

An expanded pharmacy service for an Orthopaedic Enhanced Recovery Program to reduce length of stay

Baljot Atwal¹, Belinda Richardson¹, Andrew Hardidge², Marisa Delahunt³, Jenny Than¹, Elizabeth Walkley², Tim Tran¹

1. Pharmacy Department, Austin Health, Victoria
 2. Orthopaedic Surgery, Austin Health, Victoria
 3. Department of Physiotherapy, Austin Health, Victoria

Background

The number of patients waiting for elective joint replacement surgery in Australia has increased due to an ageing population. This has been compounded by the COVID-19 pandemic.

A multidisciplinary team was formed to develop and implement an Enhanced Recovery Program (ERP) for select patients undergoing knee or hip replacement surgery to reduce the length of stay from a usual 4-5 days to an efficient overnight procedure. The multidisciplinary team consisted of orthopaedic surgeons, anaesthetists, physiotherapists, nurses and pharmacists.

Background (continued)

To enable a reduced hospital length of stay, it was essential that the medication management of patients was optimised, particularly ensuring that patients had adequate pain control to avoid unplanned readmissions. An expanded clinical pharmacy service needed to be developed to achieve this.

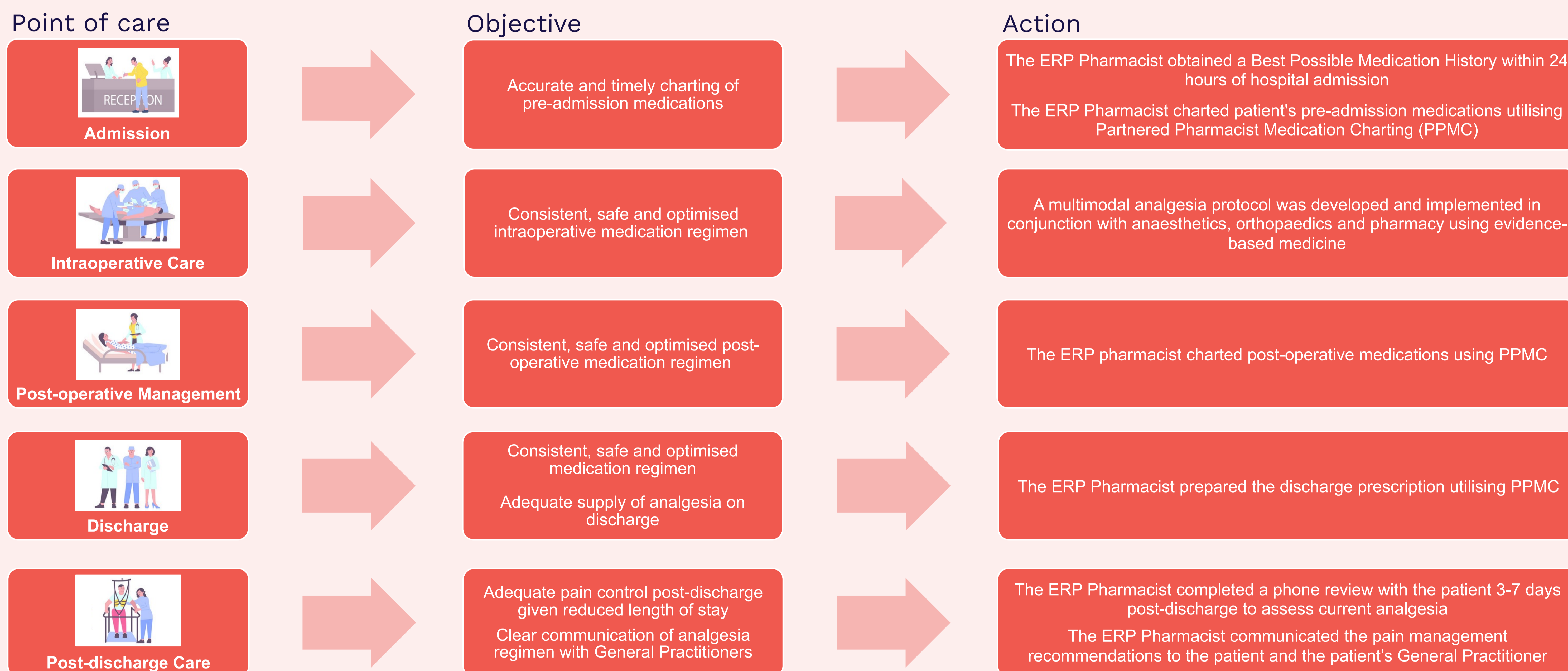
Objective

To utilise the existing evidence supporting expanded pharmacist roles to develop, implement and evaluate the role of an ERP pharmacist.



The Austin Health ERP Team

Method



Method (continued)

Outcome measures:

Retrospective analysis of the pharmacist's roles included the proportion of patients who:

- Had pre-admission medications charted pre-operatively by the ERP Pharmacist;
- Were prescribed multimodal analgesia post-operatively as per protocol;
- Received a post-discharge pharmacist review.

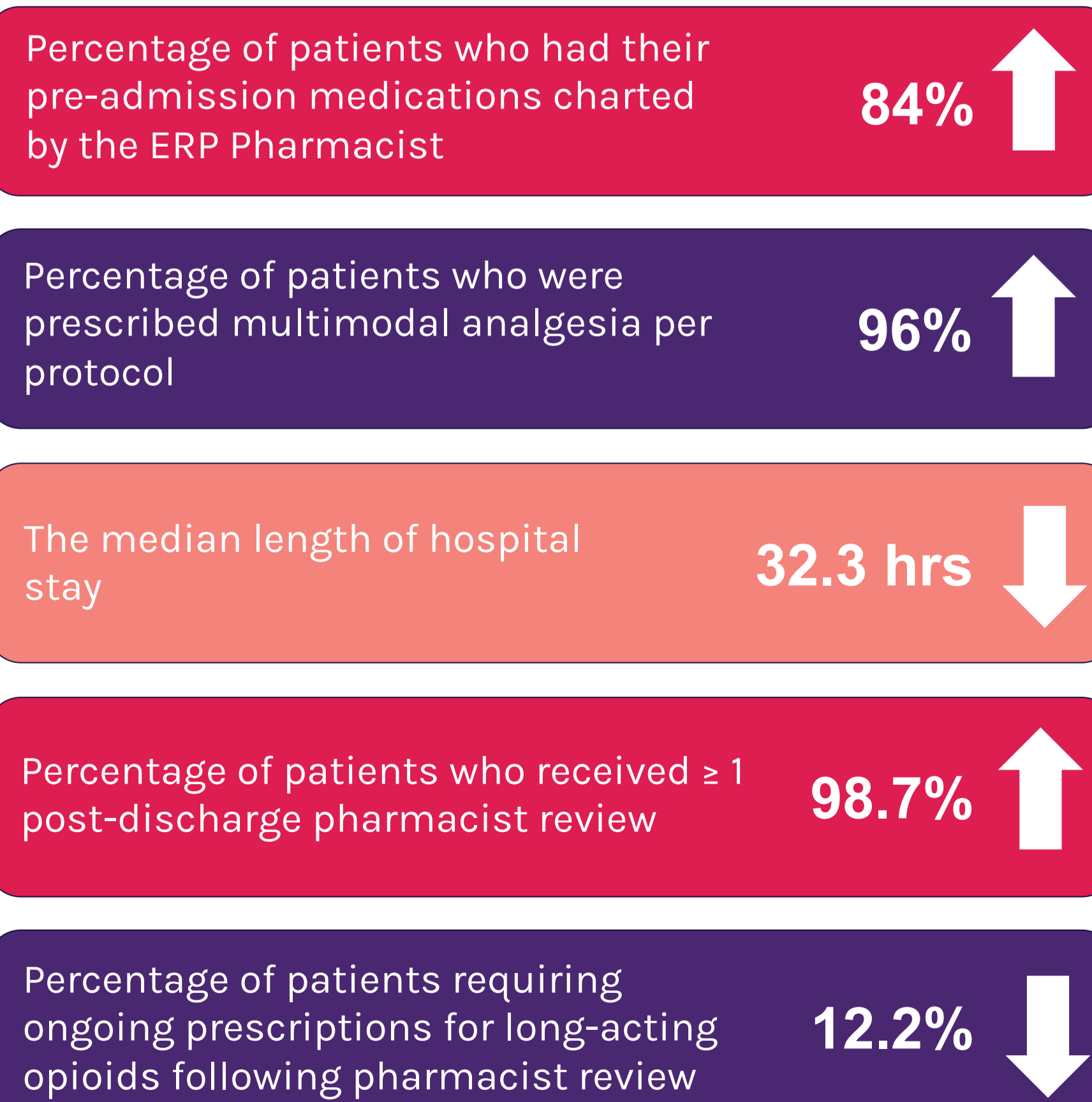
The pharmacist's recommendations were also reviewed to determine the proportion of patients requiring ongoing prescriptions for long-acting opioids.

Results

75 patients participated in the ERP over a 12-month period commencing in April 2022.

Results (continued)

Outcome measures:



Discussion

The ERP achieved a significant reduction in hospital length of stay with all patients discharged following an overnight stay. It was therefore essential that medication management was optimised at all stages of the patient's hospital journey.

Using evidence to support expanded roles for pharmacists (e.g. PPMC), the ERP pharmacist was proactively involved in the medication management of the patient at all points of care, from admission to post-discharge. Multimodal analgesia was utilised and a post-discharge pharmacist review ensured that only a small proportion of patients required ongoing prescription of long-acting opioids.

An expanded pharmacy service was developed for ERP patients to ensure optimal medication management in supporting reduced length of stay.

REFERENCES:

- T. Tran, J. Ford et al. Evaluation of a post-discharge pharmacist opioid review following total knee arthroplasty: a pre- and post-intervention cohort study. *Int J Clin Pharm* (2022). <https://doi.org/10.1007/s11096-022-01455-y>
- Tong EY, B. Mitra et al. Multi-site evaluation of partnered pharmacist medication charting and in-hospital length of stay. *Br J Clin Pharmacol*. 2020; 86:285-290
- T. Tran, S.E. Taylor et al. Evaluation of communication to general practitioners when opioid-naïve post-surgical patients are discharged from hospital on opioids. *ANZ J Surg*. 2020; 90(6):1019-1024
- Tran T, Taylor SE et al. Pharmacist-assisted electronic prescribing at the time of admission to an inpatient orthopaedic unit and its impact on medications errors: a pre-and postintervention study. *Ther Adv Drug Saf* (2019)