Supplementary Information

An Update on Therapeutic Strategies for HER2-Mutated Non-Small Cell Lung Cancer

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Table S1. International Regulatory Approval Status of HER2-Targeted Agents for NSCLC as of October 2025

Agent	Modality	FDA (US)	EMA (EU)	PMDA (Japan)
Trastuzumab deruxtecan	ADC (HER2)	Approved (Aug 11, 2022) for unresectable/metastatic HER2-mutant NSCLC after prior systemic therapy.	Approved (Oct 23, 2023) for HER2-mutant advanced NSCLC after platinum-based chemo ± IO.	Approved (Aug 23, 2023) for HER2-mutant metastatic NSCLC.
Trastuzumab emtansine	ADC (HER2)	No	No (breast indications only)	No (breast indications only).
Trastuzumab rezetecan	ADC (HER2)	No	No	No
Afatinib	TKI (pan-ERBB)	No	No (approved for EGFR-mutated NSCLC).	No (approved for EGFR-mutation-positive NSCLC).
Dacomitinib	TKI (pan-ERBB)	No (first-line EGFR exon19/L858R only).	No (first-line EGFR-mutated NSCLC only).	No (approved for EGFR-mutatedNSCLC)
Neratinib	TKI (pan-ERBB)	No (approved for HER2+ breast; no NSCLC indication).	No for NSCLC. (Breast cancer indications in EU; no lung approval.)	No for NSCLC. (Breast cancer use in Japan; no lung approval.)
Poziotinib	TKI (HER2/EGFR exon20)	No (FDA denied application for HER2 exon20 NSCLC in Nov 2022).	No	No
Pyrotinib	TKI (pan-ERBB)	No	No	No
Tarloxotinib	Hypoxia-activated EGFR/HER2 TKI prodrug	No	No	No
Zongertinib	TKI (HER2)	Yes	Under review	No