

## **Predictors of persistent opioid use after discharge following colectomy: A population-based cohort study from England**

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### Introduction

Little is known regarding whether opioid prescriptions following colectomy lead to persistent use. We aimed to determine the prevalence of persistent post-discharge opioid use following colectomy, stratified by preadmission opioid exposure, and identify associated predictors of prolonged use.

### Methods

This cohort study on adults undergoing colectomy between 2010 and 2019 used linked primary (Clinical Practice Research Datalink), and secondary (Hospital Episode Statistics) care data. Patients were categorised as opioid-naïve, currently exposed (opioid prescription 0-6 months before admission) and prior exposed (prescription 6-12 months before admission). Persistent use was defined as needing an opioid prescription within 90 days of hospital discharge, along with another opioid prescription 91 to 180 days after discharge. Multivariable logistic regression analyses were performed to identify predictors of persistent opioid use.

### Results

Of the 93,262 patients, 15,081 (16.2%) were issued at least one opioid prescription within 90 days of discharge. Of these, 45.0% were opioid-naïve, 49.9% currently exposed, and 5.0% prior exposed. From the whole cohort, 7540 (8.1%) developed persistent opioid use. Patients with preoperative opioid exposure had the highest persistent use: 5317 (40.4%) from the currently exposed group and 305 (9.8%) from the prior exposed group, with only 2.5% from the opioid-naïve group. Predictors of persistent use included prior opioid exposure, high deprivation index, multiple comorbidities, White ethnicity, and open surgery.

### Conclusion

After colectomy, more than 1:12 patients continued to receive opioids three months beyond discharge. Minimally invasive surgery was associated with lower risk of persistent opioid use and may represent a modifiable risk factor.

Take-home message: More than 1 in 12 patients continue to use opioids three months beyond colectomy. The identified predictors of persistent use may help healthcare providers tailor pain management strategies.