NQF #0473 - Appropriate DVT prophylaxis in women undergoing cesarean delivery

**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.

<table>
<thead>
<tr>
<th>NQF #: 0473</th>
<th>NQF Project:</th>
<th>Perinatal and Reproductive Health Project</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>(for Endorsement Maintenance Review)</td>
</tr>
<tr>
<td></td>
<td>Original Endorsement Date:</td>
<td>Oct 24, 2008</td>
</tr>
</tbody>
</table>

**BRIEF MEASURE INFORMATION**

**De.1 Measure Title:** Appropriate DVT prophylaxis in women undergoing cesarean delivery

**Co.1.1 Measure Steward:** Hospital Corporation of America

**De.2 Brief Description of Measure:** Measure adherence to current ACOG, SMFM recommendations for use of DVT prophylaxis in women undergoing cesarean delivery. Current ACOG and SMFM recommendations call for the use of pneumatic compression devices in all women undergoing cesarean delivery who are not already receiving medical VTE prophylaxis. Numerator: Number of women undergoing cesarean delivery receiving either pneumatic compression device or medical prophylaxis prior to cesarean delivery. Denominator: All women undergoing cesarean delivery.

**2a1.1 Numerator Statement:** Number of women undergoing cesarean delivery who receive either fractionated or unfractionated heparin or heparinoid, or pneumatic compression devices prior to surgery

**2a1.4 Denominator Statement:** All women undergoing cesarean delivery.

**2a1.8 Denominator Exclusions:** Not receiving medical anticoagulation

**1.1 Measure Type:** Process

**2a1.25-26 Data Source:** Electronic Clinical Data : Electronic Health Record, Electronic Clinical Data : Pharmacy, Paper Records

**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):**

**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.*
**NQF #0473 Appropriate DVT prophylaxis in women undergoing cesarean delivery**

### (evaluation criteria)

<table>
<thead>
<tr>
<th>1a. High Impact:</th>
<th>H</th>
<th>M</th>
<th>L</th>
<th>I</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(The measure directly addresses a specific national health goal/priority identified by DHHS or NPP, or some other high impact aspect of healthcare.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

**De.5 Cross Cutting Areas** (Check all the areas that apply): Safety, Safety: Venous Thromboembolism

#### 1a. Demonstrated High Impact Aspect of Healthcare:

**Affects large numbers, A leading cause of morbidity/mortality, Frequently performed procedure**

#### 1a.1 If “Other,” please describe:

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

- About 1/3 of all pregnant women in the U.S. undergo cesarean delivery
- Pulmonary embolism is a leading cause of death in women undergoing cesarean delivery

**1a.4 Citations for Evidence of High Impact cited in 1a.3:**

1. Queenan JT. How to stop the relentless rise in cesarean deliveries. Obstet Gynecol 2011; 118:199-200

#### 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:**

PCD use has been shown to reduce the incidence of PE in the general population of patients undergoing major surgery by about 70%. Until this month (Sept 2011) the use of these devices has not been standard in U.S. hospitals. (Thromboembolism in Pregnancy. American College of Obstetricians and Gynecologists Practice Bulletin #123, September 2011)

**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.]

Precise current performance gap is unknown, but few facilities had routinely adhered to this new standard of care.

**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]

N/A

**1b.4 Summary of Data on Disparities by Population Group:**

[For Maintenance – Descriptive statistics for performance results for this measure by population group]

N/A

**1b.5 Citations for Data on Disparities Cited in 1b.4:**


#### 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.
NQF #0473 Appropriate DVT prophylaxis in women undergoing cesarean delivery

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

<table>
<thead>
<tr>
<th>Quantity</th>
<th>Quality</th>
<th>Consistency</th>
<th>Does the measure pass subcriterion 1c?</th>
</tr>
</thead>
<tbody>
<tr>
<td>M-H</td>
<td>M-H</td>
<td>M</td>
<td>Yes □ IF additional research unlikely to change conclusion that benefits to patients outweigh harms: otherwise No □</td>
</tr>
<tr>
<td>L</td>
<td>M-H</td>
<td>M</td>
<td>Yes □ IF potential benefits to patients clearly outweigh potential harms: otherwise No □</td>
</tr>
<tr>
<td>M-H</td>
<td>L-M-H</td>
<td>L</td>
<td>No □</td>
</tr>
</tbody>
</table>

Health outcome – rationale supports relationship to at least one healthcare structure, process, intervention, or service

Does the measure pass subcriterion 1c?

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):

Health outcome - avoidance of post cesarean venous thromboembolism

1c.2-3 Type of Evidence (Check all that apply):
Clinical Practice Guideline, Systematic review of body of evidence (other than within guideline development)

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):
Clinical practice guidelines apply directly to measure (ACOG above)
Cost-effectiveness studies apply directly to measure (Casele above)
Clinical studies apply directly to measure (Clark, 2011 above) and extrapolate from evidence in similar situations (Clark 2008)

1c.5 Quantity of Studies in the Body of Evidence (Total number of studies, not articles): 3 + practice guidelines of ACOG

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): Quality of evidence is not level I - no randomized trials in pregnancy. Evidence consists of extrapolations from prospective studies in other populations, given known risk factor of pregnancy and retrospective outcomes comparisons.

1c.7 Consistency of Results across Studies (Summarize the consistency of the magnitude and direction of the effect):
Consistently support measure, within quality issues mentioned above.

1c.8 Net Benefit (Provide estimates of effect for benefit/outcome; identify harms addressed and estimates of effect; and net benefit - benefit over harms):
Reduce fatal PE rate from 1.5/100,000 to 0.5/100,000 (Clark 2011)

1c.9 Grading of Strength/Quality of the Body of Evidence. Has the body of evidence been graded? Yes

1c.10 If body of evidence graded, identify the entity that graded the evidence including balance of representation and any disclosures regarding bias: graded as C by ACOG (Practice Bulletin #123, Sept 2011) However, the Clark 2011 citation was not available at time of production of this bulletin, which adds some level B data.

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

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

See Guidance for Definitions of Rating Scale: H=High; M=Moderate; L=Low; I=Insufficient; NA=Not Applicable
NQF #0473  Appropriate DVT prophylaxis in women undergoing cesarean delivery

1c.13 Grade Assigned to the Body of Evidence: C, prior to publication of Clark 2011 paper.

1c.14 Summary of Controversy/Contradictory Evidence: Extrapolations from other forms of surgery suggest both clinical benefit and cost-effectiveness (Clark 2008, 2011, Casele 2006) In 2011 ACOG and SMFM issue guidelines calling for adherence to this measure. However, no level A trials in pregnancy have been carried out, nor will they given current ACOG/SMFM standards.

1c.15 Summary of Controversy/Contradictory Evidence: Extrapolations from other forms of surgery suggest both clinical benefit and cost-effectiveness (Clark 2008, 2011, Casele 2006). In 2011 ACOG and SMFM issue guidelines calling for adherence to this measure. However, no level A trials in pregnancy have been carried out, nor will they given current ACOG/SMFM standards.

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

1c.16 Quote verbatim, the specific guideline recommendation (Including guideline # and/or page #):
"Placement of pneumatic compression devices before cesarean delivery is recommended for all women not already receiving thromboprophylaxis." ACOG Practice Bulletin #123, September 2011

1c.17 Clinical Practice Guideline Citation: ACOG Practice Bulletin #123, September 2011

1c.18 National Guideline Clearinghouse or other URL:

1c.19 Grading of Strength of Guideline Recommendation. Has the recommendation been graded? Yes

1c.20 If guideline recommendation graded, identify the entity that graded the evidence including balance of representation and any disclosures regarding bias: ACOG graded C, prior to publication of Clark 2011 data

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

1c.22 If other, identify and describe the grading scale with definitions:

1c.23 Grade Assigned to the Recommendation: C

1c.24 Rationale for Using this Guideline Over Others: It mirrors the SMFM guideline and is the only such guideline issued by a body dealing with maternal health.

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: Moderate  1c.26 Quality: Moderate  1c.27 Consistency: High

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:
http://atlas2.medcity.net/portal/site/atlas/menuitem.15b422e66283206fde2fd797ac01a1a0/?search=dvt&within=filter_path%3A%2Fquality%2Fpatientsafety%2Fperinatal%2F&coll=Atlas&tax=By+Department&expand=By+Department

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 women undergoing cesarean delivery who receive either fractionated or unfractionated heparin or heparinoid, or pneumatic compression devices prior to surgery

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

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?):
Patients with DRG: 740,741,742,744,7491,7499 who had pneumatic compression devices placed pre-operatively

2a1.4 Denominator Statement  (*Brief, narrative description of the target population being measured?):
All women undergoing cesarean delivery.

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?):
Hospitalization for delivery

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?):
DRG 740,741,742,744,7491,7499

2a1.8 Denominator Exclusions  (*Brief narrative description of exclusions from the target population?):
Not receiving medical anticoagulation

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?):
one of the following HCPCS codes: J1644, J1650, J1645, J1655

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?):
N/A

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
NQF #0473 Appropriate DVT prophylaxis in women undergoing cesarean delivery

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:
Attachment
Risk Model.doc

### 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.): Score = all patients undergoing cesarean who receive PCDs/all patients undergoing cesarean who are not receiving medical prophylaxis

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

### 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:
Electronic Clinical Data: Electronic Health Record, Electronic Clinical Data: Pharmacy, 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.): Medical record

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

### 2a1.30-32 Data Dictionary/Code Table Web Page URL or Attachment: Attachment Data source-634532561289404613.doc

### 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): Measured in > 220,000 patients annually for past 2 years in HCA facilities

#### 2a2.2 Analytic Method (Describe method of reliability testing & rationale): Simple tally and ratio, as described in specifications.
2a2.3 Testing Results (Reliability statistics, assessment of adequacy in the context of norms for the test conducted):
Retrospective audit suggests current collection methodology to be nearly 100% reliable.

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:
No differences. PCD use measures PCD use.

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):
Data in over 220,000 deliveries annually for 2 years suggests measured and reported (internally) PCD use is equivalent to actual use.

2b2.2 Analytic Method (Describe method of validity testing and rationale; if face validity, describe systematic assessment):
Data collection followed by sample chart audit.
"Fall outs" are collected by exception - ie, obstetric OR policy provides all patients with standing PCD orders unless physician specifically orders them not given. Such are collected and reported as outliers.

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):
Near 100% concordance with internally reported metrics.

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):
None. (with the realization that some emergency procedures will be justified "fall outs."

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

See Guidance for Definitions of Rating Scale: H=High; M=Moderate; L=Low; I=Insufficient; NA=Not Applicable
### 2b4.4 If outcome or resource use measure is not risk adjusted, provide rationale and analyses to justify lack of adjustment: Applies to all cesarean patients

### 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):

In 110 facilities with 220,000 deliveries, initial performance ranged from 75%-100% compliance. After first year, few facilities demonstrate <99% compliance.

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

Simple comparison

#### 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):

see above

### 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):

Single data source used

#### 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)

See Guidance for Definitions of Rating Scale: H=High; M=Moderate; L=Low; I=Insufficient; NA=Not Applicable
### 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), Quality Improvement with Benchmarking (external benchmarking to multiple organizations)

### 3.1 Current Use (Check all that apply; for any that are checked, provide the specific program information in the following questions):  
- 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.)

- 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.]**  
  Public reporting hampered on initial submission by lack of supportive ACOG guidelines. We anticipate promoting this as a Joint Commission/Leapfrog measure if approved by NQF as an important measure of maternal care.

- 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:  
  PCDs prevent death - easy for public to understand.

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

- Use in QI.  
  If used in quality improvement program, provide name of program(s), locations, Web page URL(s):  
  see initial URL on page 1.

- 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:  
  Brings obstetrics into line with other surgical specialties and SCIP metrics

### 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 □  

- 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,  
  - Coded by someone other than person obtaining original information (e.g., DRG, ICD-9 codes on claims)

#### 4b. Electronic Sources:  
- H □  M □  L □  I □  

- 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: Use of pneumatic compression device is not a coded event. Since this is a universal measure for patients going to the labor OR, a log is kept of PCD use, or, with a default policy, the log tracks non-use (exceptions.)

4c. Susceptibility to Inaccuracies, Errors, or Unintended Consequences:  

| 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:  

> Audits during first 2 years of study suggest near 100% accuracy. |

4d. Data Collection Strategy/Implementation:  

| 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):  

> Can be easily collected and reported without undue time or expense burden. |

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:  

| 0217 : Surgery Patients with Recommended Venous Thromboembolism (VTE) Prophylaxis Ordered |
| 0218 : Surgery Patients Who Received Appropriate Venous Thromboembolism (VTE) Prophylaxis Within 24 Hours Prior to Surgery to 24 Hours After Surgery End Time |
| 0239 : Venous Thromboembolism (VTE) Prophylaxis |

5a. Harmonization  

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

Have the measure specifications completely harmonized? Yes  
Rationale:  

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): | Hospital Corporation of America, One Park Plaza, Nashville, Tennessee, 37203 |
| Co.2 Point of Contact: | Steven, Clark, steven.clark@mountainstarhealth.com, 406-203-6721- |
| Co.3 Measure Developer if different from Measure Steward: | Hospital Corporation of America, One Park Plaza, Nashville, Tennessee, 37203 |
| Co.4 Point of Contact: | Steven, Clark, steven.clark@mountainstarhealth.com, 406-203-6721- |
| Co.5 Submitter: | Steven, Clark, steven.clark@mountainstarhealth.com, 406-203-6721-, Hospital Corporation of America |
| Co.6 Additional organizations that sponsored/participated in measure development: | |
| Co.7 Public Contact: | Steven, Clark, steven.clark@mountainstarhealth.com, 406-203-6721-, Hospital Corporation of America |

### 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. | N/A |

| 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: | N/A |

| Measure Developer/Steward Updates and Ongoing Maintenance |
| Ad.3 Year the measure was first released: | 2008 |
| Ad.4 Month and Year of most recent revision: | 01, 2009 |
| 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? | 01, 2012 |

| Ad.7 Copyright statement: | |
| Ad.8 Disclaimers: | |
| Ad.9 Additional Information/Comments: | |

| Date of Submission (MM/DD/YY): | 10/03/2011 |