competing, why superior or rationale for additive value:

Comparison of NQF 0304, 0478, and NQF 1731

0304: Late sepsis or meningitis in Very Low Birth Weight (VLBW) neonates (risk-adjusted)

0478: Neonatal Blood Stream Infection Rate (NQI 03)

1731: PC-04 Health Care-Associated Bloodstream Infections in Newborns

Steward

0304: Late sepsis or meningitis in Very Low Birth Weight (VLBW) neonates (risk-adjusted)

Vermont Oxford Network

0478: Neonatal Blood Stream Infection Rate (NQI 03)

Agency for Healthcare Research and Quality

1731: PC-04 Health Care-Associated Bloodstream Infections in Newborns

The Joint Commission

Description

0304: Late sepsis or meningitis in Very Low Birth Weight (VLBW) neonates (risk-adjusted)

Standardized morbidity ratio and observed minus expected measure for nosocomial bacterial infection after day 3 of life in very low birth weight infants

0478: Neonatal Blood Stream Infection Rate (NQI 03)

Discharges with healthcare-associated blood stream infection per 1,000 discharges for newborns and outborns with birth weight of 500 grams or more but less than 1,500 grams; with gestational age between 24 and 30 weeks; or with birth weight of 1,500 grams or more and death, an operating room procedure, mechanical ventilation, or transferring from another hospital within two days of birth. Excludes discharges with a length of stay less than 3 days and discharges with a principal diagnosis of sepsis, sepsis or bacteremia, or newborn bacteremia.

1731: PC-04 Health Care-Associated Bloodstream Infections in Newborns

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 Birth, PC-03: Antenatal Steroids, PC-05: Exclusive Breast Milk Feeding).

Type

0304: Late sepsis or meningitis in Very Low Birth Weight (VLBW) neonates (risk-adjusted)

Outcome

0478: Neonatal Blood Stream Infection Rate (NQI 03)

Outcome

1731: PC-04 Health Care-Associated Bloodstream Infections in Newborns

Outcome

Data Source

0304: Late sepsis or meningitis in Very Low Birth Weight (VLBW) neonates (risk-adjusted)

Electronic Clinical Data : Registry Vermont Oxford Network Database

No data collection instrument provided Attachment 0304_ICD_Code_Tables.xlsx

0478: Neonatal Blood Stream Infection Rate (NQI 03)

Administrative claims While the measure is tested and specified using data from the Healthcare Cost and Utilization Project (HCUP) (see section 1.1 and 1.2 of the measure testing form), the measure specifications and software are specified to be used with any ICD-9-CM- or ICD-10-CM/PCS coded administrative billing/claims/discharge dataset.

Available at measure-specific web page URL identified in S.1 Attachment
NQI03_Tech_Specs_v6.1alpha_160211xlsx.xlsx

1731: PC-04 Health Care-Associated Bloodstream Infections in Newborns

Paper Medical Records Each data element in the data dictionary includes suggested data sources. The data are collected using contracted Performance Measurement Systems (vendors) that develop data collection tools based on the measure specifications. The tools are verified and tested by Joint Commission staff to confirm the accuracy and conformance of the data collection tool with the measure specifications. The vendor may not offer the measure set to hospitals until verification has been passed.

No data collection instrument provided Attachment PC04_ICD_Code_Tables.xlsx

Level

0304: Late sepsis or meningitis in Very Low Birth Weight (VLBW) neonates (risk-adjusted)

Facility

0478: Neonatal Blood Stream Infection Rate (NQI 03)

Facility

1731: PC-04 Health Care-Associated Bloodstream Infections in Newborns

Facility, Population : National

Setting

0304: Late sepsis or meningitis in Very Low Birth Weight (VLBW) neonates (risk-adjusted)

Hospital/Acute Care Facility

0478: Neonatal Blood Stream Infection Rate (NQI 03)

Hospital/Acute Care Facility

1731: PC-04 Health Care-Associated Bloodstream Infections in Newborns

Hospital/Acute Care Facility

Numerator Statement

0304: Late sepsis or meningitis in Very Low Birth Weight (VLBW) neonates (risk-adjusted)

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. Treatment 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.

0478: Neonatal Blood Stream Infection Rate (NQI 03)

Discharges, among cases meeting the inclusion and exclusion rules for the denominator, with either:

- any secondary ICD-9-CM or ICD-10 CM diagnosis codes for other septicemia; or
- any secondary ICD-9-CM or ICD-10 CM diagnosis codes for newborn septicemia or bacteremia and
- any secondary ICD-9-CM or ICD-10 CM diagnosis codes for staphylococcal or Gram-negative bacterial infection

1731: PC-04 Health Care-Associated Bloodstream Infections in Newborns

The outcome being measured is: Newborns with septicemia or bacteremia with ICD-10-CM Other Diagnosis Codes for newborn septicemia or bacteremia as defined in Appendix A, Table 11.10 with a Bloodstream Infection Confirmed OR ICD-10-CM Other Diagnosis Codes for sepsis as defined in Appendix A, Table 11.10.1 with a Bloodstream Infection Confirmed available at: <http://manual.jointcommission.org/releases/TJC2016A/>

The only national hospital quality measure currently requiring patient-level risk adjustment is the Health Care-Associated Bloodstream Infections in Newborns (PC-04) outcome measure in the perinatal care measure set.

Numerator Details

0304: Late sepsis or meningitis in Very Low Birth Weight (VLBW) neonates (risk-adjusted)

Infants whose birth weight is between 401 and 1500 grams or whose gestational age is between 22 weeks 0 days and 29 weeks 6 days are included if they have coagulase negative staphylococcus or one of the bacterial pathogens listed below after day 3 of life, provided they meet one of the following criteria:

1. They are born at the reporting hospital.

OR

2. They are admitted to any location in the reporting hospital within 28 days of birth, without first having gone home.

Bacterial Pathogens List:

1. Achromobacter species [including Achromobacter xylosoxidans (also known as Alcaligenes xylosoxidans) and others]
2. Acinetobacter species
3. Aeromonas species
4. Alcaligenes species [Alcaligenes xylosoxidans and others]
5. Bacteroides species
6. Burkholderia species [Burkholderia capeciae and others]
7. Campylobacter species [Campylobacter fetus, C. jejuni and others]
8. Chryseobacterium species
9. Citrobacter species [Citrobacter diversus, C. freundii, C. koseri and others]
10. Clostridium species
11. Enterobacter species [Enterobacter aerogenes, E. cloacae, and others]
12. Enterococcus species [Enterococcus faecalis (also known as Streptococcus faecalis), E. faecium, and other Enterococcus species]
13. Escherichia coli
14. Flavobacterium species
15. Haemophilus species [Haemophilus influenzae and others]
16. Klebsiella species [Klebsiella oxytoca, K. pneumoniae and others]
17. Listeria monocytogenes
18. Moraxella species [Moraxella catarrhalis (also known as Branhamella catarrhalis) and others]
19. Neisseria species [Neisseria meningitidis, N. gonorrhoeae and others]
20. Pasteurella species
21. Prevotella species
22. Proteus species [Proteus mirabilis, P. vulgaris and others]
23. Providencia species [Providencia rettgeri, and others]
24. Pseudomonas species [Pseudomonas aeruginosa and others]
25. Ralstonia species
26. Salmonella species
27. Serratia species [Serratia liquefaciens, S. marcescens and others]
28. Staphylococcus coagulase positive [aureus]
29. Stenotrophomonas maltophilia
30. Streptococcus species [including Streptococcus Group A, Streptococcus Group B, Streptococcus Group D, Streptococcus pneumoniae, Strep milleri and others]

0478: Neonatal Blood Stream Infection Rate (NQI 03)

Please see attached excel file in S.2b. for version 6.1 alpha specifications.

1731: PC-04 Health Care-Associated Bloodstream Infections in Newborns

Two data elements are used for the observed outcome and to calculate the numerator:

1. Bloodstream Infection Confirmed- Confirmation that a health care-associated bloodstream infection occurred after the first 48 hours after admission.
2. ICD-10-CM Other Diagnosis Codes- The International Classification of Diseases, Tenth Revision, Clinical Modification codes associated with the secondary diagnoses for this hospitalization.

Cases are eligible for the numerator population with ICD-10-CM Other Diagnosis Code for newborn septicemia or bacteremia with the presence of a health care-associated bloodstream infection confirmed OR an ICD-10-CM Other Diagnosis Codes for sepsis with the presence of a health care-associated bloodstream infection confirmed.

Updates available at: <https://manual.jointcommission.org/releases/TJC2016A/>.

Denominator Statement

0304: Late sepsis or meningitis in Very Low Birth Weight (VLBW) neonates (risk-adjusted)

Eligible infants who are in the reporting hospital after day 3 of life.

0478: Neonatal Blood Stream Infection Rate (NQI 03)

All newborns and outborns with either:

- a birth weight of 500 to 1,499 grams (Birth Weight Categories 2, 3, 4 and 5); or
- any-listed ICD-9-CM or ICD-10 CM diagnosis codes for gestational age between 24 and 30 weeks; or
- a birth weight greater than or equal to 1,500 grams (Birth Weight Category 6, 7, 8, or 9) and death (DISP=20); or
- a birth weight greater than or equal to 1,500 grams (Birth Weight Category 6, 7, 8, or 9) and any-listed ICD-9-CM or ICD-10 PCS procedure codes for operating room procedure; or
- a birth weight greater than or equal to 1,500 grams (Birth Weight Category 6, 7, 8, or 9) and any-listed ICD-9-CM or ICD-10 PCS procedure codes for mechanical ventilation; or
- a birth weight greater than or equal to 1,500 grams (Birth Weight Category 6, 7, 8, or 9) and transferring from another health care facility within two days of birth

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

1731: PC-04 Health Care-Associated Bloodstream Infections in Newborns

The outcome target population being measured is: Liveborn newborns with ICD-10-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 ICD-10-CM Other Diagnosis Codes for birth weight = > 1500g as defined in Appendix A, Table 11.15 or 11.16 OR Birth Weight = > 1500g who experienced one or more of the following:

- o Experienced death
- o ICD-10-PCS Principal Procedure Code or ICD-10-PCS Other Procedure Codes for major surgery as defined in Appendix A, Table 11.18
- o ICD-10-PCS Principal Procedure Code or ICD-10-PCS Other Procedure Codes for mechanical ventilation as defined in Appendix A, Table 11.19

- o Transferred in from another acute care hospital or health care setting within 2 days of birth.

Denominator Details

0304: Late sepsis or meningitis in Very Low Birth Weight (VLBW) neonates (risk-adjusted)

Infants whose birth weights are between 401 and 1500 grams or whose gestational ages are between 22 weeks 0 days and 29 weeks 6 days are included if they are in the reporting hospital after day 3 of life, provided they meet one of the following criteria:

1. They are born at the reporting hospital.

OR

2. They are admitted to any location in the reporting hospital within 28 days of birth, without first having gone home.

0478: Neonatal Blood Stream Infection Rate (NQI 03)

Please see attached excel file in S.2b. for version 6.1 alpha specifications.

1731: PC-04 Health Care-Associated Bloodstream Infections in Newborns

Ten data elements are used to identify the target population and to calculate the denominator:

1. Admission Date – The month, day and year of admission to acute inpatient care.
2. Birth Weight- The weight (in grams) of a newborn at the time of delivery.
3. Birthdate - The month, day and year the patient was born.
4. Bloodstream Infection Present on Admission- Documentation in the medical record that the patient had a bloodstream infection present on admission. This includes both patients with positive blood cultures or inconclusive blood cultures when the patient is suspected of having a bloodstream infection or septicemia and is being treated for the condition.
Allowable values: Yes or No/UTD
5. Discharge Date – The month day and year the patient was discharged from acute care, left against medical advice or expired during the stay.
6. Discharge Disposition - The place or setting to which the patient was discharged.
7. ICD-10-CM Other Diagnosis Codes - The International Classification of Diseases, Tenth Revision, Clinical Modification codes associated with the secondary diagnoses for this hospitalization.
8. ICD-10-PCS Other Procedure Codes - The International Classification of Diseases, Tenth Revision, Procedure Coding System code that identifies significant procedures performed other than the principal procedure during this hospitalization.
9. ICD-10-CM Principal Diagnosis Code - The International Classification of Diseases, Tenth Revision, Clinical Modification code associated with the diagnosis established after study to be chiefly responsible for occasioning the admission of the patient for this hospitalization.
10. ICD-10-PCS Principal Procedure Code - The International Classification of Diseases, Tenth Revision, Procedure Coding System code that identifies the principal procedure performed during this hospitalization. The principal procedure is the procedure performed for definitive treatment rather than diagnostic or exploratory purposes, or which is necessary to take care of a complication.

Updates available at: <https://manual.jointcommission.org/releases/TJC2016A/>.

Exclusions

0304: Late sepsis or meningitis in Very Low Birth Weight (VLBW) neonates (risk-adjusted)

Infants 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.

0478: Neonatal Blood Stream Infection Rate (NQI 03)

Exclude cases:

- with a principal ICD-9-CM or ICD-10-CM diagnosis code (or secondary diagnosis present on admission†) for sepsis
- with a principal ICD-9-CM or ICD-10-CM diagnosis code (or secondary diagnosis present on admission†) for sepsis or bacteremia
- with a principal ICD-9-CM or ICD-10-CM diagnosis code (or secondary diagnosis present on admission†) for staphylococcal or Gram-negative bacterial infection
- with birth weight less than 500 grams (Birth Weight Category 1)
- with length of stay less than 3 days
- with missing 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.

1731: PC-04 Health Care-Associated Bloodstream Infections in Newborns

- ICD-10-CM Principal Diagnosis Code for septicemias or bacteremias as defined in Appendix A, Table 11.10.2
- ICD-10-CM Other Diagnosis Codes for septicemias or bacteremias as defined in Appendix A, Table 11.10.2 or ICD-10-CM Principal or Other Diagnosis Codes for newborn septicemia or bacteremia as defined in Appendix A, Table 11.10 with a Bloodstream Infection Present on Admission
- ICD-10-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

Exclusion Details

0304: Late sepsis or meningitis in Very Low Birth Weight (VLBW) neonates (risk-adjusted)

1. Any infant who meets neither of the following conditions is excluded:
 - Birth weight between 401 and 1500 grams
 - Gestational age between 22 and 29 weeks.
2. Outborn infants who are admitted to the reporting hospital more than 28 days after birth are excluded.
3. Outborn infants who have been home prior to admission to the reporting hospital are excluded.
4. Infants discharged home on or before day 3 of life are excluded.
5. Infants who die on or before day 3 of life are excluded.
6. Infants who transfer to another hospital on or before day 3 of life and who are not readmitted to the reporting hospital.

7. Infants who transfer more than once prior to day 3 of life.

0478: Neonatal Blood Stream Infection Rate (NQI 03)

Please see attached excel file in S.2b. for version 6.1 alpha specifications.

1731: PC-04 Health Care-Associated Bloodstream Infections in Newborns

- Patients with ICD-10-CM Principal Diagnosis Code for septicemias or bacteremias are excluded.
- Patients with ICD-10-CM Other Diagnosis Codes for septicemias or bacteremias with a Bloodstream Infection Present on Admission are excluded.
- Patients with ICD-10-CM Principal or Other Diagnosis Codes for newborn septicemia or bacteremia with a Bloodstream Infection Present on Admission are excluded.
- Patients with ICD-10-CM Other Diagnosis Codes for birth weight <500 grams OR a birth weight <500 grams are excluded.
- Length of stay (LOS) in days is equal to the Discharge Date minus the Admission Date. If the LOS is less than 2 days, the patient is excluded.

Risk Adjustment

0304: Late sepsis or meningitis in Very Low Birth Weight (VLBW) neonates (risk-adjusted)

Statistical risk model

Logistic regression with shrinkage estimate - see S. 15a

Provided in response box S.15a

0478: Neonatal Blood Stream Infection Rate (NQI 03)

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 (in 500g groups), modified CMS DRG, congenital anomalies, transfer in status and Major Diagnosis. Available in attached Excel or csv file at S.2b

1731: PC-04 Health Care-Associated Bloodstream Infections in Newborns

Statistical risk model

Logistic regression

Model Risk Factors Considered:

Intercept

Birth Weight 1250g to 2499g

Birth Weight 1000 to 1249g

Birth Weight 500 to 749g

Birth Weight 750 to 750g

Modified DRG Newborn Transfers Out or Died

Congenital Anomaly Gastrointestine

Available in attached Excel or csv file at S.2b

Stratification

0304: Late sepsis or meningitis in Very Low Birth Weight (VLBW) neonates (risk-adjusted)

N/A

0478: Neonatal Blood Stream Infection Rate (NQI 03)

Not applicable

1731: PC-04 Health Care-Associated Bloodstream Infections in Newborns

Not applicable, the measure is not stratified.

Type Score

0304: Late sepsis or meningitis in Very Low Birth Weight (VLBW) neonates (risk-adjusted)

Other Standardized morbidity ratio and observed minus expected values with confidence bounds better quality = lower score

0478: Neonatal Blood Stream Infection Rate (NQI 03)

Rate/proportion better quality = lower score

1731: PC-04 Health Care-Associated Bloodstream Infections in Newborns

Rate/proportion better quality = lower score

Algorithm

0304: Late sepsis or meningitis in Very Low Birth Weight (VLBW) neonates (risk-adjusted)

1. Determine the number of infants for a reporting period who meet the population criteria described above. This number is termed N.

2. Using the definitions in the Network Manual of Operations, determine the number of infants who had nosocomial bacterial infection after day 3 of life and prior to discharge home for each of the N infants. This is the number of eligible infants who were diagnosed as having either coagulase negative staphylococcus and/or a late bacterial pathogen after day 3 of life. The number identified as having nosocomial bacterial infection is termed the “observed number with infection” or O for short.

3. For each of the N infants, calculate the expected value of infection by multiplying the coefficient times its covariate value for each covariate (coefficients provided on request). The covariates include:

Gestational Age in completed weeks (GA)

GA squared

Small for Gestational Age (data table provided on request)

Major birth defect (0=No, 1=Yes)

APGAR score at 1 minute (0 to 10)

Birth location (0=Inborn, 1=Outborn)

Multiple gestation (0=No, 1=Yes)

Infant gender (0=Female, 1=Male)

Mode of delivery (0=C-Section, 1=Vaginal)

4. Add the expected values for each of the N infants to calculate the number of expected cases of nosocomial bacterial infection. This number is termed the “expected number with infection” or E for short.

5. Calculate the standardized morbidity ratio (SMRshrnk) for nosocomial bacterial infection using the values for O and E and applying the estimate for systematic variation (v2), determined from Vermont Oxford Network analyses (provided on request).

$$\text{SMRshrnk} = (O + v2) / (E + v2)$$

$$\text{with standard error } \text{SESMRshrnk} = \sqrt{1/(E + (1/v2))};$$

6. Calculate the shrunken, adjusted nosocomial bacterial infection rate (Rateshrnk) and its 95% confidence interval.

$$\text{Rateshrnk} = (\text{SMRshrnk} \times E) / N$$

$$\text{with standard error (SERateshrnk) equal to } \text{SESMRshrnk} \times E / N .$$

and 95% confidence interval for Rateshrnk equal to

$$\text{Rateshrnk} \pm 1.96 \times \text{SERateshrnk}.$$

7. Calculate the number of observed minus expected cases of nosocomial bacterial infection, adjusting for case mix and systematic variation (O–Eshrnk), and calculate the 95% control limits for O–Eshrnk.

$$O - \text{Eshrnk} = E / \text{SMRshrnk}$$

with 95% control limits equal to $O - \text{Eshrnk} \pm 1.96 \times \text{SESMRshrnk} \times E$. URL

0478: Neonatal Blood Stream Infection Rate (NQI 03)

The observed rate is the number of discharge records where the patient experienced the QI adverse event divided by the number of discharge records at risk for the event. The expected rate is a comparative rate that incorporates information about a reference population that is not part of the user’s input dataset – what rate would be observed if the expected level of care observed in the reference population and estimated with risk adjustment regression models, were applied to the mix of patients with demographic and comorbidity distributions observed in the user’s dataset? The expected rate is calculated only for risk-adjusted indicators.

The expected rate is estimated for each person using a generalized estimating equations (GEE) approach to account for correlation at the hospital or provider level.

The risk-adjusted rate is a comparative rate that also incorporates information about a reference population that is not part of the input dataset – what rate would be observed if the level of care observed in the user’s dataset were applied to a mix of patients with demographics and comorbidities distributed like the reference population? The risk adjusted rate is calculated using the indirect method as observed rate divided by expected rate multiplied by the reference population rate. The smoothed rate is the weighted average of the risk-adjusted rate from the user’s input dataset and the rate observed in the reference population; the smoothed rate is calculated with a shrinkage estimator to result in a rate near that from the user’s dataset if the provider’s rate is estimated in a stable fashion with minimal noise, or to result in a rate near that of the reference population if the variance of the estimated rate from the input dataset is large compared with the hospital-to-hospital variance estimated from the reference population. Thus, the smoothed rate is a weighted average of the risk-adjusted rate and the reference population rate, where the weight is the signal-to-noise ratio. In practice, the smoothed

rate brings rates toward the mean, and tends to do this more so for outliers (such as rural hospitals).

For additional information, please see the supplemental files for the Empirical Methods. No diagram provided

1731: PC-04 Health Care-Associated Bloodstream Infections in Newborns

1. Start processing. Run cases that are included in the PC-Newborn Initial Patient Newborns with BSI and pass the edits defined in the Transmission Data Processing Flow: Clinical through this measure.
2. Calculate Length of Stay. Length of Stay, in days, is equal to the Discharge Date minus the Admission Date.
3. Check Length of Stay
 - a. If Length of Stay is less than 2 days, the case will proceed to a Measure Category Assignment of B and will not be in the measure population. Stop processing.
 - b. If Length of Stay is greater than or equal to 2 days, continue processing and proceed to ICD-10-CM Principal or Other Diagnosis Codes.
4. Check ICD-10-CM Principal or Other Diagnosis Codes
 - a. If none of the ICD-10-CM Principal or Other Diagnosis Codes is on Table 11.10, continue processing and proceed to ICD-10-CM Other Diagnosis Codes
 1. If all of the ICD-10-CM Other Diagnosis Codes are missing or none of the ICD-10-CM Other Diagnosis Codes is on Table 11.10.2, continue processing and proceed to recheck ICD-10-CM Other Diagnosis Codes (Step 7).
 2. If at least one of the ICD-10-CM Other Diagnosis Codes is on Table 11.10.2, continue processing and proceed to Bloodstream Infection Present on Admission.
 - b. If at least one of the ICD-10-CM Principal or Other Diagnosis Codes is on Table 11.10, continue processing and proceed to Bloodstream Infection Present on Admission.
5. Check Bloodstream Infection Present on Admission
 - a. If Bloodstream Infection Present on Admission is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
 - b. If Bloodstream Infection Present on Admission equals Yes, the case will proceed to a Measure Category Assignment of B and will not be in the measure population. Stop processing.
 - c. If Bloodstream Infection Present on Admission equals No, continue processing and proceed to check ICD-10-CM Other Diagnosis Codes.
6. Check ICD-10-CM Other Diagnosis Codes
 - a. If at least one of the ICD-10-CM Other Diagnosis Codes is on Table 11.12, 11.13, 11.14, continue processing and proceed to recheck ICD-10-CM Other Diagnosis Codes (Step 13).
 - b. If all of the ICD-10-CM Other Diagnosis Codes are missing, continue processing and proceed to Birth Weight.
 - c. If none of the ICD-10-CM Other Diagnosis Codes is on Table 11.12, 11.13, 11.14, continue processing and proceed to recheck ICD-10-CM Other Diagnosis Codes (Step 8).
7. Recheck ICD-10-CM Other Diagnosis Codes
 - a. If at least one of the ICD-10-CM Other Diagnosis Codes on table 11.15, 11.16, continue processing and proceed to ICD-10-CM Principal or Other Procedure Codes.

- b. If none of the ICD-10-CM Other Diagnosis Codes on table 11.15, 11.16, continue processing and proceed to Birth Weight.
- 8. Check Birth Weight
 - a. If Birth Weight is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
 - b. If Birth Weight equals a Non Unable to Determine Value, the case will proceed to a Measure Category Assignment of E and will be in the Numerator Population. Stop processing.
 - c. If Birth Weight is less than 500, the case will proceed to a Measure Category Assignment of B and will not be in the measure population. Stop processing.
 - d. If Birth Weight is between 500 and 1499, continue processing and proceed to recheck ICD-10-CM Other Diagnosis Codes (Step13).
 - e. If Birth Weight is greater than or equal to 1500, continue processing and proceed to ICD-10-PCS Principal or Other Procedure Codes.
- 9. Check ICD-10-PCS Principal or Other Procedure Codes
 - a. If at least one of the ICD-10-PCS Principal or Other Procedure Codes is on table 11.18 or 11.19, continue processing and proceed to recheck ICD-10-PCS Other Diagnosis Codes (Step 13).
 - b. If all of the ICD-10-PCS Principal or Other Procedure Codes are missing or none of the ICD-10-PCS Principal or Other Procedure Codes is on table 11.18 or 11.19, continue processing and proceed to ICD-10-CM Principal Diagnosis Code.
- 10. Check ICD-10-CM Principal Diagnosis Code
 - a. If ICD-10-CM Principal Diagnosis Code is not on table 11.10.3, continue processing and proceed to recheck ICD-10-CM Other Diagnosis Codes (Step 13).
 - b. If ICD-10-CM Principal Diagnosis Code is on table 11.10.3, continue processing and proceed to Discharge Disposition.
- 11. Check Discharge Disposition
 - a. If Discharge Disposition is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
 - b. If Discharge Disposition equals 1, 2, 3, 4, 5, 7, 8, the case will proceed to a Measure Category Assignment of B and will not be in the measure population. Stop processing.
 - c. If Discharge Disposition equals 6, continue processing and proceed to recheck ICD-10-CM Other Diagnosis Codes (Step13).
- 12. Recheck ICD-10-CM Other Diagnosis Codes
 - a. If at least one of the ICD-10-CM Other Diagnosis Codes is on table 11.10, continue processing and proceed to Bloodstream Infection Confirmed.
 - b. If all of the ICD-10-CM Other Diagnosis Codes are missing or none of the ICD-10-CM Other Diagnosis Codes is on table 11.10, continue processing and proceed to recheck ICD-10-CM Other Diagnosis Codes (Step14).
- 13. Recheck ICD-10-CM Other Diagnosis Codes
 - a. If at least one of the ICD-10-CM Other Diagnosis Codes is on table 11.10.1, continue processing and proceed to Bloodstream Infection Confirmed.

b. If all of the ICD-10-CM Other Diagnosis Codes are missing or none of the ICD-10-CM Other Diagnosis Codes is on table 11.10.1, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop processing.

14. Check Bloodstream Infection Confirmed

a. If Bloodstream Infection Confirmed is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.

b. If Bloodstream Infection Confirmed equals Yes, the case will proceed to a Measure Category Assignment of E and will be in the Numerator Population. Stop processing.

c. If Bloodstream Infection Confirmed equals No, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop processing.

Calculation of adjusted outcome:

Step 1 -- Identify the measure population through Measure Category Assignments.

Risk adjusted rate-based measure: Identify the numerator (Measure Category Assignment = E) and the denominator (Measure Category Assignment = D) cases using the information provided in the Measure Information Form (MIF). Risk adjusted continuous variable

measure: Identify the number of cases in the measure population (Measure Category Assignment = D). At this time, there are no risk adjusted continuous outcome measures in any of the national hospital quality measure sets.

Note: Do not calculate a Predicted Value for a case if it is rejected by front-end edits or is rejected because one or more measures in the measure set evaluates to a Measure Category Assignment = X.

Step 2 -- Create risk factors for the measure.

Using the Risk Model Information File provided by the Joint Commission, identify all applicable EOC record data elements and the associated risk factor values for each of the EOC records identified in step 1. Risk factors include patient demographic and/or clinical factors, which can influence outcomes of care. Some examples of risk factors include age, sex, and comorbidities – such as diabetes or a history of hypertension. As an example, Figure 1 lists the data elements required for risk adjustment of generic measure ‘ABC’. Using the data for measure ‘ABC’, the performance measurement system must identify the risk factors at the EOC record-level, and create data subsets for each participating hospital. Available at measure-specific web page URL identified in S.1

Submission items

0304: Late sepsis or meningitis in Very Low Birth Weight (VLBW) neonates (risk-adjusted)

5.1 Identified measures: 0478 : Neonatal Blood Stream Infection Rate (NQI 03)

1731 : PC-04 Health Care-Associated Bloodstream Infections in Newborns

5a.1 Are specs completely harmonized? No

5a.2 If not completely harmonized, identify difference, rationale, impact: The target populations are different, as are the item definitions and risk adjustment methodology.

5b.1 If competing, why superior or rationale for additive value: N/A

0478: Neonatal Blood Stream Infection Rate (NQI 03)

5.1 Identified measures: 1731 : PC-04 Health Care-Associated Bloodstream Infections in Newborns

5a.1 Are specs completely harmonized?

5a.2 If not completely harmonized, identify difference, rationale, impact:

5b.1 If competing, why superior or rationale for additive value: Our understanding is that The Joint Commission (TJC) intends to submit "Health Care-Associated Bloodstream Infections in Newborns (PC-04)" under the call for measures. In anticipation of this, AHRQ and TJC have agreed to harmonize our measures to the extent feasible given alternative data sources. (The AHRQ QI is an existing NQF endorsed measure; the TJC measure is a newly submitted measure).

There are three specification differences related to data availability in the TJC measure specification. First, hospitals report to TJC the actual birth weight from the medical record (rather than coded birth weight using ICD-9-CM); Second, hospitals report whether the patient has a signed consent form for participation in a clinical trial. Therefore, the TJC specification does not include an inclusion criteria related to gestational age as in the AHRQ QI (rather, actual birthweight is used as an alternative to coded birth weight). The TJC also includes an exclusion for enrollment in a clinical trial. The AHRQ QI contains no such exclusion. Finally, TJC excludes stays of more than 120 days for technical reasons related to the measure reporting period. This rationale does not apply to the AHRQ QI, and therefore the AHRQ QI has no such exclusion.

1731: PC-04 Health Care-Associated Bloodstream Infections in Newborns

5.1 Identified measures: 0304 : Late sepsis or meningitis in Very Low Birth Weight (VLBW) neonates (risk-adjusted)

0478 : Neonatal Blood Stream Infection Rate (NQI 03)

5a.1 Are specs completely harmonized? No

5a.2 If not completely harmonized, identify difference, rationale, impact: Measure 0304 addresses infections in the newborn. Measure 0304 evaluates very low birth weight newborns for both late sepsis and meningitis with birth weights between 401 and 1500 Gms and a gestational age between 22 weeks 0 days and 28 weeks six days. Measure 0304 also evaluates all newborns who are in the hospital after 3 days of birth. Numerator inclusions for measure 0304 are a bacterial pathogen recovered from a blood culture and/or cerebrospinal fluid culture obtained after Day 3 of life OR all 3 of the following:

- 1.) Coagulase Negative Staphylococcus recovered from a blood culture from either a central line or peripheral blood sample and/or is recovered from cerebrospinal fluid by lumbar puncture, ventricular tap or ventricular drain
- 2.) One or more signs of generalized infection (i.e., apnea, temperature instability, feeding intolerance, worsening respiratory distress or hemodynamic instability) and
- 3.) Treatment with 5 or more days of intravenous antibiotics. The major differences between measure 0304 and measure 1731 are:

- Measure 1731 does not include cases with meningitis based on results from cerebrospinal fluid cultures
- Measure 1731 includes birth weights which are 500 Gms or more rather than 400 Gms or more, and measure 1731 also includes newborns 1500 gms or more with one or more specific medical indication: major surgery, mechanical ventilation, expired or transferred-in.

- Measure 1731 excludes newborns born with infections within the first 48 hours of admission and newborns with bloodstream infections occurring after the first 48 hours after birth that are due to causes that are not health care-associated, i.e., necrotizing enterocolitis, urosepsis, etc.

5b.1 If competing, why superior or rationale for additive value: Measure 0478 is similar to this measure. The fundamental differences are that measure 0478 has been developed to collect all data elements using administrative data. Such an approach has led in some cases to loss of specificity available through review of the medical record. The two measures have been harmonized to the extent possible; however, there are intrinsic differences which are addressed in a comparison table in the attachment found in Section A.1 Supplemental Materials.

Appendix G: Pre-Evaluation Comments

Comments received as of April, 5 2016.

0033: Chlamydia Screening in Women (CHL)

Submitted by Dr. Nat James

This measure permits an exclusion if an x-ray procedure is performed within 7 days of a pregnancy test. The allowed x-ray procedures are defined in CMS eCQM 153 as a test contained in the grouper: Diagnostic Study, Order: X-Ray Study (all inclusive)" using "X-Ray Study (all inclusive) Grouping Value Set (2.16.840.1.113883.3.464.1003.198.12.1034). This is a LOINC code grouper. Our EHR (Epic) and the procedure database (AMA) only link CPT codes to our x-ray procedures, not LOINC. Is there a procedure grouper based on CPT codes instead of LOINC that can be used for this measure? If not, what are recommended next steps for setting up this measure for MU reporting?

Submitted by Dr. Maria Jorina, PhD

The measure seems very reasonable. The denominator exclusions could be defined to account for the patients who may be taking birth control pills for health-related reasons but who are not sexually active. Please at least remove all patients with pregnancy tests due to surgery within a week as well as those receiving X-rays and Accutane. Consider removing some menstrual diagnoses such as PCOS, ovarian failure, amenorrhea, etc. from the denominator. A number of these need hormonal treatment and are not suggestive of sexual activity. We also recommend adding screenings at behavioral health clinics in order to capture populations at the highest risk for chlamydia. (comment submitted by Boston Children's Hospital)

0471: PC-02 Cesarean Birth

Submitted by Gustavo San Román, MD, FACOG

I have concerns about measure #0471 as well as the recent actions of the measure steward. My concerns stem from the fact that the Joint Commission (JC) has failed to disclose that they are aware of a fatal error in measure #0471: PC-02 Cesarean Birth. I have been attempting to inform the JC since April 2010 that the direct standardization age risk adjustment used in measure PC-02 contains a fatal flaw [1]. This error was not immediately obvious to others including the authors, the editors, the JC and the National Quality Forum (NQF). I was finally able to get the JC to understand the fatal flaw in July 2015 which they acknowledged in an email this past September. They informed me that instead of recalling the flawed measure that they would just be dropping the risk adjustment.

I was horrified by their decision since dropping the risk adjustment from measure PC-02 creates a new and significantly more flawed cesarean birth measure which has never been tested, validated or endorsed. The JC's website indeed confirms that they have dropped the risk adjustment from measure PC-02 v2016A [2]. Surprisingly, their website clearly indicates that this new cesarean birth measure is "NQF-ENDORSED". The actions of the JC are especially concerning because these actions make it very confusing as to which cesarean birth measure was vetted by the NQF and recently adopted by The Core Quality Measure Collaborative.

I understand the significant problem that I have created by exposing a fatal flaw in the widely distributed measure #0471. However, the decision by the JC to conceal the flaw from the NQF will only make the problem worse. The longer it takes to recall a fatally flawed measure the more significant the problem will become.

It was clear to me six years ago that the fatal flaw in PC-02 would eventually require a recall of the measure but unfortunately my concerns were ignored by the JC. Ignoring my concerns in 2010 has resulted in six wasted years in the effort to accurately measure cesarean birth utilization. Therefore, it would be extremely irresponsible of me if I didn't alert everyone involved of the current actions of the JC before they waste another six years and potentially adversely affect not only the millions of women who are giving birth each year but also the hard working healthcare personnel that care for them.

I understand the extremely serious nature of my concerns and stand ready to provide any and all evidence required in support of my concerns. My motives are clear and my conviction is unwavering. Women who give birth deserve better. – Gustavo San Román, MD

References:

1. <https://www.birthrisk.com/Public/FatalFlaw.pdf>
2. <https://manual.jointcommission.org/releases/TJC2016A/MIF0167.html>

0480: PC-05 Exclusive Breast Milk Feeding

Submitted by Alison Mann Stuebe, MD

I am writing to express my strong support for continued endorsement of PC-05, Exclusive Breast Milk Feeding. Seminal research from the California Maternity Care Quality Collaborative demonstrated substantial variation in supplementation of breastfed infants among maternity centers. Moreover, national data confirm that there is wide variation in the use of formula among breastfed infants in the first 2 days of life[1], ranging from 6.1% in Montana to 34.9% in New Jersey. This variation among states suggests that overutilization of formula occurs in many maternity hospitals.

However, just as some infants require delivery via cesarean, some breastfeeding dyads require formula supplementation. It is therefore essential that implementation of PC05 occurs within a context that provides appropriate support for family-centered decision-making and transitions to outpatient support. The AAP recommends that all breastfeeding newborns be seen within 48 to 72h of discharge from the maternity center[2]. Because some families may initiate breastfeeding after leaving the hospital, it may be prudent to schedule all newborns for a 48 to 72h visit to establish care with a pediatric provider. It may be useful to consider a quality measure for the proportion of infants seen by a health professional, either in the office or for a home visit, within 48 to 72h of discharge.

Of note, the Baby Friendly Hospital Initiative includes a metric for exclusive breast milk feeding as one of its metrics for certification. Differences exist between PC-05 and the BFHI measure, increasing reporting burden for maternity centers. It would be helpful if BFHI and NQF could work together to develop a common metric for measuring exclusive breast milk feeding.

Evidence continues to accrue that there is no replacement for mother's milk[3]. We can enable families to achieve optimal infant feeding by reducing iatrogenic formula supplementation during the maternity stay, and by ensuring careful follow-up for all families in the early days of life.

1. Centers for Disease Control and Prevention. 2012: Percent of breastfed infants who were supplemented with infant formula within 2 days of life. 2015 [cited 2016 April 4]; Available from: https://nccd.cdc.gov/NPAO_DTM/IndicatorSummary.aspx?category=8&indicator=41.
2. American Academy of Pediatrics, Breastfeeding and the use of human milk. Pediatrics, 2012. 129(3): p. e827-41.
3. Victora, C.G., et al., Breastfeeding in the 21st century: epidemiology, mechanisms, and lifelong effect. The Lancet, 2016. 387(10017): p. 475-490.

2830: PC-05 Exclusive Breast Milk Feeding

Submitted by Alison Mann Stuebe, MD

I am writing to express my strong support for continued endorsement of PC-05, Exclusive Breast Milk Feeding. Seminal research from the California Maternity Care Quality Collaborative demonstrated substantial variation in supplementation of breastfed infants among maternity centers. Moreover, national data confirm that there is wide variation in the use of formula among breastfed infants in the first 2 days of life[1], ranging from 6.1% in Montana to 34.9% in New Jersey. This variation among states suggests that overutilization of formula occurs in many maternity hospitals.

However, just as some infants require delivery via cesarean, some breastfeeding dyads require formula supplementation. It is therefore essential that implementation of PC05 occurs within a context that provides appropriate support for family-centered decision-making and transitions to outpatient support. The AAP recommends that all breastfeeding newborns be seen within 48 to 72h of discharge from the maternity center[2]. Because some families may initiate breastfeeding after leaving the hospital, it may be prudent to schedule all newborns for a 48 to 72h visit to establish care with a pediatric provider. It may be useful to consider a quality measure for the proportion of infants seen by a health professional, either in the office or for a home visit, within 48 to 72h of discharge.

Of note, the Baby Friendly Hospital Initiative includes a metric for exclusive breast milk feeding as one of its metrics for certification. Differences exist between PC-05 and the BFHI measure, increasing reporting burden for maternity centers. It would be helpful if BFHI and NQF could work together to develop a common metric for measuring exclusive breast milk feeding.

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1. Centers for Disease Control and Prevention. 2012: Percent of breastfed infants who were supplemented with infant formula within 2 days of life. 2015 [cited 2016 April 4]; Available from: https://nccd.cdc.gov/NPAO_DTM/IndicatorSummary.aspx?category=8&indicator=41.

2. American Academy of Pediatrics, Breastfeeding and the use of human milk. *Pediatrics*, 2012. 129(3): p. e827-41.

3. Victora, C.G., et al., Breastfeeding in the 21st century: epidemiology, mechanisms, and lifelong effect. *The Lancet*, 2016. 387(10017): p. 475-490.

2902: Contraceptive Care - Postpartum

Raegan McDonald-Mosley, PPFA; Submitted by Jennifer Fuld

Planned Parenthood Federation of America, the nation's leading provider of women's reproductive healthcare, supports the endorsement of the proposed measures. Contraception is an important and effective preventive service to reduce unintended pregnancy as well as improve birth spacing and family planning. PPFA provided de-identified data included in the application to demonstrate the reliability and validity of the measures as well the feasibility of using them for quality improvement. Currently, PPFA has already begun using a developmental version of these measures for quality improvement and looks forward to incorporate NQF endorsed measure into its portfolio of internal quality improvement work. National endorsement of these new performance measures on contraceptive care aligns with the April 2015 call by the Institute of Medicine for standardized metrics that include measuring contraceptive use to support reducing unintended pregnancy. Further, these will be the first nationally endorsed measures on contraceptive care, providing important tools to all providers who serve women of reproductive age.

Raegan McDonald-Mosley, PPFA; Submitted by Jennifer Fuld

Planned Parenthood Federation of America, the nation's leading provider of women's reproductive healthcare, supports the endorsement of the proposed measures. Contraception is an important and effective preventive service to reduce unintended pregnancy as well as improve birth spacing and family planning. National endorsement of these new performance measures on contraceptive care aligns with the April 2015 call by the Institute of Medicine for standardized metrics that include measuring contraceptive use to support reducing unintended pregnancy. Further, these will be the first nationally endorsed measures on contraceptive care, providing important tools to all providers who serve women of reproductive age.

2903: Contraceptive Care – Most & Moderately Effective Methods

Raegan McDonald-Mosley, PPFA; Submitted by Jennifer Fuld

Planned Parenthood Federation of America, the nation's leading provider of women's reproductive healthcare, supports the endorsement of the proposed measures. Contraception is an important and effective preventive service to reduce unintended pregnancy as well as improve birth spacing and family planning. PPFA provided de-identified data included in the application to demonstrate the reliability and validity of the measures as well the feasibility of using them for quality improvement. Currently, PPFA has already begun using a developmental version of these measures for quality improvement and looks forward to incorporate NQF endorsed measure into its portfolio of internal quality improvement work. National endorsement of these new performance measures on contraceptive care aligns with the April 2015 call by the Institute of Medicine for standardized metrics that include measuring contraceptive use

to support reducing unintended pregnancy. Further, these will be the first nationally endorsed measures on contraceptive care, providing important tools to all providers who serve women of reproductive age.

2904: Contraceptive Care - Access to LARC

Raegan McDonald-Mosley, PPFA; Submitted by Jennifer Fuld

Planned Parenthood Federation of America, the nation's leading provider of women's reproductive healthcare, supports the endorsement of the proposed measures. Contraception is an important and effective preventive service to reduce unintended pregnancy as well as improve birth spacing and family planning. PPFA provided de-identified data included in the application to demonstrate the reliability and validity of the measures as well the feasibility of using them for quality improvement. Currently, PPFA has already begun using a developmental version of these measures for quality improvement and looks forward to incorporate NQF endorsed measure into its portfolio of internal quality improvement work. National endorsement of these new performance measures on contraceptive care aligns with the April 2015 call by the Institute of Medicine for standardized metrics that include measuring contraceptive use to support reducing unintended pregnancy. Further, these will be the first nationally endorsed measures on contraceptive care, providing important tools to all providers who serve women of reproductive age.

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