Impact of a Non-Opioid Oral Analgesic (Suzetrigine) for Postoperative Acute Pain Management in Anorectal Surgery

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BACKGROUND

- Postoperative pain following anorectal surgery is commonly managed with opioid analgesics, despite opioid-related adverse effects including constipation and the potential for persistent opioid use.
- Suzetrigine, a selective NaV1.8 inhibitor, is a non-opioid analgesic approved for the treatment of acute pain.
- Suzetrigine may provide an opioid-sparing strategy for postoperative pain management following anorectal surgery.

STUDY OBJECTIVE

To evaluate whether implementation of suzetrigine for acute postoperative pain management following anorectal surgery was associated with reduced postoperative pain-related healthcare utilization and additional opioid requirements.

METHODS

- We performed a retrospective cohort study of patients undergoing eligible anorectal procedures at a single institution.
- Patients undergoing surgery before June 1, 2025 comprised the historical control cohort.
- Patients undergoing eligible procedures on or after June 1, 2025 who received suzetrigine comprised the intervention cohort.
- Eligible procedures included anal skin tag excision, hemorrhoidectomy, thrombosed external hemorrhoid excision, fistulotomy/fistulectomy, anal lesion destruction, and pilonidal cyst excision (CPT 46220, 46230, 46255, 46260, 46320, 46270, 46275, 46922, 46924, and 11772).
- Patients with noneligible procedures, duplicate/repeat procedures, cancellations, or insufficient postoperative documentation were excluded as appropriate.
- Outcomes were compared between cohorts using unadjusted analyses.
- Exploratory analyses examined outcomes by procedure category and among patients aged ≤25 years in the suzetrigine cohort.
- The study was approved by the IRB (#BB2607CF-240) with a waiver of informed consent.

STUDY POPULATION

Historical Cohort
Before June 1, 2025
n = 867
No suzetrigine

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233/867 (26.9%) required additional postoperative pain medication

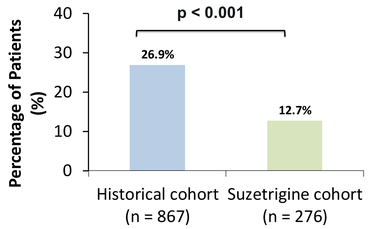
Suzetrigine Cohort
On or after June 1, 2025
n = 276
Received suzetrigine

↓

35/276 (12.7%) required additional postoperative pain medication

PRIMARY OUTCOME

Additional Postoperative Pain Medication Requirement



EXPLORATORY OUTCOMES BY PROCEDURE CATEGORY – SUZETRIGINE COHORT

Procedure Category	n	Additional Opioid Rx	Rate
Hemorrhoid procedures	133	19	14.3%
Fistula procedures	48	8	16.7%
Anal lesion/HRA procedures	12	1	8.3%
Pilonidal procedures	52	3	5.8%
Other	35	5	14.3%

Procedure categories were based on CPT codes. Patients with multiple procedures could be represented in more than one category; therefore, category totals may exceed the number of patients. Analyses are exploratory.

KEY RESULTS

Suzetrigine was associated with a lower requirement for additional postoperative pain medication.

Outcome	Historical (n = 867)	Suzetrigine (n = 276)	Absolute Risk Reduction	Relative Risk (95% CI)	Odds Ratio (95% CI)	p-value	NNT
Additional pain medication	233 (26.9%)	35 (12.7%)	**14.2%**	**0.47 (0.34–0.66)**	**0.40 (0.27–0.58)**	**<0.001**	**7**

Suzetrigine implementation was associated with an approximately 53% relative risk reduction in additional postoperative pain medication requirement.

CANCELLATIONS – SUZETRIGINE COHORT

10 procedures cancelled → **0 (0%) received additional opioid medication**

Cancelled procedures were excluded from the primary surgical analysis because the intended procedure was not performed.

EXPLORATORY SUBGROUP: AGE ≤ 25 YEARS

15 patients aged ≤25 years (with available age data)

1/15 (6.7%) required additional opioid medication

- Most patients in this subgroup underwent pilonidal procedures.
- Findings should be interpreted cautiously because of the small sample size and nonrandom distribution of procedure types.

INTERPRETATION AND CONCLUSIONS

Interpretation

Implementation of suzetrigine was associated with a substantially lower requirement for additional postoperative pain medication compared with the historical cohort. The observed absolute reduction was 14.2 percentage points, corresponding to an approximately 53% relative reduction. Exploratory analyses demonstrated variation in additional opioid requirements across procedure categories. Because patient-level procedure and demographic covariates were unavailable for the historical cohort, adjusted or propensity-score-matched analyses could not be performed. Residual confounding and temporal changes in perioperative practice therefore cannot be excluded.

Conclusions

- Implementation of suzetrigine was associated with a lower requirement for additional postoperative pain medication following anorectal surgery.
- The observed event rate decreased from 26.9% in the historical cohort to 12.7% following implementation of suzetrigine ($p < 0.001$).
- These findings support further prospective evaluation of suzetrigine as an opioid-sparing component of multimodal analgesia following anorectal surgery.