

2026 Quality ID PIMSH13: Oncology: Mutation Testing for Stage IV Lung Cancer Completed Prior to the Start of Targeted Therapy

--High Priority Type: High Priority

--Measure Type: Process/Appropriate Use

2026 COLLECTION TYPE:

Practice Insights by McKesson in Collaboration with The US Oncology Network – QCDR

DATA SOURCE USED FOR THE MEASURE:

EHR -- Medical record, including problem list, drug lists, and lab reports

DESCRIPTION:

Proportion of stage IV nsNSCLC patients tested for actionable biomarkers and received targeted therapy or chemotherapy based on biomarker results

DENOMINATOR:

Patients with stage IV non-squamous, NSCLC receiving treatment during the measurement period AND patient encounter during the performance period.

Denominator Note: Include patients with stage IV non-squamous, NSCLC diagnosed between July 1st of the previous performance period through the end of the current performance period

DENOMINATOR EXCLUSION:

Patients on clinical trial

DENOMINATOR EXCEPTIONS:

None

NUMERATOR:

Patients who received mutation testing for all actionable biomarkers at Stage IV diagnosis of nsNSCLC (including NTRK1/2/3, RET, MET, ROS1, EGFR, EGFR T790M, BRAF mutation, ALK rearrangement, CD274(PD-L1), KRAS, ERBB2 mutation) AND lung cancer treated with appropriate mutation-directed therapy or standard chemotherapy if biomarker results are negative.

Numerator Note: Mutation testing may include solid tumor and/or liquid biopsy options

NUMERATOR EXCLUSIONS:

None

TELEHEALTH:

Included

REPORTING OPTIONS:

MVP, Traditional MIPS

CLINICAL RECOMMENDATION STATEMENT:

This measure is endorsed by The US Oncology Network Steering Committee. Recent discovery of some of the driver mutations for NSCLC have advanced more individualized and targeted treatment options. It is now a standard recommendation that patients with advanced NSCLC undergo routine molecular testing to identify certain abnormalities which influence treatment selection to improve efficacy. Guidelines:

NCCN Practice Guidelines in Oncology. Non-Small Cell Lung Cancer.

http://www.nccn.org/professionals/physicians_gls/pdf/nsclc.pdf. Published July 14, 2017.

2017 CAP/IASLC/AMP guideline recommendations for biomarker testing in NSCLC. Lindeman NI, Cagle PT, Beasley MB, et al. Molecular testing guideline for selection of lung cancer patients for EGFR and ALK tyrosine kinase inhibitors: guideline from the College of American Pathologists, International Association for the Study of Lung Cancer, and Association for Molecular Pathology. J Mol Diagn. 2013;15(4):415-453. 'NCCN Clinical Practice Guidelines in Oncology. Non-small cell lung cancer (2015).

ASCO provisional clinical opinion: Epidermal growth factor receptor (EGFR) mutation testing for patients with advanced non-small-cell lung cancer considering first-line EGFR tyrosine kinase inhibitor therapy. (2011)

QCDR MEASURE RATIONALE:

Clinicians still face considerable challenges when establishing and implementing biomarker testing standards, including interpreting large-scale genomic data from multiple tumor types, making it difficult to stay current with practice standards. A recent study of oncologists assessed the degree to which a patient with NSCLC's genetic makeup impacted first-line treatment decisions. 60% of oncologists in the US did not base their treatment decisions on a patient's genetic mutation subtype. Despite ordering mutation tests, 21% determined the treatment regimen for their patients before the mutation test results were available. Overall, 23% of clinicians did not consider EGFR mutation subtypes in making treatment decisions. (Spicer, 2015) Monitoring of appropriate biomarker testing through quality measurement and providing that feedback to physicians is a first step to understanding clinical practice guideline compliance to optimize diagnosis and management of NSCLC.

References:

- Mason C, et al. Patterns of biomarker testing rates and appropriate use of targeted therapy in the first-line, metastatic non-small cell lung cancer treatment setting. J Clin Pathways. 2018; 4(1): 49-54.
- Levy, BP, et al. Molecular testing for treatment of metastatic non-small cell lung cancer: how to implement evidence-based recommendations. The Oncologist 2015; 20: 1175-1181.
- Spicer J, et al. EGFR mutation testing and oncologist treatment choice in advanced NSCLC: global trends and differences. Ann Oncol. 2015; 26(1): i57-i61.

These performance measures are not clinical guidelines and do not establish a standard of medical care and have not been tested for all potential applications.

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