**RCT of pre-procedural chewables in children fasting before surgery.**

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**Background and aims.** Pre-operative fasting is recommended to reduce the risk of pulmonary aspiration during general anaesthesia. Fasting can be stressful for young children, leading to irritability, hypotension on induction and potential catabolic state. Previous adult studies used carbohydrate-rich drinks to help with fasting. This study aimed to evaluate the efficacy of a pre-procedural carbohydrate chewable versus a commercial fasting drink (DEXTM) in children undergoing surgery.

**Methods.** We conducted a single-centre, open-label clinical trial to evaluate efficacy and acceptability in children of pre-procedural carbohydrate-based chewables for use in pre-procedural fasting. Phase one involved patients scheduled for an upper gastrointestinal endoscopy who were offered 20 pre-procedural chewables up to one hour prior to surgery to ensure no residue was seen 1 hour after consuming. In phase two, 300 children undergoing elective, day-stay surgical procedures were randomised to receive either the pre-procedural chewables, DEXTM or standard clinical care (no fasting intervention). Children’s behaviour, anxiety, and acceptance and consumption of the randomised intervention (if applicable) were assessed pre-operatively. Blood glucose and ketone levels were measured following anaesthesia induction. Post-operative delirium, nausea and vomiting were assessed. Participants were also asked about the ease of fasting, and whether the intervention helped.

**Results.** In phase 1 of the RCT, no adverse events and no visible chewables were observed in 23 recruited patients at gastric endoscopy. Parents and children thought the chewables helped with fasting tolerance. In phase 2 of the RCT, 72% of the children in the chewables arm (n = 100) thought they helped compared to 46% in the DEXTM arm (n = 100). Similarly, 75% of parents thought the chewables helped with their child’s fasting compared to 55% in the DEXTM group.

**Conclusion/Discussion.** These findings suggest that the chewable formulation is a viable and preferred alternative for the pre-operative management of children undergoing elective surgery.