PREOPERATIVE FASTING: assessing compliance with guidelines and patient understanding at a tertiary referral center

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Introduction
ANZCA guidelines recommend a period of fasting for 6 hours for limited solid food and 2 hours for clear fluid prior to anaesthesia for elective surgical procedures. This is in keeping with guidelines across Europe and USA.

Pre-operative fasting results in a state of thirst, hunger and often, objective dehydration. Allowing preoperative drinks containing carbohydrates has been shown to improve the post-operative course by reducing postoperative nausea and vomiting (PONV) and dizziness, prepare the patient for surgical stress as well as improve patient satisfaction and the feeling of well-being.

Aims and Objectives
This study was a prospective audit aimed to evaluate the pre-operative fasting times among the patients undergoing elective surgery, patient understanding of fasting instructions and impact of fasting on patient well-being.

The repeat audit assessed the impact of the first stage of implementation of the ANZCA fasting guidelines in our hospital.

Methods
Exemption from the institutional ethics committee, (HREC/17/QPCH/344) was obtained. The initial audit surveyed 145 elective surgical patients admitted through the day surgical unit at The Prince Charles Hospital (TPCH) on the day of their procedure. A patient questionnaire regarding the duration of fasting, instructions, understanding and symptoms of dehydration was used.

The results when compared with ANZCA fasting guidelines, highlighted poor compliance with the recommendations. Explicit guideline implementation and staff education involving the anaesthetists, surgical and nursing staff followed, with clearer and more specific instructions to the patients. The audit was repeated 3 months after these measures and surveyed another 145 day surgery patients.

Results
100% of the patients in the second audit understood the reason for fasting before surgery as opposed to 83% in the first audit. We also looked at the clarity of instructions given to patients and their subjective feelings of thirst, hunger, tiredness and dehydration. There was some improvement in these.

The initial audit showed fasting times to exceed the ANZCA guidelines especially for clear fluids, with mean duration of 12 hours (h) 5minutes (m) (range: 3h5m-18h27m). With the repeat audit, this reduced to 9h18m (range:3h-18h1m). The mean duration of fasting for solid food was 13h27m (range: 6h13m-21h35m) in the initial audit. This had not improved in the repeat audit (mean 13h41m, range 4h50m-23h36m).

These results were also calculated based on the surgical lists, being divided into morning, afternoon and all-day lists.

Fasting time for clear fluid (in hours)

<table>
<thead>
<tr>
<th>AM list</th>
<th>PM list</th>
<th>All day list</th>
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<tbody>
<tr>
<td>Guidelines</td>
<td>Audit 1</td>
<td>Audit 2</td>
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Patients understand reason for fasting pre-operatively

Conclusions
✓ The aim of pre-operative fasting is optimisation of patient safety by reducing the risk of aspiration of gastric contents and pulmonary injury in the perioperative period. Prolonged fasting however has several adverse effects.
✓ This audit process was the first step in the minimisation of prolonged fasting.
✓ We established improved communication between treating teams and patients. A better patient understanding of the need for preoperative fasting was noted with the re-audit.
✓ Although there was a reduction in the fasting time for clear fluids, there is scope for further improvement.
✓ There is a need for further education of the staff to encourage patients to drink. Staff and patients need to understand not only the benefit of fasting but the drawbacks of prolonged fasting.
✓ The next step for us is the provision of clear fluids to patients in the waiting area till two hours prior to their surgery.
✓ There was no improvement in the prolonged fasting time for solid food. A light meal up to 6 hours prior to surgery needs to be encouraged.
✓ Patient safety must be optimum and balanced with patient comfort and satisfaction.

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