

An ESMO Product

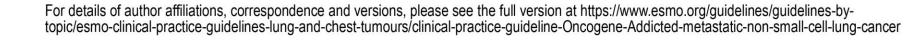
# Oncogene-Addicted Metastatic Non-Small-Cell Lung Cancer

ESMO Living Guideline, v1.2 January 2025

L Hendriks, F Cortiula, E Mariamidze, D Martins-Branco, G Pentheroudakis, M Reck

v1.2 was prepared by L Hendriks, F Cortiula, E Mariamidze, D Martins-Branco, M Reck and S Popat







ESMO Oncogene-Addicted Metastatic Non-Small-Cell Lung Cancer Living Guideline v1.2 January 2025

## Diagnosis, Pathology and Molecular Biology (1/3)

| Summary of recommendations   | LoE, GoR               |
|--|------------------------|
| Adequate tissue material for histological diagnosis and molecular testing should be obtained to allow for individual treatment decisions. For recommended methods to obtain tissue, please refer to the ESMO CPG on Non-Oncogene-Addicted mNSCLC (Hendriks, 2023)  | IV, A                  |
| Pathological diagnosis should be made according to the 2021 WHO classification of lung tumours   | IV, A                  |
| Specific subtyping of all NSCLCs is necessary for therapeutic decision making and should be carried out wherever possible. IHC stains should be used to reduce the NSCLC-not otherwise specified rate to <10% of cases diagnosed   | IV, A                  |
| The molecular tests described in the following recommendations are recommended in patients with advanced non-squamous-cell carcinoma and not recommended in patients with a confident diagnosis of squamous-cell carcinoma, except in unusual cases, e.g. young (<50 years) patients, never (<100 cigarettes in a lifetime)/former light smokers (≤15 pack-years, all kinds of tobacco) or long-time ex-smokers (quit smoking >15 years ago, all kinds of tobacco) | IV, A                  |
| EGFR mutation status should be determined Test methodology should have adequate coverage of mutations in exons 18-21, including those associated with resistance to some therapies At a minimum, when resources or material are limited, the most common activating mutations (exon 19 deletion, exon 21 L858R point mutation) should be determined  | I, A<br>III, A<br>I, A |



ESMO Oncogene-Addicted Metastatic Non-Small-Cell Lung Cancer Living Guideline v1.2 January 2025

## Diagnosis, Pathology and Molecular Biology (2/3)

| Summary of recommendations  | LoE, GoR       |
|---|----------------|
| The availability of TKIs effective against T790M-mutated recurrent disease makes T790M testing on disease relapse on first- or second-generation EGFR TKIs mandatory  | I, A           |
| Testing for ALK rearrangements should be carried out  | I, A           |
| Detection of the <i>ALK</i> translocation by FISH remains a standard, but IHC with high-performance ALK antibodies and validated assays may be used for screening and have been accepted as an equivalent alternative to FISH for ALK testing | III, A         |
| Testing for ROS1 rearrangements should be carried out Detection of the ROS1 translocation by FISH remains a standard; IHC may be used as a screening approach   | II, A<br>IV, A |
| BRAF V600 mutation status testing should be carried out   | II, A          |
| Testing for NTRK rearrangements should be carried out. Screening for NTRK rearrangements may use IHC or NGS, with appropriate testing follow-up to validate a positive result   | II, A          |
| Testing for MET exon 14 skipping mutations, MET amplifications, RET rearrangements, KRAS G12C mutations and HER2 mutations should be carried out  | II, A          |



ESMO Oncogene-Addicted Metastatic Non-Small-Cell Lung Cancer Living Guideline v1.2 January 2025

## Diagnosis, Pathology and Molecular Biology (3/3)

| Summary of recommendations  | LoE, GoR |
|---|----------|
| If available, multiplex platforms (NGS) for molecular testing are preferable  | III, A   |
| RNA-based NGS is preferred for identifying an expanding range of fusion genes Whichever testing modality is used, it is mandatory that adequate internal validation and quality control measures are in place and that laboratories participate in, and perform adequately in, external quality assurance schemes for each biomarker test | III, B   |
| cfDNA (liquid biopsy) can be used to test for oncogenic drivers as well as resistance mutations, but all patients with a negative cfDNA blood test still require tissue biopsy  | II, A    |



ESMO Oncogene-Addicted Metastatic Non-Small-Cell Lung Cancer Living Guideline v1.2 January 2025

## Staging and Risk Assessment (1/2)

| Summary of recommendations  | LoE, GoR                |
|---|-------------------------|
| A complete history including a precise smoking history and comorbidities, weight loss, ECOG PS and physical examination must be recorded  | IV, A                   |
| Laboratory standard tests including routine haematology, renal and hepatic functions and bone biochemistry tests are required. Other tests (e.g. lipid spectrum and creatine kinase levels) depend on toxicity of the targeted therapy that will be used  | IV, A                   |
| An electrocardiogram is required if the targeted therapy can cause adverse cardiac events, including rhythmic modifications (e.g. long QT)  | IV, A                   |
| Contrast-enhanced CT scan of the chest and upper abdomen (including the liver and adrenal glands) should be carried out at diagnosis  | IV, A                   |
| Imaging of the central nervous system should be considered at diagnosis for all patients with metastatic disease  • It is required for patients with neurological symptoms or signs If available, central nervous system imaging with gadolinium-enhanced MRI should be considered for all patients | IV, B<br>IV, A<br>IV, B |
| If bone metastases are clinically suspected, bone imaging is required   | IV, B                   |
| Bone scintigraphy, ideally coupled with CT, can be used for detection of bone metastasis FDG-PET-CT is the most sensitive modality in detecting bone metastasis   | IV, B<br>III, B         |



ESMO Oncogene-Addicted Metastatic Non-Small-Cell Lung Cancer Living Guideline v1.2 January 2025

## Staging and Risk Assessment (2/2)

| Summary of recommendations  | LoE, GoR |
|---|----------|
| FDG-PET-CT and brain imaging are recommended in patients suspected for oligometastatic disease. In the presence of a solitary metastatic site on imaging studies, efforts should be made to obtain a cytological or histological confirmation of stage IV disease | IV, A    |
| For oligometastatic disease, mediastinal disease should be pathologically confirmed if this potentially impacts the treatment plan  | IV, A    |
| NSCLC must be staged according to the AJCC/UICC TNM 8th edition staging manual and must be grouped into the stage categories shown in <u>Supplementary Tables S2 and S3</u>   | IV, A    |
| Response evaluation is recommended after 8-12 weeks of treatment, using the same radiographic investigation that initially demonstrated the tumour lesions  | IV, B    |
| Follow-up with a PET scan is not routinely recommended, due to its relatively low specificity despite a high sensitivity  | IV, C    |
| Measurements and response assessment should follow RECIST v1.1  The clinical relevance of RECIST in evaluating the response remains debatable as patients can   | IV, A    |
| derive benefit from continuing the same TKI after RECIST v1.1 progression   | III, A   |



ESMO Oncogene-Addicted Metastatic Non-Small-Cell Lung Cancer Living Guideline v1.2 January 2025

#### Stage IV mNSCLC with EGFR-activating Mutation

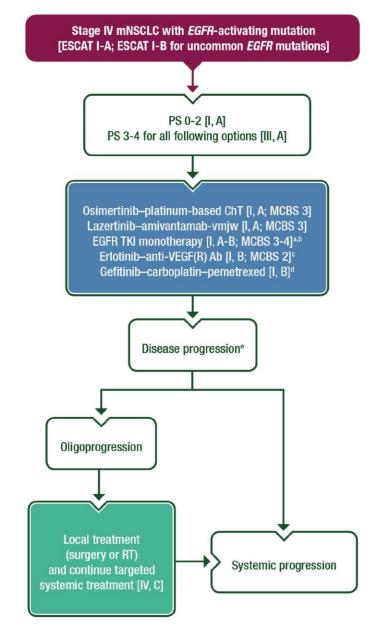
#### Before Systemic Progression

<sup>a</sup>Afatinib [I, B; **ESMO-MCBS v1.1 score: 4**] or osimertinib [III, B] is recommended for patients with a major uncommon, non-exon 20 insertion, sensitising *EGFR* mutation.

<sup>b</sup>All patients with a sensitising *EGFR* mutation should receive first-line EGFR TKIs irrespective of clinical parameters including PS, gender, tobacco exposure and histology [I, A].

<sup>c</sup>ESMO-MCBS v1.1 score for erlotinib–bevacizumab (EMA approved, not FDA approved) and gefitinib–bevacizumab. <sup>d</sup>FDA approved, not EMA approved.

<sup>e</sup>Patients who have radiological progression with ongoing clinical benefit may continue with EGFR TKIs [III, A].





ESMO Oncogene-Addicted Metastatic Non-Small-Cell Lung Cancer Living Guideline v1.2 January 2025

## First-line EGFR TKIs

EGFR exon 19 Deletion or exon 21 L858R [ESCAT: I-A]

| Summary of recommendations   | LoE, GoR |
|--|----------|
| All patients with a sensitising <i>EGFR</i> mutation should receive first-line EGFR TKIs irrespective of clinical parameters including PS, gender, tobacco exposure and histology  | I, A     |
| Considering toxicity, cost increases with adding additional treatments and patient inconvenience, single-agent EGFR TKIs are still a standard first-line treatment   | I, A     |
| A third-generation EGFR TKI regimen is preferred for patients with a classical activating <i>EGFR</i> mutation (ex19del or ex21 L858R), either as monotherapy or combination therapy (osimertinib [ESMO-MCBS v1.1 score: 4]; osimertinib—pemetrexed—platinum [ESMO-MCBS v1.1 score: 3]; lazertinib—amivantamab-vmjw [ESMO-MCBS v1.1 score: 3]  • PFS data seem to show a benefit in patients with baseline central nervous system metastases treated with osimertinib—chemotherapy versus those treated with osimertinib | I, A     |
| Afatinib [ESMO-MCBS v1.1 score: 5], erlotinib [ESMO-MCBS v1.1 score: 4], gefitinib [ESMO-MCBS v1.1 score: 4] and dacomitinib [ESMO-MCBS v1.1 score: 3] are other first-line single-agent treatment options   | I, B     |
| EGFR TKIs combined with anti-angiogenic therapy are additional first-line treatment options, including erlotinib–ramucirumab [ESMO-MCBS v1.1 score: 3] or erlotinib–bevacizumab [ESMO-MCBS v1.1 score: 2; EMA approved, not FDA approved]  | I, B     |
| Another first-line option is gefitinib–carboplatin–pemetrexed [FDA approved, not EMA approved]   | I, B     |



ESMO Oncogene-Addicted Metastatic Non-Small-Cell Lung Cancer Living Guideline v1.2 January 2025

## First-line EGFR TKIs (2/2)

Uncommon sensitising *EGFR* mutations

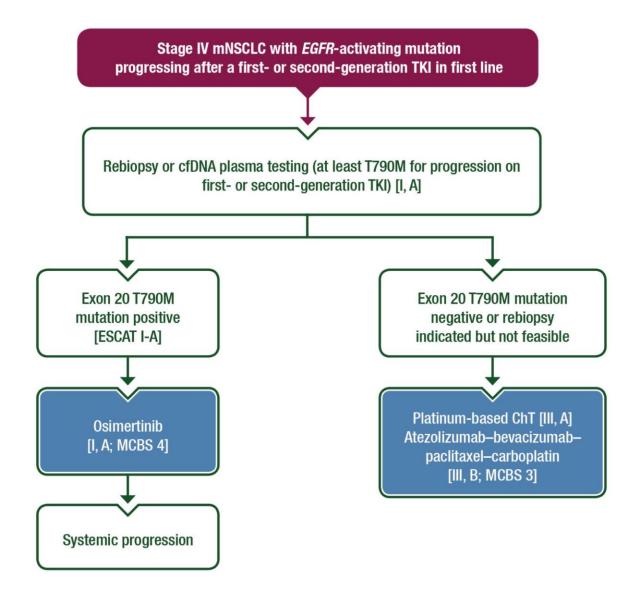
| Summary of recommendations   | LoE, GoR |
|--|----------|
| 10%-20% of patients present with an uncommon, non-exon 20 insertion mutation.  Afatinib [ESMO-MCBS v1.1 score: 4]          | I, B     |
| or osimertinib are recommended for patients with a major uncommon, non-exon 20 insertion, sensitising <i>EGFR</i> mutation | III, B   |



ESMO Oncogene-Addicted Metastatic Non-Small-Cell Lung Cancer Living Guideline v1.2 January 2025

#### Stage IV mNSCLC with EGFR-activating Mutation

After Systemic Progression with First- or Second-generation TKI in First Line

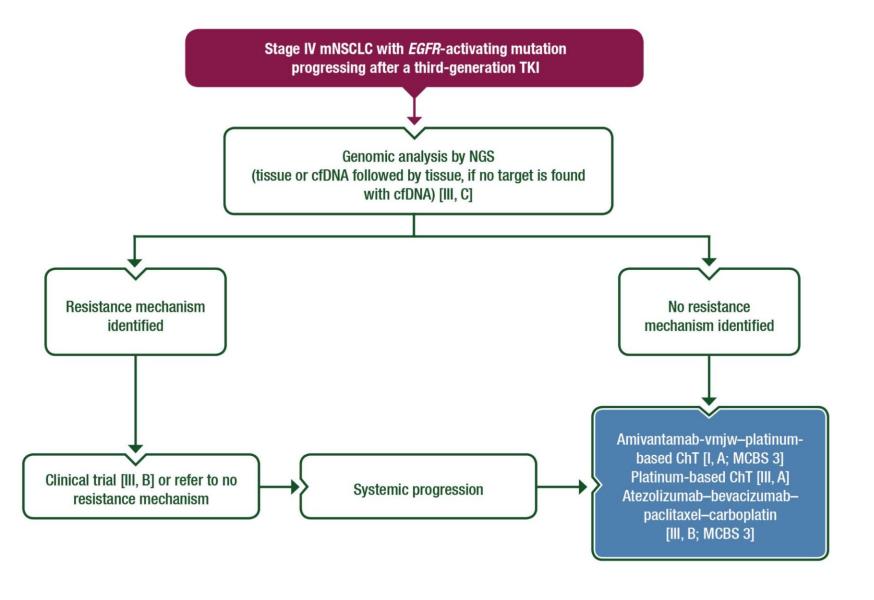




ESMO Oncogene-Addicted Metastatic Non-Small-Cell Lung Cancer Living Guideline v1.2 January 2025

#### Stage IV mNSCLC with EGFR-activating Mutation

After Systemic Progression with a Third-generation TKI





ESMO Oncogene-Addicted Metastatic Non-Small-Cell Lung Cancer Living Guideline v1.2 January 2025

#### EGFR-mutated mNSCLC: Systemic Progression or TKI Resistance (1/2)

| Summary of recommendations   | LoE, GoR       |
|--|----------------|
| Patients who have moderate radiological progression with ongoing clinical benefit may continue with EGFR TKIs  | III, A         |
| Upon resistance to first-line first- or second-generation EGFR TKIs, patients should be tested for the presence of the <i>EGFR</i> exon 20 T790M mutation from plasma cfDNA and/or tumour rebiopsy | I, A           |
| Patients with T790M-positive resistance should receive osimertinib [ESMO-MCBS v1.1 score: 4] as second-line therapy T790M-negative resistance should be treated with platinum-based chemotherapy   | I, A<br>III, A |
| Genomic analysis by NGS (tissue or cfDNA followed by tissue, if no target is found with cfDNA) should be made available to a patient who develops resistance to EGFR TKIs                          | III, C         |



ESMO Oncogene-Addicted Metastatic Non-Small-Cell Lung Cancer Living Guideline v1.2 January 2025

#### EGFR-mutated mNSCLC: Systemic Progression or TKI Resistance (2/2)

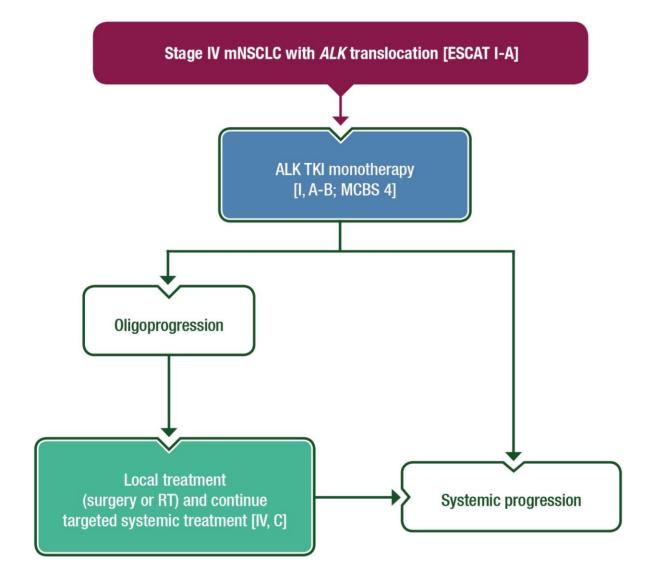
| Summary of recommendations   | LoE, GoR |
|--|----------|
| <ul> <li>Upon progression on monotherapy osimertinib, recommended treatments are:</li> <li>Platinum-based doublet chemotherapy</li> <li>Platinum-based doublet chemotherapy with amivantamab (amivantamab-vmjw-carboplatin-pemetrexed [ESMO-MCBS v1.1 score 3])</li> </ul> | III, A   |
| The additional toxicity associated with amivantamab should be taken into account   | I, B     |
| In general, clinical trial enrolment is encouraged, especially if a targetable resistance mechanism is identified  | III, B   |
| The combination of atezolizumab–bevacizumab–paclitaxel–carboplatin [ESMO-MCBS v1.1 score: 3] may be considered as a treatment option for patients with EGFR TKI failure, PS 0-1 and no contraindication for immune checkpoint inhibitors                                   | III, B   |
| Single-agent immune checkpoint inhibitors may be considered as a treatment option only after progression on EGFR TKIs and chemotherapy   | IV, C    |



ESMO Oncogene-Addicted Metastatic Non-Small-Cell Lung Cancer Living Guideline v1.2 January 2025

## Stage IV mNSCLC with ALK Translocation

Before Systemic Progression

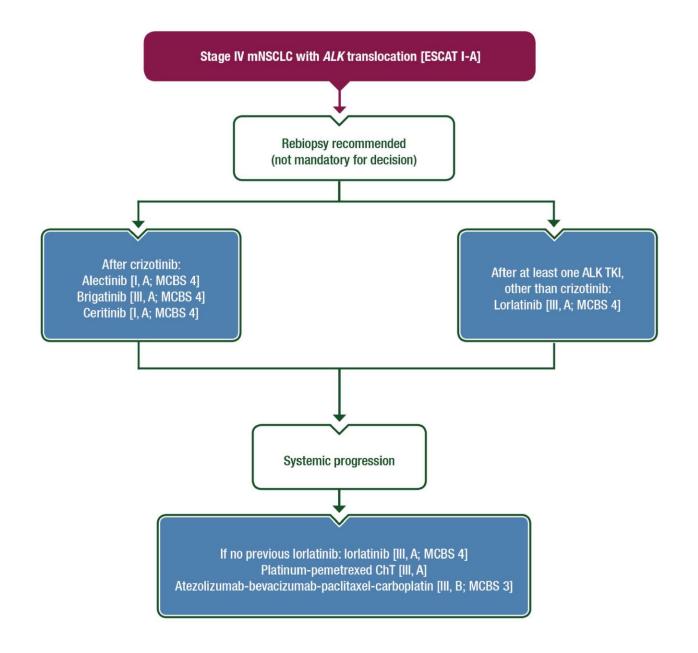




ESMO Oncogene-Addicted Metastatic Non-Small-Cell Lung Cancer Living Guideline v1.2 January 2025

## Stage IV mNSCLC with ALK Translocation

After Systemic Progression





ESMO Oncogene-Addicted Metastatic Non-Small-Cell Lung Cancer Living Guideline v1.2 January 2025

## Treatment of *ALK*-positive mNSCLC

| Summary of recommendations   | LoE, GoR       |
|--|----------------|
| ALK translocation [ESCAT I-A]: first-line treatment  |                |
| Patients should be treated in the first-line setting with alectinib, brigatinib or lorlatinib [for all: <b>ESMO-MCBS v1.1 score: 4</b> ] These options are preferred over crizotinib or ceritinib [for all: <b>ESMO-MCBS v1.1 score: 4</b> ]   | I, A<br>I, B   |
| After progression  |                |
| Alectinib [ESMO-MCBS v1.1 score: 4] is recommended in patients who progress on treatment with, or are intolerant to, crizotinib  | I, A           |
| <ul> <li>Brigatinib and ceritinib represent additional treatment options at crizotinib resistance:</li> <li>Ceritinib: ESMO-MCBS v1.1 score: 4</li> <li>Brigatinib: ESMO-MCBS v1.1 score: 4</li> </ul>   | I, A<br>III, A |
| In patients who progress after a second-generation ALK TKI, the newer-generation ALK inhibitor lorlatinib is an option [ESMO-MCBS v1.1 score: 4]   | III, A         |
| Following progression on lorlatinib, chemotherapy with a platinum–pemetrexed-based combination is recommended  | III, A         |
| Following progression on lorlatinib, atezolizumab-bevacizumab-paclitaxel-carboplatin [ESMO-MCBS v1.1 score: 3] can be considered   | III, B         |
| In patients who progress after a second-generation ALK TKI, the newer-generation ALK inhibitor lorlatinib is an option [ESMO-MCBS v1.1 score: 4]  Following progression on lorlatinib, chemotherapy with a platinum–pemetrexed-based combination is recommended  Following progression on lorlatinib, atezolizumab–bevacizumab–paclitaxel–carboplatin [ESMO- | III, A         |

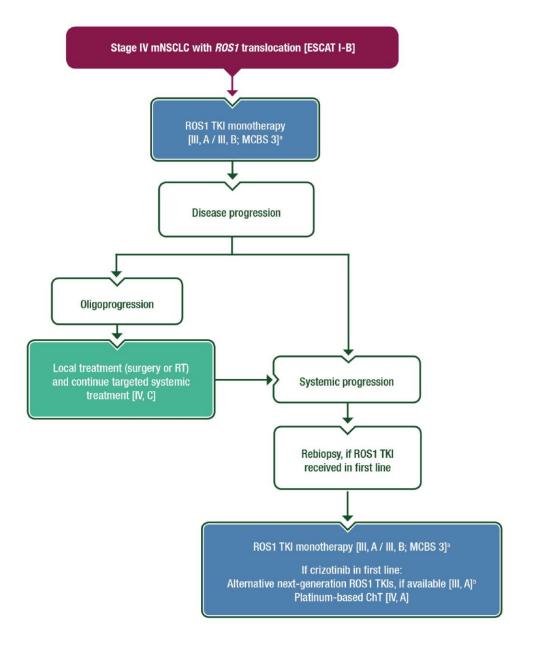


ESMO Oncogene-Addicted Metastatic Non-Small-Cell Lung Cancer Living Guideline v1.2 January 2025

## Stage IV mNSCLC with ROS1 Translocation

<sup>a</sup>Entrectinib preferred over crizotinib in patients with brain metastases.

<sup>b</sup>FDA approved, not EMA approved.





ESMO Oncogene-Addicted Metastatic Non-Small-Cell Lung Cancer Living Guideline v1.2 January 2025

## Treatment of *ROS1*-positive mNSCLC

ROS1 translocation [ESCAT: I-B]

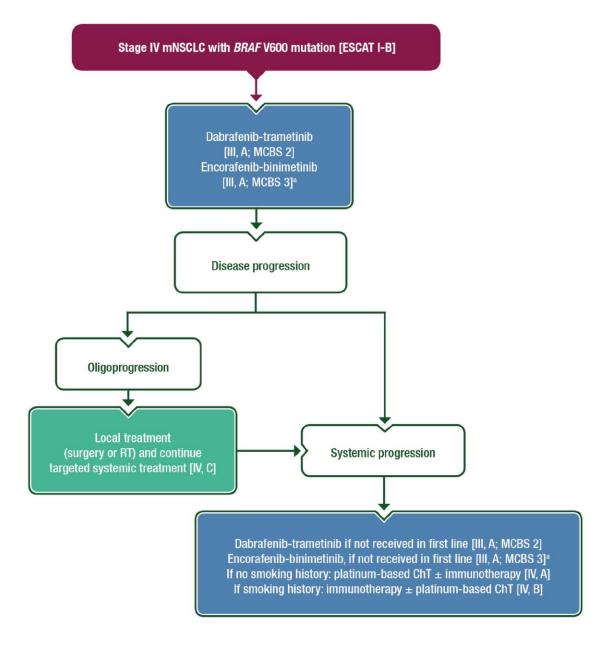
| Summary of recommendations  | LoE, GoR        |
|---|-----------------|
| Crizotinib or entrectinib is recommended in the first-line setting [ESMO-MCBS v1.1 score: 3]  | III, A          |
| Entrectinib [ESMO-MCBS v1.1 score: 3], if available, is preferred over crizotinib in patients with brain metastases   | III, A          |
| Repotrectinib [ESMO-MCBS v1.1 score: 3] is also an option   | III, A          |
| If patients have received crizotinib in the first-line setting, in the second-line setting they may be offered:  Repotrectinib [ESMO-MCBS v1.1 score: 3]  Platinum-based chemotherapy | III, A<br>IV, A |



ESMO Oncogene-Addicted Metastatic Non-Small-Cell Lung Cancer Living Guideline v1.2 January 2025

## Stage IV mNSCLC with BRAF V600 Mutation

<sup>a</sup>FDA approved, not EMA approved.





ESMO Oncogene-Addicted Metastatic Non-Small-Cell Lung Cancer Living Guideline v1.2 January 2025

#### Treatment of BRAF mutations

BRAF mutations [ESCAT: I-B]

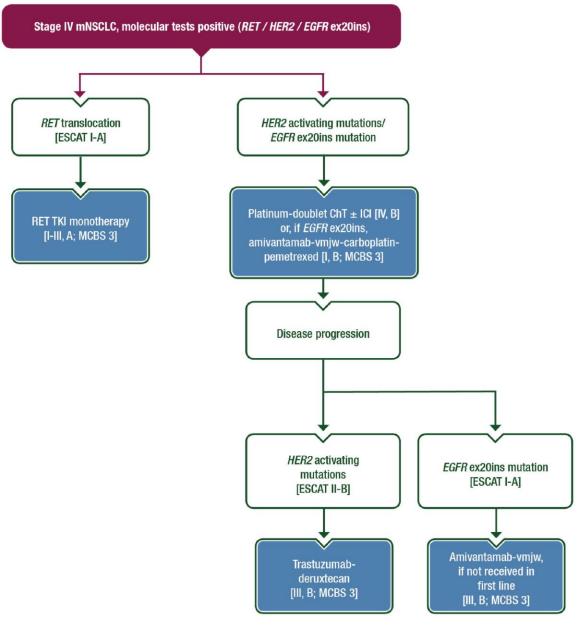
| Summary of recommendations  | LoE, GoR       |
|---|----------------|
| BRAF-MEK inhibition is recommended using dabrafenib–trametinib [ESMO-MCBS v1.1 score: 2] or encorafenib–binimetinib [ESMO-MCBS v1.1 score: 3]   | III, A         |
| After progression, BRAF-MEK inhibition is recommended if not received in first line (encorafenib-binimetinib [ESMO-MCBS v1.1 score: 3]; dabrafenib-trametinib [ESMO-MCBS v1.1 score: 2])  | III, A         |
| If patients have received BRAF-MEK inhibition in the first-line setting, they may be offered platinum-based chemotherapy with or without immunotherapy in the second-line setting, if they do not have a smoking history  For patients with a smoking history, immunotherapy with or without chemotherapy should be considered as per the ESMO CPG on Non-Oncogene-Addicted mNSCLC (Hendriks, 2023) | IV, A<br>IV, B |



ESMO Oncogene-Addicted Metastatic Non-Small-Cell Lung Cancer Living Guideline v1.2 January 2025

#### Stage IV mNSCLC, Molecular Tests Positive

RET / HER2 / EGFR ex20ins



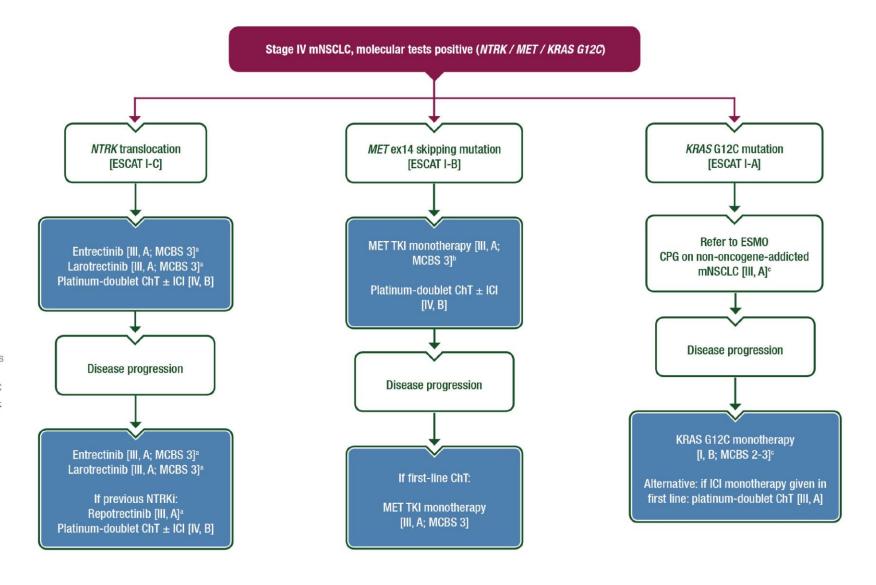


ESMO Oncogene-Addicted Metastatic Non-Small-Cell Lung Cancer Living Guideline v1.2 January 2025

#### Stage IV mNSCLC, Molecular Tests Positive

NTRK / MET / KRAS G12C

<sup>a</sup>For patients who have no satisfactory alternative treatments <sup>b</sup>Capmatinib: FDA approved, not EMA approved in first line. <sup>c</sup>A parallel ESMO CPG on Non-Oncogene-Addicted mNSCLC is available at: <a href="https://www.esmo.org/guidelines/guidelines-by-topic/lung-and-chest-tumours">https://www.esmo.org/guidelines/guidelines-by-topic/lung-and-chest-tumours</a>





ESMO Oncogene-Addicted Metastatic Non-Small-Cell Lung Cancer Living Guideline v1.2 January 2025

## Treatment of RET / NTRK

| Summary of recommendations  | LoE, GoR       |
|---|----------------|
| RET translocation [ESCAT: I-A]  |                |
| <ul> <li>Treatment with selpercatinib or pralsetinib is recommended as first-line therapy:</li> <li>Selpercatinib: ESMO-MCBS v1.1 score: 3</li> <li>Pralsetinib: ESMO-MCBS v1.1 score: 3</li> </ul> | I, A<br>III, A |
| NTRK translocation [ESCAT: I-C]   |                |
| If no first-line NTRK TKI available, platinum-doublet chemotherapy with or without immune checkpoint inhibitors is recommended as first-line therapy  | IV, B          |
| Larotrectinib and entrectinib are recommended for patients who have no satisfactory treatment options, if not received before [ESMO-MCBS v1.1 score: 3]   | III, A         |
| Repotrectinib is recommended after progression following treatment with an NTRK inhibitor or for patients who have no satisfactory treatment options  | III, A         |



ESMO Oncogene-Addicted Metastatic Non-Small-Cell Lung Cancer Living Guideline v1.2 January 2025

#### Treatment of HER2 / EGFR ex20ins

| Summary of recommendations   | LoE, GoR |
|--|----------|
| HER2 activating mutation [ESCAT: II-B]   |          |
| Platinum-doublet chemotherapy with or without immune checkpoint inhibitors is recommended as first-line therapy                        | IV, B    |
| Trastuzumab deruxtecan is recommended following prior first-line therapy [ESMO-MCBS v1.1 score: 3]                                     | III, B   |
| EGFR exon 20 insertion-mutation [ESCAT: I-A]   |          |
| Amivantamab–carboplatin–pemetrexed is recommended as first-line therapy [ESMO-MCBS v1.1 score: 3]                                      | I, B     |
| If not available, platinum-doublet chemotherapy with or without immune checkpoint inhibitors is recommended as first-line therapy      | IV, B    |
| Amivantamab is recommended for treatment of patients failing prior therapy which did not contain amivantamab [ESMO-MCBS v1.1 score: 3] | III, B   |



ESMO Oncogene-Addicted Metastatic Non-Small-Cell Lung Cancer Living Guideline v1.2 January 2025

## Treatment of MET / KRAS G12C

| Summary of recommendations   | LoE, GoR |
|--|----------|
| MET exon 14 skipping mutation [ESCAT: I-B]   |          |
| <ul> <li>Capmatinib (FDA approved, not EMA approved) and tepotinib in first line or in second line are recommended:</li> <li>Capmatinib (first line) [ESMO-MCBS v1.1 score: 3, FDA approved, not EMA approved]</li> <li>Capmatinib (following prior platinum-doublet chemotherapy with or without immune checkpoint inhibitors) [ESMO-MCBS v1.1 score: 3]</li> <li>Tepotinib (first line or following prior platinum-doublet chemotherapy with or without immune checkpoint inhibitors) [ESMO-MCBS v1.1 score: 3]</li> </ul> | III, A   |
| If no MET TKI is available in the first line, platinum-doublet chemotherapy with or without immune checkpoint inhibitors is recommended as first-line therapy  | IV, B    |
| KRAS G12C-mutation [ESCAT: I-A]  |          |
| It is recommended to follow the first-line treatment algorithms in the ESMO CPG on Non-Oncogene-Addicted mNSCLC (Hendriks, 2023)   | III, A   |
| Sotorasib [ESMO-MCBS v1.1 score: 3] or adagrasib [ESMO-MCBS v1.1 score: 2] are recommended for treatment of patients failing prior therapy   | I, B     |
| Platinum-doublet chemotherapy can be given after progression on first-line monotherapy ICI   | III, A   |



ESMO Oncogene-Addicted Metastatic Non-Small-Cell Lung Cancer Living Guideline v1.2 January 2025

#### **Special Populations**

| Summary of recommendations  | LoE, GoR |
|---|----------|
| TKIs should be given to patients with PS ≥2 and an oncogenic driver   | III, A   |
| TKIs should be given to elderly patients  | II, A    |
| Patients with oligometastatic disease at diagnosis may experience long-term PFS following systemic therapy and local ablative therapy (high-dose radiotherapy or surgery), but due to limited evidence, inclusion in clinical trials is preferred   | II, B    |
| Patients with advanced NSCLC and a driver mutation, with oligoprogression while on molecular-targeted therapy, may benefit from local ablative therapy (high-dose radiotherapy or surgery) including improved long-term DFS, but data are limited and inclusion in clinical trials is preferred | -        |



ESMO Oncogene-Addicted Metastatic Non-Small-Cell Lung Cancer Living Guideline v1.2 January 2025

## Follow-up, Palliative Care and Survivorship

| Summary of recommendations  | LoE, GoR |
|---|----------|
| Follow-up, long-term implications and survivorship  |          |
| Follow-up every 8-12 weeks should be carried out if there is an option for a next line of therapy | IV, A    |
| Psychosocial support should be offered if needed  | IV, A    |
| Smoking cessation should be encouraged  | IV, A    |
| Palliative care in stage IV   |          |
| Early palliative care intervention is recommended, in parallel with standard oncological care     | I, A     |



ESMO Oncogene-Addicted Metastatic Non-Small-Cell Lung Cancer Living Guideline v1.2 January 2025

#### **Glossary**

AJCC, American Joint Committee on Cancer

ALK, anaplastic lymphoma kinase

ChT, chemotherapy

cfDNA, circulating free DNA

CPG, Clinical Practice Guideline

CT, computed tomography

DFS, disease-free survival

DNA, deoxyribonucleic acid

ECOG, Eastern Cooperative Oncology Group

EGFR, epidermal growth factor receptor

EMA, European Medicines Agency

ESCAT, ESMO Scale for Clinical Actionability of molecular Targets

ESMO, European Society for Medical Oncology

ESMO-MCBS, ESMO-Magnitude of Clinical Benefit Scale

FDA, Food and Drug Administration

FDG, [18F]2-fluoro-2-deoxy-D-glucose

FISH, fluorescence in situ hybridisation

ICI, immune checkpoint inhibitor

IHC, immunohistochemistry

KRAS, Kirsten rat sarcoma virus

MCBS, ESMO-Magnitude of Clinical Benefit Scale MET, MET proto-oncogene tyrosine-protein kinase

mNSCLC, metastatic non-small-cell lung cancer

MRI, magnetic resonance imaging

NGS, next generation sequencing

NSCLC, non-small-cell lung cancer

PET, positron emission tomography

PFS, progression-free survival

PS, performance status

RET, proto-oncogene tyrosine-protein kinase Ret

ROS1, proto-oncogene tyrosine-protein kinase ROS

RECIST, Response Evaluation Criteria in Solid Tumours

RNA, ribonucleic acid

RT, radiotherapy

TKI, tyrosine kinase inhibitor

TNM, tumour-node-metastasis

UICC, Union for International Cancer Control

VEGFR, vascular endothelial growth factor

WHO, World Health Organization



#### Disclaimer and how to obtain more information

This slide set provides you with the most important content of the full ESMO Clinical Practice Guideline (CPG) on the management of Oncogene-Addicted Metastatic Non-small-cell Lung Cancer (NSCLC). Key content includes diagnostic criteria, staging of disease, treatment plans and follow-up (Ann Oncol. 2023;34(4):339-357).

The slide set is based on the latest information in the corresponding ESMO Living Guideline: <a href="https://www.esmo.org/living-guidelines/esmo-oncogene-addicted-non-small-cell-lung-cancer-living-guideline">https://www.esmo.org/living-guidelines/esmo-oncogene-addicted-non-small-cell-lung-cancer-living-guideline</a>

The ESMO CPGs are intended to provide you with a set of recommendations for the best standards of care, using evidence-based medicine. Implementation of ESMO CPGs facilitates knowledge uptake and helps you to deliver an appropriate quality of focused care to your patients.

This slide set contains information obtained from authentic and highly regarded sources (www.esmo.org). Although every effort has been made to ensure that treatment and other information are presented accurately in this publication, the ultimate responsibility rests with the prescribing physician. Neither the publisher nor the ESMO Guidelines Committee can be held responsible for errors or for any consequences arising from the use of information contained herein. For detailed prescribing information on the use of any product or procedure discussed herein, please consult the prescribing information or instructional material issued by the manufacturer.

The slide set can be used as a quick reference guide to access key content on evidence-based management and individual slides may be used for personal presentation in their present version and without any alterations. All rights reserved.

© 2025 European Society for Medical Oncology Please visit <a href="www.esmo.org/guidelines">www.esmo.org/guidelines</a> to view all ESMO Guidelines.



