Enhancing Early-Stage NSCLC Care: Streamlining Biomarker Testing and Multidisciplinary Coordination Through Quality Improvement Initiatives



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BACKGROUND

Early-stage non-small cell lung cancer (NSCLC) is a heterogeneous disease with diverse molecular profiles and treatment options. Recent advances in targeted therapy and chemoimmunotherapy (including neoadjuvant and/or adjuvant therapy for appropriate patients) have improved patient outcomes. However, some patients experience delays in treatment planning as cancer centers adapt to evolving recommendations and face challenges in timely and appropriate biomarker testing and coordination among the multidisciplinary care team to effectively deliver multimodal treatment.

METHODS

The Association of Cancer Care Centers (ACCC) collaborated with 4 cancer centers on a quality improvement (QI) project aimed at improving care for patients with early-stage NSCLC.

Sites in Alabama, Florida, Texas, and North Carolina participated, representing a mix of community hospitals and academic medical centers.



Each site reviewed workflows and baseline data on biomarker testing in patients with early-stage NSCLC and implemented interventions to:

- 1 Identify key barriers to testing
- 2 Brainstorm QI interventions for improvement
- Implement interventions to streamline testing processes, reduce delays, and increase testing rates to better adhere with NCCN guidelines

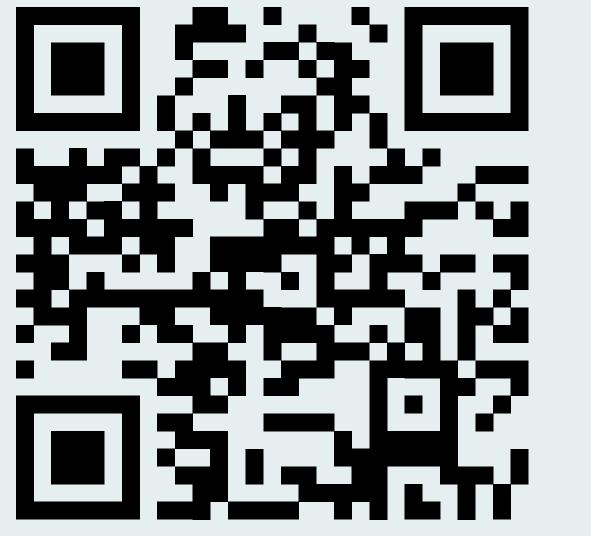
CONCLUSIONS

Nurse navigators and APPs are key members of the multidisciplinary team who can lead and implement QI efforts to ensure timely and effective biomarker testing for patients with early-stage NSCLC.

Findings from these QI programs demonstrate that cancer centers can increase biomarker testing rates and adherence to guideline concordant care through multidisciplinary team engagement, optimizing care for patients with early-stage NSCLC.

FUNDING

This program was made possible by support from AstraZeneca



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RESULTS

Interim project data revealed that sites:



Improved EGFR and PD-L1 testing by 25%



Improved timely (<4 weeks from the date of diagnosis) biomarker testing by 11%



Increased the proportion of patients discussed in tumor boards by 20%.

ALK testing was not included when the project began but has since been incorporated into updated clinical workflows.

Nurse navigators and APPs achieved these improvements by:

- Engaging key stakeholders with the pathology and thoracic oncology departments
- Streamlining workflows
- Standardizing biomarker test ordering pathways
- Reinforcing the need to have test results prior to neoadjuvant/adjuvant treatment planning.

Multidisciplinary care members also identified and explored ways to navigate complex barriers such as:

- The Medicare 14-day rule for inpatients
- Vetting and selecting reference labs
- Incorporating liquid biopsy when tissue quantity is not sufficient (QNS)
- Providing ongoing education as new data emerges.

FUTURE DIRECTION

To enhance adherence to NCCN guidelines and improve patient outcomes, it is essential to provide opportunities for nurse navigators and APPs to lead QI initiatives around biomarker testing in patients with early-stage lung cancer. Current clinical guidelines recommend EGFR, ALK, and PD-L1 testing in patients with resectable early-stage NSCLC. These test results can guide clinical decisions regarding neoadjuvant and/or adjuvant therapy for patients undergoing surgical resection.