



Measure Information

This document contains the information submitted by measure developers/stewards, but is organized according to NQF's measure evaluation criteria and process. The item numbers refer to those in the submission form but may be in a slightly different order here. In general, the item numbers also reference the related criteria (e.g., item 1b.1 relates to sub criterion 1b).

Brief Measure Information

NQF #: 0304

Corresponding Measures:

De.2. Measure Title: [Late sepsis or meningitis in Very Low Birth Weight \(VLBW\) neonates \(risk-adjusted\)](#)

Co.1.1. Measure Steward: [Vermont Oxford Network](#)

De.3. Brief Description of Measure: [Standardized morbidity ratio and observed minus expected measure for nosocomial bacterial infection after day 3 from birth in very low birth weight infants, defined as infants whose birth weights are between 501 and 1500 grams](#)

1b.1. Developer Rationale: [Improvement practices dramatically reduce the frequency of hospital acquired infections for very low birth weight infants including hand hygiene, care for central lines and ventilators, breast milk feeding, skin care, and antibiotic stewardship.](#)

S.4. Numerator Statement: [Infants whose birth weights are between 501 and 1500 grams who have a bacterial pathogen recovered from a blood or cerebrospinal fluid culture obtained after day 3 from birth; OR, coagulase negative Staphylococcus recovered from a blood or cerebrospinal fluid culture plus signs of infection and at least 5 days of antibiotic treatment.](#)

S.6. Denominator Statement: [Infants whose birth weights are between 501 and 1500 grams who are in the reporting hospital after day 3 from birth.](#)

S.8. Denominator Exclusions:

De.1. Measure Type: [Outcome](#)

S.17. Data Source: [Registry Data](#)

S.20. Level of Analysis: [Facility](#)

IF Endorsement Maintenance – Original Endorsement Date: [Nov 15, 2007](#) Most Recent Endorsement Date: [Oct 25, 2016](#)

IF this measure is included in a composite, NQF Composite#/title:

IF this measure is paired/grouped, NQF#/title:

De.4. IF PAIRED/GROUPED, what is the reason this measure must be reported with other measures to appropriately interpret results? [N/A](#)

1. Evidence, Performance Gap, Priority – Importance to Measure and Report

Extent to which the specific measure focus is evidence-based, important to making significant gains in healthcare quality, and improving health outcomes for a specific high-priority (high-impact) aspect of healthcare where there is variation in or overall less-than-optimal performance. ***Measures must be judged to meet all sub criteria to pass this criterion and be evaluated against the remaining criteria.***

1a. Evidence to Support the Measure Focus – See attached Evidence Submission Form

[Infection_evidence_0304_0720.docx](#)

1a.1 For Maintenance of Endorsement: Is there new evidence about the measure since the last update/submission?

Do not remove any existing information. If there have been any changes to evidence, the Committee will consider the new evidence. Please use the most current version of the evidence attachment (v7.1). Please use red font to indicate updated evidence.

No

1b. Performance Gap

Demonstration of quality problems and opportunity for improvement, i.e., data demonstrating:

- considerable variation, or overall less-than-optimal performance, in the quality of care across providers; and/or
- Disparities in care across population groups.

1b.1. Briefly explain the rationale for this measure (e.g., how the measure will improve the quality of care, the benefits or improvements in quality envisioned by use of this measure)

If a COMPOSITE (e.g., combination of component measure scores, all-or-none, any-or-none), SKIP this question and answer the composite questions.

Improvement practices dramatically reduce the frequency of hospital acquired infections for very low birth weight infants including hand hygiene, care for central lines and ventilators, breast milk feeding, skin care, and antibiotic stewardship.

1b.2. Provide performance scores on the measure as specified (current and over time) at the specified level of analysis. *(This is required for maintenance of endorsement. Include mean, std dev, min, max, interquartile range, scores by decile. Describe the data source including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities include.) This information also will be used to address the sub-criterion on improvement (4b1) under Usability and Use.*

In 2018, 1032 hospitals in the Vermont Oxford Network enrolled 57,399 infants born from 501 to 1500 grams of which 9.4% had a hospital acquired bacterial infection with an interquartile range among hospitals of 2.7% to 12.8%.

Year	N Hospitals	Mean	Minimum	Maximum	Q1	Q2	Q3
2006	634	0.190	0.000	0.750	0.102	0.176	0.257
2007	680	0.181	0.000	0.618	0.098	0.170	0.250
2008	748	0.169	0.000	0.682	0.091	0.154	0.227
2009	813	0.156	0.000	0.824	0.080	0.138	0.211
2010	856	0.135	0.000	0.588	0.064	0.116	0.189
2011	885	0.102	0.000	0.700	0.059	0.111	0.179
2012	900	0.115	0.000	0.625	0.044	0.099	0.160
2013	915	0.109	0.000	0.678	0.040	0.091	0.154
2014	935	0.107	0.000	0.837	0.034	0.085	0.144
2015	965	0.112	0.000	0.750	0.042	0.093	0.158
2016	994	0.107	0.000	0.667	0.036	0.087	0.014
2017	1019	0.100	0.000	0.625	0.033	0.079	0.138
2018	1032	0.094	0.000	1.000	0.027	0.071	0.128

1b.3. If no or limited performance data on the measure as specified is reported in 1b2, then provide a summary of data from the literature that indicates opportunity for improvement or overall less than optimal performance on the specific focus of measurement.

1b.4. Provide disparities data from the measure as specified (current and over time) by population group, e.g., by race/ethnicity, gender, age, insurance status, socioeconomic status, and/or disability. *(This is required for maintenance of endorsement. Describe the data source including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included.) For measures that show high levels of performance, i.e., "topped out", disparities data may demonstrate an opportunity for improvement/gap in care for certain sub-populations. This information also will be used to address the sub-criterion on improvement (4b1) under Usability and Use.*

Rates of nosocomial bacterial infection among infants 501 to 1500 grams varied by race/ethnicity of the mother, ranging from 10.2% for infants with black mothers, 12.1% for infants with Hispanic mothers, 10.3% for infants with white mothers, and 9.2% for infants with Asian mothers.

Year	White non-Hispanic			Black non-Hispanic	Hispanic Asian
2006	0.191	0.226	0.213	0.171	
2007	0.184	0.220	0.207	0.161	
2008	0.178	0.198	0.191	0.140	

2009	0.161	0.180	0.174	0.135
2010	0.145	0.155	0.156	0.122
2011	0.131	0.142	0.146	0.118
2012	0.120	0.134	0.125	0.104
2013	0.116	0.116	0.123	0.094
2014	0.115	0.123	0.123	0.105
2015	0.115	0.130	0.146	0.107
2016	0.113	0.121	0.140	0.102
2017	0.105	0.111	0.141	0.096
2018	0.103	0.102	0.121	0.912

1b.5. If no or limited data on disparities from the measure as specified is reported in 1b.4, then provide a summary of data from the literature that addresses disparities in care on the specific focus of measurement. Include citations. Not necessary if performance data provided in 1b.4

2. Reliability and Validity—Scientific Acceptability of Measure Properties

Extent to which the measure, as specified, produces consistent (reliable) and credible (valid) results about the quality of care when implemented. **Measures must be judged to meet the sub criteria for both reliability and validity to pass this criterion and be evaluated against the remaining criteria.**

2a.1. Specifications The measure is well defined and precisely specified so it can be implemented consistently within and across organizations and allows for comparability. eMeasures should be specified in the Health Quality Measures Format (HQMF) and the Quality Data Model (QDM).

De.5. Subject/Topic Area (check all the areas that apply):

Perinatal Health

De.6. Non-Condition Specific(check all the areas that apply):

Safety : Healthcare Associated Infections

De.7. Target Population Category (Check all the populations for which the measure is specified and tested if any):

Children, Populations at Risk : Dual eligible beneficiaries

S.1. Measure-specific Web Page (Provide a URL link to a web page specific for this measure that contains current detailed specifications including code lists, risk model details, and supplemental materials. Do not enter a URL linking to a home page or to general information.)

S.2a. If this is an eMeasure, HQMF specifications must be attached. Attach the zipped output from the eMeasure authoring tool (MAT) - if the MAT was not used, contact staff. (Use the specification fields in this online form for the plain-language description of the specifications)

This is not an eMeasure Attachment:

S.2b. Data Dictionary, Code Table, or Value Sets (and risk model codes and coefficients when applicable) must be attached. (Excel or csv file in the suggested format preferred - if not, contact staff)

No data dictionary Attachment:

S.2c. Is this an instrument-based measure (i.e., data collected via instruments, surveys, tools, questionnaires, scales, etc.)? Attach copy of instrument if available.

No, this is not an instrument-based measure Attachment:

S.2d. Is this an instrument-based measure (i.e., data collected via instruments, surveys, tools, questionnaires, scales, etc.)? Attach copy of instrument if available.

Not an instrument-based measure

S.3.1. For maintenance of endorsement: Are there changes to the specifications since the last updates/submission. If yes, update the specifications for S1-2 and S4-22 and explain reasons for the changes in S3.2.

No

S.3.2. For maintenance of endorsement, please briefly describe any important changes to the measure specifications since last measure update and explain the reasons.

Vermont Oxford Network calculates and reports this measure among infants 501 to 1500 grams only. The measure specifications were updated to reflect this population.

S.4. Numerator Statement (Brief, narrative description of the measure focus or what is being measured about the target population, i.e., cases from the target population with the target process, condition, event, or outcome) DO NOT include the rationale for the measure.

IF an OUTCOME MEASURE, state the outcome being measured. Calculation of the risk-adjusted outcome should be described in the calculation algorithm (S.14).

Infants whose birth weights are between 501 and 1500 grams who have a bacterial pathogen recovered from a blood or cerebrospinal fluid culture obtained after day 3 from birth; OR, coagulase negative Staphylococcus recovered from a blood or cerebrospinal fluid culture plus signs of infection and at least 5 days of antibiotic treatment.

S.5. Numerator Details (All information required to identify and calculate the cases from the target population with the target process, condition, event, or outcome such as definitions, time period for data collection, specific data collection items/responses, code/value sets – Note: lists of individual codes with descriptors that exceed 1 page should be provided in an Excel or csv file in required format at S.2b)

IF an OUTCOME MEASURE, describe how the observed outcome is identified/counted. Calculation of the risk-adjusted outcome should be described in the calculation algorithm (S.14).

Infants whose birth weights are 501 to 1500 grams who are in the reporting hospital after day 3 from birth and meet one or more of the following criteria:

Criterion 1:

Bacterial Pathogen. A bacterial pathogen from the Bacterial Pathogens list is recovered from a blood and/or cerebrospinal fluid culture obtained after day 3 from birth.

Bacterial Pathogens List:

1. Achromobacter species [including A. xylosoxidans (also known as Alcaligenes xylosoxidans) and others]
2. Acinetobacter species
3. Aeromonas species
4. Alcaligenes species
5. Bacteroides species
6. Burkholderia species
7. Campylobacter species
8. Chryseobacterium species
9. Citrobacter species
10. Clostridium species
11. Enterobacter species
12. Enterococcus species
13. Escherichia coli
14. Flavobacterium species
15. Haemophilus species
16. Klebsiella species
17. Listeria monocytogenes
18. Moraxella species
19. Morganella morganii
20. Neisseria species
21. Pantoea

- 22. *Pasteurella* species
- 23. *Prevotella* species
- 24. *Proteus* species
- 25. *Providencia* species
- 26. *Pseudomonas* species
- 27. *Ralstonia* species
- 28. *Salmonella* species
- 29. *Serratia* species
- 30. *Staphylococcus* coagulase positive [aureus]
- 31. *Stenotrophomonas maltophilia*
- 32. Group B *Streptococcus* [also known as *Streptococcus agalactiae*]
- 33. *Streptococcus aginosus* [formerly *Streptococcus milleri*]
- 34. *Streptococcus pneumonia*
- 35. *Streptococcus pyogenes* [Group A *Streptococcus*]

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 after day 3 from birth.
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.

S.6. Denominator Statement (Brief, narrative description of the target population being measured)

Infants whose birth weights are between 501 and 1500 grams who are in the reporting hospital after day 3 from birth.

S.7. Denominator Details (All information required to identify and calculate the target population/denominator such as definitions, time period for data collection, specific data collection items/responses, code/value sets – Note: lists of individual codes with descriptors that exceed 1 page should be provided in an Excel or csv file in required format at S.2b.)

IF an OUTCOME MEASURE, describe how the target population is identified. Calculation of the risk-adjusted outcome should be described in the calculation algorithm (S.14).

Infants whose birth weights are between 501 and 1500 grams are included if they are in the reporting hospital after day 3 from birth.

S.8. Denominator Exclusions (Brief narrative description of exclusions from the target population)

S.9. Denominator Exclusion Details (All information required to identify and calculate exclusions from the denominator such as definitions, time period for data collection, specific data collection items/responses, code/value sets – Note: lists of individual codes with descriptors that exceed 1 page should be provided in an Excel or csv file in required format at S.2b.)

S.10. Stratification Information (Provide all information required to stratify the measure results, if necessary, including the stratification variables, definitions, specific data collection items/responses, code/value sets, and the risk-model covariates and coefficients for the clinically-adjusted version of the measure when appropriate – Note: lists of individual codes with descriptors that exceed 1 page should be provided in an Excel or csv file in required format with at S.2b.)

N/A

S.11. Risk Adjustment Type (Select type. Provide specifications for risk stratification in measure testing attachment)

Statistical risk model

If other:

S.12. Type of score:

Other

If other: Standardized morbidity ratio and observed minus expected values with confidence bounds

S.13. Interpretation of Score (Classifies interpretation of score according to whether better quality is associated with a higher score, a lower score, a score falling within a defined interval, or a passing score)

Better quality = Lower score

S.14. Calculation Algorithm/Measure Logic (Diagram or describe the calculation of the measure score as an ordered sequence of steps including identifying the target population; exclusions; cases meeting the target process, condition, event, or outcome; time period for data, aggregating data; risk adjustment; etc.)

1. Determine the number of infants for a reporting period whose birth weights are between 501 and 1500 grams. This number is termed N.

2. Determine the number of infants whose birth weights are between 501 and 1500 grams were diagnosed as having either coagulase negative Staphylococcus or a late bacterial pathogen after day 3 from birth. 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 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).

$SMRshrnk = (O + v_2) / (E + v_2)$

with standard error $SESMRshrnk = \sqrt{1/(E + (1/v_2))}$;

6. Calculate the shrunken, adjusted nosocomial bacterial infection rate (Rateshrnk) and its 95% confidence interval.

$Rateshrnk = (SMRshrnk \times E) / N$

with standard error (SERateshrnk) equal to $SESMRshrnk \times E / N$.

and 95% confidence interval for Rateshrnk equal to

$Rateshrnk \pm 1.96 \times SERateshrnk$.

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 $O - Eshrnk$.

$O - Eshrnk = E / SMRshrnk$

with 95% control limits equal to $O - Eshrnk \pm 1.96 \times SESMRshrnk \times E$.

S.15. Sampling (If measure is based on a sample, provide instructions for obtaining the sample and guidance on minimum sample

size.)

IF an instrument-based performance measure (e.g., PRO-PM), identify whether (and how) proxy responses are allowed.

N/A

S.16. Survey/Patient-reported data (If measure is based on a survey or instrument, provide instructions for data collection and guidance on minimum response rate.)

Specify calculation of response rates to be reported with performance measure results.

N/A

S.17. Data Source (Check ONLY the sources for which the measure is SPECIFIED AND TESTED).

If other, please describe in S.18.

Registry Data

S.18. Data Source or Collection Instrument (Identify the specific data source/data collection instrument (e.g. name of database, clinical registry, collection instrument, etc., and describe how data are collected.)

IF instrument-based, identify the specific instrument(s) and standard methods, modes, and languages of administration.

Vermont Oxford Network Database

S.19. Data Source or Collection Instrument (available at measure-specific Web page URL identified in S.1 OR in attached appendix at A.1)

No data collection instrument provided

S.20. Level of Analysis (Check ONLY the levels of analysis for which the measure is SPECIFIED AND TESTED)

Facility

S.21. Care Setting (Check ONLY the settings for which the measure is SPECIFIED AND TESTED)

Inpatient/Hospital

If other:

S.22. COMPOSITE Performance Measure - Additional Specifications (Use this section as needed for aggregation and weighting rules, or calculation of individual performance measures if not individually endorsed.)

2. Validity – See attached Measure Testing Submission Form

Infection_testing_0304_0920.docx

2.1 For maintenance of endorsement

Reliability testing: If testing of reliability of the measure score was not presented in prior submission(s), has reliability testing of the measure score been conducted? If yes, please provide results in the Testing attachment. Please use the most current version of the testing attachment (v7.1). Include information on all testing conducted (prior testing as well as any new testing); use red font to indicate updated testing.

Yes

2.2 For maintenance of endorsement

Has additional empirical validity testing of the measure score been conducted? If yes, please provide results in the Testing attachment. Please use the most current version of the testing attachment (v7.1). Include information on all testing conducted (prior testing as well as any new testing); use red font to indicate updated testing.

Yes

2.3 For maintenance of endorsement

Risk adjustment: For outcome, resource use, cost, and some process measures, risk-adjustment that includes social risk factors is not prohibited at present. Please update sections 1.8, 2a2, 2b1,2b4.3 and 2b5 in the Testing attachment and S.140 and S.11 in the online submission form. NOTE: These sections must be updated even if social risk factors are not included in the risk-adjustment strategy. You MUST use the most current version of the Testing Attachment (v7.1) -- older versions of the form will not have all required questions.

Yes - Updated information is included

3. Feasibility

Extent to which the specifications including measure logic, require data that are readily available or could be captured without undue burden and can be implemented for performance measurement.

3a. Byproduct of Care Processes

For clinical measures, the required data elements are routinely generated and used during care delivery (e.g., blood pressure, lab test, diagnosis, medication order).

3a.1. Data Elements Generated as Byproduct of Care Processes.

Generated or collected by and used by healthcare personnel during the provision of care (e.g., blood pressure, lab value, diagnosis, depression score), Abstracted from a record by someone other than person obtaining original information (e.g., chart abstraction for quality measure or registry)

If other:

3b. Electronic Sources

The required data elements are available in electronic health records or other electronic sources. If the required data are not in electronic health records or existing electronic sources, a credible, near-term path to electronic collection is specified.

3b.1. To what extent are the specified data elements available electronically in defined fields (i.e., data elements that are needed to compute the performance measure score are in defined, computer-readable fields) Update this field for maintenance of endorsement.

ALL data elements are in defined fields in electronic health records (EHRs)

3b.2. If ALL the data elements needed to compute the performance measure score are not from electronic sources, specify a credible, near-term path to electronic capture, OR provide a rationale for using other than electronic sources. For maintenance of endorsement, if this measure is not an eMeasure (eCQM), please describe any efforts to develop an eMeasure (eCQM).

3b.3. If this is an eMeasure, provide a summary of the feasibility assessment in an attached file or make available at a measure-specific URL. Please also complete and attach the NQF Feasibility Score Card.

Attachment:

3c. Data Collection Strategy

Demonstration that the data collection strategy (e.g., source, timing, frequency, sampling, patient confidentiality, costs associated with fees/licensing of proprietary measures) can be implemented (e.g., already in operational use, or testing demonstrates that it is ready to put into operational use). For eMeasures, a feasibility assessment addresses the data elements and measure logic and demonstrates the eMeasure can be implemented or feasibility concerns can be adequately addressed.

3c.1. Required for maintenance of endorsement. Describe difficulties (as a result of testing and/or operational use of the measure) regarding data collection, availability of data, missing data, timing and frequency of data collection, sampling, patient confidentiality, time and cost of data collection, other feasibility/implementation issues.

IF instrument-based, consider implications for both individuals providing data (patients, service recipients, respondents) and those whose performance is being measured.

Patient identifiers are not collected in the registry. Confidentiality for each hospital member is strictly maintained. Procedures in place assure reasonable confidence that data are complete and accurate. There are no specific fees for this measure, although members of the Vermont Oxford Network pay an annual membership fee.

3c.2. Describe any fees, licensing, or other requirements to use any aspect of the measure as specified (e.g., value/code set, risk model, programming code, algorithm).

In 2020, the fee for Very Low Birth Weight Database, which only includes infants 401 to 1500 grams or 22 to 29 weeks gestational age, is \$5,400. The fee for the Expanded Database, which includes all infants admitted to a NICU including very low birth weight infants, is based on hospital size: Small hospitals (fewer than 250 staffed beds) are \$5,900 per year; Medium hospitals (250-500 beds) are \$7,300 per year; and Large (500+ beds) or children's hospitals are \$8,700 per year.

4. Usability and Use

Extent to which potential audiences (e.g., consumers, purchasers, providers, policy makers) are using or could use performance results for both accountability and performance improvement to achieve the goal of high-quality, efficient healthcare for individuals or populations.

4a. Accountability and Transparency

Performance results are used in at least one accountability application within three years after initial endorsement and are publicly reported within six years after initial endorsement (or the data on performance results are available). If not in use at the time of initial endorsement, then a credible plan for implementation within the specified timeframes is provided.

4.1. Current and Planned Use

NQF-endorsed measures are expected to be used in at least one accountability application within 3 years and publicly reported within 6 years of initial endorsement in addition to performance improvement.

Specific Plan for Use	Current Use (for current use provide URL)
Public Reporting	Quality Improvement (Internal to the specific organization) N/A N/A

4a1.1 For each CURRENT use, checked above (update for maintenance of endorsement), provide:

- Name of program and sponsor
- Purpose
- Geographic area and number and percentage of accountable entities and patients included
- Level of measurement and setting

Vermont Oxford Network has over 1300 members. We do not know what proportion are using this measure for internal or external quality improvement.

4a1.2. If not currently publicly reported OR used in at least one other accountability application (e.g., payment program, certification, licensing) what are the reasons? (e.g., Do policies or actions of the developer/steward or accountable entities restrict access to performance results or impede implementation?)

There are no publicly-reported quality measures for the neonatal population. We have not discussed use of this measure with other accountability programs.

4a1.3. If not currently publicly reported OR used in at least one other accountability application, provide a credible plan for implementation within the expected timeframes -- any accountability application within 3 years and publicly reported within 6 years of initial endorsement. (Credible plan includes the specific program, purpose, intended audience, and timeline for implementing the measure within the specified timeframes. A plan for accountability applications addresses mechanisms for data aggregation and reporting.)

Vermont Oxford Network is committed to working with accrediting bodies that are developing publicly-reported quality measures for the neonatal population.

4a2.1.1. Describe how performance results, data, and assistance with interpretation have been provided to those being measured or other users during development or implementation.

How many and which types of measured entities and/or others were included? If only a sample of measured entities were included, describe the full population and how the sample was selected.

Participating centers receive results via an annual report and online reporting system, with information on data definitions and data interpretation. Members use these reports for internal quality improvement and benchmarking. Additionally, Vermont Oxford Network has managed several quality improvement collaboratives for its members on reducing infection.

4a2.1.2. Describe the process(es) involved, including when/how often results were provided, what data were provided, what educational/explanatory efforts were made, etc.

Centers receive a summary report of the previous birth year, and have on-demand access of up-to-date data via an online reporting system. Centers can participate in annual educational seminars on data definitions and data interpretation.

4a2.2.1. Summarize the feedback on measure performance and implementation from the measured entities and others described in 4d.1.

Describe how feedback was obtained.

No feedback obtained

4a2.2.2. Summarize the feedback obtained from those being measured.

4a2.2.3. Summarize the feedback obtained from other users

4a2.3. Describe how the feedback described in 4a2.2.1 has been considered when developing or revising the measure specifications or implementation, including whether the measure was modified and why or why not.

Improvement

Progress toward achieving the goal of high-quality, efficient healthcare for individuals or populations is demonstrated. If not in use for performance improvement at the time of initial endorsement, then a credible rationale describes how the performance results could be used to further the goal of high-quality, efficient healthcare for individuals or populations.

4b1. Refer to data provided in 1b but do not repeat here. Discuss any progress on improvement (trends in performance results, number and percentage of people receiving high-quality healthcare; Geographic area and number and percentage of accountable entities and patients included.)

If no improvement was demonstrated, what are the reasons? If not in use for performance improvement at the time of initial endorsement, provide a credible rationale that describes how the performance results could be used to further the goal of high-quality, efficient healthcare for individuals or populations.

As reported in 2017, from 2005 to 2014, the mean unadjusted rate of late-onset infection decreased from 22% to 11%. In 2014, 98% of NICUs in Vermont Oxford Network had achieved the 2005 shrunken adjusted rate at the 25th percentile and 91% had achieved the 2005 shrunken adjusted rate at the 10th percentile. (Horbar JD, Edwards EM, Greenberg LT, et al. Variation in performance of neonatal intensive care units in the United States. JAMA Pediatr. 2017; 171(3).)

4b2. Unintended Consequences

The benefits of the performance measure in facilitating progress toward achieving high-quality, efficient healthcare for individuals or populations outweigh evidence of unintended negative consequences to individuals or populations (if such evidence exists).

4b2.1. Please explain any unexpected findings (positive or negative) during implementation of this measure including unintended impacts on patients.

To mitigate unintended consequences associated with Vermont Oxford Network member hospitals reporting nosocomial bacterial infection, members receive a manual of operations annually that contains definitions and clearly operationalized criteria for the measure. Comprehensive business rules verify records for consistency, completeness and accuracy. Centers employ a definitive process to assure that the measure is not reported until data are complete and correct. Hospital contacts must verify that data for all eligible infants are submitted prior to finalization.

4b2.2. Please explain any unexpected benefits from implementation of this measure.

5. Comparison to Related or Competing Measures

If a measure meets the above criteria and there are endorsed or new related measures (either the same measure focus or the same target population) or competing measures (both the same measure focus and the same target population), the measures are compared to address harmonization and/or selection of the best measure.

5. Relation to Other NQF-endorsed Measures

Are there related measures (conceptually, either same measure focus or target population) or competing measures (conceptually both the same measure focus and same target population)? If yes, list the NQF # and title of all related and/or competing measures.

Yes

5.1a. List of related or competing measures (selected from NQF-endorsed measures)

0478 : Neonatal Blood Stream Infection Rate (NQI 03)

5.1b. If related or competing measures are not NQF endorsed please indicate measure title and steward.

5a. Harmonization of Related Measures

The measure specifications are harmonized with related measures;

OR

The differences in specifications are justified

5a.1. If this measure conceptually addresses EITHER the same measure focus OR the same target population as NQF-endorsed measure(s):

Are the measure specifications harmonized to the extent possible?

No

5a.2. If the measure specifications are not completely harmonized, identify the differences, rationale, and impact on interpretability and data collection burden.

We have tried to harmonize with AHRQ to the extent possible. The target populations, item definitions and risk adjustment methodology are all different.

5b. Competing Measures

The measure is superior to competing measures (e.g., is a more valid or efficient way to measure);

OR

Multiple measures are justified.

5b.1. If this measure conceptually addresses both the same measure focus and the same target population as NQF-endorsed measure(s):

Describe why this measure is superior to competing measures (e.g., a more valid or efficient way to measure quality); OR provide a rationale for the additive value of endorsing an additional measure. (Provide analyses when possible.)

We feel that our measure is more valid because it is abstracted by hand from medical records rather than determined by administrative codes. Also, our measure is risk adjusted.

Appendix

A.1 Supplemental materials may be provided in an appendix. All supplemental materials (such as data collection instrument or methodology reports) should be organized in one file with a table of contents or bookmarks. If material pertains to a specific submission form number, that should be indicated. Requested information should be provided in the submission form and required attachments. There is no guarantee that supplemental materials will be reviewed.

No appendix Attachment:

Contact Information

Co.1 Measure Steward (Intellectual Property Owner): Vermont Oxford Network

Co.2 Point of Contact: Erika, Edwards, eedwards@vtoxford.org, 802-865-4814-246

Co.3 Measure Developer if different from Measure Steward: Vermont Oxford Network

Co.4 Point of Contact: Erika, Edwards, eedwards@vtoxford.org, 802-865-4814-246

Additional Information

Ad.1 Workgroup/Expert Panel involved in measure development

Provide a list of sponsoring organizations and workgroup/panel members' names and organizations. Describe the members' role in measure development.

N/A

Measure Developer/Steward Updates and Ongoing Maintenance Ad.2 Year the measure was first released: 2008 Ad.3 Month and Year of most recent revision: 02, 2017 Ad.4 What is your frequency for review/update of this measure? Annual Ad.5 When is the next scheduled review/update for this measure? 07, 2021
Ad.6 Copyright statement: Copyright © 2020 Vermont Oxford Network, Inc. Ad.7 Disclaimers:
Ad.8 Additional Information/Comments: