

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 #: 0539 NQF Project: Patient Safety Measures-Complications Project
(for Endorsement Maintenance Review) Original Endorsement Date: Aug 05, 2009 Most Recent Endorsement Date: Aug 05, 2009 Last Updated Date: Jan 31, 2012
BRIEF MEASURE INFORMATION
De.1 Measure Title: Pressure Ulcer Prevention Implemented during Short Term Episodes of Care
Co.1.1 Measure Steward: Centers for Medicare and Medicaid Services
De.2 Brief Description of Measure: Percentage of short term home health episodes of care during which interventions to prevent pressure ulcers were included in the physician-ordered plan of care and implemented.
2a1.1 Numerator Statement: Number of home health episodes of care during which interventions to prevent pressure ulcers were included in the physician-ordered plan of care and implemented.
2a1.4 Denominator Statement: Number of home health episodes of care ending during the reporting period, other than those covered by generic or measure-specific exclusions.
2a1.8 Denominator Exclusions: Number of home health episodes in which the patient was not assessed to be at risk for pressure ulcers, or the home health episode ended in transfer to an inpatient facility or death.
1.1 Measure Type: Process 2a1. 25-26 Data Source: Electronic Clinical Data 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): N/A

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 endorsed or submitted measures (check 5.1): Other Criteria:
Staff Reviewer Name(s):

1. IMPACT, OPPORTUNITY, EVIDENCE - IMPORTANCE TO MEASURE AND REPORT
Importance to Measure and Report is a threshold criterion that must be met in order to recommend a measure for endorsement. All three subcriteria must be met to pass this criterion. See guidance on evidence . Measures must be judged to be important to measure and report in order to be evaluated against the remaining criteria.

(evaluation criteria)

1a. High Impact: H M L I

(The measure directly addresses a specific national health goal/priority identified by DHHS or NPP, or some other high impact aspect of healthcare.)

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

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

1a.1 Demonstrated High Impact Aspect of Healthcare: 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):*

According to unpublished data from the national population of home health care patients, pressure ulcers are relatively rare with a 5% or lower prevalence, although other studies identify a 9% prevalence rate (1). Bergquist & Frantz (2) report a 6.3% incidence rate during home health care stays. Ferrell et al. (1) identified 30% of home health care patients as being at risk for pressure ulcer development based on use of the Braden scale to predict risk.

One study focused on pressure ulcer prevention in home health care identifies evidence of potentially poor quality of care: Bergquist identified that only one third of the 128 agencies surveyed in four Midwestern states had agency policies for prediction and/or prevention and fewer than 20% of agencies identified prevention recommendations in a protocol to be used by clinical staff (3).

However, pressure ulcers are a national focus, are widely seen as preventable with sufficient risk assessment and quality care provision, and there is interest in linking the processes of care with payment (4). A large multi-country systematic review of the literature identified that pressure ulcers have substantial adverse impact on patient quality of life (5) and have a predictive risk with mortality (6). Thus, implementation of pressure ulcer prevention care is important for measurement and public reporting.

1a.4 Citations for Evidence of High Impact cited in 1a.3: (1) Ferrell BA, Josephson K, Norvid P, Alcorn H. Pressure ulcers among patients admitted to home care. *J Am Geriatr Soc* 2000; 48(9):1042-1047.

(2) Bergquist S. Subscales, subscores, or summative score: evaluating the contribution of Braden Scale items for predicting pressure ulcer risk in older adults receiving home health care. *J Wound Ostomy Continence Nurs* 2001; 28(6):279-289.

(3) Bergquist S. The quality of pressure ulcer prediction and prevention in home health care. *Appl Nurs Res* 2005; 18(3):148-154.

(4) Baharestani MM, Black JM, Carville K, Clark M, Cuddigan JE, Dealey C et al. Dilemmas in measuring and using pressure ulcer prevalence and incidence: an international consensus. *Int Wound J* 2009; 6(2):97-104.

(5) Gorecki C, Brown JM, Nelson EA, Briggs M, Schoonhoven L, Dealey C et al. Impact of pressure ulcers on quality of life in older patients: a systematic review. *J Am Geriatr Soc* 2009; 57(7):1175-1183.

(6) Landi F, Onder G, Russo A, Bernabei R. Pressure ulcer and mortality in frail elderly people living in community. *Arch Gerontol Geriatr* 2007; 44 Suppl 1:217-223.

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:

As noted above, studies have demonstrated that while pressure ulcers may be relatively rare, they have a substantial adverse impact on patient quality of life and have a predictive risk with mortality. They are a national focus because they are widely seen as preventable with sufficient risk assessment and quality care provision. This measure is envisioned to encourage agencies to implement pressure ulcer prevention, which could significantly reduce the incidence of pressure ulcers in the home health care patient population. Additionally, this measure would provide home health agencies and consumers with information that will enable them to monitor the quality of care received by all patients at risk of developing pressure ulcers.

TEP comments:

In December 2010, a Technical Expert Panel (TEP) was convened to review the analysis conducted on the home health measures that received NQF time limited endorsement. When asked to rate the measure importance (is the measurement and reporting important for making significant gains in health care quality - safety, timeliness, effectiveness, efficiency, equity, patient-centeredness- and improving health outcomes for a specific high impact aspect of healthcare), the majority of the members of the

TEP members (8 of 10) rated the measure as partially or completely meeting the criteria. Some members noted that continued reporting is critical to maintain focus on this best practice.

Other evidence on importance to report:

This measure meets National Priorities Partnership (NPP) Goals related to reducing adverse events such as pressure ulcers. In granting the initial Time Limited Endorsement, the NQF Steering Committee report and the NQF Pressure Ulcer Committee members that reviewed the measure noted it was important "not only to document a plan of care but also to see that the plan was actually implemented.." [National Quality Forum (NQF). National Voluntary Consensus Standards for Home Health Care—Additional Performance Measures 2008: A Consensus Report. Washington, DC: NQF; 2009.]

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.]

Agency Avg 87%
Std. Dev 16%
Skew -2.20
Min 0%
10th 68%
25th 82%
50th 93%
75th 98%
90th 100%
Max 100%

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]**
OASIS-C data from Medicare certified agencies with at least 10 quality episodes to which the measure applies. 67% of agencies (6,750) met the ten episode threshold for this measure. The measure applied to 26% of all quality episodes (0.75 million out of 2.89 million). As less than 12 months of data were available for testing, we relaxed the public reporting constraint of 20 episodes per agency in 12 months to 10 episodes per agency in 9 months.

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

There were no disparities in care related to pressure ulcer prevention identified in our analysis of measure scores.

Descriptive statistics of measure scores (distribution by race, age and gender)

Observed Rate (Numerator/Denominator) by Patient Race

White	Black	Hispanic	Other
88%	87%	85%	89%

Observed Rate (Numerator/Denominator) by Patient Age

<65	65-75	75-85	85+
86%	86%	88%	90%

Observed Rate (Numerator/Denominator) by Patient Gender

Male	Female
88%	87%

Our review of recent literature found no home health care-specific evidence of disparities in the literature. There is some evidence that pressure ulcer risk is higher among African Americans and American Indians in a prevalence study within rehabilitation hospitals (1). As well, there is evidence that African American residents of nursing homes have higher rates of stage II through IV pressure ulcers and more Stage II pressure ulcers than whites (2). However, there is no home health care-specific evidence of

disparities and insufficient indication of racial and ethnic disparities to support stratification or other approaches to specification and analysis.

(1) Saladin LK, Krause JS. Pressure ulcer prevalence and barriers to treatment after spinal cord injury: comparisons of four groups based on race-ethnicity. *NeuroRehabilitation* 2009; 24(1):57-66.

(2) Rosen J, Mittal V, Degenholtz H, Castle N, Mulsant BH, Nace D et al. Pressure ulcer prevention in black and white nursing home residents: A QI initiative of enhanced ability, incentives, and management feedback. *Adv Skin Wound Care* 2006; 19(5):262-268.

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]

OASIS-C data from Medicare certified agencies with at least 10 quality episodes to which the measure applies. 67% of agencies (6,750) met the ten episode threshold for this measure. The measure applied to 26% of all quality episodes (0.75 million out of 2.89 million). As less than 12 months of data were available for testing, we relaxed the public reporting constraint of 20 episodes per agency in 12 months to 10 episodes per agency in 9 months.

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):

The measure is a process measure. It is based on national (e.g. National Pressure Ulcer Advisory Panel) and international standards for processes of care that identify those persons at highest risk and recommend risk preventive and treatment strategies. There is a very limited body of research focused on home health care patients and agency processes of care (noted below). However, the processes of care standards are applicable to home health care and performance of the processes of care as recommended in the clinical practice guidelines (as cited below) should result in fewer home health care patients with pressure ulcers.

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

Clinical Practice Guideline, Selected individual studies (rather than entire body of evidence)

1c.4 Directness of Evidence to the Specified Measure (State the central topic, population, and outcomes addressed in the body of evidence and identify any differences from the measure focus and measure target population):

Two types of evidence are being reported here: individual research studies and clinical practice guidelines. Individual research studies specific to home health care are sparse in number and generally employ descriptive-correlational designs. Intervention studies, determined to not be relevant, include patient-specific treatment interventions once pressure ulcers have developed (e.g. negative pressure wound therapy) or evaluations and studies focused on home health care providers (e.g. increasing nurse knowledge)

Two studies are being reported here (1;2): The central topic is prevalence and incidence of pressure ulcers in home health care

patients. The population is home health care patients from one (Bergquist) to 41 home health care agencies (Ferrell), representing 1711 and 3048 patients, respectively. The primary outcomes were the incidence and prevalence of pressure ulcers, respectively. Each study also identified predictive factors for the development of pressure ulcers. Bergquist identified incidence of 3.2% of stage II through IV ulcers. Ferrell identified a 9% prevalence rate with 40% having a stage II and 27% having stage III or IV ulcers.

Bergquist 1999

OBJECTIVES: To determine the prevalence and incidence of pressure ulcers in community-based adults receiving home health care and to identify risk factors for incident Stage II to IV pressure ulcers. **DESIGN:** Retrospective cohort study. **SETTING:** A large midwestern urban home health care agency. **PATIENTS:** The study cohort was 1711 nonhospice, nonintravenous therapy subjects admitted between January 1995 and March 1996 who were \geq age 60 and pressure ulcer-free on admission.

MEASUREMENTS: Data on risk factors were extracted from admission information. Patient records were followed forward chronologically to the outcomes: pressure ulcer development or no pressure ulcer. **MAIN RESULTS:** The incidence of Stage II to IV pressure ulcers was 3.2%. Cox regression analyses revealed that limitation in activity to a wheelchair, needing assistance with the activities of daily living--dressing, bowel and/or bladder incontinence, a Braden Scale mobility subscore of very limited, anemia, adult child as primary caregiver, male gender, a recent fracture, oxygen use, and skin drainage predicted pressure ulcer development ($P \leq 0.05$) in this exploratory model. **CONCLUSIONS:** Patients \geq age 60 who are admitted to a home health care agency with 1 or more of these risk factors require close monitoring for pressure ulcer development and should be taught preventive interventions on admission.

Ferrell 2000

CONTEXT: Pressure ulcers are an understudied problem in home care. **OBJECTIVE:** To determine the prevalence of pressure ulcers among patients admitted to home care services, describe the demographic and health characteristics associated with pressure ulcers in this setting, and identify the percentage of these patients at risk for developing pressure ulcers. **DESIGN:** Cross-sectional survey of patients on admission to home care agencies. **SETTING:** Forty-one home care agencies in 14 states.

PATIENTS: A consecutive sample of 3,048 patients admitted March 1 through April 30, 1996 (86% of all admissions). Subjects had a mean age of 75 years; 63% were female and 85% white. **MAIN OUTCOME MEASURES:** Demographic, social, and clinical characteristics, functional status (Katz activities of daily living scale and Lawton instrumental activities of daily living scale), mental status (Katzman Short Memory-Orientation-Concentration test), pressure ulcer risk (Braden Scale), pressure ulcer status (Bates-Jensen Pressure Ulcer Status Tool), and a checklist of pressure-reducing devices and wound care products being used. **RESULTS:** In the total sample of 3,048 patients, 9.12% had pressure injuries: 37.4% had more than one ulcer and 14.0% had three or more ulcers. Considering the worst ulcer for each subject, 40.3% had Stage II and 27% had Stage III or IV injuries. Characteristics associated with pressure ulcers included recent institutional discharge, functional impairment, incontinence, and having had a previous ulcer. About 30% of subjects were at risk for new pressure ulcers. Pressure-relieving devices and other wound care strategies appeared to be underutilized and often indiscriminately applied. **CONCLUSIONS:** There is substantial need for pressure ulcer prevention and treatment in home care settings

Home Health Compare reports a 92% rate of follow through on pressure ulcer prevention in the plan of care.

There are a number of clinical practice guidelines that apply to the assessment of risk and preventive risk interventions used in home health care although the guidelines are not home health care specific. These are cited below. There also are recommendations for how to tailor institutional guidelines to home health care (3).

1c.5 Quantity of Studies in the Body of Evidence (*Total number of studies, not articles*): Two individual studies are reported above. The CPGs do not indicate the number of studies used to determine the recommendations.

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*): As the two studies cited use descriptive-correlational designs, the incidence and prevalence rates are relatively certain. Study designs and flaws would be those associated with incidence and prevalence studies, including reporting bias and under-reporting. The populations are specific to home health care and thus directly applicable. The concern is the time frame of the studies (published in 1999 and 2000), although these are the most recent studies of this nature specific to home health care. There were large numbers of patients included in both studies so imprecision due to small sample sizes is not as relevant.

1c.7 Consistency of Results across Studies (*Summarize the consistency of the magnitude and direction of the effect*): The

results are not consistent but this is not surprising as one measures incidence and one measures prevalence.

1c.8 Net Benefit (Provide estimates of effect for benefit/outcome; identify harms addressed and estimates of effect; and net benefit - benefit over harms):

Net benefits are not identified as there is no intervention in either study.

The CPGs do not provide estimates of benefit/outcome for home health care as they are not home health care specific.

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: Neither the studies cited nor the CPGs have been graded

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

1c.12 If other, identify and describe the grading scale with definitions: Neither the studies cited nor the CPGs have been graded

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

1c.14 Summary of Controversy/Contradictory Evidence: No controversies in the research studies were identified. The CPGs are generally consistent with differences focused on the interventions. There are not controversies in the interventions per se, but some CPGs identify interventions that others do not.

The National Guideline Clearinghouse provides two evidence syntheses—one for the prevention of pressure ulcers and one for the management of pressure ulcers. In the evidence syntheses, two CPGs are compared from different organizations. There are no significant differences in the guidelines for prevention. For management of pressure ulcers, the differences are in the recommendations regarding adjunctive therapies (e.g. hyperbaric oxygen) versus the primary treatment modalities for which there is agreement.

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

(1) Bergquist S, Frantz R. Pressure ulcers in community-based older adults receiving home health care. Prevalence, incidence, and associated risk factors. *Adv Wound Care* 1999; 12(7):339-351.

(2) Ferrell BA, Josephson K, Norvid P, Alcorn H. Pressure ulcers among patients admitted to home care. *J Am Geriatr Soc* 2000; 48(9):1042-1047.

(3) Bergquist-Beringer S, Daley CM. Adapting pressure ulcer prevention for use in home health care. *J Wound Ostomy Continence Nurs* 2011; 38(2):145-154.

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

The guidelines are too extensive to cite verbatim but are cited below.

1c.17 Clinical Practice Guideline Citation: National Pressure Ulcer Advisory Panel, European Pressure Ulcer Advisory Panel. Pressure ulcer treatment recommendations. In: *Prevention and treatment of pressure ulcers: clinical practice guideline*. Washington (DC): National Pressure Ulcer Advisory Panel; 2009. p. 51-120. [432 references]

National Pressure Ulcer Advisory Panel, European Pressure Ulcer Advisory Panel. Pressure ulcer prevention recommendations. In: *Prevention and treatment of pressure ulcers: clinical practice guideline*. Washington (DC): National Pressure Ulcer Advisory Panel; 2009. p. 21-50. [214 references]

Wound, Ostomy, and Continence Nurses Society (WOCN). Guideline for prevention and management of pressure ulcers. Mount Laurel (NJ): Wound, Ostomy, and Continence Nurses Society (WOCN); 2010 Jun 1. 96 p. (WOCN clinical practice guideline; no. 2). [341 references]

Institute for Clinical Systems Improvement (ICSI). Pressure ulcer prevention and treatment. Health care protocol. Bloomington (MN): Institute for Clinical Systems Improvement (ICSI); 2010 Apr. 69 p. [102 references]

Registered Nurses' Association of Ontario (RNAO). Assessment & management of stage I to IV pressure ulcers. Toronto (ON): Registered Nurses' Association of Ontario (RNAO); 2007 Mar. 112 p. [118 references]

Ayello EA, Sibbald RG. Preventing pressure ulcers and skin tears. In: Capezuti E, Zwicker D, Mezey M, Fulmer T, editor(s). Evidence-based geriatric nursing protocols for best practice. 3rd ed. New York (NY): Springer Publishing Company; 2008 Jan. p. 403-29. [91 references].

All from the National Guideline Clearinghouse; these are the most appropriate and most rigorous guidelines.

1c.18 National Guideline Clearinghouse or other URL: All from the National Guideline Clearinghouse

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: see 1c22

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

1c.22 If other, identify and describe the grading scale with definitions: Other rating systems were used.

Specifically, the following rating systems were used:

NPUAP/EPUAP: Levels 1 Large randomized trial(s) with clear-cut results (and low risk of error) 2 Small randomized trial(s) with uncertain results (and moderate to high risk of error) 3 Non randomized trial(s) with concurrent or contemporaneous controls 4 Non randomized trial(s) with historical controls 5 Case series with no controls. Specify number of subjects

WOCN: Level I: A randomized controlled trial (RCT) that demonstrates a statistically significant difference in at least one important outcome defined by $p < .05$. Level I trials can conclude that the difference is not statistically significant if the sample size is adequate to exclude a 25% difference among study arms with 80% power; Level II: A RCT that does not meet Level I criteria; Level III: A non-randomized controlled trial with contemporaneous controls selected by some systematic method. A control might have been selected because of its perceived suitability as a treatment option for an individual patient; Level IV: A before-and-after study or a case series of at least 10 patients using historical controls or controls drawn from other studies; Level V: A case series of at least 10 patients with no controls; Level VI: A case report of fewer than 10 patients.

ICSI used the following: Class A: Randomized, controlled trial; Class B: Cohort study; Class C: Non-randomized trial with concurrent or historical controls, Case-control study, Study of sensitivity and specificity of a diagnostic test, Population-based descriptive study; Class D: Cross-sectional study, Case series, Case report.

Class B: Reports that Synthesize or Reflect upon Collections of Primary Reports Class M: Meta-analysis, Systematic review, Decision analysis, Cost-effectiveness analysis; Class R: Consensus statement, Consensus report, Narrative review; Class X: Medical opinion

RNAO used the following scale: Ia: Evidence obtained from meta-analysis or systematic review of randomized controlled trials; Ib: Evidence obtained from at least one randomized controlled trial; IIa: Evidence obtained from at least one well-designed controlled study without randomization; IIb: Evidence obtained from at least one other type of well-designed quasi-experimental study without randomization; III: Evidence obtained from well-designed non-experimental descriptive studies, such as comparative studies, correlation studies and case studies; IV: Evidence obtained from expert committee reports or opinions and/or clinical experiences of respected authorities

Ayello et al from the Hartford Center used the following: Level I: Systematic reviews (integrative/meta-analyses/clinical practice guidelines based on systematic reviews); Level II: Single experimental study (randomized controlled trials [RCTs]); Level III: Quasi-experimental studies; Level IV: Non-experimental studies; Level V: Care report/program evaluation/narrative literature reviews; Level VI: Opinions of respected authorities/Consensus panels (Reprinted with permission from Springer Publishing Company: Capezuti, E., Zwicker, D., Mezey, M. & Fulmer, T. (Eds). (2008) Evidence Based Geriatric Nursing Protocols for Best Practice, (3rd ed). New York: Springer Publishing Company.)

Notes on 1c.23: As we are not citing the specific recommendations and each group used a different rating system, we are not citing the grades. The grades vary within each guideline based on the evidence available, ranging from consensus agreement by experts

to RCTs with large sample sizes and strong scientific rigor.

1c.23 Grade Assigned to the Recommendation: see 1c22

1c.24 Rationale for Using this Guideline Over Others: We do not recommend using one guideline over others as the CPGs included are sufficiently detailed to provide guidance to home health care agencies in the care of patients.

Notes On 1c25 - 26

Quantity - High quantities of studies generally included in each CPG

Quality - Moderate quality of the studies used to develop each guideline—there are common problems with insufficient sample sizes, lack of randomization or the use of single sites for the studies. Many of the recommendations rely on expert opinion because there is insufficient research to use for some of the recommendations. Additionally, few of the studies are focused on home health care patients although the recommendations apply to home health care patients.

Consistency - Moderate to high for preventive interventions

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

1c.28 Attach evidence submission form:

1c.29 Attach appendix for supplemental materials:

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://www.cms.gov/HomeHealthQualityInits/Downloads/HHQITechnicalDocOfMeasures.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 home health episodes of care during which interventions to prevent pressure ulcers were included in the physician-ordered plan of care and implemented.

2a1.2 Numerator Time Window (The time period in which the target process, condition, event, or outcome is eligible for inclusion): CMS systems report data on episodes that end within a rolling 12 month period, updated 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):
Number of home health patient episodes of care where at end of episode:
- (M2400e) Pressure Ulcer Prevention Plan implemented = 1 (yes)

2a1.4 Denominator Statement (Brief, narrative description of the target population being measured):
Number of home health episodes of care ending during the reporting period, other than those covered by generic or measure-specific exclusions.

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):
CMS systems report data on episodes that end within a rolling 12 month period, updated 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):
Number of home health patient episodes of care, defined as:
A start/resumption of care assessment ((M0100) Reason for Assessment = 1 (Start of care) or 3 (Resumption of care)) paired with a corresponding discharge/transfer assessment ((M0100) Reason for Assessment = 6 (Transfer to inpatient facility – not discharged), 7 (Transfer to inpatient facility – discharged), 8 (Death at home), or 9 (Discharge from agency)), other than those covered by denominator exclusions.

2a1.8 Denominator Exclusions (Brief narrative description of exclusions from the target population):
Number of home health episodes in which the patient was not assessed to be at risk for pressure ulcers, or the home health episode ended in transfer to an inpatient facility or death.

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):

Measure-specific Exclusions:

Number of home health patient episodes of care where at end of episode:

-(M0100) Reason for Assessment = 8 (death at home)

PLUS

Number of home health patient episodes of care where at end of episode:

-(M0100) Reason for Assessment = 6 or 7 (transfer to inpatient facility) or 9 (discharge) AND (M2400e) Pressure Ulcer Prevention Plan implemented = NA Formal assessment indicates the patient was not at risk of pressure ulcers since the last OASIS assessment

PLUS

Number of home health patient episodes of care where at least one assessment with (M0100) Reason for Assessment = 4 (Recertification follow-up reassessment) or 5 (Other follow-up) was completed between the start and end of the episode of care (Long-Term Care Exclusion).

Generic Exclusions: Medicare-certified home health agencies are currently required to collect and submit OASIS data only for adult (aged 18 and over) non-maternity Medicare and Medicaid patients who are receiving skilled home health care. Therefore, maternity patients, patients less than 18 years of age, non-Medicare/Medicaid patients, and patients who are not receiving skilled home services are all excluded from the measure calculation. However, the OASIS items and related measures could potentially be used for other adult patients receiving services in a community setting, ideally with further testing. The publicly-reported data on CMS' Home Health Compare web site also repress cells with fewer than 20 observations, and reports for home health agencies in operation less than six months.

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 - not stratified.

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 - process measure](#)

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:

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):

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.):

[Calculation algorithm available in the Technical Specifications](#)

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

[URL](#)

<https://www.cms.gov/HomeHealthQualityInits/Downloads/HHQITechnicalDocOfMeasures.pdf>

2a1.24 Sampling (Survey) Methodology. If measure is based on a sample (or survey), provide instructions for obtaining the sample, conducting the survey and guidance on minimum sample size (response rate):

[Not applicable, completion of OASIS-C assessments is mandated by CMS and all completed assessments are used to calculate measure.](#)

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

[Electronic Clinical Data](#)

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.): [OASIS-C instrument](#)

2a1.27-29 Data Source/data Collection Instrument Reference Web Page URL or Attachment: [URL](#)

<https://www.cms.gov/HomeHealthQualityInits/Downloads/HHQIOASISCAIITimePoint.pdf>

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

[URL](#)

<https://www.cms.gov/OASIS/Downloads/oasisp200.zip>

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): [Home Health](#)

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):

All agencies with at least 20 quality episodes beginning and ending between 1/1/2010 and 12/31/2010 were included in the reliability analysis, because only information for agencies with at least 20 episodes is publicly reported. Of these, 6,162 agencies met the threshold for this measure. For the national analysis, a beta-binomial distribution was fitted using all agencies. For the HHR (hospital referral region) analysis described below, separate beta-binomials were fitted for each of 306 HHRs, using only those agencies in the HHR. It is worth noting that even the agencies that are in HRRs with only two agencies have high reliability scores, because these small HRR agencies tend to service many episodes relative to the rest of the country.

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

Based on guidance received from NQF in April 2011, we conducted additional reliability analysis of this measure using the beta-binomial method described in "The Reliability of Provider Profiling: A Tutorial" by John L. Adams. The beta-binomial method was developed for provider level measures reported as rates, and it allows one to calculate an agency level "reliability score," interpreted as the percent of variance due to the difference in measure score among providers. Thus, a reliability score of .80 signifies that 80% of the variance is due to differences among providers, and 20% of the variance is due to measurement error or sampling uncertainty. A high reliability score implies that performance on a measure is unlikely to be due to measurement error or insufficient sample size, but rather due to true differences between the agency and other agencies. Each agency receives an agency specific reliability score which depends on both agency size, agency performance on the measure, and measure variance for the relevant comparison group of agencies.

In addition to calculating reliability scores at the national level, we also calculated agency reliability scores at the level of hospital referral regions (HRRs), because the HRR grouping more adequately captures the types of comparisons health care consumers are likely to make. HRRs are region designations determined in the Dartmouth Atlas of Health Care study, and they represent regional health care markets for tertiary medical care that generally requires the service of a major referral center. They are aggregated hospital service areas (HSAs) and thus aggregated local health care markets. The HRRs are used to determine categories of sufficient size to make comparisons while still capturing the local set of HHA choices available to a beneficiary.

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

Distribution of Within National Reliability Scores

Mean 0.946
Min 0.585
10th 0.847
25th 0.923
50th 0.975
75th 0.994
90th 1.000
Max 1.00

The distribution of national reliability scores (percent of variance due to the difference in measure score among providers at the national level) shows that at least 75% of agencies have a reliability score greater than 0.923, implying that their performance can likely be distinguished from other agencies (i.e., performance on this measure is unlikely to be due to measurement error or insufficient sample size, but is instead due to true differences between the agency and other agencies as it substantially exceeds within agency variation).

Distribution of Within HHR Reliability Scores

Mean 0.922
Min 0.155
10th 0.782
25th 0.893
50th 0.970
75th 0.992

90th 1.000

Max 1.00

The distribution of HRR reliability scores (percent of variance due to the difference in measure score among providers at the HRR level) for this measure also shows that at least 75% of agencies have a reliability score greater than 0.893, suggesting that between agency variation substantially exceeds within agency variation.

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:

The measure focus is pressure ulcer prevention implementation for home health patients and is consistent with national (e.g. National Pressure Ulcer Advisory Panel) and international standards for processes of care that identify those persons at highest risk and recommend risk preventive and treatment strategies. The target population and exclusions are based primarily on limitations related to data collection on the home health 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):

OASIS-C quality episodes from 1/1/2010 – 9/30/2010 for all beneficiaries at Medicare Certified agencies. A 20% sample (about 500,000 episodes), chosen at random, was used to identify patient characteristics correlated to outcomes. A different 20% sample was used to validate the predictive models.

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

Both an assessment of the relationship between process and observed outcomes and a face validity assessment were conducted. Relationship between process and observed outcomes:

Two outcome measures that could potentially be clinically related to each measure were selected from measures that are currently calculated as part of the Outcome-based Quality Improvement (OBQI) and Potentially Avoidable Event (PAE) home health reports. Acute Care Hospitalization (ACH) and Increase in Number of Pressure Ulcers were the OBQI and PAE measures that were initially identified as potentially clinically related to this measure, as implementation of pressure ulcer prevention plans would be expected to be associated reduction in the development of pressure ulcers and the need for hospitalization related to pressure ulcers. For both of the identified measures, preliminary prediction models using most of the Agency Patient-Related Characteristic Report variables except race were developed. A bivariate relationship (95% confidence interval using logistic regression) and the relationship between the TLE PBQI measure and the preliminary risk adjusted target outcome measure (95% confidence interval using logistic regression) were computed.

Face validity assessment:

In December 2010, a Technical Expert Panel (TEP) was convened to review the analysis conducted on the home health measures that received NQF time limited endorsement, and asked to rate face validity.

2b2.3 Testing Results (Statistical results, assessment of adequacy in the context of norms for the test conducted; if face validity, describe results of systematic assessment):

The predictive validity analysis did not demonstrate the expected relationship between the Pressure Ulcer Prevention in Plan of Care measure and the tested outcome and PAE measures. Members of the 2010 TEP that reviewed the analysis conducted on the home health measures noted that outcomes collected via the OASIS assessment could not reasonably be expected to respond to superior agency performance on this measure due to the limited period of care home health patients typically receive, and the intervals at which the data are collected. Predictive validity might also be limited due to the small numbers of patients in home health care who have pressure ulcers (< 5%). When asked to rate face validity (the extent to which the measure reflects the quality of care for the specific topic and whether the measure focus is the most important aspect of quality for the specific topic), the majority of TEP members (8 of 11) rated the measure as partially or completely meeting the criteria. When asked to rate the measure importance the majority of the members of the TEP members (8 of 10) rated this measure as partially or completely meeting the criteria. Some members noted that continued reporting is critical to maintain focus on this best practice.

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):

Data

All quality episodes (2.89 million) from 1/1/2010 to 9/30/2010.

- 2.02 million episodes ending in discharge not to an inpatient facility;
- 855,705 episodes ending in transfer to an inpatient facility;
- 17,879 episodes ending in patient death at home.

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

Frequency of exclusions by type.

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

The exclusions are supported by sufficient frequency of occurrence so that results would be distorted without the exclusions:

% of quality episodes excluded: 73%

total of quality episodes excluded: 2,109,986

excluded due to patient condition/diagnosis (assessed as not at risk for pressure ulcers): 1,616,793

excluded due to episode type/timing (long-term episode): 493,193

Additionally, 17,879 episodes ended in patient death at home.

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 - process measure

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 - process measure

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 - process measure

2b4.4 If outcome or resource use measure is not risk adjusted, provide rationale and analyses to justify lack of adjustment: N/A - process measure

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):

OASIS-C data from Medicare certified agencies with at least 10 quality episodes to which the measure applies. 90% of agencies (7,782) met the ten episode threshold for this measure. The measure applied to 37% of all quality episodes (1.06 million out of 2.89 million).

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

Difference in performance between 90th percentile agency and 10th percentile agency was calculated and reviewed by Technical Expert Panel to identify magnitude of difference that might be considered meaningful.

2b5.3 Results (Provide measure performance results/scores, e.g., distribution by quartile, mean, median, SD, etc.; identification of

statistically significant and meaningful differences in performance):

Agency Avg 87%

Std. Dev 16%

Skew -2.20

Min 0%

10th 68%

25th 82%

50th 93%

75th 98%

90th 100%

Max 100%

Meaningful Difference:

90th - 10th Percentile

32%

Meaningful Difference:

75th - 25th Percentile

16%

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):

N/A - single data source

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 - single data source

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 - single data source

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 - not stratified

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

There were no disparities in care related to pressure ulcer prevention identified in our analysis of measure scores. There is no home health care-specific evidence of care disparities in the literature. There is some evidence that pressure ulcer risk is higher among African Americans and American Indians in a prevalence study within rehabilitation hospitals (1). As well, there is evidence that African American residents of nursing homes have higher rates of stage II through IV pressure ulcers and more Stage II pressure ulcers than whites (2). However, there is no home health care-specific evidence of disparities and insufficient indication of racial and ethnic disparities in the literature to support stratification or other approaches to specification and analysis. Potential disparities in race/ethnicity were identified in our analysis, but because these are small numbers over a short time period, we propose evaluating whether this trend continues before considering stratification.

(1) Saladin LK, Krause JS. Pressure ulcer prevalence and barriers to treatment after spinal cord injury: comparisons of four groups based on race-ethnicity. *NeuroRehabilitation* 2009; 24(1):57-66.

(2) Rosen J, Mittal V, Degenholtz H, Castle N, Mulsant BH, Nace D et al. Pressure ulcer prevention in black and white nursing home residents: A QI initiative of enhanced ability, incentives, and management feedback. *Adv Skin Wound Care* 2006; 19(5):262-268.

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 Actual/Planned Use (Check all the planned uses for which the measure is intended): [Public Reporting, 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): [Public Reporting, Quality Improvement with Benchmarking](#) (external benchmarking to multiple organizations)

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.]

The measure is publicly reported via Medicare Home Health Compare website:
<http://www.medicare.gov/HomeHealthCompare/search.aspx>

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 CMS Center for Medicare contracted with L&M Policy Research \(L&M\) to help ensure that measures on the Home Health Compare \(HHC\) website are easy to understand and meet the needs of consumers.](#)
[L&M possesses extensive knowledge of public health care issues and is experienced in qualitative and quantitative research methods and health services management and operations, including health communications. L & M also has plain language experts that are skilled in crafting straightforward language that allows CMS to provide beneficiaries, caregivers, health care professionals, and information intermediaries a better understanding of information on choice tools, such as HHC, which allows for more informed decisions on health related issues.](#)
[L&M's work during 2009-2010 with CMS includes an environmental scan of home health public reporting initiatives and a literature review of published and unpublished research relating to consumers' comprehension and use of home health quality measures. L&M independently convened its external advisory workgroup, comprised of representatives of consumer advocacy organizations, professional associations, quality improvement professionals, and experts in public reporting, to provide guidance on the organization, content, and usability of the home health measures website. For this process measure, the plain language descriptor is: "How often the home health team took doctor-ordered action to prevent pressure sores \(bed sores\)."](#)

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].
[Measure is reported to agencies for QI via the Home Health Quality Initiatives website:](#)

https://www.cms.gov/HomeHealthQualityInits/01_Overview.asp#TopOfPage

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 contained in the Home Health OBQI reports on the proportion of patient care episodes in which pressure ulcer prevention was planned and implemented provides agencies with a tool to evaluate the quality of their care and investigate how changes to processes of care related to pressure ulcers impact patient outcomes.

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*): ALL data elements are in a combination of 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:

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:

Inaccuracies may result either due to confusion on the part of the clinician completing the OASIS or intentionally, to manipulate scores on quality measures. CMS has created and disseminated manuals and training materials to maximize accurate reporting of this data. Data accuracy could be audited through a review of medical records for evidence of the results of pressure ulcer risk assessment.

All home health agencies serving adult, non-maternity Medicare and/or Medicaid patients must submit their OASIS assessment data to their respective state OASIS repository in a standard format. The repository software passes each incoming OASIS assessment record through an extensive set of quality edits. These include internal range and logic checks that assure that assessment items include only allowable values and that they are consistent with each other. When there are significant errors in an assessment, it is not accepted by the repository and the erroneous data are not available to be included in any published quality information. Data accuracy is also supported by the state survey process. Surveyors use OASIS to characterize each agency's caseload and to select sample patients to be interviewed. They also review and assess the accuracy of the agency's OASIS assessments. In addition, CMS payment contractors assess the accuracy of a sample of the OASIS assessments as part of their medical review processes. We are unable to provide results of these audit activities as we do not currently have access to the findings of the CMS surveyors, the data repository or CMS contractors regarding OASIS data accuracy.

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):

OASIS data are collected by the home health agency during the care episode as part of the Conditions of Participation, and

transmitted electronically to the state and CMS national OASIS repository. No issues regarding availability of data, missing data, timing or frequency of data collection, patient confidentiality, time or cost of data collection, feasibility or implementation have become apparent since OASIS-C was implemented 1/1/2010.

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:

0538 : Pressure Ulcer Prevention Included in Plan of Care

0540 : Pressure Ulcer Risk 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? Yes

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):

There are no measures with the same measure focus (pressure ulcer prevention implemented) and the same target population (home health). The 3 related home health measures of care for pressure ulcers complement each other to provide information on the assessment, care planning and implementation of interventions for prevention of pressure ulcers.

CONTACT INFORMATION

Co.1 Measure Steward (Intellectual Property Owner): Centers for Medicare and Medicaid Services, 7500 Security Boulevard , Mail Stop S3-01-02, Baltimore, Maryland, 21244-1850

Co.2 Point of Contact: Robin, Dowell, BSN, robin.dowell@cms.hhs.gov, 410-786-0060-

Co.3 Measure Developer if different from Measure Steward: Centers for Medicare & Medicaid Services, 7500 Security Boulevard, Baltimore, Maryland, 21244

Co.4 Point of Contact: Robin, Dowell, Robin.Dowell@CMS.hhs.gov, 410-786-6738-

Co.5 Submitter: Keziah, Cook, kcook@acumenllc.com, 410-786-6738-, Centers for Medicare & Medicaid Services

Co.6 Additional organizations that sponsored/participated in measure development:
[Acumen LLC](#)

[Abt Associates, Inc.](#)
[Case Western Reserve University](#)
[University of Colorado at Denver, Division of Health Care Policy and Research](#)

Co.7 Public Contact: Robin, Dowell, BSN, robin.dowell@cms.hhs.gov, 410-786-0060-, Centers for Medicare & Medicaid Services

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.

In December 2010, a Technical Expert Panel (TEP) was convened to review the analysis conducted on the home health measures that received NQF time limited endorsement (including PPV Ever Received). The TEP was comprised of individuals selected by CMS for their expertise and perspectives related to the panel objectives, from a pool of individuals who were nominated in response to the September 2010 Call for TEP notice.

2010 HH TLE Measure Review TEP Members:

[Mary Carr RN, MPH - Associate Director for Regulatory Affairs, National Association of Home Care and Hospice](#)

[Rick Fortinsky, PhD- Professor of Medicine, Physicians Health Services Endowed Chair in Geriatrics and Gerontology, UConn Center for Health Services Research](#)

[Barbara Gage, PhD - Deputy Director of Aging, Disability, and Long-termCare, Post-Acute Care Research Lead, Research Triangle Institute](#)

[Margherita Labson, R.N., Executive Director for the Home Care Program at The Joint Commission](#)

[Steve Landers MD, MPH - Director, Center for Home Care and Community Rehabilitation, Cleveland Clinic](#)

[Bruce Leff, MD – Associate Director, Elder House Call Program,](#)

[Barbara McCann, MSW - Chief Industry Officer, InterimHealth Care](#)

[Jennifer S. Mensik PhD, RN, NEA-BC, FACHE - Director, Clinical Practices and Research, Banner Health, Arizona and Western Regions](#)

[Dana Mukamel, Professor, Department of Medicine, Division of General Internal Medicine & Primary Care, University of California, Irvine & Senior Fellow, Health Policy Research Institute, Irvine, California](#)

[Robert J. Rosati Ph.D - Vice President, Clinical Informatics, Visiting Nurse Service of New York, Center for Home Care Policy and Research](#)

[Judy Sangl Sc.D. – Health Scientist Administrator, Agency for Healthcare Research and Quality \(AHRQ\), Center for Patient Safety and Quality Improvement \(CQuIPS\), Rockville, MD](#)

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: 06, 2010 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? 07, 2012
Ad.7 Copyright statement:
Ad.8 Disclaimers:
Ad.9 Additional Information/Comments:
Date of Submission (MM/DD/YY): 09/14/2011