

Federal Employee Program® 1310 G Street, N.W. Washington, D.C. 20005 202.942.1000 Fax 202.942.1125

# 5.21.038

Section: Prescription Drugs Effective Date: January 1, 2024

Subsection: Antineoplastic Agents Original Policy Date: June 19, 2013

Subject: Mekinist Page: 1 of 8

Last Review Date: December 8, 2023

# Mekinist

### Description

Mekinist (trametinib)

#### **Background**

Mekinist (trametinib) is a reversible inhibitor of mitogen-activated extracellular signal-regulated kinase 1 (MEK1) and MEK2 activation and of MEK1 and MEK2 kinase activity. MEK proteins are upstream regulators of the extracellular signal-related kinase (ERK) pathway, which promotes cellular proliferation. BRAF V600E mutations result in constitutive activation of the BRAF pathway which includes MEK1 and MEK2. Mekinist inhibits cell growth of various BRAF V600 mutation-positive tumors. Mekinist and dabrafenib (Tafinlar) target two different kinases in the RAS/RAF/MEK/ERK pathway. Use of these agents together results in greater growth inhibition of BRAF V600 mutation-positive tumor cell lines (1).

#### **Regulatory Status**

FDA-approved indications: Mekinist is a kinase inhibitor indicated: (1)

- 1. As a single agent for the treatment of BRAF-inhibitor treatment-naïve patients with unresectable or metastatic melanoma with BRAF V600E or V600K mutations as detected by an FDA-approved test.
- In combination with dabrafenib (Tafinlar) for the treatment of patients with unresectable or metastatic melanoma with BRAF V600E or V600K mutations as detected by an FDAapproved test.
- 3. In combination with dabrafenib (Tafinlar) for the adjuvant treatment of patients with melanoma with BRAF V600E or V600K mutations, as detected by an FDA-approved test, and involvement of lymph node(s), following complete resection.

Section: Prescription Drugs Effective Date: January 1, 2024

Subsection: Antineoplastic Agents Original Policy Date: June 19, 2013

Subject: Mekinist Page: 2 of 8

 In combination with dabrafenib (Tafinlar) for the treatment of patients with metastatic non-small cell lung cancer (NSCLC) with BRAF V600E mutation as detected by an FDAapproved test.

- 5. In combination with dabrafenib (Tafinlar) for the treatment of patients with locally advanced or metastatic anaplastic thyroid cancer (ATC) with no satisfactory locoregional treatment options.
- 6. In combination with dabrafenib (Tafinlar) for the treatment of adult and pediatric patients 1 year of age and older with unresectable or metastatic solid tumors with BRAF V600E mutation who have progressed following prior treatment and have no satisfactory alternative treatment options.
- 7. In combination with dabrafenib (Tafinlar) for the treatment of pediatric patients 1 year of age and older with low-grade glioma (LGG) with a BRAF V600E mutation who require systemic therapy.

#### Limitations of Use: (1)

Mekinist is not indicated for the treatment of patients with colorectal cancer because of known intrinsic resistance to BRAF inhibition.

#### Off-Label Uses: (2-3)

1. Low-grade serous ovarian cancer

Prior to initiation of therapy, the presence of BRAF V600E or V600K mutation in tumor specimens must be confirmed (1).

Hemorrhages, including major hemorrhages defined as symptomatic bleeding in a critical area or organ can occur in patients receiving Mekinist. Permanently discontinue Mekinist for all Grade 4 hemorrhagic events and for any Grade 3 hemorrhagic events that do not improve. Withhold Mekinist for up to 3 weeks for Grade 3 hemorrhagic events; if improved, resume at the next lower dose level (1).

Venous thromboembolism, such as deep vein thrombosis and pulmonary embolism, can occur in patients receiving Mekinist (1).

Mekinist has a risk of developing cardiomyopathy. AAssess left ventricular ejection fraction (LVEF) by echocardiogram or multigated acquisition (MUGA) scan before initiation of Mekinist, one month after initiation of Mekinist, and then every 2 to 3 months during treatment (1).

Section: Prescription Drugs Effective Date: January 1, 2024

Subsection: Antineoplastic Agents Original Policy Date: June 19, 2013

Subject: Mekinist Page: 3 of 8

Mekinist can cause severe visual problems including retinal pigment epithelial detachment (RPED) and retinal vein occlusion (RVO). A physician should perform an eye exam periodically and at any time a patient reports visual disturbances and compare to baseline, if available. Withhold Mekinist if RPED is diagnosed. Permanently discontinue Mekinist in patients with documented RVO. If a patient reports loss of vision or other visual disturbances, perform eye exam within 24 hours (1).

Mekinist treatment must be withheld for new or progressive unexplained pulmonary symptoms and findings, such as cough, dyspnea, hypoxia, pleural effusion, or infiltrates. Mekinist must be permanently discontinued for patients diagnosed with treatment-related interstitial lung disease (ILD) or pneumonitis (1).

There is a potential risk of skin toxicity while taking Mekinist. Patients should be monitored for new or worsening serious skin reactions (1).

Mekinist can cause embryo-fetal toxicity and impaired fertility. Advise female patients of reproductive potential to use effective contraception during treatment with Mekinist and for 4 months after treatment (1).

The safety and effectiveness of Mekinist in combination with dabrafenib (Tafinlar) have not been established in pediatric patients less than 1 year old with unresectable or metastatic solid tumors and with LGG. The safety and effectiveness of Mekinist for all other indications in pediatric patients have not been established (1).

#### **Related Policies**

Braftovi, Cotellic, Mektovi, Tafinlar, Zelboraf

# **Policy**

This policy statement applies to clinical review performed for pre-service (Prior Approval, Precertification, Advanced Benefit Determination, etc.) and/or post-service claims.

Mekinist may be considered **medically necessary** if the conditions indicated below are met.

Mekinist may be considered **investigational** for all other indications.

# **Prior-Approval Requirements**

Section: Prescription Drugs Effective Date: January 1, 2024

Subsection: Antineoplastic Agents Original Policy Date: June 19, 2013

Subject: Mekinist Page: 4 of 8

### **Diagnoses**

Patient must have **ONE** of the following:

- 1. Unresectable or metastatic melanoma
  - a. 18 years of age or older
  - b. Patient has **ONE** of the following:
    - Used as a single agent with documented BRAF V600E or BRAF V600K mutations as detected by an FDA-approved test
    - Used in combination with dabrafenib (Tafinlar) with documented BRAF V600E or BRAF V600K mutation as detected by an FDAapproved test
- 2. Resectable melanoma
  - a. 18 years of age or older
  - Used in combination with dabrafenib (Tafinlar) with documented BRAF V600E or BRAF V600K mutation as detected by an FDA-approved test
  - c. Melanoma has lymph node involvement
  - d. Used as adjuvant treatment after complete resection
- 3. Metastatic non-small cell lung cancer (NSCLC)
  - a. 18 years of age or older
  - Used in combination with dabrafenib (Tafinlar) with documented BRAF V600E mutation as detected by an FDA-approved test
- 4. Locally advanced or metastatic anaplastic thyroid cancer (ATC)
  - a. 18 years of age or older
  - Used in combination with dabrafenib (Tafinlar) with documented BRAF V600E mutation
  - c. NO satisfactory locoregional treatment options
- 5. Unresectable or metastatic solid tumors
  - a. 1 year of age or older
  - Used in combination with dabrafenib (Tafinlar) with documented BRAF V600E mutation
  - c. Patient has progressed following prior treatment
  - d. NO satisfactory alternative treatment options

Section: Prescription Drugs Effective Date: January 1, 2024

Subsection: Antineoplastic Agents Original Policy Date: June 19, 2013

Subject: Mekinist Page: 5 of 8

6. Low-grade glioma (LGG)

- a. 1 year of age or older
- Used in combination with dabrafenib (Tafinlar) with documented BRAF V600E mutation
- b. Patient requires systemic therapy
- 7. Low-grade serous ovarian cancer
  - a. 18 years of age or older
  - b. Used as a single agent for persistent or recurrent disease

# Prior - Approval Renewal Requirements

### No renewal for resectable melanoma diagnosis

### **Diagnoses**

Patient must have **ONE** of the following:

- 1. Unresectable or metastatic melanoma
  - a. 18 years of age or older
  - b. Used as a single agent **OR** used in combination with dabrafenib (Tafinlar)
- 2. Metastatic non-small cell lung cancer (NSCLC)
  - a. 18 years of age or older
  - b. Used in combination with dabrafenib (Tafinlar)
- 3. Locally advanced or metastatic anaplastic thyroid cancer (ATC)
  - a. 18 years of age or older
  - b. Used in combination with dabrafenib (Tafinlar)
- 4. Unresectable or metastatic solid tumors
  - a. 1 year of age or older
  - b. Used in combination with dabrafenib (Tafinlar)
- 5. Low-grade glioma (LGG)
  - a. 1 year of age or older

Section: Prescription Drugs Effective Date: January 1, 2024

Subsection: Antineoplastic Agents Original Policy Date: June 19, 2013

Subject: Mekinist Page: 6 of 8

b. Used in combination with dabrafenib (Tafinlar)

6. Low-grade serous ovarian cancer

- a. 18 years of age or older
- b. Used as a single agent for persistent or recurrent disease

#### AND the following for ALL indications:

a. NO disease progression or unacceptable toxicity

# **Policy Guidelines**

### **Pre - PA Allowance**

None

# **Prior - Approval Limits**

## Quantity

Strength	Quantity
0.5 mg	
2 mg	2 mg per day
0.05 mg/mL oral solution	

**Duration** 12 months

# Prior – Approval Renewal Limits

Same as above

No renewal for resectable melanoma diagnosis

### Rationale

#### **Summary**

Mekinist (trametinib) is indicated for the treatment of unresectable or metastatic melanoma, resectable melanoma, metastatic non-small cell lung cancer (NSCLC), locally advanced or metastatic anaplastic thyroid cancer (ATC), unresectable or metastatic solid tumors, and low-grade glioma (LGG). Mekinist is also used off-label for the treatment of low-grade serous ovarian cancer. Mekinist can cause multiple severe visual problems including retinal pigment epithelial detachment (RPED) and retinal vein occlusion (RVO). Mekinist treatment may cause

Section:Prescription DrugsEffective Date:January 1, 2024Subsection:Antineoplastic AgentsOriginal Policy Date:June 19, 2013

Subject: Mekinist Page: 7 of 8

interstitial lung disease or pneumonitis. There is a potential risk of skin toxicity while taking Mekinist. Mekinist can cause embryo-fetal toxicity and impaired fertility (1-3).

Prior authorization is required to ensure the safe, clinically appropriate, and cost-effective use of Mekinist while maintaining optimal therapeutic outcomes.

#### References

- 1. Mekinist [package insert]. East Hanover, NJ: Novartis Pharmaceuticals Corporation; August 2023.
- NCCN Clinical Practice Guidelines in Oncology® Ovarian Cancer (Version 2.2023).
   National Comprehensive Cancer Network, Inc. June 2023. Accessed on November 2, 2023.
- 3. NCCN Drugs & Biologics Compendium® Trametinib 2023. National Comprehensive Cancer Network, Inc. Accessed on November 2, 2023.

Policy History	
Date	Action
June 2013	New Policy
September 2013	Annual editorial and reference update.
	Addition to criteria to allow combination therapy with Tafinlar.
February 2014	Aligned criteria to new package insert.
	Revised the requirement that the patient must have NO prior BRAF
	therapy pertains to Mekinist used as a single agent only.
	Addition of new warnings and precautions with the combined therapy: new
	malignancies, hemorrhages, and venous thromboembolism.
September 2014	Annual editorial and reference update
December 2014	Annual editorial and reference update
	Removal of warnings and precautions: Assess left ventricular ejection
	fraction (LVEF), absence of symptomatic congestive heart failure,
	interstitial lung disease (ILD), retinal vein occlusion
June 2015	Annual review
March 2016	Annual editorial review and reference update
	Policy number change from 5.04.38 to 5.21.38
June 2016	Annual editorial review and reference update
	Addition of non-small cell lung cancer (NSCLC)

Section: Prescription Drugs Effective Date: January 1, 2024

Subsection: Antineoplastic Agents Original Policy Date: June 19, 2013

Subject: Mekinist Page: 8 of 8

Removal of the requirement: if Mekinist is used as a single agent only that

the patient must have NO prior BRAF inhibitor treatment

June 2017 Annual editorial review and reference update

June 2018 Annual review and reference update

Addition of the diagnoses of resectable melanoma and locally advanced or

metastatic anaplastic thyroid cancer to criteria

Addition of quantity limits to criteria and combination with Tafinlar

requirements in renewal section

September 2018 Annual editorial review

June 2019 Annual review and reference update
June 2020 Annual review and reference update
June 2021 Annual review and reference update

November 2021 Addition of indication: low-grade serous ovarian cancer, per

reconsideration review

March 2022 Annual review and reference update

July 2022 Addition of indication: BRAF V600E mutation-positive unresectable or

metastatic solid tumors. Simplified or changed renewal requirements for

consistency

September 2022 Annual review and reference update

April 2023 Per PI update, added indication of low-grade glioma (LGG). Added 0.05

mg/mL oral solution and changed PA limit to 2 mg per day of all strengths and dosage forms. Removed initiation requirement for an FDA-approved

test for ATC indication

June 2023 Annual review and reference update

October 2023 Per PI update, lowered age requirement for unresectable or metastatic

solid tumors from 6 years and older to 1 year and older

December 2023 Annual review and reference update

### **Keywords**

This policy was approved by the FEP® Pharmacy and Medical Policy Committee on December 8, 2023 and is effective on January 1, 2024.