# Implementation of the Analgesic Stewardship Pharmacist Role

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## Background

There are increasing societal concerns that opioids and gabapentinoids pose harmful consequences.[1,2] Often these medications are initiated in hospital and in some instances they may be inappropriately continued beyond the intended or recommended duration due to inadequate de-escalation or education of health professionals and patients.[3]

With an increase in the availability and variety of analgesics, coupled with potential for patient harm, a co-ordinated and systematic approach is required to ensure optimal and safe use of these medications. Opioid stewardship has been successfully implemented in a number of institutions in the United States (US) to address these issues.[4,5]

In 2016 Alfred Health, a major tertiary health service in Victoria, approved the role of an Analgesic Stewardship (AGS) Pharmacist to develop an AGS Program with the overall aim of improving patient outcomes, reducing analgesic-related harms and ensuring cost-effective use of analgesics, while providing optimal pain management.

## Aim

To describe the development and implementation of an AGS Pharmacist role and Stewardship Program.

## Method

The AGS Pharmacist role was implemented to lead an AGS program with the aim of promoting the safe and optimal use of analgesics across Alfred Health. Stakeholders were identified to form membership for an AGS Committee, providing direction and guidance to the AGS Pharmacist. Local analgesic practices were audited and a study tour undertaken to an overseas institution with an established opioid stewardship program, to assist in role and program development. Guidance was also sought from our established Antimicrobial Stewardship (AMS) Pharmacist role and AMS program.

## Results

The AGS Pharmacist role was appointed to a Senior Peri-operative Medicine Pharmacist in June 2016. This lead role is suited for a pharmacist with extensive experience in pain management, knowledge of local analgesic practices and an ability to work within multidisciplinary teams. Early achievements included formation of the multidisciplinary AGS Committee (Table 1). The AGS Pharmacist is responsible for co-ordinating and contributing to monthly AGS Committee meetings.

**Table 1. Membership of the multidisciplinary AGS Committee**

| Doctors | Nurses | Pharmacists |
|---|---|---|
| Head of Pain Service | Pain Liaison | Director of Pharmacy |
| Head of Chronic Pain Service | Clinical Nurse Specialist, Orthopaedic and Trauma Ward | AGS Pharmacist |
| Pain Fellow | Emergency Clinical Nurse Specialist | Senior Pharmacist – Intensive Care |
| Director of Trauma Service | Palliative Care Clinical Nurse Specialist | Senior Pharmacist – Trauma Services |
| Intensivist | | Senior Pharmacist – Rehabilitation Services |
| Emergency Consultant | | Resident Pharmacist |
| Head of Rehabilitation Services | | |
| Aged Care Consultant | | |
| GP Liaison | | |

Medical, nursing and pharmacy representatives from key areas involved in analgesic prescribing were pivotal in developing priorities and direction for the activities of the AGS Pharmacist role (Figure 1).

| | |
|---|---|
| Education | • Medical, nursing and pharmacy staff – online learning module<br>• GPs and patients (including non-English speaking patients) |
| Analgesic Weaning | • Develop guideline<br>• Extend pharmacist-led opioid de-escalation to other units<br>• Extend pharmacist input into discharge summaries for surgical patients<br>• Develop discharge analgesic weaning leaflet for patients |
| Audits, Projects & Research | • Pharmacist and nurse led management of opioid-related constipation<br>• Medical emergency calls in hospital for acute pain<br>• Analgesic-related admissions to Intensive Care Unit<br>• Intestinal perforations/pseudo obstruction<br>• Pain scale charts and assessment in Aged Care and Rehabilitation<br>• Survey patients/GPs re analgesic use post discharge |
| Integration with eTQC* | • Develop criteria for reports and alerts to efficiently identify and review high risk patients/analgesic use |

*eTQC = Electronic Timely Quality Care (electronic medication management)

**Figure 1. Priorities and initiatives of the AGS Program**

## Results *(continued)*

The AGS Pharmacist role includes clinical and non-clinical responsibilities, not dissimilar to the activities undertaken by the AMS Pharmacist (Table 2). Clinical activities include attendance on Acute Pain Service (APS) ward rounds, responding to clinical queries and leading the credentialing of pharmacists for the institution's innovative Pharmacist-led Opioid De-escalation Program. Non-patient facing activities include determining current trends of analgesic use, staff education, guideline development and leading audits and research.

**Table 2. Key AGS program criteria and pharmacist responsibilities**

| | Antimicrobial | Analgesic |
|---|---|---|
| **Structure and Governance** | | |
| ACQSHC accreditation requirement | ✔ | X |
| Multidisciplinary steering committee TOR, Roles and responsibilities | ✔ | ✔ |
| Reporting lines to hospital executive | ✔ | ✔ |
| Senior medical staff clinical champion | ✔ | ✔ |
| Dedicated resources | ✔ | ✔ |
| **Clinical care** | | |
| Provision of direct clinical care to patients | ✔ | ✔ |
| Procedures/processes for patient care | ✔ | ✔ |
| Consultation/referral service | ✔ | ✔ |
| **Education and access to information** | | |
| Institutional policies/clinical guidelines | ✔ | ✔ |
| Clinicians | ✔ | |
| Patients and carers | ✔ | ✔ |
| Staff orientation | ✔ | ✔ |
| **Monitoring** | | |
| **Internal** | | |
| Audits | ✔ | ✔ |
| Incident review | ✔ | ✔ |
| Indicators | ✔ | ✔ |
| | ✔ | |
| **External** | | |
| Benchmarking | ✔ | |
| **Quality improvement** | | |
| Point of care interventions | ✔ | ✔ |
| Outcome measures | ✔ | ✔ |
| Process measures | ✔ | ✔ |
| **Research** | | |
| Conference Presentations | ✔ | ✔ |
| Grants | ✔ | |
| Publications | ✔ | |

Early point-prevalence auditing across the health service identified the rate and type of analgesic use. Of 502 patients examined at a single time point, 44% were taking analgesics, regularly or as required, before admission, and this increased to 83% during the inpatient stay. One in five patients were taking opioids before admission and this increased to two in three as inpatients. The most commonly used analgesics received in hospital were paracetamol and opioids.

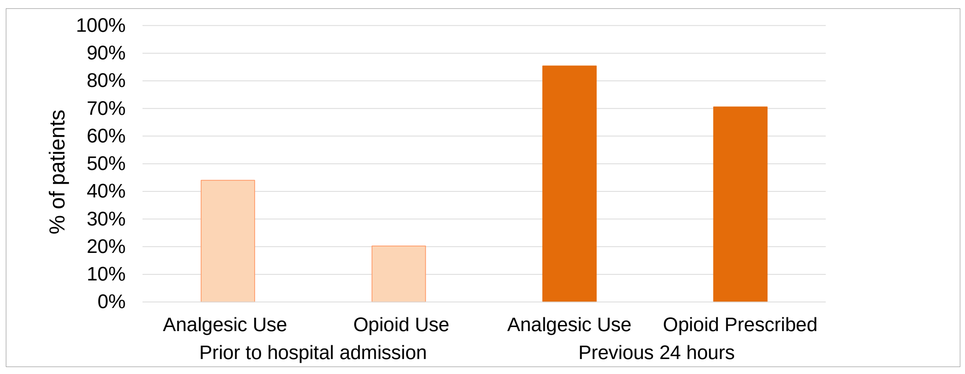


**Figure 2. Analgesic and opioid use before and during hospital admission**

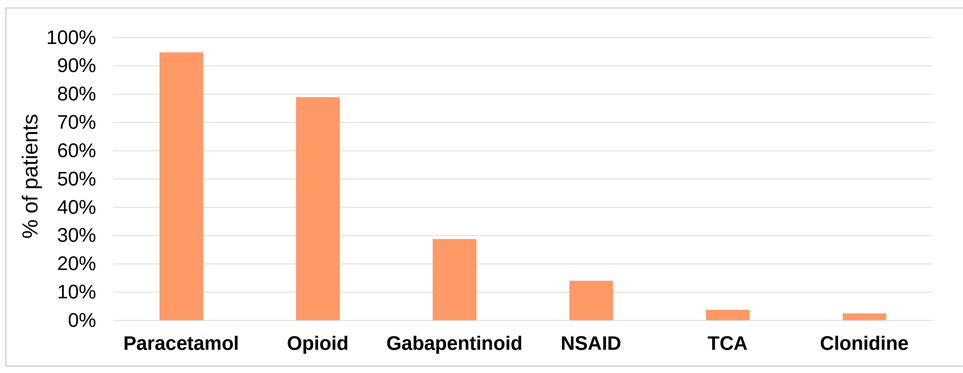


**Figure 3: Analgesic classes received during hospital admission**

Pharmacist-led opioid de-escalation in orthopaedic patients, previously shown to reduce opioid requirements by 25% without adversely impacting pain scores,[6] has been extended to the Plastics and Trauma units, where opioid use is high. Future initiatives include implementing pharmacist charting of aperients for opioid-induced constipation and expanding pharmacist-led opioid de-escalation to subacute units.

## Conclusion

The role of an AGS pharmacist, while in its infancy, has already led the development and implementation a number of initiatives to promote safe and appropriate analgesic use across a major health service.

## References

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