Tecovirimat (Lexi-Drugs)

Pronunciation

(TEK oh VIR i mat)

Brand Names: US

Tpoxx

Brand Names: Canada

Tpoxx

Pharmacologic Category

Antiviral Agent

Dosing: Adult

Note: Initiate with oral therapy when possible. Patients unable to take capsules or drug-food preparation may receive IV therapy; switch to oral therapy as soon as possible. When a change in dosage form is necessary, the first dose of the new dosage form should be given at the same time and in place of the next scheduled dose of the previously prescribed dosage form.

Monkeypox

Smallpox

Dosage adjustment for concomitant therapy: Significant drug interactions exist, requiring dose/frequency adjustment or avoidance. Consult drug interactions database for more information.

* See Dosage and Administration in AHFS Essentials for additional information.

Dosing: Older Adult

Refer to adult dosing.

Dosing: Altered Kidney Function: Adult

IV:

CrCl ≥90 mL/minute: No dosage adjustment necessary.

CrCl 30 to 89 mL/minute: No dosage adjustment necessary; use with caution; accumulation of hydroxypropyl-B-cyclodextrin may occur.

CrCl <30 mL/minute: Use is contraindicated.

Oral: No dosage adjustment necessary.

Dosing: Hepatic Impairment: Adult

No dosage adjustment necessary.

Dosing: Pediatric

Note: Has not been formally studied in pediatric patients; dosing is based on pharmacokinetic simulations to achieve comparable exposure to adults.

Non-variola orthopoxvirus infections (eg, monkeypox): Very limited data available: **Note:** Dosing from the CDC's expanded access investigational new drug (EA-IND) protocol. Data in pediatric patients are extremely limited, particularly in very young infants and children; for additional clinical guidance, contact the CDC. Treatment duration is 14 days but should be individualized based on clinical response; do not exceed 90 days (CDC 2022a).

Oral: **Note:** The smallest capsule size is 200 mg; doses lower than 200 mg require manipulation of capsule, increasing risk for dose inaccuracy. Use caution; before use, ensure caregivers are able to prepare as directed (CDC 2022a).

Infants, Children, and Adolescents (CDC 2022a):

<6 kg: Oral: 50 mg every 12 hours.

6 to <13 kg: Oral: 100 mg every 12 hours.

13 to <25 kg: Oral: 200 mg every 12 hours.

25 to <40 kg: Oral: 400 mg every 12 hours.

40 to <120 kg: Oral: 600 mg every 12 hours.

≥120 kg: Oral: 600 mg every 8 hours.

IV: **Note:** Use IV formulation with caution in patients <2 years of age due to limited experience with hydroxypropyl-B-cyclodextrin excipient.

Infants, Children, and Adolescents (CDC 2022a):

<35 kg: IV: 6 mg/kg/dose every 12 hours.

35 to <120 kg: IV: 200 mg every 12 hours.

≥120 kg: IV: 300 mg every 12 hours.

Smallpox infection: Note: When a change in dosage form is necessary, the first dose of the new dosage form should be given at the time of the next scheduled dose. Treat for 14 days total.

Oral: Children and Adolescents:

13 to <25 kg: Oral: 200 mg every 12 hours.

25 to <40 kg: Oral: 400 mg every 12 hours.

40 to <120 kg: Oral: 600 mg every 12 hours.

≥120 kg: Oral: 600 mg every 8 hours.

IV: Infants, Children, and Adolescents: **Note:** Use with caution in patients <2 years of age due to limited experience with hydroxypropyl-B-cyclodextrin excipient. Initiation with oral therapy is recommended in patients weighing ≥13 kg when possible. Patients unable to take capsules or drug-food preparation may be initiated with IV therapy; in patients weighing ≥13 kg, switch to oral therapy as soon as possible.

3 to <35 kg: IV: 6 mg/kg/dose every 12 hours.

35 to <120 kg: IV: 200 mg every 12 hours.

≥120 kg: IV: 300 mg every 12 hours.

Dosage adjustment for concomitant therapy: Significant drug interactions exist, requiring dose/frequency adjustment or avoidance. Consult drug interactions database for more information.

Dosing: Altered Kidney Function: Pediatric

Note: Has not been studied in pediatric patients; dosing is based on pharmacokinetic simulations to achieve comparable exposure to adults.

Oral: Infants, Children, and Adolescents (CDC 2022a; manufacturer's labeling):

Mild, moderate, and severe renal impairment: No dosage adjustment is necessary.

End-stage renal disease requiring hemodialysis: No dosage adjustment is necessary.

IV: Infants, Children, and Adolescents (CDC 2022a; manufacturer's labeling):

Baseline renal impairment:

Mild to moderate renal impairment (CrCl 30 to <90 mL/minute): No dosage adjustment necessary; use with caution; accumulation of hydroxypropyl-B-cyclodextrin may occur.

Severe renal impairment (CrCl <30 mL/minute): Use is contraindicated.

Renal impairment occurring during therapy: Consider switching to oral therapy if possible.

Dosing: Hepatic Impairment: Pediatric

Infants weighing ≥3 kg, Children, and Adolescents: Mild, moderate, or severe hepatic impairment: No dosage adjustment is necessary.

Use: Labeled Indications

Smallpox: Treatment of human smallpox disease caused by variola virus in adults and pediatric patients weighing ≥3 kg.

Limitations of use: Effectiveness for treatment of smallpox disease has not been determined in humans because adequate and well-controlled field trials have not been feasible, and inducing smallpox disease in humans to study the drug's efficacy is not ethical.

* See Uses in AHFS Essentials for additional information.

Use: Off-Label: Adult

MonkeypoxLevel of Evidence [G]

Based on the CDC guidance for tecovirimat use under the expanded access investigational new drug protocol during the 2022 US monkeypox outbreak, tecovirimat may be considered for treatment of monkeypox in patients with severe disease (eg, hemorrhagic disease, confluent lesions, sepsis, encephalitis, ocular or periorbital involvement, secondary bacterial skin infection [especially those requiring surgical intervention (eg, debridement)], other conditions requiring hospitalization) or those who may be at high risk for severe disease (eg, patients with severe immunocompromise, pediatric patients [particularly those <8 years of age], patients with conditions affecting skin integrity [eg, atopic dermatitis, eczema, burns, impetigo, varicella zoster infection, herpes simplex virus infection, severe acne, severe diaper dermatitis, psoriasis, keratosis folliuclaris], patients who are pregnant or breastfeeding), and involvement of other anatomical areas where monkeypox infection may result in serious sequelae, including scarring or strictures (eg, involvement of pharynx, genitals, anus) ([Ref]).

Level of Evidence Definitions

Level of Evidence Scale

A - Consistent evidence from well-performed randomized, controlled trials or overwhelming evidence of some other form (eg, results of the introduction of penicillin treatment) to support the off-label use. Further research is unlikely to change confidence in the estimate of benefit.

B - Evidence from randomized, controlled trials with important limitations (inconsistent results, methodological flaws, indirect or imprecise), or very strong evidence of some other research design. Further research (if performed) is likely to have an impact on confidence in the estimate of benefit and risk and may change the estimate.

C - Evidence from observational studies (eg, retrospective case series/reports providing significant impact on patient care), unsystematic clinical experience, or from potentially flawed randomized, controlled trials (eg, when limited options exist for condition). Any estimate of effect is uncertain.

G - Use has been substantiated by inclusion in at least one evidence-based or consensus-based clinical practice guideline.

Comparative Efficacy

- TECOVIRIMAT

Administration: IV

Administer via IV infusion pump over 6 hours; not for IV bolus injection.

Administration: Oral

Administer within 30 minutes after a full meal containing moderate or high fat (about 25 g of fat). For patients who cannot swallow capsules, capsules may be opened and entire contents mixed with 30 mL

of liquid (eg, milk, chocolate milk) or soft food (eg, applesauce, yogurt); powder may not dissolve completely. Administer entire mixture within 30 minutes after preparation.

Administration: Pediatric

Parenteral: IV: Must be diluted prior to use. Administer via IV infusion pump over 6 hours; do NOT administer via IV bolus injection.

Oral: Administer within 30 minutes following a full meal of moderate to high fat (~25 grams). **Note:** The smallest capsule size is 200 mg; doses lower than 200 mg require manipulation of capsule, increasing risk for dose inaccuracy. Use caution; before use, ensure caregivers are able to prepare as directed (CDC 2022a).

Doses less than 200 mg or patients unable to swallow capsules: Capsules may be opened and mixed with breast milk, formula, milk, or food as per following instructions based on dose needed. The mixture should be administered within 30 minutes of preparation, and any unused portion of the mixture should be discarded; a new mixture should be prepared for each dose (CDC 2022a; manufacturer's labeling).

• 50 mg dose (patients weighing <6 kg): Open one 200 mg capsule and pour contents into a small bowl. Add 30 mL of water and mix well. Measure 7.5 mL (50 mg) of the tecovirimat-water mixture and add to 15 mL of breast milk or prepared infant formula in a baby bottle; mix well. Administer contents of bottle in one sitting; do not retain for future consumption (CDC 2022a).

• 100 mg dose (patients weighing 6 to <13 kg): Open one 200 mg capsule and pour contents into a small bowl. Add 30 mL of water and mix well. Measure 15 mL (100 mg) of the tecovirimat-water mixture and add to 15 mL of milk, breast milk, or prepared infant formula in a baby bottle or small bowl; mix well. Administer contents of baby bottle or bowl in one sitting; do not retain for future consumption (CDC 2022a).

• 200, 400, or 600 mg dose (patients weighing ≥13 kg): The appropriate number of capsules may be carefully opened and the entire contents added to 30 mL of liquid (eg, milk, chocolate milk, infant formula) or soft food (eg, applesauce, yogurt, baby food); powder may not completely dissolve. Administer entire mixture in one sitting; do not retain for future consumption (CDC 2022a; manufacturer's labeling).

Nasogastric: In patients unable to feed by mouth, may be administered via nasogastric tube as long as patient has no evidence of gastrointestinal dysfunction (CDC 2022a).

Missed dose: Administer missed dose as soon as possible if up to 8 hours prior to next scheduled dose. If <8 hours until the next scheduled dose, skip the missed dose and resume dosing at regular scheduled time.

Dietary Considerations

Take ≤30 minutes after a full meal containing moderate or high fat (about 25 g of fat).

Storage/Stability

IV: Store intact vials at 2°C to 8°C (36°F to 46°F); do not freeze. Diluted solutions may be stored at room temperature for up to 4 hours or refrigerated for up to 24 hours.

Oral: Store in original container at 20°C to 25°C (68°F to 77°F); excursions permitted 15°C to 30°C (59°F to 86°F).

Preparation for Administration: Adult

Prepare IV dose in a syringe; do not use prefilled infusion bags for dose preparation. Two separate syringes may be needed to deliver entire dose depending on the size of syringe available with syringe pump system. Gently swirl syringe(s) prior to inserting into the syringe pump. Discard unused portion of vial; do not reuse.

200 mg dose: Withdraw 20 mL of tecovirimat and add to syringe; add 40 mL of NS or D5W in 2 equal parts to the syringe.

300 mg dose: Withdraw 30 mL of tecovirimat and add to syringe; add 60 mL of NS or D5W in 2 equal parts to the syringe.

Preparation for Administration: Pediatric

Parenteral:

Prepare dose in a syringe; do not use prefilled infusion bags for dose preparation. Withdraw appropriate amount of tecovirimat for dose into syringe; to the same syringe, add 2 times the tecovirimat dose volume of either NS or D5W (see table). Two separate syringes may be needed to deliver entire dose depending on the size of syringe available with syringe pump system. Gently swirl syringe(s) prior to inserting into the syringe pump. Discard unused portion of vial; do not reuse.

Tecovirimat Dose and Diluent Volumes[a]

Dosing Weight	Volume of Tecovirimat (10 mg/mL) Per Dose	Volume of Diluent Per Dose
<35 kg	0.6 mL/kg	1.2 mL/kg
35 to <120 kg	20 mL	40 mL
≥120 kg	30 mL	60 mL

[a] (CDC 2022a; manufacturer's labeling)

Compatibility

See Trissel’s IV Compatibility Database

Open Trissel's IV Compatibility

Medication Patient Education with HCAHPS Considerations

What is this drug used for?

• It is used to treat smallpox.

All drugs may cause side effects. However, many people have no side effects or only have minor side effects. Call your doctor or get medical help if any of these side effects or any other side effects bother you or do not go away:

Capsules:

• Headache

• Upset stomach or throwing up

• Stomach pain

Injection:

• Pain, redness, swelling, or other reaction where the injection was given

• Headache

WARNING/CAUTION: Even though it may be rare, some people may have very bad and sometimes deadly side effects when taking a drug. Tell your doctor or get medical help right away if you have any of the following signs or symptoms that may be related to a very bad side effect:

• Signs of an allergic reaction, like rash; hives; itching; red, swollen, blistered, or peeling skin with or without fever; wheezing; tightness in the chest or throat; trouble breathing, swallowing, or talking; unusual hoarseness; or swelling of the mouth, face, lips, tongue, or throat.

Note: This is not a comprehensive list of all side effects. Talk to your doctor if you have questions.

Consumer Information Use and Disclaimer: This information should not be used to decide whether or not to take this medicine or any other medicine. Only the healthcare provider has the knowledge and training to decide which medicines are right for a specific patient. This information does not endorse any medicine as safe, effective, or approved for treating any patient or health condition. This is only a limited summary of general information about the medicine's uses from the patient education leaflet and is not intended to be comprehensive. This limited summary does NOT include all information available about the possible uses, directions, warnings, precautions, interactions, adverse effects, or risks that may apply to this medicine. This information is not intended to provide medical advice, diagnosis or treatment and does not replace information you receive from the healthcare provider. For a more detailed summary of information about the risks and benefits of using this medicine, please speak with your healthcare provider and review the entire patient education leaflet.

Prescribing and Access Restrictions

Tecovirimat is FDA-approved for the treatment of smallpox, but only available through the US government's Strategic National Stockpile.

Tecovirimat is available for treatment of other *Orthopoxvirus* infections, including monkeypox, through an expanded access Investigational New Drug (EA-IND) application. Clinicians and care facility pharmacists may request tecovirimat for the treatment of monkeypox through their state/territorial health department. For urgent clinical situations after hours, providers may contact the CDC Emergency Operations Center at 770-488-7100. Treatment may begin upon receipt of the medication and after

obtaining informed consent; no preregistration is required for clinicians or facilities to initiate treatment, and forms requested under the EA-IND can be returned to CDC after treatment begins (CDC 2022b).

Contraindications

IV: Severe renal impairment (CrCl <30 mL/minute).

Oral: There are no contraindications listed in the manufacturer's US labeling.

Canadian labeling: Hypersensitivity to tecovirimat or any component of the formulation.

Warnings/Precautions

Disease-related concerns:

• Renal impairment: IV: Injection contains hydroxypropyl-B-cyclodextrin, which may accumulate in patients with renal impairment and has the potential to cause renal toxicity. Use injection with caution in patients <2 years of age (due to immature renal function) and patients with mild or moderate renal impairment (CrCl 30 to 89 mL/minute); contraindicated in patients with severe renal impairment (CrCl <30 mL/minute). Closely monitor renal function; if renal toxicity is suspected, consider switching to oral tecovirimat if possible or use an alternative agent.

Special populations:

• Immunocompromised patients: Efficacy may be reduced (based on studies in immunocompromised animal models).

* See Cautions in AHFS Essentials for additional information.

Warnings: Additional Pediatric Considerations

Injection contains hydroxypropyl-B-cyclodextrin. In pediatric patients <2 years of age, there are limited data with use of hydroxypropyl-B-cyclodextrin and clearance may be reduced due to renal immaturity, resulting in higher exposure. Use with caution in patients <2 years of age and continue monitoring renal function following treatment completion.

Pregnancy Considerations

Adverse events have not been observed in animal reproduction studies. Pregnant people were not included in initial pharmacokinetic studies (Grosenbach 2018).

Smallpox infection during pregnancy is associated with adverse events. Contracting smallpox while pregnant increases the risk of severe maternal disease (including hemorrhagic smallpox) and death; the fatality rate in unvaccinated pregnant patients can be up to 70% (CDC [Petersen 2015]).

Infection with the monkeypox virus may also lead to adverse pregnancy outcomes, including spontaneous pregnancy loss, stillbirth, and transmission of the monkeypox virus to the fetus or newborn. When a pregnant patient is diagnosed with monkeypox, neonatal health care providers should be informed of the diagnosis (CDC 2022d).

In consultation with the CDC, tecovirimat is the preferred antiviral treatment for pregnant and recently pregnant patients who otherwise meet the eligibility criteria for treatment of monkeypox. Pregnant and

recently pregnant patients diagnosed with monkeypox virus infection should be prioritized for treatment. Patients should be closely monitored for severe disease and pregnancy complications (CDC 2022d).

Breastfeeding Considerations

It is not known if tecovirimat is present in breast milk.

Breastfeeding patients were not included in initial pharmacokinetic studies (Grosenbach 2018).

Lactating patients with smallpox infection have the potential to transmit the virus via direct contact to a breastfed infant. Therefore, breastfeeding is not recommended.

Tecovirimat is the preferred antiviral treatment for lactating patients who otherwise meet the eligibility criteria for treatment of monkeypox. Lactating patients diagnosed with monkeypox virus infection should be prioritized for treatment. Breastfed children diagnosed with monkeypox should be treated as indicated (CDC 2022d).

Patients diagnosed with monkeypox infection should not have direct skin to skin contact with their newborn. Patients should observe recommendations for isolation and breastfeeding should be delayed until criteria for discontinuing isolation are met. Patients can pump and discard breast milk until they no longer have symptoms or require isolation. During this time, infants should be fed with formula or pasteurized donor milk by a healthy caregiver (CDC 2022d).

Briggs' Drugs in Pregnancy & Lactation

- Tecovirimat

Adverse Reactions

The following adverse drug reactions and incidences are derived from product labeling unless otherwise specified. Adverse reactions are for the oral product in adults unless otherwise indicated.

>10%:

Local: Pain at injection site (IV)

Nervous system: Headache (oral, IV: 12% to 15%)

1% to 10%:

Cardiovascular: Increased heart rate (<2%)

Dermatologic: Cheilosis (<2%), facial erythema (<2%), pruritic rash (<2%), pruritus (oral, IV: <4%), purpuric rash (palpable: <2%), skin rash (<2%)

Endocrine & metabolic: Increased thirst (<2%)

Gastrointestinal: Abdominal pain (2%), diarrhea (IV: <4%), dysgeusia (<2%), dyspepsia (<2%), eructation (<2%), nausea (5%), oral paresthesia (<2%), vomiting (2%), xerostomia (<2%)

Hematologic & oncologic: Decreased hematocrit (<2%), decreased hemoglobin (<2%)

Hypersensitivity: Facial swelling (<2%)

Local: Discomfort at injection site (IV: <4%), swelling at injection site (IV: <4%)

Nervous system: Abnormal electroencephalogram (<2%), chills (<2%), depression (<2%), disturbance in attention (<2%), dysphoria (<2%), hypertonia (IV: <4%), irritability (<2%), malaise (<2%), migraine (<2%), pain (<2%), panic attack (<2%), paresthesia (<2%)

Neuromuscular & skeletal: Arthralgia (<2%), arthritis (IV: <4%), back pain (IV: <4%), myalgia (IV: <4%), osteoarthritis (<2%)

Ophthalmic: Photophobia (IV: <4%)

Respiratory: Oropharyngeal pain (<2%)

Miscellaneous: Fever (<2%)

* See Cautions in AHFS Essentials for additional information.

Metabolism/Transport Effects

Substrate of UGT1A1, UGT1A4; **Inhibits** CYP2C19 (weak), CYP2C8 (weak); **Induces** CYP3A4 (weak)

Drug Interactions Open Interactions

Note: Interacting drugs may **not be individually listed below** if they are part of a group interaction (eg, individual drugs within "CYP3A4 Inducers [Strong]" are NOT listed). For a complete list of drug interactions by individual drug name and detailed management recommendations, use the Lexicomp drug interactions program by clicking on the "Open Interactions" button above.

CarBAMazepine: CYP3A4 Inducers (Weak) may decrease the serum concentration of CarBAMazepine. *Risk C: Monitor therapy*

CloBAZam: CYP2C19 Inhibitors (Weak) may increase serum concentrations of the active metabolite(s) of CloBAZam. CYP2C19 Inhibitors (Weak) may increase the serum concentration of CloBAZam. *Risk C: Monitor therapy*

CloZAPine: CYP3A4 Inducers (Weak) may decrease the serum concentration of CloZAPine. *Risk C: Monitor therapy*

Fosphenytoin-Phenytoin: CYP2C19 Inhibitors (Weak) may increase the serum concentration of Fosphenytoin-Phenytoin. *Risk C: Monitor therapy*

Hormonal Contraceptives: CYP3A4 Inducers (Weak) may decrease the serum concentration of Hormonal Contraceptives. Management: Advise patients to use an alternative method of contraception or a back-up method during coadministration, and to continue back-up contraception for 28 days after discontinuing a weak CYP3A4 inducer to ensure contraceptive reliability. *Risk D: Consider therapy modification*

Mavacamten: CYP2C19 Inhibitors (Weak) may increase the serum concentration of Mavacamten. Management: Start mavacamten at 5 mg/day if stable on a weak CYP2C19 inhibitor. For those stable on

mavacamten who are initiating a weak CYP2C19 inhibitor, reduce mavacamten dose by one dose level. *Risk D: Consider therapy modification*

Mitapivat: May decrease the serum concentration of UGT1A1 Substrates. *Risk C: Monitor therapy*

NiMODipine: CYP3A4 Inducers (Weak) may decrease the serum concentration of NiMODipine. *Risk C: Monitor therapy*

Repaglinide: CYP2C8 Inhibitors (Weak) may increase the serum concentration of Repaglinide. *Risk C: Monitor therapy*

Selpercatinib: CYP3A4 Inducers (Weak) may decrease the serum concentration of Selpercatinib. *Risk C: Monitor therapy*

Sirolimus (Conventional): CYP3A4 Inducers (Weak) may decrease the serum concentration of Sirolimus (Conventional). *Risk C: Monitor therapy*

Sirolimus (Protein Bound): CYP3A4 Inducers (Weak) may decrease the serum concentration of Sirolimus (Protein Bound). *Risk C: Monitor therapy*

Smallpox Vaccine Live: Tecovirimat may diminish the therapeutic effect of Smallpox Vaccine Live. *Risk C: Monitor therapy*

Tacrolimus (Systemic): CYP3A4 Inducers (Weak) may decrease the serum concentration of Tacrolimus (Systemic). *Risk C: Monitor therapy*

Ubrogepant: CYP3A4 Inducers (Weak) may decrease the serum concentration of Ubrogepant. Management: Use an initial ubrogepant dose of 100 mg and second dose (if needed) of 100 mg when used with a weak CYP3A4 inducer. *Risk D: Consider therapy modification*

Food Interactions

Food (~600 kcal, ~25 g fat) increased mean AUC 39%. Management: Administer within 30 minutes after a full moderate or high fat meal.

Monitoring Parameters

Blood glucose, symptoms of hypoglycemia (when coadministered with repaglinide); CrCl in patients receiving IV therapy prior to initiation and as clinically appropriate.

Product Availability

Tpoxx is available through the US government's Strategic National Stockpile for the treatment of smallpox and via an expanded access Investigational New Drug (EA-IND) application for treatment of other *Orthopoxvirus* infections, including monkeypox.

Dosage Forms: US

Excipient information presented when available (limited, particularly for generics); consult specific product labeling.

Capsule, Oral:

Tpoxx: 200 mg [contains fd&c blue #1 (brilliant blue), fd&c yellow #6 (sunset yellow)]

Solution, Intravenous:

Tpoxx: 200 mg/20 mL (20 mL)

Dosage Forms: Canada

Excipient information presented when available (limited, particularly for generics); consult specific product labeling.

Capsule, Oral:

Tpoxx: 200 mg [contains fd&c blue #1 (brilliant blue), fd&c yellow #6 (sunset yellow)]

Generic Available (US)

No

Pricing: US

Capsules (Tpoxx Oral)

200 mg (per each): $0.00

Solution (Tpoxx Intravenous)

200 mg/20 mL (per mL): $0.00

Disclaimer: A representative AWP (Average Wholesale Price) price or price range is provided as reference price only. A range is provided when more than one manufacturer's AWP price is available and uses the low and high price reported by the manufacturers to determine the range. The pricing data should be used for benchmarking purposes only, and as such should not be used alone to set or adjudicate any prices for reimbursement or purchasing functions or considered to be an exact price for a single product and/or manufacturer. Medi-Span expressly disclaims all warranties of any kind or nature, whether express or implied, and assumes no liability with respect to accuracy of price or price range data published in its solutions. In no event shall Medi-Span be liable for special, indirect, incidental, or consequential damages arising from use of price or price range data. Pricing data is updated monthly.

Mechanism of Action

Tecovirimat inhibits the activity of the orthopoxvirus VP37 protein and blocks its interaction with cellular Rab9 GTPase and TIP47, preventing formation of egress-competent enveloped virions (necessary for dissemination of virus).

Pharmacokinetics

Absorption: Oral: Administration with food (~600 kcal, ~25 g fat) increased mean AUC 39%.

Distribution: V_d (Vz or Vz/F): IV: 383 L; Oral: 1,030 L.

Protein binding: 77% to 82%.

Metabolism: Hydrolysis of the amide bond and glucuronidation (UGT1A1, UGT1A4).

Half-life elimination: IV: 21 hours; Oral: 19 hours.

Time to peak: IV: 6 hours (range: 6 to 6.5 hours); Oral: 6 hours (range: 2 to 24 hours).

Excretion: Oral: Urine (73%, predominantly metabolites); feces (23%, predominantly as unchanged drug)

Pharmacokinetics: Additional Considerations

Tecovirimat exposure was reduced in patients weighing >120 kg and receiving a dose of 600 mg twice daily compared to patients weighing <120 kg receiving the same dose.

Pediatric: Pharmacokinetics have not been evaluated in pediatric patients; based on pharmacokinetic simulation, recommended pediatric dosing regimens are expected to result in exposures comparable to those in adults receiving recommended doses.

Dental: Local Anesthetic/Vasoconstrictor Precautions

No information available to require special precautions

Dental: Effects on Dental Treatment

Key adverse event(s) related to dental treatment: Infrequent occurrence of oropharyngeal pain

Dental: Effects on Bleeding

No information available to require special precautions

Index Terms

Tpoxx, ST-246

FDA Approval Date

July 13, 2018

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Tpoxx (tecovirimat) [product monograph]. Oakville, Ontario, Canada: SIGA Technologies Inc; November 2021.

Brand Names: International

Tecovirimat Siga (CZ, EE, LV, NL, PT); TPOXX (IN)

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