



TO: NQF Members

FR: NQF Staff

RE: Ad Hoc Review: Planned Readmissions for measures: #0330 Hospital 30-day all-cause risk-standardized readmission rate following heart failure hospitalization for patients 18 and older; #0505 Hospital 30-day all-cause risk-standardized readmission rate (RSRR) following acute myocardial infarction (AMI) hospitalization and #1551 Hospital-level 30-day all-cause risk-standardized readmission rate (RSRR) following elective primary total hip arthroplasty (THA) and total knee arthroplasty (TKA)

DA: January 8, 2013

## **BACKGROUND**

The National Quality Forum (NQF) received a request for an ad hoc review of the aforementioned measures. The proposed changes meet our criteria for justification of ad hoc review; specifically material changes have been made to the measure that impact the scientific acceptability of the measure, in this case the validity of the measures under review.

Specifically, the measure steward, CMS, has updated the measures to include a planned readmissions algorithm.

The request and information submitted on the measures were reviewed at an in-person meeting on Monday, November 5, 2012. CMS and their contractor, Yale, participated in the meeting.

The technical experts were asked to address two questions:

1. Does the evidence support exclusion of these planned readmissions for each of the measures NQF #0330, #0505, and #1551?
2. Does the exclusion of these planned readmissions improve the validity of each measure #0330, #0505, and #1551?

## **TECHNICAL REVIEW**

Experts who were asked to participate in this ad hoc review were:

**Bruce Hall, MD, PhD, MBA, Co-Chair**  
Washington University, St. Louis, MO,

**Sherrie Kaplan, PhD, MPH, Co-Chair**  
University of California, Irvine, CA

**Tanya Alteras, MPP**  
National Partnership for Women & Families, Washington, DC

**Amy Boutwell, MD, MPP**  
Collaborative Healthcare Strategies, Lexington, MA

**Mary G. George, MD, MSPH, FACS**  
Centers for Disease Control and Prevention, Atlanta, GA

**Rick Hilger, SFHM**  
HealthPartners, St. Paul, MN

**Dianne Jewell, PT, DPT, PhD, CCS**  
The Rehab Intel Network, Ruther Glen, VA

**David Knowlton, MA**  
New Jersey Health Care Quality Institute, Pennington, NJ

**Patricia McDermott, RN**  
Aetna, Itasca, IL

**George Philippides, MD, FACC**  
Boston Medical Center, Boston, MA

**Cristie Travis, MSHHA**  
Memphis Business Group on Health, Memphis, TN

**Brian Hallstrom, MD**  
University of Michigan Medical Center, Ann Arbor, MI

### **Overview Discussion of Proposed Changes by Measure Developer**

CMS led the discussion by sharing with the Expert Panel the proposed changes to the algorithm they used to specify the measures and their definitions of “planned readmissions”. Below is a summary of their presentation.

#### ***Definition of Planned Readmissions***

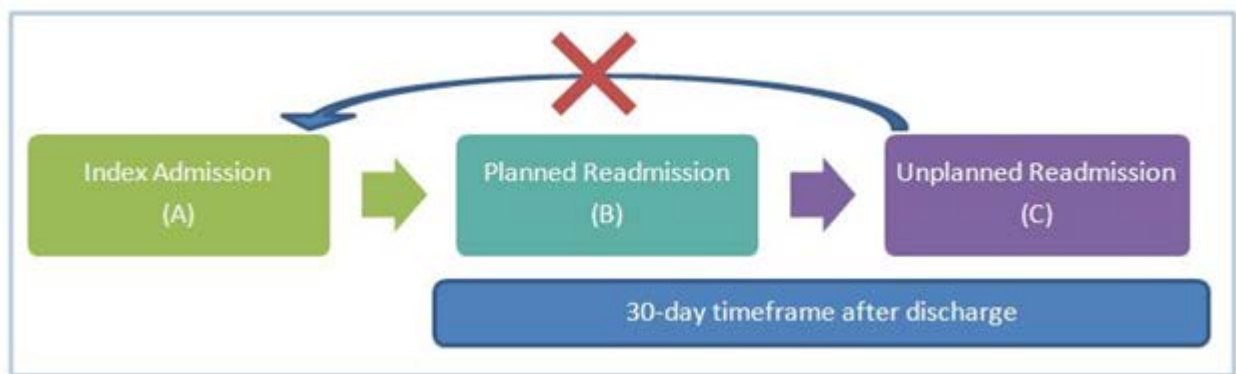
- Readmission measures define planned readmissions as those representing:
  - Admissions for maintenance chemotherapy or rehabilitation
  - Non-acute admissions for planned procedures
  - Exclusions based on the readmissions algorithm 2.1.

#### ***Changes to Algorithm- As indicated in Versions 1.0 to 2.0***

- Increased procedure categories from 33 to 60
  - Added common cardiac and surgical procedures (i.e. cardiac catheter/device placement)
  - Expanded/refined acute conditions list
- Impact (in hospital wide population)

- V.1.0 - 5.5% planned
- V.2.0 - 8.4% planned
- AHRQ Procedure CCS 170 – initially considered to be outpatient, but hospitals noted this is common inpatient procedure
- CCS 224 – Cancer centers; sometimes chemo done during hospital shows up as procedure, with diagnosis as cancer.
- ICD-9 dx code 410.x2 acute MI – removed from acute diagnosis; this doesn't refer to acute MI; electively bought back as a result of their MI; (i.e. if admission for CABG but dx is 410.x2 that is no longer unplanned).

***Additional update: Approach to subsequent readmissions after a planned readmission***



- Current approach: Look to the 30 days after an index admission for subsequent readmission; if a “planned” admission occurs, it doesn’t count as outcome of readmission against the index procedure, and the algorithm keeps looking for another admission; if another (unplanned) admission does occur still within 30 days of the index admission, then that is counted as readmission against the index. The intervening “planned” admission has been ignored.
- Updated approach: If a “planned” admission occurs within 30 days of an index admission, it does not count as a readmission against the index, and no further admissions can count as a readmission against the index for the 30 days after the index. After 30 days, a new index admission can occur
- Planned readmission could be anything from the algorithm; it may or may not be related to the index admission.

**Responses by Technical Experts on the Questions Posed**

***Measure 0330-Hospital 30-day all-cause risk-standardized readmission rate following heart failure hospitalization for patients 18 and older***

The developer indicated that in testing this measure they employed the logic that if the primary diagnosis of the readmission is a complication of an acute episode then the readmission should be captured as an unplanned event. Based on the changes in the measure, the developers

provided data to demonstrate that overall performance on the measure score improved (the rate of unplanned readmissions decreased). The Expert Panel requested that CMS issue an advisory to hospitals and the public explaining that the new rates, while lower, are not a result of improvement in care, but rather an artifact due to the change in methodology. Overall, they agreed that the indicated changes sufficed in supporting the exclusion of planned readmissions and said exclusions adequately improved the validity of this measure.

*Vote: Yes-12, No-0, Abstain-0*

***Measure 0505-Hospital 30-day all-cause risk-standardized readmission rate (RSRR) following acute myocardial infarction (AMI) hospitalization***

The developers presented the top 10 procedures among planned readmission following discharge for AMI. The issue of differentiating the type of wound debridement and pressure ulcers was raised as there are only two ICD-9-CM codes available for this. The developer indicated that because these two conditions have such small case sizes, the differentiation should not be an issue. Overall, they agreed that the indicated changes sufficed in supporting the updated planned readmissions algorithm and said exclusions adequately improved the validity of this measure.

*Vote: Yes-12, No-0, Abstain-0*

***Measure 1551 Hospital-level 30-day all-cause risk-standardized readmission rate (RSRR) following elective primary total hip arthroplasty (THA) and total knee arthroplasty (TKA)***

The developers presented the top 10 procedures among planned readmission following discharge for THA/TKA. They noted that they had tailored the list of potentially planned procedures to this particular patient cohort. They indicated in adapting the planned readmission algorithm to each measure that they had looked at the full list of potentially planned procedures in the algorithm and considered whether each would likely be planned given the specific patient population in the measure. For the THA/TKA measure four of the procedures based on clinical input indicated they would likely be unplanned in this patient population. Since this measure was included in the recent dry run by CMS, the Expert Panel inquired about any comments on the results from individual hospitals. The developer stated that they are still vetting the comments regarding the accuracy of the exclusion codes; however, they do not anticipate that these comments would warrant any additional substantive changes to the measure. The Expert Panel also suggested that the developer examine comorbidities among minority populations to see what (if any) affects the algorithm change has on them. The Expert Panel discussed the removal of procedures CCS-48(Diagnostic Cardiac catheter) and CCS-47 (Insertion Revision Replacement of Cardiac Pacemaker). The developer agreed to remove these two procedures. Overall, the panel agreed that the indicated changes sufficed in supporting the exclusion of planned readmissions and said exclusions adequately improved the validity of this measure.

*Vote: Yes-12, No-0, Abstain-0*

## Comments Received

NQF received twenty-seven comments from the public and spanning 4 member organizations. There was general support for the inclusion of planned readmission algorithm for all measures, and that the measures retain their endorsement.

More specific comments regarding the denominator exclusions were also submitted. Two commenters suggested that adding patients who receive planned chemotherapy and immunotherapy to the exclusions. Another commenter stated that the current denominator exclusion regarding patients transferred to another acute care hospital be reassessed.

It was also noted that socio-economic status (SES) should be accounted for in the risk adjustment, which is consistent with comments received during previous endorsement reviews.

Comments have been shared with measure steward and the technical experts. The developer acknowledged that some admissions are included in more than one measure. CMS will consider suggestions received during this comment period in its future review of condition-specific and hospital wide readmission measures. The developer also noted that the association between SES and health outcomes can be due, in part, to the differences in the quality of health care. Risk-adjusting for patient characteristics such as SES would suggest that hospitals with high proportions of such patients are held to different standards for the risk of readmission than hospitals treating higher-SES patient populations.