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Subject: Tumor/Genetic Markers

Circulating Tumor DNA for Management of Non-Small-Cell Lung Cancer (NSCLC) (Liquid Biopsy)
(CancerIntercept™, CellSearch®, FoundationACT™, GeneStrat®, Oncotype SEQ™)

EGFR Testing
Analysis of 2 types of somatic sensitizing variants within the epidermal growth factor receptor (EGFR) gene- small deletions in exon 19 and a point mutation variant in exon 21 (L858R)- using the cobas® EGFR Mutation Test v2, Guardant360 test, or OncoBEAM test with plasma specimens to detect circulating tumor DNA (ctDNA) **meets the definition of medical necessity** as an alternative to tissue biopsy to predict treatment response to an EGFR tyrosine kinase inhibitor (TKI) therapy in members with advanced stage III or IV non-small-cell lung cancer (NSCLC). The cobas test is a companion diagnostic for erlotinib and gefitinib.
Analysis of other EGFR sensitizing variants within exons 18 to 24 using ctDNA for applications related to NSCLC is considered **experimental or investigational**. The evidence is insufficient to determine the effects of the technology on health outcomes.

Analysis of EGFR T790M resistance variant for targeted therapy with osimertinib using ctDNA or for other applications related to NSCLC, is considered **experimental or investigational**. The evidence is insufficient to determine the effects of the technology on health outcomes.
Analysis of 2 types of somatic mutations variants within the EGFR gene- small deletions in exon 19 and a point mutation variant in exon 21 (L858R)- using ctDNA is considered **experimental or investigational** for members with advanced NSCLC of squamous cell type. The evidence is insufficient to determine the effects of the technology on health outcomes.

ALK Testing
Analysis of somatic rearrangement variants of the ALK gene using plasma specimens to detect ctDNA or RNA is considered **experimental or investigational** as an alternative to tissue biopsy to predict treatment response to ALK inhibitor therapy (eg, crizotinib [Xalkori], ceritinib [Zykadia], alectinib [Alecensa], or brigatinib [Alunbrig]) in members with NSCLC.

BRAF V600E Testing
Analysis of the BRAF V600E variant using plasma specimens to detect ctDNA is considered **experimental or investigational** as an alternative to tissue biopsy to predict treatment response to BRAF or MEK inhibitor therapy (eg, dabrafenib [Tafinlar], trametinib [Mekinist]) in members with NSCLC. The evidence is insufficient to determine the effects of the technology on health outcomes.

ROS1 Testing
Analysis of somatic rearrangement variants of the ROS1 gene using plasma specimens to detect ctDNA or RNA is considered **experimental or investigational** as an alternative to tissue biopsy to predict treatment response to ALK inhibitor therapy (crizotinib [Xalkori]) in members with NSCLC. The evidence is insufficient to determine the effects of the technology on health outcomes. The evidence is insufficient to determine the effects of the technology on health outcomes.

KRAS Testing
Analysis of somatic variants of the KRAS gene using plasma