

Why Population-Specific Genomics Must Reshape APAC Oncology Evidence?

How genomic diversity, biomarker testing gaps, and fragmented evidence systems are limiting oncology access across Asia-Pacific



THE PROBLEM

APAC Oncology Operates on Borrowed Evidence

Most clinical evidence informing treatment decisions across Asia-Pacific was generated in Western populations with fundamentally different genomic profiles.

80%

of pivotal oncology trials enroll predominantly Western populations

40%

of actionable mutations in APAC populations are underrepresented in global data

3-5 yrs

average delay in APAC-specific evidence generation vs. Western markets



INSIGHT

Genomic Diversity Is Not a Research Footnote

APAC populations carry distinct mutation frequencies, biomarker expression patterns, and drug metabolism profiles that fundamentally alter treatment response.

- EGFR mutations occur in 40-55% of APAC NSCLC patients vs. 10-15% in Western cohorts
- HER2-low expression thresholds may differ across East Asian breast cancer populations
- PD-L1 scoring and TMB benchmarks derived from Western data may misclassify APAC patients
- Pharmacogenomic variants (CYP2D6, DPYD) show distinct APAC frequency distributions

Implication: Evidence strategies built on Western genomic assumptions systematically underserve APAC patient populations.



INSIGHT

Biomarker Testing Behavior Varies Dramatically Across APAC

Testing infrastructure, reimbursement policies, and clinical practice patterns create a fragmented evidence landscape that undermines pan-APAC treatment strategies.

Market	NGS Rate	Context
Japan	~70%	High NGS adoption, national genomic initiatives
South Korea	~55%	Strong academic testing, variable community access
China	~35%	Rapid growth but uneven quality standardization
Southeast Asia	~15%	Limited infrastructure, cost barriers predominant
India	~10%	Emerging capacity, significant urban-rural divide

Result: No single evidence package can serve all APAC markets. Strategies must account for local testing realities.



FRAMEWORK

A Genomics-Informed Evidence Architecture

Four interconnected pillars for building population-specific oncology evidence across APAC markets.

01

Population Genomics Layer

Map mutation frequencies, biomarker prevalence, and pharmacogenomic profiles by APAC sub-population

02

Testing Infrastructure Mapping

Assess NGS access, turnaround times, and quality standards across each market's clinical ecosystem

03

Evidence Gap Analysis

Identify where Western-derived data fails to predict APAC treatment outcomes and prioritize local generation

04

Adaptive Evidence Packages

Design modular dossiers that flex to local regulatory, HTA, and clinical decision-making requirements



USE CASE

NSCLC in East Asia: Where Genomics Rewrites the Evidence Playbook

EGFR-mutant NSCLC demonstrates why Western-derived evidence cannot simply be transposed to APAC populations.

1

Population Signal

EGFR mutations present in 40-55% of East Asian NSCLC vs. 10-15% in Western populations

2

Testing Reality

Variable NGS access means many APAC patients never receive comprehensive biomarker profiling

3

Evidence Mismatch

Pivotal trials underrepresent EGFR+ Asian patients, leaving efficacy and safety gaps in local decision-making

4

Strategic Response

Population-specific RWE programs, local registries, and adaptive evidence packages close the gap

Outcome: Genomics-informed evidence strategies can reduce time-to-access for targeted therapies by 12-18 months in key APAC markets.



STRATEGIC QUESTION

How does your APAC oncology evidence strategy account for population-specific genomic characteristics?

If your evidence generation, market access dossiers, or clinical development plans do not integrate APAC-specific genomic intelligence, you may be building on assumptions that no longer hold.

Aurumetrics can help you:

- Map population-specific genomic evidence gaps
- Design adaptive, market-ready evidence packages
- Connect real-world data to regulatory and HTA strategy
- Build APAC-first oncology intelligence infrastructure

[Start the Conversation](#)

The challenge is no longer whether healthcare data exists.

It is whether the right evidence can be generated fast enough?

Yes, it can.

Aurumetrics supports pharmaceutical and life sciences teams with real-world data intelligence, strategic commercial insight and evidence generation.

GLOBAL MARKET FOOTPRINT

APAC-focused with evidence and data partnerships spanning:

China • Australia • Japan • South Korea • Taiwan • New Zealand

Additional support across the UK, EU, US, and other global markets on an ad hoc basis.

CAPABILITIES

Sourcing & Integrating
Real-World Data Globally

Advancing Analytical
Solutions

Delivering Strategic
Data Insights & Advisory

Building Powerful
Data Collaborations

Claims • EMR • Registry • GP • Lab • Genomics • Linked Data

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