

# Improving quality, experience and throughput: use of regional anaesthesia for mastectomy

F Eljelani, B Goodman, H Dawson

Department of Perioperative and Critical Care, Royal Victoria Infirmary, Newcastle upon Tyne, UK. Email for correspondence: Ben.Goodman@nuth.nhs.uk

The Newcastle upon Tyne Hospitals NHS Foundation Trust 

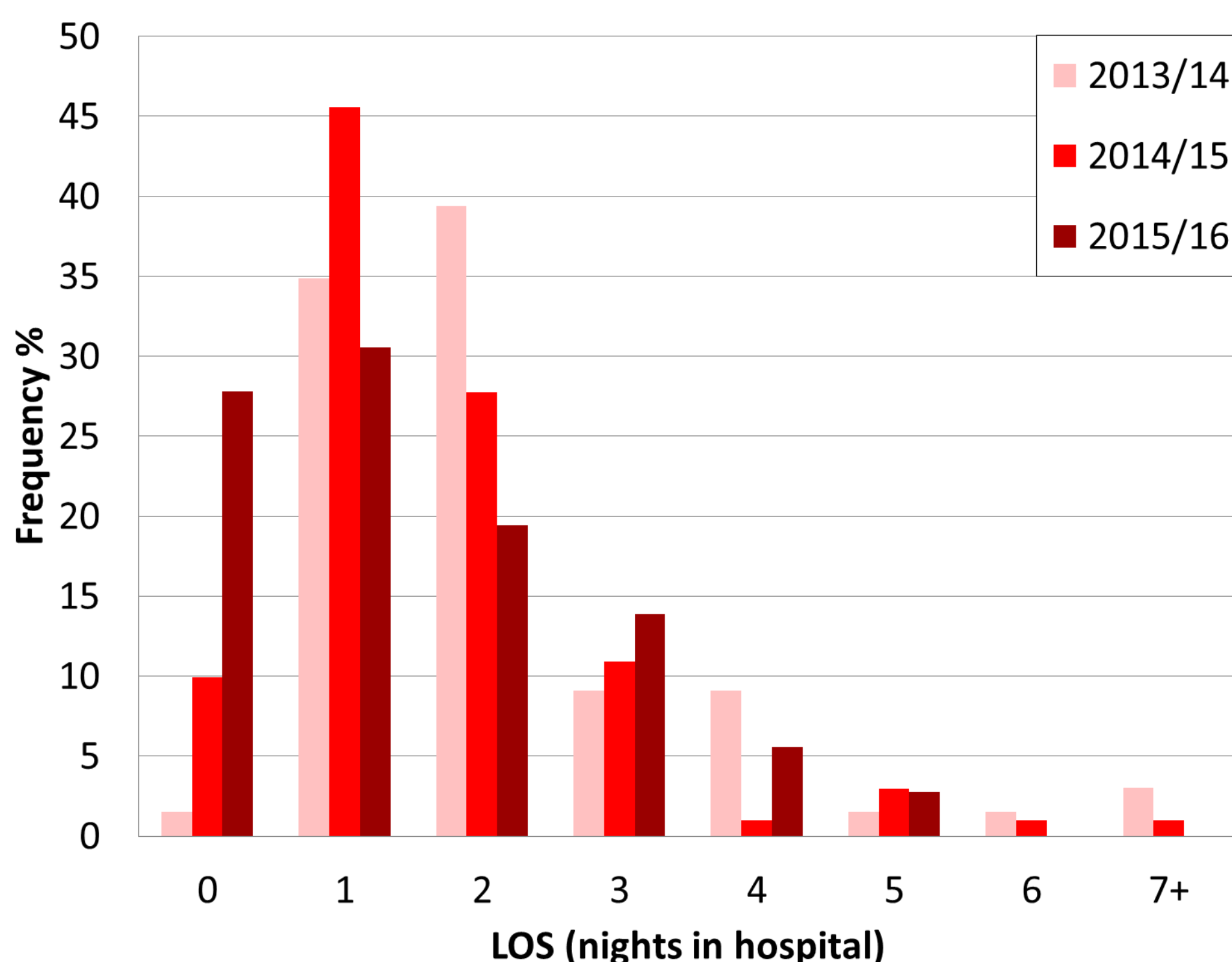
## Introduction

- Regional anaesthesia results in improved perioperative analgesia<sup>1</sup>, reduced chronic pain and improved quality of life following major breast surgery<sup>2</sup>.
- The British Association of Day Surgery (BADS) recommends that 15% of mastectomies should be done as a day case, and a further 70% with a one night stay<sup>3</sup>.
- Two years ago, we started a project to improve the quality, experience and throughput of patients undergoing breast cancer surgery.
- We standardised anaesthetic care amongst regular anaesthetists with an interest in breast surgery.
- Standard care now includes multimodal analgesia with regional anaesthesia and avoidance of long-acting opioids to minimise side effects and enhance recovery from surgery.
- We use either a transverse in-plane ultrasound-guided paravertebral block at the level of the third thoracic vertebra or an interpleural block using a loss of resistance technique.

## Methods

- Following approval from our institutional audit department, we identified patients undergoing simple mastectomy (excluding reconstruction or axillary clearance) between April 2013 and October 2015 from our electronic record system.
- Length of stay (LOS) was compared to the BADS targets.

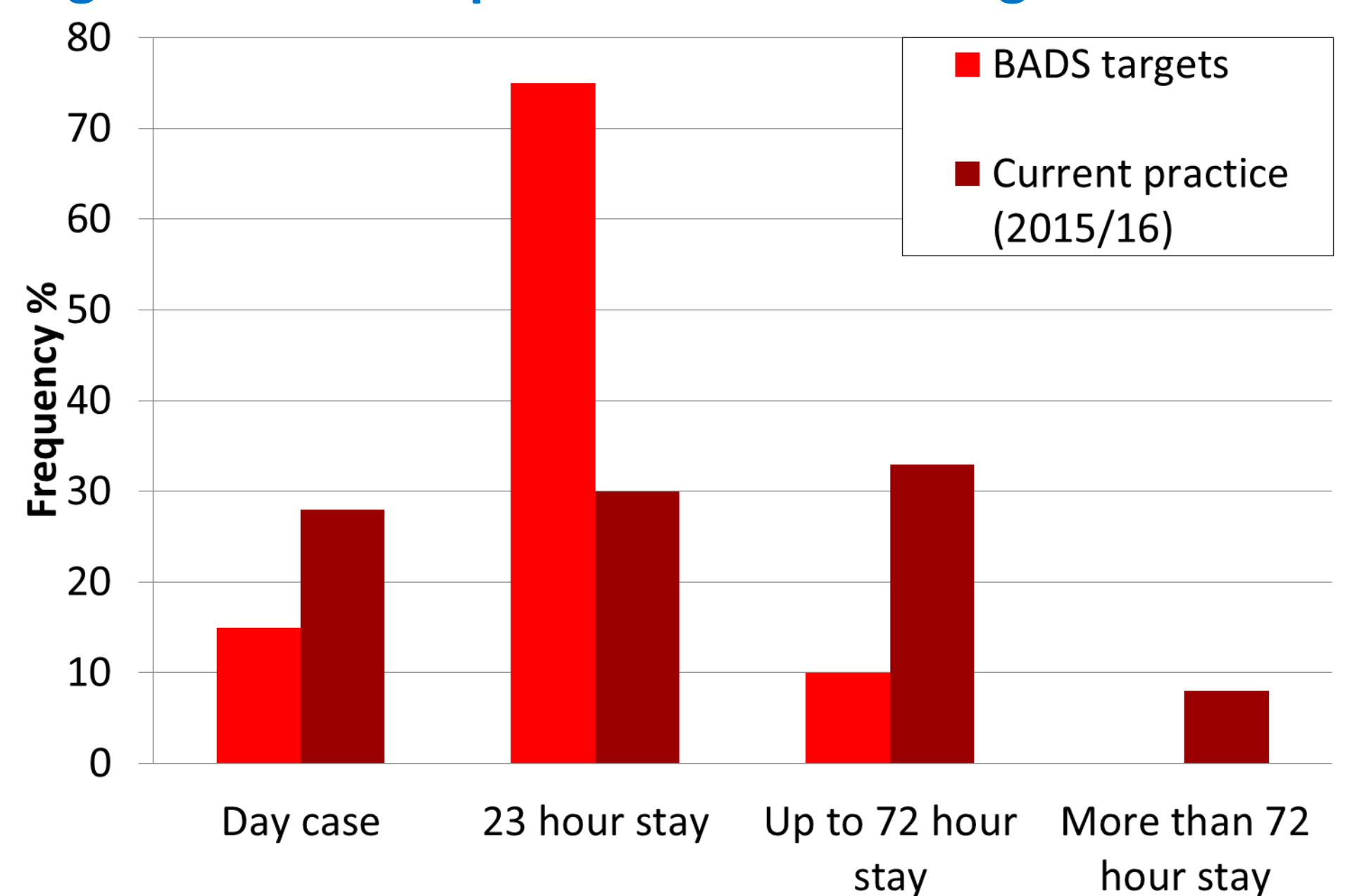
Figure 1: Length of stay vs. year



## Conclusions

- Paravertebral and interpleural blocks can be used as part of a quality improvement programme to decrease length of stay and produce excellent patient satisfaction.
- Future efforts at our institution should aim to facilitate shorter stays in patients with drains in situ.

Figure 2: Current practice vs. BADS targets



- Data were analysed with the Chi-square test to look for differences between the years.
- For patients undergoing mastectomy as a day case, we undertook a telephone survey to assess patient experience and satisfaction.

## Results

- We performed 203 simple mastectomies in the 30 month period of the audit.
- Our day case rate for patients undergoing mastectomy rose year-on-year from 1.5 to 27.8% (see Figure 1) (Chi-square = 22.2,  $p = 0.001$ ).
- Our current practice exceeds BADS targets for day case mastectomy, but we have more patients staying for over 24 hours than recommended (see Figure 2). This was largely frailer patients with surgical drains.
- Of the patients followed up by telephone survey ( $n=10$ ), 100% were satisfied or very satisfied with their postoperative analgesia, and 100% were very satisfied with their experience of having their procedure as day case.
- No complications as a result of regional anaesthetic techniques were reported.

## Discussion

- Our data demonstrate an overall decrease in length of stay for patients undergoing simple mastectomy since the beginning of our breast surgery quality improvement programme.
- Regional anaesthetic techniques for breast surgery have allowed us to avoid long acting opioids, minimising side effects that have historically delayed discharge.

## References

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