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Suzetrigine for pain relief: Key considerations for nurses

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Abstract: Suzetrigine (JOURNAVX) is a novel oral medication approved in January 2025 for the treatment of moderate-to-severe acute pain in adults. It works by selectively inhibiting $Na_V1.8$ voltage-gated sodium channels, which play a key role in pain transmission through peripheral sensory neurons. This targeted mechanism offers potential advantages over current pain management options. Clinical trials have demonstrated efficacy in reducing pain intensity following surgical procedures, making it a promising alternative to opioids. For nurses, suzetrigine represents an important addition to multimodal pain management strategies. Nurses play a key role in educating patients about its use, monitoring for adverse effects, and ensuring adherence to proper dosing guidelines. As suzetrigine becomes more widely available, health care professionals need to understand its benefits, risks, and proper use. This article provides an overview of its mechanism of action, adverse effects, dosing guidelines, cost considerations, and potential role in pain management.

Keywords: acute pain, JOURNAVX, pain management, suzetrigine

Introduction

Treatment of acute pain remains a significant clinical challenge. Opioids have long been a mainstay of treatment, but concerns about addiction, respiratory depression, and other adverse effects have driven the search for nonopioid alternatives.[1] Suzetrigine (JOURNAVX) is a new pain medication, granted approval in January 2025, for the treatment of moderate-to-severe acute pain in adults. It reduces pain by inhibiting

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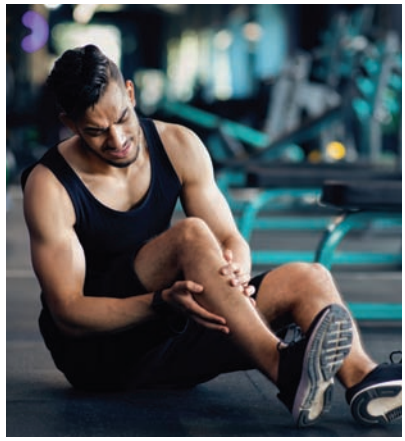
a pain-signaling pathway involving sodium channels in the peripheral nervous system before signals reach the spinal cord and brain.[2] By selectively blocking $Na_V1.8$ voltage-gated sodium channels, suzetrigine reduces pain signals without affecting other sodium channels, minimizing tolerability issues and addictive potential associated with opioids.[3] It has been studied for the management of postoperative pain following bunionectomy and abdominoplasty.[4] Ongoing studies are also investigating its efficacy in other pain conditions, including diabetic peripheral neuropathy and postoperative pain across a wide range of surgical procedures, such as lumbosacral radiculopathy, laparoscopic intraperitoneal and retroperitoneal procedures, arthroscopic orthopedic surgeries, and aesthetic or reconstructive surgeries.[5]

Unlike acetaminophen, nonsteroidal anti-inflammatory drugs, antidepressants, anticonvulsants, and opioids—medications that affect multiple pathways and may lead to unwanted adverse effects—suzetrigine directly targets pain transmission at the peripheral level. This specific mechanism may result in effective pain relief with a lower risk of opioid-related adverse effects such as sedation and respiratory depression.[1]

This article outlines the mechanism of action, adverse effects, dosing recommendations, cost factors, and potential applications of the medication in pain management. Nurses can use this knowledge to educate patients on suzetrigine's benefits, risks, and evolving uses, supporting safer, opioid-sparing approaches to acute pain management.

Efficacy of suzetrigine

Suzetrigine has demonstrated promising efficacy in clinical trials. In two Phase 3 studies, patients who underwent abdominoplasty or bunionectomy reported significant reductions in moderate-to-severe postoperative pain when treated with suzetrigine. In both trials, patients were eligible for enrollment if they reported a pain intensity score of 4 or higher on the numerical pain intensity rating scale or moderate to severe pain on the verbal categorical rating scale following surgery. Participants received a 100-mg loading dose followed by a 50-mg maintenance dose every 12 hours. Pain reduction was assessed by the time-weighted sum of pain-intensity differences at 48 hours (SPID48) compared with placebo. Suzetrigine showed significant SPID48 improvements compared with placebo in both abdominoplasty (37.3; $P < .0001$) and bunionectomy (36.8; $P = .0002$) trials. Suzetrigine's pain relief was comparable to commonly used opioids such as hydrocodone combined with acetaminophen.[4]



Common adverse reactions include pruritus, muscle spasms, increased creatine kinase levels, and rash.

Currently, a phase 2 clinical trial is evaluating suzetrigine's efficacy in treating painful diabetic peripheral neuropathy, comparing its efficacy to pregabalin and placebo.[5] Preliminary results have been positive, and the manufacturer is seeking FDA approval for this indication.[6]

Potential adverse effects and safety considerations

Suzetrigine shows promising efficacy for pain relief, but, as with all medications, it also carries the potential for adverse effects. Clinical trials have identified common adverse reactions including pruritus, muscle spasms, increased creatine kinase levels, and rash.[7] Nausea, vomiting, headache, constipation, and dizziness have been reported in some patients, with incidence ranging from 9% to 20% depending on the patient population studied.[4] Importantly, clinical trials to date have not demonstrated an increased risk of cardiac toxicity, respiratory depression, or cardiac arrest despite the action on sodium channels. Adverse effects were generally mild throughout clinical trials, though patients should report any concerning symptoms to their physician or advanced practice clinician (APC). Emergency medical services should be contacted if signs and symptoms of an allergic reaction occur including urticaria; difficulty breathing; and edema of the face, lips, tongue, or throat.

Although suzetrigine appears to have a safer profile compared with opioids, it is not suitable for all patients. Individuals with moderate liver impairment may require dose adjustments, and the drug is contraindicated in patients with severe hepatic impairment. Dose adjustments may also be necessary for patients taking strong CYP3A4 substrates—defined as drugs that are extensively metabolized by CYP3A4 and highly sensitive to changes in its activity—due to potential drug interactions (see *Select strong CYP3A4 substrates*[5]).[8] In addition, suzetrigine has not been studied in patients with an estimated glomerular filtration rate (eGFR) below 15 mL/min (normal eGFR is

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approximately 75 to 100 mL/min), or in pregnant individuals, therefore use should be avoided in these populations. However, study data indicate that in patients with renal impairment and an eGFR greater than or equal to 15 mL/min, the pharmacokinetics of suzetrigine were comparable to those observed in individuals with normal kidney function.[7,9]

Patients should be aware of potential interactions that may impact the efficacy of their medication. Patients should avoid consuming grapefruit or grapefruit-containing products because these can interfere with suzetrigine's metabolism and lead to increased serum drug levels. Additionally, hormonal contraceptives other than levonorgestrel and norethindrone may be less effective when taken with suzetrigine, so patients should consult their physician or APC about alternative contraception options.[7] As with many new medications, continued monitoring and real-world data will further clarify the long-term safety profile and appropriate patient populations for suzetrigine.

Dosing and administration

Proper administration of suzetrigine is essential to ensure effective pain management. Suzetrigine oral tablets must be swallowed whole and should not be crushed or chewed. The recommended initial dose is 100 mg, administered on an empty stomach at least 1 hour before or 2 hours after eating to optimize absorption; clear liquids such as water, apple juice, vegetable broth, and black coffee may be consumed during this period. This initial dose is followed by a maintenance dose of 50 mg every 12 hours, which may be taken with or without food.[8] Because suzetrigine has not been studied for long-term use, therapy should be limited to the shortest duration necessary, typically no longer than 14 days.[1] Unlike many analgesics that are taken on an as-needed basis, suzetrigine is dosed on a fixed schedule to maintain consistent therapeutic levels and optimize pain control.

Patients should receive clear instructions on how to handle missed doses. If a dose is missed, it should be taken as soon as possible, and the regular schedule should be resumed thereafter. If two or more consecutive doses are missed, the patient should take 100 mg and then resume the regular dosing schedule. In the event of a suspected overdose, no specific antidote is available. Management should focus on general supportive measures and consult with Poison Control (1-800-222-1222) for additional guidance.[8]

Select strong CYP3A4 substrates[5]

Strong CYP3A4 inhibitors

- Ketoconazole
- Ritonavir
- Darunavir
- Itraconazole
- Cobicistat
- Clarithromycin

Strong CYP3A4 inducers

- Rifampin
- Carbamazepine
- Primidone
- Phenytoin
- Phenobarbital
- Lumacaftor

Cost and availability

The average wholesale price of suzetrigine (JOURNAVX) is $18.60 per tablet ($539.40 total if used for a 14-day course).[8] The Institute for Clinical and Economic Review, an independent, nonprofit organization that evaluates the value to medical treatments, expects suzetrigine to be cost-saving from a lifetime perspective when compared with opioids, largely due to reduced rates of opioid use disorder and associated health care costs.[10]

Although suzetrigine will likely be more expensive than commonly used generic medications—such as ibuprofen, acetaminophen, and opioids such as hydrocodone and oxycodone—it may be covered by insurance for FDA-approved indications. Currently, the FDA has approved this medication for acute pain, which is defined as pain resulting from an event such as injury or surgery and typically lasting less than 3 months.[11] Additionally, cost-saving programs may be available through the JOURNAVX website to help improve patient access.

Implications for nursing practice

Nurses play a critical role in pain management and, as suzetrigine becomes more widely available, they will be at the forefront of patient education. Nurses should be prepared to discuss the benefits and risks of suzetrigine with patients. When educating patients about suzetrigine, nurses should explain that it is a newly approved nonopioid option for moderate-to-severe acute pain. Patients should take a 100 mg tablet on an empty stomach and continue with 50 mg every 12 hours, for up to 14 days. Grapefruit products should be avoided, and alternative contraceptive methods may be needed. Nurses should review common side effects such as nausea, headache, muscle spasms, rash, and dizziness, and emphasize the importance of reporting adverse effects to their physician or APC. Patients with severe liver disease, pregnancy, or very low kidney function (eGFR < 15 mL/min) should not use suzetrigine. Although clinical trials have shown a favorable safety profile, ongoing studies will continue to evaluate its long-term effects and broader applications.

Conclusion

Suzetrigine represents a promising advancement in acute pain management,

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offering effective pain relief with a reduced risk of opioid-related complications. Its selective inhibition of the $Na_V1.8$ sodium channel provides targeted analgesia while minimizing central nervous system effects. However, careful attention must be given to its dosing, potential adverse effects, and drug interactions. Other selective voltage-gated sodium channel blockers include vixotrigine, a state- and use-dependent $Na_V1.7$ blocker currently under investigation for trigeminal pain and neuropathic pain, and funapide, a selective $Na_V1.7$ and $Na_V1.8$ inhibitor that was developed for osteoarthritis, neuropathic pain, and other conditions. As these new medications progress through clinical trials, the future of pain management is shifting toward safer, more precise therapeutic options.[12] Ongoing research and clinical exploration will determine how these innovations can redefine pain treatment, providing patients with effective relief without opioid-related risks. ■

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The authors have disclosed no potential conflicts of interest, financial or otherwise.

DOI-10.1097/NSG.0000000000000266

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