Opioid prescribing on Hospital Discharge – We can no longer oxyCONDONE poor prescribing

The Royal Melbourne Hospital

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Introduction

Nationally and internationally, there is concern about the misuse of prescribed opioids. Australia currently ranks eighth internationally on the numbers of Defined Daily Doses of prescription opioids per million population.[1] Rates of prescription overdose, including accidental overdose are at record levels in Australia.[1] These figures raise concern about the opioid 'crisis' in Australia and has led to concerted actions by clinicians, colleges and regulators to curb this alarming trend.

The drivers of opioid overuse are multifactorial and are interrelated. Pharmacists and prescribers play an important role in underpinning appropriate use and promoting rational prescribing and use of opioids. Prescribers in a hospital setting are also involved in initiating opioid prescriptions, particularly in a post-operative setting. This has been identified in the recent Society of Hospital Pharmacy of Australia (SHPA) hospital pharmacy landscape paper "reducing opioid-related harm", which states that "the medical use of opioids prescribed in a hospital setting has been identified as a key risk for ongoing use". [2]

Aim

To describe baseline opioid prescribing patterns on discharge in the orthopaedic (ortho), trauma (TT), cardiothoracic (CTS) and acute medical units (AMU) at the Royal Melbourne Hospital.

To determine the type and frequency of pharmacists' interventions made to opioid prescriptions for analgesia; categorise by unit and prescriber experience.

Methods

Part A: A retrospective audit was conducted on discharge prescriptions written between 1st to 31st May 2018 on the TT, Ortho, CTS and AMU of the Royal Melbourne Hospital. Data was collected regarding opioids prescribed on discharge prescriptions, prescription legality and patient demographics.

Part B: A cross-sectional study was conducted on pharmacists' interventions made to opioid prescriptions on discharge on two nominated business days (6th and 13th June 2018) during pharmacy hours of operation (8:00am to 9:00pm). For all units serviced by a clinical pharmacists, every discharge prescription was screened for as much data as possible. The pharmacist documented whether the prescription contained an opioid, and whether any clinical or legal interventions were made to the opioid order.

Results

Part A:
There were 755 patients discharged during the data collection period, of which 411 patients met inclusion criteria. The most frequently prescribed opioid was Endone® 5mg tablets (52.26%), followed by Targin® 5/2.5mg tablets (19.78%). There was a clear preference for oral opioid formulations with only 4.94% of opioids being prescribed via alternate routes.

The cardiothoracic unit recorded the highest average daily maximum morphine equivalence (ADMME), with 69.06mg. In contrast, the Acute Medical Unit recorded the lowest ADMME of 59.17mg (Figure 1).

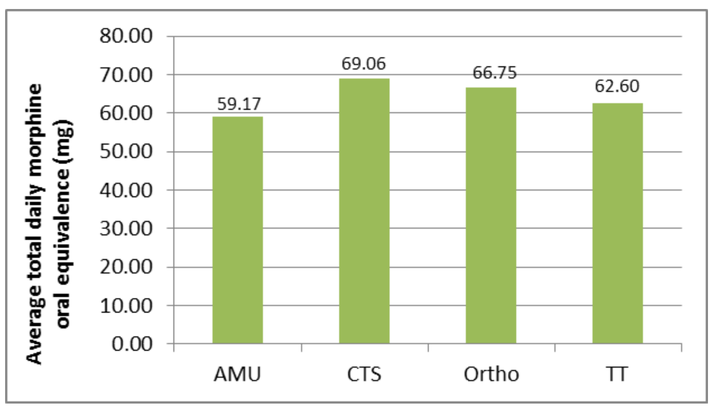

Figure 1: Total daily morphine equivalence per unit

A total of 411 prescriptions were written, of which 285 (69.34%) contained opioids. Of these, 89.9% were initiated during hospital admission (Figure 2). Interestingly, out of the total opioids initiated on discharge, 17.1% were not associated with a weaning plan or plan to cease.

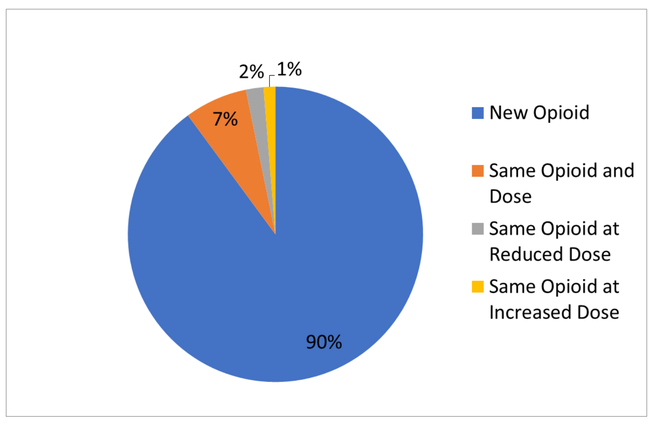

Figure 2: Percentage of patients initiated on opioid during hospital admission

The cardiothoracic unit recorded the highest ADMME at 69mg, yet reported the lowest average pain scores (1.44) in the 24 hours prior to discharge. In contrast, trauma patients reported the highest average pain scores (2.88) despite a lower ADMME prescribed on discharge (62.6mg)

Cumulatively, 465 opioids were prescribed, of which 300 did not meet legal requirements (64.52%). As shown in Figure 3, the majority of non-compliance with legalities was due to repeats being left blank on the prescription (63.67%) and the quantity of repeats not being specified in words and figures (32.67%).

Category of non-compliance with legalities	% of 300 opioids prescribed
Frequency not specified	0.67%
Written quantity not in words and figures	0.67%
Written quantity and repeats not in words and figures	1%
Quantity and Repeats blank	1.33%
Written repeat not in words and figures	32.67%
Repeats blank	63.67%

Figure 3: Percentage of patients initiated on opioid during hospital admission

Part B:
A total of 130 discharge prescriptions were screened by a clinical pharmacist over the two-day pharmacists' intervention audit. Of these patients, 43.8% were prescribed at least one opioid (excluding prescriptions for opioid replacement therapy). A total of 90 opioids were prescribed.

Of the 90 opioids prescribed, 30 of these opioids were associated with a clinical recommendation made by a pharmacist, with a total of 35 recommendations made. The most frequent recommendations were to add or cease an opioid (34.29%) or change the quantity of opioids prescribed (25.71%). The vast majority (87%) of clinical recommendations made by pharmacists were actioned by prescribers. (Figure 4).

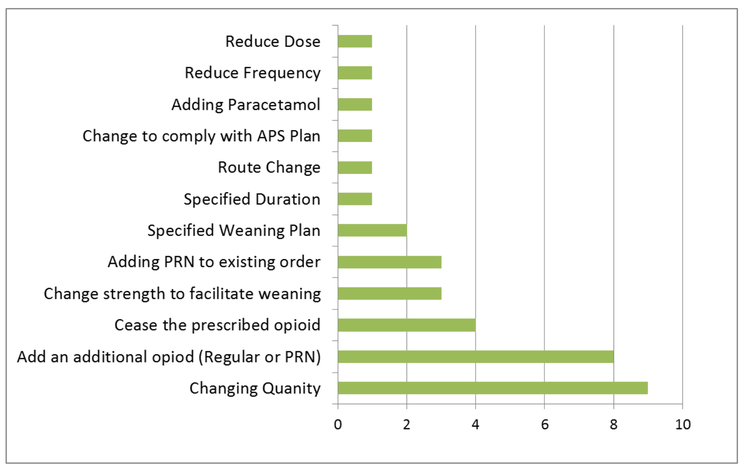

Figure 4: Clinical recommendations made by pharmacists

Likewise, 38% of prescriptions were associated with a legal recommendation made by a pharmacist. The most frequently made legal recommendation by pharmacists was in relation to specifying repeats in both words and figures (45.10%). A total of 68% of legal recommendations were actioned by the prescriber.

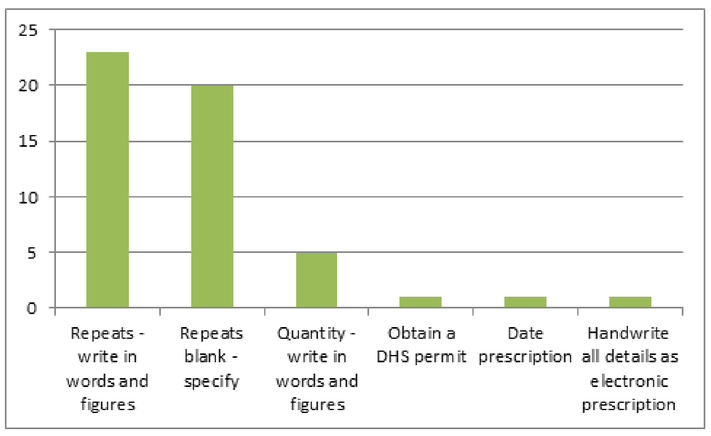

Figure 5: Legal recommendations made by pharmacists

Conclusion

This retrospective audit demonstrates the clear need for clinical governance surrounding prescribing of opioids on discharge in the hospital setting, in line with key findings of the recent SHPA landscape paper.[2] As seen in this audit, there are many factors that interplay to determine the outcome of what opioid is prescribed, and the corresponding dose, frequency and repeats. By undertaking this study, a snapshot of the current opioid prescribing within RMH has been obtained which will prove valuable in the next steps towards developing clinical governance over prescribing. With the aid of the Acute Pain Service, a decision on each discharge opioid prescription's clinical appropriateness will be determined to guide a more standardised approach for prescribers to follow when prescribing opioids.

References

1. Therapeutic Goods Administration. Prescription strong (Schedule 8) opioid use and misuse in Australia – options for a regulatory response; Consultation paper. Version 1.0 January 2018
2. Society of Hospital Pharmacists of Australia. Reducing opioid - related harm. A hospital landscape paper for the medicines leadership forum. July 2018.