

Early Opioid Use and Postoperative Delirium Following Open Abdominal Aortic Aneurysm Repair

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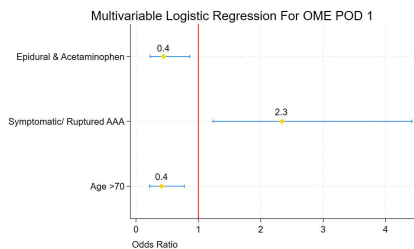
BACKGROUND

- Delirium is common after open AAA repair
- Opioids at high dose may contribute to delirium
- **Hypothesis:** High early opioid use will be associated with postoperative delirium after open AAA repair

METHODS

- Single center retrospective analysis
- Included 194 cases from 2012-2020
- Exposure: opioid morphine equivalents (high OME ≥ 37 mg)
- Outcome: postoperative delirium

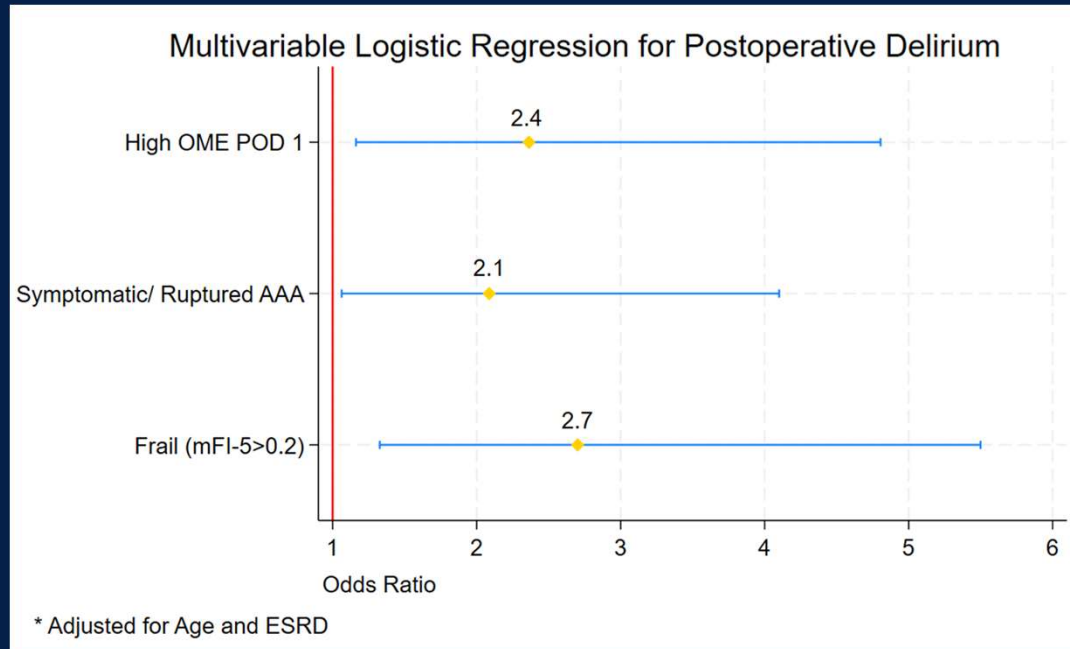
RESULTS



DISCUSSION

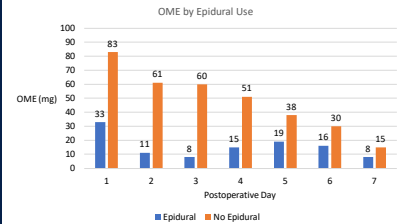
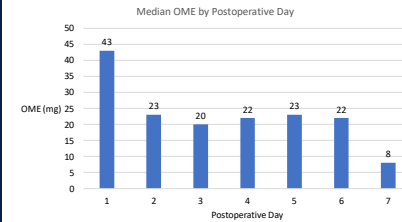
- High early opioid use associated with postoperative delirium
- Multimodal pain control key for reducing opioid use after open AAA repair

High early opioid use associated with increased risk of postoperative delirium after open AAA repair



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Collaboration in Surgical Health
Outcomes and Research in Equity



Logistic Regression for Delirium in Adults 65+

Covariate	Odds Ratio	95% Confidence Interval	p-value
Age 75+	1.4	0.7-3.1	0.364
High OME* POD 1	2.6	1.2-5.5	0.016
Symptomatic/ Ruptured AAA	2.1	1.0-4.4	0.052
Frail (mFI-5>0.2)	3.1	1.4-6.9	0.007
c-statistic = 0.73			

OME and Outcomes

Outcome	High OME POD 1	No High OME POD 1	p-value
Median Length of Stay	12 (IQR 8-18)	8 (IQR 6-12)	<0.001
Median ICU Length of Stay	4 (IQR 3-7)	3 (IQR 2-5)	0.006
Median Days to Delirium Diagnosis	4 (IQR 2-7)	2 (IQR 2-4)	0.044
Median Days to Extubation	1 (IQR 0-2)	0 (IQR 0-1)	<0.001
Median NGT Duration	2 (IQR 1-4)	2 (IQR 1-3)	0.061
Postoperative Pneumonia	12 (11.0)	11 (12.6)	0.759
Postoperative MI	4 (3.7)	3 (3.5)	0.613
30-Day Readmission	9 (8.4)	7 (8.1)	0.927
30-Day Mortality	4 (3.7)	4 (4.6)	0.520