NATIONAL QUALITY FORUM

Measure Submission and Evaluation Worksheet 5.0

This form contains the information submitted by measure developers/stewards, organized according to NQF's measure evaluation criteria and process. The evaluation criteria, evaluation guidance documents, and a blank online submission form are available on the underline submitting standards web page.

NQF #: 0474   **NQF Project:** Perinatal and Reproductive Health Project
(for Endorsement Maintenance Review) **Original Endorsement Date:** Oct 24, 2008   **Most Recent Endorsement Date:** Oct 24, 2008

BRIEF MEASURE INFORMATION
De.1 Measure Title: Birth Trauma – Injury to Neonate (PSI 17)
Co.1.1 Measure Steward: Agency for Healthcare Research and Quality
De.2 Brief Description of Measure: Percentage of newborn discharges with an ICD-9-CM diagnosis code of birth trauma in a one-year time period.
2a1.1 Numerator Statement: Discharges among cases meeting the inclusion and exclusion rules for the denominator with ICD-9-CM codes for birth trauma in any diagnosis field
2a1.4 Denominator Statement: All newborn discharges
2a1.8 Denominator Exclusions: Exclude: 1. preterm infants with a birth weight less than 2,000 grams 2. infants with any diagnosis code of injury to brachial plexus 3. infants with any diagnosis code of osteogenesis imperfecta 4. discharges with missing gender (SEX=missing), age (AGE=missing), quarter (DQTR=missing), year (YEAR=missing) or principal diagnosis (DX1=missing)
1.1 Measure Type: Outcome **2a1. 25-26 Data Source:** Administrative claims **2a1.33 Level of Analysis:** Facility **1.2-1.4 Is this measure paired with another measure?** No **De.3 If included in a composite, please identify the composite measure** (*title and NQF number if endorsed*): Not applicable

STAFF NOTES (*issues or questions regarding any criteria*)
Comments on Conditions for Consideration:
Is the measure untested?   Yes☐   No☐   If untested, explain how it meets criteria for consideration for time-limited endorsement:
1a. Specific national health goal/priority identified by DHHS or NPP addressed by the measure (*check De.5*): 5. Similar/related endorsed or submitted measures (*check 5.1*): Other Criteria:
Staff Reviewer Name(s):

1. IMPACT, OPPORTUNITY, EVIDENCE - IMPORTANCE TO MEASURE AND REPORT
Importance to Measure and Report is a threshold criterion that must be met in order to recommend a measure for endorsement. All

three subcriteria must be met to pass this criterion. See guidance on evidence.
Measures must be judged to be important to measure and report in order to be evaluated against the remaining criteria.
(evaluation criteria)

1a. High Impact: H☐ M☐ L☐ I☐
(*The measure directly addresses a specific national health goal/priority identified by DHHS or NPP, or some other high impact aspect of healthcare.*)

De.4 Subject/Topic Areas (*Check all the areas that apply*):   Perinatal
De.5 Cross Cutting Areas (*Check all the areas that apply*):

1a.1 Demonstrated High Impact Aspect of Healthcare: Patient/societal consequences of poor quality

1a.2 If "Other," please describe:

1a.3 Summary of Evidence of High Impact (*Provide epidemiologic or resource use data*):
In the 2008 State Inpatient Data (SID) there were 8,352 birth trauma events out of 3,730,518 newborns, for a rate of 2.24 per 1,000.

PSI #17 Birth trauma—injury to neonate was more frequent on weekends vs. weekdays in a study of New York, Massachusetts and North Carolina State Inpatient Databases from the early 2000's (Healthcare Cost and Utilization Project).45

Types of birth trauma vary by vaginal or cesarean delivery (e.g., greater other specified birth trauma but lower clavicle fractures and injuries to the brachial plexus and scalp in cesarean deliveries), with additional variation by fetal distress and weight, with greater risk.65

A study that used multivariable matching on the 2000 Nationwide Inpatient Sample database (Healthcare Cost and Utilization Project) did not attribute significant excess length of stay, charges and mortality to this QI. 51

The QI was included as part of an international consortium on the conversion of the PSI to ICD-10.31

1a.4 Citations for Evidence of High Impact cited in 1a.3: (45)   Bendavid E, Kaganova Y, Needleman J, Gruenberg L, Weissman JS. Complication rates on weekends and weekdays in US hospitals. Am J Med 2007;120(5):422-428.
(65)   Moczygemba CK, Paramsothy P, Meikle S et al. Route of delivery and neonatal birth trauma. Am J Obstet Gynecol 2010;202(4):361-366.
(51)   Zhan C, Miller MR. Excess length of stay, charges, and mortality attributable to medical injuries during hospitalization. JAMA 2003;290(14):1868-1874.
(31)   Quan H, Drosler S, Sundararajan V et al. Adaptation of AHRQ Patient Safety Indicators for Use in ICD-10 Administrative Data by an International Consortium. 2008.

1b. Opportunity for Improvement: H☐ M☐ L☐ I☐
(*There is a demonstrated performance gap - variability or overall less than optimal performance*)

1b.1 Briefly explain the benefits (improvements in quality) envisioned by use of this measure:
This indicator is intended to flag cases of birth trauma for infants born alive in a hospital.

1b.2 Summary of Data Demonstrating Performance Gap (*Variation or overall less than optimal performance across providers*):
[*For Maintenance – Descriptive statistics for performance results for this measure - distribution of scores for measured entities by quartile/decile, mean, median, SD, min, max, etc.*]
In regard to figures below:
Rates are observed rate per 1,000
"c": Reference for p-value test statistics
1st figure: estimate
2nd figure: standard error
3rd figure: p value relative to marked group (marked group = "c")
4th figure: p value: current year relative to prior year (2007/2006)

Hospital characteristic:

Location of inpatient treatment:
Northeast c 1.812 0.068 0.014
Midwest 1.592 0.061 0.016 0.802
South 1.639 0.045 0.033 0.048
West 1.523 0.059 0.001 0.158

Ownership/control:
Private, not-for-profit c 1.736 0.033 0.061
Private, for-profit 1.210 0.079 0.000 0.544
Public 1.485 0.074 0.002 0.032

Teaching status:
Teaching 1.725 0.047 0.013 0.367
Nonteaching c 1.579 0.035 0.046

Location of hospital (NCHS):
Large central metropolitan 1.451 0.044 0.000 0.515
Large fringe metropolitan c 1.823 0.064 0.000
Medium metropolitan 1.667 0.065 0.088 0.797
Small metropolitan 1.801 0.090 0.844 0.260
Micropolitan 1.602 0.095 0.054 0.477
Not metropolitan or micropolitan 2.447 0.194 0.002 0.630

Bed size of hospital:
Less than 100 1.814 0.088 0.022 0.166
100 - 299 c 1.585 0.046 0.550
300 - 499 1.505 0.053 0.257 0.210
500 or more 1.779 0.057 0.008 0.024

1b.3 Citations for Data on Performance Gap: [*For Maintenance – Description of the data or sample for measure results reported in 1b.2 including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included*]
Source: Agency for Healthcare Research and Quality (AHRQ), Center for Delivery, Organization, and Markets, Healthcare Cost and Utilization Project, Nationwide Inpatient Sample, 2007, and AHRQ Quality Indicators, version 3.1.

1b.4 Summary of Data on Disparities by Population Group: [*For Maintenance –Descriptive statistics for performance results for this measure by population group*]
In regard to figures below:
Rates are observed rate per 1,000
"c": Reference for p-value test statistics
1st figure: estimate
2nd figure: standard error
3rd figure: p value relative to marked group (marked group = "c")
4th figure: p value: current year relative to prior year (2007/2006)

Total U.S.: 1.633 0.028 0.216

Patient characteristic:

Gender:
Male c 1.762 0.041 0.194
Female 1.497 0.038 0.000 0.693

Median income of patient´s ZIP code:
First quartile (lowest income) 1.465 0.053 0.000 0.198
Second quartile 1.664 0.057 0.025 0.956
Third quartile 1.587 0.058 0.002 0.877
Fourth quartile (highest income)c 1.847 0.058 0.000

Location of patient residence (NCHS):
Large central metropolitan 1.392 0.048 0.000 0.609
Large fringe metropolitan c 1.817 0.056 0.000
Medium metropolitan 1.676 0.067 0.109 0.754
Small metropolitan 1.810 0.094 0.948 0.157
Micropolitan 1.624 0.094 0.080 0.182
Not metropolitan or micropolitan 1.902 0.126 0.538 0.687

Expected payment source:
Private insurance c 1.757 0.040 0.000
Medicare 1.607 0.380 0.694 DNC
Medicaid 1.509 0.044 0.000 0.004
Other insurance 1.588 0.172 0.339 0.306
Uninsured / self-pay / no charge 1.482 0.120 0.029 0.507

1b.5 Citations for Data on Disparities Cited in 1b.4: [*For Maintenance* *– Description of the data or sample for measure results reported in 1b.4 including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included*]
Source: Agency for Healthcare Research and Quality (AHRQ), Center for Delivery, Organization, and Markets, Healthcare Cost and Utilization Project, Nationwide Inpatient Sample, 2007, and AHRQ Quality Indicators, version 3.1.

1c. Evidence (*Measure focus is a health outcome OR meets the criteria for quantity, quality, consistency of the body of evidence.*)
Is the measure focus a health outcome?   Yes☐ No☐   If not a health outcome, rate the **body of** evidence.

Quantity: H☐ M☐ L☐ I☐   Quality: H☐ M☐ L☐ I☐   Consistency: H☐ M☐ L☐ I☐

Quantity	Quality	Consistency	Does the measure pass subcriterion1c?
M-H	M-H	M-H	Yes☐
L	M-H	M	Yes☐ IF additional research unlikely to change conclusion that benefits to patients outweigh harms: otherwise **No**☐
M-H	L	M-H	Yes☐ IF potential benefits to patients clearly outweigh potential harms: otherwise **No**☐
L-M-H	L-M-H	L	No ☐

Health outcome – rationale supports relationship to at least one healthcare structure, process, intervention, or service	**Does the measure pass subcriterion1c?** Yes☐ IF rationale supports relationship

1c.1 Structure-Process-Outcome Relationship *(Briefly state the measure focus, e.g., health outcome, intermediate clinical outcome, process, structure; then identify the appropriate links, e.g., structure-process-health outcome; process- health outcome; intermediate clinical outcome-health outcome)*:
Shoulder dystocia can pose a significant risk to the infant. For the infant, shoulder dystocia can result in serious birth trauma including brachial plexus injury, as well as hypoxia and neonatal death. [1]

While most shoulder dystocia cannot be predicted, risk factors associated with shoulder dystocia include macrosomia, maternal diabetes and obesity, operative vaginal delivery, precipitous delivery and prolonged second stage of labor, history of shoulder dystocia or macrosomic fetus, post term pregnancy and advanced maternal age. [2-7]

Management of shoulder dystocia should include a team approach. Studies reference improved overall shoulder dystocia management and performance when team training and other strategies to enhance teamwork were instituted. [8-14]

Women with diabetes should be offered information about how diabetes affects pregnancy and how pregnancy affects diabetes. The information should cover:
•The increased risk of having a baby who is large for gestational age, which increases the likelihood of birth trauma, induction of labour and caesarean section. Women with gestational diabetes should be informed that good glycaemic control throughout pregnancy will reduce the risk of fetal macrosomia, trauma during birth (to themselves and the baby), induction of labour or caesarean section, neonatal hypoglycaemia and perinatal death. [15]

[1] MacKenzi, I.Z., Shah, M. Lean, K., Dutton, S., Newdick, & Tucker, D.E. (2007). Management of shoulder dystocia trends in incidence and maternal and neonatal morbidity. ACOG Obstetrics & Gynecology, 110, (4), 1059-1068.

[2] Overland, E.A., Spydslaug, A, Nielsen, C.S. & Eskild, A. (2009). Risk of shoulder dystocia in second delivery: does a history of shoulder dystocia matter? American Journal of Obstetrics & Gynecology, 506-508.

[3] The American College of Obstetricians and Gynecologists Practice Bulletin; Clinical Management Guidelines for Obstetrician-Gynecologists Number 40, November 2002.

[4] Jastrow, N., Roberge, S., Gauthier, R.J., Laroche, L., Duperron, L., Brassard, N., & Bujold, E. (2010). Effect of birth weight on adverse obstetric outcomes in vaginal birth after cesarean delivery. Obstetrics & Gynecology, 115(2, part 1), 338-343.

[5] Mansor, A., Arumugam, K. & Omar, S.Z. (2010). Macrosomia is the only reliable predictor of shoulder dysotica in babies weighing 3.5 kg or more. European Journal of Obstetrics & Gynecology and reproductive Biology, 149, 44-46.

[6] Bingham, J., Chauhan, S.P., Hayes, E., Gherman, R., & Lewis, D. (2010). Recurrent shoulder dystocia: a review. Obstetrical and Gynecological Survey. 65(3), 183-188.

[7] Esakoff, T.F., Cheng, Y.W., Sparks, T.N. & Caughey, A.B. (2009). The association between birth weight 4000g or greater and perinatal outcomes in patients with and without gestational diabetes mellitus. American Journal of Obstetrics & Gynecology, 672.e1-672.e4.

[8] Draycott, T.J., Crofts, J.F., Ash, J.P., Wilson, L.V., Yard, E., Sibanda, T. & Whitelaw, A. (2008). Improving neonatal outcomes through practical shoulder dystocia training. Obstetrics and Gynecology, 112, (1), 14-20.

[9] Pliego, J.F., Wehbe-Janek, H., Rajab, M.H., Browning, J.L. & Fothergill, R.E. (2008). OB/GYN Boot camp using high-fidelity human simulators: enhancing residents' perceived competency, confidence in taking a leadership role and stress hardiness. Simulation in Healthcare, 3, (2), 82-89.

[10] Crofts, J.F., Bartlett, C., Ellis, D., Hunt, L.P., Fox, R. & Draycott, T.J. (2007). Management of shoulder dystocia, skill retention 6 and 12 months after training. Obstetrics and Gynecology. 110, (5), 1069-1074.

[11] Crofts, J.F., Fox, R., Ellis, D., Winter, C. Hinshaw, K & Draycott, T.J. (2008). Observations from 450 shoulder dystocia simulations. Obstetrics and Gynecology, 112, (4), 906-912.

[12] Jeffries, P.R., Bambini, D., Hensel, D., Moorman, M. & Washburn, J. (2009). Constructing maternal-child learning experiences using clinical simulations. Journal of Obstetric Gynecologic & Neonatal Nursing, 38, (5), 613-623.

[13] Sorensen, J.L., Lokkegaard, E., Johansen, M., Ringsted, C., Kreiner, S. & Mcaleer, S. (2009). The implementation and evaluation of a mandatory multi-professional obstetric skills training program. Acta Obstetricia et Gynecologica. 88, 1107-1117.

[14] Daniels, K, Arafeh, J., Clark, A, Waller, S., Druzin, M., Chueh, J. (2010). Prospective Randomized trial of simulation versus didactic teaching for obstetrical emergencies. Simulation in Healthcare, 5(1), 40-45.

[15] National Collaborating Centre for Women´s and Children´s Health. Diabetes in pregnancy. Management of diabetes and its complications from pre-conception to the postnatal period. London (UK): National Institute for Health and Clinical Excellence

(NICE); 2008 Mar. 21 p. (Clinical guideline; no. 63).

1c.2-3 Type of Evidence *(Check all that apply)*:
Selected individual studies (rather than entire body of evidence)

1c.4 Directness of Evidence to the Specified Measure *(State the central topic, population, and outcomes addressed in the body of evidence and identify any differences from the measure focus and measure target population)*:
Not applicable

1c.5 Quantity of Studies in the Body of Evidence *(Total number of studies, not articles)*: Not applicable

1c.6 Quality of Body of Evidence (*Summarize the certainty or confidence in the estimates of benefits and harms to patients across studies in the body of evidence resulting from study factors. Please address: a) study design/flaws; b) directness/indirectness of the evidence to this measure (e.g., interventions, comparisons, outcomes assessed, population included in the evidence); and c) imprecision/wide confidence intervals due to few patients or events*): Not applicable

1c.7 Consistency of Results across Studies *(Summarize the consistency of the magnitude and direction of the effect):* Not applicable

1c.8 Net Benefit *(Provide estimates of effect for benefit/outcome; identify harms addressed and estimates of effect; and net benefit - benefit over harms)*:
Not applicable

1c.9 Grading of Strength/Quality of the Body of Evidence. Has the body of evidence been graded? No

1c.10 If body of evidence graded, identify the entity that graded the evidence including balance of representation and any disclosures regarding bias: Not applicable

1c.11 System Used for Grading the Body of Evidence: Other

1c.12 If other, identify and describe the grading scale with definitions: Not applicable

1c.13 Grade Assigned to the Body of Evidence: Not applicable

1c.14 Summary of Controversy/Contradictory Evidence: Not applicable

1c.15 Citations for Evidence other than Guidelines*(Guidelines addressed below)*:
Not applicable

1c.16 Quote verbatim, <u>the specific guideline recommendation</u> *(Including guideline # and/or page #)*:
Not applicable

1c.17 Clinical Practice Guideline Citation: Not applicable

1c.18 National Guideline Clearinghouse or other URL: Not applicable

1c.19 Grading of Strength of Guideline Recommendation. Has the recommendation been graded? No

1c.20 If guideline recommendation graded, identify the entity that graded the evidence including balance of representation and any disclosures regarding bias:

1c.21 System Used for Grading the Strength of Guideline Recommendation: Other

1c.22 If other, identify and describe the grading scale with definitions: Not applicable

1c.23 Grade Assigned to the Recommendation: Not applicable

1c.24 Rationale for Using this Guideline Over Others: Not applicable

Based on the NQF descriptions for rating the evidence, what was the <u>developer's assessment</u> of the quantity, quality, and consistency of the body of evidence?
1c.25 Quantity: Moderate **1c.26 Quality:** Moderate**1c.27 Consistency:** Moderate

Was the threshold criterion, *Importance to Measure and Report*, met?
(*1a & 1b must be rated moderate or high and 1c yes*) Yes☐ No☐
Provide rationale based on specific subcriteria:

For a new measure if the Committee votes NO, then STOP.
For a measure undergoing endorsement maintenance, if the Committee votes NO because of 1b. (no opportunity for improvement), it may be considered for continued endorsement and all criteria need to be evaluated.

2. RELIABILITY & VALIDITY - SCIENTIFIC ACCEPTABILITY OF MEASURE PROPERTIES

Extent to which the measure, <u>as specified</u>, produces consistent (reliable) and credible (valid) results about the quality of care when implemented. (<u>evaluation criteria</u>)
Measure testing must demonstrate adequate reliability and validity in order to be recommended for endorsement. Testing may be conducted for data elements and/or the computed measure score. Testing information and results should be entered in the appropriate field. Supplemental materials may be referenced or attached in item 2.1. See guidance on measure testing.

S.1 Measure Web Page *(In the future, NQF will require measure stewards to provide a URL link to a web page where current detailed specifications can be obtained)*. Do you have a web page where current detailed specifications for <u>this</u> measure can be obtained? Yes

S.2 If yes, provide web page URL: http://qualityindicators.ahrq.gov/modules/psi_resources.aspx

2a. RELIABILITY. Precise Specifications and Reliability Testing: H☐ M☐ L☐ I☐

2a1. Precise Measure Specifications. (*The measure specifications precise and unambiguous.*)

2a1.1 Numerator Statement *(Brief, narrative description of the measure focus or what is being measured about the target population, e.g., cases from the target population with the target process, condition, event, or outcome)*:
Discharges among cases meeting the inclusion and exclusion rules for the denominator with ICD-9-CM codes for birth trauma in any diagnosis field

2a1.2 Numerator Time Window *(The time period in which the target process, condition, event, or outcome is eligible for inclusion)*:
User may specify the time window, but generally one calendar year

2a1.3 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, codes with descriptors, and/or specific data collection items/responses*:
ICD-9-CM Birth trauma diagnosis codes:
7670
SUBDURAL AND CEREBRAL HEMORRHAGE (DUE TO TRAUMA OR TO INTRAPARTUM ANOXIA OR HYPOXIA)
76711
EPICRANIAL SUBAPONEUROTIC HEMORRHAGE (MASSIVE) (OCT03)
7673
INJURIES TO SKELETON (EXCLUDES CLAVICLE)
7674
INJURY TO SPINE AND SPINAL CORD
7675
FACIAL NERVE INJ-BIRTH

7677
OTHER CRANIAL AND PERIPHERAL NERVE INJURIES
7678
OTHER SPECIFIED BIRTH TRAUMA

2a1.4 Denominator Statement *(Brief, narrative description of the target population being measured)*:
All newborn discharges

2a1.5 Target Population Category *(Check all the populations for which the measure is specified and tested if any)*: Maternal Care

2a1.6 Denominator Time Window *(The time period in which cases are eligible for inclusion)*:
User may specify the time window, but generally one calendar year

2a1.7 Denominator Details (*All information required to identify and calculate the target population/denominator such as definitions, codes with descriptors, and/or specific data collection items/responses)*:
Appendix I – Definitions of Neonate, Newborn, Normal Newborn, and Outborn

A neonate is defined as any discharge with age in days at admission between zero and 28 days (inclusive). If age in days is missing, then a neonate is defined as an admission type of newborn (SID ATYPE=4) OR an ICD-9-CM code for either in-hospital live birth or neonate observation and evaluation.

A newborn is defined as a "neonate" with any of the following:
1. an ICD-9-CM code for in-hospital live birth with age in days equal to 0 or missing
2. an admission type of newborn (SID ATYPE=4) with age in days equal to 0 without a diagnosis for out-of-hospital live birth
3. an admission type of newborn (SID ATYPE=4) with point of origin for Born inside this hospital

Newborn in Hospital Live Birth ICD-9-CM diagnosis codes:
V3000
SINGLE LB IN-HOSP W/O CS (OCT05)
V3001
SINGLE LB IN-HOSP W CS (OCT05)
V3100
TWIN-MATE LB-HOSP W/O (CS OCT05)
V3101
TWIN-MATE LB-IN HOS W CS (OCT05)
V3200
TWIN-MATE SB-HOSP W/O CS (OCT05)
V3201
TWIN-MATE SB-HOSP W CS (OCT05)
V3300
TWIN-NOS-IN HOSP W/O CS (OCT05)
V3301
TWIN-NOS-IN HOSP W CS (OCT05)
V3400
OTH MULT LB-HOSP W/O CS (OCT05)
V3401
OTH MULT LB-IN HOSP W CS (OCT05)
V3500
OTH MULT SB-HOSP W/O CS (OCT05)
V3501
OTH MULT SB-IN HOSP W CS (OCT05)
V3600
MULT LB/SB-IN HOS W/O CS (OCT05)
V3601

MULT LB/SB-IN HOSP W CS (OCT05)
V3700
MULT BRTH NOS-HOS W/O CS (OCT05)
V3701
MULT BIRTH NOS-HOSP W CS (OCT05)
V3900
LIVEBORN NOS-HOSP W/O CS (OCT05)
V3901
LIVEBORN NOS-HOSP W CS (OCT05)

Neonate Observation and Evaluation ICD-9-CM diagnosis codes:
V290
NB OBSRV SUSPCT INFECT
V291
NB OBSRV SUSPCT NEURLGCL
V292
OBSRV NB SUSPC RESP COND
V293
NB OBS GENETC/METABL CND
V298
NB OBSRV OTH SUSPCT COND
V299
NB OBSRV UNSP SUSPCT CND

Newborn Out of Hospital ICD-9-CM diagnosis codes:
V301
SINGL LIVEBRN-BEFORE ADM (OCT05)
V302
SINGLE LIVEBORN-NONHOSP (OCT05)
V311
TWIN, MATE LB-BEFORE ADM (OCT05)
V312
TWIN, MATE LB-NONHOSP (OCT05)
V321
TWIN, MATE SB-BEFORE ADM (OCT05)
V322
TWIN, MATE SB-NONHOSP (OCT05)
V331
TWIN NOS-BEFORE ADMISSN (OCT05)
V332
TWIN NOS-NONHOSP (OCT05)
V341
OTH MULT NB-BEFORE ADM (OCT05)
V342
OTH MULTIPLE NB-NONHOSP (OCT05)
V351
OTH MULT SB-BEFORE ADM (OCT05)
V352
OTH MULTIPLE SB-NONHOSP (OCT05)
V361
MULT NB/SB-BEFORE ADM (OCT05)
V362
MULTIPLE NB/SB-NONHOSP (OCT05)
V371

MULT BRTH NOS-BEFORE ADM (OCT05)
V372
MULT BIRTH NOS-NONHOSP (OCT05)
V391
LIVEBORN NOS-BEFORE ADM (OCT05)
V392
LIVEBORN NOS-NONHOSP (OCT05)

2a1.8 Denominator Exclusions *(Brief narrative description of exclusions from the target population)*:
Exclude:
1. preterm infants with a birth weight less than 2,000 grams
2. infants with any diagnosis code of injury to brachial plexus
3. infants with any diagnosis code of osteogenesis imperfecta
4. discharges with missing gender (SEX=missing), age (AGE=missing), quarter (DQTR=missing), year (YEAR=missing) or principal diagnosis (DX1=missing)

2a1.9 Denominator Exclusion Details *(All information required to identify and calculate exclusions from the denominator such as definitions, codes with descriptors, and/or specific data collection items/responses)*:
Preterm infant with birth weight less than 2000 grams ICD-9-CM diagnosis codes:
76500
EXTREME IMMATURITY WTNOS
76501
EXTREME IMMATURITY, LESS THAN 500 GRAMS
76502
EXTREME IMMATURITY, 500 – 749 GRAMS
76503
EXTREME IMMATURITY, 750 – 999 GRAMS
76504
EXTREME IMMATURITY, 1000 – 1249 GRAMS
76505
EXTREME IMMATURITY, 1250 – 1499 GRAMS
76506
EXTREME IMMATURITY, 1500 – 1749 GRAMS
76507
EXTREME IMMATURITY, 1750 – 1999 GRAMS
76511
OTHER PRETERM INFANTS, LESS THAN 500 GRAMS
76512
OTHER PRETERM INFANTS, 500 – 749 GRAMS
76513
OTHER PRETERM INFANTS, 750 – 999 GRAMS
76514
OTHER PRETERM INFANTS, 1000 – 1249 GRAMS
76515
OTHER PRETERM INFANTS, 1250 – 1499 GRAMS
76516
OTHER PRETERM INFANTS, 1500 – 1749 GRAMS
76517
OTHER PRETERM INFANTS, 1750 – 1999 GRAMS

Injury to brachial plexus ICD-9-CM diagnosis code:
7676
BRACH PLEXUS INJ-BIRTH

Osteogenesis imperfecta ICD-9-CM diagnosis code:
75651
OSTEOGENESIS IMPERFECTA

2a1.10 Stratification Details/Variables *(All information required to stratify the measure results including the stratification variables, codes with descriptors, definitions, and/or specific data collection items/responses)*:
Not applicable

2a1.11 Risk Adjustment Type *(Select type. Provide specifications for risk stratification in 2a1.10 and for statistical model in 2a1.13)*: No risk adjustment or risk stratification   **2a1.12 If "Other," please describe:**

2a1.13 Statistical Risk Model and Variables *(Name the statistical method - e.g., logistic regression and list all the risk factor variables. Note - risk model development should be addressed in 2b4.)*:
Not applicable

2a1.14-16 Detailed Risk Model Available at Web page URL (or attachment). Include coefficients, equations, codes with descriptors, definitions, and/or specific data collection items/responses. Attach documents only if they are not available on a webpage and keep attached file to 5 MB or less. NQF strongly prefers you make documents available at a Web page URL. Please supply login/password if needed:

2a1.17-18. Type of Score: Rate/proportion

2a1.19 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

2a1.20 Calculation Algorithm/Measure Logic*(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; aggregating data; risk adjustment; etc.)*:
The measure is expressed as a rate, defined as (outcome of interest / population at risk) or (numerator / denominator). The AHRQ Quality Indicators (AHRQ QI) software performs six steps to produce the rate 1) Discharge-level data is used to identify inpatient records containing the outcome of interest and 2) the population at risk. 3) Calculate observed rates. Using output from steps 1 and 2, observed rates are calculated for user-specified combinations of stratifiers. 4) Calculate expected rates. For indicators that are not risk adjusted, this is the reference population rate. 5) Calculate risk-adjusted rate. Use the indirect standardization to account for case-mix. For indicators that are not risk-adjusted, the risk-adjusetd rate is the same as the observed rate. 6) Calculate smoothed rate. A Univariate shrinkage factor is applied to the risk-adjusted rates. The shrinkage estimator reflects a reliability adjustment unique to each indicator and provider. The estimator is the signal-to-noise ratio, where signal is the between provider variance and noise is the within provider variance.

2a1.21-23 Calculation Algorithm/Measure Logic Diagram URL or attachment:
URL
http://qualityindicators.ahrq.gov/Downloads/Resources/Publications/2011/QI%20Empirical%20Methods%2005-03-11.pdf
None

2a1.24 Sampling (Survey) Methodology. If measure is based on a sample (or survey), provide instructions for obtaining the sample, conducting the survey and guidance on minimum sample size (response rate):
Not applicable

2a1.25 Data Source *(Check all the sources for which the measure is specified and tested)*. If other, please describe:
 Administrative claims

2a1.26 Data Source/Data Collection Instrument (*Identify the specific data source/data collection instrument, e.g. name of database, clinical registry, collection instrument, etc.*): HCUP State Inpatient Databases (SID). Healthcare Cost and Utilization

Project (HCUP). 2008. Agency for Healthcare Research and Quality, Rockville, MD

2a1.27-29 Data Source/data Collection Instrument Reference Web Page URL or Attachment: URL
www.hcup-us.ahrq.gov/sidoverview.jsp
Not applicable

2a1.30-32 Data Dictionary/Code Table Web Page URL or Attachment:
URL
http://qualityindicators.ahrq.gov/Downloads/Software/WinQI/V43/AHRQ%20QI%20Software%20Instructions,%20WinQI.pdf
Not applicable

2a1.33 Level of Analysis (*Check the levels of analysis for which the measure is specified and tested)*: Facility

2a1.34-35 Care Setting *(Check all the settings for which the measure is specified and tested)*: Hospital/Acute Care Facility

2a2. Reliability Testing. (*Reliability testing was conducted with appropriate method, scope, and adequate demonstration of reliability.*)

2a2.1 Data/Sample *(Description of the data or sample including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included)*:
HCUP State Inpatient Databases (SID). Healthcare Cost and Utilization Project (HCUP). 2008. Agency for Healthcare Research and Quality, Rockville, MD. Includes approximately 6 million pediatric discharges for 3,500 hospitals.

2a2.2 Analytic Method *(Describe method of reliability testing & rationale)*:
The signal to noise ratio is the ratio of the between hospital variance (signal) to the within hospital variance (noise). The formula is signal / (signal + noise). The ratio itself is only a diagnostic for the degree of variance in the risk-adjusted rate systematically associated with the provider. Therefore, what matters is the magnitude of the variance in the "smoothed" rate (that is, the variance in the risk-adjusted rate after the application of the univariate shrinkage estimator based on the signal ratio).

2a2.3 Testing Results *(Reliability statistics, assessment of adequacy in the context of norms for the test conducted)*:
What the data demonstrate is systematic variation in the provider level rate of 0.274 to 5.782 per 1,000 from the 5th to 95th percentile after a signal ratio of 0.814 is applied as the shrinkage estimator (that is, after accounting for variation due to random factors).

2b. VALIDITY. Validity, Testing, <u>including all Threats to Validity</u>:   H☐ M☐ L☐ I☐

2b1.1 Describe **how the measure specifications** *(measure focus, target population, and exclusions)* **are consistent with the evidence cited in support of the measure focus** *(criterion 1c)* **and identify any differences from the evidence:**
No differences identified

2b2. Validity Testing. (*Validity testing was conducted with appropriate method, scope, and adequate demonstration of validity.*)

2b2.1 Data/Sample *(Description of the data or sample including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included)*:
Source: Agency for Healthcare Research and Quality (AHRQ), Center for Delivery, Organization, and Markets, Healthcare Cost and Utilization Project, Nationwide Inpatient Sample and AHRQ Quality Indicators, version 3.1.

2b2.2 Analytic Method *(Describe method of validity testing and rationale; if face validity, describe systematic assessment)*:
A structured panel review of each indicator was undertaken to evaluate the face validity (from a clinical perspective) of the indicator. Specifically, the panels approach sought to establish consensual validity, which "extends face validity from one expert to a panel of experts who examine and rate the appropriateness of each item…." The methodology for the structured review was adapted from the RAND/UCLA Appropriateness Method and consisted of an initial independent assessment of each indicator by clinician panelists using an initial questionnaire, a conference call among all panelists, followed by a final independent assessment by clinician panelists using the same questionnaire. The panel process served to refine definitions of some indicators, add new measures, and dismiss indicators with major concerns from further consideration.

A trend analysis of observed rates over time

2b2.3 Testing Results *(Statistical results, assessment of adequacy in the context of norms for the test conducted; if face validity, describe results of systematic assessment)*:
The multi-specialty Panel rated the indicator as acceptable on overall usefulness as an indicator of potentially preventable complications of care.

From 2004 to 2007 there was a decline of 20.1% in the observed rates

Observed Rates per 1,000
Year Est SE P-value/1994 P-value/Prior
2007 1.633 0.028 0.000 0.216
2006 1.583 0.029 0.000 0.000
2005 1.842 0.029 0.000 0.000
2004 1.996 0.029 0.000 DNC *

* "DNC": Data were not collected

POTENTIAL THREATS TO VALIDITY. (<u>*All*</u> *potential threats to validity were appropriately tested with adequate results.*)

2b3. Measure Exclusions. (*Exclusions were supported by the clinical evidence in 1c or appropriately tested with results demonstrating the need to specify them.*)

2b3.1 Data/Sample for analysis of exclusions *(Description of the data or sample including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included)*:
HCUP State Inpatient Databases (SID). Healthcare Cost and Utilization Project (HCUP). 2008. Agency for Healthcare Research and Quality, Rockville, MD. Includes approximately 6 million pediatric discharges for 3,500 hospitals.

2b3.2 Analytic Method (*Describe type of analysis and rationale for examining exclusions, including exclusion related to patient preference)*:
A structured panel review of each indicator was undertaken to evaluate the face validity (from a clinical perspective) of the indicator. Specifically, the panels approach sought to establish consensual validity, which "extends face validity from one expert to a panel of experts who examine and rate the appropriateness of each item…." The methodology for the structured review was adapted from the RAND/UCLA Appropriateness Method and consisted of an initial independent assessment of each indicator by clinician panelists using an initial questionnaire, a conference call among all panelists, followed by a final independent assessment by clinician panelists using the same questionnaire. The panel process served to refine definitions of some indicators, add new measures, and dismiss indicators with major concerns from further consideration.

2b3.3 Results *(Provide statistical results for analysis of exclusions, e.g., frequency, variability, sensitivity analyses)*:
Panelists suggested two specific exclusions. First, they suggested that pre-term infants with low birth weight be excluded from the population at risk for intracranial hemorrhage, due to concern that some of these injuries would not be preventable in pre-term infants, who have very fragile bridging veins and may also be at risk for hypoxic injury. Second, they suggested that infants with osteogenesis imperfecta be excluded from the population at risk for injury to skeleton, as these complications are not preventable in these infants.

2b4. Risk Adjustment Strategy. (*For outcome measures, adjustment for differences in case mix (severity) across measured entities was appropriately tested with adequate results.*)

2b4.1 Data/Sample *(Description of the data or sample including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included)*:
Not applicable

2b4.2 Analytic Method (*Describe methods and rationale for development and testing of risk model or risk stratification including selection of factors/variables)*:
Not applicable

2b4.3 Testing Results *(<u>Statistical risk model</u>: Provide quantitative assessment of relative contribution of model risk factors; risk*

model performance metrics including cross-validation discrimination and calibration statistics, calibration curve and risk decile plot, and assessment of adequacy in the context of norms for risk models. <u>Risk stratification</u>: Provide quantitative assessment of relationship of risk factors to the outcome and differences in outcomes among the strata):
Not applicable

2b4.4 If outcome or resource use measure is not risk adjusted, provide rationale and analyses to justify lack of adjustment: No material risk factors identified on the newborn record. Risk-adjustment would require linkage to the maternal record.

2b5. Identification of Meaningful Differences in Performance. (*The performance measure scores were appropriately analyzed and discriminated meaningful differences in quality.*)

2b5.1 Data/Sample *(Describe the data or sample including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included)*:
HCUP State Inpatient Databases (SID). Healthcare Cost and Utilization Project (HCUP). 2008. Agency for Healthcare Research and Quality, Rockville, MD. Includes approximately 6 million pediatric discharges for 2,500 hospitals.

2b5.2 Analytic Method *(Describe methods and rationale to identify statistically significant and practically/meaningfully differences in performance)*:
Posterior probability distribution parameterized using the Gamma distribution

2b5.3 Results *(Provide measure performance results/scores, e.g., distribution by quartile, mean, median, SD, etc.; identification of statistically significant and meaningfully differences in performance)*:
 Raw rate (numerator / denominator)
Percentile:
5th   25th   Median   75th   95th
0.000274 0.000921 0.001777 0.003062 0.005782

2b6. Comparability of Multiple Data Sources/Methods. (*If specified for more than one data source, the various approaches result in comparable scores.*)

2b6.1 Data/Sample *(Describe the data or sample including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included)*:
Not applicable

2b6.2 Analytic Method *(Describe methods and rationale for testing comparability of scores produced by the different data sources specified in the measure)*:
Not applicable

2b6.3 Testing Results *(Provide statistical results, e.g., correlation statistics, comparison of rankings; assessment of adequacy in the context of norms for the test conducted)*:
Not applicable

2c. Disparities in Care: H☐ M☐ L☐ I☐ NA☐ (*If applicable, the measure specifications allow identification of disparities.*)

2c.1 If measure is stratified for disparities, provide stratified results *(Scores by stratified categories/cohorts)*: In regard to figures below:
Rates are observed rate per 1,000
"c": Reference for p-value test statistics
1st figure: estimate
2nd figure: standard error
3rd figure: p value relative to marked group (marked group = "c")
4th figure: p value: current year relative to prior year (2007/2006)

Total U.S.: 1.633 0.028 0.216

Patient characteristic:

Gender:
Male c 1.762 0.041 0.194
Female 1.497 0.038 0.000 0.693

Median income of patient´s ZIP code:
First quartile (lowest income) 1.465 0.053 0.000 0.198
Second quartile 1.664 0.057 0.025 0.956
Third quartile 1.587 0.058 0.002 0.877
Fourth quartile (highest income) c 1.847 0.058 0.000

Location of patient residence (NCHS):
Large central metropolitan 1.392 0.048 0.000 0.609
Large fringe metropolitan c 1.817 0.056 0.000
Medium metropolitan 1.676 0.067 0.109 0.754
Small metropolitan 1.810 0.094 0.948 0.157
Micropolitan 1.624 0.094 0.080 0.182
Not metropolitan or micropolitan 1.902 0.126 0.538 0.687

Expected payment source:
Private insurance c 1.757 0.040 0.000
Medicare 1.607 0.380 0.694 DNC
Medicaid 1.509 0.044 0.000 0.004
Other insurance 1.588 0.172 0.339 0.306
Uninsured / self-pay / no charge 1.482 0.120 0.029 0.507

2c.2 **If disparities have been reported/identified (e.g., in 1b), but measure is not specified to detect disparities, please explain:**
Not applicable

2.1-2.3 **Supplemental Testing Methodology Information:**

Steering Committee: Overall, was the criterion, *Scientific Acceptability of Measure Properties*, met?
(*Reliability and Validity must be rated moderate or high*) Yes☐ No☐
Provide rationale based on specific subcriteria:

If the Committee votes No, STOP

3. USABILITY

Extent to which intended audiences (e.g., consumers, purchasers, providers, policy makers) can understand the results of the measure and are likely to find them useful for decision making. (**evaluation criteria**)

C.1 **Intended Purpose/ Use** (*Check all the purposes and/or uses for which the measure is intended*): Public Reporting, Quality Improvement (Internal to the specific organization)

3.1 **Current Use** (*Check all that apply; for any that are checked, provide the specific program information in the following questions*): Public Reporting, Quality Improvement (Internal to the specific organization)

3a. Usefulness for Public Reporting: H☐ M☐ L☐ I☐
(*The measure is meaningful, understandable and useful for public reporting.*)

3a.1. **Use in Public Reporting - disclosure of performance results to the public at large** (*If used in a public reporting program,*

provide name of program(s), locations, Web page URL(s)). <u>If not publicly reported in a national or community program</u>, state the reason AND plans to achieve public reporting, potential reporting programs or commitments, and timeline, e.g., within 3 years of endorsement: [*For <u>Maintenance</u> – If not publicly reported, describe progress made toward achieving disclosure of performance results to the public at large and expected date for public reporting; provide rationale why continued endorsement should be considered.*]

This measure is used for public reporting in 13 realms:

Illinois (state hospital association)
Illinois Hospitals Caring for You
www.illinoishospitals.org

Iowa (Iowa Healthcare Collaborative)
Iowa Healthcare Collaborative
http://www.ihconline.org/aspx/publicreporting/iowareport.aspx

Kentucky (Norton Healthcare, a hospital system)
Norton Healthcare Quality Report
http://www.nortonhealthcare.com/body.cfm?id=157

Kentucky (state hospital association)
Kentucky Hospital Association Quality Data
http://info.kyha.com/QualityData/IQISite/

Louisiana (state)
Louisiana Health Finder
http://www.healthfinderla.gov/default.aspx

Maine (state)
Maine Health Data Organization
http://gateway.maine.gov/mhdo2008Monahrq/home.html

Nevada (state)
Nedava Compare Care
http://nevadacomparecare.net/Monahrq/home.html

New Hampshire (NY QIO)
New York State Health Accountability Foundation
http://nyshaf.org/juice/IPROSpikeChart.html

New Jersey (state)
Find and Compare Quality Care in NJ Hospitals
http://www.nj.gov/health/healthcarequality/

New York (health care coalition)
New York State Hospital Report Card
http://www.myhealthfinder.com/

Oklahoma (state)
Oklahoma Hospital Report
http://www.ok.gov/health/Protective_Health/Medical_Facilities_Service/Facility_Services_Division/Hospital_Annual_Report/

Utah (state)
Utah Hospital Comparison Reports
http://health.utah.gov/myhealthcare/

See Guidance for Definitions of Rating Scale: H=High; M=Moderate; L=Low; I=Insufficient; NA=Not Applicable   16

Washington (health care coalition)
Washington State Hospital Report Card
http://www.myhealthfinder.com/wa09/index.php

3a.2. Provide a rationale for why the measure performance results are meaningful, understandable, and useful for public reporting. If usefulness was demonstrated (e.g., focus group, cognitive testing), describe the data, method, and results: A research team from the School of Public Affairs, Baruch College, under contracts with the Department of Public Health, Weill Medical College and Battelle, Inc., has developed a pair of Hospital Quality Model Reports at the request of the Agency for Healthcare Research & Quality (AHRQ). These reports are designed specifically to report comparative information on hospital performance based on the AHRQ Quality Indicators (QIs). The work was done in close collaboration with AHRQ staff and the AHRQ Quality Indicators team. The Model Reports (discussed immediately above) are based on:
• Extensive search and analysis of the literature on hospital quality measurement and reporting, as well as public reporting on health care quality more broadly;
• Interviews with quality measurement and reporting experts, purchasers, staff of purchasing coalitions, and executives of integrated health care delivery systems who are responsible for quality in their facilities;
• Two focus groups with chief medical officers of hospitals and/or systems and two focus groups with quality managers from a broad mix of hospitals;
• Four focus groups with members of the public who had recently experienced a hospital admission; and
• Four rounds of cognitive interviews (a total of 62 interviews) to test draft versions of the two Model Reports with members of the public with recent hospital experience, basic computer literacy but widely varying levels of education

3.2 **Use for other Accountability Functions (payment, certification, accreditation).** If used in a public accountability program, provide name of program(s), locations, Web page URL(s): Not applicable

3b. **Usefulness for Quality Improvement:** H☐ M☐ L☐ I ☐
(*The measure is meaningful, understandable and useful for quality improvement.*)

3b.1. **Use in QI.** If used in quality improvement program, provide name of program(s), locations, Web page URL(s):
[*For* _Maintenance_ *– If not used for QI, indicate the reasons and describe progress toward using performance results for improvement*].
The Patient Safety Indicators (PSIs) are a set of indicators providing information on potential in hospital complications and adverse events following surgeries, procedures, and childbirth. The PSIs were developed after a comprehensive literature review, analysis of ICD-9-CM codes, review by a clinician panel, implementation of risk adjustment, and empirical analyses.

The PSIs can be used to help hospitals identify potential adverse events that might need further study; provide the opportunity to assess the incidence of adverse events and in hospital complications using administrative data found in the typical discharge record; include indicators for complications occurring in hospital that may represent patient safety events; and, indicators also have area level analogs designed to detect patient safety events on a regional level.

The following are several entities that use the measure in quality improvement:

1) University Healthcare Consortium (UHC)
UHC is an alliance of 103 academic medical centers and 219 of their affiliated hospitals. UHC reports this and other AHRQ QIs to their member hospitals for their internal quality improvement purposes.

2) Minnesota Hospital Association

3) Ministry
Ministry is a 14 hospital system in WI, which includes the Marshfield Clinic in its system.

4) Premier
Premier uses the measure in their "QUEST" tool, which is used by hundreds of hospitals in their quality assurance and improvement work.

5) Norton Healthcare
A multi-hospital system in Kentucky.

6) National Perinatal Information Center/Quality Analytic Services member hospitals
See "3b.2" for additional specifics.

3b.2. Provide rationale for why the measure performance results are meaningful, understandable, and useful for quality improvement. If usefulness was demonstrated *(e.g., QI initiative),* describe the data, method and results:
National Perinatal Information Center/Quality Analytic Services (NPIC/QAS) member hospitals (70 hospitals, 305,850 inborns in CY 2010) receive their PSI 17 rate quarterly. Their rate is compared to the average for their subgroup of hospitals and to the NPIC/QAS data base average. Clinical staff at each facility will review their rate and validate their data using lists of numerator cases against medical record documentation. Generally few discrepancies are found; when discrepancies are identified, clinicians will use the information to determine if the source is provider documentation, inappropriate coding or a problem with quality of care.

Within each quarterly report, NPIC/QAS member hospitals are given a graph of their rate compared to their subgroup average and database average. This external benchmarking helps hospitals identify whether they are significantly above or below their subgroup and database averages. Each hospital is also provided the 2008 AHRQ PSI 17 provider rate. Where there are significant differences, hospitals will generally initiate a QI activity and monitor change in their rates over time.

A trend analysis of PSI 17 rates for a subgroup of 49 NPIC/QAS member hospitals, shows a significant drop in rates when hospitals receive regularly reported rates (monthly, quarterly) against an external benchmark and have the opportunity to pull medical charts to audit data accuracy and initiate an QI activity if necessary.

The AHRQ QI support line receives approximately 150 user queries per month and almost 50 user per month download the AHRQ QI PSI software. Users have used the PSI since the release in 2003.

Overall, to what extent was the criterion, *Usability*, met? H☐ M☐ L☐ I☐
Provide rationale based on specific subcriteria:

4. FEASIBILITY

Extent to which the required data are readily available, retrievable without undue burden, and can be implemented for performance measurement. **(evaluation criteria)**

4a. Data Generated as a Byproduct of Care Processes: H☐ M☐ L☐ I☐

4a.1-2 How are the data elements needed to compute measure scores generated? *(Check all that apply).*
Data used in the measure are:
Coded by someone other than person obtaining original information (e.g., DRG, ICD-9 codes on claims)

4b. Electronic Sources: H☐ M☐ L☐ I☐

4b.1 Are the data elements needed for the measure as specified available electronically *(Elements that are needed to compute measure scores are in defined, computer-readable fields)*: ALL data elements in electronic claims

4b.2 If ALL data elements are not from electronic sources, specify a credible, near-term path to electronic capture, OR provide a rationale for using other than electronic sources:

4c. Susceptibility to Inaccuracies, Errors, or Unintended Consequences: H☐ M☐ L☐ I☐

4c.1 Identify susceptibility to inaccuracies, errors, or unintended consequences of the measurement identified during testing and/or operational use and strategies to prevent, minimize, or detect. If audited, provide results:
Coding professionals follow detail guidelines, are subject to training and credentialing requirements, peer review and audit.

4d. Data Collection Strategy/Implementation: H☐ M☐ L☐ I☐

A.2 Please check if either of the following apply *(regarding proprietary measures)*:

4d.1 Describe what you have learned/modified 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 *(e.g., fees for use of proprietary measures)*:

The AHRQ QI software has been publicly available at no cost since 2001; Users have over ten years of experience using the AHRQ QI software in SAS and Windows.

Overall, to what extent was the criterion, *Feasibility*, met? H☐ M☐ L☐ I☐
Provide rationale based on specific subcriteria:

OVERALL SUITABILITY FOR ENDORSEMENT

Does the measure meet all the NQF criteria for endorsement? Yes☐ No☐
Rationale:

If the Committee votes No, STOP.
If the Committee votes Yes, the final recommendation is contingent on comparison to related and competing measures.

5. COMPARISON TO RELATED AND 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 before a final recommendation is made.

5.1 If there are related measures *(either same measure focus or target population)* or competing measures *(both the same measure focus and same target population)*, list the NQF # and title of all related and/or competing measures:

5a. Harmonization

5a.1 If this measure has EITHER the same measure focus OR the same target population as NQF-endorsed measure(s):
Are the measure specifications completely harmonized?

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

5b. Competing Measure(s)

5b.1 If this measure has 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)*:

CONTACT INFORMATION

Co.1 Measure Steward (Intellectual Property Owner): Agency for Healthcare Research and Quality, 540 Gaither Road, Rockville, Maryland, 20850

Co.2 Point of Contact: John, Bott, Contractor, AHRQ Quality Indicators Measure Expert Center for Delivery, Organization and Markets, John.Bott@ahrq.hhs.gov, 301-427-1317-

Co.3 Measure Developer if different from Measure Steward: National Perinatal Information Center, 225 Chapman St., Suite 200, Providence, Rhode Island, 02905

Co.4 Point of Contact: Janet, Muri, MBA, jmuri@npic.org, 401-274-0650-105

Co.5 Submitter: John, Bott, Contractor, AHRQ Quality Indicators Measure Expert Center for Delivery, Organization and Markets,

John.Bott@ahrq.hhs.gov, 301-427-1317-, Agency for Healthcare Research and Quality

Co.6 Additional organizations that sponsored/participated in measure development:
Stanford University, University of California Davis, Battelle Memorial Institute

Co.7 Public Contact: John, Bott, Contractor, AHRQ Quality Indicators Measure Expert Center for Delivery, Organization and Markets, John.Bott@ahrq.hhs.gov, 301-427-1317-, Agency for Healthcare Research and Quality

ADDITIONAL INFORMATION

Workgroup/Expert Panel involved in measure development
Ad.1 Provide a list of sponsoring organizations and workgroup/panel members' names and organizations. Describe the members' role in measure development.
http://qualityindicators.ahrq.gov/Downloads/Modules_Non_Software/Modules%20Development%20Bullet/psi_development.zip

Ad.2 If adapted, provide title of original measure, NQF # if endorsed, and measure steward. Briefly describe the reasons for adapting the original measure and any work with the original measure steward: Not applicable

Measure Developer/Steward Updates and Ongoing Maintenance
Ad.3 Year the measure was first released: 2003
Ad.4 Month and Year of most recent revision: 08, 2011
Ad.5 What is your frequency for review/update of this measure? Annual
Ad.6 When is the next scheduled review/update for this measure? 12, 2011

Ad.7 Copyright statement: None

Ad.8 Disclaimers: None

Ad.9 Additional Information/Comments: None

Date of Submission (*MM/DD/YY*): 09/28/2011