

# Evaluating Patient-Specific Characteristics Predisposing Pediatric Plastic Surgery Patients to Opioid Prescription at Discharge

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## Background

Understanding key drivers of opioid use after surgery is crucial as opioid misuse continues to increase.<sup>1</sup> Past studies have shown that opioid use in children has been linked to a 33% increase in opioid misuse in adulthood.<sup>2</sup>

Therefore, the present study aims to identify patient-specific features that are associated with post-operative opioid prescription at discharge in pediatric plastic surgery patients.

## Methods

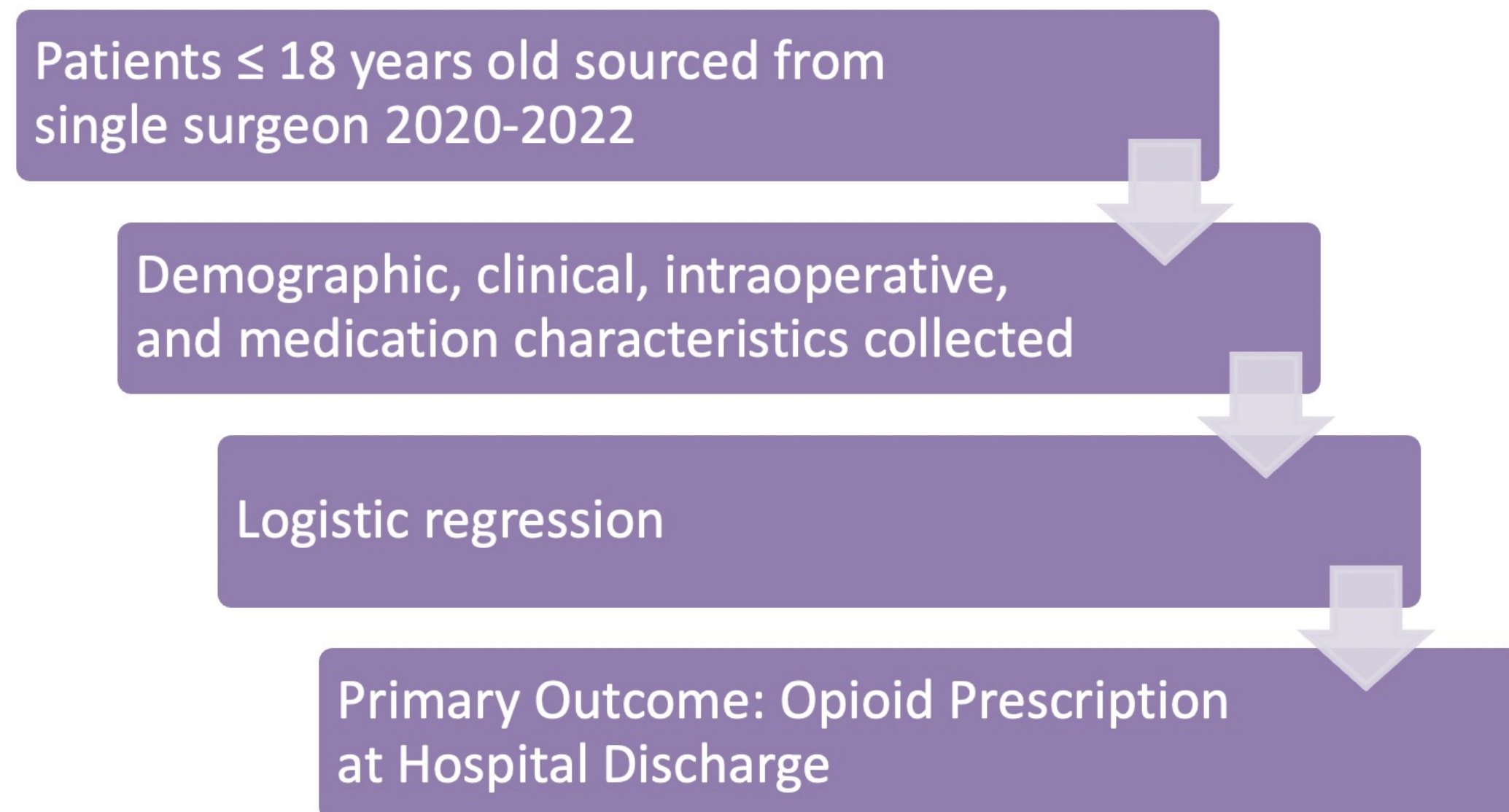


Table 1. Cohort and Bivariate Results

Predictor Variable	Opioid Prescription (N=133)	No Opioid Prescription (N=296)	P-Value	Total (N=429)
Age	9.1 (5.9)	5.4 (5.1)	<0.001*	6.5 (5.6)
Insurance Status				
Private	75 (46.0%)	160 (54.1%)	0.654	235 (54.8%)
Public	58 (43.6%)	136 (46.0%)		194 (45.2%)
Surgical History	86 (64.7%)	90 (30.4%)	<0.001*	176 (41.0%)
BMI	19.6 (5.1)	18.5 (4.4)	0.026*	18.8 (4.7)
LOS	0.7 (0.9)	0.2 (0.9)	<0.001*	0.4 (1.0)
Operative Time	252.0 (77.2)	113.6 (83.8)	<0.001*	156.5 (103.8)
Sex				
Male	61 (45.9%)	138 (46.6%)	0.885	199 (46.4%)
Female	72 (54.1%)	158 (53.4%)		230 (53.6%)
Procedure Subtypes				
Cleft Palate	49 (36.8%)	26 (8.8%)	<0.001*	75 (17.5%)
Cleft Lip	15 (11.3%)	20 (6.8%)		35 (8.2%)
Cutaneous	13 (9.8%)	215 (72.6%)		228 (53.2%)
Rhinoplasty/Septoplasty	23 (17.3%)	4 (1.35%)		27 (6.3%)
Other	33 (24.8%)	31 (10.45%)		64 (14.8%)
Opioid Use in Inpatient Setting	100 (75.2%)	160 (54.1%)	<0.001*	260 (60.6%)

\*denotes statistical significance as defined by p<0.05

Table 2. Multivariate Results

Predictor Variable	Adjusted OR	P-value
Opioid Use in the Inpatient Setting	4.31	0.045*
Private Insurance	2.03	0.030*
Cleft Palate Procedure	2.30	0.023*
Surgical History	2.01	0.026*
Age	1.16	<0.001*
Intraoperative Time	1.016	<0.001*

\*denotes statistical significance as defined by p<0.05

## Results

A total of 429 patients were analyzed in the overall cohort (75 patients underwent a cleft palate/alveolar graft procedure and 35 patients underwent a cleft lip procedure).

Using logistic regression, inpatient opioid use (OR: 4.31, p=0.045), private insurance status (OR: 2.03, p=0.030), increased age (OR: 1.16, p<0.001), surgical history (OR: 2.01, p=0.026), and increased operative time (OR: 1.016, p<0.001) were significantly associated with increased odds of opioid prescription at discharge. Undergoing a cleft palate/alveolar graft procedure was also associated with increased odds of opioid prescription at discharge (OR: 2.30, p=0.023).

However, when analyzing sub-cohorts of cleft palate/alveolar bone graft patients and cleft lip procedure patients, there were no predictive characteristics identified with logistic regression.

## Limitations

- Single institution study, subject to institutional prescribing biases
- Small sample size

## Conclusions

Patient features, including increased age, private insurance status, intraoperative time, and cleft palate/alveolar bone graft procedure were identified as independent predictors of opioid prescription at discharge in this pediatric plastic surgery patient population. These findings emphasize the vital importance of promptly identifying these risk factors during the surgical planning phase.

## References

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