

## Post-discharge follow-up of analgesic use patterns among surgical patients: A prospective observational cohort study

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### BACKGROUND

Opioid-related hospitalisations and deaths in Australia have raised concerns regarding the provision of analgesia at discharge from hospitals.<sup>1, 2</sup> Analgesic stewardship initiatives have been implemented in hospitals to reduce analgesic-related harm.

### AIM

To assess analgesic supply at discharge, analgesic use and patient satisfaction post-discharge from a tertiary hospital with an established analgesic stewardship program.

### METHODS

A prospective observational cohort study was conducted over eight-weeks in August to September 2021 at The Alfred Hospital. Participants were recruited at or post discharge for phone follow-up at 1-week, 2-weeks, and 4-weeks post-discharge.

#### Inclusion criteria:

- Discharged from trauma unit or 13 surgical units
- Hospital length of stay > 24 hours
- Suitable for phone call follow-up
- Discharged home without medication administration services

#### Primary outcome:

- Proportion of participants prescribed/taking opioids and multimodal analgesics at discharge, and at each follow-up time-point

#### Secondary outcomes:

- Proportion of participants with excess opioid prescribed/supplied at discharge (<66% taken at 1-week follow-up)
- Discharged with an analgesic weaning and/or cessation plan
- Satisfaction with pain management (measured by 5-point scale of very unsatisfied, unsatisfied, neutral, satisfied and very satisfied)

### RESULTS

A total of 226 (55.5%) eligible patients consented to participate (Figure 1). Consenting patients were *more* likely to be an elective admission and *less* likely to be opioid naïve than non-participants (Table 1).

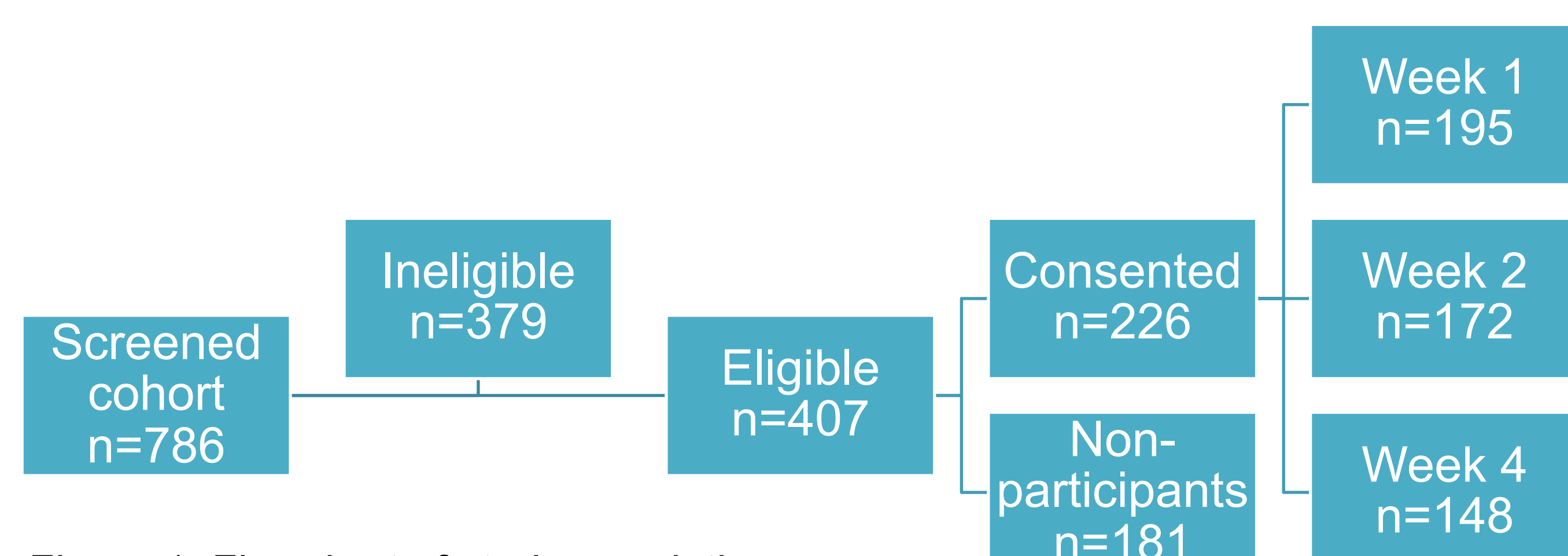


Figure 1. Flowchart of study population

Table 1. Baseline characteristics

	Consented (n=226)	Non-participants (n=181)	p
Age, years, mean (SD)	51.9 (17.9)	53.2 (19.3)	0.48
Male, n (%)	138 (61.1)	123 (68.0)	0.15
Elective admission, n (%)	103 (45.6)	51 (28.2)	0.0003
Length of stay, days, median [IQR]	2.9 [1.8-5.3]	2.7 [1.7-4.7]	0.43
Number of surgical procedures, n (%)			
0	73 (32.3)	73 (40.3)	0.09
1	144 (63.7)	100 (55.2)	0.08
2 or more	9 (4.0)	8 (4.4)	1.00
Opioid naïve, n (%)	171 (75.7)	154 (85.1)	0.02
Acute Pain Services involvement, n (%)	26 (11.5)	26 (14.4)	0.39

### RESULTS

#### Primary outcome (Figure 2):

- 65.9% (149/226) of participants were prescribed opioids (median oral morphine equivalent (MOE) 30mg [IQR 20-48.8]) on discharge, reducing to 11.5% (17/148) at 4-week follow-up.
- 56.1% (96/171) of opioid naïve participants were prescribed opioids on discharge, reducing to 4.6% (5/106) at 4-week follow-up.
- 78.8% (171/217) were prescribed multimodal analgesics on discharge and 30.4% (17/56) at 4-week follow-up.

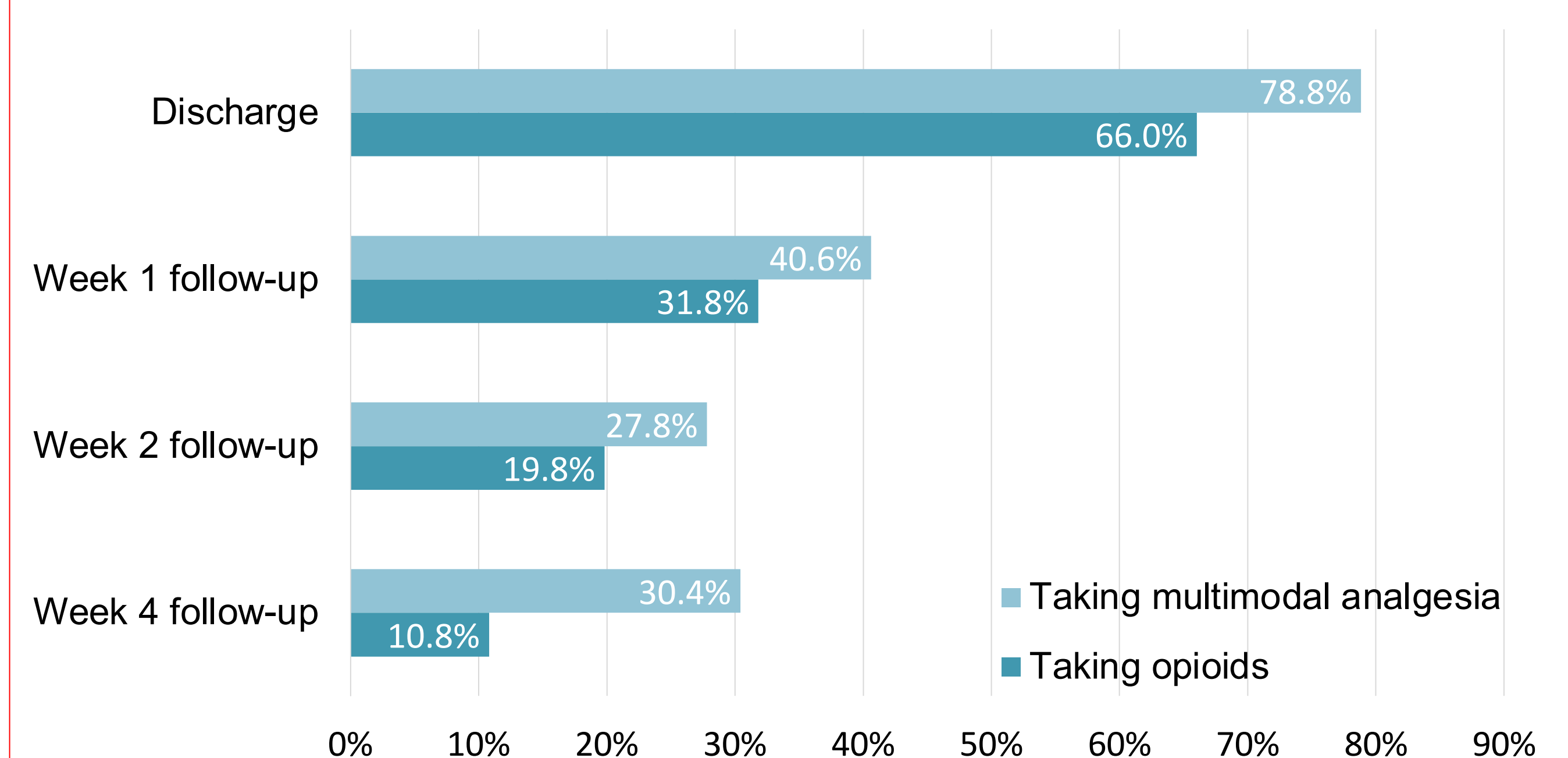


Figure 2. Proportion of patients on opioids and multimodal analgesics at study time-points

#### Secondary outcomes:

- An excess supply of opioids (<66% taken at 1-week follow-up) were provided at discharge to 35.1% (40/114) of participants.
- 63.4% (104/164) of participants received a written discharge analgesic weaning and/or cessation plan.
- 77.9% (152/195) reported satisfaction with pain management at 1-week and 89.9% (133/148) at 4-weeks.

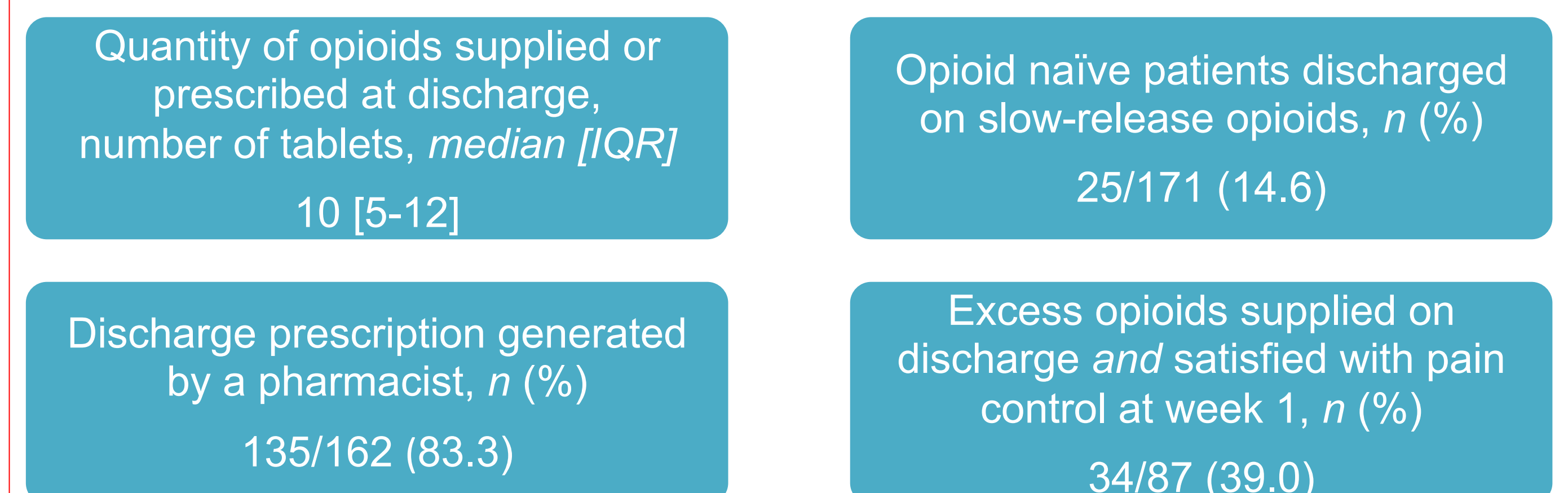


Figure 3. Other key study findings

### DISCUSSION

- The rate of opioid prescribing on discharge from this study was similar to two studies conducted at Australian tertiary hospitals.<sup>1, 3</sup>
- However, the median OME provided on discharge was much lower at 30mg, compared to 150mg, respectively.<sup>1, 3</sup>
- 4.6% of opioid naïve patients remained on opioids at 4-week follow up, in comparison to a study where 6% remained on opioids at 90 days following discharge.<sup>4</sup>
- Opioid-naïve patients who remained on opioids at 1 and 2-week follow up, were more commonly discharged from the cardiothoracic or trauma unit.

### CONCLUSION

Supply of opioids and multimodal analgesia on discharge was commonly practised, and frequently supported with an analgesic weaning plan. There was minimal use of opioids at 4-weeks post-discharge with high levels of satisfaction with pain management.

### REFERENCES

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