

Audit of patient outcomes following elective joint arthroplasty following switch to immediate release opioid preparations for post-op analgesia.

Clare Morton, Clinical Pharmacist, Lynsey Curry Lead Clinical Pharmacist. With thanks to orthopaedic and anaesthetic teams

NHS

Gateshead Health
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Background

Studies have shown following surgery, patients who receive prolonged-release opioids have a greater potential for harm¹. With long-term continuation and respiratory depression the biggest concerns.

Best Practice guidelines issued in 2021 advised patients should be treated with immediate release opioids after surgery, when simple analgesics are not effective enough to achieve functional goals, with morphine sulphate 10mg/5ml solution the preferred option due to easier administration requirements than alternatives.² During recovery, opioid analgesics should be weaned at the earliest stage possible, following a reverse analgesic ladder².

In November 2021 patients undergoing elective orthopaedic procedures were prescribed morphine sulphate solution in place of slow release Morphine.

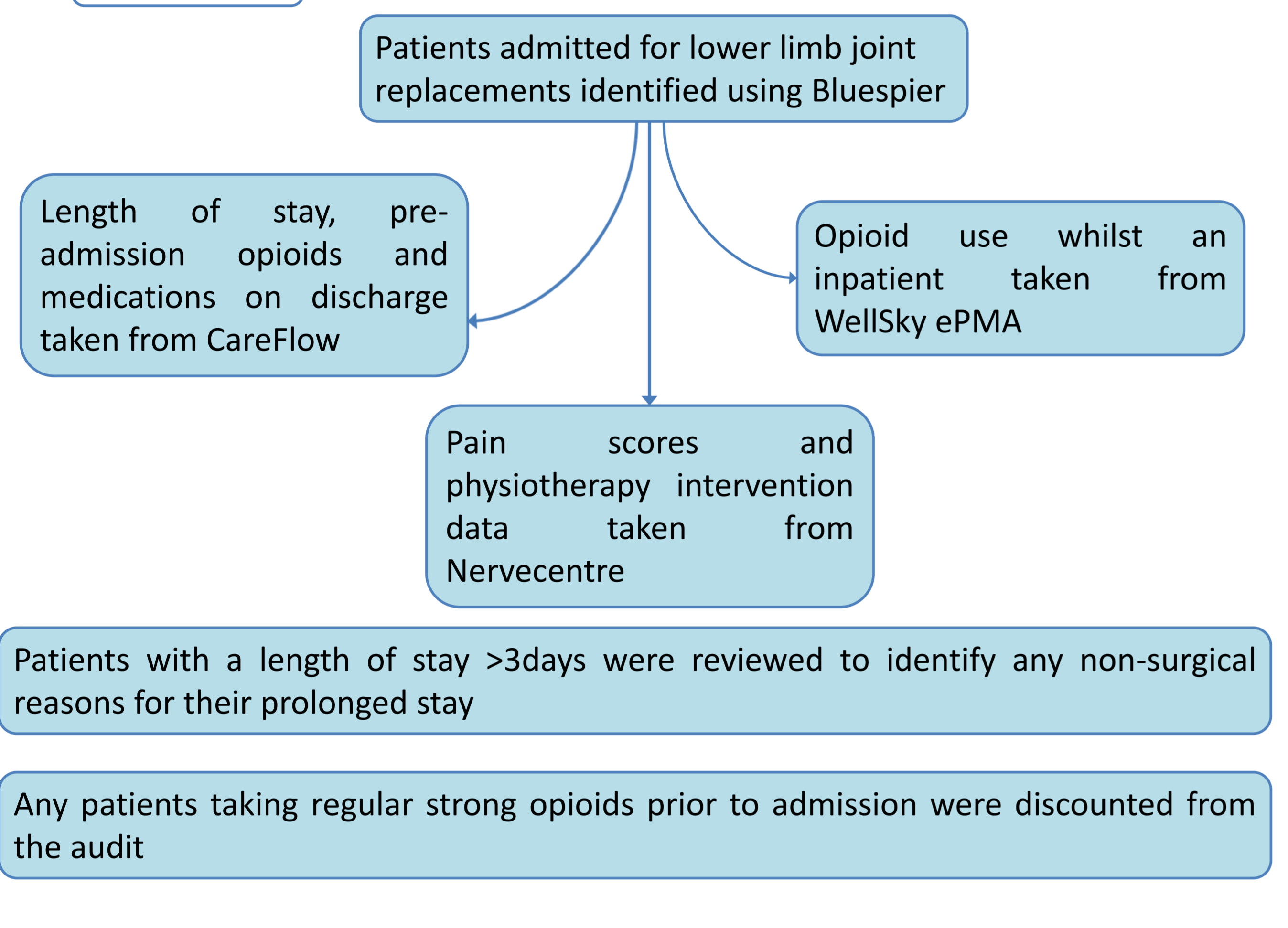
Objectives and Standards

The aim of the audit was to ensure the outcomes for these patients remained at a high standard and highlight any areas of concern or improvement following the switch from prolonged release to immediate release opioids as post-operative analgesia.

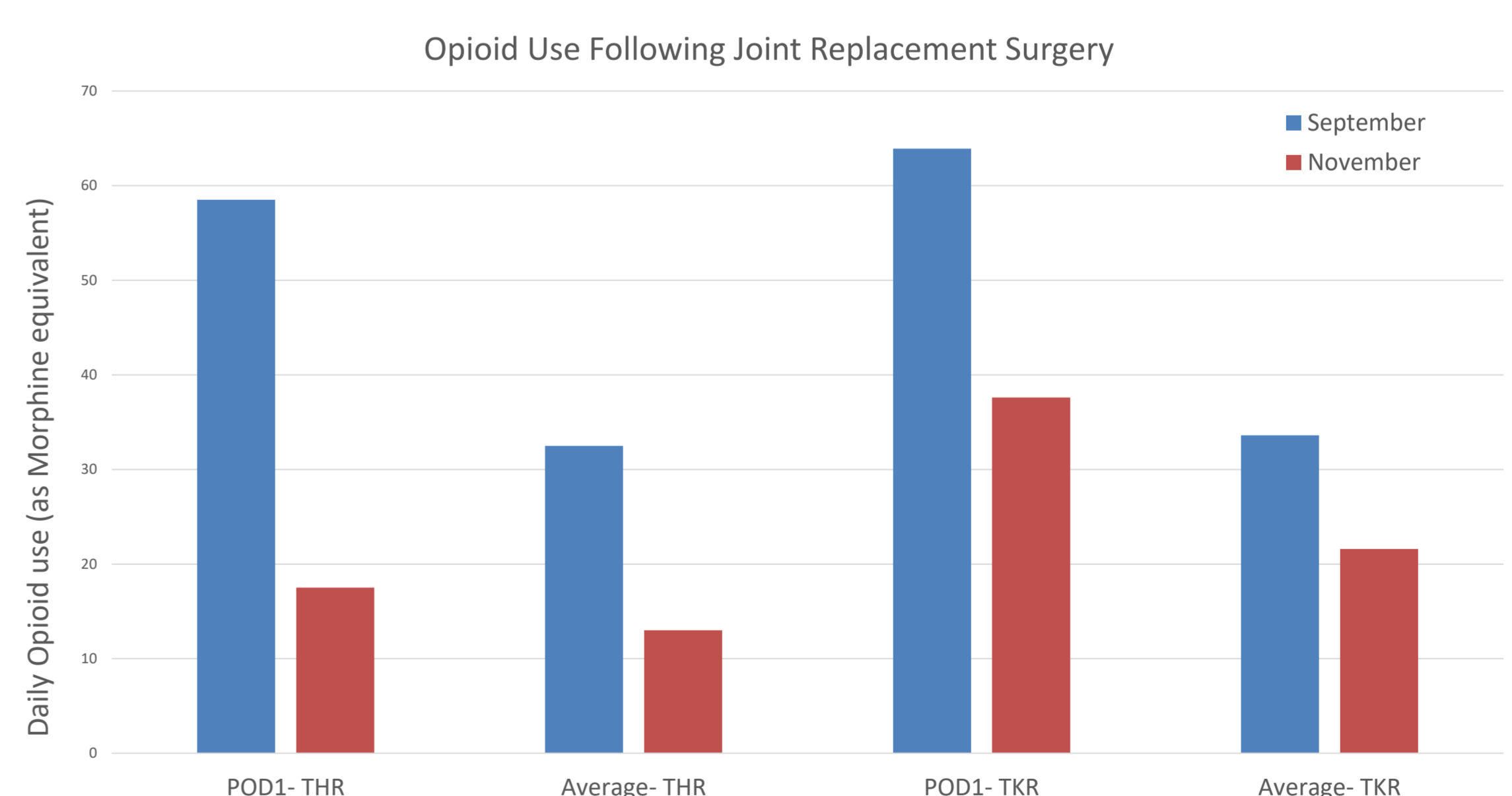
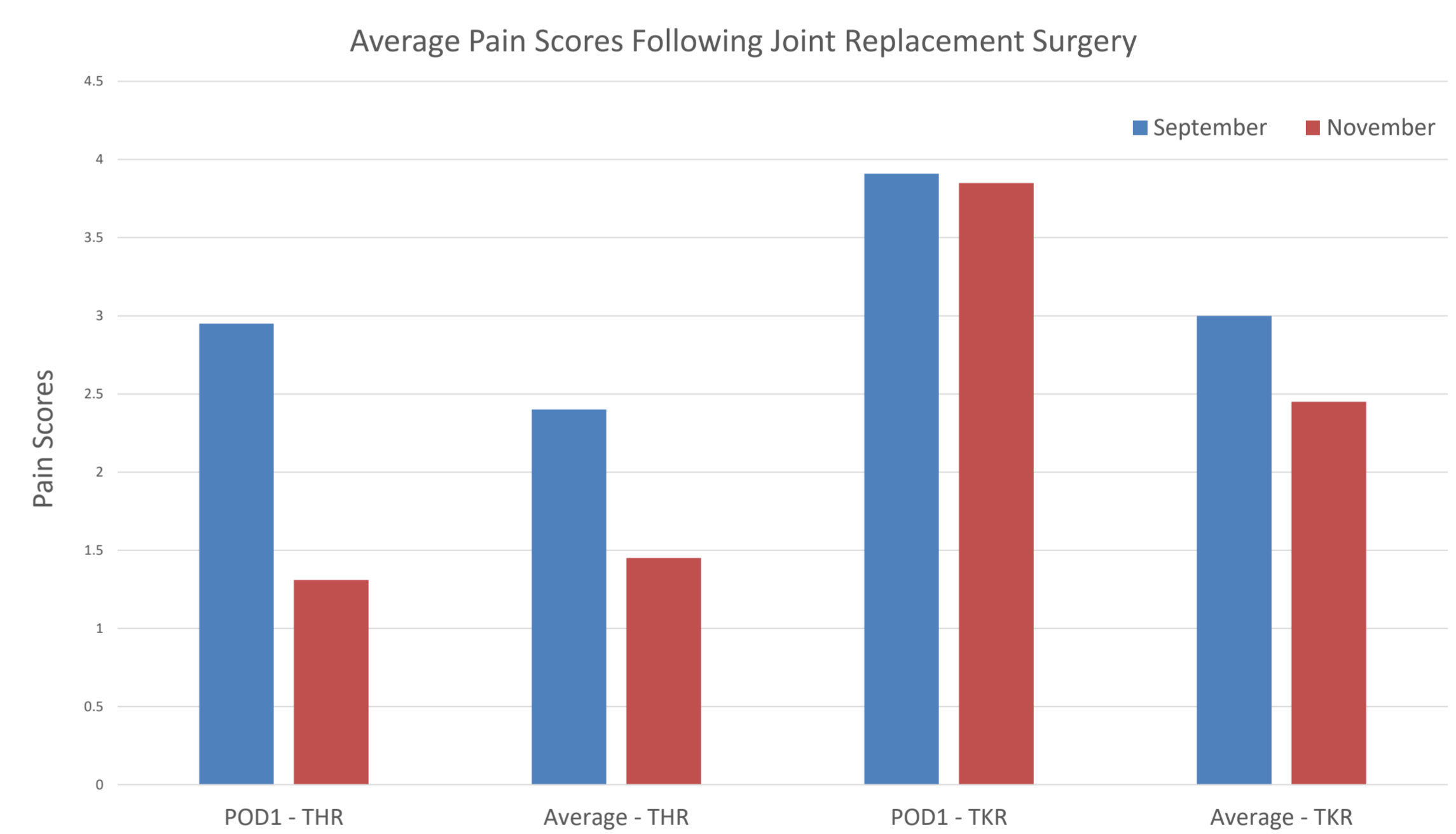
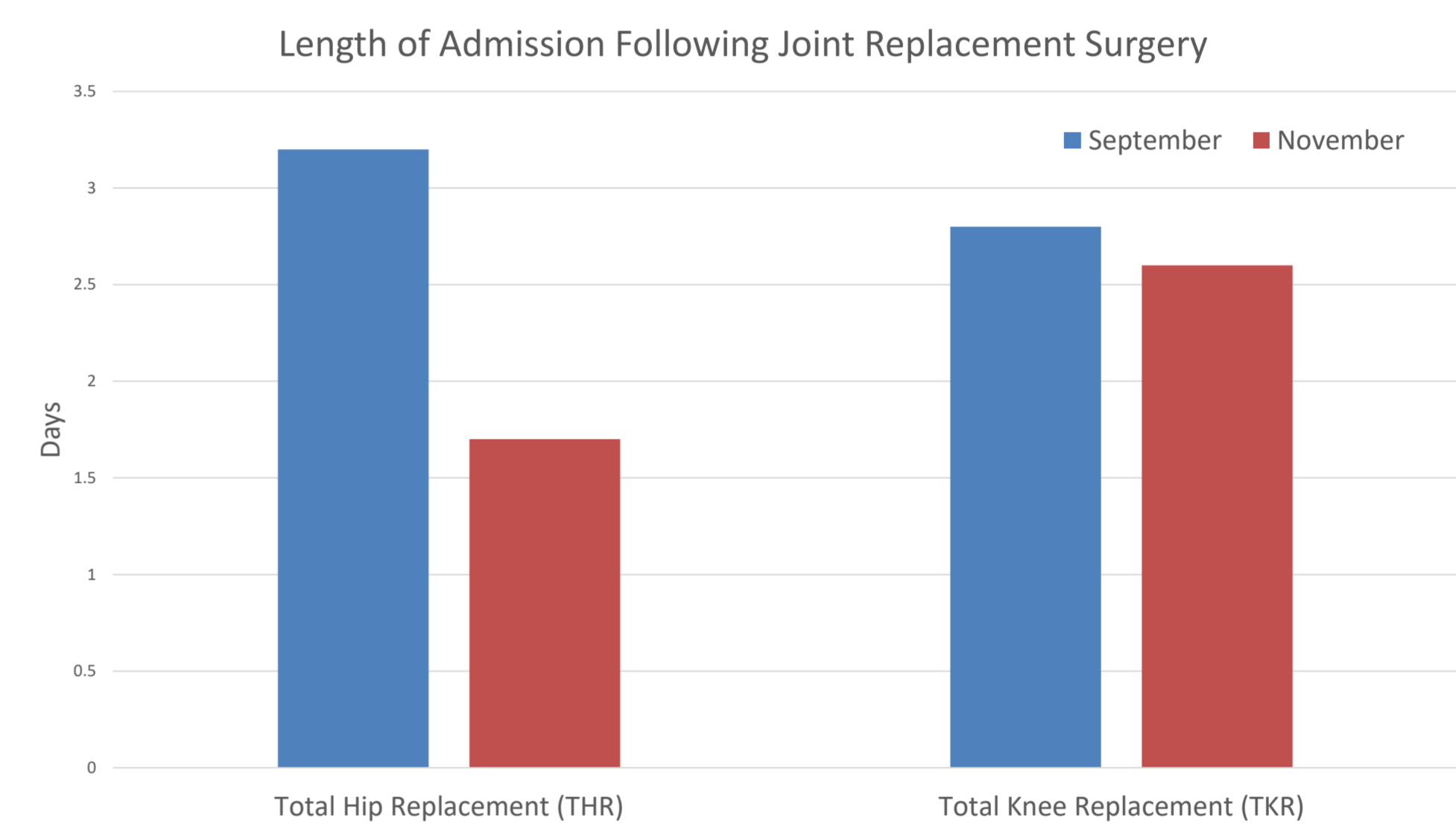
For all patients undergoing elective total hip replacements (THR) and total knee replacements (TKR) who receive immediate release opioids following surgery - patient outcomes should be at least equivalent to those who received modified release opioids (compared with control patient group from prior to switch over):

- Length of time spent in hospital following surgery (length of stay)
- Total daily opioid use
- Pain scores following surgery

Method



Results



Conclusion

- There was a significant reduction in overall opioid use following both hip and knee replacement surgeries, which was reflected both on post-op day 1 usage and as an average across the entire admission
- Average pain scores fell after both types of surgery, with a greater reduction in pain reported on post-op day 1
- Overall length of admission fell for patients admitted for both hip and knee replacement surgery
- At the time of the change to immediate release opioids the elective orthopaedic ward underwent ring-fencing changes, which may have impacted these results

Further work

- Switch to as required morphine sulphate solution rather than regular doses and the effects on patient outcomes should be investigated
- Removal of post-operative modified release from the post-op protocols for other specialities will be investigated.

References

1. N. Levy, P. Mills. Controlled-release opioids cause harm and should be avoided in management of postoperative pain in opioid naive patients. Br J Anaesth, 122 (2019), pp. e86-e90
2. Surgery and opioids National Best Practice Guidelines 2021
3. Rockett M et al. Guidelines for the Provision of Anaesthesia Services (GPAS). Guidelines for the Provision of Anaesthesia Services for Inpatient Pain Management 2019 <https://www.rcoa.ac.uk/system/files/GPAS-2019-11-PAIN.pdf>