### Systemic Therapy for Stage IV NSCLC Algorithms

#### First-Line Treatment Options for Patients with Stage IV Non-Small Cell Lung Cancer without Driver Alterations

Nonsquamous cell carcinoma, High PD-L1 Nonsquamous cell carcinoma, Negative and Low Positive PD-L1 Squamous cell carcinoma, High PD-L1 Squamous cell carcinoma, Negative and Low Positive PD-L1

#### Second-Line Treatment Options for Patients with Stage IV Non-Small Cell Lung Cancer without Driver Alterations

Received first-line platinum doublet chemotherapy, Positive PD-L1 Received first-line platinum doublet chemotherapy, Negative or Unknown PD-L1 Received first-line immunotherapy Received first-line combination immunotherapy + chemotherapy

#### Third-Line Treatment Options for Patients with Stage IV Non-Small Cell Lung Cancer without Driver Alterations Received chemotherapy ± bevacizumab and immune checkpoint inhibitors

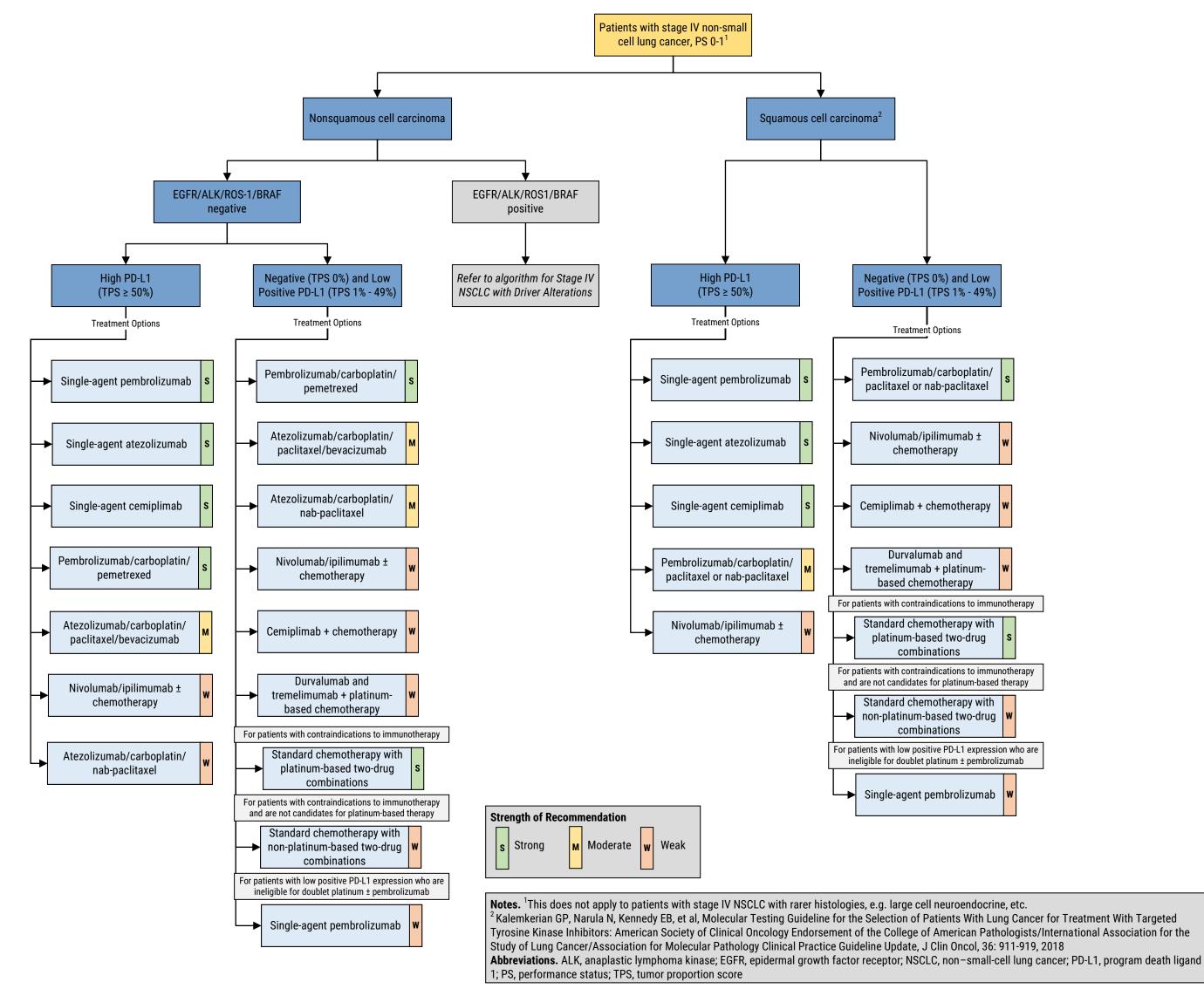
#### First-Line Treatment Options for Patients with Stage IV Non-Small Cell Lung Cancer with Driver Alterations

Sensitizing (L858R/exon 19 deletion) *EGFR* mutation *EGFR* exon 20 mutation Activating *EGFR* mutations other than exon 20 insertion mutations, T790M, L858R or Ex19Del *ALK* rearrangement *ROS1* rearrangement *BRAF* V600 mutation *MET* exon 14 skipping mutations *RET* rearrangement *NTRK* rearrangement *KRAS* alterations *HER2* alterations *NRG1* alterations

### Second- and Third-Line Treatment Options for Patients with Stage IV Non-Small Cell Lung Cancer with Driver Alterations

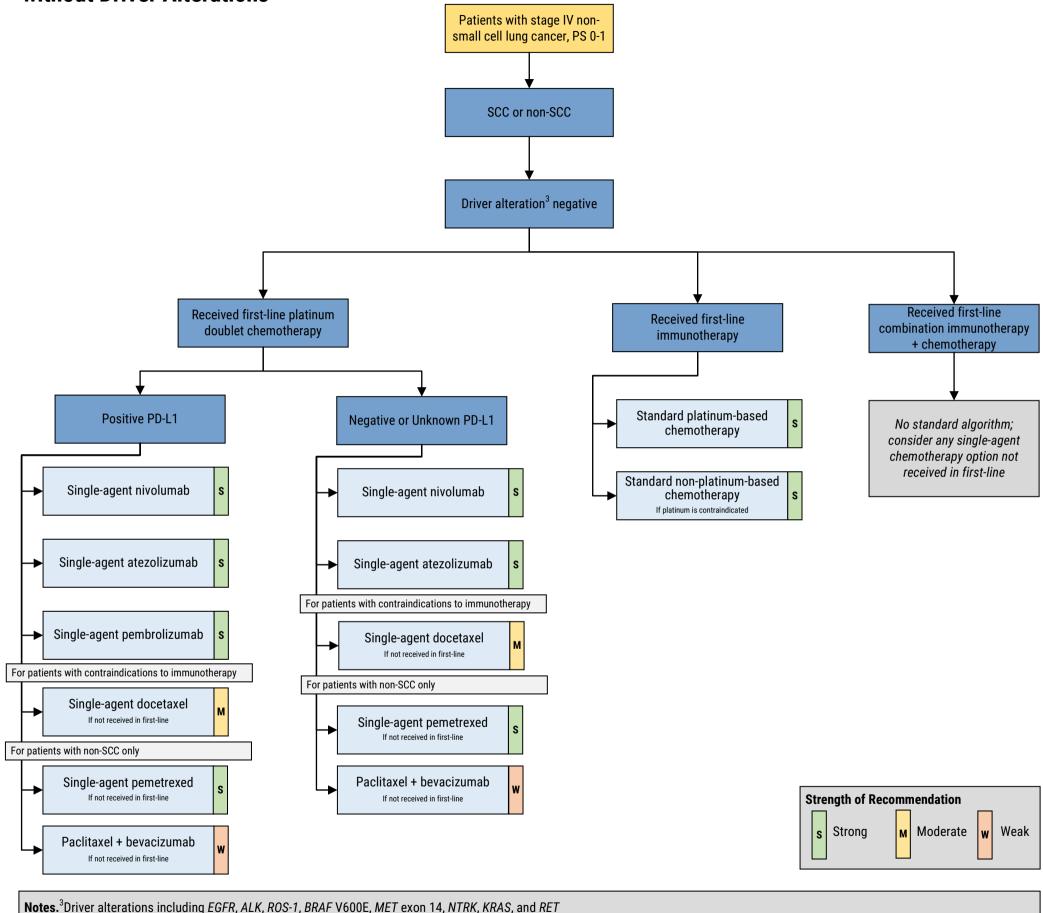
Sensitizing (L858R/exon 19 deletion) *EGFR* mutation *EGFR* exon 20 mutation Activating *EGFR* mutations other than exon 20 insertion mutations, T790M, L858R or Ex19Del *ALK* rearrangement *ROS1* rearrangement *BRAF* V600 mutation *BRAF* mutation other than *BRAF* V600 *MET* exon 14 skipping mutations *MET* abnormalities other than exon 14 skipping mutations or previously treated with MET-targeted therapy *RET* rearrangement *NTRK* rearrangement *KRAS* alterations *HER2* alterations *NRG1* alterations

First-Line Treatment Options for Patients with Stage IV Non-Small Cell Lung Cancer without Driver Alterations



This algorithm is derived from recommendations in Therapy for Stage IV Non-Small Cell Lung Cancer Without Driver Alterations: ASCO Living Guideline. This is a tool based on an ASCO Guideline and is not intended to substitute for the independent professional judgment of the treating physician. Practice guidelines do not account for individual variation among patients. This tool does not purport to suggest any particular course of medical treatment. Use of the guideline and this tool are voluntary.

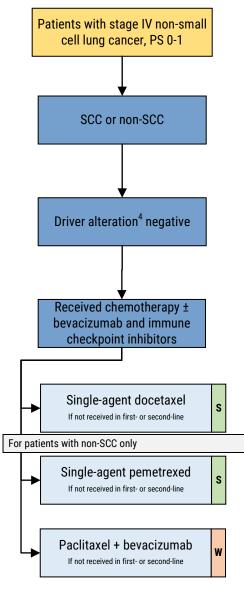
Second-Line Treatment Options for Patients with Stage IV Non-Small Cell Lung Cancer without Driver Alterations



Abbreviations. ALK, anaplastic lymphoma kinase; EGFR, epidermal growth factor receptor; NSCLC, non-small-cell lung cancer; PD-L1, program death ligand 1; PS, performance status; SCC, squamous cell carcinoma; TPS, tumor proportion score

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#### Third-Line Treatment Options for Patients with Stage IV Non-Small Cell Lung Cancer without Driver Alterations



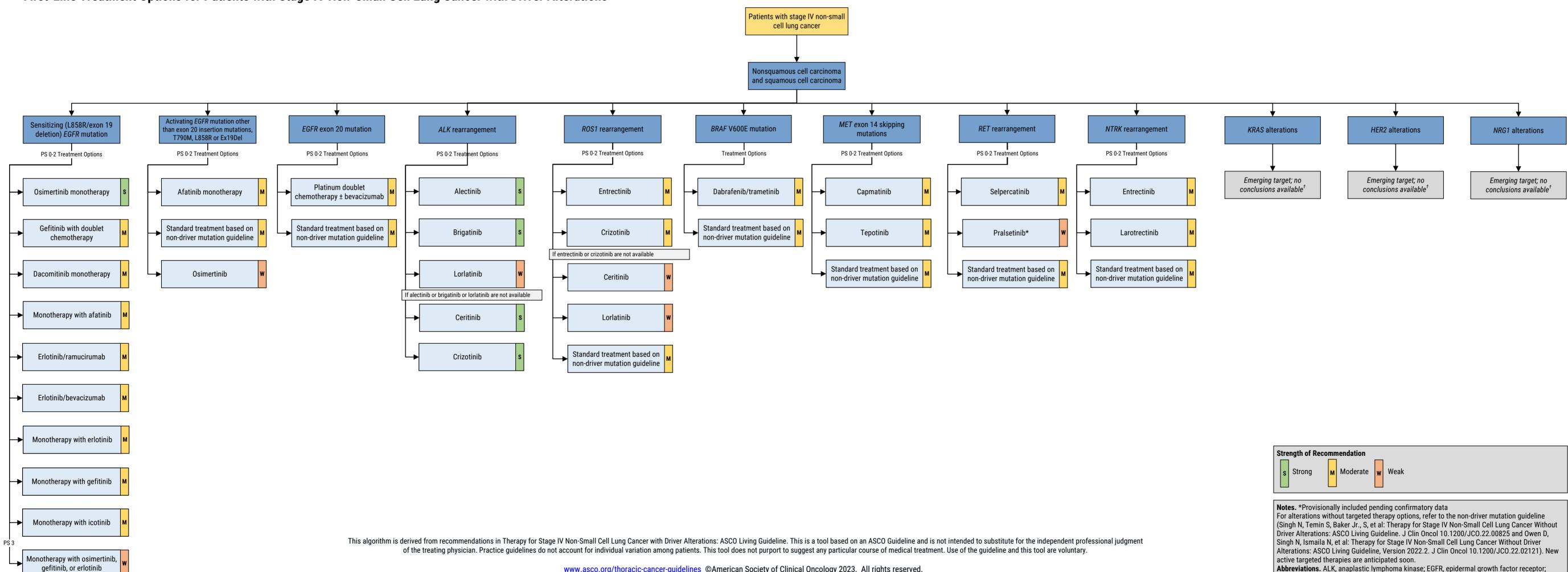


**Notes.** <sup>4</sup> Driver alterations including *EGFR*, *ALK*, *ROS-1*, *BRAF* V600E, *MET* exon 14, *NTRK*, *KRAS*, and *RET* **Abbreviations.** ALK, anaplastic lymphoma kinase; EGFR, epidermal growth factor receptor; NSCLC, non-small-cell lung cancer; PS, performance status

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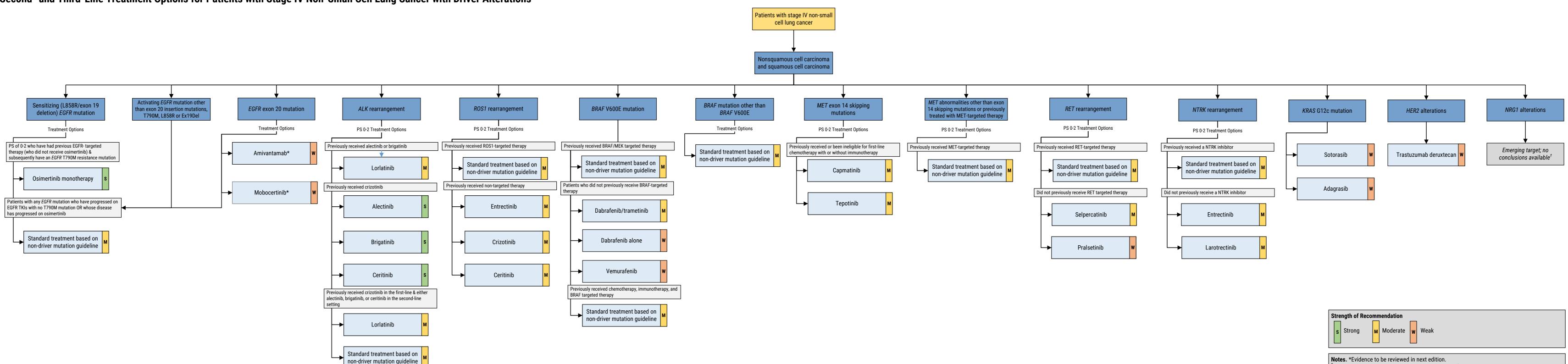
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First-Line Treatment Options for Patients with Stage IV Non-Small Cell Lung Cancer with Driver Alterations



Abbreviations. ALK, anaplastic lymphoma kinase; EGFR, epidermal growth factor receptor; HER2, human epidermal growth factor receptor 2; NRG1, Neuregulin 1; NTRK, neurotrophic tropomyosin receptor kinase; PS, performance status

Second- and Third-Line Treatment Options for Patients with Stage IV Non-Small Cell Lung Cancer with Driver Alterations



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Strength of Recommendation					
s	Strong	м	Moderate	w	Weak

Notes. \*Evidence to be reviewed in next edition.

<sup>+</sup> For alterations without targeted therapy options, refer to the non-driver mutation guideline (Singh N, Temin S, Baker Jr., S, et al: Therapy for Stage IV Non-Small Cell Lung Cancer Without Driver Alterations: ASCO Living Guideline. J Clin Oncol 10.1200/JCO.22.00825 and Owen D, Singh N, Ismaila N, et al: Therapy for Stage IV Non-Small Cell Lung Cancer Without Driver Alterations: ASCO Living Guideline, Version 2022.2. J Clin Oncol 10.1200/JCO.22.02121). New active targeted therapies are anticipated soon.

Abbreviations. ALK, anaplastic lymphoma kinase; EGFR, epidermal growth factor receptor; HER2, human epidermal growth factor receptor 2; NRG1, Neuregulin 1; NTRK, neurotrophic tropomyosin receptor kinase; PS, performance status; TKI, tyrosine kinase inhibitors