

ASCO[®] Measures Methodology Manual

Application

Applies to ASCO and its affiliates

History

Approved by the ASCO Board of Directors on December 17, 2020.

Amended and approved by the Society Executive Committee on September 9, 2021.

Table of Contents

1	Background	4
2	Introduction	4
3	General and Technical Principles for Measure Development	5
4	Measure Use	5
5	Measures Classification.....	5
6	Measure Prioritization	6
7	Measure Adoption	7
8	Expert and Stakeholder Input	7
9	Measure Development Lifecycle.....	8
9.1	Measure Conceptualization	8
9.1.1	Information Gathering	9
9.1.2	Business Case Development	9
9.2	Measure Harmonization	10
10	Measure Components.....	11
11	Measure Designation	11
12	Measure Narrative	13
13	Measure Specification.....	13
13.1	Code, Coding Systems, and Datasets	13
13.2	Data Protocol	13
13.3	Scoring and Calculation Algorithm.....	13
14	Measure Testing.....	13
14.1	Face Validity	14
14.2	Feasibility (data element and clinical workflow)	14
14.3	Reliability (data element vs. performance score)	14
14.4	Validity (data element vs. performance score).....	14
15	Open Comment.....	15
16	Measure Implementation	16
16.1	Measures Steering Group Voting.....	16
16.2	Measures Panel Voting	16
17	Measure Maintenance.....	17
18	NQF Measure Endorsement	17
	Appendix I: Measures Steering Group Responsibilities and Authorities	19

Appendix II: General and Technical Principles for Measure Development	22
Appendix III: Measure Use Definitions	24
Appendix IV: Measure Types: Definitions and Examples.....	25
Appendix V: Measure Prioritization Evaluation Criteria	28
Appendix VI: Measure Adoption Criteria	30
Appendix VII: Measure Technical Expert Panel Responsibilities and Authorities	32
Appendix VIII: Literature Review for Measure Development.....	35
Appendix IX: Measure Narrative	37
References	42

1 Background

The American Society of Clinical Oncology (ASCO) Measure Development Methodology Manual is designed to transparently communicate the methods by which ASCO develops oncology measures and endorses measures developed by others. The ASCO Measures Program falls under the auspices of the ASCO Measures Steering Group (MSG), a subgroup of the Evidence Based Medicine Committee (EBMC), which acts on behalf of the ASCO Board of Directors on matters of measure development ([Appendix I: MSG Roles & Authorities](#) document, which may be updated from time to time at the discretion of the Board). The MSG oversees topic prioritization, development, the formation and progress of expert panels, and is the review and approval body of all measure products.

ASCO follows measure development procedures as outlined by the Centers for Medicare and Medicaid Services (CMS) [Blueprint for the CMS Measures Management System](#), the [National Quality Forum \(NQF\) Measure Evaluation Criteria](#), and the [National Academy of Medicine *Vital Directions for Health and Health Care*](#).

2 Introduction

The healthcare system continues to move towards value-based care in the approach to payment and delivery of patient care. The transition began with defining quality, to measuring quality, to requiring providers to publicly report performance on quality measure, and now to hold providers accountable for the performance results.¹ The initial focus on quality improvement and the gaps and variation in care stimulated improvement infrastructure within many health systems.

Although initially envisioned as metrics to inform physician-led quality-improvement efforts, measures have become the cornerstone for accountability and performance-based reimbursement. The emerging value-based market has highlighted increasing complexity required in ASCO measures, including the need for more comprehensive, and difficult to capture, measures that involve patient-centered care and outcomes across the continuum of care. In response, steps to upgrade the Measures Program processes and infrastructure have been taken to enhance timeliness, cost effectiveness, and impact of activities.

The foundation of ASCO measure strategy is based on *Vital Direction for Health and Health Care, An Initiative of the National Academy of Medicine's*² four essential infrastructure needs of: measure what matters most, modernize skills, accelerate real-world evidence, and advance science. ASCO develops and maintains quality measures through a rigorous process that aligns with strict standards and requirements set by CMS and NQF, which drive the use of measures in required public reporting programs.

3 General and Technical Principles for Measure Development

The principles outlined in [Appendix II](#) are used throughout the measure development process, especially when identifying concepts for de novo measures. These principles serve as overarching strategies for measure development that meet the standards and rigor expected of a meaningful, valid, and useful measure.

4 ³Measure Use

Quality measures may be used for three general purposes: quality improvement, accountability, and research, as defined in [Appendix III](#). The level of evidence as the basis of the measure also lends to defining how a measure will be classified. Quality improvement measures generally include evidence from experimental, non-randomized controlled studies, or can be derived through consensus. Accountability measures generally require a high level of evidence to support the measure, including multiple randomized control trials. Research measures generally apply to concepts where limited evidence exists to support the concept, or for informative purposes to accredit or certify programs. These are assigned the term performance indicator or quality indicator, and do not meet the rigor to be classified as a “measure.”

5 Measures Classification

Measures inform about how the health care system is performing. Measures help identify weaknesses, prioritize opportunities, and can be used to identify what works and doesn't work to drive improvement. Measures can also prevent the overuse, underuse, and misuse of health care services and can identify disparities in care delivery and outcomes. There are many dimensions of performance related to clinical health care delivery and population health within which measures can be developed.

The broad measure types are clinical quality measures, also referred to as performance measures, which include structure, process, and outcome measures; patient-reported measures, including outcomes (PRO/PROM) and experience (PREM); and cost/resource use measures. [Appendix IV](#) provides the definitions and examples of each measure type.

Each of these measure types has a specific development process, skill set, and cost of development associated. The ASCO Measure Program develops clinical quality/performance measures and indicators for quality improvement and accountability programs. Currently, ASCO does not develop PROM, PREM, or cost/resource use measures. This manual focuses on the development of the clinical quality/performance measures and indicators for quality improvement and accountability programs.

6 Measure Prioritization

ASCO strives to offer a comprehensive portfolio of meaningful oncology measures to meet the needs of its members and the clinical oncology community. ASCO's measure prioritization process occurs annually in the fall and involves measure development staff, ASCO Measure Panels, and MSG members.

Measure Development Staff Evaluation

The [ASCO Measure Intake Form](#) is made available for members and stakeholders to submit measure concepts for consideration. Each summer, measure concepts received for consideration are thoroughly evaluated and scored by ASCO measure development staff according to critical criteria ([Appendix V](#)), including evidence, feasibility or implementability, performance gap or variation in care, and importance. Staff assign a score from 1 to 3 for each criterion, according to the guidance and scale shown below. Evidence and feasibility or implementability are considered must-pass criteria, where the measure concept must receive a score greater than one to progress through the prioritization process. Additionally, a measure concept must receive an average score of greater than or equal to two to be considered by an ASCO Measure Panel. Any measure concepts that do not pass the staff evaluation are reviewed with MSG leadership to ensure ASCO measures leadership agree a concept is not appropriate for continued consideration.

ASCO Measure Panel Modified Delphi

Measure concepts that pass staff evaluation criteria are presented, along with details of the scores and staff findings, to the relevant Measure Panel. The panel members then participate in a modified Delphi process to indicate their levels of agreement with staff findings ([Appendix V](#)), and that the measure concept is strong and should be prioritized for development by the MSG. The modified Delphi process consists of an initial survey assessing levels of agreement, a Measure Panel call to discuss areas of disagreement, and then a second and final survey to assess levels of agreement as detailed below. A measure concept must pass the modified Delphi process with a score greater than 3.5 in order to be prioritized by the MSG. Once again, measure concepts that do not pass the modified Delphi process are reviewed with MSG leadership to ensure agreement, transparency, and appropriate oversight.

MSG Measure Concept Prioritization

Measure concepts that successfully progress through the staff evaluation and modified Delphi process are presented to the MSG annually for their consideration. At the fall meeting, MSG members review the Measure Panels' Delphi results and rank-order measure concepts for development for the following year.

Measure concepts will be developed by staff according to the order specified by the MSG. Measure development staff bandwidth for de novo measure development varies each year according to ASCO

strategic priorities and partnerships, and ASCO therefore cannot guarantee all prioritized measure concepts will be completed in the year in which they were intended for development.

7 Measure Adoption

ASCO may consider adoption of measures into the measures library that are developed by other organizations to recognize the high-quality work of other measure development organizations, avoid duplication of effort, and promote measure harmonization. The measure panels evaluate existing measures to determine whether the measure addresses a gap in ASCO's measures library and is a measure of interest to the ASCO membership. ASCO uses criteria to assess the validity of measures uses a modified version of the method developed at RAND and UCLA for evaluating the benefits and harms of a medical intervention, ASCO applies these criteria to measures that are NQF endorsed or included in the Medicare Merit-based Incentive Payment System (MIPS)/Quality Payment Program (QPP). For each measure, the panel rates validity with respect to five domains: importance, appropriateness, clinical evidence, specifications, and feasibility and applicability. Examples of the overall and domain ratings given to individual measures judged to be valid, not valid, and of uncertain validity ([Appendix VI](#)). Measures are rated on a 7-point scale according to whether they meet the criteria, higher scores are better. A rating of 6 or 7 indicates that the measure meets the criteria. A rating of 1 or 2 indicates the measure does not meet the criteria. A rating of 3, 4, or 5 indicates the measure meets some of the criteria. The measure panel assessment is then presented to MSG for final approval of adoption.

8 Expert and Stakeholder Input

As potential measure concepts are identified for further development, it is important to ensure stakeholder input at various stages in the measure development process. This is usually accomplished via two distinct approaches that include convening a Measure Technical Expert Panel (TEP) to guide the development of the measure(s) and holding a public comment period to invite additional input and perspectives. Public comment is addressed later in this manual.

The expert chairs and ASCO staff assemble a list of expert panel members which the MSG leadership reviews and approves. Each TEP is balanced across expertise, stage in career, and demographic factors, such as practice setting (academic/community), practice location, and gender. Prospective members are sent an invitation to join the TEP, along with the TEP Responsibilities and Authorities ([Appendix VII](#)) document, which includes the roles of the chair, TEP member, and ASCO staff.

Measure TEPs are assembled in accordance with [ASCO's Conflict of Interest Policy Implementation for Quality Measures](#) and the [CMSS Code for Interactions with Companies](#). ASCO requires disclosure by individuals involved in drafting, reviewing, and approving measures and sets limits on the financial relationships that panel members and reviewers can have with Companies that could reasonably be affected by care delivered in accordance with a measure. To carry out this policy, potential panel

members must complete a conflict of interest disclosure form prior to formal invitation to serve on the panel. Following the conflict of interest (COI) policy, ASCO develops a list of “affected companies.”

Companies with products affected by a quality measure or measure set are considered “Affected Companies” for purposes of determining whether a conflict of interest exists in the development of ASCO quality measures. A Company is an “Affected Company” if there is a reasonable likelihood of direct regulatory or commercial impact (positive or negative) on the entity as a result of care being measured. Affected Companies will generally be identified by staff in consultation with context experts at the time of development of the measure concepts, prior to selection of panel members, chairs, or co-chairs. Affected Companies will generally be identified by an independent party who will not serve as a panel member. In some cases where identification is straightforward, an ASCO staff member or the Chief Medical Officer may identify Affected Companies using criteria approved by the independent party. The list of Affected Companies should remain consistent throughout measure development and adoption. If changes in the marketplace or in the focus of the measure set make revisions necessary, a modified list may be developed or reviewed by ASCO. The list of Companies affected by a measure set will be made available to prospective panel chairs and panel members and the appropriate committees overseeing measure development.

9 Measure Development Lifecycle

The end product of measure development is a precisely specified, valid, reliable, and clinically significant measure that will be widely used and provide value to oncology. Although this manual depicts the phases of the Measure Lifecycle in a linear, sequential fashion, measure developers have some flexibility to adjust the sequence or carry out steps concurrently and iteratively.

9.1 Measure Conceptualization

Measure conceptualization refers to the initial phase in the measure development process. The key components of measure conceptualization are information gathering, business case development, and assessment of measure need.

The measure conceptualization phase begins by identifying a measure concept and considering whether it meets the characteristics (Table 1) of a meaningful measure to improve the quality of patient care and positively affect patient outcomes. These characteristics are:

- High-level evidence supporting the measure concept
- Gaps and variations in care (opportunities for improvement)
- Addresses a gap in measurement
- High-impact

The development of any clinical quality measure may not be indicated if a potential measurement topic does not meet all the required characteristics.

Table 1. Characteristics of a meaningful clinical quality measure

These are the required characteristics that must be in place prior to beginning work on any proposed measure development concept	
Evidence Base	One or more, ASCO or other evidence-based clinical practice guidelines or systematic reviews of existing evidence. Guideline recommendations and/or systematic reviews may not be available to directly support an outcome that is not amenable to research and high-level evidence; measure developers may need to rely on other types of evidence, including expert consensus.
Performance Gaps and Disparities in Care	Documented evidence of deviation (or observed patterns of deviation) from clinically recommended care. Gaps in care may be manifested by the inappropriate use of health services (i.e., underutilization or overutilization of health services) across providers and/or disparities in healthcare across patient populations.
High Impact	Clinical condition with high prevalence, a significant burden of illness, high cost, or a nationally identified clinical priority area is addressed (e.g., CMS, National Academy of Medicine, National Priority Partners)
Measure Gap	Absence of an existing measure that evaluates the same concept or is otherwise duplicative.

9.1.1 Information Gathering

Information gathering includes developing a broad-based strategy that includes an environmental scan (e.g., review of the literature, search for clinical practice guidelines and existing measures), review of the regulatory and economic environments, and stakeholder needs.³ A strong, comprehensive information gathering strategy will improve the likelihood of the success of a quality measure.

Measure developers conduct information gathering by completing an environmental scan of existing measures, as well as executing a comprehensive literature review (white and grey) and searching for relevant recommendations among published clinical practice guidelines. [Appendix VIII](#) outlines the literature review process. Information gathering may also include a review of legislation and regulations and their implications on measurement (e.g. MACRA), conducting empirical data analyses, and collecting expert and stakeholder input (such as the TEP or other experts, and all relevant stakeholders – including patients).

9.1.2 Business Case Development

The business case provides the MSG with the information needed to assess the anticipated benefits of a measure against the resources and costs required to develop and implement a measure. It should include enough information to demonstrate the strategic fit of the measure in ASCO’s measure library, addressing the strategic goals and objectives of the ASCO Strategic Plan, its value to the public, the capacity of the healthcare system to respond to the quality action defined by the measure, and the affordability and achievability of the measure in terms of quality improvement and performance measurement. The initial business case information is gathered during the initial information gathering

process. Vital information can be obtained during later stages of measure development and should be added to the business case to produce a final business case.

9.2 Measure Harmonization

Differences in measure specifications limit comparability across settings. Multiple measures with essentially the same clinical focus and target population create burden and confusion in choosing measures to implement and when interpreting and comparing the measure results. Measure developers are expected to consider harmonization as one of the core measure evaluation criteria that are applied throughout the Measure Lifecycle. NQF also requires consideration of measure harmonization with related measures as part of its endorsement processes.

Measure harmonization is defined as standardizing specifications for related measures when they:

- Have the same measure focus (i.e., numerator criteria)
- Have the same target population (i.e., denominator criteria)
- Apply to many measures (e.g., age designation for children)

Harmonized measure specifications are standardized so that they are uniform or compatible, unless differences are justified because the differences are dictated by the evidence.

Table 2: Measure Harmonization

Measure	Harmonization Issue	Action
Numerator: Same measure focus Denominator: Same target population	Competing measures	<ul style="list-style-type: none"> • Using existing measure (adopted) or justify development of an additional measure • A different data source will require new specifications that are harmonized (e.g., respecified)
Numerator: Same measure focus	Related measures	<ul style="list-style-type: none"> • Harmonize on measures focus (e.g., respecified) • Justify differences • Respecify existing measure by expanding the target population
Numerator: Different measure focus Denominator: Same target population	Related measures	<ul style="list-style-type: none"> • Harmonize on the target population • Justify differences
Numerator: Difference measure focus Denominator: Different target population	New measures	<ul style="list-style-type: none"> • Develop measure

10 Measure Components

Measures comprise a set of components required to calculate the measure and evaluate performance. Measures are expressed as a fraction and include the numerator and denominator statements and any applicable measure exclusions and/or exceptions.

- **Denominator:** The measure denominator represents the eligible population relevant to the measure focus. The eligible population results from the removal of exclusions from the initial population.
- **Numerator:** The measure numerator represents the measure focus or clinical action of the measure (i.e., the process or outcome of interest). The numerator describes the unit of measurement (e.g., patients, patient visits, studies) and the clinical action (e.g., medication prescribed, service offered or provided) or outcome (e.g., complication, functional status, patient satisfaction) that satisfies the conditions of the performance measure or assessment.
- **Exclusion:** Exclusions represent those patients or cases in which the measure focus would not be appropriate. Exclusions are applied uniformly across the denominator to remove an entire group of patients because the numerator action definitively does not apply or is not appropriate.
- **Exception:** Exceptions represent those patients or cases that are within the eligible population and therefore, included in the denominator but do not meet the numerator because the numerator action does not apply. Exceptions are applied on a case-by-case basis and are subject to clinical judgment and individual patient characteristics or decisions.

11 Measure Designation

In addition to determining whether a measure meets the required characteristics, the measure conceptualization phase incorporates other measure designations required to clarify the need for and use of a measure.

- Data source(s)
- Care setting
- Level of analysis

These elements, in addition to the results of an initial environmental scan to identify related measures, will clarify the need and intended use of performance measures that drive improvements in quality.

Data Source

The data source is the origin of the data obtained for measurement. Measures rely on different types of data sources, each of which has an impact on the scope, purpose, and generalizability of the measures using the data. Data source refers to the type of data used to calculate the measure and consideration must be given to the data source to determine how the measure will be specified. Several data sources are available and include:

- **Administrative Data:** Includes demographic information about the patient and usually includes claims information (that is, information used for billing purposes) such as diagnosis and procedure codes. Non-patient data, such as staffing information or organizational policies, may also be included.
- **Electronic Clinical Data:** Includes patient-level information that can be extracted in a format that can be used in a measure, such as data from personal health devices, which may be uploaded to the electronic health record (EHR).
- **Instruments/Standardized Patient Assessments:** Data collected from standardized instruments. Examples are the Long-term Care (LTC) Facility Resident Assessment Instrument (RAI), the Outcome and Assessment Information Set (OASIS), and the Minimum Data Set (MDS).
- **Surveys:** Often collected via surveys or standardized instruments. The different Consumer Assessment of Healthcare Providers and Systems (CAHPS®) surveys are used in many CMS programs. Patient or caregiver-completed standardized instruments assessing things such as health-related quality of life, functional status, and symptoms are becoming more common.
- **Registries:** Collections of information often used to collect disease-specific data for public health purposes, such as immunization registries.

In recent years, measurement programs and developers have prioritized the use of electronic clinical data in performance measurement, either through an EHR or a registry. Understanding what types of data are available in an intended data source as well as how those data are captured is essential to developing a performance measure that can be feasibly implemented. A measure developer must also consider how the necessary data would be seamlessly captured within a clinical workflow and in the routine course of care.

Care Setting

The care setting is the setting(s) in which the clinical action or outcome of interest takes place and where the measure applies and is assessed. The care settings in which a measure is assessed include, but are not limited to, ambulatory care, hospitals/facilities, clinician offices, or emergency departments. The care setting must be established early in the development process to determine what data elements are feasibly captured and the available data sources within the chosen setting.

Level of Analysis

The level of analysis is the level at which the measurement is assessed. Determining the level of analysis answers the question of whose performance is to be assessed and improved. Measures may be assessed at various levels including:

- Clinician (either individual or a group/practice)
- Facility
- Health Plan
- Integrated Delivery System

- Population (community, county/city, regional or state)

Many performance measures are intended to measure the performance of individual providers, while other measures address the performance of a hospital, health system, or health plan. It is important to align the level of measurement with the appropriate level where a change is needed to drive improvement in patient care.

12 Measure Narrative

The measure narrative refers to the narrative description of the measure specifications, including the description, numerator, denominator, exceptions, exclusions, and other vital components and information about the measure. Please refer to [Appendix IX](#) for the details included in the ASCO measure narrative template.

13 Measure Specification

The construction of measure specifications begins with the measure narrative and the measure logic. The specification adds increasing amounts of detail, including precisely defined data elements and the appropriate values or value sets. Every part of the measure specification requires explicitly defined elements with accompanying analysis to identify constraints and criteria of the specification.

13.1 Code, Coding Systems, and Datasets

Measures rely on the use of various standardized codes or code systems for classifying healthcare provided. All codes, plus their code system and the version that the codes came from are required for the measure and explicitly state the source of the codes and instructions pertaining to their use.

13.2 Data Protocol

The types of data and how to aggregate or link these data so that the measure calculation can be reliable and valid must be explicitly identified. The data protocol includes defining key terms, data elements, codes, and code systems; describing the level of measurement and analysis; describing the sampling; determining risk adjustment; clearly defining time intervals; description of how the measure results are scored and reported; and development of the calculation algorithm.

13.3 Scoring and Calculation Algorithm

The calculation algorithm, also referred to as the performance calculation, measure logic, or measure flow, is a depiction of the path from the raw data to the result. The calculation algorithm needs to be consistent with the measure text, as the calculation algorithm will serve as the basis for development of computer programming to produce the measure results. The calculation algorithm should account for each scenario and ensure there is a logical end point for each scenario. Alpha testing and preliminary feasibility assessments assist in testing each scenario.

14 Measure Testing

Testing refers to all the data collection and analysis activities that contribute to the evaluation of the measure specifications. Testing assesses the suitability of the technical specifications and acquires the empirical evidence to help assess the strengths and challenges of the measure with respect to the

performance evaluation criteria, especially scientific acceptability (reliability and validity) and feasibility. Testing also provides the opportunity to support the measure's importance and usability.

14.1 Face Validity

Face validity is conducted to demonstrate that subject matter experts (SMEs) agree a measure captures what it intends to capture and that the measures can be used to distinguish between good vs. poor quality care. Face validity is typically assessed through expert opinions solicited from the Technical Expert Panel.

14.2 Feasibility (data element and clinical workflow)

Feasibility testing analyzes the extent to which the specifications, including measure logic and required data elements, are readily available or could be captured without undue burden, and can be implemented for performance measurement. Additionally, feasibility testing determines whether measure findings are likely to be comparable across implementation sites and to pinpoint specific causes of variability, e.g., challenges with data availability, data accuracy, data standardization, and/or a measure's impact on clinical workflows.

14.3 Reliability (data element vs. performance score)

Reliability testing of data elements

Reliability testing demonstrates that the measure's data elements are repeatable/reproducible, producing the same results a high proportion of the time when assessed in the same population in the same time period.

Reliability of the data elements will be assessed only when data element validity is not assessed for both de novo and maintenance measures. A custom psychometric test appropriate to the measure's intent, logic, and means of data capture will be applied to evaluate data elements' reliability.

Reliability testing of quality measures

Reliability is an important metric of the suitability of a measure for profiling because it describes how well one can confidently distinguish the performance of one physician or practice from another.

Signal-to-noise ratio (SNR) analysis is typically used to test reliability. SNR analysis is a method of reliability testing based on calculating variability both within and among practices or physicians, and therefore determining differences in performance across them. The signal is the proportion of variability in measured performance that can be explained by real differences in performance. Noise is related to the total variability in measured performance usually due to chance or attributable to measurement errors. Comparison between the two evaluates the reliability of a given measure. If performance scores collected on the measure are binary in nature, reliability will be assessed using a beta-binomial model, which assumes the performance score is a binomial random variable conditional on the true value that comes from the beta distribution.

14.4 Validity (data element vs. performance score)

Validity testing of data elements

Validity testing demonstrates that the measure data elements are correct by analyzing agreement between measure data and an authoritative source of the same information.

Validity of measure data elements will primarily be tested by calculating the degree of agreement between electronically extracted data and manually abstracted data, or by calculating agreement among electronically extracted data from multiple EHRs. Percent agreement, Kappa (chance-adjusted agreement), sensitivity, specificity, positive predictive value (PPV), and negative predictive value (NPV) statistics will be calculated on the data being compared. When manual chart abstraction is needed for validity testing, a random sample of patients will be selected for a group of trained medical data abstractors to audit.

In cases where finding the second set of data for comparison is not feasible, a literature review for existing population estimates of prevalence rates associated with the measure's data elements will be conducted. Measure's data elements will then be validated by comparing such previously reported estimates with the ones obtained from measure data.

Validity testing of quality measures

Validity testing of performance scores demonstrates that the measure score correctly reflects the quality of care provided, adequately identifying differences in quality. Validity is a critical component of scientific acceptability because it assesses the extent to which the measure accurately represents the concept under evaluation and achieves the intended purpose.

Performance score validity will be assessed through:

- Testing hypotheses that the measure scores indicate quality of care (e.g., measure scores are different for groups known to have differences in quality assessed by another valid quality measure or method),
- Correlation of measure scores with another valid indicator of quality for the specific topic (such as outcomes), and/or
- Correlation to conceptually related measures

15 Open Comment

Open comment allows for key stakeholders to critically review and identify any errors or gaps in a draft measure prior to its finalization and implementation. It allows for greater transparency in the ASCO measure development process and complies with best practices for measure development. In addition, open comment enables ASCO to engage interested stakeholders (especially patients/patient advocacy groups), provide a higher-quality product to the membership, and facilitate implementation and dissemination efforts.

ASCO measures will be available for open comment for a two- to three-week period. Prospective reviewers must contact ASCO to request to review the draft measure and will be required to sign a non-disclosure and confidentiality agreement before receiving the draft measure. Reviewers must identify themselves by name and affiliation; anonymous comments will not be accepted. Measures staff will review and summarize comments and bring relevant comments to the measure panel chairs, and to the entire technical expert panel if necessary. Any changes made from the open comment process will be reviewed by the entire panel prior to Measures Steering Group approval. Comments are advisory only and ASCO is not bound to make any changes based on feedback from open comment. ASCO will not respond to reviewers or post any responses to comments.

16 Measure Implementation

16.1 Measures Steering Group Voting

A measure must first be approved by the measures panel before being presented to the MSG for a vote. Typically, de novo measures or accountability measures need to complete testing prior to being voted on by the MSG.

Recusals:

The policy for MSG voting mirrors the panel voting process. The primary difference relates to the eligibility of members to participate in a vote which is detailed in the [Quality Measures COI Policy](#) in Section V. Their eligibility is dependent on their COI disclosures. If an MSG member discloses a financial relationship with a company that appears on the list of affected companies for the corresponding panel the measure was approved by, they must recuse themselves from the vote; however, they may participate in the initial discussion of the measure, recognizing that there may be additional discussion by remaining members after recusal and before the vote.

If simple majority not present:

Generally, measures will be reviewed and approved by a vote of the Steering Group at a meeting where a quorum is present. However, if the quorum is lost by virtue of recusals, the remaining Steering Group members in attendance will constitute a quorum as long as at least three members are present. Approval by majority vote of this group will be considered approval by the Steering Group. If recusals result in fewer than 3 members of a Steering Group remaining eligible for voting, the Measures Steering Group Chair will invite an unconflicted member of the Evidence Based Medicine to participate in voting on the Measures impacted.

16.2 Measures Panel Voting

Unlike Measures Steering Group (MSG) members, measure panel members are not recused from voting due to COI. Anyone who is currently sitting on the panel has already been screened to participate and their disclosures have been vetted according to the eligibility criteria listed in the Quality Measures COI Policy.

At meetings, whether in person or via teleconference, Measure Panel recommendations must be adopted by a 75% majority of Panel members in attendance, where a simple majority of panel members are present. When the Panel votes electronically, recommendations must be adopted by a 75% majority of the entire Panel. Because of the supermajority voting standard, panel members who have disclosed financial relationships with affected Companies do not need to recuse themselves from discussing and voting on measures on these grounds.

17 Measure Maintenance

The true value of a measure is based on its use and impact. To ensure ongoing viability for use, ASCO measures are evaluated on a regular basis and updated as needed to reflect current evidence, guidelines, and standards.

Ad Hoc Maintenance: An ad hoc review is a formal measure evaluation reconsideration outside of the scheduled maintenance process. An ad hoc review is limited and focused on a specific issue regarding an evaluation criterion and is not the same as maintenance of endorsement evaluation.

An ad hoc review is triggered by a material change to an endorsed measure. Material change is defined as any modification to the measure specifications that significantly affects the measure result such as:

- change to the population being measured (e.g., changes in age inclusions, changes in diagnoses or other inclusion criteria, changes in excluded populations);
- changes to what is being measured (e.g., changes in target values like blood pressure or lipid values);
- inclusion of new data source(s); or
- expansion of the level of analysis or care settings

Annual Maintenance: Following the new or continued use of a measure, a status report of the measure specifications is conducted on an annual basis. This review either reaffirms that the measure specifications remain the same as those at the time of endorsement or last update, or outline any changes or updates made since that time. Annual review includes assessment of updates to related guidelines, changes to a drug list, CPT codes, and ICD10 codes that the changes materially affect the measure's original concept or logic.

Full Maintenance: Every three years measures undergo full evaluation to ensure currency and relevance. Measure developers have the responsibility to ensure that measures reflect current science and are reliable and valid representations of quality. Full maintenance includes assessment of the measure importance (gap in care, level of evidence); scientific acceptability (measure specifications, reliability, validity); and measure use and usefulness including impact and unintended consequences.

18 NQF Measure Endorsement

The National Quality Forum (NQF) was established in 1999 to promote healthcare quality through measurement and public reporting. NQF's major role is to evaluate submitted quality measures for endorsement consideration through its formal and rigorous Consensus Development Process (CDP). Achieving NQF endorsement of a performance measure has been considered a gold standard for measure developers in the quality measurement realm. NQF's endorsement is consensus-based in that it brings together a 20-25 member Standing Committee of diverse healthcare stakeholders from public and private sectors to evaluate submitted measures in various health topic areas (i.e. Cancer, Patient Safety, Cardiovascular, Primary Care and Chronic Illness, Renal, etc.).

Performance measures submitted by measure developers to NQF's CDP process for endorsement and re-endorsement consideration are reviewed by NQF staff and their multi-stakeholder Standing Committee members using their measure evaluation criteria. NQF's measure evaluation criteria are standardized and evaluates each measure for the following:

- Importance to Measure and Report- Evidence and performance gap exist supporting the measure focus.
- Scientific Acceptability of Measure Properties- Measure properties are tested for reliability (i.e. consistent) and validity (i.e. credible).
- Feasibility- Data is available and can be captured without undue burden.
- Use- The measure is used in an accountability and/or public reporting program.
- Usability- Improvement in measure performance scores over time and lack of negative unintended consequences.
- Related and Competing Measures- Harmonization with existing measures with similar measure focus, to extent possible.

NQF endorsement and re-endorsement is not currently required by the federal government (CMS) and many private sector entities for performance measures they utilize in their programs. However, there may be a preference in selection of an NQF-endorsed measure in their programs since it had undergone a rigor and consensus process in the evaluation of the performance measure.

Appendix I: Measures Steering Group Responsibilities and Authorities

AMERICAN SOCIETY OF CLINICAL ONCOLOGY STEERING GROUP DESCRIPTION

GROUP:	Measures Steering Group
REPORTS TO:	Evidence Based Medicine Committee
DEPARTMENT:	Policy and Advocacy
DEPARTMENT STAFF:	Policy & Advocacy

Purpose

To oversee and approve the Measures Program, which includes measure prioritization, development, calculation methodology, testing, authoring (e-specifying), and maintenance activities and derivative products, tools, and resources for use in the ASCO Measures Library. The ASCO Measures Library promotes quality care in oncology and supports ASCO programs such as the Oncology Medical Home (OMH), QOPI Certification Program (QCP), and CancerLinQ[®] as well as federal payment programs. Measure activities also include oversight of collaborative measure development projects and review of externally developed measures.

This group reports to the Evidence Based Medicine Committee (EBMC). By addressing critical clinical gaps in care, supporting evidence-based medicine, promoting coordinated care, and helping in reducing disparities in healthcare, the Steering Group hopes to enhance the quality, effectiveness, and appropriateness of cancer services from prevention through palliative care.

Composition and Appointment Process

The Measures Steering Group will include 15-20 members who are experts in quality measurement, practice-based quality improvement, and related policy representing both academic and community practice. The Steering Group should include members with expertise in medical oncology, radiation oncology, surgical oncology, pharmacy, biostatistics, quality of life, supportive care, and survivorship. Liaisons relationships may be established with other volunteer groups such as: Joint Certifications Committee, Clinical Practice Committee, OMH Pilot Task Force, Coverage and Reimbursement Steering Group, and the Practice Quality Improvement Steering Group. Expertise across a broad spectrum of diseases should be represented on the Steering Group.

The Measures Steering Group will establish tracks and utilize panels to address specific measurement issues. Measures Steering Group members will be assigned to chair a panel of the Measures Steering Group, as appropriate. Tracks and panels under the Measures Steering Group will be formed at the discretion of the Steering Group Chair.

The Steering Group Chair-Elect and members will be appointed by the American Society of Clinical Oncology (“the Society”) Board of Directors. The Steering Group Chair-Elect may, but need not, be someone who is a current Steering Group member. Any Steering Group member may be removed by the Society Board of Directors in its sole discretion.

Steering Group Chair's Term

The Measures Steering Group Chair shall serve one-year consecutive terms as Chair-elect, Chair and Immediate Past Chair.

Steering Group Members' Term

The Measures Steering Group members shall serve a three-year term. Members can serve additional terms as determined by the Society Board of Directors.

Steering Group Responsibilities and Authorities

- Disclose outside relationships as requested and comply with applicable ASCO conflicts of interest policies
- Provide review and prioritization of proposed concepts for measure development and other related projects as appropriate
- Provide review and approval of de novo and maintained measures and other related projects as appropriate
- Establish and maintain the ASCO Measures Library
- Define and implement criteria for inclusion and retirement of measures in the ASCO Measures Library
- Advise the EBMC on priority areas for measurement
- Oversee ASCO measure narrative, calculation methodology, testing, and authoring (e-specifying) development
- Oversee regular measure maintenance
- Review externally developed, cancer-relevant measures and prepare comments as necessary
- Address external questions related to measure intent
- Assess ASCO guidelines for potential measure development
- Leadership will serve as members of the EBMC

Steering Group Member Responsibilities and Authorities

- Disclose outside relationships as requested and comply with applicable ASCO conflicts of interest policies
- Serve as volunteer lead of a panel, which is assigned based on clinical expertise and interest
- Suggest potential Expert Panel members
- Participate in assigned workgroup and panel calls/meetings
Serve as a liaison to the Guidelines Advisory Group that corresponds with the Measure Panel clinical area

Steering Group Chair Responsibilities and Authorities

- Disclose outside relationships as requested and comply with applicable ASCO conflicts of interest policies
- Oversee the delegation of responsibility for measure development, and other related projects as appropriate, to Expert Panels
- Follow Board-approved procedures for review and approval of measures and other related projects as appropriate

- Oversee the delegation of identifying and prioritizing concepts for measure development and strategic assessment of needed measures to Measure Technical Expert Panels (“TEPs”), consistent with the TEP Description (“Responsibilities and Authority”) of Measure Technical Expert Panels to the Measures Steering Group
- In consultation with the Chair-Elect, Immediate Past Chair, approve composition of TEPs charged with developing measures and other related projects as appropriate
- In consultation with the Chair-Elect, Immediate Past Chair, identify and approve ASCO representatives appointed to the measure panels of other organizations or appointments for other similar initiatives.
- Identify and promote new volunteer leadership within the Measures Steering Group
- Attend bi-weekly leadership calls and lead monthly MSG calls
- Represent ASCO at professional society meetings
- Provide regular updates to the EBMC

Steering Group Chair-Elect Responsibilities and Authorities

- Disclose outside relationships as requested and comply with applicable ASCO conflicts of interest policies
- In Chair’s absence, serve as Chair at Steering Group meetings
- Assist the Chair in carrying out the mission and the objectives of the Steering Group
- With the Chair, Immediate Past Chair approve composition of TEPs charged with developing measures and other related projects as appropriate

Steering Group Staff Responsibilities and Authorities

- Monitor relevant policy and policy-influencing organizations
- Contribute to preparation of measure concept prioritization
- Lead the drafting of measure narrative, calculation methodology, testing, and authoring (e-specifying)
- Maintain accurate records of the ASCO Measures Library and measure concept prioritization pipeline
- Coordinate and lead measure testing projects
- Coordinate and lead measure maintenance projects
- Coordinate and lead measure authorship utilizing current standards (i.e., FHIR)
- Conduct legal reviews and prepare legal documents, as required
- Manage vendor relationships, as relevant
- Prepare presentations, reports and manuscripts as needed
- Oversee day-to-day implementation and coordinate meetings, conference calls and follow-up activities
- Conduct outreach to other professional societies on workgroup-related issues and respond to requests for partnership
- Coordinate with OMH, CancerLinQ, and Guidelines staff on the development and maintenance of measures
- Disclose outside relationships as requested and comply with applicable ASCO conflicts of interest policies

Meetings Calendar

The Measures Steering Group shall meet in person one to two times per year, usually at ASCO Headquarters in Alexandria, VA in conjunction with EBMC meetings. Conference calls are convened as needed, typically on a monthly basis.

Appendix II: General and Technical Principles for Measure Development

General Measure Development Principles

ASCO's measures are developed in accordance with the following principles:

- Independently developed through a transparent process
- Evidence-based and derived from published guidelines where a guideline is available
- Address a performance gap where there is known variation in performance
- Guard against unintended consequences of measure implementation, including overuse and underuse of care
- Reviewing and updating ASCO measures when there are changes in evidence or practice is an ASCO priority
- Strive to reduce clinician burden in reporting measures
- Focused on outcomes, safety, patient experience, care coordination, appropriate use/efficiency, and cost
- Reorient and align around patient-centered outcomes that span across clinical settings, which may require different “versions” of the same measure (i.e., different cohorts, but same numerator); it is important to test each of these setting-specific versions for reliability and validity
- Align across payers, including Medicare, other federal partners, and private payers
- Follow regulations for patient privacy and human research protection in development and validation of measures
- Focused on what is best for patients and most meaningful to patients, caregivers, and providers.
- Engage stakeholders early and often in the measure development process
- Value-based care that produces quality outcomes
- Identify and eliminate disparities in the delivery of care

Technical Principles for Measure Development

As defined by the Blueprint for Measure Development,⁴ the following principles should be applied when developing measures for consideration for quality reporting and value-based purchasing programs:

- Develop a rigorous business case for an evidence-based measure concept
- Prioritize electronic clinical data sources (e.g., electronic health records [EHRs] and registries), where appropriate, and reduce dependency on data from chart abstraction whenever possible
- Maintain a focus on iterative testing using both real and synthetic data
- Consider approaches to aggregate multiple data sources (e.g., hybrid measures) to achieve the most accurate assessment of quality until universal interoperability can be achieved

- Define outcomes, risk factors, cohorts, and inclusion/exclusion criteria based on clinical and empirical evidence
- Judiciously select exclusions to capture as broad a patient population as possible and appropriate; consider developing a paired measure to capture and measure the care received for the excluded patients if a significant number of patients are excluded
- Develop risk adjustment models to distinguish performance between providers rather than predict patient outcomes
- Include measure stratification and risk adjustment approaches to patient demographic characteristics that promote equitable quality comparisons
- Harmonize measure methodologies, data elements, and specifications, when applicable and feasible
- Develop each measure with sufficient statistical power to detect and report statistically significant differences in provider performance
- Consider strategies to enable clinicians that have smaller practices and low-volume facilities to reliably report a measure
- Strive to develop measures that can progress to multi-payer applicability using all-payer databases where available
- Consider the clinical workflow needed in the electronic record for electronic clinical quality measures (eCQMs).

Appendix III: Measure Use Definitions

Quality Improvement

- Quality measures can be used for both quality improvement within an institution or system of care (internal quality improvement) or across institutions or systems of care (external quality improvement).
 - Internal quality improvement involves three basic steps:
 - identifying problems or opportunities for improvement
 - selecting appropriate measures of these areas
 - obtaining a baseline assessment of current practices and re-measuring to assess the effect of improvement efforts on measure performance
 - similar to what may be used to meet Maintenance of Certification (MOC) requirements
 - External quality improvement may be in programs operated by state, regional, or national entities or organizations, accreditation and quality improvement organizations, or professional organizations. The usual audiences for results of external quality improvement are the participating institutions or providers of care within the institutions.

Accountability (public reporting)

- Uses of quality measures for the purpose of accountability include purchaser and/or consumer decision making, variation in payment in relation to the level of performance (performance-based payment) and/or certification of professionals or organizations., such as purchasers of health care, payers, regulators, boards and accrediting organizations, or patients. Although employing quality measures for accountability may be similar to their use for external quality improvement, greater validity and reliability demand that each provider collects data in the exact same way through standardized and detailed specifications. This ensures that comparisons are fair and/or that predefined measure performance has been achieved.

Research

- The primary use of quality measures in research is to develop or produce new knowledge about the health care system that is generalizable to a wide range of settings and valuable in setting health policy. Quality-of-care research is often conducted to evaluate programs and assess the effect of policy changes on health care quality.

Appendix IV: Measure Types: Definitions and Examples

Clinical Quality Measures/Performance Measures

The Donabedian model, (a conceptual model) provides a framework for examining health services and evaluating quality of health care.⁵ Based on this model quality of health care can be examined from three categories: structure (inputs), process (steps), and outcomes (outputs). Structure describes the context in which care is delivered, including hospital buildings, staff, financing, and equipment. Process denotes the transactions between patients and providers throughout the delivery of healthcare. Lastly, outcomes refer to the effects of healthcare on the health status of patients and populations.

The Agency for Healthcare Research and Quality ([AHRO](#)) defines Clinical Quality Measures as the following:

Structural Measures

Structure of care is a feature of a health care organization or clinician related to the capacity to provide high-quality health care. Structural measures give consumers a sense of a health care provider's capacity, systems, and processes to provide high-quality care.

- Structure measures are supported by evidence that an association exists between the measure and one of the other clinical quality measure domains.
- These measures can focus on either health care organizations or individual clinicians.

Example: Does the health care organization use Computerized Physician Order Entry (CPOE) (based on evidence that the presence of CPOE is associated with better performance and lower rates of medication error)?

Process Measures

A process of care is a health care-related activity performed for, on behalf of, or by a patient. Process measures indicate what a provider does to maintain or improve health, either for healthy people or for those diagnosed with a health care condition. These measures typically reflect generally accepted recommendations for clinical practice. For example:

- Process measures are supported by evidence that the clinical process—that is the focus of the measure—has led to improved outcomes.
- These measures are generally calculated using patients eligible for a particular service in the denominator, and the patients who either do or do not receive the service in the numerator.

Process measures can inform consumers about medical care they may expect to receive for a given condition or disease and can contribute toward improving health outcomes. The majority of health care quality measures used for public reporting are process measures.

Example: Oncology: Medical and Radiation - Pain Intensity Quantified

Outcome Measures

An outcome of care is a health state of a patient resulting from health care. Outcome measures reflect the impact of the health care service or intervention on the health status of patients.

- Outcome measures are supported by evidence that the measure has been used to detect the impact of one or more clinical interventions.
- Measures in this domain are attributable to antecedent health care and should include provisions for risk-adjustment.

Outcome measures may seem to represent the “gold standard” in measuring quality, but an outcome is the result of numerous factors, many beyond providers’ control. Risk-adjustment methods—mathematical models that correct for differing characteristics within a population, such as patient health status—can help account for these factors. However, the science of risk adjustment is still evolving. Experts acknowledge that better risk-adjustment methods are needed to minimize the reporting of misleading or even inaccurate information about health care quality.

Example: All-cause Hospital Readmission

Patient Reported Measures (Outcomes and Experience)

Patient Reported Outcome Measure (PRO/PROM)

A special outcome measure of a patient’s health status, quality of life, health behavior, or experience of care using information that comes directly from the patient, family, or caregiver without interpretation by a clinician or anyone else.

Example: Expanded Prostate Cancer Index Composite Questionnaire (EPIC)

Patient Reported Experience Measure (PREM)

Experience of care is a patient's or enrollee's report of observations of and participation in health care, or assessment of any resulting change in their health.

- Patient experience measures are supported by evidence that an association exists between the measure and patients’ values and preferences, or one of the other clinical quality domains.
- These measures may consist of rates or mean scores from patient surveys.

Example: The percentage of adult inpatients that reported how often their doctors communicated well.

Cost Measures/Resource Use Measures

Measures that assess the cost of care, resources used (people, supplies, etc.) to provide care, inappropriate use of resources, or efficiency of care delivered. A resource use measure, also called a cost and resource use measure, refers to broadly applicable and comparable measures of health services counts (in terms of units or dollars) applied to a population or event (broadly defined to include diagnoses, procedures, or encounters). A resource use measure counts the frequency of defined health

system resources. Some measures may monetize the health service by applying a dollar amount such as allowable charges, paid amounts, or standardized prices to each unit of resource use.

Example: Total Cost of Care Per Capita

Appendix V: Measure Prioritization Evaluation Criteria

Staff Evaluation

Measure Development Staff Evaluation Criteria			
Criterion	Score	Guidance	Methodology
Evidence (must-pass criterion)	1	Low: Consensus-derived recommendations; weak recommendations or those with insufficient evidence; observational studies or case series	Fails staff evaluation
	2	Medium: Applicable evidence-based guideline recommendations with evidence quality: moderate and recommendation strength: moderate (ASCO); Category 2B (NCCN); 1 RCT	Passes staff evaluation*
	3	High: Applicable evidence-based guideline recommendation with evidence quality: moderate-high and evidence recommendation: strong (ASCO); Category 1-2A (NCCN); ≥2 RCTs	Passes staff evaluation*
Feasibility/Implementability (must-pass criterion)	1	Low: Numerator and denominator data is unlikely to be available from a defined data source, is unlikely to be accessible or present in meaningful quantity. CLQ or OMH are not interested in implementing the measure.	Fails staff evaluation
	2	Medium: Numerator and denominator data may be available from a defined data source but may not be easily accessible or robust. CLQ or OMH may be interested in implementing the measure.	Passes staff evaluation*
	3	High: Numerator and denominator data is available from a defined data source and easily accessible. CLQ or OMH is interested in implementing this measure.	Passes staff evaluation*
Performance gap/Variation in care	1	Low: Variation or gap in care is undocumented; evidence suggests consistent performance or little variation in care.	Passes staff evaluation*
	2	Medium: Lower-level studies indicate a variation or gap in care or opportunity for improvement may be present related to this aspect of care.	Passes staff evaluation*
	3	High: Guidelines or other high-level studies suggest a variation or gap in care or opportunity for improvement related to this aspect of care	Passes staff evaluation*
Importance	1	Low: Measure is relevant to a small number of patients and is unlikely to result in meaningful	Passes staff evaluation*

		measurement or sufficient statistical power. Practices are unlikely to see enough relevant patients on an annual basis. <i>Special case - Measure is relevant to a large number of patients but has a marginal impact on the quality of care.</i>	
	2	Medium: Measure may be relevant to adequate numbers of patients to make measurement meaningful with sufficient statistical power (number of patients impacted and magnitude of impact). Some practices may see enough relevant patients on an annual basis. <i>Special case - Measure is relevant to a small number of patients but has a significant impact on the quality of care.</i>	Passes staff evaluation*
	3	High: Measure is relevant to adequate numbers of patients to make measurement meaningful with sufficient statistical power (number of patients impacted and magnitude of impact). Most practices are likely to see enough relevant patients on an annual basis.	Passes staff evaluation*

*Criteria score passes staff evaluation provided the average score is ≥ 2 .

Measure Panel Evaluation

ASCO Measure Panel Modified Delphi Criteria	
Survey Questions	Response Options
<ul style="list-style-type: none"> • Please state your level of agreement with measure developer's assessment of evidence 	<ul style="list-style-type: none"> • Strongly agree (5) • Agree (4) • Neither agree nor disagree (3) • Disagree (2) • Strongly disagree (1)
<ul style="list-style-type: none"> • Please state your level of agreement with measure developer's assessment of feasibility/implementability 	
<ul style="list-style-type: none"> • Please state your level of agreement with measure developer's assessment of variation/performance gap in care 	
<ul style="list-style-type: none"> • Please state your level of agreement with measure developer's assessment of importance 	
<ul style="list-style-type: none"> • Overall, based on the assessment information provided by the Measure Development Team, this is a strong measure concept that should be prioritized for development 	

Appendix VI: Measure Adoption Criteria

The measure panels review and rate measures developed by other stewards on a 7-point Likert scale (1=lowest; 7=highest) of the following criteria:

IMPORTANCE

- *Meaningful clinical impact:* Implementation of the measure will lead to a measurable and meaningful improvement in clinical outcomes.
- *High impact:* Measure addresses a clinical condition that is high-impact (e.g., high prevalence, high morbidity or mortality, high severity of illness, and major patient or societal consequences).
- *Performance gap:* Current performance does not meet best practices, and there is opportunity for improvement.

APPROPRIATE CARE

- *Overuse:* Measure will promote stopping use of a test or treatment in the general population or individuals where the potential harms outweigh the potential benefits.
- *Underuse:* Measure will encourage use of a test or treatment in the general population or individuals in whom the potential benefits outweigh the potential harms.
- *Time interval:* Time interval to measure the intervention is evidence-based.

CLINICAL EVIDENCE BASE

- *Source:* Evidence forming the basis of the measure is clearly defined with appropriate references.
- *Evidence:* Evidence is high-quality, high-quantity, and consistent and represents current clinical knowledge.

MEASURE SPECIFICATIONS

- *Clarity — numerator and denominator clearly defined:*
 - For process measures, numerator includes a specific action that will benefit the patient, and denominator includes well-specified exclusions.
 - For outcome measures, numerators detail an outcome that is meaningful to the patient and under the influence of medical care.
 - Denominator includes well-specified and clinically appropriate exceptions to eligibility for the measure.
- *Clarity — all components necessary to implement measure clearly defined*
- *Validity:* The measure is correctly assessing what it is designed to measure, adequately distinguishing good and poor quality.
- *Reliability:* Measurement is repeatable and precise, including when data are extracted by different people.
- *Risk adjustment:* Risk adjustment is adequately specified for outcome measures.

MEASURE FEASIBILITY AND APPLICABILITY

- *Attribution:* Level of attribution specified in the measure is appropriate (measure ties the outcomes to the appropriate unit of analysis) and is clearly stated.
- *Physician’s control:* Performance measure addresses an intervention that is under the influence of the physician being assessed.
- *Usability:* Results of the measure provide information that will help the physician to improve care.
- *Burden:* Data collection is feasible and burden is acceptable (low, moderate, or high)

Rating Table for Measure Adoption

Rating	NQF-endorsed	Steward	Measure Title	Importance	Appropriateness	Clinical Evidence	Specifications	Feasibility	Measure Panel Rationale
Valid/ Not valid	Yes/No			Rated on 1 – 7 Likert Scale					

Appendix VII: Measure Technical Expert Panel Responsibilities and Authorities

AMERICAN SOCIETY OF CLINICAL ONCOLOGY MEASURES PANEL DESCRIPTION

GROUP:	Measures Development & Maintenance Technical Expert Panels (TEPS)
REPORTS TO:	Measures Steering Group
DEPARTMENT:	Policy and Advocacy
DEPARTMENT STAFF:	Measures Staff

18.1.1.1 Purpose

Technical Expert Panels (TEPs) develop de novo and maintains measures through concept identification, specification, and implementation in the ASCO Measures Library.

The ASCO Measures Library supports ASCO programs such as the Oncology Medical Home (OMH) and CancerLinQ[®], as well as federal payment and reporting programs. Panel activities include ad hoc subject matter expertise as it relates to quality measurement and practice-based quality improvement. This group reports to ASCO's Measures Steering Group (MSG), which in turn, reports to the ASCO Evidence Based Medicine Committee (EBMC)

18.1.1.2 Composition and Appointment of Panel

The panel is composed of ASCO members and/or representatives from relevant medical specialties in good standing. Experts in quality measurement and practice-based quality improvement, representing both academic and community practice, may be included with the goal of having an odd number of members for voting purposes. The panel Chair and members will be selected and approved by the MSG Leadership.

18.1.1.3 Panel Members' Term

Members shall serve a three-year term. Members can serve additional terms as determined by ASCO staff and the MSG Chair.

18.1.1.4 Panel Chair's Term

Chairs shall serve a three-year term. Chairs can serve additional terms based on the needs of the panel.

18.1.1.5 Roles and Authorities

18.1.1.6 Panel Chair

- Contribute approximately three hours per month via email correspondence and/or phone call for content review, Chair call, and panel call
- Provide guidance on appropriate panel composition to ensure representation by necessary stakeholders
- Flag any potential conflicts of interest and assist ASCO staff of implementation of a conflict mitigation strategy, if required

- Provide clinical guidance to ASCO staff to assess initial measure concepts for clinical importance and appropriateness for development
- Provide clinical expertise, feedback, and guidance on staff-initiated measure development/maintenance work as described below under TEP member duties
- Assist staff in bringing panel members to consensus to enable continued progression of work products throughout the measure development lifecycle

18.1.1.7 *Panel Members*

- Contribute approximately two hours per month via email correspondence and/or phone call for content review and panel call
- Provide clinical expertise, feedback, and guidance on staff-initiated work as it relates to the identification, conceptualization, specification, maintenance and implementation of measure concepts with special consideration given to:
 - Guideline recommendations and strength of evidence
 - Gaps and variations in care, and opportunities for improvement
 - Eligible populations for measure denominators including exclusions and/or exceptions
 - Quality actions, eligible services, or outcomes that should be provided or achieved for the defined population to be captured in the measure numerator
 - Clinical workflow in practice settings to help ensure real-world feasibility of measure implementation
 - Maintenance of ASCO measures

18.1.1.8 *MSG Members*

- Contribute approximately one hour per month via email correspondence and/or phone call for MSG activities and participate in two in-person meetings annually
- Review and approve newly developed de novo and maintained measures presented by the panel Chair and ASCO staff for inclusion or removal in the ASCO Measures Library. For measures not approved, MSG members shall provide guidance and suggested revisions that may enable Measures Library inclusion
- Prioritize topics for maintenance and de novo measure development

18.1.1.9 *ASCO Staff*

- Provide primary project management and operational support for measure development and maintenance efforts
- Conduct literature search to support the evidence review of existing measures and measure topics
- Provide expertise to identify, specify, code, test, implement, and/or maintain ASCO measures in close collaboration with the panel
- Initiate panel discussions on review of existing measures to include maintenance, revision, consolidation, or retirement from the ASCO Measures Library
- Guide measure development efforts to align as closely as possible with requirements and preferences of external stakeholders
- Schedule and manage recurring Chair and panel calls, including creation of meeting minutes and monitoring completion of next action steps

- Disclose potential conflicts of interest and comply with applicable ASCO conflict of interest policies
- Conduct legal reviews and prepare legal documents, as required

Appendix VIII: Literature Review for Measure Development

Conducting a literature review is an essential component of the measure development process. As mentioned in Section 5, the level and characterization of available evidence guides both the type of measure (e.g. structure, process, outcome) as well as a measure’s intended use (e.g. surveillance/research, quality improvement, accountability). While less rigorous evidence such as case reports, expert opinion, or consensus documents may be a sufficient evidence base for surveillance, research, or quality improvement measures; performance measures used in an accountability context ideally should be supported by more rigorous evidence, such as strong recommendations from United States Preventive Services Task Force (USPSTF) or clinical practice guidelines; systematic reviews; and/or well-designed randomized controlled trials.

The process and approach in performing a literature search may vary depending on the breadth of the subject of the search, and whether a measure concept has already been identified, as articulated in the guidance below.

- *Clinical Practice Guideline Review*

Existing clinical practice guidelines may or may not be indexed in online databases, such as PubMed, and a manual search for applicable guidelines is essential. Measure developers should identify relevant guideline-developing organizations, perform a manual search to identify existing guidelines applicable to the clinical topic area of interest, and compile a table of recommendations relevant to the clinical topic. Existing guideline recommendations should be reviewed with the TEP Chair for relevance; the literature referenced in existing guideline recommendations may be sufficient to support a given measure concept such that the need for additional literature review is minimal.

In addition to ASCO as a major developer of cancer guidelines, examples of other organizations that develop clinical practice guidelines that may be reviewed for applicable guideline recommendations include, but are not limited to:

- American Academy of Dermatology (AAD)
- American Academy of Hospice and Palliative Care Medicine (AAHPM)
- American Academy of Neurology (AAN)
- American Academy of Otolaryngology – Head and Neck Surgery (AAO-HNS)
- American College of Cardiology (ACC)
- American College of Obstetricians and Gynecologists (ACOG)
- American College of Surgeons (ACS)
- American Society of Breast Surgeons (ASBrS)
- American Society of Pediatric Hematology Oncology (ASPHO)
- American Society for Radiation Oncology (ASTRO)
- Cancer Care Ontario (CCO)
- College of American Pathologists (CAP)

- European Society for Medical Oncology (ESMO)
 - National Comprehensive Cancer Network (NCCN)
 - Pediatric Oncology Group of Ontario (POGO)
 - Society of Gynecologic Oncology (SGO)
 - Society of Surgical Oncology (SSO)
- *Systematic Literature Review*
 - Non-Targeted Search: If tasked with performing a literature search for measure development in a broad topic when no measure concepts have yet been identified or targeted, a measure developer may choose to conduct a full systematic literature review using a broad search strategy. The measure developer should work with the Measure Panel Chair to formulate research/PICOT questions, create a suitable search strategy, and execute the search using available online databases, such as PubMed. In this circumstance, literature review findings must be reviewed by the measure developer and panel Chair and will guide the creation of measure concepts for further development. Once identified for development, measure concepts may need to be supported by additional targeted literature searches.
 - Targeted Search: If tasked with performing a literature search for measure development in a clinical topic when measure concepts have been identified, targeted searches follow the same approach as the above systematic literature reviews for Non-Targeted Search with regard to formulating research/PICOT questions and executing a search strategy, but may be more limited as the scope of the search is tailored to a specific clinical measure concept, rather than a broad disease area. Targeted searches may also include supplemental evidence identified through online databases that was determined to be relevant to the measure topic either before or independent of the execution of a search strategy (e.g. grey literature, FDA approvals).

As with the other literature review searches mentioned above, the results of targeted searches must also be compiled by the measure developer for critical evaluation and reviewed for applicability and inclusion with the TEP Chair.

Appendix IX: Measure Narrative

Measure Title: <insert brief description of measure focus and target population in the following format: [target population] who received/had [measure focus]. For measures based on appropriate use criteria addressing overuse of certain services, there are three standardized title lead-ins: Appropriate Use of ... Appropriate Non-Use of ... Inappropriate Use of ... (for inverse measures—the least desirable approach).> <if NQF: List NQF Title>				
Library ID:	NQF: # or N/A	QOPI: # or N/A	ASCO QCDR: # or N/A	QPP: # or N/A
	CLQ: Y or N	QCP: Y or N	eCQM: # or N/A	Other: # or N/A
Measure Description:	Percentage of patients, aged 18 years and older, with a diagnosis of X who X			
Initial Population:	<List IPP in format: All patients, aged 18 years and older, with a diagnosis of X, ICD code > <For pediatric population: All patients, aged X months to X years, with a diagnosis of X, ICD code > <u>Initial Patient Population Guidance:</u> •			
Denominator:	<List denominator in format; do not repeat IP: Patients with X who X <If denominator is the same as IP: Equals Initial Population> <u>Denominator Guidance:</u> •			
Denominator Exclusions:	<List numerator exclusions (if applicable)> None <u>Denominator Exclusions Guidance:</u> •			
Numerator:	<List numerator in format: Patients with/who> <u>Numerator Guidance:</u> •			
Numerator Exclusions:	<List numerator exclusions (if applicable)> None			

	<p><u>Numerator Exclusions Guidance:</u></p> <ul style="list-style-type: none"> •
Denominator Exceptions:	<p><List numerator exclusions (if applicable)> None</p> <p><u>Denominator Exceptions Guidance:</u></p> <ul style="list-style-type: none"> •
Stratification/ Calculation:	<p>None</p> <p><If multi-strata measure, include details on the measure calculation, e.g. if the measure is calculated by a weighted average. (Weighted Average Calculation = [sum of numerator values] divided by [sum of denominator values])></p> <ul style="list-style-type: none"> • Example text: This measure contains two distinct numerator and denominator criteria; performance should be calculated as follows: (num1 + num2)/(den1 + den2). <p><If the panel discusses the calculation and acknowledges a rationale for the calculation strategy, record details here.> Example text: The TEP acknowledges the sum of denominator 1 and denominator 2 for a reporting practice will contain a variable mix of patients receiving low- and minimal-emetic-risk antineoplastics reflective of the practice’s patient population.</p>
Measurement Period:	Calendar Year
Clinical Recommendations:	<p>Complete citations to be included in reference row below.</p> <p><u>Source Title Linked to URL (Verbatim)</u>^{Reference #} Copy & past text</p>
Evidence Strength:	Detail the aggregate level/strength of evidence (additional details TBD)
Rationale:	<p><List rationale for measure></p> <p><If an Affirmed Measures (non-ASCO NQF or MIPS measure), use the following format: Per NQF #<add#> Measure Information Form¹ “Insert quote from MIF form.”></p>
Opportunity for Improvement/ Performance Gap:	<p><Include any information on performance gap or disparities available from the literature in a narrative format (if available)></p> <p><If an Affirmed Measures (non-ASCO NQF or MIPS measure), use the following format: Per NQF #<add#> Measure Information Form¹ “Insert quote from MIF form or MIPS measure.”></p> <p><If CLQ data available, insert data (standard format TBD):> CLQ Aggregate Data</p>

Level of Analysis:	Clinician: Group/Practice Clinician: Individual Facility Health Plan Population Other (please describe)
Care Setting:	Inpatient/Hospital Outpatient Services Post-Acute Care Emergency Department Home Care Other (please describe)
Data Source:	Registry EHR Claims Instrument Based Data
Type of Measure:	Process: Underuse; Process: Overuse/misuse Outcome: Intermediate; Outcome: Clinical outcome; Outcome: Utilization/cost; Outcome: PRO; Outcome: Patient experience Structure Composite Other
Interpretation of Score:	Better quality is associated with a higher score Better quality is associated with a lower score Score is used for benchmarking or informational purposes
Intended Use:	Quality Improvement Accountability/Public Reporting Surveillance/Research Other: <insert description>
Testing:	Feasibility: Validity: Reliability:
Risk Adjustment:	[if applicable]
Telehealth:	<Determine if telehealth visits would be appropriate to include in the measure> Telehealth visits are appropriate to include in the denominator Telehealth visits should be excluded from the denominator
Risks to Development/ Implementation:	<List any risks to development or implementation> Examples: The X data element is not currently captured as a discrete EHR field. It is difficult to capture cause of death due to cancer. Availability of pathology report
Copyright:	QPP MIP CQMs (“Registry Measures”) and NQF Copyright Language COPYRIGHT:

	<p>The Measure is not clinical guideline, does not establish a standard of medical care, and has not been tested for all potential applications.</p> <p>The Measure, while copyrighted, can be reproduced and distributed, without modification, for noncommercial purposes, e.g., use by health care providers in connection with their practices. Commercial use is defined as the sale, license, or distribution of the Measure for commercial gain, or incorporation of the Measure into a product or service that is sold, licensed or distributed for commercial gain. Commercial uses of the Measure require a license agreement between the user and American Society of Clinical Oncology (ASCO) and <IF JOINT COPYRIGHT, ADD OTHER ASSOCIATION NAME HERE> and prior written approval of ASCO and <IF JOINT COPYRIGHT ADD ASSOCIATION HERE>. Contact measurement@asco.org for licensing this measure. Neither ASCO, <IF JOINT COPYRIGHT ADD ASSOCIATION HERE>, nor its members shall be responsible for any use of the Measure.</p> <p>IF ASCO NOW HAS SOLE COPYRIGHT: The <OTHER ASSOCIATION's> significant past efforts and contributions to the development and updating of the Measure is acknowledged. ASCO is solely responsible for the review and enhancement (“Maintenance”) of the Measure as of <Month Year of measure transition>. ASCO encourages use of the Measure by other health care professionals, where appropriate.</p> <p>THE MEASURES AND SPECIFICATIONS ARE PROVIDED “AS IS” WITHOUT WARRANTY OF ANY KIND.</p> <p>©2019 American Society of Clinical Oncology and <IF JOINT COPYRIGHT ADD ASSOCIATION HERE>. All Rights Reserved.</p> <p>IF CODING CONTAINED IN SPEC: Limited proprietary coding is contained in the Measure specifications for convenience. Users of the proprietary code sets should obtain all necessary licenses from the owners of these code sets. ASCO, <IF JOINT COPYRIGHT ADD ASSOCIATION HERE>, and its members disclaim all liability for use or accuracy of any Current Procedural Terminology (CPT®) or other coding contained in the specifications.</p> <p>INCLUDE THE LINE(S) FOR THE SPECIFIC CODING IN THE SPEC: CPT® contained in the Measures specifications is copyright <COPYRIGHT YEAR> American Medical Association. ICD-10 is copyright 2020 World Health Organization. LOINC® copyright <COPYRIGHT YEAR> Regenstrief Institute, Inc. SNOMED CLINICAL TERMS (SNOMED CT®) copyright <COPYRIGHT YEAR> International Health Terminology Standards Development Organisation. All Rights Reserved.</p>
References:	<p>Use JCO Citation Style - https://ascopubs.org/jco/authors/format-manuscript</p> <p>Also include URL</p>
Additional Information:	<p>Include details regarding the year of maintenance or re-specification and note any extensive panel discussions for historical purposes.</p> <p>Examples: This measure was consolidated in 2020 from X. This measure was maintained by the <name> TEP in 2020. Changes include:</p>

	<ul style="list-style-type: none"> • <insert bulleted info on changes made> <p>Extensive panel discussion centered around <insert details></p> <p><if measure is affirmed due to existing analogous measures, record steward and details of chair review > This measure is stewarded by <name of steward>. Example details: <Chair affirmed QOPI specifications in September 2019. There is an analogous NQF measure stewarded by ACS (NQF 0559), which limited the scope of potential measure changes.></p> <p>QOPI Archived: MM/DD/YY <if archived by QOPI, include date></p>
Original Approval Date:	<p>Initial Panel Approval: MM/DD/YY</p> <p>Initial MSG Approval: MM/DD/YY</p> <p>Original NQF Endorsement: MM/DD/YY <if applicable></p>
Last Updated:	<p>Panel Approval: MM/DD/YY (<select one: via electronic vote, during call>)</p> <p>MSG Approval: MM/DD/YY (<select one: via electronic vote, during call>)</p> <p>Most Recent NQF Endorsement: MM/DD/YY <if applicable></p> <p>MSG/Chair/Panel Affirmed: MM/DD/YY (<if measure is affirmed, list which entity affirmed it and the date; this is included in lieu of “approval” dates)</p>

References

1. Meyer GS, Nelson EC, Pryor DB, et al: More quality measures versus measuring what matters: a call for balance and parsimony. *BMJ Qual Saf* 21:964-8, 2012
2. Dzaou VJ, McClellan M, McGinnis JM: Vital Directions for Health and Health Care: An Initiative of the National Academy of Medicine. *JAMA* 316:711-712, 2016
3. CMS Measures Management System Blueprint, (ed Blueprint v16.0). <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/MMS/Downloads/Blueprint.pdf>, Centers for Medicare & Medicaid Services, 2020
4. CMS Measures Management System Blueprint, (ed Blueprint v15.0), Centers for Medicare & Medicaid Services, 2019
5. Donabedian A: Evaluating the quality of medical care. 1966. *Milbank Q* 83:691-729, 2005