

**American Society of Hematology/
Physician Consortium for Performance Improvement®**

**Hematology
Physician Performance Measurement Set**

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Purpose of Measures:

These clinical performance measures, developed by the American Society of Hematology and the Physician Consortium for Performance Improvement® (Consortium), are designed for individual quality improvement. Unless otherwise indicated, the measures are also appropriate for accountability if appropriate methodological, statistical, and implementation rules are achieved.

Accountability Measures:

Myelodysplastic Syndrome (MDS) and Acute Leukemias

Measure #1: Baseline Cytogenetic Testing Performed on Bone Marrow

- National Quality Forum (NQF) Endorsed (Time-Limited)

Myelodysplastic Syndrome (MDS)

Measure #2: Documentation of Iron Stores in Patients Receiving Erythropoietin Therapy

- NQF Endorsed (Time-Limited)

Multiple Myeloma (MM)

Measure #3: Treatment with Bisphosphonates

- NQF Endorsed (Time-Limited)

Chronic Lymphocytic Leukemia (CLL)

Measure #4: Baseline Flow Cytometry

- NQF Endorsed (Time-Limited)

Intended Audience and Patient Population:

These measures are designed for use by physicians and for calculating reporting or performance measurement at the individual physician level. When existing hospital-level or plan-level measures are available for the same measurement topics, the Consortium attempts to harmonize the measures to the extent feasible.

These measures are designed for any physician, particularly hematologists, managing the ongoing care of patients aged 18 years and older with Myelodysplastic Syndrome (MDS), Acute Leukemias, Multiple Myeloma (MM), or Chronic Lymphocytic Leukemia (CLL).

The Consortium also encourages the use of these measures by eligible health professionals, where appropriate.

Measure Specifications

The Consortium seeks to specify measures for implementation using multiple data sources, including paper medical record, administrative (claims) data, and particular emphasis on Electronic Health Record Systems (EHRs). Specifications to report on these measures for Hematology using administrative (claims) data are included in this document. We have identified codes for these measures, including ICD-9 and CPT (Evaluation & Management Codes, Category I and where Category II codes would apply).

Measure Exclusions:

For process measures, the Consortium provides three categories of reasons for which a patient may be excluded from the denominator of an individual measure:

- Medical reasons

Includes:

- not indicated (absence of organ/limb, already received/performed, other)
- contraindicated (patient allergic history, potential adverse drug interaction, other)

- Patient reasons

Includes:

- patient declined

- social, or religious reasons
- other patient reasons

- **System reasons**

Includes:

- resources to perform the services not available
- insurance coverage/payor-related limitations
- other reasons attributable to health care delivery system

These measure exclusion categories are not available uniformly across all measures; for each measure, there must be a clear rationale to permit an exclusion for a medical, patient, or system reason. The exclusion of a patient may be reported by appending the appropriate modifier to the CPT Category II code designated for the measure:

- **Medical reasons**: modifier 1P
- **Patient reasons**: modifier 2P
- **System reasons**: modifier 3P

Although this methodology does not require the external reporting of more detailed exclusion data, the Consortium recommends that physicians document the *specific* reasons for exclusion in patients' medical records for purposes of optimal patient management and audit-readiness. The Consortium also advocates the systematic review and analysis of each physician's exclusions data to identify practice patterns and opportunities for quality improvement. For example, it is possible for implementers to calculate the percentage of patients that physicians have identified as meeting the criteria for exclusion.

Please refer to documentation for each individual measure for information on the acceptable exclusion categories and the codes and modifiers to be used for reporting.

Measures #1-4 in the Hematology measurement set are process measures.

For **outcome measures**, the Consortium specifically identifies all acceptable reasons for which a patient may be excluded from the denominator. Each specified reason is reportable with a CPT Category II code designated for that purpose.

There are no outcome measures in the Hematology measurement set.

The Consortium continues to evaluate and likely will evolve its methodology for handling exclusions as it gains experience in the use of the measures. The Consortium welcomes comments on its exclusions methodology.

Data Capture and Measure Calculation

The Consortium intends for physicians to collect data on each patient eligible for a measure. Feedback on measures should be available to physicians by patient to facilitate patient management and in aggregate to identify opportunities for improvement across a physician's patient population.

Measure calculations will differ depending on whether a rate is being calculated for performance or reporting purposes.

The method of calculation for performance follows these steps: first, identify the patients who meet the eligibility criteria for the denominator (PD); second, identify which of those patients meet the numerator criteria (A); and third, for those patients who do not meet the numerator criteria, determine whether an appropriate exclusion applies and subtract those patients from the denominator (C). (see examples below)

The methodology also enables implementers to calculate the rates of exclusions and to further analyze both low and high rates, as appropriate (see examples below).

The method of calculation for reporting differs. One program which currently focuses on reporting rates is the Centers for Medicare and Medicaid Services (CMS) Physician Quality Reporting Initiative (PQRI). Currently, under that

program design, there will be a reporting denominator determined solely from claims data (CPT and ICD-9), which in some cases result in a reporting denominator that is much larger than the eligible population for the performance denominator. Additional components of the reporting denominator are explained below.

The components that make up the numerator for reporting include all patients from the eligible population for which the physician has reported, including: the number of patients who meet the numerator criteria (A), the number of patients for whom valid exclusions apply (C) and also the number of patients who do not meet the numerator criteria (D). These components, where applicable, are summed together to make up the inclusive reporting numerator. The calculation for reporting will be the reporting numerator divided by the reporting denominator. (see examples below).

Examples of calculations for reporting and performance are provided for each measure.

Calculation for Performance

For performance purposes, this measure is calculated by creating a fraction with the following components: Numerator, Denominator, and Denominator Exclusions.

Numerator (A) Includes:

Number of patients meeting numerator criteria

Performance Denominator (PD) Includes:

Number of patients meeting criteria for denominator inclusion

Denominator Exclusions (C) Include:

Number of patients with valid medical, patient or system exclusions (where applicable; will differ by measure)

Performance Calculation

$$\frac{A \text{ (# of patients meeting numerator criteria)}}{PD \text{ (# patients in denominator)} - C \text{ (# patients with valid denominator exclusions)}}$$

It is also possible to calculate the percentage of patients excluded overall, or excluded by medical, patient, or system reason where applicable:

Overall Exclusion Calculation

$$\frac{C \text{ (# of patients with any valid exclusion)}}{PD \text{ (# patients in denominator)}}$$

OR

Exclusion Calculation by Type

$$\frac{C_1 \text{ (# patients with medical reason)}}{PD \text{ (# patients in denominator)}}$$

$$\frac{C_2 \text{ (# patients with patient reason)}}{PD \text{ (# patients in denominator)}}$$

$$\frac{C_3 \text{ (# patients with system reason)}}{PD \text{ (# patients in denominator)}}$$

Calculation for Reporting

For reporting purposes, this measure is calculated by creating a fraction with the following components: Reporting Numerator and Reporting Denominator

Reporting Numerator includes each of the following components, where applicable. (There may be instances where there are no patients to include in A, C, D, or E).

A. Number of patients meeting additional denominator criteria (for measures where true denominator cannot be determined through ICD-9 and CPT Category I coding alone) AND numerator criteria

C. Number of patients with valid medical, patient or system exclusions (where applicable; will differ by measure)

D. Number of patients not meeting numerator criteria and without a valid exclusion

E. All other patients not meeting additional denominator criteria (for measures where true denominator cannot be determined through ICD-9 and CPT Category I coding alone)

Reporting Denominator (RD) Includes:

RD. Denominator criteria (identifiable through ICD-9 and CPT Category I coding)

Reporting Calculation

A(# of patients meeting additional denominator criteria AND numerator criteria) + **C**(# of patients with valid exclusions) + **D**(# of patients NOT meeting numerator criteria) + **E**(# of patients not meeting additional denominator criteria)

RD (# of patients in denominator)

EVIDENCE CLASSIFICATIONS / RATING SCHEMES

National Comprehensive Cancer Network (NCCN) Recommendation Rating Scale^{1,3,4,5,8}

Category of Consensus	Quality of Evidence	Level of Consensus
1	High	Uniform
2A	Lower	Uniform
2B	Lower	Non-uniform
3	Any	Major disagreement

Category 1: The recommendation is based on high-level evidence (ie, high-powered randomized clinical trials or meta-analyses), and the panel has reached uniform consensus that the recommendation is indicated. In this context, uniform means near unanimous positive support with some possible neutral positions.

Category 2A: The recommendation is based on lower level evidence, but despite the absence of higher level studies, there is uniform consensus that the recommendation is appropriate. Lower level evidence is interpreted broadly, and runs the gamut from phase II or large cohort studies to individual practitioner experience. Importantly, in many instances, the retrospective studies are derived from clinical experience of treating large numbers of patients at a member institution, so panel members have first-hand knowledge of the data. Inevitably, some recommendations must address clinical situations for which limited or no data exist. In these instances the congruence of experience-based opinions provide an informed if not confirmed direction for optimizing patient care. These recommendations carry the implicit recognition that they may be superseded as higher level evidence becomes available or as outcomes-based information becomes more prevalent.

Category 2B: The recommendation is based on lower level evidence, and there is nonuniform consensus that the recommendation should be made. In these instances, because the evidence is not conclusive, institutions take different approaches to the management of a particular clinical scenario. This nonuniform consensus does not represent a major disagreement, rather it recognizes that given imperfect information, institutions may adopt different approaches. A Category 2B designation should signal to the user that more than one approach can be inferred from the existing data.

Category 3: Including the recommendation has engendered a major disagreement among the panel members. The level of evidence is not pertinent in this category, because experts can disagree about the significance of high level trials (McNeill, 2001). Several circumstances can cause major disagreements. For example, if substantial data exist about two interventions but they have never been directly compared in a randomized trial, adherents to one set of data

may not accept the interpretation of the other side's results. Another situation resulting in a Category 3 designation is when experts disagree about how trial data can be generalized. An example of this is the recommendation for internal mammary node radiation in postmastectomy radiation therapy. One side believed that because the randomized studies included this modality, it must be included in the recommendation. The other side believed, based on the documented additional morbidity and the role of internal mammary radiation therapy in other studies, that this was not necessary. A Category 3 designation alerts users to a major interpretation issue in the data and directs them to the manuscript for an explanation of the controversy.

Mayo Clinic Consensus Statement Recommendation Rating Scale⁶ (adapted from American Society of Clinical Oncology Levels of Evidence and Grade of Evidence for Recommendations)¹⁰

Level I	Evidence obtained from meta-analysis of multiple, well-designed, controlled studies. Randomized trials with low false-positive and low false-negative errors (high power)
Level II	Evidence obtained from at least one well-designed experimental study. Randomized trials with high false-positive and/or negative errors (low power).
Level III	Evidence obtained from well-designed, quasi-experimental studies such as nonrandomized, controlled single-group, pre-post, cohort, time, or matched case-control series
Level IV	Evidence from well-designed, nonexperimental studies such as comparative and correlational descriptive and case studies
Level V	Evidence from case reports and clinical examples
Grade A	There is evidence of type I or consistent findings from multiple studies of types II, III, or IV
Grade B	There is evidence of types II, III, or IV and findings are generally consistent
Grade C	There is evidence of types II, III, or IV but findings are inconsistent
Grade D	There is little or no systematic empirical evidence

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