

# P61

## REDUCING PREOPERATIVE FLUID FASTING TIMES IN ELECTIVE DENTAL CASES

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### Introduction

The current preoperative fasting guidelines in children recommend one hour fasting for clear fluids. In reality, clear fluid fasting intervals are still far in excess of the recommended period [1]. Prolonged fasting times for fluids are associated with a number of adverse events, including patient discomfort, behavioural issues, metabolic derangement, dehydration and thirst [2]. There is increasing literature evidence to support further reduced clear fluid fasting in the elective paediatric population, with studies reporting drinking up until theatre not being associated with increase in adverse events [3]. The aim of this quality improvement project was to reduce inadvertent prolonged fasting of clear fluids using a 'sip 'til send' protocol and assessing feasibility and safety in low-risk children for elective procedures.

### Method

Data was collected prospectively over three weeks and included all elective patients undergoing dental procedures under general anaesthesia in the dental day case unit. Water was offered in a volume of 10ml/kg/h, max 100ml per hour, to every patient and they were allowed to sip the water until sent for by theatres. The time of last sip and time of induction of general anaesthesia was recorded. Data collected included intra-operative and postoperative complications, as well as method of induction and medication used. Parents and carers also received a questionnaire to complete.

### Results

A total of 56 patients were included in the study. Age ranged from 2-16 years, and all were ASA 1 or 2. Fifty-two (93%) sipped their water within 1 hour of induction. Median time between last sip to time of induction of general anaesthesia was 28 minutes. No adverse events were recorded in the intra-operative period. Two patients (3%) experienced postoperative nausea and vomiting. No aspiration events were recorded. Average parental satisfaction score for overall satisfaction with fluid being offered was 9.1/10, and for their perceived overall positive effect on the child, 8.6/10.

### Discussion

The results demonstrated that a 'sip 'til send' approach was well tolerated and did not result in any intra-operative or postoperative adverse events. Furthermore, due to the logistics of sending for a patient, transferring to theatre, signing in, applying monitoring etc, a 'sip 'til send' strategy still means there is a degree of delay between last sip and induction, enhancing the safety of this approach whilst allowing for improved comfort and tolerance by the child. The qualitative

information gathered from the parents and guardians also indicated that this approach had a positive impact on the child's well-being, behaviour and overall comfort. Allowing sipping until sending with controlled volumes for elective cases in low-risk children, appears safe and removes the distress of prolonged fasting periods.

#### **References**

- 1 Engelhardt T, Wilson G, Horne L, Weiss M, Schmitz A. Are you hungry? Are you thirsty?—Fasting times in elective outpatient pediatric patients. *Pediatric Anaesthesia* 2011; 21: 964–8
- 2 Andersson H, Zarén B, Frykholm P. Low incidence of pulmonary aspiration in children allowed intake of clear fluids until called to the operating suite. *Pediatr Anesth* 2015; 25: 770–7
- 3 Mesbah A, Thomas M, Preoperative fasting in children. *BJAEd* 2017; 17: 346-350