#2315320 Suzetrigine Utilization for Postoperative Pain Following Orthopedic surgery: A Retrospective Study

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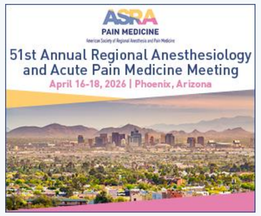

INTRODUCTION

- In January 2025, the United States Food and Drug Administration approved **suzetrigine (Journavx™)**
- The **first-in-class, non-opioid** medication selectively blocks voltage-gated sodium Nav1.8 channels on peripheral nociceptors, sparing central nervous system effects commonly associated with opioids[1,2].
- **Post-market data** on its current usage remains limited.
- This study aimed to characterize early clinical use of suzetrigine for postoperative pain following orthopedic surgery by summarizing patient and case characteristics and quantifying adverse events (AE).

METHODS

- Suzetrigine was approved for use in surgical patients at Hospital for Special Surgery (HSS) by the Pharmacy and Therapeutics Committee in April 2025. Administrations are restricted to orders managed by the HSS Perioperative Pain Service (POPS)[3].
- After IRB approval (IRB#2021-1899 and IRB#2025-1169), we retrospectively reviewed electronic health records from 04/18/25 through 10/30/25 for patients receiving suzetrigine and managed by the POPS team.
- Data extracted included:
  - Patient and case characteristics
  - Suzetrigine details such as whether the patient was given suzetrigine prior to the hospital visit, during hospital stay or continued post-discharge
  - Adverse events/reasons for discontinuation
  - Patient requests for refills.
- In parallel, data from the FDA Adverse Event Reporting System (FAERS)[4] from 1/30/25 to 10/02/25 were collected to compare with our findings.

Most patients tolerated suzetrigine well post-operatively, but some experienced adverse events that led to medication discontinuation.

Table 1. Suzetrigine administration details

Administration Detail		N (%)
Prescription prior to hospital admission	No	85 (82.5)
	Yes	18 (17.5)
Given In-hospital	No	9 (8.7)
	Yes	94 (91.3)
Continued outpatient	No	17 (16.5)
	Yes	86 (83.5)
Reason for discontinuation* (N = 33)	Agitation	2 (6.1)
	Delirium	1 (3.0)
	Nausea	3 (6.1)
	Elevated ALT/AST	1 (3.0)
	Patient reported no benefit	2 (6.1)
	Unable to tolerate	1 (3.0)
	Pruritis in throat and chin	1 (3.0)
	Refused medication	1 (3.0)
	Stopped due to feeling sick, off balance, brain fog	1 (3.0)
	Unclear**	21 (63.6)
Refill request	No	93 (90.3)
	Yes	10 (9.7)

*Some patients experienced multiple AE
**Includes undocumented reasons for nonuse, unclear ongoing use, or unexpired prescriptions

Table 2. Distribution of Reported Adverse Events Associated with Suzetrigine by Reaction Group (FAERS, January–October 2025) (N=411)

Reaction Group	Adverse Reaction	N (%)
Neurological/ Ophthalmic	Brain fog/ Cognitive disorder/ Mental impairment	14 (3.4)
Psychiatric	Agitation/ Anxiety/ Jittery/ Panic attack/ Restlessness	8 (1.9)
Gastrointestinal/ Hepatic/ Nutrition	Nausea/ Vomiting	40 (9.7)
Dermatologic/ Allergic	Pruritis/ Urticaria/ Erythemal rash/ Hypersensitivity/ Anaphylaxis/ Other	114 (27.7)

Abstract and References

RESULTS

- There were 103 patients for whom a suzetrigine prescription was ordered for acute pain management through the POPS service; overall, 62.1% were female, 86.4% were Caucasian, 95.1% represented ASA physical status II/III, 24.3% were chronic opioid users, 42.7% had a history of uncontrolled pain, and 9.7% had a history of substance use. Most patients underwent joint arthroplasty (49.5%), followed by spine surgery (29.1%);
- Among n=94 patients who received suzetrigine during hospitalization, 9.5% also had a preoperative prescription, and 81.9% received a prescription at discharge to complete the 2-week dosing schedule. From the main cohort (n=103), 9.7% requested a refill.
- During admission, 8 patients (7.8%) experienced at least one AE likely attributable to or exacerbated by suzetrigine, resulting in medication discontinuation. AEs included agitation, allergic reaction, delirium, nausea, elevated ALT/AST, pruritis, and malaise/brain fog (Table 1).
- Among 33 patients who discontinued suzetrigine early, 1 patient refused the medication, 1 discontinued due to intolerance, and 2 discontinued because of no perceived benefit. Suzetrigine discontinuation reasons for 21 patients were not explicitly documented.
- In the FAERS database, out of 411 reported cases, 27.7% of adverse reactions reported were allergic reactions, 9.7% reported nausea, 3.4% reported brain fog, and 1.9% reported agitation (Table 2).

DISCUSSION

- At our institution, suzetrigine was approved for inpatient administration to patients after major orthopedic surgery for whom standard multimodal strategies were insufficient.
- Our initial institutional experiences revealed that these patients **generally tolerated suzetrigine well**, though 7.8% reported an AE that resulted in **medication discontinuation**. All AEs, except for delirium, were also reported in FAERS.
- Further study is necessary and clinicians should remain vigilant while prescribing this novel agent.