

Advanced Immuno-Oncology (I-O) ChangeMakers

Action Learning Projects to Improve Cancer Care

Project Title	Refining lung needle biopsy tissue handling procedures and reflex testing PD-L1
Problem/Challenge	Inadequate lung needle biopsy samples may result in delayed PD-L1 testing and limit molecular testing.
Aim/Goal	Refine tissue handling protocols for lung needle biopsies to preserve as much tissue as possible for biomarker testing. Establish a reflex testing protocol that includes PD-L1 to reduce delays in testing.
Key Interventions	We met with our oncology colleagues and discussed the challenges around an optimal testing workflow when lung biopsy sample quantities are limited. To ensure that we have adequate tissue for testing, we combined bronchoscopic biopsy and FNA specimens into one accession number that was handled by one pathologist. This way, the tumor was worked up once and tissue was preserved. We made 6 unstained slides upfront at the time of H&E to be used for tumor workup and PD-L1 testing. This reduced the number of times the block needed to be cut and we saved tissue. We also made PD-L1 testing a reflex test which improved turnaround time significantly.
Summary of Results	As a result of these new protocols and workflows, we saw less cases of quantity not sufficient (QNS) and reduced the need to rebiopsy patients with lung cancer. Also, by incorporating reflex PD-L1 testing, the test results were available with minimal delays.
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