KEY TERMS

Non-small cell lung cancer (NSCLC)

NSCLC is considered the most common type of lung cancer, accounting for approximately 85% of all cases. NSCLC is categorized into sub-types including adenocarcinoma, squamous cell carcinoma, large cell (undifferentiated) carcinoma, and sarcomatoid carcinoma.[1]

Biomarker

A molecule that can be measured in tissue, blood, or other bodily fluids, and that may signal an abnormal bodily process and/or disease. In oncology, biomarkers are specific genetic abnormalities that may be identified as the "driver" that is causing the cancer to grow and spread. "Molecular marker," or "genotype," are other terms that may be used to describe biomarkers.[2]

Comprehensive biomarker testing

Testing that is conducted to identify and understand the unique characteristics of a person's lung cancer, ideally before treatment begins. The biomarkers, or biological markers, tested for will depend on the stage of NSCLC at diagnosis.

Some common biomarkers are *ALK*, *BRAF*, *EGFR*, *HER2*, *KRAS*, *MET* exon 14 skipping, *NTRK*, *RET*, and *ROS1*, or proteins such as PD-L1. Biomarker testing may also be called next generation sequencing (NGS), and/or mutation, genomic, or molecular testing.[3]

Tissue biopsy

A type of diagnostic test where small amounts of tissue are removed for examination to find out if a person has cancer and, if so, which type. Tissue biopsy is considered the gold standard approach for comprehensive biomarker testing.[3,4]

Liquid biopsy

Another way that comprehensive biomarker testing may be conducted, for some patients. This is a type of blood test that can identify the tumor's DNA to determine if it is associated with a particular biomarker.[5]

Targeted therapy

In cancer, a medicine that targets a specific driver or metabolic pathway of a tumor, rather than chemotherapies or immunotherapies that treat the cancer more broadly. Targeted treatments may result in less harm to normal cells during treatment and may potentially be associated with fewer side effects than other types of cancer treatment.[6,7] Targeted therapies may also be referred to as "precision medicine" or "precision therapies."[6]

Important Safety Information (continued on page 2&3)

-What is TEPMETKO used for?

TEPMETKO is a prescription medicine used to treat adults with non-small cell lung cancer (NSCLC) that:

- has spread to other parts of the body (metastatic), and
- whose tumors have an abnormal mesenchymal epithelial transition (MET) gene. Your healthcare provider will perform a test to make sure that TEPMETKO is right for you.

It is not known if TEPMETKO is safe and effective in children.

-What Warnings should I know about TEPMETKO?

TEPMETKO may cause severe or life-threatening swelling (inflammation) of the lungs during treatment that can lead to death. Tell your healthcare provider right away if you develop any new or worsening symptoms of lung problems, including: trouble breathing; shortness of breath; cough; or fever.

KEY TERMS CONT.

MET
A type of protein, formally called mesenchymal-epithelial transition, that is key to biologic processes such as organ development, tissue repair and wound healing.[8,9]

MET alterations
A term which refers to any abnormality in the *MET* gene, including *MET*ex14 skipping and *MET* amplification.

MET alterations are a type of biomarker known to promote cancer growth and spread, and are associated with aggressive disease, poor prognosis, and can drive resistance to other cancer therapies.[8,9]

MET amplification
A type of cancer biomarker – or "driver" – where there are extra copies of the *MET* gene, which means there are extra growth signals sent to the cancer. Having a higher number of *MET* genes may result in better responses to some *MET* targeted therapies.[10]

MET fusions
A rare molecular subtype that may be associated with primary resistance to certain therapies.[11]

MET inhibitor
A class of drugs that block the MET signaling pathway that can drive some types of tumor growth. MET inhibitors may help NSCLC patients with *MET* alterations, especially those with *MET*ex14 skipping alterations.[12]

MET exon 14 skipping
Also referred to as *MET*ex14 skipping; this is a specific type of abnormality in the *MET* gene. It is estimated that 3-4% of people with NSCLC may have *MET*ex14 skipping alterations.[8]

*MET*ex14 skipping is considered a "targetable" biomarker because treatments exist that can address this specific genetic abnormality. People with NSCLC that harbors these alterations may respond to treatment with a MET inhibitor.[13]

Important Safety Information (continued on page 3)

-What Warnings should I know about TEPMETKO? (continued)
TEPMETKO may cause abnormal liver blood test results. Your healthcare provider will do blood tests to check your liver function before you start treatment and during treatment with TEPMETKO. Tell your healthcare provider right away if you develop any signs and symptoms of liver problems, including: your skin or the white part of your eyes turns yellow; dark or "tea colored" urine; light-colored stools (bowel movements); confusion; tiredness; loss of appetite for several days or longer; nausea and vomiting; pain, aching, or tenderness on the right side of your stomach-area (abdomen); weakness; or swelling in your stomach-area.

Important Safety Information (continued)

TEPMETKO can cause harm to an unborn baby in pregnant women.

Females who are able to become pregnant:

- Your healthcare provider may do a pregnancy test before you start treatment with TEPMETKO.
- You should use effective birth control (contraception) during treatment and for 1 week after the final dose of TEPMETKO. Talk to your healthcare provider about birth control methods that may be right for you.

Males with female partners who are able to become pregnant should use effective birth control during treatment with TEPMETKO and for 1 week after the final dose of TEPMETKO.

-What should I tell my health care provider?

Tell your healthcare provider about all of your medical conditions, including if you:

- have or have had lung or breathing problems other than your lung cancer
- have or have had liver problems
- are pregnant or plan to become pregnant. TEPMETKO can harm your unborn baby.
- are breastfeeding or plan to breastfeed. It is not known if TEPMETKO passes into your breast milk. Do not breastfeed during treatment and for 1 week after the final dose of TEPMETKO.

Tell your healthcare provider about all the medicines you take, including prescription and over-the-counter medicines, vitamins, and herbal supplements.

-What are the side effects of TEPMETKO?

The most common side effects of TEPMETKO include: swelling in your face or other parts of your body; tiredness; nausea; diarrhea; muscle and joint pain; and shortness of breath. Your healthcare provider may change your dose, temporarily stop, or permanently stop treatment with TEPMETKO if you develop serious side effects during treatment. These are not all of the possible side effects of TEPMETKO. Call your doctor for medical advice about side effects. **You may report side effects to FDA at 1-800-FDA-1088 or at www.fda.gov/medwatch.**

Please click here for full Prescribing Information for TEPMETKO.

REFERENCES

1. About Lung Cancer. American Cancer Society website. https://www.cancer.org/cancer/lung-cancer/about/what-is.html. Accessed September 2021. **2.** Biomarker. National Cancer Institute. https://www.cancer.gov/publications/dictionaries/cancer-terms/def/biomarker. Accessed September 2021. **3.** Pennell NA et al. Am Soc Clin Oncol Edu Book 2019; 39(531–542). **4.** Diagnosing Lung Cancer Tissue Biopsies. LUNGEVITY. https://www.lungevity.org/for-patients-caregivers/lung-cancer-101/diagnosing-lung-cancer/tissue-biopsies. Accessed September 2021. **5.** Liquid Biopsy. National Cancer Institute. https://www.cancer.gov/publications/dictionaries/cancer-terms/def/liquid-biopsy. Accessed September 2021. **6.** Targeted Cancer Therapies. National Cancer Institute. https://www.cancer.gov/about-cancer/treatment/types/targeted-therapies/targeted-therapies-fact-sheet. Accessed September 2021. **7.** How Does Targeted Therapy Treat Cancer? MD Anderson Cancer Center. https://www.mdanderson.org/cancerwise/what-is-targeted-therapy-and-how-is-it-used-for-cancer-treatment.h00-159304623.html. Accessed September 2021.**8.** Drilon A, et al. J Thorac Oncol. 2017;12(1):15-26. **9.** Wu YL, et al. Cancer Treat Rev. 2017;61:70–81. **10.** *MET* and Lung Cancer. American Lung Association. https://www.lung.org/lung-health-diseases/lung-disease-lookup/lung-cancer/symptoms-diagnosis/biomarker-testing/met. Accessed September 2021. **11.** Wen xian Wang, et. al. Journal of Clinical Oncology 2018 36:15_suppl, e13539-e13539. **12.** Hong, L., et al. 2021. Therapeutic Advances in Medical Oncology. Current and future treatment options for *MET* exon 14 skipping alterations in non-small cell lung cancer. **13.** De Mello, R. A., Neves, N. M., Amaral, G. A., Lippo, E. G., Castelo-Branco, P., Pozza, D. H., Tajima, C. C., & Antoniou, G. (2020). The Role of MET Inhibitor Therapies in the Treatment of Advanced Non-Small Cell Lung Cancer. Journal of Clinical Medicine, 9(6), 1918.

TEPMETKO®
tepotinib