

# P55

## GASTRIC RESIDUAL VOLUME AFTER PARACETAMOL PREMEDICATION

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### Introduction and aims

Patients are asked to fast before general anaesthesia to reduce the risk that any gastric contents could be regurgitated and aspirated into the lungs once anaesthetised. If aspiration does occur, the volume and acidity of the fluid aspirated are thought to determine the extent of any harm caused. Recent guidelines have reduced the required fasting time for children for clear fluids from 2 hours to 1 hour before induction of anaesthesia, as it is understood that this does not adversely affect the gastric residual volume or increase its acidity.<sup>1</sup>

Paracetamol is commonly used to relieve pain during and after surgery. Paracetamol syrup preparations used in children are viscous and not classified as clear fluid. The time to peak effect for paracetamol is the same for both oral and intravenous administration.

This study seeks to establish whether there is non-inferiority in gastric residual volume (GRV) and pH in children receiving oral paracetamol one hour before induction of anaesthesia and those who do not, when both groups have received a set volume of diluted orange cordial to drink.

It is anticipated that if shown to have little or no impact on GRV and pH, oral paracetamol syrup can be given to children before surgery. This will omit the need for IV paracetamol to be given in theatre, potentially reducing cost and the risk of drug errors.

### Methods

Children aged 44 weeks corrected gestational age to 8 years old scheduled for elective surgery under general anaesthesia requiring endotracheal intubation. Participants will be randomised 1:1 to 3 ml/kg clear fluid or 3 ml/kg clear fluid plus 15 mg/kg oral paracetamol suspension, a minimum of 1 hour prior to the induction of anaesthesia. GRV will be aspirated via an oro-gastric tube following endotracheal intubation. The volume and pH of this fluid will be measured. The limits of non-inferiority for the primary outcome will be 0.2 ml/kg of gastric residual volume. A sample size of 52 per group, or 104 in total has been calculated as necessary.

### Results

Recruitment to the study is due to commence in March 2020.

### Discussion and conclusion

The safety of oral paracetamol as a premedication for children undergoing general anaesthesia has been established, but only within the context of the previous guidelines recommending a 2-hour fast for clear fluids.<sup>2-3</sup> Current guidelines recommend 1-hour clear fluid fasting for children undergoing general anaesthesia, however, children frequently exceed this.<sup>4</sup> Additionally, drug errors with

intravenous paracetamol are widely reported. Demonstration of the non-inferiority of paracetamol plus 3 ml/kg clear fluid will allow widespread adoption of this intervention.

References:

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