

A Novel Analgesic Stewardship Program Model improved the Appropriateness of Analgesic Prescribing

Optimising Appropriateness of Opioid Analgesia Prescribing at a Metropolitan Hospital Network: Evaluating an Analgesic Stewardship Program

Background

In 2018 less than 5% of Australian hospitals reported having a formal Analgesic Stewardship (AGS) program to manage opioid prescribing¹. Analgesic Stewardship, sometimes known as opioid stewardship, is defined as the implementation of coordinated interventions to improve, monitor and evaluate the use of opioids to support and protect the people using these drugs².

Methods

This study evaluated the first two months of a newly established AGS program between August and September 2022 (the study period). Over the study period, 100 patients were recruited prospectively who met the eligibility criteria and were provided a direct clinical service by the AGS program. The baseline characteristics of patients are reported in Table 1. The AGS program made 240 recommendations over the study period for these patients, which is an average of approximately 2.4 per patient.

Table 1. Patient Characteristics

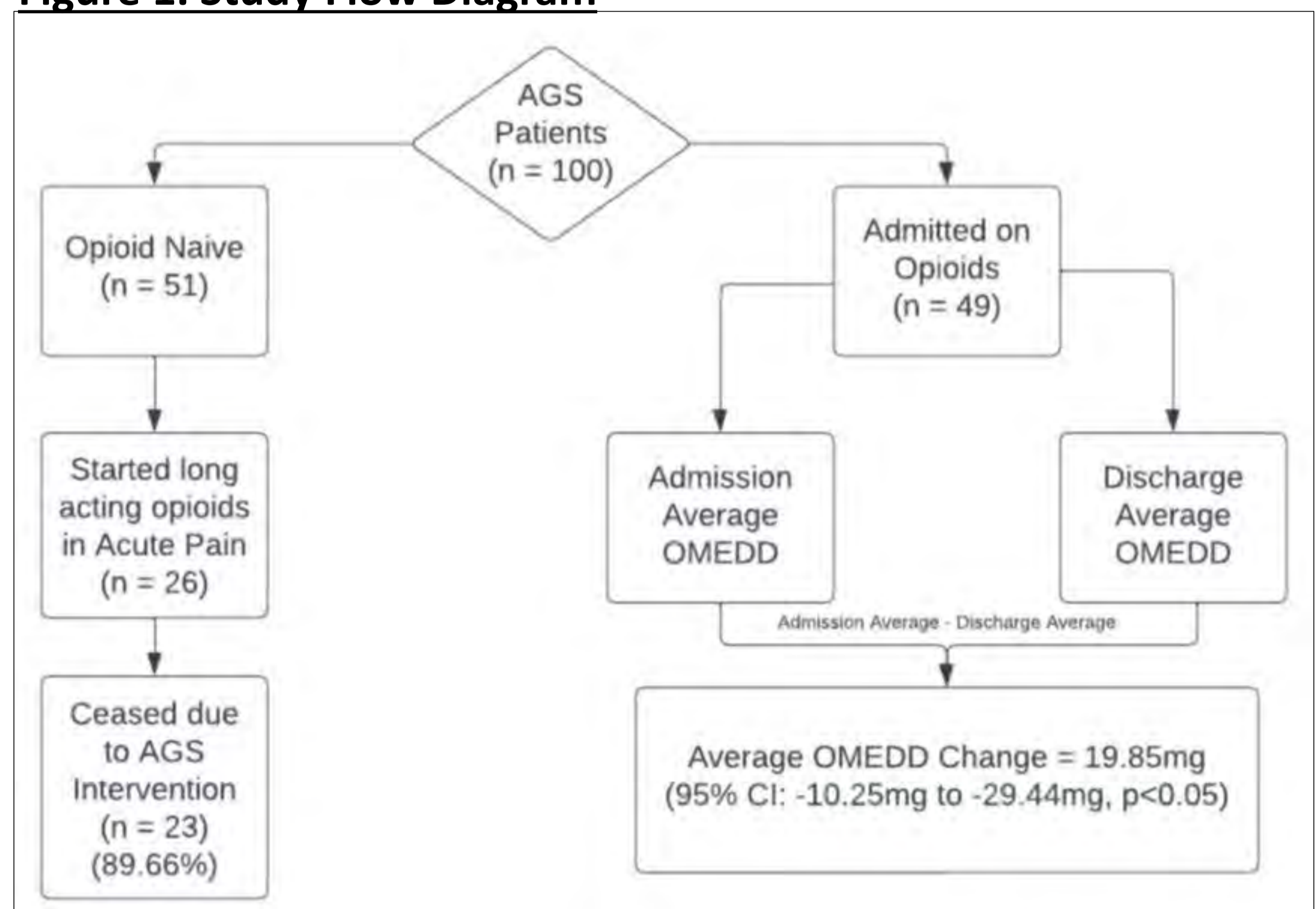
Characteristic	Medical Team; No. of Patients (%)		
	General Medicine (n=58)	Surgery ^a (n=42)	All Patients (n=100)
Mean age (years)	78.9	67.5	74.1
Sex, female	34 (58.6%)	25 (59.5%)	59 (59%)
Receiving regular opioids before admission	23 (39.7%)	28 (66.7%)	51 (51%)
Discharged on opioids (any)	37 (63.8%)	28 (66.7%)	65 (65%)
Discharged on opioids (modified release formulations)	24 (41.4%)	10 (23.8%)	34 (34%)
Mean Hospital Length of Stay	13.1 days	10.4 days	12.0 days
Mean Admission OMEDD	45.6mg	44.4mg	45.27mg
Mean Discharge OMEDD	28.2mg	17.9mg	23.6mg
Smoking History	24 (41.4%)	11 (26.2%)	35 (35%)
Alcohol Use History	11 (19.0%)	11 (26.2%)	22 (22%)
Illicit Substance Use History	4 (6.9%)	1 (2.4%)	5 (5%)
Psychological Comorbidity ^b	16 (27.6%)	11 (26.2%)	27 (27%)

^a Surgical Units included General Surgery, ENT, Orthopaedics, Plastics, Vascular, Urology, Thoracics
^b Any documented psychological condition in medical admission noted including depression and anxiety

Results

A study flow diagram of patients included in the study is presented in Figure 1. A key result was the AGS program documented a clinical recommendation to cease a modified release opioids as not appropriate, and this advice was followed, for 9 out of 10 patients prior to discharge. Another key result was a mean overall reduction in OMEDD between admission and discharge of 19.85mg (95% CI -10.3mg to -29.4mg, p<0.05).

Figure 1. Study Flow Diagram



The two most common interventions made by the AGS program in the study were to cease an inappropriate analgesic medication (23.33%) or to provide an opioid weaning plan for inpatient or discharge action (16.3%). Recommendations were all actioned (67%) or mostly actioned (15%) for 82% of patients.

Conclusion

These results are the culmination of both system and patient level improvement work conducted under the AGS program. The results of this study have begun to demonstrate the concept of a novel AGS program model at the hospital network and how it can improve the appropriateness of analgesic prescribing. The AGS Service will continue to run after the study period, with data collection continuing in anticipation of a larger study looking at this data longer term (12 months) and in more detail.

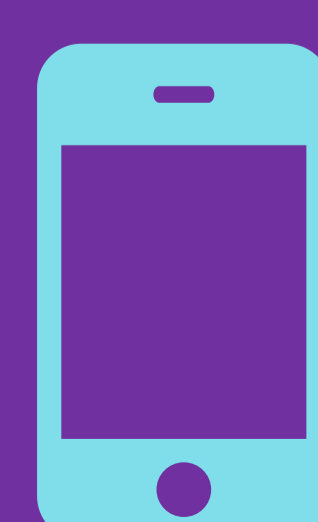
Jeremy Szmerling¹, Gordon Mar², Lyndall Watkins²

1. Department of Pharmacy, Eastern Health
 2. Department of Anaesthetics, Eastern Health



References

1. The Society of Hospital Pharmacists of Australia. Reducing opioid-related harm: a hospital pharmacy landscape paper. November 2018, shpa.org.au
2. Chen A, Legal M, Shalansky S, Mihic T, Su V. Evaluating a Pharmacist-Led Opioid Stewardship Initiative at an Urban Teaching Hospital. The Canadian journal of hospital pharmacy. 2021;74(3):248.



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