Give me a drink - reducing caloric fasting time in children coming for elective surgeries

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Aim

Pre-operative fasting is necessary for the safe conduct of anaesthesia. However, prolonged fasting also results in thirst, hunger, anxiety, and malaise [1,2] increased incidence of postoperative nausea and vomiting, and may be the cause of significant patient dissatisfaction[2,3] This project aimed to reduce median pre-operative calorie fasting duration from 11 hours to 2 hours in 6 months amongst children coming for elective general surgeries.

Methods

A prospective baseline audit of 205 patients was conducted to look at the median caloric fasting duration. Caloric fasting duration is calculated as the last time the child had a meal/ milk/ a clear fluid containing calories (eg: glucose water, Ribena) to the start of anaesthesia. A root cause analysis was performed with the team comprising day surgery nurses in charge of giving pre-operative fasting, a dietician, outpatient specialist clinic nurse manager and paediatric anaesthetists. Based on the root causes identified, our interventions included a patient information pamphlet on fasting, standardization of fasting instructions across operating theatre and clinic, changing clear fluids fasting guidelines[4] and provision of a sachet of synthetic glucose for a calorie boost pre-operatively. With each intervention, we performed a plan, do, study, act cycle to evaluate and improve our solutions.

Results

The median caloric fasting duration reduced 22% from 11.1hours to 8.7hours over the study period. The proportion of children who received a calorie containing clear fluid increased from 13 to 33%. Median clear fluids fasting duration (regardless of caloric content of fluid) was reduced from 6.6H to 5H.

Conclusion

Although we did not reach our initial target, quality improvement methods have allowed sustained reduction in caloric fasting time, with an increase in proportion of children receiving a calorie containing clear fluid. We are working towards implement these measures to all children coming for elective surgeries from all subspecialties.

References:

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