



POPI* on surgical wards.

* -Prescription Opioid Practice Improvement



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Introduction

Prescription opioids (e.g. Oxycontin, Endone, Targin) are a silent epidemic in the community.

Since the 1990s, the number of scripts per year has increased from 500,000 to 17,500,000 and the cost to community has increased from \$8 million to \$271 million.

Accidental overdose from prescription opioids has increased over this time and now outnumbers heroin overdose deaths. Dependence on prescription opioids is increasingly presenting to primary health providers. They report considerable difficulty weaning or ceasing the medication and managing the unwanted side-effects of prolonged prescription opioid use.



Aim

To understand and improve opioid prescribing patterns on discharge from orthopaedic units in a hospital context.

This project aims to prevent and reduce the harms described above from prescription opioids and thereby improve supportive links between hospital expertise and primary care. This work will enable SVHM and primary care clinicians to support vulnerable people.

Methods

- A retrospective audit of medical records and discharge summaries was conducted for all orthopaedic patients (discharged to community) admitted for at least two days on two surgical wards over a six-month period between 1st January and 30th June 2017.
- Review of hospital prescription opioids policies and protocols.
- Education on Safer Opioid Prescribing delivered to clinical staff.
- Audit repeated over six months, March to August 2018, to assess change in practice post-education.

Results

In pre and post-education audits there were: 281 and 289 orthopaedic patients respectively.

82% of pre-education sample were discharged on opioids compared with **79.9%** post (*Fig. 1a*).

Pre-education, 71% of the sample were discharged with both immediate release (IR) and slow release (SR) opioids compared with **46%** post-education (*Fig. 1a*).

Pre-education, 7% of patients had an opioid management plan on discharge compared with **87.4%** post-education (*Table 1*) (*Fig. 1c*).

Pre-education, 30% of patients were discharged with full PBS quantity compared with 5.2% post-education. 22% of pre-education sample were discharged with ≤ 3 days' worth of opioids compared with **52.4%** post-education (*Fig. 1b*)

Procedures performed are represented in *Table 2*.

Studied sample	Pre-Education Orthopaedic group (n=281) Opioids on discharge 231 (82.0%)	Post-Education Orthopaedic group (n=289) Opioids on discharge 231 (79.9%)
Opioid naive on admission	150 (64.9%)	172 (74.5%)
Formulation of opioids on discharge IR, SR ¹	52 (22.5%) IR only 165 (71.4%) IR+SR 14 (6.1%) SR only	117 (50.6%) IR 106 (45.9%) IR+SR 8 (3.5%)
Opioids prescribed for more than 3 days	179 (77.5%)	110 (47.6%)
Opioids prescribed for 3 or less days	52 (22.5%)	121 (52.4%)
Other analgesia prescribed in addition to opioids	222 (96.1%)	213 (92.2%)
Potential drug interactions	75 (32.5%)	73 (31.6%)
Discharge summary	199 (86.1%)	211 (91.3%)
Opioid weaning plan included in discharge summary	16 (6.9%)	202 (87.4%)
Opioid naive patients discharged on IR and SR	108 (72.0%)	69 (40.1%)
Opioid prescribed for 14 days full PBS of SR	69 (29.9%)	12 (5.2%)
Average Number of pills per person	29	17

Table 1. Summary of pre and post-education results

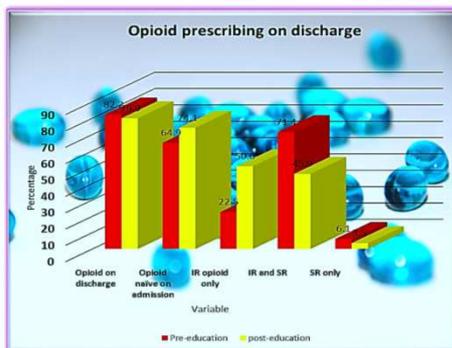


Figure 1 a. Comparison for characteristics of opioid prescribing in the pre and post-education sample.

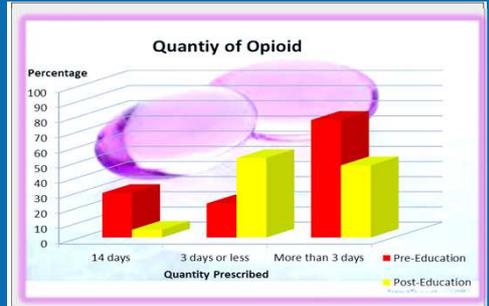


Figure 1b. Comparison of quantity of opioid prescribed on discharge pre and post-education

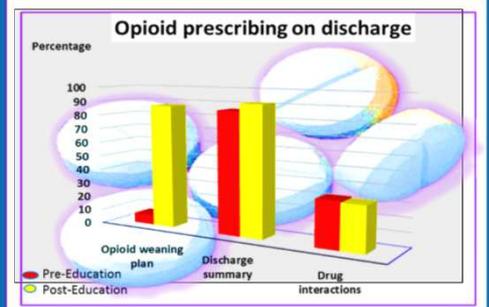


Figure 1c. Comparison of discharge planning and drug interactions between pre and post-education.

Procedure	Pre-Education Orthopaedic group (n=231) Number (percentage)	Post-Education Orthopaedic group Number (percentage)
Excision/correction/exploration ¹	125 (54.1%)	112 (48.5%)
ORIF ²	38 (16.5%)	44 (19.0%)
TOR ³	29 (12.6%)	25 (10.8%)
TOR ⁴	17 (7.4%)	26 (11.3%)
Revision ⁵	8 (3.5%)	7 (3.0%)
Arthroscopy	9 (3.9%)	9 (3.9%)
TSR ⁶	4 (1.7%)	7 (3.0%)
ACL ⁷ reconstruction	1 (0.4%)	1 (0.4%)

¹ resection of tumors, cysts, spurs, debridement; removal of foreign bodies, wire fixation, claw toe correction, hematoma removal, application of wire frames, prosthetic replacements; ² open reduction internal fixation; Type of fracture stable, compound, comminuted, crushed; ³ total knee replacements; ⁴ total hip replacements; ⁵ revision of knee, shoulder and hip replacements, prosthetic hip dislocation; ⁶ total shoulder replacement; ⁷ anterior cruciate ligament; ⁸ anterior cervical discectomy

Table 2. Procedures performed on patients discharged with opioids.

Conclusion

In hospitals opioid analgesics are commonly prescribed for acute post-surgical pain. Overprescribing of opioids post-surgery can lead to chronic opioid use and dependence and is a safety issue for patients and community. Increasing clinicians' awareness about opioid prescribing and related harms has significant impact on prescribing practices.

This project confirms that education leads to positive change in practice. Results show reduced prescribing of opioids, quantities and an increase of opioid weaning plan for general practitioner. This study demonstrates practical strategies to address current concerns about opioids and as a result an Opioid Prescribing Guideline has been developed.