



ADVANCING HER2-POSITIVE BREAST CANCER CARE IN INDONESIA

Strengthening Foundations for Equitable Precision Oncology

EXECUTIVE SUMMARY

INTRODUCTION

Indonesia. Southeast Asia's largest nation by population, faces growing breast cancer incidence with rising demand for precision care. While HER2 testing and trastuzumab are available in selected tertiary centers, access is uneven and largely limited to urban areas. Most HER2-targeted therapies remain unaffordable for many, and integration of HER2-low classifications and relapse re-testing is virtually absent. Indonesia currently falls under Maturity Level 2 -**Emerging**, reflecting major barriers in infrastructure, access, and data reporting. With increasing public health attention to non-communicable diseases and a maturing universal health coverage scheme, Indonesia has the potential to scale HER2 care if gaps in equity, capacity, and funding are strategically addressed.

Breast cancer is now the leading cancer among Indonesian women, with more than 65,000 new cases annually and rising incidence. Approximately 15-20% of breast cancer cases are HER2-positive, requiring early testing and timely access HER2-targeted therapies such trastuzumab and pertuzumab. Indonesia's national health insurance scheme, Jaminan Kesehatan Nasional (JKN), has expanded coverage for core cancer services, major gaps remain in HER2 testing availability, cost coverage, and national implementation of personalized oncology protocols. Screening remains opportunistic, public awareness of HER2 subtypes is low, and HER2-disaggregated survival data are not collected. As a system at the Emerging maturity level, Indonesia must focus on infrastructure, building ensuring affordability, and strengthening national coordination to scale HER2-positive breast cancer care.

CURRENT FRAMEWORK/SITUATION

Indonesia's decentralized healthcare system provides variable access to cancer care across its archipelago of 17,000+ islands. Tertiary referral hospitals in major cities (e.g., Jakarta, Surabaya, Yogyakarta) offer HER2 testing via IHC and sometimes FISH, but regional and district-level hospitals lack diagnostic capacity. Trastuzumab is included on the national formulary, but access is limited due to high out-of-pocket costs, fragmented reimbursement, and administrative barriers. Newer HER2 therapies such as T-DM1 or trastuzumab deruxtecan are not routinely accessible.

National screening is not systematically implemented; most diagnoses occur at late stages. Survivorship care and HER2-low classification are absent from clinical guidelines. Indonesia's capacity is improving, but implementation remains weak—placing the system in Maturity **Level 2 – Emerging**, where foundational reforms are essential.





HER2 BREAST CANCER IN INDONESIA

Key Issues and Policy Recommendations

Pillar	Fact	Barrier	Policy Recommendations
Infrastructure	Some tertiary hospitals provide HER2 IHC testing	but most district and provincial hospitals lack pathology labs or trained personnel.	Expand pathology capacity and training through regional cancer hub development and public-private diagnostics partnerships.
Access to Treatment	Trastuzumab is included in the national drug list	but high out-of-pocket costs and delays in approval limit usage among insured patients.	Simplify JKN reimbursement procedures and include HER2 therapies in national priority disease funding mechanisms.
Research & Innovation	Academic centers conduct small-scale cancer studies	but HER2-specific research and real-world data collection are minimal.	Fund HER2 registry development and promote research grants for HER2-positive and HER2-low breast cancer.
Awareness & Education	Public breast cancer campaigns are increasing	but HER2 biology is not commonly addressed, even among primary care providers.	Incorporate HER2 education into national awareness months, community health posts, and CME modules.
Survival Rates	Breast cancer survival is improving in urban centers	but national outcomes are poor due to late diagnosis and lack of HER2-stratified tracking.	Include HER2 status in national cancer registries and track time-to-treatment metrics.
Early Detection & Palliative Care	Screening is recommended but not nationally organized	and most women present at stage III or IV, particularly outside Java and Bali.	Launch pilot screening programs with mobile units in underserved provinces and link early detection to treatment pathways.
Biomarker	IHC HER2 testing is available in referral hospitals	but FISH confirmation and HER2-low classification are rarely done due to cost and standardization gaps.	Develop national HER2 pathology standards, support external quality assessment (EQA), and subsidize confirmatory testing.
Clinical Guidelines	National guidelines mention HER2 testing	but HER2-low and relapse re-testing are not included, and implementation varies across hospitals.	Update guidelines to mandate HER2 testing at diagnosis and progression, and integrate HER2-low care pathways.
Reimbursement	Some HER2 therapies are reimbursed under JKN	but long approval delays and limited budget allocations restrict equitable access.	Accelerate HTA evaluations and negotiate tiered pricing agreements for HER2-targeted therapies.
Screening	Opportunistic screening exists via health posts and hospitals	but coverage is low and not systematically linked to follow-up care.	Develop a national breast cancer screening framework and ensure integration with JKN and cancer referral networks.





CONCLUSION

Indonesia is at a pivotal moment in its cancer care evolution. With growing demand for personalized oncology and government commitment to health system expansion, the opportunity exists to improve HER2-positive breast cancer outcomes—particularly by expanding access, strengthening biomarker testing, and improving affordability. As an **Emerging-level system**, foundational reforms in financing, diagnostics, and workforce training are critical. A national roadmap focused on equity, decentralization, and HER2-specific data will allow Indonesia to rise to the next tier of maturity in cancer care.



- HER2 testing and trastuzumab are available in select hospitals, but rural and low-income populations remain underserved.
- HER2-low classification, re-testing at relapse, and HER2-stratified outcomes are not part of current policy or practice.
- Financing and reimbursement procedures limit access to approved HER2 therapies, even under national insurance.
- Advancing HER2 care requires a coordinated national strategy that links diagnostics, treatment, and data systems.

CALL TO ACTION

- **Invest in regional pathology labs and HER2 testing capacity,** including digital pathology and national QA programs.
- Accelerate public access to trastuzumab and newer HER2 therapies through streamlined reimbursement and procurement systems.
- **Update national clinical guidelines** to include HER2-low classification and re-testing at disease progression.
- Launch HER2-focused breast cancer registries to collect survival, treatment access, and biomarker status.
- **Pilot national screening and survivorship care models** that are scalable to remote and underserved populations.