

# Vittrakvi (larotrectinib)



**NEW PRODUCT SLIDESHOW**

**MPR**

# Introduction

- **Brand name:** Vitrakvi
- **Generic name:** Larotrectinib
- **Pharmacological class:** Kinase inhibitor
- **Strength and Formulation:** Larotrectinib 25mg, 100mg capsules; and 20mg/mL oral solution
- **Manufacturer:** Bayer Healthcare
- **How supplied:** Caps—60; Oral soln—100mL
- **Legal Classification:** Rx

# Vittrakvi



# Indication

- Treatment of patients with **solid tumors that have a neurotrophic receptor tyrosine kinase (*NTRK*) gene fusion** without a known acquired resistance mutation, are metastatic or where surgical resection is likely to result in severe morbidity, and have no satisfactory alternative treatments or that have progressed following treatment

# Dosage & Administration

- Confirm presence of a *NTRK* gene fusion in tumor
- Caps and oral soln are interchangeable
- Swallow caps whole
- Body surface area  $<1.0\text{m}^2$ : 100mg/m<sup>2</sup> twice daily;  $\geq 1.0\text{m}^2$ : 100mg twice daily
  - Give until disease progression or unacceptable toxicity

# Dosage & Administration

- **Avoid** concomitant strong CYP3A4 inhibitors, if unavoidable, reduce Vitrakvi dose by 50%
- **Avoid** concomitant strong CYP3A4 inducers; if unavoidable, double Vitrakvi dose
- Moderate-to-severe **hepatic impairment**: reduce initial dose by 50%
- Dose modifications for adverse reactions: see full labeling

# Considerations for Special Populations

- **Pregnancy:** Exclude status prior to initiation
- **Nursing mothers:** Not recommended (during and for 1 week after final dose)
- **Pediatric:** <18yrs: Not established
- **Elderly:** Insufficient number studied
- **Hepatic impairment:** Moderate to severe: reduce initial dose by 50%

# Warnings/Precautions

- Risk of **neurotoxicity, hepatotoxicity**; withhold or permanently discontinue based on severity; adjust dose when resumed
- Monitor **liver tests** (including ALT/AST) every 2 weeks during the first month, then monthly thereafter, and as clinically indicated

# Warnings/Precautions

- Embryo-fetal toxicity
- Advise females of reproductive potential and males (w. female partners) to use effective contraception during and for 1 week after final dose

# Interactions

- **Potentiated** by strong CYP3A4 inhibitors (eg, itraconazole, grapefruit, or grapefruit juice); adjust dose (see Dosing)
- **Antagonized** by strong CYP3A4 inducers (eg, rifampin, St. John's wort); adjust dose (see Dosing)
- **Potentiates** sensitive CYP3A4 substrates (eg, midazolam); if unavoidable, monitor for adverse reactions

# Adverse Reactions

- Fatigue
- Nausea
- Dizziness
- Vomiting
- Anemia
- Increased AST/ALT
- Cough
- Constipation
- Diarrhea

# Mechanism of Action

- Larotrectinib inhibits tropomyosin receptor kinases (TRK) TRKA, TRKB, and TRKC
- In *in vitro* and *in vivo* tumor models, it demonstrated anti-tumor activity in cells with constitutive activation of TRK proteins resulting from gene fusions, deletion of a protein regulatory domain, or in cells with TRK protein overexpression

# Clinical Studies

- Vitrakvi was evaluated in children and adults with unresectable or metastatic solid tumors with a *NTRK* gene fusion in 3 multicenter, open-label, single-arm clinical trials: Study LOXO-TRK-14001, SCOUT, and NAVIGATE

# Clinical Studies

- Adults received Vitrakvi 100mg twice daily and pediatric patients received 100mg/m<sup>2</sup> up to max dose 100mg twice daily until unacceptable toxicity or disease progression
- The major efficacy outcome measures were **overall response rate (ORR)** and **duration of response (DOR)**

# Clinical Studies

- Efficacy assessment was based on the first 55 patients with solid tumors with an *NTRK* gene fusion enrolled across the 3 trials
- The **most common cancers** were salivary gland tumors (22%), soft tissue sarcoma (20%), infantile fibrosarcoma (13%), and thyroid cancer (9%)

# Clinical Studies

- The data showed an **ORR of 75%** (95% CI, 61%, 85%) with Vitrakvi, with 22% of patients having complete response and 53% having partial response
- **DOR** assessed in 41 patients showed a range of 1.6+ to 33.2+ months
  - 73% of patients showed DOR  $\geq$ 6 months

# Clinical Studies

- **ORR of 100%** was seen in the following tumor types
  - **Infantile fibrosarcoma:** 100% (95% CI, 59%, 100%)
  - **Gastrointestinal stromal tumor:** 100% (95% CI, 29%, 100%)
  - **Thyroid:** 100% (95% CI, 48%, 100%)
- For more clinical trial data, see full labeling

# New Product Monograph

- For more information view the product monograph available at:

<https://www.empr.com/drug/vitrakvi/>