

Pharmacists vs Doctors: Who prescribes opioids more appropriately in surgical patients?

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Introduction

Opioid medications are commonly prescribed to manage post-operative pain and it has been shown that up to 71% of opioid pills prescribed in the general surgical population were not used by patients.¹

An Australian study in orthopaedic patients showed that pharmacist-generated prescriptions contained on average 50% fewer opioid pills than doctor-generated prescriptions.² It is not known if this would occur in other centres or patient cohorts. Additionally, the impact on unused opioids remaining in the community and patient's pain management following discharge are unknown.

Aims

Primary outcome:

- The proportion of opioid naive patients who were prescribed an appropriate quantity of opioids

Secondary outcomes:

- Reasons opioid prescriptions were deemed inappropriate
- Number of opioids pills prescribed on discharge
- Number of opioid pills remaining in the community at one week

Methods

Study design:

Non-randomized quality assurance study. Patients received either a pharmacist-generated or doctor-generated prescription depending on the health professional available. Pharmacist-generated prescriptions involved a pharmacist pending discharge medication orders within the electronic medical record for a doctor to review, print and sign. An independent pharmacist reconciled the printed prescriptions in both arms.

Data collection:

Patient telephone interviews were conducted at one week after discharge. The pharmacists performing the calls were blinded and were not involved in the patient's care.

Setting:

Emergency general surgical (EGS) unit of a major metropolitan tertiary/quaternary teaching hospital.

Inclusion criteria:

Patients discharged from the EGS unit between May and July 2022.

Exclusion criteria:

Patients who did not undergo a surgical procedure or had taken opioids in the 30 days prior to their admission.

Definition:

'Appropriate' opioid prescribing was a composite measure comprising patients who did not meet any of the following criteria within one week of discharge:

- Requiring a refill opioid prescription
- Presenting to the Emergency Department for uncontrolled pain
- Reaching a Functional Activity Score (FAS) of C
- Having more than 25% of the prescribed opioids quantity remaining at one week

'Opioid pill' was defined as one oxycodone 5mg equivalent.

Results

Table 1: Patient demographic details

	Pharmacist-generated prescriptions n=50	Doctor-generated prescriptions (n=50)
Age, years, median (Q ₁ ,Q ₃)	38 (29-51)	39 (31-53)
Female, gender, n (%)	31 (62)	30 (60)
Surgery type, n (%)		
Minor abdominal	36 (72)	33 (66)
Major abdominal	2 (4)	1 (2)
Minor non abdominal	12 (24)	16 (32)
Major non abdominal	0 (0)	0 (0)
Length of stay, hours, median (Q ₁ ,Q ₃)	59 (35-112)	46 (22-95)
Number of opioid pills used 24 hours prior to discharge, median (Q ₁ ,Q ₃)	1 (0-3)	2 (1-4)
Number of opioid pills prescribed on discharge, median (Q ₁ ,Q ₃)	5 (0-10)	5 (0-10)
Non-opioid analgesics prescribed, n (%)		
Paracetamol	47 (94)	40 (80)
Non-steroidal anti-inflammatory	19 (38)	18 (36)

Figure 1: Proportion of patients prescribed an appropriate quantity of opioids

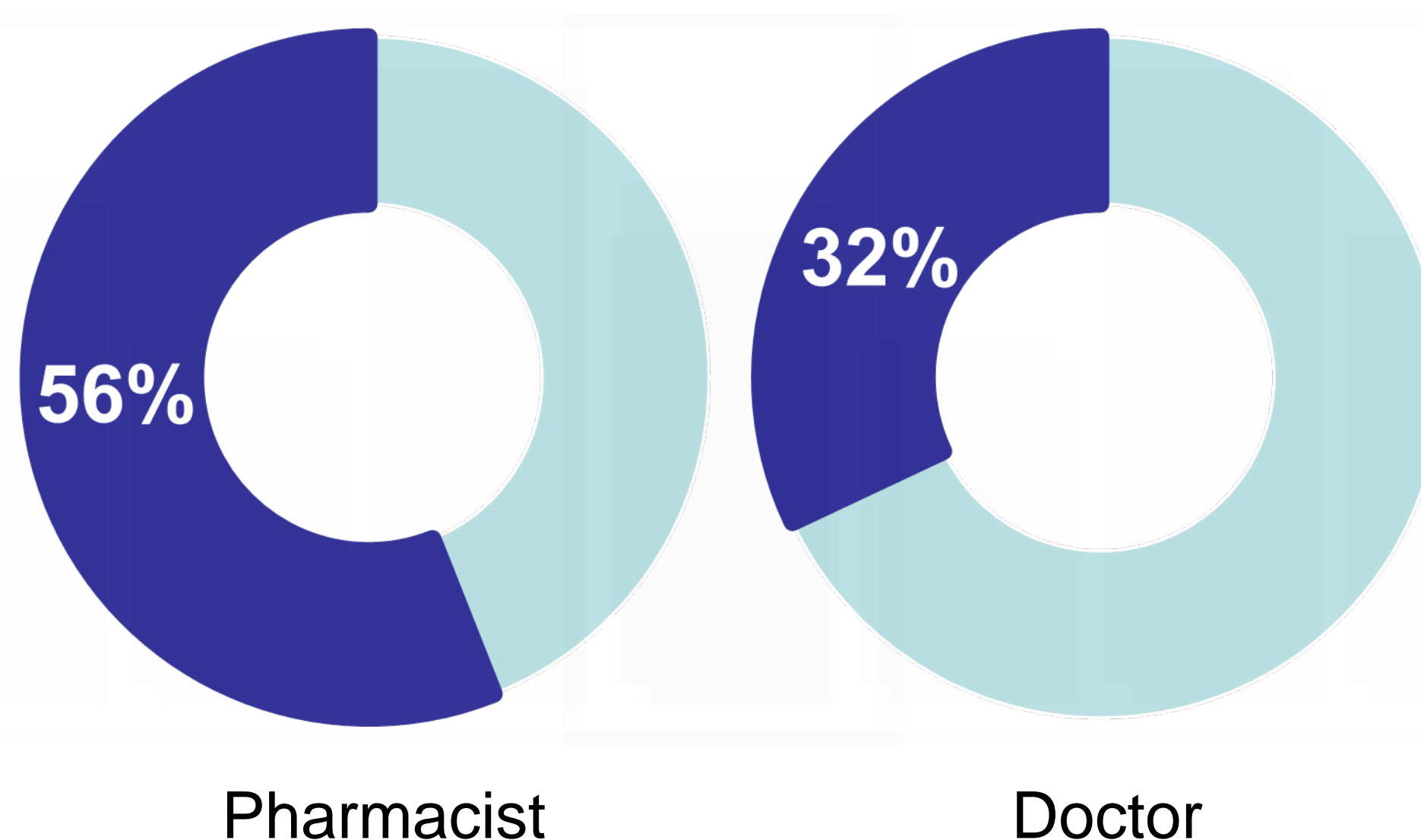
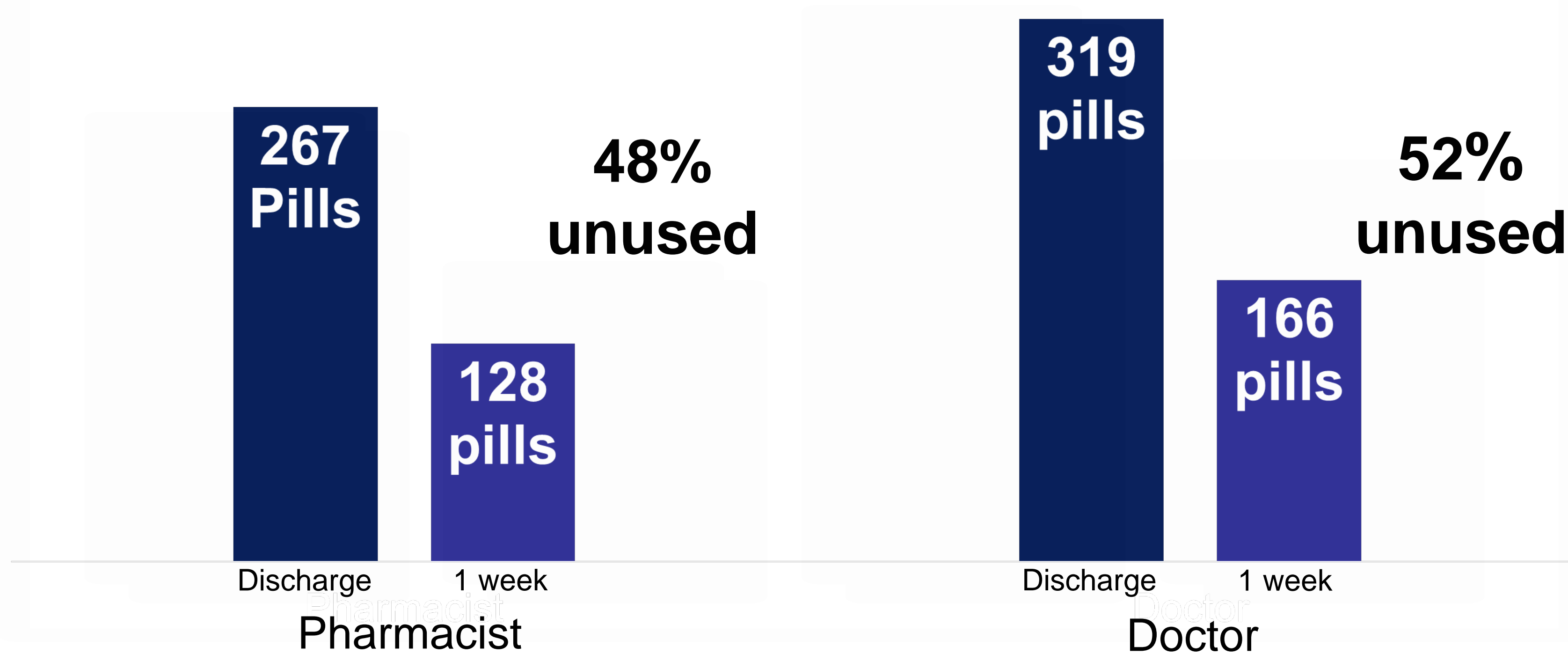


Table 2: Reasons for being deemed inappropriate*

	Pharmacist n=22	Doctor n=34
Required refill opioid script	1	6
Presented to Emergency Department	0	0
FAS-C	4	5
Having >25% of prescribed opioids remaining	18	26

*Prescriptions may be inappropriate for >1 reason

Figure 2: Number of opioids pills prescribed on discharge and quantity remaining unused in the community at one week



Pharmacist generated prescriptions reduced unused opioids in the community without compromising patient care

Discussion

- Despite restrictive opioid prescribing in both arms, excessive supply comprised over three quarters of inappropriate opioid prescriptions, echoing previous studies in general surgical patients.¹
- Patients who received doctor-generated prescriptions used more opioid pills prior to discharge, however, they were prescribed similar quantities on discharge.
- Further efforts are required to educate both pharmacists and doctors in determining how many opioid pills patients may require on discharge, if any.

References

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