

**Zurnai**<sup>™</sup> (nalmeфene injection)  
1.5 mg/0.5 mL Auto-Injector

Discharge with the additional support they may need

# CHOOSE ZURNAI, THE FIRST AND ONLY NALMEFENE AUTO-INJECTOR<sup>1</sup>



## INDICATIONS AND USAGE

ZURNAI is indicated for the emergency treatment of known or suspected opioid overdose induced by natural or synthetic opioids in adults and pediatric patients aged 12 years and older, as manifested by respiratory and/or central nervous system depression.

ZURNAI is intended for immediate administration as emergency therapy in settings where opioids may be present. ZURNAI is not a substitute for emergency medical care.

## IMPORTANT SAFETY INFORMATION CONTRAINDICATIONS

ZURNAI is contraindicated in patients known to be hypersensitive to nalmeфene hydrochloride or to any other ingredients in the product.

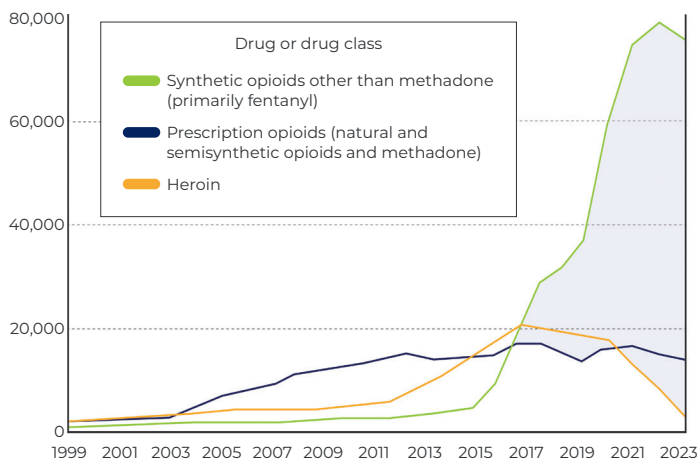
Please see additional **IMPORTANT SAFETY INFORMATION** throughout and **Full Prescribing Information**.

Synthetic opioids can make overdose reversal challenging<sup>2</sup>

## 90% OF ALL OPIOID OVERDOSE DEATHS IN 2023 INVOLVED SYNTHETIC OPIOIDS<sup>3</sup>

Fentanyl and other synthetics, excluding methadone, continue to be the main driver of drug overdose deaths, with a more than 7.5-fold increase from 2015–2023.<sup>3</sup>

### National opioid-involved overdose deaths 1999–2023<sup>3,4\*</sup>



\*Includes deaths with underlying causes of unintentional drug poisoning (X40–X44), suicide drug poisoning (X60–X64), homicide drug poisoning (X85), or drug poisoning of undetermined intent (Y10–Y14), as coded in the International Classification of Diseases, 10th Revision.

Source: Centers for Disease Control and Prevention, National Center for Health Statistics. Multiple Cause of Death 1999–2023. CDC WONDER Online Database, 03/25.

### IMPORTANT SAFETY INFORMATION (cont) WARNINGS AND PRECAUTIONS

#### Risk of Recurrent Respiratory and Central Nervous System Depression

A recurrence of respiratory depression is possible, therefore, keep the patient under continued surveillance and administer repeat doses of ZURNAL if necessary, using a new auto-injector with each dose while awaiting emergency medical assistance.

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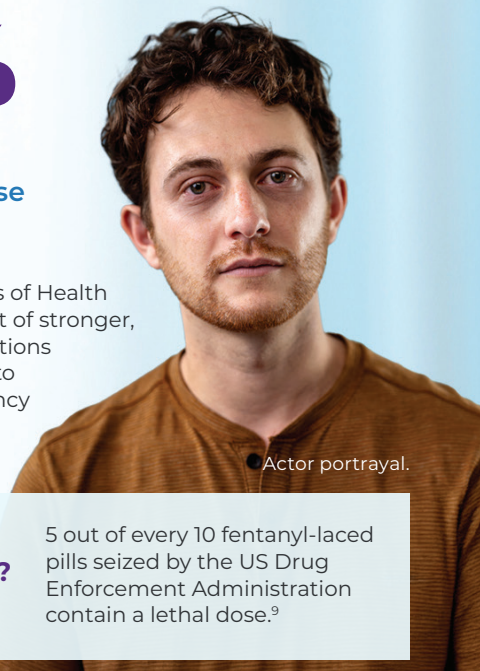
## AFTER DISCHARGE: RISK OF RECURRENT OPIOID OVERDOSE

The rate of fatal opioid overdoses, while alarming, is only part of the picture. By some estimates, for every fatal overdose, there are as many as 10 non-fatal overdoses treated in an emergency department.<sup>5</sup>

These patients face significant challenges after discharge.<sup>6</sup>

**20%**  
of patients  
experienced a  
recurrent overdose  
within 1 year<sup>7</sup>

The National Institutes of Health supports development of stronger, longer-acting formulations of opioid antagonists to counteract high-potency synthetic opioids.<sup>8</sup>



#### Did you know?

5 out of every 10 fentanyl-laced pills seized by the US Drug Enforcement Administration contain a lethal dose.<sup>9</sup>

### IMPORTANT SAFETY INFORMATION (cont) WARNINGS AND PRECAUTIONS (cont)

#### Risk of Limited Efficacy with Partial Agonists or Mixed Agonist/Antagonists

Reversal of respiratory depression by partial agonists or mixed agonists/antagonists such as buprenorphine and pentazocine, may be incomplete. Repeat doses of ZURNAL may be required.

Please see additional **IMPORTANT SAFETY INFORMATION** throughout and **Full Prescribing Information**.

An additional tool for your opioid overdose reversal toolbox

## ZURNAI IS THE FIRST AND ONLY NALMEFENE AUTO-INJECTOR<sup>1</sup>

Nalmefene is the longest-acting opioid antagonist approved for opioid overdose reversal.<sup>1,10,11</sup>



### ZURNAI works fast<sup>1</sup>

In a pharmacodynamic study conducted in an experimental setting, time to onset of reversal of respiratory depression was observed between 2.5 to 5 minutes. Full recovery of respiratory drive was noted between 5 and 15 minutes after ZURNAI administration.



### ZURNAI is long-acting<sup>1</sup>

In a pharmacokinetic study of 24 healthy adult volunteers, mean terminal elimination half-life was 9.07 hours.

The clinical implications of these findings for real-world overdose situations are unknown.

Not actual size.



Administration instructions

Safety seal

## IMPORTANT SAFETY INFORMATION (cont) WARNINGS AND PRECAUTIONS (cont)

### Precipitation of Severe Opioid Withdrawal

The use of ZURNAI in patients who are opioid dependent may precipitate opioid withdrawal.

Abrupt postoperative reversal of opioid depression may result in adverse cardiovascular (CV) effects. These events have primarily occurred in patients who had preexisting CV disorders or received other drugs that may have similar adverse CV effects. Monitor these patients closely in an appropriate healthcare setting after use of ZURNAI.

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### ZURNAI is designed to be used by anyone in the community

Instruct patients and their family members or caregivers to become familiar with all the information contained in the carton as soon as they receive ZURNAI and to read the Instructions for Use that come with ZURNAI.



### Important information

The use of ZURNAI in patients who are opioid dependent may precipitate opioid withdrawal. Monitor for the development of opioid withdrawal.<sup>1</sup>

The most common adverse reactions (incidence > 5%) for ZURNAI are feeling hot, nausea, headache, dizziness, chills, vomiting, allodynia, palpitations, tinnitus, ear discomfort, feeling abnormal, burning sensation, hot flush, and irritability.<sup>1</sup>

Not actual size.



Viewing window

Needle guard

## IMPORTANT SAFETY INFORMATION (cont) WARNINGS AND PRECAUTIONS (cont)

### Precipitation of Severe Opioid Withdrawal (cont)

In neonates, opioid withdrawal may be life-threatening if not recognized and properly treated and may include the following signs and symptoms: convulsions, excessive crying, and hyperactive reflexes. Monitor the patient for the development of the signs and symptoms of opioid withdrawal.

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#### CONTRAINDICATIONS

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#### WARNINGS AND PRECAUTIONS

##### **Risk of Recurrent Respiratory and Central Nervous System Depression**

A recurrence of respiratory depression is possible, therefore, keep the patient under continued surveillance and administer repeat doses of ZURNAL if necessary, using a new auto-injector with each dose while awaiting emergency medical assistance.

##### **Risk of Limited Efficacy with Partial Agonists or Mixed Agonist/Antagonists**

Reversal of respiratory depression by partial agonists or mixed agonists/antagonists such as buprenorphine and pentazocine, may be incomplete. Repeat doses of ZURNAL may be required.

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### IMPORTANT SAFETY INFORMATION (cont)

#### WARNINGS AND PRECAUTIONS (cont)

##### **Risk of Opioid Overdose from Attempts to Overcome the Blockade**

Attempts to overcome opioid withdrawal symptoms caused by opioid antagonists with high or repeated doses of exogenous opioids may lead to opioid intoxication and death.

#### ADVERSE REACTIONS

Most common adverse reactions (> 5%) are feeling hot, nausea, headache, dizziness, chills, vomiting, allodynia, palpitations, tinnitus, ear discomfort, feeling abnormal, burning sensation, hot flush, and irritability.

#### USE IN SPECIFIC POPULATIONS

##### **Pregnancy**

An opioid overdose is a medical emergency and can be fatal for the pregnant woman and fetus if left untreated. Treatment with ZURNAL for opioid overdose should not be withheld because of potential concerns regarding the effects of ZURNAL in the fetus.

##### **Pediatric Use**

The safety and effectiveness of ZURNAL for the emergency treatment of known or suspected opioid overdose, as manifested by respiratory and/or central nervous system depression, have not been established in pediatric patients younger than 12 years of age.

##### **Geriatric Use**

Clinical studies of nalmeferene hydrochloride injection did not include sufficient number of subjects aged 65 and over to determine whether they respond differently from younger subjects.

To report SUSPECTED ADVERSE REACTIONS, contact Knoa Pharma LLC at 1 888-726-7535, option 2, or FDA at 1-800-FDA-1088 or [www.fda.gov/safety/medwatch](http://www.fda.gov/safety/medwatch).

*Intended for healthcare professionals of the United States of America only.*

**Please see Full Prescribing Information.**

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Developed to help  
meet the needs of  
today's opioid crisis

Click or scan the code to visit  
[ZURNAL.com](https://ZURNAL.com) for important  
information and updates  
about ZURNAL

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**References:** **1.** ZURNAL<sup>™</sup> (nalmeferene injection) Auto-Injector Full Prescribing Information. Knoa Pharma LLC; 2026. **2.** Edinoff AN, Martinez Garza D, Vining SP, et al. New synthetic opioids: clinical considerations and dangers. *Pain Ther.* 2023;12(2):399-421. doi:10.1007/s40122-023-00481-6. **3.** Centers for Disease Control and Prevention. Provisional drug overdose data. CDC. <https://www.cdc.gov/nchs/nvss/vsrr/drug-overdose-data.htm>. Published August 14, 2024. Accessed May 30, 2025. **4.** National Institute on Drug Abuse. Drug overdose death rates. <https://nida.nih.gov/research-topics/trends-statistics/overdose-death-rates>. August 2024. Accessed January 6, 2026. **5.** Stokes EK, Pickens CM, Wilt G, Liu S, David F. County-level social vulnerability and nonfatal drug overdose emergency department visits and hospitalizations, January 2018-December 2020. *Drug Alcohol Depend.* 2023;247:109889. doi:10.1016/j.drugalcdep.2023.109889. **6.** Skolnick P. Treatment of overdose in the synthetic opioid era. *Pharmacol Ther.* 2022;233:108019. doi:10.1016/j.pharmthera.2021.108019. **7.** Yangchen T, Rodriguez M, Baird J, et al. Trends in recurrent overdose and treatment initiation following emergency department visits for opioid overdose between 2016 and 2021. *Drug Alcohol Depend.* 2024;262:111379. doi:10.1016/j.drugalcdep.2024.111379. **8.** National Institute on Drug Abuse. NIH HEAL Initiative. <https://heal.nih.gov/about/research-plan>. August 2024. Accessed January 6, 2026. **9.** DEA. Fake pills fact sheet. [www.dea.gov](http://www.dea.gov). [https://www.dea.gov/sites/default/files/2024-11/DEA-OPCK\\_FactSheet\\_November\\_2024.pdf](https://www.dea.gov/sites/default/files/2024-11/DEA-OPCK_FactSheet_November_2024.pdf). Published November 2024. Accessed January 6, 2026. **10.** Nalmeferene HCl Injection Full Prescribing Information. Knoa Pharma LLC; 2026. **11.** OPVEE<sup>®</sup> Full Prescribing Information. Indivior Inc.; 2023.

We are committed to maintaining the highest standards of sales and marketing practices, while continuing to advance the proper treatment of patients. If you have any questions or concerns with our sales and marketing practices, please contact us at 1-877-787-3831.

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