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 #: 1641</th>
<th>NQF Project: Palliative Care and End-of-Life Care</th>
</tr>
</thead>
<tbody>
<tr>
<td>(for Endorsement Maintenance Review)</td>
<td>Original Endorsement Date:</td>
</tr>
</tbody>
</table>

### BRIEF MEASURE INFORMATION

**De.1 Measure Title:** Hospice and Palliative Care – Treatment Preferences

**Co.1.1 Measure Steward:** University of North Carolina- Chapel Hill

**De.2 Brief Description of Measure:** Percentage of patients with chart documentation of preferences for life sustaining treatments.

**2a1.1 Numerator Statement:** Patients whose medical record includes documentation of life sustaining preferences

**2a1.4 Denominator Statement:** Seriously ill patients enrolled in hospice OR receiving specialty palliative care in an acute hospital setting.

**2a1.8 Denominator Exclusions:** Patients with length of stay < 1 day in palliative care or < 7 days in hospice

**1.1 Measure Type:** Process

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

**2a1.33 Level of Analysis:** Clinician : Group/Practice, 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):** N/A

### 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.*

**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...
<table>
<thead>
<tr>
<th>1a.1 Demonstrated High Impact Aspect of Healthcare:</th>
<th>Affects large numbers, Patient/societal consequences of poor quality, Severity of illness</th>
</tr>
</thead>
</table>

### 1a.2 If “Other,” please describe:

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

The Hospice and Palliative Care - Treatment Preferences measure addresses patient autonomy for patients with high severity of illness and risk of death, including seriously and incurably ill patients enrolled in hospice or hospital-based palliative care. The National Priorities Partnership has identified palliative and end-of-life care as one of its national priorities. A goal of this priority is to ensure that all patients with life-limiting illness have the right to express preferences that guide use of invasive or life-sustaining forms of treatment.(1) The affected populations are large; in 2009, 1.56 million people with life-limiting illness received hospice care.(2) In 2008, 58.5% of US hospitals with 50 or more beds had some form of palliative care service, and national trends show steady expansion of these services.(3)

Patients and family caregivers rate control over treatment decisions as a high priority when living with serious and life-limiting illnesses. (4) From a recent systematic review of clinical trials, moderate evidence supports multicomponent interventions to increase advance directives, and "care planning through engaging values, involving skilled facilitators, and focusing on key decision makers." These studies found improved outcomes of patient-physician communication, improved satisfaction with care, and increased hospice enrollment.(5) The more recently published Coping with Cancer Study, a prospective observational study of over 300 patients with advanced cancer, found that communication of patient treatment preferences was associated with use of treatments honoring those preferences and wish lesser use of aggressive, high-cost treatments.(6,7)

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


3. Center to Advance Palliative Care http://www.capc.org/news-and-events/releases/04-05-10


### 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:

Seriously ill and dying patients who are given the opportunity to express life-sustaining treatment preferences are more likely to receive care consistent with their values, and patient and family satisfaction outcomes improve. Patients and physicians alike hesitate to initiate discussions, while acknowledging their value and desirability. Use of the Treatment Preferences quality measure will improve attention to this important practice, in order to enhance patient autonomy, facilitate patient-centered decision-making, and communicate patient preferences via documentation to other treating providers.

### 1b.2 Summary of Data Demonstrating Performance Gap *(Variation or overall less than optimal performance across providers):*
**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]


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

In advanced incurable illness, treatment options range from life-sustaining and disease modifying interventions to control of acute exacerbations to hospice care. African Americans with advanced cancer less often access treatment through clinical trials, palliative care for pain management, or hospice. They less often prepare advance directives, including Health Care Powers of Attorney that can facilitate family advocacy during illness. If these choices are fully informed expressions of values, they should be supported. However, African Americans desire more information on treatment options and are less likely to have discussions with their physicians, indicating that communication and information access serve as barriers to optimal care.

**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]


1c. Evidence  
(Measure focus is a health outcome OR meets the criteria for quantity, quality, consistency of the body of evidence.)

<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-H</td>
<td>Yes</td>
</tr>
<tr>
<td>L</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>M-H</td>
<td>L</td>
<td>M-H</td>
<td>Yes IF potential benefits to patients clearly outweigh potential harms: otherwise No</td>
</tr>
<tr>
<td>L-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):

The Treatment Preferences quality measure addresses a key process -- eliciting and documenting patient treatment preferences -- with evidence linking it to outcomes of patient autonomy and control over treatments, patient and family satisfaction with care, improved transitions to hospice and palliative care, and reduced emotional distress for surviving family.

There is broad legal and ethical consensus that the treatment of seriously ill and dying patients should be guided by their values and preferences regarding life-sustaining treatments.(1) Failure to elicit and communicate these preferences can result in the intermediate outcome of treatment which is contradictory to patients' and families' values, in turn decreasing patient and family satisfaction. If patients die without adequate opportunity for treatment guided by their own preferences, families report markedly greater emotional distress following the death.

An early systematic review found evidence for poor quality communication, but limited evidence for its relationship to outcomes.(2) However, an updated systematic review by the same investigators found moderate evidence to support multicomponent interventions to increase advance directives and for care planning through engaging values, with improved rates of hospice use, reduced ICU days, and enhanced quality of patient-provider communication.(3) More targeted trials that enhance the frequency and quality of communication have positive effects, including treatment consistent with preferences, reduced family distress, improved comprehension, and decreased the use of intensive treatments without adverse effects on mortality.(4,5)

In addition to this direct evidence, some indirect evidence supports the link between enhanced communication about treatment preferences in palliative care interventions, and improved patient and family outcomes. One systematic review of specialized palliative care, covering heterogeneous complex clinical interventions which include communication of treatment preferences, found a small number of interventions resulted in improved quality of life and family satisfaction with care, but concluded that future trials need improved methodologic rigor.(6) Several subsequent palliative care clinical trials and 2 observational studies have added evidence that these complex interventions, which include enhanced clinical communication about treatment preferences as a key component, are associated with enhanced attention to patient autonomy, improved satisfaction with care, less high cost life-sustaining treatment use, and these benefits accrue without adverse effects on mortality. (7,8,9,10,11,12)

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

The central topic of communication of patient care preferences is support by direct and indirect evidence. Study populations are typically hospitalized or in intensive care, and have varied diagnoses in advanced or incurable stages. The strongest direct evidence for improved outcomes comes from systematic communication interventions (ref Scheunemann), and the outcomes most clearly impacted are treatment choices, use of life-sustaining treatment, and satisfaction with care. Although discussion of treatment choices and patient autonomy are clearly elements of hospice care, the research evidence base generally does not address hospice patients, whose broader treatment preferences must be addressed in advance of hospice care in order to elect that option.

1c.5 Quantity of Studies in the Body of Evidence (Total number of studies, not articles): 1. Systematic review (Lorenz, 2004) including 4 earlier systematic reviews, 21 individual trials, and 22 observational cohort studies.
2. Systematic review (Lorenz, 2008) including 9 systematic reviews, 32 individual intervention studies.
4. Systematic review (Parker, 2007) including 46 studies.
5. Systematic review (Scheunemann, 2011) including 21 studies of 16 distinct intervention trials.
6. Individual additional studies - 6 (Gade, Temel, Casarett, Engelhardt, Bakitas, Wright).

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): The overall quality of this body of evidence is moderate. The strongest and most direct evidence comes from a small number of rigorously designed randomized trials testing communication interventions with seriously ill hospitalized patients and their families (ref Scheunemann). In addition, several recent well-designed clinical trials (ref Temel, Gade, Bakitas) have tested complex palliative care interventions which add meaningful but more indirect evidence, since they include communication of patient treatment preferences as a key component. These clinical trials have been adequately powered.

1c.7 Consistency of Results across Studies (Summarize the consistency of the magnitude and direction of the effect): Studies of communication interventions, including more complex palliative care service delivery, have consistently shown improvements in treatment consistent with preferences, reduced family distress, improved comprehension, and decreased the use of intensive treatments without adverse effects on mortality. Results have been consistent, and effect sizes modest but clinically as well as statistically significant.

1c.8 Net Benefit (Provide estimates of effect for benefit/outcome; identify harms addressed and estimates of effect; and net benefit - benefit over harms): The net benefit from interventions to enhance communication of patient treatment preferences is positive. Several studies have shown no adverse effect on mortality, and one study of a complex palliative care intervention (ref Temel) has shown survival benefit. Careful review of communication studies for adverse emotional effects have found no evidence of significant harms. (ref Emanuel)

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: Not graded

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

1c.14 Summary of Controversy/Contradictory Evidence:

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

See Guidance for Definitions of Rating Scale: H=High; M=Moderate; L=Low; I=Insufficient; NA=Not Applicable
**NQF #1641 Hospice and Palliative Care - Treatment Preferences**

**OTHER GUIDELINES:**

**SYSTEMATIC REVIEWS:**

**ADDITIONAL INDIVIDUAL STUDIES**

| 1c.16 Quote verbatim, the specific guideline recommendation (Including guideline # and/or page #): |
| Guideline 8.1 The patient’s goals, preferences and choices are respected within the limits of applicable state and federal law, within current accepted standards of medical care, and form the basis for the plan of care. |

Criteria:
- The interdisciplinary team includes professionals with knowledge and skill in ethical, legal, and regulatory aspects of medical decision-making.
- The patient or surrogate’s expressed wishes, in collaboration with the family and the interdisciplinary team, form the basis for the care plan.
- The adult patient with decisional capacity determines the level of involvement of the family in decision-making and communication about the care plan.
- Evidence of patient preferences for care is routinely sought and documented in the medical record. Failure to honor these preferences is documented and addressed by the team.
- Among minors with decision-making capacity, the child’s views and preferences for medical care, including assent for treatment, should be documented and given appropriate weight in decision-making. When the child’s wishes differ from those of the adult decision-maker, appropriate professional staff members are available to assist the child.
- The palliative care program promotes advance care planning in order to understand and communicate the patient’s or an appropriate surrogate’s preferences for care across the health care continuum.
- When patients are unable to communicate, the palliative care program seeks to identify advance care directives, evidence of previously expressed wishes, values, and preferences, and the appropriate surrogate decision-makers. The team must advocate the observance of previously expressed wishes of the patient or surrogate when necessary.
- Assistance is provided to surrogate decision-makers on the legal and ethical bases for surrogate decision-making, including honoring the patient’s known preferences, substituted judgment, and best-interest criteria.

See Guidance for Definitions of Rating Scale: H=High; M=Moderate; L=Low; I=Insufficient; NA=Not Applicable
### 1. Clinical Practice Guideline Citation


**National Guideline Clearinghouse or other URL:** Citation: National Guideline Clearinghouse http://www.guideline.gov/content.aspx?id=14423

### 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:** PEACE Project http://www.thecarolinascancer.org/default.aspx?pageid=24

#### 2a. Reliability. Precise Specifications and Reliability Testing

- **H** - High
- **M** - Moderate
- **L** - Low
- **I** - Insufficient
- **NA** - Not Applicable

**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)**
Patients whose medical record includes documentation of life sustaining preferences.

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

**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):*

Documentation of life-sustaining treatment preferences should reflect patient self-report; if not available, discussion with surrogate decision-maker and/or review of advance directive documents are acceptable. The numerator condition is based on the process of eliciting and recording preferences, whether the preference statement is for or against the use of life-sustaining treatments. This item is meant to capture evidence of discussion and communication. Therefore, brief statements about an order written about life-sustaining treatment, such as “Full Code” or “DNR/DNI” do not count in the numerator. Documentation using the POLST paradigm with evidence of patient or surrogate involvement, such as co-signature or description of discussion, is adequate evidence and can be counted in this numerator.

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

Seriously ill patients enrolled in hospice OR receiving specialty palliative care in an acute hospital setting.

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

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

The episode of care by the hospice or palliative care provider.

**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):*

The Treatment Preferences quality measure is intended for patients with serious illness who are enrolled in hospice care OR receive specialty palliative care in an acute hospital setting. Conditions may include, but are not limited to: cancer, heart disease, pulmonary disease, dementia and other progressive neurodegenerative diseases, stroke, HIV/AIDS, and advanced renal or hepatic failure.

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

Patients with length of stay < 1 day in palliative care or < 7 days in hospice

**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):*

Calculation of length of stay: discharge date - date of initial encounter.

**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 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.):
Chart documentation of life sustaining preferences:
a. Step 1- Identify all patients with serious, life-limiting illness who are enrolled in hospice OR who received specialty palliative care in an acute hospital
b. Step 2- Exclude palliative care patients if length of stay is < 1 day. Exclude hospice patients if length of stay is < 7 days
c. Step 3- Identify patients with documented discussion of preference for life sustaining treatments

Quality measure = Numerator: Patients with documented discussion in Step 3 / Denominator: Patients in Step 1 – Patients excluded in Step 2

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):
Hospice and palliative care: consecutive sample of equal numbers of admissions + decedents beginning with a randomly selected date.

Data collection using a structured chart abstraction tool and operational definition

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

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.): Structured medical record abstraction tool, with separate collection of denominator and numerator data

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

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

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

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

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

Two research nurse abstractors independently recorded quality measures data on a random subset of 20 seriously ill patients. Abstractors used the pre-defined operational definitions and a structured chart abstraction tool to record numerator and denominator data separately. Patients were a subsample of 460 seriously ill patients without specialty palliative care admitted to an acute care hospital for at least 1 day to four inpatient services. Records eligible for sampling included all seriously ill adult patients admitted to medical and surgical intensive care, medically complex patients aged 65 and older admitted to an Acute Care of the Elderly Unit, and medical oncology patients with Stage IV carcinoma.

### 2a2.2 Analytic Method

*Describe method of reliability testing & rationale:*

Inter-rater reliability between the two abstractors was assessed using kappa statistics.

### 2a2.3 Testing Results

*Reliability statistics, assessment of adequacy in the context of norms for the test conducted:*

The nurse abstractors achieved prefect (kappa=1.0) inter-rater reliability for this measure.

### 2b. VALIDITY

#### 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:

The measure focus is communication of patient Treatment Preferences. The target populations are hospice patients, and seriously ill hospitalized patients with diverse underlying diagnoses who are at high risk for palliative care clinical needs. This measure focus and target population is consistent with the research evidence base discussed in 1c; however, the research evidence base includes less direct evidence for the hospice population.

#### 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:*

| Hospice: | The total patient sample size was 126. Fourteen hospices, located in seven different states, representing both freestanding and hospital based providers were recruited to participate. We asked each hospice to contribute data from nine patient records to the study. Nine hospices were asked to collect data on their most recent nine discharges; five hospices were asked to collect data on their most recent nine admissions. 

Palliative Care: | The total patient sample size was 562. Chart abstractions were completed for 102 consecutive seriously ill patients with specialty palliative care consultation, and a random sample of 460 seriously ill patients without specialty palliative care admitted to an acute care hospital for at least 1 day to four inpatient services with high proportions of seriously ill patients. Records eligible for sampling included all patients admitted to medical and surgical intensive care, medically complex patients aged 65 and older admitted to a Geriatric Evaluation Unit, and medical oncology patients with Stage IV carcinoma. Because palliative care domains become even more relevant closer to death, patients dying in hospital were over-sampled to ensure a final ratio of 1 decedent to 1 live discharge. Consistent with oversampling of decedent records, 55% of these patients died in hospital. The age of the patients ranged from 16 to 99 years, with the mean age 61. Patients were predominantly Caucasian (65%), with smaller subgroups who were African American (24%) and Hispanic / Latino (4%). The most common life-limiting diagnoses were infections (37%), cancer (34%), pulmonary (29%), and neurologic diseases (21%). |

#### 2b2.2 Analytic Method

*Describe method of validity testing and rationale; if face validity, describe systematic assessment:*

Hospice sample: Face validity was tested using formal expert panel review. The PEACE project team convened a 14-member Technical Expert Panel (TEP) of nationally recognized experts with extensive experience in the following areas: medical or nursing expertise in hospice and palliative care, methods and instrumentation, and quality improvement. Using criteria provided by the CCME study team, TEP members rated each potential quality measure from 1 (low) to 5 (high) on four criteria: importance, scientific soundness, feasibility and usability. The rating criteria mirrored those used by the National Quality Forum and the CMS Measures Management System. To identify the measures with the most favorable ratings, we created a summary measure. For each quality measure, we calculated the average TEP rating for each criterion and then tabulated an overall Average Measure Rating (AMR), weighting each the criteria equally.
Palliative Care sample: Face validity of PEACE quality measures for hospital-based specialty palliative care was addressed using stakeholder review and feedback. Investigators prepared data reports in a summary format with detailed operational definitions, and led a 1-hour discussion with nursing and physician leaders from each service group – MICU, SICU, Acute Care for the Elderly (Geriatrics, Oncology, and Palliative Care). The discussion included feedback of quality measure data, response to questions and critiques, and eliciting stakeholder feedback about the validity and actionability of this data for the care of their patients. Stakeholders were specifically asked to comment on the accuracy of the data as a reflection of current care practices, and their highest priority area for future quality improvement. Construct validity was tested by comparing the PEACE quality measures for patients seen by specialty interdisciplinary palliative care consultants to those not receiving specialty palliative care services.

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): Hospice: Completed ratings were received from 13 of the 14 TEP members. The 75th percentile cut-point translated into an AMR =3.73 (on a scale of 1 to 5 where 5 is highest). This process resulted in the identification of 23 measures with the highest TEP ratings. Medical record documentation of life sustaining preferences had an overall rating of 4.04. Palliative Care: Face Validity: Stakeholder discussions provided broad endorsement of face validity, with some considerations for specific patient populations. Medical oncologists endorsed the face validity of these quality measures, but favored quality measures endorsed by oncology professional organizations. Construct Validity: Patients who received specialty palliative care were more likely to have documentation of their preferences for or against receiving life-sustaining treatments (91% vs 59%, p>0.001).

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.*

<table>
<thead>
<tr>
<th>NQF #</th>
<th>Sample/Method</th>
<th>Results</th>
<th>Hospice Sample</th>
<th>Palliative Care Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>1641</td>
<td><strong>2b5.1 Data/Sample</strong> <em>(Describe the data or sample including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included):</em> Hospice: The total patient sample size was 126. Fourteen hospices, located in seven different states, representing both freestanding and hospital based providers were recruited to participate. We asked each hospice to contribute data from nine patient records to the study. Nine hospices were asked to collect data on their most recent nine discharges; five hospices were asked to collect data on their most recent nine admissions. A common structured data collection tool was developed for use by all hospices, regardless of whether the patient record was an admission or discharge record. Instructions embedded in the tool indicated the data items appropriate to each type of record. Hospices were instructed not to institute new data collection procedures for the data collection pilot. If a data item could not be found, they were told to mark the item as “unable to determine.” A data dictionary containing item-specific instructions and notes related to the patient data collection tool was distributed to each hospice center. Technical assistance was provided by email and phone to staff during the data collection period. Questions, and responses, that arose during data collection were immediately distributed to all hospices participating in the data pilot. Palliative Care: The total patient sample size was 562. Chart abstractions were completed for 102 consecutive seriously ill patients with specialty palliative care consultation, and a random sample of 460 seriously ill patients without specialty palliative care admitted to an acute care hospital for at least 1 day to four inpatient services with high proportions of seriously ill patients. Records eligible for sampling included all patients admitted to medical and surgical intensive care, medically complex patients aged 65 and older admitted to a Geriatric Evaluation Unit, and medical oncology patients with Stage IV carcinoma. Because palliative care domains become even more relevant closer to death, patients dying in hospital were over-sampled to ensure a final ratio of 1 decedent to 1 live discharge. Consistent with oversampling of decedent records, 55% of these patients died in hospital. The age of the patients ranged from 16 to 99 years, with the mean age 61. Patients were predominantly Caucasian (65%), with smaller subgroups who were African American (24%) and Hispanic / Latino (4%). The most common life-limiting diagnoses were infections (37%), cancer (34%), pulmonary (29%), and neurologic diseases (21%).</td>
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<td></td>
<td><strong>2b5.2 Analytic Method</strong> <em>(Describe methods and rationale to identify statistically significant and practically/meaningfully differences in performance):</em> Construct validity was tested by comparing the PEACE quality measures for patients seen by specialty interdisciplinary palliative care consultants to those not receiving specialty palliative care services. Percentage of patients with and without specialty palliative care for whom the quality measure was met was compared for difference using the chi-square statistic.</td>
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<td></td>
<td><strong>2b5.3 Results</strong> <em>(Provide measure performance results/scores, e.g., distribution by quartile, mean, median, SD, etc.; identification of statistically significant and meaningfully differences in performance):</em> Hospice sample: 81.5% of patients had documentation of treatment preferences; 3% of reviewed records had no information. Palliative care sample: Seriously ill hospitalized patients who received specialty palliative care were more likely to have documentation of their treatment preferences compared to patients without specialty palliative care. (91% vs 59%, p&gt;0.001).</td>
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</tbody>
</table>

### 2b6. Comparability of Multiple Data Sources/Methods

*If specified for more than one data source, the various approaches result in comparable scores.*

<table>
<thead>
<tr>
<th>NQF #</th>
<th>Sample/Method</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>1641</td>
<td><strong>2b6.1 Data/Sample</strong> <em>(Describe the data or sample including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included):</em> N/A</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>2b6.2 Analytic Method</strong> <em>(Describe methods and rationale for testing comparability of scores produced by the different data sources specified in the measure):</em> N/A</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>2b6.3 Testing Results</strong> <em>(Provide statistical results, e.g., correlation statistics, comparison of rankings; assessment of adequacy in the context of norms for the test conducted):</em> N/A</td>
<td></td>
</tr>
</tbody>
</table>

See Guidance for Definitions of Rating Scale: H=High; M=Moderate; L=Low; I=Insufficient; NA=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):

2c.2 If disparities have been reported/identified (e.g., in 1b), but measure is not specified to detect disparities, please explain:
Future research with larger sample sizes can be used to test for differential performance by race / ethnicity and by gender.

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):  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.]

Use of the Hospice and Palliative Care - Treatment Preferences quality measures for public reporting requires rigorous peer review, NQF endorsement and subsequent policy change to facilitate data access for public use.

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:  The Hospice and Palliative Care – Treatment Preferences quality measure is meaningful and understandable for quality measurement and public reporting. The quality measure operational definition has been endorsed by a national TEP (Hospice sample) and a diverse group of physicians and nurses caring for seriously ill patients in hospital (Palliative Care sample).

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):  N/A

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 Hospice and Palliative Care-Treatment Preferences is currently being used in an internal quality improvement project in a
single academic tertiary hospital.

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:
Data will become available in the next year.

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

<table>
<thead>
<tr>
<th>4. FEASIBILITY</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Extent to which the required data are readily available, retrievable without undue burden, and can be implemented for performance measurement.</strong> (evaluation criteria)</td>
<td></td>
</tr>
<tr>
<td><strong>4a. Data Generated as a Byproduct of Care Processes:</strong></td>
<td>H M L I</td>
</tr>
<tr>
<td><strong>4a.1-2 How are the data elements needed to compute measure scores generated?</strong> (Check all that apply).</td>
<td></td>
</tr>
<tr>
<td>Data used in the measure are:</td>
<td></td>
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<tr>
<td>Abstracted from a record by someone other than person obtaining original information (e.g., chart abstraction for quality measure or registry)</td>
<td></td>
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<tr>
<td><strong>4b. Electronic Sources:</strong></td>
<td>H M L I</td>
</tr>
<tr>
<td><strong>4b.1</strong> 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):</td>
<td>ALL data elements in electronic health records (EHRs)</td>
</tr>
<tr>
<td><strong>4b.2</strong> 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:</td>
<td></td>
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<tr>
<td><strong>4c. Susceptibility to Inaccuracies, Errors, or Unintended Consequences:</strong></td>
<td>H M L I</td>
</tr>
<tr>
<td><strong>4c.1</strong> 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:</td>
<td></td>
</tr>
<tr>
<td>In any quality measure reliant on medical record documentation, actual care may have differed from documented care. Unintended consequences could include purposeful documentation of care processes not performed; audit methodology would include patient survey to report the patient’s experience of pain screening and pain assessment.</td>
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</tr>
<tr>
<td><strong>4d. Data Collection Strategy/Implementation:</strong></td>
<td>H M L I</td>
</tr>
<tr>
<td><strong>4d.1</strong> Please check if either of the following apply (regarding proprietary measures):</td>
<td></td>
</tr>
<tr>
<td><strong>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):</strong></td>
<td></td>
</tr>
<tr>
<td>For each chart abstraction, data collection for the Hospice and Palliative Care - Treatment Preferences quality measure requires 1 minute to complete. There was 3% missing data for the elements needed to calculate this measure in the Hospice sample, and no missing data in the Palliative Care sample. Record abstraction does not require collection of unique patient identifiers and thus protects confidentiality. Timing of data collection can be concurrent with admission / initial encounter care, or can be retrospective based on medical record sampling. Costs have not been formally estimated; medical record abstraction or electronic capture of this type of data will have more modest costs compared to survey data.</td>
<td></td>
</tr>
<tr>
<td><strong>Overall, to what extent was the criterion, <strong>Feasibility</strong>, met?</strong></td>
<td>H M L I</td>
</tr>
<tr>
<td>Provide rationale based on specific subcriteria:</td>
<td></td>
</tr>
</tbody>
</table>

OVERALL SUITABILITY FOR ENDORSEMENT

See Guidance for Definitions of Rating Scale: H=High; M=Moderate; L=Low; I=Insufficient; NA=Not Applicable
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):
This measure is part of the NPCRC Key Palliative Measures Bundle. Refer to the NPCRC cover letter and table of bundle measures for description of the selection and harmonization of the Key Palliative Measures Bundle.

CONTACT INFORMATION

Co.1 Measure Steward (Intellectual Property Owner): University of North Carolina- Chapel Hill, 725 Martin Luther King Jr Blvd, CB 7590, Chapel Hill, North Carolina, 27599-7590

Co.2 Point of Contact: Laura, Hanson, MD. MPH, lhanson@med.unc.edu, 919-843-4096-

Co.3 Measure Developer if different from Measure Steward: University of North Carolina- Chapel Hill, 725 Martin Luther King Jr Blvd, CB 7590, Chapel Hill, North Carolina, 27599-7590

Co.4 Point of Contact: Laura, Hanson, MD. MPH, lhanson@med.unc.edu, 919-843-4096-

Co.5 Submitter: Laura, Hanson, MD. MPH, lhanson@med.unc.edu, 919-843-4096-, University of North Carolina- Chapel Hill

Co.6 Additional organizations that sponsored/participated in measure development:
The Carolinas Center for Medical Excellence, Cary, North Carolina

Co.7 Public Contact: Laura, Hanson, MD. MPH, lhanson@med.unc.edu, 919-843-4096-, University of North Carolina- Chapel Hill

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.
The Carolinas Center for Medical Excellence PEACE Project Technical Expert Panel
The PEACE project team convened a 14-member Technical Expert Panel (TEP) of nationally recognized experts with extensive experience in the following areas: medical or nursing expertise in hospice and palliative care, methods and instrumentation, and quality improvement. Using criteria provided by the CCME study team, TEP members rated each potential quality measure on four criteria: importance, scientific soundness, feasibility and usability.

Mary Ersek, PhD, RN, Research Associate Professor, Swedish Medical Center- Pain Research Department, Seattle, WA
Betty R. Ferrell, PhD, FAAN, Research Scientist, City of Hope National Medical Center, Duarte, CA
Sean Morrison, MD, Mount Sinai Medical Center, NY, NY
Richard Payne, MD, Director, Duke Institute on Care at the End of Life, Duke Divinity School, Durham, NC
Chris Feudtner, MD, PhD, MPH, Children’s Hospital of Philadelphia, Philadelphia, PA
Karen Steinhauser, PhD, Research Health Scientists, Center for Health Services Research in Primary Care, Durham VA Medical Center and Duke University, Durham, NC
Joan M. Teno, MD, Professor of Community Health and Medicine, Center for Gerontology and Health Care Research, Brown University, Providence, RI
Melanie Merriman, PhD, MBA, Touchstone Consulting, North Bay Village, FL
Sydney Dy, MD, MSc, Johns Hopkins Bloomberg School of Public Health, Baltimore, MD
David Casarett, MA, MD, Assistant Professor, Division of Geriatrics, Institute on Aging and Center for Bioethics, University of Pennsylvania School of Medicine and NHPCO Board of Directors
Judi Lund-Person, Vice President, Division of Quality, National Hospice and Palliative Care Organization, Washington, DC
Jean Kutner, MD, MSPH, Associate Professor, University of Colorado Health Sciences Center, Denver, CO
Lin Simon, Analyst, National Hospice and Palliative Care Organization, Washington, DC
Karen Pace, NAHC

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:

Measure Developer/Steward Updates and Ongoing Maintenance

Ad.3 Year the measure was first released: 2010
Ad.4 Month and Year of most recent revision:
Ad.5 What is your frequency for review/update of this measure? 3 years or as requested
Ad.6 When is the next scheduled review/update for this measure?

Ad.7 Copyright statement:

Ad.8 Disclaimers:

Ad.9 Additional Information/Comments: This measure is part of the NPCRC Key Palliative Measures Bundle. Refer to the NPCRC cover letter and table of bundle measures for description of the selection and harmonization of the Key Palliative Measures Bundle.

Date of Submission (MM/DD/YY): 05/25/2011