Table 1. Key Areas for Improvement and Potential Action Items

IDENTIFIED AREAS FOR IMPROVEMENT	POTENTIAL ACTION ITEMS
Biopsy samples insufficient for molecular testing	✔ Reach out to programs with effective endobronchial ultrasound (EBUS) procedures and request to let team observe ✔ Improve fine-needle aspiration (FNA) biopsy results by scheduling meeting with radiologist, pulmonologist, and pathologist to review literature on FNA and discuss the optimal approach ✔ Review how radiologists are performing CT-guided lung biopsies and identify opportunities to standardize, make improvements in techniques, and increase appropriate use of core needle over FNA ✔ Compare adequacy rates of core needle biopsy samples vs. FNA
Molecular tests not ordered for eligible patients	✔ Review individual charts to determine why patients were not tested ✔ Discuss findings with team and consider ways to make improvements for future patients ✔ Review how disease staging impacts reflexive molecular testing process ✔ Create a reflexive molecular testing process
Lack of pathology-driven reflexive molecular testing	✔ Develop and implement a reflexive molecular testing pathway ✔ Update process and policy to include: • Simultaneous testing for *EGFR* & *ALK* • Documentation of why *EGFR* & *ALK* were not completed • Create process and tools for monitoring
Clinicians not capturing and documenting key quality measures for reporting	✔ Add molecular testing results to cancer registry as structured data fields ✔ Improve documentation around specific National Quality Forum (NQF), American Society of Clinical Oncology (ASCO), Quality Oncology Practice Initiative (QOPI) or other validated quality measures ✔ Revise progress notes templates or add tabs, fields, and/or sections so that nurses and physicians are consistently documenting information in EHR ✔ Include document of completion for molecular testing, along with test results ✔ Define process or create a template to assure inclusion of documentation of the reason for not completing testing
Lack of standardized reporting formats for molecular test results	✔ Standardize the application of the College of American Pathologists (CAP) lung biomarker reporting template in the EHR system
Difficulty using the cancer registry to measure molecular testing quality	✔ Add *EGFR* and *ALK* test results into cancer registry as a structured data field which will allow periodic review of molecular testing rates in an easier, more efficient manner ✔ Develop more uniform approach for entering NSCLC information into registry
Lack of an established pathway when evaluating a suspicious lung mass	✔ Monitor lung cancer patient data obtained from imaging reports, pathology reports and surgical reports, to include size of lesion, location of lesion, and mode of biopsy to see if there are patterns that drive mode of biopsy decisions ✔ Include information about a lung "hotline" to report abnormal chest x-ray and CT scan reports for radiology charts ✔ Include lung "hotline" information on patient instruction forms for chest X-ray or CT scan
Delays when ordering molecular tests for inpatients due to the CMS "14 Day" rule	✔ Working with senior administration to develop an approved center policy for molecular testing for inpatient diagnosis; educating staff and physicians about policy