



PD-L1 and Tumor Mutation Burden Testing of Patients With Lung Cancer for Selection of Immune Checkpoint Inhibitor Therapies

Statements and Strengths of Recommendations

SUMMARY OF RECOMMENDATIONS

Guideline Statement	Strength of Recommendation
<p>1. In patients with advanced non-small cell lung cancer (NSCLC), pathologists should use a validated program death ligand-1 (PD-L1) immunohistochemistry (IHC) expression assay, in conjunction with other targetable genomic biomarker assays where appropriate, to optimize selection for treatment with immune checkpoint inhibitors (ICI).</p>	Strong Recommendation
<p>2. Pathologists should ensure appropriate validation has been performed on all specimen types and fixatives.</p> <p><i>Note:</i> Specific validation requirements are out of scope with this guideline and laboratories should refer to the “Principles of Analytic Validation of Immunohistochemical Assays Guideline”¹ for details on how to validate IHC specimens.</p>	Conditional Recommendation
<p>3. When feasible, pathologists should use clinically validated PD-L1 IHC assays as intended.</p>	Conditional Recommendation
<p>4. Pathologists that choose to use laboratory developed tests for PD-L1 expression should validate according to the requirement of their accrediting body.</p>	Strong Recommendation
<p>5. Pathologists should report PD-L1 IHC results using a percent expression score.</p>	Conditional Recommendation
<p>6. Clinicians should not use tumor mutation burden alone to select patients with advanced NSCLC for ICI based on insufficient evidence in this population.</p>	Conditional Recommendation

¹Goldsmith JD, Troxell ML, Roy-Chowdhuri S, et al. Principles of analytic validation of immunohistochemical assays: guideline update. *Arch Pathol Lab Med*. Published online February 23, 2024. doi: 10.5858/arpa.2023-0483-CP

Sholl LM, Furtado LV, Awad M, et al. Programmed death ligand-1 and tumor mutation burden testing of patients with lung cancer for selection of immune checkpoint inhibitor therapies: guideline from the College of American Pathologists, the Association for Molecular Pathology, the International Association for the Study of Lung Cancer, the Pulmonary Pathology Society, and the LUNGevity Foundation. *Arch Pathol Lab Med*. Published online April 16, 2024. doi: 10.5858/arpa.2023-0536-CP