National Quality Forum Measure Incubator®
Request for Public Comment on Oncology Survival Measures
November 4, 2020

The National Quality Forum (NQF) Measure Incubator®, with funding from Bristol Myers Squibb, is seeking comments from the public on three clinical quality measures under development, as well as feedback on implementing the measures in an outpatient setting:

1. Survival among patients with non-small-cell lung cancer (NSCLC)
2. Survival among patients with small-cell lung cancer (SCLC)
3. Survival among patients with melanoma

This document provides an overview of the draft measures and includes the following: (1) measure rationale and intent, (2) draft measure specifications, and (3) questions for public comment.

Rationale and Intent

As the second leading cause of death in the U.S., cancer will touch nearly half of men and one-third of women in their lifetime. The physical, emotional, and economic impact of cancer is well-documented. Screening and treatment advances are showing progress in improving outcomes, extending survival rates, and reducing the side effects of treatment. Outcome-based performance measures on quantity (survival) and patient-reported quality of life will address gaps in oncology measurement and may lead to improved quality of care for patients living with or at risk for cancer.

Most oncology measures focus on screening and are limited to breast, colorectal, and prostate cancers. Lung cancer, the leading cause of cancer deaths among men and women, and melanoma, the deadliest of skin cancers, receive less attention.[1,2] Developing measures for high-priority cancers (such as NSCLC, SCLC, and melanoma) that focus on survival, irrespective of therapy, is a persistent measurement gap and critical topic in oncology-focused quality measurement.[3–6]

The use of survival in oncology performance measures presents a number of challenges, including limited data availability, small sample sizes, and lack of consensus around attribution approaches.[7,8] To help identify and address such challenges, we are providing draft specifications for SCLC, NSCLC, and melanoma survival measures to the public in order to obtain feedback and responses to questions about specifying and implementing these measures.

Draft Measure Specifications

Non-small-cell lung cancer

Measure component	Description
Proposed measure title	Overall Survival for Non-Small Cell Lung Cancer (NSCLC)
Stratification	TBD, if appropriate
Denominator	Adult patients with an NSCLC diagnosis during the measurement period • **ICD-9/10 DX codes**: 162.2-162.9; C34.X • **ICD-O-3 site codes:** C34.X • **NSCLC ICD-O-3 morphology codes**: 80 • 03-8004, 8012-8015, 8021-8022, 8030-8035, 8046, 8050-8052, 8070-8076, 8078, 8082-8084, 8090, 8094, 8120, 8123, 8140-8141, 8143-8145, 8147, 8190, 8200-8201, 8211, 8240-8241, 8243-8246, 8249-8255, 8260, 8290, 8310, 8320, 8323, 8333, 8401, 8430, 8440, 8470-8471, 8480-8481, 8490, 8503, 8507, 8525, 8550, 8560, 8562, 8570-8572, 8574-8576
Denominator exclusions	• More than one cancer diagnosis (excluding in-situ cancers, nonmelanoma skin cancers, and nonmetastatic prostate cancers) during the measurement period • Previous cancer diagnosis (excluding in-situ cancers, nonmelanoma skin cancers, and nonmetastatic prostate cancer) in the past five years
Numerator	Patient alive at two-year point following NSCLC diagnosis
Attribution entity	Outpatient practice providing the plurality of cancer treatment and/or care during the year following NSCLC diagnosis

Small-cell lung cancer

Measure component	Description
Proposed measure title	Overall Survival for Small-Cell Lung Cancer (SCLC)
Stratification	TBD, if appropriate
Denominator	Adult patients with an SCLC diagnosis during the measurement period • **ICD-9/10 DX codes:** 162.2-162.9; C34.X • **ICD-O-3 site codes:** C34.X • **NSCLC ICD-O-3 morphology codes:** 8002, 8041-8045
Denominator exclusions	• More than one cancer diagnosis (excluding in-situ cancers, nonmelanoma skin cancers, and nonmetastatic prostate cancers) during the measurement period • Previous cancer diagnosis (excluding in-situ cancers, nonmelanoma skin cancers, and nonmetastatic prostate cancers) in the past five years
Numerator	Patient alive at two-year point following SCLC diagnosis
Attribution entity	Outpatient practice providing the plurality of cancer treatment and/or care during the year following SCLC diagnosis

Melanoma

Measure component	Description
Proposed measure title	Overall Survival for Melanoma
Stratification	TBD, if appropriate
Denominator	Adult patients with a melanoma diagnosis during the measurement period • **ICD-9/10 DX codes:** 172.X; C43.X • **ICD-O-3 site codes:** C44.X • **ICD-O-3 morphology codes:** 8720-8780
Denominator exclusions	• More than one cancer diagnosis (excluding in-situ cancers, nonmelanoma skin cancers, and nonmetastatic prostate cancers) during the measurement period • Previous cancer diagnosis (excluding in-situ cancers, nonmelanoma skin cancers, and nonmetastatic prostate cancers) in the past five years
Numerator	Patient alive at five-year point following melanoma diagnosis
Attribution entity	Outpatient practice providing the plurality of cancer treatment and/or care during the year following melanoma diagnosis

We seek feedback on the following questions for the proposed survival measures:

1. The three survival measures are intended to be hybrid measures, using data from electronic health records and claims. Are these data sources appropriate and likely to contain the data for these measures? Are there alternative data sources that should be considered?
2. Are the diagnosis, site, and morphology codes indicated in each measure's denominator statement appropriate?
3. Are the denominator exclusions for each measure appropriate?
4. Are the survival times indicated in the numerator statements appropriate (two years for NSCLC and SCLC and five years for melanoma)?
5. Is the attributed entity for each measure appropriate?
6. Should stage at diagnosis be incorporated into the survival measures' specifications as a stratification variable, a risk-adjustment variable, or exclusion criterion?
7. Should cancer treatment be incorporated into the survival measures' specifications as stratification variables, risk-adjustment variables, or exclusion criterion?
8. The table below shows risk-adjustment variables for each of the three survival measures. Are these variables appropriate? Are there others that should be considered?

Candidate risk-adjustment variables

Variable	NSCLC measure	SCLC measure	Melanoma measure
Age	✓	✓	✓
Sex	✓	✓	✓
Race/ethnicity	✓	✓	✓
Insurance status	✓	✓	✓
Income	✓	✓	✓
CNS involvement/brain metastases	✓	✓	✓
Charlson comorbidities	✓	✓	✓
Geographic region	✓	✓	✓
Histology	✓		
Stage at diagnosis	✓	✓	✓
Primary tumor site			✓

Submitting comments:

Your feedback will help inform measure development efforts and ensure that the measures are important and useful to the field. Please submit your comments to the NQF Measure Incubator® no later than 11:59pm on November 18, 2020.

Questions?

Please direct technical questions to Kirsten Barrett at kbarrett@mathematica-mpr.com.

References

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5. NQF. "Cancer 2015–2017 Technical Report." 2017. Available at http://www.qualityforum.org/Publications/2017/01/Cancer_2015-2017_Technical_Report.aspx. Accessed October 16, 2020.

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7. Pfister, D.G., D.M. Rubin, E.B. Elkin, U.S. Neill, E. Duck, M. Radzyner, and P.B. Bach. "Risk-Adjusting Survival Outcomes of Hospitals That Treat Cancer Patients Without Information on Stage." *JAMA Oncology,* vol. 1, no. 9, 2015, p. 1303–1310.

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