

Epidiolex (cannabidiol)



NEW PRODUCT SLIDESHOW

MPR

Introduction

- **Brand name:** Epidiolex
- **Generic name:** Cannabidiol
- **Pharmacological class:** Cannabinoid
- **Strength and Formulation:** 100mg/mL; oral soln; strawberry-flavored; contains dehydrated alcohol, sesame seed oil
- **Manufacturer:** Greenwich Biosciences
- **How supplied:** Oral soln—100mL (w. dosing syringes + adapter)
- **Legal Classification:** CV

Epidiolex



Indication

- Treatment of **seizures** associated with Lennox-Gastaut syndrome (LGS) or Dravet syndrome (DS)

Dosage & Administration

- Use calibrated measuring device
- **≥2yrs**: Initially 2.5mg/kg twice daily, may increase to 5mg/kg twice daily after 1 week
- May further increase in weekly increments of 2.5mg/kg twice daily (or no sooner than every other day) as tolerated; **max 10mg/kg twice daily**

Dosage & Administration

- **Hepatic impairment (moderate):** initially 1.25mg/kg twice daily up to 2.5mg/kg twice daily, max 5mg/kg twice daily
- **Hepatic impairment (severe):** initially 0.5mg/kg twice daily up to 1mg/kg twice daily; max 2mg/kg twice daily

Considerations for Special Populations

- **Pregnancy:** No adequate data on developmental risks in pregnant women
- **Nursing mothers:** Consider mother's clinical need and potential adverse effects on breastfed infant
- **Pediatric:** <2yrs: not established
- **Elderly:** Trials did not include patients above 55yrs; use with caution
- **Hepatic impairment:** See Dosing

Warnings/Precautions

- Risk of **hepatocellular injury**
- **Obtain ALT/AST and total bilirubin** prior to, at 1 month, 3 months, and 6 months after initiation, and periodically thereafter
 - Also within 1 month after dose adjustments or concomitant drugs known to impact the liver
- Evaluate and consider more frequent monitoring if elevated liver enzymes at baseline

Warnings/Precautions

- Interrupt or discontinue if hepatic dysfunction occurs; discontinue if ALT/AST elevations $>3xULN$ and bilirubin $>2xULN$, or sustained ALT/AST elevations $>5xULN$
- Monitor for somnolence and sedation
- Monitor for emergence or worsening of depression, suicidal thoughts/behavior or any unusual changes in mood/behavior

Warnings/Precautions

- Discontinue if hypersensitivity reactions occurs
- Withdraw gradually
- Avoid abrupt cessation

Interactions

- Potentiated by moderate or strong **CYP3A4 or CYP2C19 inhibitors**: consider reducing Epidiolex dose
- Antagonized by strong **CYP3A4 or CYP2C19 inducers**: consider increasing Epidiolex dose

Interactions

- May potentiate **UGT1A9** (eg, diflunisal, propofol, fenofibrate), **UGT2B7** (eg, gemfibrozil, lamotrigine, morphine, lorazepam), **CYP2C8** or **CYP2C9** (eg, phenytoin) substrates: consider reducing dose of these
- May affect **CYP1A2** (eg, theophylline, caffeine) or **CYP2B6** (eg, bupropion, efavirenz) substrates: consider adjusting dose of these

Interactions

- Potentiates sensitive CYP2C19 substrates (eg, diazepam, clobazam): consider **reducing** dose of substrate
- Increased transaminase elevations with concomitant **valproate** and/or **clobazam**; monitor more frequently, consider discontinuation or dose adjustment
- May increase risk of somnolence and sedation with concomitant CNS depressants, alcohol; monitor

Adverse Reactions

- Somnolence
- Sedation
- Decreased appetite
- Diarrhea
- Transaminase elevations
- Fatigue
- Malaise
- Asthenia
- Rash
- Insomnia
- Sleep disorders
- Poor quality sleep
- Infections
- Hypersensitivity reactions

Mechanism of Action

- The precise mechanisms by which Epidiolex exerts its anticonvulsant effect in humans are unknown
- Cannabidiol does not appear to exert its anticonvulsant effects through interaction with cannabinoid receptors

Clinical Studies

- The efficacy of Epidiolex for the treatment of seizures associated with LGS was established in 2 randomized, double-blind, placebo-controlled trials in patients aged 2 to 55yrs (**Study 1 and Study 2**)

Clinical Studies

- **Study 1** (N=171) compared Epidiolex 20mg/kg daily vs placebo
- **Study 2** (N=225) compared Epidiolex 10mg/kg daily and 20mg/kg daily vs placebo
- The **primary efficacy measure** in both trials was the percent change from baseline in the frequency of drop seizures (atonic, tonic, or tonic-clonic seizures) over the 14-week treatment period

Clinical Studies

- In both studies, the median percent change from baseline in the frequency of drop seizures was significantly greater for Epidiolex than for placebo
 - Study 1: **-22%** placebo vs **-44%** Epidiolex 20mg/kg ($P = 0.01$)
 - Study 2: **-17%** placebo vs **-37%** Epidiolex 10mg/kg and **-42%** Epidiolex 20mg/kg (both $P < .01$)

Clinical Studies

- The efficacy of Epidiolex for the treatment of seizures associated with Dravet syndrome was demonstrated in a single randomized, double-blind, placebo-controlled trial in patients aged 2 to 18yrs (**Study 3**; N=120)

Clinical Studies

- Patients received a dose of Epidiolex 20mg/kg daily or placebo
- The **primary efficacy measure** was the percent change from baseline in the frequency of convulsive seizures (all countable atonic, tonic, clonic, and tonic-clonic seizures) over the 14-week treatment period

Clinical Studies

- The median percent change from baseline in the frequency of convulsive seizures was significantly greater for Epidiolex 20mg/kg daily than for placebo (**-13%** placebo vs **-39%** Epidiolex, $P = 0.01$)
- For more clinical trial data, see full labeling

New Product Monograph

- For more information view the product monograph available at:

<https://www.empr.com/epidiolex/drug/34888/>