

Opioid prescription following wrist and ankle fracture fixation in Scotland – the doctor, not the patient, decides.

NHS
Grampian

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Introduction

The Opioid crisis faced by the USA is rapidly spreading into Europe. Perioperative opioid use increases the risk of long-term opioid use. This study reviews opioid use following wrist and ankle fracture fixation across Scotland, to establish prescribing patterns and associations with patient, injury, or peri-operative factors.

Aims

We hypothesised that opioid prescribing will be broadly similar across Scotland, with no links to any identifiable factor. Our primary outcome was to investigate new opioid prescriptions on discharge following surgical management of a wrist/ankle fracture. Secondary outcomes reviewed patient factors, injury, surgical and anaesthetic variables that may influence post-operative prescribing patterns.

Methods

6 Orthopaedic Units across Scotland contributed – Aberdeen Royal Infirmary, Ninewells Hospital (Dundee), Edinburgh Royal Infirmary, Raigmore Hospital (Inverness), Royal Alexandra Hospital (Paisley), Queen Elizabeth University Hospital (Glasgow). Inclusion criteria: >16 years of age, isolated fracture of distal radius/ankle managed surgically. A retrospective Electronic Health Records review and regression analysis was performed to gather patient, injury and peri-operative factors that may influence discharge opioid prescription rates.

Results

598 (298 distal radius, 300 ankle) patients were included in this retrospective cohort study. Patient Demographics for each group were similar across all sites, although there was significant variation in anaesthetic practice, length of stay and AO fracture type ($p < 0.01$).

For distal radius fractures, 85.6% of patients received an opioid prescription on discharge, of which 5.0% contained a strong opioid. There was no significant variation across the 6 units in prescribing practice.

For ankle fractures, 82.7% of patients received a prescription for opioids on discharge, of which 17% contained a strong opioid. Dundee and Edinburgh used significantly more strong opioids; Inverness and RAH gave the least opioid prescriptions overall ($p < 0.01$). Younger patient age, location and length of stay were independent predictors of increased opioid prescription on binary regression.

Headlines....

- Following Distal Radius fracture fixation, **85%** of patients receive a new opioid prescription, of which 5% include strong opioids.
 - **Consistent across Scotland**
- Following Ankle Fracture fixation, **82.7%** of patients receive a new opioid prescription, of which 17% include strong opioids.
 - **Significant variability in prescribing across Scotland**

Results

Wrist fractures	Aberdeen	Dundee	Edinburgh	Inverness	RAH	QEUH	p value
Post-op opioid prescription, n (%)							
strong	1	5	3	4	2	0	p=0.407 Chi square
weak	45	35	40	38	39	43	
none (missing values)	4	9	6	8	8	7	

Ankle Fractures	Aberdeen	Dundee	Edinburgh	Inverness	RAH	QEUH	p value
Post-op opioid prescription, n (%)							
strong	1	16	17	7	6	4	p<0.001 Chi square
weak	42	29	29	27	33	37	
none	7	6	4	16	12	7	

Why does this matter?

- Lawal et. Al. (2020)¹: **7% of patients continue on opioid analgesia >3 months after surgery.**
 - Our cohort – that's 41 patients...
- **Why do we give them Opioids on discharge?**
 - Do they **need** them?
 - No evidence...
 - Do they **use** them?
 - Do they **get more** from GP?
- **Prescriber Culture**
 - **'what we've always done...'**

Conclusion

There remains significant variability in the perioperative practices across Scotland. Despite this, opioid analgesic prescription on discharge remains overwhelmingly consistent.

We believe that the biggest influence on prescription practices lies with the prescriber rather than the patient - institutional 'standard practice'. Education of healthcare staff and patients is key to reducing the use of opioids following surgery, and thus lowering long term opioid dependence.

Author Information/Reference

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¹Lawal OD, Gold J, Murthy A, et al. Rate and Risk Factors Associated With Prolonged Opioid Use After Surgery: A Systematic Review and Meta-analysis. JAMA Netw Open 2020; 3: e207367.

