NATIONAL QUALITY FORUM

Measure Information

This document contains the information submitted by measure developers/stewards, but is organized according to NQF's measure evaluation criteria and process. The item numbers refer to those in the submission form but may be in a slightly different order here. In general, the item numbers also reference the related criteria (e.g., item 1b.1 relates to sub criterion 1b).

Brief Measure Information

NQF #: 3188
Corresponding Measures:
De.2. **Measure Title:** 30-Day Unplanned Readmissions for Cancer Patients
Co.1.1. **Measure Steward:** Seattle Cancer Care Alliance
De.3. **Brief Description of Measure:** 30-Day Unplanned Readmissions for Cancer Patients measure is a cancer-specific measure. It provides the rate at which all adult cancer patients covered as Fee-for-Service Medicare beneficiaries have an unplanned readmission within 30 days of discharge from an acute care hospital. The unplanned readmission is defined as a subsequent inpatient admission to a short-term acute care hospital, which occurs within 30 days of the discharge date of an eligible index admission and has an admission type of "emergency" or "urgent."
1b.1. **Developer Rationale:** For many cancer patients, readmission following hospitalization may be preventable and should be addressed to potentially lower costs and improve patient outcomes. The Alliance of Dedicated Cancer Centers, or ADCC (an organization of the eleven National Cancer Institute-designated comprehensive cancer centers that are exempt from the Prospective Payment System), recognizes the need for oncology-specific efficiency measures, including unplanned readmissions because planned readmissions are often used in clinical pathways for cancer patients. In 2014, the ADCC identified the 30-Day Unplanned Readmissions for Cancer Patients measure as a potential accountability measure for the PPS-Exempt Cancer Hospitals Quality Reporting Program (PCHQR). The measure was initially developed by the Comprehensive Cancer Centers for Quality Improvement (C4QI), a group of twenty-one academic medical centers that collaborate to measure and improve the quality of cancer care in their institutions. C4QI's 21 members (11 ADCC hospitals/PCHs and 10 other academic medical centers, or AMC) have utilized this claims-based, cancer-specific unplanned readmissions measure since 2012. It is designed to reflect the unique clinical aspects of oncology and to provide a more comprehensive measurement of unplanned readmissions in cancer patients, when compared with existing measures (e.g., the HWR measure). It considers patients with an admission type of "emergency" or "urgent" within 30 days of an index admission as an unplanned readmission. It excludes readmissions for patients readmitted for chemotherapy or radiation therapy treatment or with disease progression. Using this measure, hospitals can better identify and address preventable readmissions for cancer patients.

An earlier version of this measure (NQF #2884) was reviewed by the NQF All-Cause Admissions and Readmissions Project 2015-2017 Technical Expert Panel (TEP) in June 2016. Following the recommendation of the TEP, the ADCC broadened the measure to capture readmissions of cancer patients from and to any short-term acute care PPS hospital and pursued additional testing of the measure using Medicare claims data (i.e., the Standard Analytical Files). This expansion produced unplanned readmissions rates of patients discharged from PCHs and readmitted to any short-term acute care hospital (defined as PCHs, short-term acute care Prospective Payment System, or PPS, hospitals, and Critical Access Hospitals, or CAH). Additionally, it provided comparative rates of unplanned readmissions of cancer patients for non-PCH short–term acute care hospitals (i.e., short-term acute care PPS hospitals and CAHs).

S.4. **Numerator Statement:** This outcome measure demonstrates the rate at which adult cancer patients have unplanned readmissions within 30 days of discharge from an eligible index admission. The numerator includes all eligible unplanned readmissions to any short-term acute care hospital—defined as admission to a PPS-Exempt Cancer Hospital (PCH), a short-term acute care Prospective Payment (PPS) hospital, or Critical Access Hospital (CAH)—within 30 days of the discharge date from an index admission that is included in the measure denominator. Readmissions with an admission type (UB-04 Uniform Bill Locator 14) of "emergency = 1" or "urgent = 2" are considered unplanned readmissions within this measure. Readmissions for patients with progression of disease (using a principal diagnosis of metastatic disease as a proxy) and for patients with planned admissions for treatment (defined as a principal diagnosis of chemotherapy or radiation therapy) are excluded from the measure numerator.
S.6. **Denominator Statement:** The denominator includes inpatient admissions for all adult Fee-for-Service Medicare beneficiaries

where the patient is discharged from a short-term acute care hospital (PCH, short-term acute care PPS hospital, or CAH) with a principal or secondary diagnosis (i.e., not admitting diagnosis) of malignant cancer within the defined measurement period.

S.8. **Denominator Exclusions:** The following index admissions are excluded from the measure denominator:

1) Less than 18 years of age;
2) Patients who died during the index admission;
3) Patients discharged AMA;
4) Patients transferred to another acute care hospital during the index admission;
5) Patients discharged with a planned readmission;
6) Patients having missing or incomplete data; and,
7) Patients not admitted to an inpatient bed.

De.1. **Measure Type:** Outcome
S.17. **Data Source:** Claims
S.20. **Level of Analysis:** Facility

IF Endorsement Maintenance – Original Endorsement Date: Jul 12, 2017 **Most Recent Endorsement Date:** Jul 12, 2017

IF this measure is included in a composite, NQF Composite#/title:

IF this measure is paired/grouped, NQF#/title:

De.4. **IF PAIRED/GROUPED, what is the reason this measure must be reported with other measures to appropriately interpret results?**

1. Evidence, Performance Gap, Priority – Importance to Measure and Report

Extent to which the specific measure focus is evidence-based, important to making significant gains in healthcare quality, and improving health outcomes for a specific high-priority (high-impact) aspect of healthcare where there is variation in or overall less-than-optimal performance. ***Measures must be judged to meet all sub criteria to pass this criterion and be evaluated against the remaining criteria.***

1a. Evidence to Support the Measure Focus – See attached Evidence Submission Form
2017_01_13_UnplannedReadm_Cancer_NQF_evidence_attachment_Final.docx
1a.1 For Maintenance of Endorsement: Is there new evidence about the measure since the last update/submission?
Please update any changes in the evidence attachment in red. Do not remove any existing information. If there have been any changes to evidence, the Committee will consider the new evidence. If there is no new evidence, no updating of the evidence information is needed.

1b. Performance Gap

Demonstration of quality problems and opportunity for improvement, i.e., data demonstrating:

- considerable variation, or overall less-than-optimal performance, in the quality of care across providers; and/or
- Disparities in care across population groups.

1b.1. **Briefly explain the rationale for this measure** *(e.g., how the measure will improve the quality of care, the benefits or improvements in quality envisioned by use of this measure)*
IF a PRO-PM (e.g. HRQoL/functional status, symptom/burden, experience with care, health-related behaviors), provide evidence that the target population values the measured PRO and finds it meaningful. (Describe how and from whom their input was obtained.)
IF a COMPOSITE (e.g., combination of component measure scores, all-or-none, any-or-none), SKIP this question and provide rationale for composite in question 1c.3 on the composite tab.
For many cancer patients, readmission following hospitalization may be preventable and should be addressed to potentially lower costs and improve patient outcomes. The Alliance of Dedicated Cancer Centers, or ADCC (an organization of the eleven National Cancer Institute-designated comprehensive cancer centers that are exempt from the Prospective Payment System), recognizes the need for oncology-specific efficiency measures, including unplanned readmissions because planned readmissions are often used in clinical pathways for cancer patients. In 2014, the ADCC identified the 30-Day Unplanned Readmissions for Cancer Patients measure as a potential accountability measure for the PPS-Exempt Cancer Hospitals Quality Reporting Program (PCHQR). The measure was initially developed by the Comprehensive Cancer Centers for Quality Improvement (C4QI), a group of twenty-one academic medical

centers that collaborate to measure and improve the quality of cancer care in their institutions. C4QI's 21 members (11 ADCC hospitals/PCHs and 10 other academic medical centers, or AMC) have utilized this claims-based, cancer-specific unplanned readmissions measure since 2012. It is designed to reflect the unique clinical aspects of oncology and to provide a more comprehensive measurement of unplanned readmissions in cancer patients, when compared with existing measures (e.g., the HWR measure). It considers patients with an admission type of "emergency" or "urgent" within 30 days of an index admission as an unplanned readmission. It excludes readmissions for patients readmitted for chemotherapy or radiation therapy treatment or with disease progression. Using this measure, hospitals can better identify and address preventable readmissions for cancer patients.

An earlier version of this measure (NQF #2884) was reviewed by the NQF All-Cause Admissions and Readmissions Project 2015-2017 Technical Expert Panel (TEP) in June 2016. Following the recommendation of the TEP, the ADCC broadened the measure to capture readmissions of cancer patients from and to any short-term acute care PPS hospital and pursued additional testing of the measure using Medicare claims data (i.e., the Standard Analytical Files). This expansion produced unplanned readmissions rates of patients discharged from PCHs and readmitted to any short-term acute care hospital (defined as PCHs, short-term acute care Prospective Payment System, or PPS, hospitals, and Critical Access Hospitals, or CAH). Additionally, it provided comparative rates of unplanned readmissions of cancer patients for non-PCH short–term acute care hospitals (i.e., short-term acute care PPS hospitals and CAHs).

1b.2. Provide performance scores on the measure as specified (current and over time) at the specified level of analysis. *(This is required for maintenance of endorsement. Include mean, std dev, min, max, interquartile range, scores by decile. Describe the data source including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities include.) This information also will be used to address the sub-criterion on improvement (4b) under Usability and Use.*

30-Day Unplanned Readmissions for Cancer Patients
All Short-Term Acute Care Hospitals
CY2013-2015 Summary Statistics-Unadjusted Rates

	2013-15	2013	2014	2015
Number of Hospitals		4,974	4,736	4,722	4,688
Number of Admissions (Denominator)		3,067,675	1,037,916	1,016,301	1,013,458
Number of Unplanned Readmissions (Numerator)		587,915	198,039	194,993	194,883
30-Day Unplanned Readmission Rate		19.16%	19.08%	19.19%	19.23%
Mean (Standard Deviation)		16.54% (8.24%)	16.53% (10.36%)	16.47% (10.71%)	16.64% (11.01%)
Range (Min-Max)	0.00%-100.00%	0.00%-100.00%	0.00%-100.00%	0.00%-100.00%	
Quartile Range	8.30%	10.32%	10.32%	10.53%	
Minimum	0.00%	0.00%	0.00%	0.00%	
25th percentile	12.50%	11.11%	11.11%	11.11%	
50th percentile	17.32%	17.20%	17.23%	17.35%	
75th percentile	20.80%	21.43%	21.43%	21.64%	
Maximum	100.00%	100.00%	100.00%	100.00%	

Table 1: Summary-level statistics for the 30-Day Unplanned Readmissions for Cancer Patients measure—shows unadjusted results of the 30-Day Unplanned Readmissions for Cancer Patients measure, when applied to 1Q CY2013-4Q CY2015 index admissions for short-term acute care hospitals (i.e., PCHs, short-term acute care PPS hospitals, and CAHs). Data source: Analysis of Medicare SAF (4Q2012-1Q2016), based on data provided by Watson Policy Analysis, 01/13/2017.

1b.3. If no or limited performance data on the measure as specified is reported in 1b2, then provide a summary of data from the literature that indicates opportunity for improvement or overall less than optimal performance on the specific focus of measurement.

1b.4. Provide disparities data from the measure as specified (current and over time) by population group, e.g., by race/ethnicity, gender, age, insurance status, socioeconomic status, and/or disability. *(This is required for maintenance of endorsement. Describe the data source including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included.) For measures that show high levels of performance, i.e., "topped out", disparities data may demonstrate an opportunity for improvement/gap in care for certain sub-populations. This information also will be used to address the sub-criterion on improvement (4b) under Usability and Use.*

Measure testing produced the following descriptive statistics for patient-level demographic variables, which were evaluated in our

risk adjustment model:

For the denominator:

Sex

Value	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Unknown	5,560	0.18%	5,560	0.18%
Male	1,616,259	52.69%	1,621,819	52.87%
Female	1,445,856	47.13%	3,067,675	100.00%

Table 2: "Sex" variable distribution for the 30-Day Unplanned Readmissions for Cancer Patients measure—includes the distribution of the "Sex" variable for the denominator population when the 30-Day Unplanned Readmissions for Cancer Patients measure is applied to 1Q CY2013-4Q CY2015 index admissions for all 4,974 short-term acute care hospital (defined as PCHs, short-term acute care PPS hospitals, and CAHs). Data source: Analysis of Medicare SAF (4Q2012-1Q2016), based on data provided by Watson Policy Analysis, 01/13/2017.

Age at Beginning of Reference Year

Value	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Unknown	5,560	0.18%	5,560	0.18%
Under 65	409,844	13.36%	415,404	13.54%
65-69	618,508	20.16%	1,033,912	33.70%
70-74	606,147	19.76%	1,640,059	53.46%
75-79	529,837	17.27%	2,169,896	70.73%
80-84	424,681	13.84%	2,594,577	84.58%
85+	473,098	15.42%	3,067,675	100.00%

Table 3: "Age " variable distribution for the 30-Day Unplanned Readmissions for Cancer Patients measure—includes the distribution of the "Age" variable for the denominator population when the 30-Day Unplanned Readmissions for Cancer Patients measure is applied to 1Q CY2013-4Q CY2015 index admissions for all 4,974 short-term acute care hospital (defined as PCHs, short-term acute care PPS hospitals, and CAHs). The "Age" variable is populated by adding one year to the "Age" field in the Medicare SAF (1Q2013-4Q2015), which is reported as the beneficiary's age at the end of the prior year. Data source: Analysis of Medicare SAF (4Q2012-1Q2016), based on data provided by Watson Policy Analysis, 01/13/2017.

Beneficiary Race Code

Value	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Unknown	28,494	0.93%	28,494	0.93%
White	2,535,852	82.66%	2,564,346	83.59%
Black	354,140	11.54%	2,918,486	95.14%
Other	39,428	1.29%	2,957,914	96.42%
Asian	42,990	1.40%	3,000,904	97.82%
Hispanic	52,158	1.70%	3,053,062	99.52%
North American Native	14,613	0.48%	3,067,675	100.00%

Table 4: "Race" variable distribution for the 30-Day Unplanned Readmissions for Cancer Patients measure—includes the distribution of the "Race" (or "Beneficiary Race Code") variable for the denominator population when the 30-Day Unplanned Readmissions for Cancer Patients measure is applied to 1Q CY2013-4Q CY2015 index admissions for all 4,974 short-term acute care hospital (defined as PCHs, short-term acute care PPS hospitals, and CAHs). Data source: Analysis of Medicare SAF (4Q2012-1Q2016), based on data provided by Watson Policy Analysis, 01/13/2017.

Dual-Eligible Status

Value	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Never dual eligible	2,448,890	79.83%	2,448,890	79.83%

Dual eligible at some point	618,785	20.17%	3,067,675	100.00%

Table 5: "Dual-Eligible Status" variable distribution for the 30-Day Unplanned Readmissions for Cancer Patients measure—includes the distribution of dual-eligible Medicare beneficiaries for the denominator population when the 30-Day Unplanned Readmissions for Cancer Patients measure is applied to 1Q CY2013-4Q CY2015 index admissions for all 4,974 short-term acute care hospital (defined as PCHs, short-term acute care PPS hospitals, and CAHs). The "Dual-Eligible Status" variable is used as a proxy for socioeconomic status and is populated by analyzing the Buyin field in the Medicare SAF (1Q2013-4Q2015). Patients with any claims with a value of "A", "B", or "C" in the Buyin field in the 1Q2013-4Q2015 data set are coded as "Dual-Eligible" in this variable. All other patients are coded as "Never Dual-Eligible" in this variable. Data source: Analysis of Medicare SAF (4Q2012-1Q2016), based on data provided by Watson Policy Analysis, 01/13/2017.

1b.5. **If no or limited data on disparities from the measure as specified is reported in 1b.4, then provide a summary of data from the literature that addresses disparities in care on the specific focus of measurement. Include citations. Not necessary if performance data provided in 1b.4**

2. Reliability and 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. ***Measures must be judged to meet the sub criteria for both reliability and validity to pass this criterion and be evaluated against the remaining criteria.***

2a.1. Specifications The measure is well defined and precisely specified so it can be implemented consistently within and across organizations and allows for comparability. eMeasures should be specified in the Health Quality Measures Format (HQMF) and the Quality Data Model (QDM).

De.5. **Subject/Topic Area** *(check all the areas that apply):*

De.6. **Non-Condition Specific***(check all the areas that apply):*

De.7. **Target Population Category** *(Check all the populations for which the measure is specified and tested if any):*

S.1. **Measure-specific Web Page** *(Provide a URL link to a web page specific for this measure that contains current detailed specifications including code lists, risk model details, and supplemental materials. Do not enter a URL linking to a home page or to general information.)*

S.2a. **If this is an eMeasure**, HQMF specifications must be attached. Attach the zipped output from the eMeasure authoring tool (MAT) - if the MAT was not used, contact staff. (Use the specification fields in this online form for the plain-language description of the specifications)
This is not an eMeasure **Attachment:**

S.2b. **Data Dictionary, Code Table, or Value Sets** *(and risk model codes and coefficients when applicable) must be attached. (Excel or csv file in the suggested format preferred - if not, contact staff)*
Attachment **Attachment:** 2017_01_13_UnplannedReadm_Cancer_DataDictv1.0.xls

S.3.1. **For maintenance of endorsement:** Are there changes to the specifications since the last updates/submission. If yes, update the specifications for S1-2 and S4-22 and explain reasons for the changes in S3.2.

S.3.2. **For maintenance of endorsement,** please briefly describe any important changes to the measure specifications since last measure update and explain the reasons.

S.4. **Numerator Statement** *(Brief, narrative description of the measure focus or what is being measured about the target population, i.e., cases from the target population with the target process, condition, event, or outcome) DO NOT include the rationale for the measure.*
IF an OUTCOME MEASURE, state the outcome being measured. Calculation of the risk-adjusted outcome should be described in the calculation algorithm (S.14).
This outcome measure demonstrates the rate at which adult cancer patients have unplanned readmissions within 30 days of discharge from an eligible index admission. The numerator includes all eligible unplanned readmissions to any short-term acute care hospital—defined as admission to a PPS-Exempt Cancer Hospital (PCH), a short-term acute care Prospective Payment (PPS) hospital, or Critical Access Hospital (CAH)—within 30 days of the discharge date from an index admission that is included in the measure denominator. Readmissions with an admission type (UB-04 Uniform Bill Locator 14) of "emergency = 1" or "urgent = 2" are considered unplanned readmissions within this measure. Readmissions for patients with progression of disease (using a principal diagnosis of metastatic disease as a proxy) and for patients with planned admissions for treatment (defined as a principal diagnosis of chemotherapy or radiation therapy) are excluded from the measure numerator.

S.5. **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, time period for data collection, specific data collection items/responses, code/value sets – Note: lists of individual codes with descriptors that exceed 1 page should be provided in an Excel or csv file in required format at S.2b)*
IF an OUTCOME MEASURE, describe how the observed outcome is identified/counted. Calculation of the risk-adjusted outcome should be described in the calculation algorithm (S.14).
The numerator includes readmissions of the following patients with an eligible index admission in the measure denominator:
1) Readmitted to a short-term acute care hospital (PCHs, short-term acute care PPS hospitals, and CAHs) within 30 days of the discharge date of an index admission; and,
2) Readmitted with a Claim Inpatient Admission Type Code of "Emergency" or "Urgent" ("1" or "2").

The following readmissions are excluded from the measure numerator:
1) Primary Claim Diagnosis Code of metastatic disease (ICD-9-CM range: 196-198.89, 209.70-209.79; ICD-10-CM range: C77.0 – C79.9, C7B.0-C7B.8).
Rationale: A primary (or principal) diagnosis of metastatic disease serves as a proxy for disease progression. Readmissions for conditions or symptoms associated with disease progression are not reflective of poor clinical care but, rather, advanced disease.

2) Patients with a Primary Claim Diagnosis Code of chemotherapy or radiation encounter (ICD-9-CM range: V58.00-V58.12; ICD-10-CM range: Z51.00 – Z51.12) as these are considered planned admissions.
Rationale: Readmissions are expected and planned for some patients who require additional cancer treatment in the inpatient setting. These readmissions reflects high-quality care that is focused on patient safety and are reliably distinguishable in claims data.

Of note, if a patient has more than one unplanned admission within 30 days of discharge from the index admission, each readmission is only counted once in the numerator.

S.6. **Denominator Statement** *(Brief, narrative description of the target population being measured)*
The denominator includes inpatient admissions for all adult Fee-for-Service Medicare beneficiaries where the patient is discharged from a short-term acute care hospital (PCH, short-term acute care PPS hospital, or CAH) with a principal or secondary diagnosis (i.e., not admitting diagnosis) of malignant cancer within the defined measurement period.

S.7. **Denominator Details** *(All information required to identify and calculate the target population/denominator such as definitions, time period for data collection, specific data collection items/responses, code/value sets – Note: lists of individual codes with descriptors that exceed 1 page should be provided in an Excel or csv file in required format at S.2b.)*
IF an OUTCOME MEASURE, describe how the target population is identified. Calculation of the risk-adjusted outcome should be described in the calculation algorithm (S.14).
The denominator includes index admissions at acute care hospitals (PCHs, short-term acute care PPS hospitals, and CAHs) for patients with a discharge date during the measurement period that meet the following criterion:
1) Primary Claim Diagnosis Code or Claim Diagnosis Code I-XXV of malignant cancer (ICD-9-CM range: 140.00-209.36, 209.70-

209.79, 511.81, 789.51; ICD-10-CM range: C00 – C96.9, J91.0, R18.0).

Of note, a readmission that meets the denominator criteria is included as an index admission within this measure if it meets all other eligibility criteria.

S.8. **Denominator Exclusions** *(Brief narrative description of exclusions from the target population)*
The following index admissions are excluded from the measure denominator:
1) Less than 18 years of age;
2) Patients who died during the index admission;
3) Patients discharged AMA;
4) Patients transferred to another acute care hospital during the index admission;
5) Patients discharged with a planned readmission;
6) Patients having missing or incomplete data; and,
7) Patients not admitted to an inpatient bed.

S.9. **Denominator Exclusion Details** *(All information required to identify and calculate exclusions from the denominator such as definitions, time period for data collection, specific data collection items/responses, code/value sets – Note: lists of individual codes with descriptors that exceed 1 page should be provided in an Excel or csv file in required format at S.2b.)*
The following index admissions are excluded from the measure denominator:
1) Age less than 18 years of age (based on the beneficiary's age at the end of the prior year).
Rationale: Pediatric patients represent a very small and distinct Medicare population with different characteristics and outcomes.

2) Patient Discharge Status Code indicating "Expired" (20).
Rationale: Patients that die during the index admission cannot be readmitted.

3) Patient Discharge Status Code indicating "Left Against Medical Advice" (07).
Rationale: The hospital had limited opportunity to ensure the patient was prepared for discharge and had appropriate follow-up care.

4) Patient Discharge Status Code indicating transfer to an acute care facility (02, 05, 09, 30, 43, 66, 69).
Rationale: Responsibility for any unplanned readmissions is assigned to the final discharging hospital. Intermediate index admissions within a single episode of care are ineligible for inclusion.

5) Patient Discharge Status Code indicating discharge with a planned readmission (81-95).
Rationale: The patient was discharged with a planned readmission, which is ineligible for the measure numerator.

6) Patient Discharge Status Code indicating "Unknown Value" (0, 40-42) or Organization NPI Number = "".
Rationale: Admissions without a valid discharge status cannot be evaluated for measure exclusions. Admissions with a discharge status reserved for hospice claims only are not admissions for acute care or to acute care hospitals. Claims without an Organizational NPI Number cannot be evaluated for inclusion in the measure.

7) NCH Claim Type Code indicating a claim record type is not an "Inpatient Claim" (all values except 60).
Rationale: These admissions are not for acute care or to acute care hospitals.

S.10. **Stratification Information** *(Provide all information required to stratify the measure results, if necessary, including the stratification variables, definitions, specific data collection items/responses, code/value sets, and the risk-model covariates and coefficients for the clinically-adjusted version of the measure when appropriate – Note: lists of individual codes with descriptors that exceed 1 page should be provided in an Excel or csv file in required format with at S.2b.)*
Measure is not stratified.

S.11. **Risk Adjustment Type** (Select type. Provide specifications for risk stratification in measure testing attachment)
Statistical risk model
If other:

S.12. **Type of score:**
Rate/proportion

If other:

S.13. **Interpretation of Score** *(Classifies interpretation of score according to whether better quality is associated with a higher score, a lower score, a score falling within a defined interval, or a passing score)*
Better quality = Lower score

S.14. **Calculation Algorithm/Measure Logic** (*Diagram or 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; time period for data, aggregating data; risk adjustment; etc.)*
Please refer to the measure flow logic in the data dictionary.

S.15. **Sampling** *(If measure is based on a sample, provide instructions for obtaining the sample and guidance on minimum sample size.)*
IF a PRO-PM, identify whether (and how) proxy responses are allowed.
This outcome measure is based on the full population of eligible patients; sampling is not applied.

S.16. **Survey/Patient-reported data** *(If measure is based on a survey or instrument, provide instructions for data collection and guidance on minimum response rate.)*
IF a PRO-PM, specify calculation of response rates to be reported with performance measure results.
N/A

S.17. **Data Source** *(Check ONLY the sources for which the measure is SPECIFIED AND TESTED).*
If other, please describe in S.18.
Claims

S.18. **Data Source or Collection Instrument** *(Identify the specific data source/data collection instrument (e.g. name of database, clinical registry, collection instrument, etc., and describe how data is collected.)*
IF a PRO-PM, identify the specific PROM(s); and standard methods, modes, and languages of administration.
The Medicare 100% Standard Analytic File (SAF) covering CY2013 through CY2016Q1 was used for testing purposes. This contains 100% of the claims for the Fee-for-Service population. The specific files used were the Inpatient file containing information on inpatient claims and the Denominator file containing information on the enrollment and demographics. As these data are released in separate files, the data files were combined by a statistician at Watson Policy Analysis for purposes of measure testing.

S.19. **Data Source or Collection Instrument** *(available at measure-specific Web page URL identified in S.1 OR in attached appendix at A.1)*
No data collection instrument provided

S.20. **Level of Analysis** *(Check ONLY the levels of analysis for which the measure is SPECIFIED AND TESTED)*
Facility

S.21. **Care Setting** *(Check ONLY the settings for which the measure is SPECIFIED AND TESTED)*
Inpatient/Hospital
If other:

S.22. **COMPOSITE Performance Measure** - Additional Specifications *(Use this section as needed for aggregation and weighting rules, or calculation of individual performance measures if not individually endorsed.)*
N/A

2. Validity – See attached Measure Testing Submission Form
2017_01_13_UnplannedReadm_Cancer_NQF_testing_attachment_Final.docx

2.1 For maintenance of endorsement
Reliability testing: If testing of reliability of the measure score was not presented in prior submission(s), has reliability testing of the measure score been conducted? If yes, please provide results in the Testing attachment. (Do not remove prior testing information – include date of new information in red.)

2.2 For maintenance of endorsement
Has additional empirical validity testing of the measure score been conducted? If yes, please provide results in the Testing attachment. (Do not remove prior testing information – include date of new information in red.)

2.3 For maintenance of endorsement
Risk adjustment: For outcome, resource use, cost, and some process measures, risk-adjustment that includes SDS factors is no longer prohibited during the SDS Trial Period (2015-2016). Please update sections 1.8, 2a2, 2b2, 2b4, and 2b6 in the Testing attachment and S.14 and S.15 in the online submission form in accordance with the requirements for the SDS Trial Period. NOTE: These sections must be updated even if SDS factors are not included in the risk-adjustment strategy. If yes, and your testing attachment does not have the additional questions for the SDS Trial please add these questions to your testing attachment:

What were the patient-level sociodemographic (SDS) variables that were available and analyzed in the data or sample used? For example, patient-reported data (e.g., income, education, language), proxy variables when SDS data are not collected from each patient (e.g. census tract), or patient community characteristics (e.g. percent vacant housing, crime rate).

Describe the conceptual/clinical and statistical methods and criteria used to select patient factors (clinical factors or sociodemographic factors) used in the statistical risk model or for stratification by risk (e.g., potential factors identified in the literature and/or expert panel; regression analysis; statistical significance of p<0.10; correlation of x or higher; patient factors should be present at the start of care)

What were the statistical results of the analyses used to select risk factors?

Describe the analyses and interpretation resulting in the decision to select SDS factors (e.g. prevalence of the factor across measured entities, empirical association with the outcome, contribution of unique variation in the outcome, assessment of between-unit effects and within-unit effects)

3. Feasibility

Extent to which the specifications including measure logic, require data that are readily available or could be captured without undue burden and can be implemented for performance measurement.

3a. Byproduct of Care Processes

For clinical measures, the required data elements are routinely generated and used during care delivery (e.g., blood pressure, lab test, diagnosis, medication order).

3a.1. **Data Elements Generated as Byproduct of Care Processes.**
Generated or collected by and used by healthcare personnel during the provision of care (e.g., blood pressure, lab value, diagnosis, depression score), Coded by someone other than person obtaining original information (e.g., DRG, ICD-9 codes on claims)
If other:

3b. Electronic Sources

The required data elements are available in electronic health records or other electronic sources. If the required data are not in electronic health records or existing electronic sources, a credible, near-term path to electronic collection is specified.

3b.1. **To what extent are the specified data elements available electronically in defined fields** (*i.e., data elements that are needed to compute the performance measure score are in defined, computer-readable fields*) Update this field for **maintenance of endorsement**.
ALL data elements are in defined fields in electronic claims

3b.2. **If ALL the data elements needed to compute the performance measure score are not from electronic sources, specify a credible, near-term path to electronic capture, OR provide a rationale for using other than electronic sources.** For **maintenance of endorsement**, if this measure is not an eMeasure (eCQM), please describe any efforts to develop an eMeasure (eCQM).

3b.3. **If this is an eMeasure, provide a summary of the feasibility assessment in an attached file or make available at a measure-specific URL. Please also complete and attach the NQF Feasibility Score Card.**
Attachment:

3c. Data Collection Strategy

Demonstration that the data collection strategy (e.g., source, timing, frequency, sampling, patient confidentiality, costs associated with fees/licensing of proprietary measures) can be implemented (e.g., already in operational use, or testing demonstrates that it is ready to put into operational use). For eMeasures, a feasibility assessment addresses the data elements and measure logic and demonstrates the eMeasure can be implemented or feasibility concerns can be adequately addressed.

3c.1. **Required for maintenance of endorsement. Describe difficulties (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.**
IF a PRO-PM, consider implications for both individuals providing PRO data (patients, service recipients, respondents) and those whose performance is being measured.
N/A

3c.2. **Describe any fees, licensing, or other requirements to use any aspect of the measure as specified** *(e.g., value/code set, risk model, programming code, algorithm)*.
N/A

4. Usability and Use

Extent to which potential audiences (e.g., consumers, purchasers, providers, policy makers) are using or could use performance results for both accountability and performance improvement to achieve the goal of high-quality, efficient healthcare for individuals or populations.

4a. Accountability and Transparency

Performance results are used in at least one accountability application within three years after initial endorsement and are publicly reported within six years after initial endorsement (or the data on performance results are available). If not in use at the time of initial endorsement, then a credible plan for implementation within the specified timeframes is provided.

4.1. **Current and Planned Use**
NQF-endorsed measures are expected to be used in at least one accountability application within 3 years and publicly reported within 6 years of initial endorsement in addition to performance improvement.

Specific Plan for Use	Current Use (for current use provide URL)
	Public Reporting 2) Annual Hospital Ratings for Colon and Lung Cancer Surgery-US News&World Report http://health.usnews.com/health-news/blogs/second-opinion/articles/2016-07-07/methodology-updated-for-ratings-in-procedures-and-conditions Payment Program Accountable Care Program-Moffitt Cancer Center/Florida Blue https://www.moffitt.org/ Quality Improvement (external benchmarking to organizations) Vizient (neé University HealthSystem Consortium, or UHC) Clinical Data Base/Resource Manager https://www.vizientinc.com/ Quality Improvement (Internal to the specific organization) City of Hope Comprehensive Cancer Center

	http://www.cityofhope.org/homepage University of Miami Sylvester Comprehensive Cancer Center http://sylvester.org/ Seattle Cancer Care Alliance http://www.seattlecca.org/

4a.1. For each CURRENT use, checked above (update for maintenance of endorsement), provide:

- Name of program and sponsor
- Purpose
- Geographic area and number and percentage of accountable entities and patients included
- Level of measurement and setting

1) Accountable Care Program: Moffitt Cancer Center
Purpose: Moffitt has incorporated the 30-day Unplanned Readmissions for Cancer Patients measure in the first-ever cancer-specific accountable care program with Florida Blue. Moffitt is using this measure to identify opportunities to reduce unplanned readmissions for Florida Blue beneficiaries as part of broader efforts to improve individual patient care and decrease costs of care.
Geographic area: Florida.
Level of measurement and setting: Facility/hospital.

2) US News&World Report (USNWR): Annual Hospital Ratings for Lung and Colon Cancer Surgery
Purpose: USNWR adopted the 30-day Unplanned Readmissions for Cancer Patients measure for use in its annual hospital ratings for colon and lung cancer surgeries. The measure was empirically selected after reviewing as many as three candidate readmission measures for the cohort, and with the recommendation of a volunteer medical advisory panel convened to advise USNWR on approaches to evaluating cancer care.
Geographic area: This measure is applied to all hospitals included in USNWR's annual hospital ratings for colon and lung cancer surgeries.
Level of measurement and setting: Facility/hospital.

3) Vizient: Quality Improvement with Benchmarking
Purpose: PCHs and other comprehensive cancer centers actively use this measure to compare their performance against other members' performance for purposes of benchmarking and identification of internal performance improvement opportunities.
Geographic area: This measure is available for use by Vizient members throughout the United States that submit data to the CDB/RM.
Level of measurement and setting: Facility/hospital, with stratification and drill-down capability for the reporting facility

4a) Quality Improvement: City of Hope Comprehensive Cancer Center
Purpose: City of Hope uses the measure in monthly quality improvement reports for hospital leadership.
Geographic area: Southern California (Los Angeles area).
Level of measurement and setting: Facility/hospital.

4b) Quality Improvement: University of Miami Sylvester Comprehensive Cancer Center
Purpose: Sylvester uses the measure to help guide care decisions in discharge planning.
Geographic area: Southern Florida (Miami area).
Level of measurement and setting: Facility/hospital.

4c) Quality Improvement: Seattle Cancer Care Alliance
Purpose: Seattle Cancer Care Alliance uses the measure as a comparison for the HWR measure (NQF #1789) to demonstrate sensitivity of treating cancer patients as a separate category for systems reporting.
Geographic area: Pacific Northwest (Seattle area).
Level of measurement and setting: Facility/hospital.

4a.2. **If not currently publicly reported OR used in at least one other accountability application (e.g., payment program, certification, licensing) what are the reasons?** (*e.g., Do policies or actions of the developer/steward or accountable entities restrict access to performance results or impede implementation?*)

4a.3. **If not currently publicly reported OR used in at least one other accountability application, provide a credible plan for implementation within the expected timeframes -- any accountability application within 3 years and publicly reported within 6 years of initial endorsement.** (*Credible plan includes the specific program, purpose, intended audience, and timeline for implementing the measure within the specified timeframes. A plan for accountability applications addresses mechanisms for data aggregation and reporting.*)
This measure was included in CMS' 2014 Measures Under Consideration (MUC) list and received conditional support from the Measure Applications Partnership (MAP) Hospital Work Group, pending NQF endorsement. It is our expectation this measure will be included in future rulemaking, potentially as early as the FY 2018 IPPS Proposed Rule.

Improvement
Progress toward achieving the goal of high-quality, efficient healthcare for individuals or populations is demonstrated. If not in use for performance improvement at the time of initial endorsement, then a credible rationale describes how the performance results could be used to further the goal of high-quality, efficient healthcare for individuals or populations.

4b. **Refer to data provided in 1b but do not repeat here. Discuss any progress on improvement (trends in performance results, number and percentage of people receiving high-quality healthcare; Geographic area and number and percentage of accountable entities and patients included.)**
If no improvement was demonstrated, what are the reasons? If not in use for performance improvement at the time of initial endorsement, provide a credible rationale that describes how the performance results could be used to further the goal of high-quality, efficient healthcare for individuals or populations.

4c. Unintended Consequences
The benefits of the performance measure in facilitating progress toward achieving high-quality, efficient healthcare for individuals or populations outweigh evidence of unintended negative consequences to individuals or populations (if such evidence exists).

4c.1. **Please explain any unexpected findings (positive or negative) during implementation of this measure including unintended impacts on patients.**
No unintended negative consequences were identified during testing. This is a passive surveillance approach with no attached intervention.

4c.2. **Please explain any unexpected benefits from implementation of this measure.**
The measure can serve as an impetus for quality improvement in discharge planning for cancer patients.

4d1.1. **Describe how performance results, data, and assistance with interpretation have been provided to those being measured or other users during development or implementation.**
How many and which types of measured entities and/or others were included? If only a sample of measured entities were included, describe the full population and how the sample was selected.
An earlier version of this measure, which examines unplanned readmissions to the discharging facility only, is readily available to any Vizient member. Many quality officers at PCHs institutions routinely access the data for purposes of internal quality reporting. With the revised measure specifications, it is anticipated that public reporting through the PCHQR will allow for greater access to performance data. Moreover, we believe that the measure has broad applicability to cancer patients treated in other short-term acute care hospitals and can, therefore, be adopted for other public reporting programs.

4d1.2. **Describe the process(es) involved, including when/how often results were provided, what data were provided, what educational/explanatory efforts were made, etc.**
This measure was developed principally for the PCHQR and has not yet been adopted for the program. Additional information is forthcoming following its adoption for public reporting.

4d2.1. **Summarize the feedback on measure performance and implementation from the measured entities and others described**

in 4d.1.
Describe how feedback was obtained.
Please see comments above.

4d2.2. **Summarize the feedback obtained from those being measured.**
Please see comments above.

4d2.3. **Summarize the feedback obtained from other users**
Please see comments above.

4d.3. **Describe how the feedback described in 4d.2 has been considered when developing or revising the measure specifications or implementation, including whether the measure was modified and why or why not.**
Please see comments above.

5. Comparison to Related or 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.

5. Relation to Other NQF-endorsed Measures
Are there related measures (conceptually, either same measure focus or target population) or competing measures (conceptually both the same measure focus and same target population)? If yes, list the NQF # and title of all related and/or competing measures.
Yes

5.1a. **List of related or competing measures (selected from NQF-endorsed measures)**
1789 : Hospital-Wide All-Cause Unplanned Readmission Measure (HWR)

5.1b. **If related or competing measures are not NQF endorsed please indicate measure title and steward.**

5a. Harmonization of Related Measures

The measure specifications are harmonized with related measures;
OR
The differences in specifications are justified

5a.1. **If this measure conceptually addresses EITHER the same measure focus OR the same target population as NQF-endorsed measure(s):**
Are the measure specifications harmonized to the extent possible?
No

5a.2. **If the measure specifications are not completely harmonized, identify the differences, rationale, and impact on interpretability and data collection burden.**
The 30-Day Unplanned Readmissions for Cancer Patients measure has a different target population from the HWR measure (NQF #1789), which expressly excludes admissions to PCHs, noting that the PCHs care for a unique patient population that is challenging to compare to other hospitals. Moreover, the HWR measure excludes non-surgical admissions for cancer patients because the outcomes do not correlate well with outcomes for other admissions. Due to the different target populations for each measure, it does not require harmonization with the HWR measure (NQF #1789).

5b. Competing Measures

The measure is superior to competing measures (e.g., is a more valid or efficient way to measure);
OR
Multiple measures are justified.

5b.1. **If this measure conceptually addresses 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.)

Appendix

A.1 Supplemental materials may be provided in an appendix. All supplemental materials (such as data collection instrument or methodology reports) should be organized in one file with a table of contents or bookmarks. If material pertains to a specific submission form number, that should be indicated. Requested information should be provided in the submission form and required attachments. There is no guarantee that supplemental materials will be reviewed.
Attachment **Attachment:** 2016_12_22_UnplannedReadm_Cancer_Appendix.pdf

Contact Information

Co.1 **Measure Steward (Intellectual Property Owner):** Seattle Cancer Care Alliance
Co.2 **Point of Contact:** Barb, Jagels, bjagels@seattlecca.org, 206-288-2127-
Co.3 **Measure Developer if different from Measure Steward:** Alliance of Dedicated Cancer Centers
Co.4 **Point of Contact:** Tracy, Spinks, tespinks@mdanderson.org, 713-563-2198-

Additional Information

Ad.1 **Workgroup/Expert Panel involved in measure development**
Provide a list of sponsoring organizations and workgroup/panel members' names and organizations. Describe the members' role in measure development.

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Stephanie Buia Amport, MBA, CPHQ Yale Cancer Center
Lisa Truini-Pittman, RN, MPH Yale Cancer Center

Measure Developer/Steward Updates and Ongoing Maintenance

Ad.2 **Year the measure was first released:** 2015

Ad.3 **Month and Year of most recent revision:** 12, 2016

Ad.4 **What is your frequency for review/update of this measure?** Annual

Ad.5 **When is the next scheduled review/update for this measure?** 12, 2017

Ad.6 **Copyright statement:** N/A

Ad.7 **Disclaimers:** N/A

Ad.8 **Additional Information/Comments:** In January 2016, the ADCC submitted this measure for consideration by the NQF All-Cause Admissions and Readmissions Project 2015-2017 TEP. The TEP was convened June 8-9, 2016 to review all submitted measures and provide recommendations regarding measure endorsement. During the review, the TEP expressed enthusiasm for a cancer-specific readmissions measure but did not support endorsement of the measure, as submitted. The TEP noted concerns related to the limited testing population and the measure's focus on unplanned readmissions to the discharging hospital only.

Following the recommendation of the TEP, the ADCC broadened the measure to capture readmissions of cancer patients from and to any short-term acute care hospital (PCHs, short-term acute care PPS hospitals, and CAHs) and pursued additional testing of the measure using Medicare claims data. This expansion produced unplanned readmissions rates of patients discharged from PCHs and readmitted to any short-term acute care hospital (PCH, short-term acute care PPS hospital, or CAH). Additionally, it provided comparative rates of unplanned readmissions of cancer patients for non-PCH short-term acute care hospitals (i.e., short-term acute care PPS hospitals and CAHs). We believe that the measure has broad applicability to cancer patients treated in other short-term acute care hospitals and can be successfully adopted for the PCHQR and other public reporting programs.