The Precision Blueprint

Navigating the 2026 NCCN Guidelines for Advanced NSCLC

A visual pathway for biomarker-driven precision medicine and systemic therapy initiation

The Burden

A

229,410

US diagnoses in 2026

B

124,990

US lung cancer-related deaths in 2026

C

87%

Proportion of lung cancers that are NSCLC

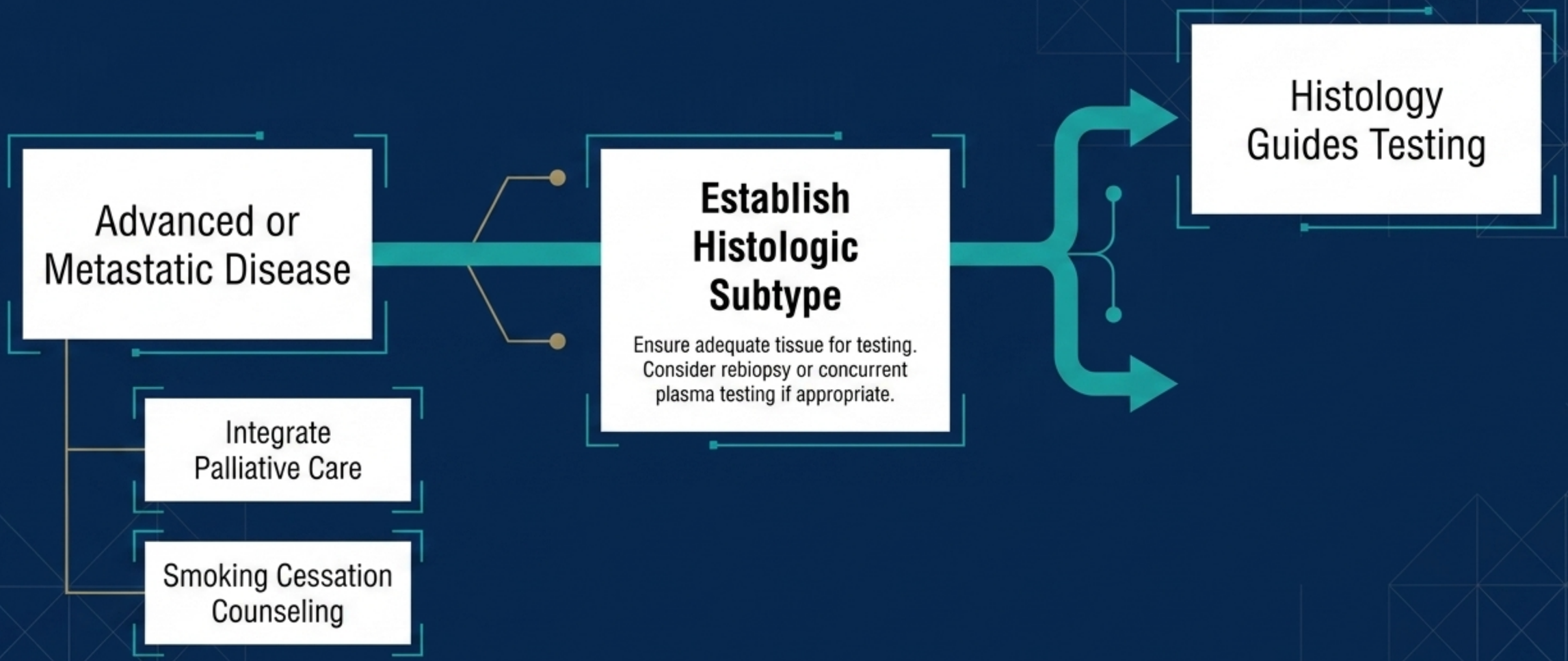
The Baseline

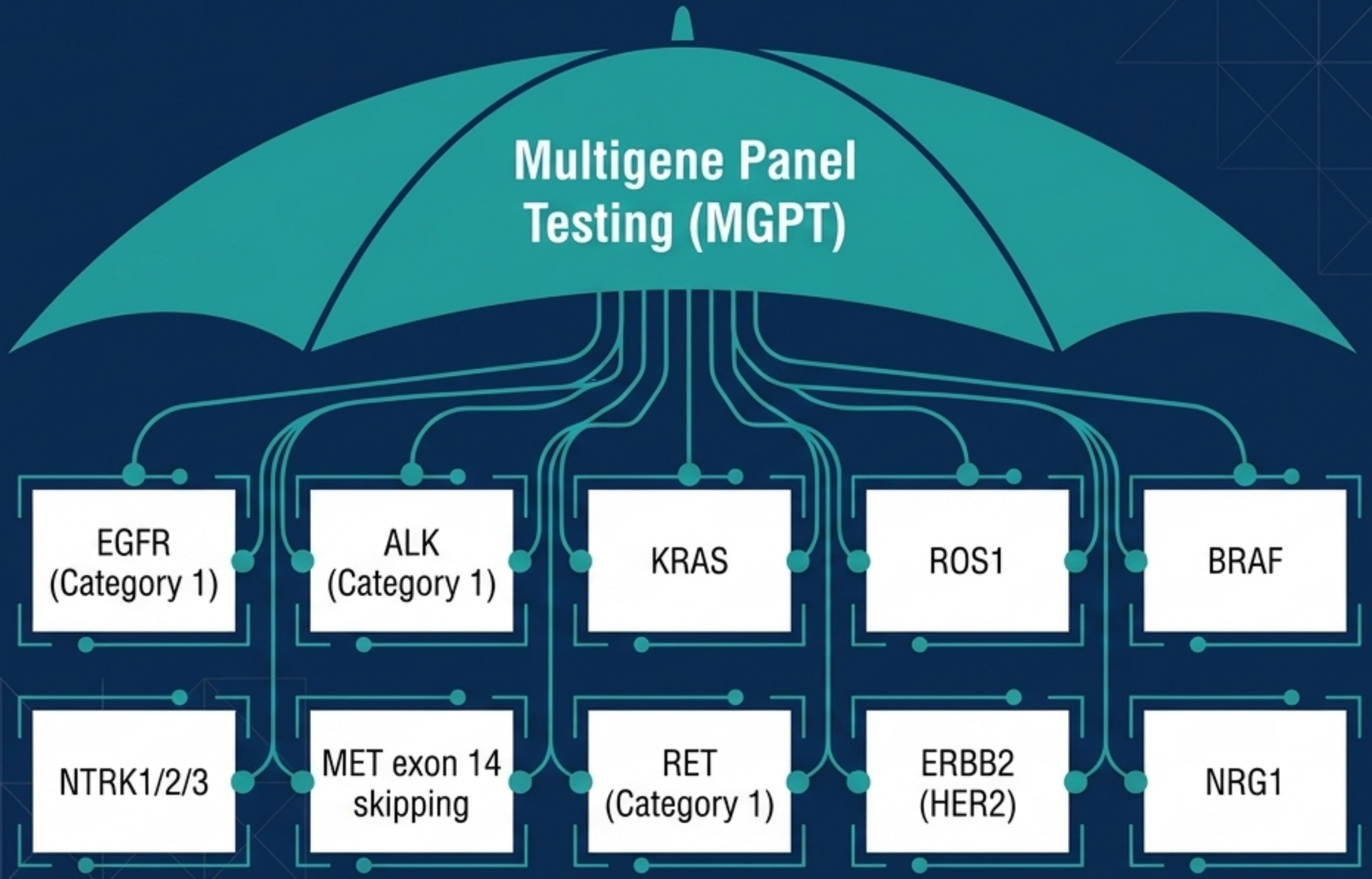
32%

5-Year Overall Survival rate for NSCLC

Survival is heavily influenced by histology, disease stage, age, and actionable biomarkers.

Real-world data confirms: Biomarker testing results available prior to treatment initiation are directly associated with longer Overall Survival (OS) in nonsquamous NSCLC.


Advanced or Metastatic Disease
Establish Histologic Subtype
Ensure adequate tissue for testing. Consider rebiopsy or concurrent plasma testing if appropriate.
Histology Guides Testing
Integrate Palliative Care
Smoking Cessation Counseling



PD-L1 Testing (Category 1)

The NCCN strongly advises MGPT in a single assay (or limited combinations) over sequential testing. Concurrent tissue and plasma testing can improve turnaround time for critical results.

Adenocarcinoma / Large Cell / NSCLC NOS

MUST TEST

Biomarker testing including the full MGPT panel + HER2 IHC + c-Met IHC.

PD-L1 Testing: Category 1

Regardless of histology, PD-L1 testing is a Category 1 recommendation during initial evaluation.

Squamous Cell Carcinoma

CONSIDER TESTING

Consider biomarker testing including the full MGPT panel + HER2 IHC.

PD-L1 Testing: Category 1

First-Line Treatment Decision

The Rule: Targeted Therapy

First-Line Preference for Oncogenic Drivers.

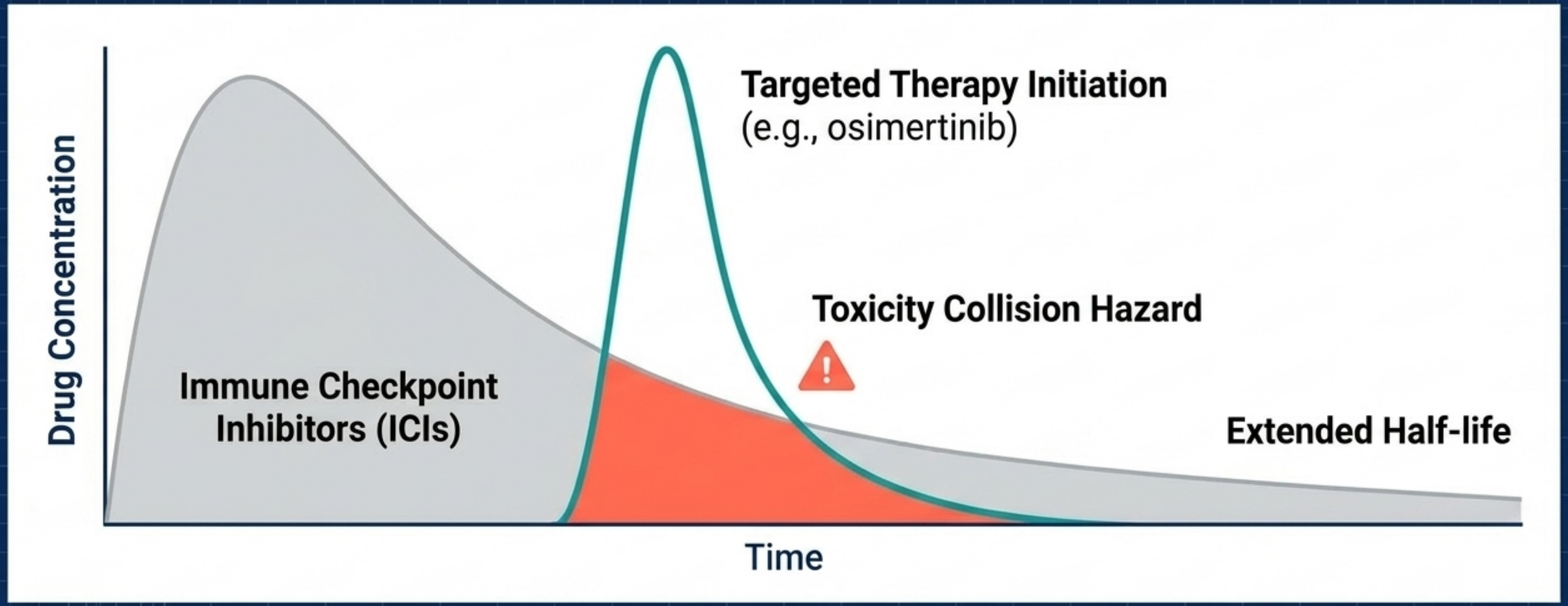
- Higher response rates than ICIs
- Better tolerated
- Superior Central Nervous System (CNS) efficacy

Rule note: Administer regardless of PD-L1 levels.

The Exception: Immunotherapy

The *KRAS* G12C Exception.

Patients with *KRAS G12C* mutation-positive NSCLC benefit from immunotherapy (± chemotherapy) in the first line. Targeted therapies for this mutation are reserved for second-line or later.



The Pharmacologic Hazard: Given the long half-life of ICIs, initiating certain targeted therapies (like osimertinib) concurrently or immediately following immunotherapy creates a high-risk zone for severe side effects. Wait for negative driver mutation confirmation before starting ICIs.

The Urgent Need

Patient requires immediate therapy, but biomarker/MGPT results are pending.

1

The Cycle 1 Action (HOLD)

Administer standard platinum-based chemotherapy.

⚠ CRITICAL HOLD:

2

The Cycle 1 Action (HOLD)

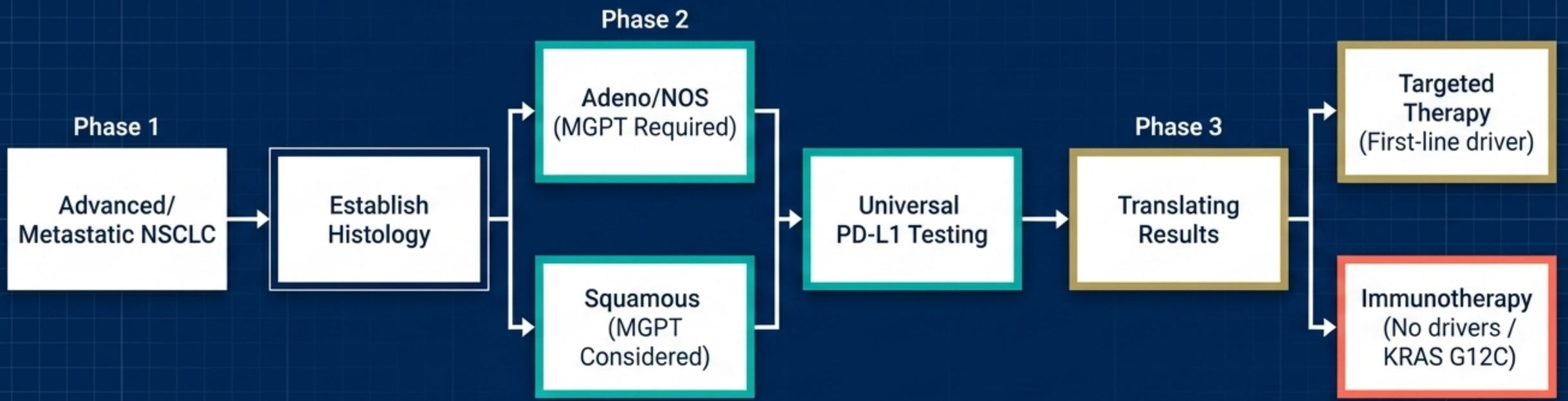
Administer standard platinum-based chemotherapy.

⚠ CRITICAL HOLD: Do not initiate immunotherapy for Cycle 1.

3

The Pivot

Wait for complete MGPT results. If it is definitively confirmed that no driver mutations are present, immunotherapy can be safely integrated into the regimen.



Precision medicine in advanced NSCLC requires a disciplined pathway: secure adequate tissue, mandate comprehensive MGPT, and align first-line therapy to the patient's exact molecular blueprint.