
NALMEFENE (Opvee) Fact Sheet [G]

Bottom Line:

Nalmefene is an opioid antagonist that has high affinity for opioid receptors and is more potent and longer acting than naloxone. Whether we need this or the newer nasal spray version remains up for debate. Nalmefene is likely not required for most patients; stick with naloxone (now available over the counter) for opioid overdose.

FDA Indications:

Emergency treatment of known or suspected opioid overdose (ages 12 and up).

Dosage Forms:

- **Intranasal (Opvee):** 2.7 mg/0.1 mL.
- **Injectable (G):** 2 mg/2 mL.

Dosage Guidance:

- **Intranasal:** Bystander to spray in one nostril; may repeat into other nostril with additional doses every two to five minutes if no or minimal response and until emergency response arrives. The drug is absorbed automatically into the nasal mucosa, which is why it is effective in patients who are unconscious and cannot sniff it.
- **Injection:** 0.5 mg/70 kg/dose IV/IM/SC \times 1; may give additional 1 mg/70 kg/dose after two to five minutes. Max 1.5 mg/70 kg total dose. If known or suspected opioid dependence, start with 0.1 mg/70 kg/dose test dose instead; if no withdrawal, follow recommended dosing.

Monitoring: No routine monitoring recommended unless clinical picture warrants.

Cost: Intranasal: \$\$\$

Side Effects:

- Most common: Symptoms of opioid withdrawal, including body aches, fever, sweating, runny nose, sneezing, piloerection, yawning, weakness, shivering or trembling, nervousness, restlessness or irritability, diarrhea, nausea or vomiting, abdominal cramps, increased blood pressure, and tachycardia.

Mechanism, Pharmacokinetics, and Drug Interactions:

- Opioid antagonist.
- Metabolized primarily in the liver (non-CYP450); $t_{1/2}$: 11 hours.

Clinical Pearls:

- First approved in 1995 as an injectable called Revex, nalmefene was discontinued around 2008 due to low sales. A generic version of the injectable was approved in February 2022 and a nasal spray formulation in 2023 to target the shift to fentanyl and other synthetic opioids now responsible for two-thirds of overdose deaths.
- Harm reduction advocates have argued that higher-potency or longer-lasting opioid antagonists are not necessary and could even seem punitive due to the possibility of a more severe and prolonged precipitated withdrawal (up to six hours vs 30–40 minutes with naloxone).
- Available only with a prescription; by comparison, naloxone is now available over the counter.
- Because treatment of overdose with an intranasal opioid antagonist must be performed by someone other than the patient, instruct prescription recipients to inform those around them that they have nalmefene rescue and ensure that those people have been instructed in recognizing overdose symptoms and administering the medication.
- Overdose symptoms (CNS depression and respiratory depression) may return after initial improvement, or patients may require additional support due to precipitated withdrawal symptoms. Therefore, patients should continue to be monitored and should receive medical attention after emergency dose(s) provided.

Fun Fact:

Several studies have shown limited benefits of nalmefene in reducing alcohol consumption, which is not surprising given its similar mechanism of action to naltrexone.