# Electronic Health Record (EHR) Instructions:

## Creating a Patient List With Appropriate Patients for TEPMETKO® in the OncoEMR® EHR System

### INDICATION

TEPMETKO is indicated for the treatment of adult patients with metastatic non-small cell lung cancer (NSCLC) harboring mesenchymal-epithelial transition (*MET*) exon 14 skipping alterations.

### SELECT IMPORTANT SAFETY INFORMATION

TEPMETKO can cause **interstitial lung disease (ILD)/pneumonitis**, which can be fatal. Monitor patients for new or worsening pulmonary symptoms indicative of ILD/pneumonitis (eg, dyspnea, cough, fever). Immediately withhold TEPMETKO in patients with suspected ILD/pneumonitis and permanently discontinue if no other potential causes of ILD/pneumonitis are identified. ILD/pneumonitis occurred in 2% of patients treated with TEPMETKO, with one patient experiencing a Grade 3 or higher event; this event resulted in death.

**Please see additional Important Safety Information on page 7 and accompanying full Prescribing Information.**

TEPMETKO® (tepotinib) 225 mg Tablets

TEPMETKO is indicated for the treatment of adult patients with metastatic non-small cell lung cancer (NSCLC) harboring mesenchymal-epithelial transition (*MET*) exon 14 skipping alterations.[1]

These instructions are designed to help identify appropriate TEPMETKO patients. These instructions are specifically to create a patient list in the OncoEMR system and will not work for other conditions, treatments, or therapeutic areas or on other EHR systems.

The suggested criteria and process outlined in these instructions are variable, and not all steps will apply to every medical group. Any steps or settings that are not part of a medical group's standard process should be excluded or modified accordingly. Any questions should be directed to the appropriate service provider. The availability of the suggested criteria may vary and depends on documentation practices. The medical group is solely responsible for implementing, testing, monitoring, and ongoing operation of any EHR tools.

## Suggested Criteria

**Diagnosis: International Classification of Diseases, Tenth Revision (ICD-10) codes:**

- Malignant neoplasm of unspecified part of unspecified bronchus or lung: C34.90
- Secondary malignant neoplasm of unspecified lung: C78.00
- Personal history of other malignant neoplasm of bronchus and lung: Z85.118

**Procedures: Current Procedural Terminology (CPT) and ICD-9 codes (based on table from Shinde et al [2016][2]):**

**Fine needle aspiration biopsy:**

- Fine needle aspiration; without imaging guidance: 10021
- Fine needle aspiration; with imaging guidance: 10022
- Closed [percutaneous] [needle] biopsy of lung (fine needle aspiration of lung or transthoracic needle biopsy of lung): 33.26 (ICD-9-CM)

**Percutaneous biopsy:**

- Biopsy, lung or mediastinum, percutaneous needle: 32405
- Biopsy, pleura; percutaneous needle: 32400

**Surgical biopsy:**

- Thoracotomy, limited, for biopsy of lung or pleura: 32905
- Thoracotomy, with diagnostic biopsy(s) of lung infiltrate(s) (eg, wedge, incisional), unilateral: 32096
- Thoracotomy, with diagnostic biopsy(s) of lung nodule(s) or mass(es) (eg, wedge, incisional), unilateral: 32097
- Thoracotomy, with biopsy(s) of pleura: 32098
- Open biopsy of lung: 33.28 (ICD-9-CM)

## Suggested Criteria (cont'd)

**Bronchial biopsy:**

- Bronchoscopy, rigid or flexible, including fluoroscopic guidance, when performed; with bronchial or endobronchial biopsy(s), single or multiple sites: 31625
- Bronchoscopy, rigid or flexible, including fluoroscopic guidance, when performed; with brushing or protected brushings: 31623
- Bronchoscopy, rigid or flexible, including fluoroscopic guidance, when performed; with bronchial alveolar lavage: 31624
- Bronchoscopy with transbronchial lung biopsy, single lobe: 31628
- Bronchoscopy with transbronchial needle aspiration biopsy(s), trachea, main stem and/or lobar bronchus: 31629
- Bronchoscopy with transbronchial lung biopsy(s), each additional lobe (list separately in addition to code for primary procedure), use with 31628: 31632
- Bronchoscopy with transbronchial needle aspiration biopsy(s), each additional lobe (list separately in addition to code for primary procedure), use with 31629: 31633
- Closed endoscopic biopsy of lung (fiber-optic [flexible] bronchoscopy with fluoroscopic guidance with biopsy or transbronchial lung biopsy): 33.27 (ICD-9-CM)

**Other:**

- Thoracoscopic lung biopsy: 33.20
- Closed [endoscopic] biopsy of bronchus: 33.24
- Open biopsy of bronchus: 33.25

**Non–biopsy-specific procedures:**

- Ultrasound guidance for needle placement: 76942
- Fluoroscopic guidance for needle placement: 77002
- Computed tomography guidance for needle placement: 77012
- Magnetic resonance guidance for needle placement: 77021

## Optional Criteria to Consider

**Other relevant factors may be considered to identify appropriate TEPMETKO patients:**

- Possibly age at advanced diagnosis
- Stage at diagnosis
- Ethnicity
- Smoking history
- Histology status (adenocarcinoma, nonsquamous)
- Brain metastases

**Other relevant factors are backed by 2 studies, Lee et al (2021)[3] and Awad et al (2019),[4] and aligned with an internal EMD Serono real-world study using Flatiron data (FUSION study):**

- Lee et al (2021)
  - N = 148 patients were identified with METex14 alterations
  - Median age at advanced diagnosis: 75 years
  - 59% at stage IV at diagnosis
  - 93% treated in community setting
  - 85% of European descent
  - 65% with history of smoking
  - 85% with nonsquamous histology
  - First therapy documented after comprehensive genomic profiling
    - 33% immunotherapy or immunotherapy combination
    - 32% MET inhibitor or MET inhibitor combination
    - 22% chemotherapy or chemotherapy combination
- Awad et al (2019)
  - N = 148 patients were identified with METex14 alterations
  - Median (range) age at diagnosis: 72 (43-88) years
  - 30% at stage IV at diagnosis
  - Of the 71 patients who developed stage IV disease
    - Most common metastases
      - 67% lymph node
      - 53% lung
      - 51% pleural/pericardial metastases or malignant effusions
      - 49% bone
      - 37% brain
  - 59% smoker
  - 74% adenocarcinoma
  - 61% no brain metastases at diagnosis

Consider using OncoEMR's reporting functionality to identify patients. OncoEMR has a standard report with the ICD and CPT criteria (the ***Disease ICD Report*** combines both criteria). Consult your organization if additional user rights are required to access this reporting functionality.

1. Click General>Reports in the left navigation menu
2. From the available report templates, select the Disease ICD Report
3. For the ICD parameter, enter the ICD codes listed in the suggested criteria (enter a string separated by a comma).
   a. The ICD-10 codes are: C34.90, C78.00, Z85.118
   b. The ICD-9 codes are: 33.26, 33.28, 33.27, 33.20, 33.24, 33.25
4. For the CPT parameter, enter the CPT codes listed in the suggested criteria (enter a string separated by a comma, ie: 10021, 10022, 32405, 32400, 32095, 32096, 32097, 32098, 31625, 31623, 31624, 31628, 31629, 31632, 31633, 76942, 77002, 77012, 77021)
5. Set the desired data range (based on Date of Service, Diagnosis, or Date of Staging). For example, set the Date of Service to the last 12 months to narrow down the results.
6. The report will display:
   a. Patient Name
   b. Medical Record Number (MRN)
   c. MD (Order, Primary, Scheduled Provider/Staff)
   d. Location
   e. Visit Date
   f. Diagnosis Description
   g. Type, Dx Date
   h. ICD Code
   i. Stage String
   j. Stage Date
7. Export the data to Excel for further manipulation if desired. To add patient information, consider creating a new report and match the result based on the primary key MRN. The Patient Drug Use report displays patient name, MRN, type (order/script), date, drug name/order, MD, and location.

## Optional

If desired, the report can be combined with other reports to include the other relevant factors listed in the suggested optional criteria:

- Possibly age at advanced diagnosis
- Stage at diagnosis
- Ethnicity
- Smoking history
- Histology status (adenocarcinoma, non-squamous)
- Brain metastases
  - To add more patient information, create a new report following the process described above. Once the result has been exported to Excel, the results can be merged and joined based on the patient's MRN number (MRN is available in all reports and can be used as the primary key).
  - The Patient Detail Information, Lab Results, and Drugs Given Detail by Patient and Regimen reports include patient demographics, treatment information, lab results, CPT and ICD codes, and additional administration information.

The medical groups shall be solely responsible for implementation, testing, and monitoring of the instructions to ensure proper orientation in each medical group's EHR system.

Capabilities, functionality, and setup (customization) for each individual EHR system vary. EMD Serono is not responsible for revising the implementation instructions it provides to any medical group.

While EMD Serono tests its implementation instructions, the instructions are not guaranteed to work for all available EHR systems, and EMD Serono shall have no liability therefor.

While EHRs may assist providers in identifying appropriate patients for consideration of assessment and treatment, the decision and action should ultimately be decided by a healthcare provider in consultation with the patient, after a review of the patient's records to determine eligibility.

The instructions have not been designed to and are not tools and/or solutions for meeting Advancing Care Information and/or any other quality/accreditation requirement.

Reference to these products is not intended to imply affiliation with or sponsorship of EMD Serono and/or its affiliates.

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TEPMETKO can cause **hepatotoxicity**, which can be fatal. Monitor liver function tests (including alanine aminotransferase [ALT], aspartate aminotransferase [AST], and total bilirubin) prior to the start of TEPMETKO, every 2 weeks during the first 3 months of treatment, then once a month or as clinically indicated, with more frequent testing in patients who develop increased transaminases or total bilirubin. Based on the severity of the adverse reaction, withhold, dose reduce, or permanently discontinue TEPMETKO. Increased ALT/ increased AST occurred in 18% of patients treated with TEPMETKO. Grade 3 or 4 increased ALT/AST occurred in 4.7% of patients. A fatal adverse reaction of hepatic failure occurred in one patient (0.2%). The median time-to-onset of Grade 3 or higher increased ALT/AST was 47 days (range 1 to 262).

TEPMETKO can cause **pancreatic toxicity** in the form of elevations in amylase and lipase levels. Increased amylase and/or lipase occurred in 13% of patients, with Grade 3 and 4 increases occurring in 5% and 1.2% of patients, respectively. Monitor amylase and lipase levels at baseline and regularly during treatment with TEPMETKO and temporarily withhold, dose reduce, or permanently discontinue based on severity of the adverse event.

TEPMETKO can cause **embryo-fetal toxicity**. Based on findings in animal studies and its mechanism of action, TEPMETKO can cause fetal harm when administered to a pregnant woman. Advise pregnant women of the potential risk to a fetus. Advise females of reproductive potential or males with female partners of reproductive potential to use effective contraception during treatment with TEPMETKO and for one week after the last dose.

Avoid concomitant use of TEPMETKO with certain **P-gp substrates** where minimal concentration changes may lead to serious or life-threatening toxicities. If concomitant use is unavoidable, reduce the P-gp substrate dosage if recommended in its approved product labeling.

**Fatal adverse reactions** occurred in one patient (0.3%) due to pneumonitis, one patient (0.3%) due to hepatic failure, one patient (0.3%) due to dyspnea from fluid overload, one patient (0.3%) due to pneumonia, one patient (0.3%) due to sepsis, and one patient (0.3%) from unknown cause.

**Serious adverse reactions** occurred in 51% of patients who received TEPMETKO. Serious adverse reactions in >2% of patients included pleural effusion (6%), pneumonia (6%), edema (5%), general health deterioration (3.8%), dyspnea (3.5%), musculoskeletal pain (2.9%), and pulmonary embolism (2.2%).

**The most common adverse reactions** (≥20%) in patients who received TEPMETKO were edema (81%), nausea (31%), fatigue (30%), musculoskeletal pain (30%), diarrhea (29%), dyspnea (24%), rash (21%), and decreased appetite (21%).

**Clinically relevant adverse reactions** in <10% of patients who received TEPMETKO included ILD/pneumonitis, fever, dizziness, pruritus, and headache.

**Selected laboratory abnormalities** (≥20%) from baseline in patients receiving TEPMETKO in descending order were: decreased albumin (81%), increased creatinine (60%), decreased lymphocytes (57%), increased alkaline phosphatase (ALP) (52%), increased ALT (50%), increased AST (40%), decreased sodium (36%), decreased hemoglobin (31%), increased gamma-glutamyltransferase (GGT) (29%), increased potassium (26%), increased amylase (25%), decreased leukocytes (25%), decreased platelets (24%), and increased lipase (21%).

**The most common Grade 3-4 laboratory abnormalities** (≥2%) in descending order were: decreased lymphocytes (15%), decreased albumin (9%), decreased sodium (9%), increased GGT (6%), increased amylase (5%), increased lipase (5%), increased ALT (4.9%), increased AST (3.6%), and decreased hemoglobin (3.6%).

**Please see accompanying full Prescribing Information for TEPMETKO.**

**References: 1.** TEPMETKO [prescribing information]. Boston, MA: EMD Serono, Inc.; 2024. **2.** Shinde R, Cao X, Kothari S. Biopsy procedures and molecular testing utilization and related costs in patients with metastatic lung cancer. *J Manag Care Spec Pharm*. 2016;22(10):1194-1203. **3.** Lee JK, Madison R, Classon A, et al. Characterization of non-small-cell lung cancers with MET exon 14 skipping alterations detected in tissue or liquid: clinicogenomics and real-world treatment patterns. *JCO Precis Oncol*. 2021;5:PO.21.00122. **4.** Awad MM, Leonardi GC, Kravets S, et al. Impact of MET inhibitors on survival among patients with non-small cell lung cancer harboring *MET* exon 14 mutations: a retrospective analysis. *Lung Cancer*. 2019;133:96-102.

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