**National Quality Forum—Evidence (subcriterion 1a)**

**Measure Number** (*if previously endorsed*)**:** Click here to enter NQF number

**Measure Title**: Rehospitalization During the First 30 Days of Home Health

**IF the measure is a component in a composite performance measure, provide the title of the Composite Measure here:** Click here to enter composite measure #/ title

**Date of Submission**: 2/5/2014

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| **Instructions**  *For composite performance measures:*  *A separate evidence form is required for each component measure unless several components were studied together.*  *If a component measure is submitted as an individual performance measure, attach the evidence form to the individual measure submission.*   * Respond to all questions as instructed with answers immediately following the question. All information needed to demonstrate meeting the evidence subcriterion (1a) must be in this form. An appendix of *supplemental* materials may be submitted, but there is no guarantee it will be reviewed. * If you are unable to check a box, please highlight or shade the box for your response. * Maximum of 10 pages (*incudes questions/instructions*; minimum font size 11 pt; do not change margins). ***Contact NQF staff if more pages are needed.*** * Contact NQF staff regarding questions. Check for resources at [Submitting Standards webpage](http://www.qualityforum.org/Measuring_Performance/Submitting_Standards.aspx). |

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| **Note: The information provided in this form is intended to aid the Steering Committee and other stakeholders in understanding to what degree the evidence for this measure meets NQF’s evaluation criteria.**   1a. Evidence to Support the Measure Focus The measure focus is evidence-based, demonstrated as follows:   * Health outcome: [**3**](#Note3) a rationale supports the relationship of the health outcome to processes or structures of care. Applies to patient-reported outcomes (PRO), including health-related quality of life/functional status, symptom/symptom burden, experience with care, health-related behavior. * Intermediate clinical outcome: a systematic assessment and grading of the quantity, quality, and consistency of the body of evidence [**4**](#Note4)that the measured intermediate clinical outcome leads to a desired health outcome. * Process: [**5**](#Note5) a systematic assessment and grading of the quantity, quality, and consistency of the body of evidence [**4**](#Note4) that the measured process leads to a desired health outcome. * Structure: a systematic assessment and grading of the quantity, quality, and consistency of the body of evidence [**4**](#Note4) that the measured structure leads to a desired health outcome. * Efficiency: [**6**](#Note6) evidence not required for the resource use component.   **Notes**  **3.** Generally, rare event outcomes do not provide adequate information for improvement or discrimination; however, serious reportable events that are compared to zero are appropriate outcomes for public reporting and quality improvement.  **4.** The preferred systems for grading the evidence are the U.S. Preventive Services Task Force (USPSTF) [grading definitions](http://www.uspreventiveservicestaskforce.org/uspstf/grades.htm) and [methods](http://www.uspreventiveservicestaskforce.org/methods.htm), or Grading of Recommendations, Assessment, Development and Evaluation [(GRADE) guidelines](http://www.gradeworkinggroup.org/publications/index.htm).  **5.** Clinical care processes typically include multiple steps: assess → identify problem/potential problem → choose/plan intervention (with patient input) → provide intervention → evaluate impact on health status. If the measure focus is one step in such a multistep process, the step with the strongest evidence for the link to the desired outcome should be selected as the focus of measurement. Note: A measure focused only on collecting PROM data is not a PRO-PM.  **6.** Measures of efficiency combine the concepts of resource use and quality (see NQF’s [Measurement Framework: Evaluating Efficiency Across Episodes of Care](http://www.qualityforum.org/Publications/2010/01/Measurement_Framework__Evaluating_Efficiency_Across_Patient-Focused_Episodes_of_Care.aspx); [AQA Principles of Efficiency Measures](http://www.aqaalliance.org/files/PrinciplesofEfficiencyMeasurementApril2006.doc)). |

**1a.1.This is a measure of**: (*should be consistent with type of measure entered in De.1*)

Outcome

Health outcome: The *Rehospitalization During the First 30 Days of Home Health* measure evaluates the outcome of acute care rehospitalization for home health patients who were recently discharged from the hospital.

Patient-reported outcome (PRO): Click here to name the PRO

*PROs include HRQoL/functional status, symptom/symptom burden, experience with care, health-related behaviors*

Intermediate clinical outcome (*e.g., lab value*): Click here to name the intermediate outcome

Process: Click here to name the process

Structure: Click here to name the structure

Other: Click here to name what is being measured

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**HEALTH OUTCOME/PRO PERFORMANCE MEASURE**  *If not a health outcome or PRO, skip to* [*1a.3*](#Section1a3)

**1a.2.** **Briefly state or diagram the path between the health outcome (or PRO) and the healthcare structures, processes, interventions, or services that influence it.**

There is evidence that there are strategies that can be undertaken to reduce rehospitalization including care coordination, physician follow up, hospital discharge planning and a variety of home health care specific evidence-based strategies from the Quality Improvement Organizations (medication management, care provision (frontloading visits), patient education strategies, falls prevention and other topics).

**1a.2.1.** **State the rationale supporting the relationship between the health outcome (or PRO) to at least one healthcare structure, process, intervention, or service (*i.e., influence on outcome/PRO*).**

The measure developer found several studies that are specific to home health care and that offer evidence for the impact of care coordination interventions for reducing acute care hospitalization (ACH). Schade et al (2009) reported on the QIO efforts to reduce ACH within home health care. They used an observational study design with 147 home health care agencies participating in the QIO program to reduce ACH matched with 147 agencies who did not enroll in the online registry for the program materials. The program materials were best practice intervention packets with extensive support and tailoring for home health care agencies. The best practices included agency- and clinician-specific materials such as medication management, care provision (frontloading visits), patient education strategies, falls prevention and other topics. The outcome measure was the risk adjusted ACH change rate at the agency level. Comparisons were made pre- (February through November 2006) and post-program (February through November 2007). Findings: There were no significant differences between participating and non-participating agencies in the change in the ACH rates. Changes were less than 0.01 percent regardless of group. A limitation to this study, however, was that non-participating agencies still downloaded the materials, suggesting that there was diffusion of the intervention that may have interfered with the change in ACH rate whereby both participating and “non-participating” agencies took action to reduce ACH.

Tao et al (2012) reported on factors predicting rehospitalization for 1268 home health care patients with all diagnoses. There was a 20.7 percent rehospitalization rate. The Cox hazard ratio was 1.7 for higher likelihood of rehospitalization based on an investigator-developed clinical status score (diagnoses, incontinence and so on) and functional status score (ADL items) where more clinical severity and higher functional impairment increased the likelihood of rehospitalization.

Madigan and colleagues (2012) reported on predictors of 30 day rehospitalization for the national population of home health care patients with heart failure. The factors with the most influence for multilevel and Cox proportional hazard models included the number of prior hospital stays, more frequent home health care visits and higher severity of dyspnea on admission to home health care. There were significant numbers of potentially avoidable rehospitalizations (34 percent).

Daley reported a small study (N = 89 patients with heart failure [HF]) where care coordination was conducted that included health literary assessment, medication reconciliation and cardiologist follow up after a hospitalization. A group of hospitalized patients served as the control group. The findings indicated that patients who received “care coordination” had a reduction in hospitalization rate beyond that expected (15 percent versus 20 percent). Russell and colleagues provided preliminary findings on a care transition project within one home health care agency (N = 446) using an observational study design. Patients with heart failure were the focus of the program. The intervention was multifaceted and included both hospital discharge planning and home health care follow-up. The researchers did not report the actual hospitalization rates between the groups. They reported that the intervention group was 57 percent less likely (adjusted odds ratio, p < .01) to be rehospitalized.

Fleming and Haney (2013) reported on the effectiveness of a care transitions coordinator (CTC) within the acute care setting and the impact on hospitalization rates in three academic medical centers where the CTC provided enhanced care during the transition into home health care. The enhanced care included coaching, physician appointment scheduling and patient/caregiver education. The impact was a reduction in the average number of rehospitalizations (rolling 12 month average) from 17 percent to 12 percent (the sample size was not noted).

Tinetti and colleagues (2012) reported on the effectiveness of restorative home health care compared to usual home health care. Restorative home health care is multidisciplinary and multi-faceted, addressing functional status through patient self-management and focused health care provider interventions. Restorative home health care reduced rehospitalization by 32 percent (odds ratio = .68).

Finally, Markley and colleagues reported on the CMS Care Transitions project in Texas where multiple providers worked together to address 30 day rehospitalization. Home health care agencies used performance improvement methods to identify and address the issue including the use of best practice interventions (e.g. frontloading visits, identifying patients at highest risk and providing education, medication reconciliation). Specific to home health care, there was a 4 percent absolute reduction in 30 day rehospitalization rates.

(1) Daley CM. A hybrid transitional care program. Crit Pathw Cardiol 2010;9:231-234.

(2) Fleming MO, Haney TT. Improving patient outcomes with better care transitions: the role for home health. Cleve Clin J Med 2013;80 Electronic Suppl 1:eS2-eS6.

(3) Madigan EA, Gordon NH, Fortinsky RH, Koroukian SM, Pina I, Riggs JS. Rehospitalization in a national population of home health care patients with heart failure. Health Serv Res 2012;47:2316-2338.

(4) Markley J, Sabharwal K, Wang Z, Bigbee C, Whitmire L. A community-wide quality improvement project on patient care transitions reduces 30-day hospital readmissions from home health agencies. Home Healthc Nurse 2012;30:E1-E11.

(5) Peterson-Sgro K. Reducing acute care hospitalization and emergent care use through home health disease management: one agency's success story. Home Healthc Nurse 2007;25:622-627.

(6) Russell D, Rosati RJ, Sobolewski S, Marren J, Rosenfeld P. Implementing a transitional care program for high-risk heart failure patients: findings from a community-based partnership between a certified home healthcare agency and regional hospital. J Healthc Qual 2011;33:17-24.

(7) Schade CP, Esslinger E, Anderson D, Sun Y, Knowles B. Impact of a national campaign on hospital readmissions in home care patients. Int J Qual Health Care 2009;21:176-182.

(8) Silver MP, Ferry RJ, Edmonds C. Causes of unplanned hospital admissions: implications for practice and policy. Home Healthc Nurse 2010;28:71-81.

(9) Tao H, Ellenbecker CH, Chen J, Zhan L, Dalton J. The influence of social environmental factors on rehospitalization among patients receiving home health care services. ANS Adv Nurs Sci 2012;35:346-358.

(10) Tinetti ME, Baker D, Gallo WT, Nanda A, Charpentier P, O'Leary J. Evaluation of restorative care vs usual care for older adults receiving an acute episode of home care. JAMA 2002;287:2098-2105.

*Note: For health outcome/PRO performance measures, no further information is required; however, you may provide evidence for any of the structures, processes, interventions, or service identified above.*

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**intermediate outcome, PROCESS, or STRUCTURE PERFORMANCE measure**

**1a.3.****Briefly state or diagram the path between structure, process, intermediate outcome, and health outcomes**. Include all the steps between the measure focus and the health outcome.

**1a.3.1.** **What is the source of the systematic review of the body of evidence that supports the performance measure?**

Clinical Practice Guideline recommendation – ***complete sections*** [***1a.4***](#Section1a4)***, and*** [***1a.7***](#Section1a7)

US Preventive Services Task Force Recommendation – ***complete sections*** [***1a.5***](#Section1a5) ***and*** [***1a.7***](#Section1a7)

Other systematic review and grading of the body of evidence (*e.g., Cochrane Collaboration, AHRQ Evidence Practice Center*) – ***complete sections*** [***1a.6***](#Section1a6) ***and*** [***1a.7***](#Section1a7)

Other – ***complete section*** [***1a.8***](#Section1a8)

*Please complete the sections indicated above for the source of evidence. You may skip the sections that do not apply.*

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**1a.4. CLINICAL PRACTICE GUIDELINE RECOMMENDATION**

**1a.4.1.** **Guideline citation** (*including date*) and **URL for guideline** (*if available online*):

Not applicable.

**1a.4.2.** **Identify guideline recommendation number and/or page number** and **quote verbatim, the specific guideline recommendation**.

**1a.4.3.** **Grade assigned to the quoted recommendation with definition of the grade:**

**1a.4.4. Provide all other grades and associated definitions for recommendations in the grading system.** (*Note: If separate grades for the strength of the evidence, report them in section 1a.7.*)

**1a.4.5. Citation and URL for methodology for grading recommendations** (*if different from 1a.4.1*)**:**

**1a.4.6. If guideline is evidence-based (rather than expert opinion), are the details of the quantity, quality, and consistency of the body of evidence available (e.g., evidence tables)?**

Yes **→ *complete section*** [***1a.7***](#Section1a7)

No **→ *report on another systematic review of the evidence in sections*** [***1a.6***](#Section1a6) ***and*** [***1a.7***](#Section1a7)***; if another review does not exist, provide what is known from the guideline review of evidence in*** [***1a.7***](#Section1a7)

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**1a.5.** **UNITED STATES PREVENTIVE SERVICES TASK FORCE RECOMMENDATION**

**1a.5.1.** **Recommendation citation** (*including date*) and **URL for recommendation** (*if available online*):

**1a.5.2.** **Identify recommendation number and/or page number** and **quote verbatim, the specific recommendation**.

**1a.5.3.** **Grade assigned to the quoted recommendation with definition of the grade**:

**1a.5.4. Provide all other grades and associated definitions for recommendations in the grading system.** (*Note: the* *grading system for the evidence should be reported in section 1a.7.*)

**1a.5.5. Citation and URL for methodology for grading recommendations** (*if different from 1a.5.1*)**:**

***Complete section*** [***1a.7***](#Section1a7)

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**1a.6. OTHER SYSTEMATIC REVIEW OF THE BODY OF EVIDENCE**

**1a.6.1.** **Citation** (*including date*) and **URL** (*if available online*):

**1a.6.2.** **Citation and** **URL for methodology for evidence review and grading** (*if different from 1a.6.1*)**:**

***Complete section*** [***1a.7***](#Section1a7)

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**1a.7. FINDINGS FROM SYSTEMATIC REVIEW OF BODY OF THE EVIDENCE supporting the measure**

*If more than one systematic review of the evidence is identified above, you may choose to summarize the one (or more) for which the best information is available to provide a summary of the quantity, quality, and consistency of the body of evidence. Be sure to identify which review is the basis of the responses in this section and if more than one, provide a separate response for each review.*

**1a.7.1.** **What was the specific structure, treatment, intervention, service, or intermediate outcome addressed in the evidence review?**

**1a.7.2.** **Grade assigned for the quality of the quoted evidence with definition of the grade**:

**1a.7.3. Provide all other grades and associated definitions for strength of the evidence in the grading system.**

**1a.7.4.** **What is the time period covered by the body of evidence? (*provide the date range, e.g., 1990-2010*). Date range**: Click here to enter date range

**QUANTITY AND QUALITY OF BODY OF EVIDENCE**

**1a.7.5.****How many and what type of study designs are included in the body of evidence**? (*e.g., 3 randomized controlled trials and 1 observational study*)

**1a.7.6.** **What is the overall quality of evidence across studies in the body of evidence**? (*discuss the certainty or confidence in the estimates of effect particularly in relation to study factors such as design flaws, imprecision due to small numbers, indirectness of studies to the measure focus or target population*)

**ESTIMATES OF BENEFIT AND CONSISTENCY ACROSS STUDIES IN BODY OF EVIDENCE**

**1a.7.7.** **What are the estimates of benefit—magnitude and direction of effect on outcome(s) across studies in the body of evidence**? (*e.g., ranges of percentages or odds ratios for improvement/ decline across studies, results of meta-analysis, and statistical significance*)

**1a.7.8.** **What harms were studied and how do they affect the net benefit (benefits over harms)?**

**UPDATE TO THE SYSTEMATIC REVIEW(S) OF THE BODY OF EVIDENCE**

**1a.7.9.** **If new studies have been conducted since the systematic review of the body of evidence, provide for each new study: 1) citation, 2) description, 3) results, 4) impact on conclusions of systematic review**.

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**1a.8 OTHER SOURCE OF EVIDENCE**

*If source of evidence is NOT from a clinical practice guideline, USPSTF, or systematic review, please describe the evidence on which you are basing the performance measure.*

**1a.8.1** **What process was used to identify the evidence?**

**1a.8.2.** **Provide the citation and summary for each piece of evidence.**