

Pre-operative fasting in elective orthopaedic patients: A patient centred approach

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Introduction

Current guidelines for elective theatre recommend fasting for 2 hours for clear liquids and 6 hours for solid foods prior to induction of anaesthesia (1). In local practice, it was observed that patients were being fasted for up to 24 hours prior to elective orthopaedic surgery. Prolonged fasting is known to be associated with adverse outcomes, such as; anxiety, headache, nausea, hypovolaemia and hypoglycaemia (2).

The aim of the audit was to establish the duration of fasting for solids and liquids prior to elective orthopaedic cases and establish if an intervention would lead to a reduction in fasting times.

Method

Data was collected prospectively from two groups of patients admitted consecutively for elective orthopaedic surgery in the anaesthetic room. Data collected included: time fasting from liquids and solids and position on the theatre list. There was no exclusion criteria from the audit.

We then introduced the following interventions: education for patients, nurses and surgeons on fasting guidelines; guidelines inserted into bedside folders; appointing a nurse lead; and a sign placed above each patient's bed indicating the latest time they could eat and drink.

We re-audited 10 months later following introduction of the interventions.

Results

1st Cycle

Data was collected for 80 patients. There were longer mean fasting times from solids (13.5hours) compared to fluids (11hours), and patient position on the theatre list correlated to fasting time (figures 1&2).

2nd Cycle

Data was collected for 107 patients. After the intervention, mean fasting times for solids (12.4 hours), and more so for fluids (7.8hours), had improved. This difference was most marked for those placed later on the theatre list (see figures 1&2). Overall the average reduction in time fasting was 23% and 11% for fluids and solids respectively.

Figure 1

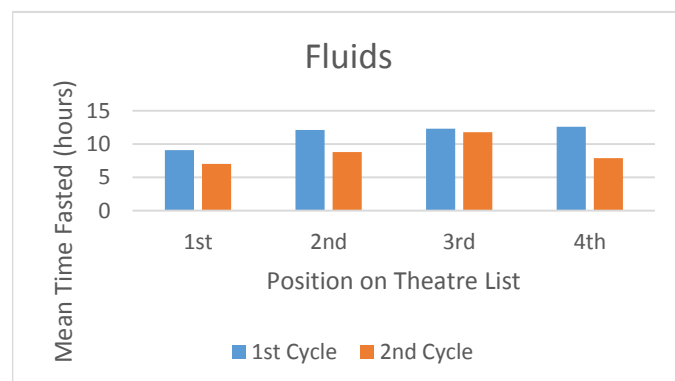
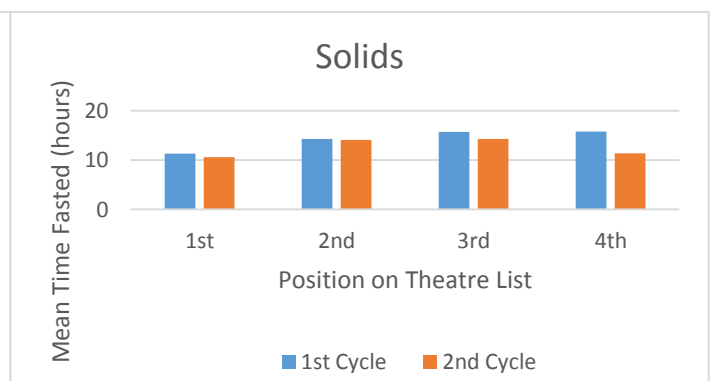


Figure 2



Discussion

Following the above intervention, there was a reduction in fasting times for both solids and fluids amongst elective orthopaedic cases, especially for those placed last on the theatre list. However, fasting times were still longer than current recommendations. We plan to present the data at a hospital event and undertake further quality improvement interventions.

References

1. Brady M, Kinn, S, Stuart P. Pre-operative fasting for adults to prevent perioperative complications (Cochrane Review) 2003. The Cochrane Library, Chichester, UK: John Wiley and Sons Ltd.
2. Yogendran, S et al. A prospective randomised double-blinded study of the effect of intravenous fluid therapy on adverse outcomes on outpatient surgery. *Anaesthesia Analgesia* 1995;90 (3): 896-905