

Hematology

Measure #4: Chronic Lymphocytic Leukemia (CLL): Baseline Flow Cytometry

This measure may be used as an Accountability measure

Clinical Performance Measure

Numerator: Patients who had baseline flow cytometry* studies performed and documented in the chart

Definition: *Baseline flow cytometry studies: Refer to testing that is performed at time of diagnosis or prior to initiating treatment for that diagnosis. Treatment may include anti-neoplastic therapy.

Denominator: All patients aged 18 years and older, seen within a 12 month reporting period, with a diagnosis of chronic lymphocytic leukemia (CLL) made at any time during or prior to the reporting period

Denominator Exceptions:

Documentation of medical reason(s) for not performing baseline flow cytometry studies

Documentation of patient reason(s) for not performing baseline flow cytometry studies (eg, receiving palliative care or not receiving treatment as defined above)

Documentation of system reason(s) for not performing baseline flow cytometry studies (eg, patient previously treated by another physician at the time baseline flow cytometry studies were performed)

Measure Description: Percentage of patients aged 18 years and older, seen within a 12 month reporting period, with a diagnosis of chronic lymphocytic leukemia (CLL) made at any time during or prior to the reporting period who had baseline flow cytometry studies performed and documented in the chart

The following clinical recommendation statements are quoted verbatim from the referenced clinical guidelines and represent the evidence base for the measure:

Adequate immunophenotyping is required to establish the diagnosis of CLL/SLL. Flow cytometry of peripheral blood is adequate for the diagnosis of CLL, and a biopsy is generally not required. (Category 2A Recommendation) (NCCN, 2017¹)

Rationale for the measure:

Due to the distinct pattern of protein antigens expressed in CLL, flow cytometry should be performed in order to confirm the diagnosis, correctly characterize the pathological cells, and determine prognosis. In some instances, flow cytometry may also offer additional therapeutically relevant information².

Measure Specifications – Measure #4: Chronic Lymphocytic Leukemia (CLL): Baseline Flow Cytometry

Administrative Claims/Registry

Administrative claims data collection requires users to identify the eligible population (denominator) and numerator using codes recorded on claims or billing forms (electronic or paper). Users report a rate based on all patients in a given practice for whom data are available and who meet the eligible population/denominator criteria.

Denominator (Eligible Population): All patients aged 18 years and older, seen within a 12 month reporting period, with a diagnosis of chronic lymphocytic leukemia (CLL) made at any time during or prior to the reporting period

Patients aged \geq 18 years on date of encounter

AND

Diagnosis for CLL – not in remission (ICD-10-CM): C91.10, C91.12

AND

Patient encounter during the performance period (CPT): 99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215, 99241, 99242, 99243, 99244, 99245

WITHOUT

Telehealth Modifier: GQ, GT, 95, POS 02

Numerator: Patients who had baseline flow cytometry studies performed and documented in the chart

- **Report CPT Category II code: 3170F** – Flow cytometry studies performed at time of diagnosis or prior to initiating treatment

Denominator Exceptions:

Denominator Exception(s) are determined at the time of the diagnosis of CLL or prior to initiating treatment.

Documentation of medical reason(s) for not performing baseline flow cytometry studies

- **Append modifier to CPT Category II code: 3170F-1P**

Documentation of patient reason(s) for not performing baseline flow cytometry studies (eg, receiving palliative care or not receiving treatment as defined above)

- **Append modifier to CPT Category II code: 3170F-2P**

Documentation of system reason(s) for not performing baseline flow cytometry studies (eg, patient previously treated by another physician at the time baseline flow cytometry studies were performed)

- **Append modifier to CPT Category II code: 3170F-3P**

EVIDENCE CLASSIFICATIONS / RATING SCHEMES¹

National Comprehensive Cancer Network (NCCN) Recommendation Rating Scale¹ - - - -

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.

References

¹ National Comprehensive Cancer Network (NCCN). Clinical Practice Guidelines in Oncology: Chronic Lymphocytic Leukemia/Small Lymphocytic Leukemia. Version 1.2018, 2017. Available at: https://www.nccn.org/professionals/physician_gls/pdf/cll.pdf.

² DiGiuseppe JA, Borowitz MJ. Clinical utility of flow cytometry studies in the chronic lymphoid leukemias. *Semin Oncol*. 1998; 25(1): 6-10.