

# 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 [submitting standards web page](#).

NQF #: 0341	NQF Project: Pulmonary Project
(for Endorsement Maintenance Review)	
Original Endorsement Date: May 15, 2008 Most Recent Endorsement Date: May 15, 2008	
BRIEF MEASURE INFORMATION	
De.1 Measure Title: PICU Pain Assessment on Admission	
Co.1.1 Measure Steward: Virtual PICU Systems, LLC	
De.2 Brief Description of Measure: Percentage of PICU patients receiving: a. Pain assessment on admission,	
2a1.1 Numerator Statement: Number of patients who are assessed for pain on admission to the PICU	
2a1.4 Denominator Statement: Total number of patients in the PICU PICU patients <18 yrs of age	
2a1.8 Denominator Exclusions: Exclude patients >= 18 years old.	
1.1 Measure Type: Process	
2a1. 25-26 Data Source: Administrative claims, Electronic Clinical Data : Registry, Paper Records	
2a1.33 Level of Analysis: Clinician : Team, 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): This could be paired with measure 342 - periodic pain assessment.	

STAFF NOTES (issues or questions regarding any criteria)
Comments on Conditions for Consideration:
Is the measure untested? Yes <input type="checkbox"/> No <input type="checkbox"/> 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 <a href="#">endorsed</a> 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 <a href="#">guidance on evidence</a> . <i>Measures must be judged to be important to measure and report in order to be evaluated against the remaining criteria. (evaluation criteria)</i>
1a. High Impact: H <input type="checkbox"/> M <input type="checkbox"/> L <input type="checkbox"/> I <input type="checkbox"/>

*(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): Pulmonary/Critical Care, Pulmonary/Critical Care : Critical Care

De.5 Cross Cutting Areas (Check all the areas that apply): Palliative Care and End of Life Care, Safety

1a.1 Demonstrated High Impact Aspect of Healthcare: Affects large numbers, A leading cause of morbidity/mortality, Frequently performed procedure, Patient/societal consequences of poor quality, Severity of illness

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

1a.3 Summary of Evidence of High Impact (Provide epidemiologic or resource use data):

Pain assessment and management are critical to the well-being and care experience of children and there is evidence of under-treatment of pain (Beyer, 1983, 1990; Mather & Mackie, 1983; Gandhi & Playfor, 2010). Untreated or undertreated pain can have immediate as well as long term consequences on children. Long term consequences can include sensory processing and response to pain later in life (Ghandi & Playfor, 2010). Use of analgesia and sedation carry safety risks for children (Neuhauser, et al., 200), making assessment of pain an important intervention for patient-centeredness and safety.

1a.4 Citations for Evidence of High Impact cited in 1a.3: Beyer, J.E., McGarth, P.J., & Berde, C.B. (1990). Discordance between self-report and behavioral pain measures in children aged 3-7 years after surgery. *Journal of Pain and Symptom Management*, 5, 350-356.

Beyer, J.E., DeGood, D., Ashley, L., & Russell, G. (1983). Patterns of postoperative pain and analgesic use with adults and children following cardiac surgery. *Pain*, 17, 71-81.

Gandhi, M., & Playfor, S.D. (2010). Managing pain in critically ill children. *Minerva Pediatr* 62 (2), 189-202.

Mather, L., & Mackie, J. (1983), The incidence of postoperative pain in children. *Pain*, 15, 271-282.

Neuhauser, C., Wagner, B., Heckmann, M., Weigand, M.A., & Zimmer, K.P. (2010). Analgesia and sedation for painful interventions in children and adolescents. *Disch Arztebl Int.*, 107 (14), 241-247.

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:

Improving the frequency of establishment of a baseline pain assessment may improve the timely use of effective interventions to reduce pain, the short and long term consequences of untreated or undertreated pain on the physical, mental and emotional well being of children, and may reduce the development of negative pain response later in life. In addition, improved and accurate baseline assessment may also reduce the utilization of analgesia and sedation that might lead to unnecessary safety risks for children.

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 the VPS database, 14 units participated in collection of baseline pain assessment data for patients admitted to the PICU as of the latest submission of data ending third quarter 2011. The results ranged from a completion rate of 83.21% to 100.00%.

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]

Lack of thorough and valid assessment has been found to be a primary cause of unrelieved pain in children (Stapelkamp et al, 2011).

Stapelkamp C, Carter B, Gordon J, Watts C. (2011). Assessment of acute pain in children: development of evidence-based guidelines. *Int J Evid Based Healthc*, 9(1), 39-50.

**1b.4 Summary of Data on Disparities by Population Group:** [*For Maintenance – Descriptive statistics for performance results for this measure by population group*]

There is substantial evidence in the literature that disparities exist. The lack of “core measure sets” relevant to children’s health care is a critical shortcoming in current national health care quality measurement and reporting initiatives. In April 2004, a chartbook on the quality of health care for children and adolescents was released, showing that as with adult care there are significant gaps in the quality of health care provided to children and adolescents. Yet children are not included in a majority of major national efforts to provide standardized performance reports, including the recently released Hospital Compare Web-site. The Child Health Corporation of America (CHCA), Medical Management Planning/ BENCHMARKing Effort for Networking Children’s Hospitals (MMP) and National Association of Children’s Hospitals and Related Institutions (NACHRI) lead a collaborative effort to address the gap in availability of measures appropriate for children’s health care. In 2002, these organizations, along with the National Initiative for Children’s Healthcare Quality (NICHQ) and Nemours Foundation, developed the Pediatric Data Quality Systems (Pedi-QS) methodology and framework for identifying and assessing children’s quality of care measures, including baseline pain assessment, which was endorsed by JCAHO in 2003 (CHCA, NACHRI, MMP).

**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*]

CHCA, NACHRI, MMP. PICU Executive Summary Book.

**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 <input type="checkbox"/>
L	M-H	M	Yes <input type="checkbox"/> IF additional research unlikely to change conclusion that benefits to patients outweigh harms: otherwise No <input type="checkbox"/>
M-H	L	M-H	Yes <input type="checkbox"/> IF potential benefits to patients clearly outweigh potential harms: otherwise No <input type="checkbox"/>
L-M-H	L-M-H	L	No <input type="checkbox"/>

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*):

Relation to Outcomes: “There is a lack of comparable randomized controlled trials of children’s pain management, and consequently there are relatively few published meta-analyses or systematic reviews. Because of this low availability of data, recommendations are frequently not based on the highest possible levels of evidence (Rowbotham, 1998).”

Relation to Clinical Practice Guidelines: “The American Academy of Pediatrics and Canadian Paediatric Society issued a policy statement that emphasized the lack of awareness of neonatal pain and adverse effects of untreated pain in neonates. The American Academy of Pediatrics/Canadian Paediatric Society statement recommended consistent use of validated pain-assessment tools and therapeutic interventions (pharmacologic and nonpharmacologic) to prevent, reduce, or eliminate noxious or painful stimuli. Another consensus statement by the International Evidence-Based Group for Neonatal Pain provided guidelines for preventing and treating neonatal pain, noting the importance of pain management in neonates, regardless of gestational age or severity of illness. Current guidelines have not addressed postoperative pain management in neonates, and there is a minimal amount of published data to inform recommendations (AAP, CPS, 2000)(Anand, 2001).”

American Academy of Pediatrics; Canadian Paediatric Society (2000). Prevention and management of pain and stress in the neonate. Pediatrics.105, 454–461.

Anand KJS (2001). International Evidence-Based Group for Neonatal Pain. Consensus statement for the prevention and management of pain in the newborn. Arch Pediatr Adolesc Med. 155, 173–180.

Rowbotham DJ (1998). Guidelines for the Use of Nonsteroidal Anti-inflammatory Drugs in the Perioperative Period. London, England: Royal College of Anaesthetists.

1c.2-3 **Type of Evidence** (Check all that apply):  
Clinical Practice Guideline

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):  
Studies of PICU pain assessment have revealed significant deficiencies in compliance with pain guidelines. There is some evidence suggesting that implementation of an ongoing assessment will improve compliance.

1c.5 **Quantity of Studies in the Body of Evidence** (Total number of studies, not articles): Few (<20)

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): Studies vary widely in scope, setting and design. Disproportionately, these reflect either anesthesia or nursing driven research and thus range from quantitative to qualitative.

1c.7 **Consistency of Results across Studies** (Summarize the consistency of the magnitude and direction of the effect): The few studies that looked at actual performance reveal significant gaps, despite differences in the studies.

1c.8 **Net Benefit** (Provide estimates of effect for benefit/outcome; identify harms addressed and estimates of effect; and net benefit - benefit over harms):  
One center demonstrated a 12% improvement in pain and sedation management through implementation of ongoing assessments.

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:

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

1c.12 If other, identify and describe the grading scale with definitions: as per 1c.9

1c.13 **Grade Assigned to the Body of Evidence:**

1c.14 **Summary of Controversy/Contradictory Evidence:** None

1c.15 **Citations for Evidence other than Guidelines** (Guidelines addressed below):

Ista E, De Hoog, Tibboel D, van Dijk M (2009). Implementation of standard sedation management in paediatric intensive care: effective and feasible? J. Clin Nurs. 18(17), 2511-20.

Hewson-Conroy KM, Burrell AR, Elliott D, et al. Compliance with processes of care in intensive care units in Australia and New Zealand- a point prevalence study. Anaesth Intensive Care. 2011; 39(5) 926-35

1c.16 **Quote verbatim, the specific guideline recommendation** (Including guideline # and/or page #):

1c.17 Clinical Practice Guideline Citation:

1c.18 National Guideline Clearinghouse or other URL:

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 graded per 1c.19

1c.23 Grade Assigned to the Recommendation:

1c.24 Rationale for Using this Guideline Over Others:

Based on the NQF descriptions for rating the evidence, what was the developer's assessment of the quantity, quality, and consistency of the body of evidence?

1c.25 Quantity: Low 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, as specified, produces consistent (reliable) and credible (valid) results about the quality of care when implemented. (evaluation criteria)

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 this measure can be obtained? Yes

S.2 If yes, provide web page URL: <https://portal.myvps.org/document/NQFMeasures.pdf>

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*):

Number of patients who are assessed for pain on admission to the PICU

2a1.2 Numerator Time Window (*The time period in which the target process, condition, event, or outcome is eligible for inclusion*):

Pain assessment on admission = will be defined by each PICUs policy statement in compliance with Joint Commission expectations; reported quarterly

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*):

Patient ID, date and time of ICU admission, documented pain assessment value and the pain scale used, date and time of initial pain assessment.

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

Total number of patients in the PICU

PICU patients <18 yrs of age

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

**2a1.6 Denominator Time Window** (The time period in which cases are eligible for inclusion):

Count of PICU admissions; reported quarterly

**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):

Patient ID, PICU admission date and time

**2a1.8 Denominator Exclusions** (Brief narrative description of exclusions from the target population):

Exclude patients >= 18 years old.

**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):

Utilize patient ID, calculated age at time of ICU admission to identify cases for exclusion.

**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):

Stratification is not part of the measure specifications.

**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.):

n/a

**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 = Higher 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.):

For each quarter, divide the count of PICU patients with a pain assessment recorded on PICU admission by the count of PICU patients during the timeframe. Exclude patients >= 18 years old from the numerator and denominator. Multiply by 100% and



express in xxx.xx% format.

2a1.21-23 Calculation Algorithm/Measure Logic Diagram URL or attachment:

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):

N/A

2a1.25 **Data Source** (Check all the sources for which the measure is specified and tested). If other, please describe:  
[Administrative claims](#), [Electronic Clinical Data : Registry](#), [Paper Records](#)

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.): [no prescribed data collection instrument is required for this measure.](#)

2a1.27-29 Data Source/data Collection Instrument Reference Web Page URL or Attachment:

2a1.30-32 Data Dictionary/Code Table Web Page URL or Attachment:

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

[This measure has been endorsed by The Joint Commission and as such, no further evidence of reliability and validity has been generated.](#)

2a2.2 **Analytic Method** (Describe method of reliability testing & rationale):

n/a

2a2.3 **Testing Results** (Reliability statistics, assessment of adequacy in the context of norms for the test conducted):

n/a

2b. **VALIDITY. Validity, Testing, including all Threats to Validity:** 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:

n/a

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):

n/a

2b2.2 **Analytic Method** (Describe method of validity testing and rationale; if face validity, describe systematic assessment):

n/a

**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):*

n/a

**POTENTIAL THREATS TO VALIDITY.** *(All 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):*

n/a

**2b3.2 Analytic Method** *(Describe type of analysis and rationale for examining exclusions, including exclusion related to patient preference):*

n/a

**2b3.3 Results** *(Provide statistical results for analysis of exclusions, e.g., frequency, variability, sensitivity analyses):*

n/a

**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):*

n/a

**2b4.2 Analytic Method** *(Describe methods and rationale for development and testing of risk model or risk stratification including selection of factors/variables):*

n/a

**2b4.3 Testing Results** *(Statistical risk model: 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. Risk stratification: Provide quantitative assessment of relationship of risk factors to the outcome and differences in outcomes among the strata):*

n/a

**2b4.4 If outcome or resource use measure is not risk adjusted, provide rationale and analyses to justify lack of adjustment:** n/a

**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):*

n/a

**2b5.2 Analytic Method** *(Describe methods and rationale to identify statistically significant and practically/meaningfully differences in performance):*

n/a

**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):*

n/a

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



NQF #0341 PICU Pain Assessment on Admission

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):

n/a

2b6.2 **Analytic Method** (Describe methods and rationale for testing comparability of scores produced by the different data sources specified in the measure):

n/a

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):

n/a

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): n/a

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

n/a

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), Regulatory and Accreditation Programs

3.1 **Current Use** (Check all that apply; for any that are checked, provide the specific program information in the following questions): Regulatory and Accreditation Programs, 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)). If not publicly reported in a national or community program, state the reason AND plans to achieve public reporting, potential reporting programs or commitments, and timeline, e.g., within 3 years of endorsement: [For **Maintenance** – 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 endorsed by the Joint Commission and as such, is a widely utilized measure.

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: Acute pain is one of the most common adverse stimuli experienced by children, occurring as a result of injury, illness, and necessary medical procedures. It is associated with increased anxiety, avoidance, somatic symptoms, and increased parent distress. Unrelieved pain

has negative physical and psychological consequences and may lead to extended length of hospital stay with resultant service and cost implications and potential iatrogenic complications.

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):

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].

Pediatric pain management has been recognized as inadequate. Pain assessment is a standard of care endorsed by the Joint Commission and as such, is a measure that may inform improvement strategies.

Additionally, published rates of compliance with pain assessment guidelines in one study range from 35 to 62 % (Hewson-Conroy, 2011). In contrast, implementation of this measure in a cohort of U.S. PICUs has resulted in completion rate of 83.21% to 100.00%.

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:

Studies have documented prevalence of moderate to severe postoperative pain in children to range from 40 to 60 percent. Children with cancer have reported painful procedures to be the most difficult part of having cancer, and parents of children with cancer have reported significant unneeded pain at end of life. Ongoing assessment is critical to the prevention and control of pain. Treating pain before it becomes severe leads to better control and, potentially, safer use of therapeutics. The lack of thorough and valid assessments has been found to be a primary cause of unrelieved pain in patients of all ages. Each patient must be regularly assessed and reassessed for pain, with pain being documented as the fifth vital sign (CHCA, NACHRI, MMP)."

CHCA, NACHRI, MMP. PICU Executive Book.

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:

generated by and used by healthcare personnel during the provision of care, e.g., blood pressure, lab value, medical condition

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): Some data elements are in electronic sources

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: The availability of data elements from electronic sources is not a reflection of the measure but rather any given institution's progress with implementation of an EHR. Pain assessment in a fundamental component of nursing flow sheets and thus as centers implement EHRs, this will be available.

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:

The measure is a dichotomous (yes, assessment done or no, it wasn't) measure. We are aware of no errors in data capture among a cohort of PICUs capturing this data.

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*):

One sampling of 14 PICUs who have voluntarily submitted data to a multi-institutional database (VPS system) demonstrate completion rates ranging from 83.2 to 100%, well above published compliance rates. While anecdotal, these high compliance rates coupled with no feedback on problems with data collection suggest collection is not a barrier to continued endorsement.

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:

0523 : Pain Assessment Conducted

#### 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): [Virtual PICU Systems, LLC, 4470 W Sunset Blvd, Suite 440, Los Angeles, California, 90027](#)

Co.2 Point of Contact: [Christine, Gall, MS, RN, cgall@myvps.org, 262-439-9640-](#)

Co.3 Measure Developer if different from Measure Steward: [NACHRI \(Pedi-QS\), 401 Wythe Street, Alexandria, Virginia, 22314](#)

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Co.4 Point of Contact: Ellen, Schwalenstocker, PhD, eschwalenstocker@nachri.org, 703-797-6045-
Co.5 Submitter: Christine, Gall, MS, RN, cgall@myvps.org, 262-439-9640-, Virtual PICU Systems, LLC
Co.6 Additional organizations that sponsored/participated in measure development: National Association of Children’s Hospitals and Related Institutions, Child Health Corporation of America, Medical Management Planning, VPS
Co.7 Public Contact: Christine, Gall, MS, RN, cgall@myvps.org, 262-439-9640-, Virtual PICU Systems, LLC

**ADDITIONAL INFORMATION**

<p>Workgroup/Expert Panel involved in measure development</p> <p>Ad.1 Provide a list of sponsoring organizations and workgroup/panel members’ names and organizations. Describe the members’ role in measure development.</p>
<p>Ad.2 If adapted, provide title of original measure, NOF # if endorsed, and measure steward. Briefly describe the reasons for adapting the original measure and any work with the original measure steward:</p>
<p>Measure Developer/Steward Updates and Ongoing Maintenance</p> <p>Ad.3 Year the measure was first released: 2008</p> <p>Ad.4 Month and Year of most recent revision: 01, 2012</p> <p>Ad.5 What is your frequency for review/update of this measure? 3 years</p> <p>Ad.6 When is the next scheduled review/update for this measure? 01, 2012</p>
<p>Ad.7 Copyright statement:</p>
<p>Ad.8 Disclaimers:</p>
<p>Ad.9 Additional Information/Comments:</p>
<p>Date of Submission (MM/DD/YY): 10/18/2011</p>