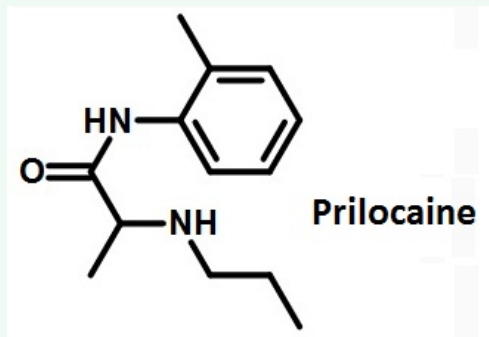




INTRODUCTION

Cervical cerclage is a surgical procedure for mothers at risk of cervical incompetency during pregnancy with resultant premature delivery. It is performed as a day case procedure. Type of anaesthesia should consider patient, fetal, surgical and organisational factors¹. Regional anaesthesia in the form of spinal anaesthesia for day-case ambulatory surgery needs to be short-acting with minimal side-effects which can result in delayed discharge, such as post-operative urinary retention, post-operative nausea and vomiting (PONV) and delayed mobilisation^{1,2}. Although general anaesthesia during pregnancy is now known not to be associated with increased risk of aspiration compared to the general population, the future effects of anaesthesia exposure to the fetus are less certain³. Patient choice is fundamental to providing good care and this needs to be facilitated by giving patients correct information and offering appropriate anaesthetic options.

This quality improvement project was designed to assess current practice (Phase 1), propose a change in practice to encourage use of regional anaesthetic in the form of prilocaine spinals and look for improvement in care (Phase 2), and finally review sustainability of any improved results post intervention (Phase 3). This move to using prilocaine spinals where possible endeavoured to improve efficiency, patient satisfaction through primarily a reduction in length of stay and unplanned overnight hospital admissions.

METHODS

From 2021-2023 three audits were done to review anaesthetic practice for cervical cerclage insertion in our hospital. Data collected included patient demographics, mode of anaesthesia, length of stay, incidence of post-operative nausea and vomiting and pain scores. Following Phase 1 an intervention to encourage prilocaine spinals was designed. This change in practice was encouraged through teaching, presentations and poster education for the anaesthetic and maternity departments. Phase 2 and 3 data collections were conducted over three month periods in late 2022 and 2023.

The natural history of the study enabled protocol development. For example, during Phase 2 urinary catheter insertion was not discouraged in the prilocaine protocol and two delayed discharges occurred due to the time taken to perform trials without catheter. Education was provided and routine catheterisation was eliminated for prilocaine patients in Phase 3.

RESULTS

Phase	Year	Analysing	Population	% GA	% Spinal	% Bupivacaine	% Prilocaine	% Intrathecal Opioid	% PONV	% Post-op pain	% Post-op Rx	Number pts Overnight stay	Post op stay
1	2021	Pre-Intervention	88	34	66	71	19	58	6.8	30.7	41	11 (12.5%)	11.1
2	2022	Post-Intervention	27	30	67	17	83	71	3.8	42.3	59	0	5.2
3	2023	Sustainability	19	5	95	6	94	72	5.3	21.2	63	0	6.3

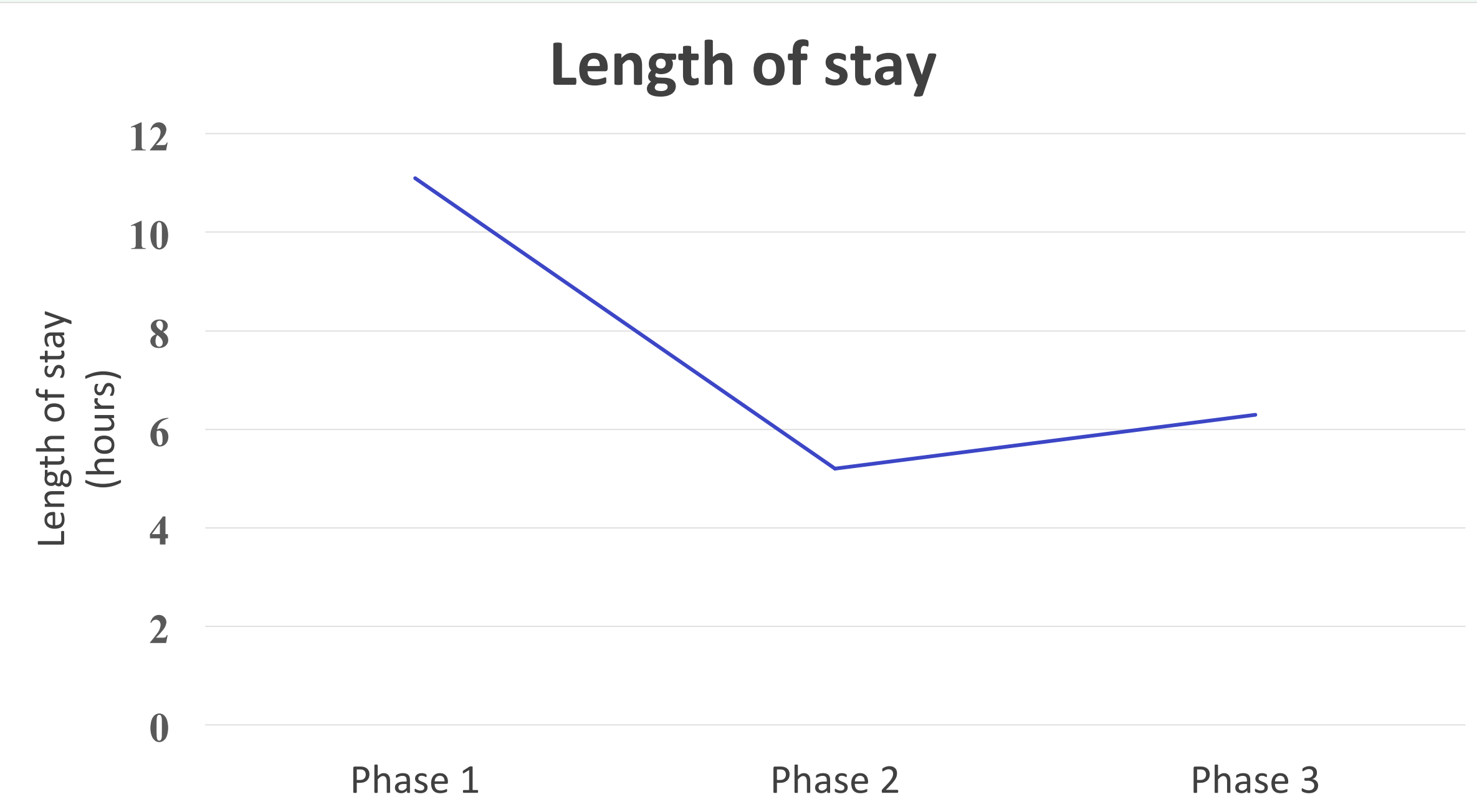
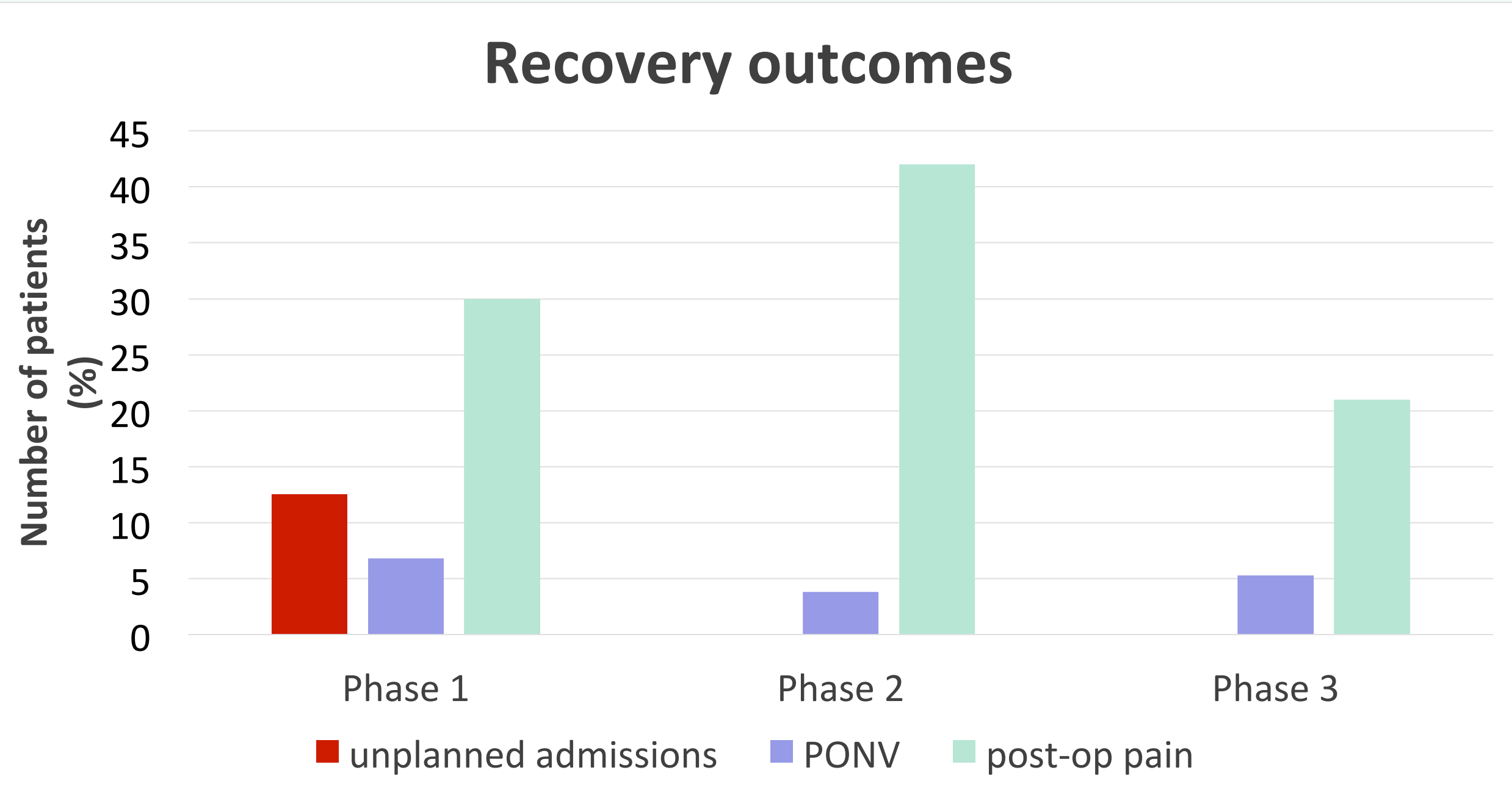
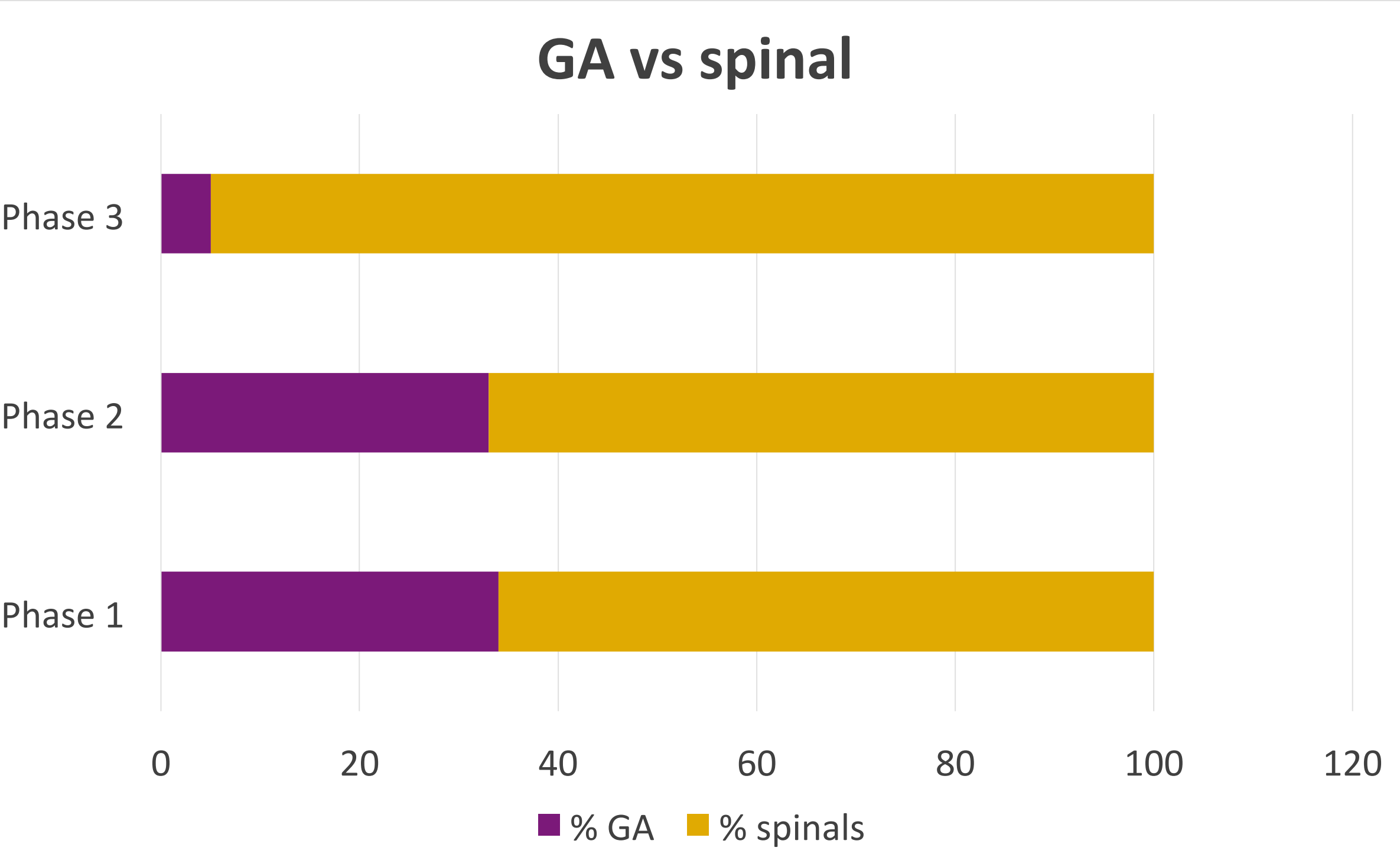
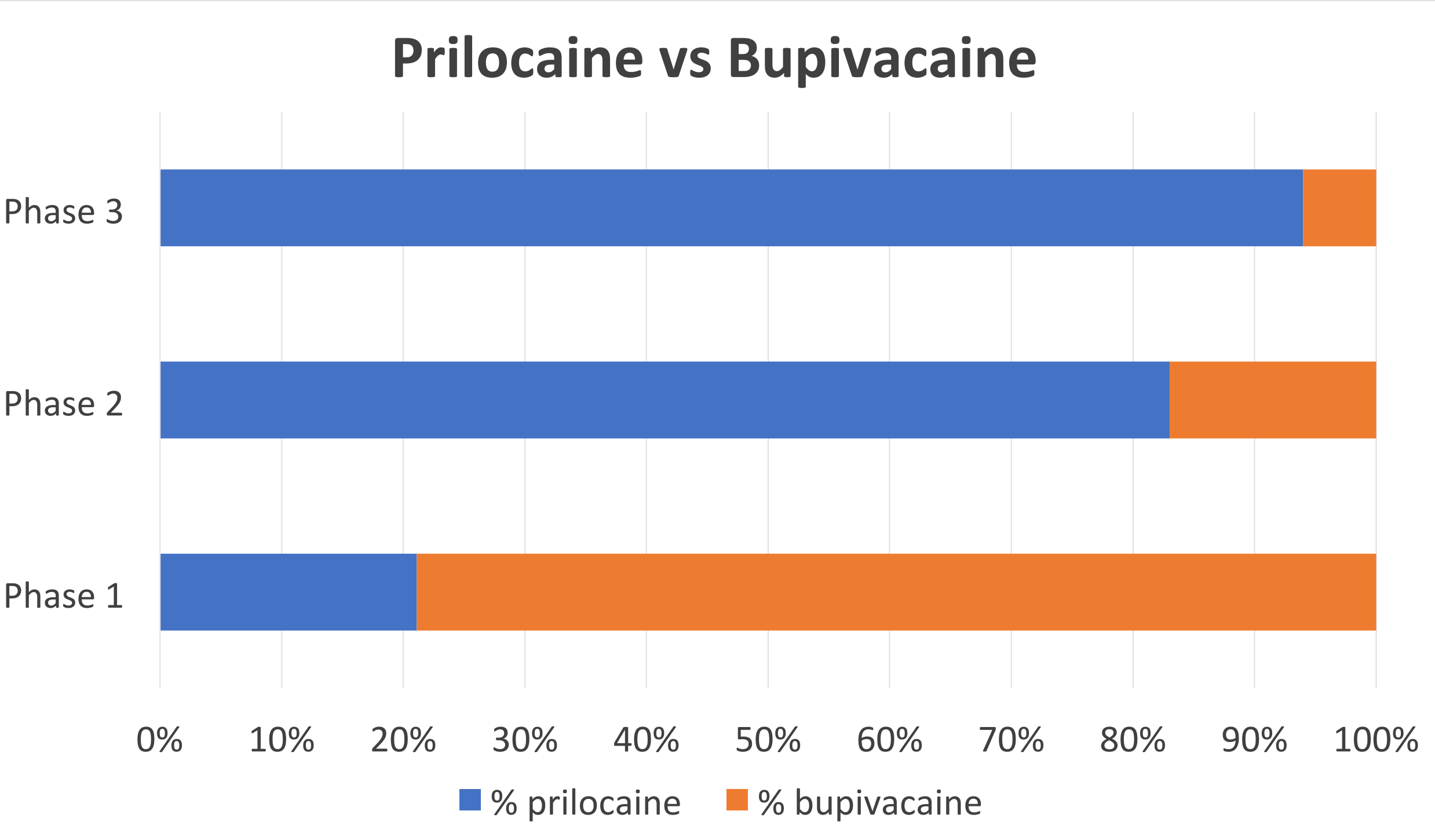
REFERENCES

1. https://www.ra-uk.org/images/Covid_Webinar_2020/Spinal_Anaesthesia_in_Day_Surgery.pdf (accessed 21/01/2024).

2. Rattenberry W, Hertling A, Erskine R. Spinal anaesthesia for ambulatory surgery. BJA education 2019;19:321-8.

3. Haggerty E, Daly J. Anaesthesia and non-obstetric surgery in pregnancy. BJA education. 2021 Feb;21(2):42.

RESULTS



This quality improvement project resulted in an elimination of unplanned overnight hospital stays in patients undergoing cervical cerclage under prilocaine spinals. Phase 3 evidenced that positive change in practice was maintained.

DISCUSSION

Our intervention resulted in unplanned overnight admissions becoming obsolete, with no patients being admitted overnight in Phase 2 or 3. This can improve patient satisfaction and reduce costs². We conclude the main factor contributing to this was using prilocaine. Prilocaine results in faster recovery from lower limb motor block post spinal anaesthesia and earlier mobilisation. The need for urinary catheterisation can be waived, negating delays caused by time taken to perform trials without catheter.

Reductions in incidence of post-operative nausea and vomiting and lower post-op pain scores were suggested by omitting intrathecal opioid, but our numbers were not powered to demonstrate significance. This could be a focus of future quality improvement projects.