Starvation times:
Do we all know what we're aiming for?

East Kent Hospitals University NHS
NHS Foundation Trust

Background

Nil by mouth policies attempt to make surgery safer, by decreasing the volume and acidity of stomach contents prior to taking over a patient's airway.[1] In a systematic review patients were found to have statistically significant lower stomach volumes if allowed to drink clear fluids before surgery than those starved from midnight.[1] As such, all patients should be allowed to drink clear fluids to minimise risks of aspiration. Sugary drinks (such as squash with added sugar or clear buildup drink) should be encouraged; one cochrane review suggested a carbohydrate rich drink before surgery contributed to decreased length of postoperative stay.[4]

Auditable trust guidelines on clear fluid, fluid with pulp/ milk and solids (including boiled sweets and chewing gum) preoperatively

Apparent general lack of knowledge about the subject in key areas/ staff 'NBM from midnight' etc

Methods

A questionnaire was produced based on the current guidelines, and included a question which involved putting knowledge of these guidelines into practice. This was discussed with one of the consultant anaesthetists before proceeding. Results gathered March-Apr 2016

Aim, objectives and standards

Audited against trust standard guidelines compiled according to best available research.

Primary Results

FY1s had the worst knowledge of guidelines over all:

Fig 1. last time for drinks with milk before operation

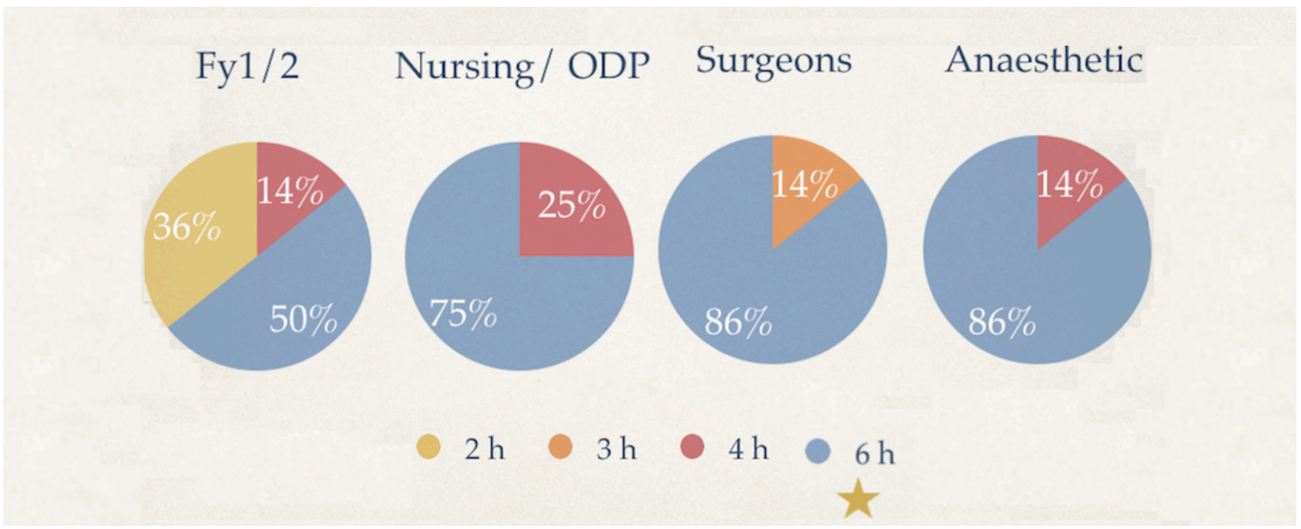
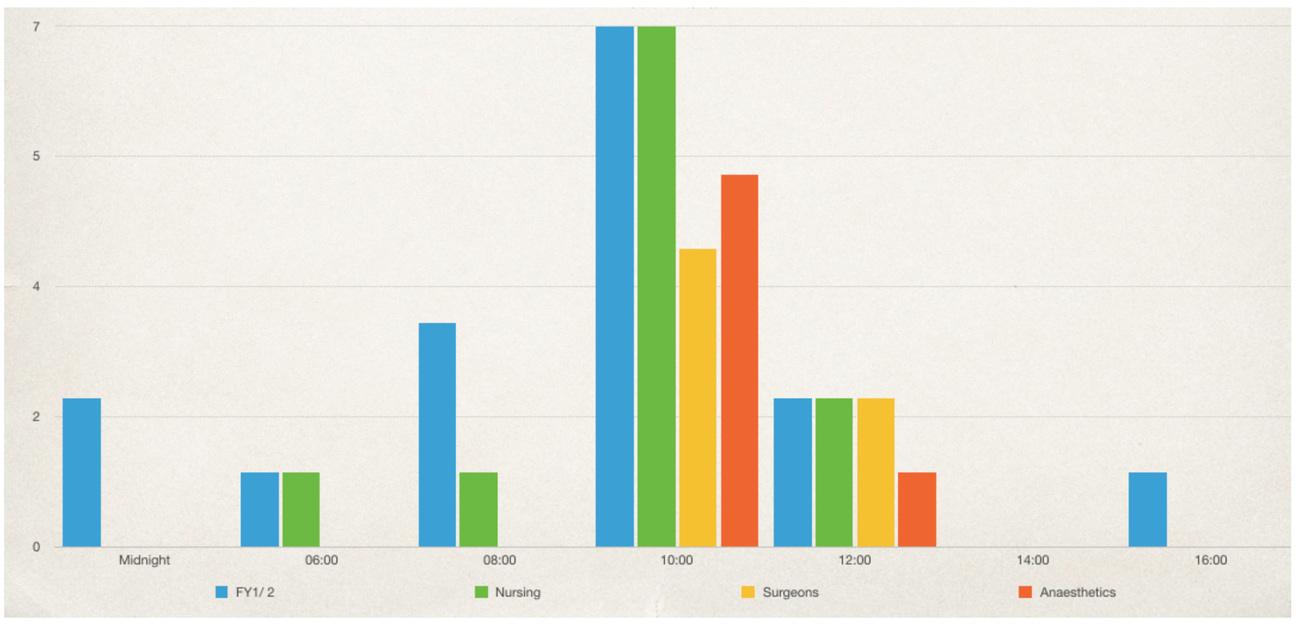


Fig 2. Response by profession: If a patient is due for surgery at 16:00 what is the last time the can have free fluid inc. milky drinks (10am)



References

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2. RCN publications (November 2005) *Perioperative fasting in adults and children – an RCN guideline for the multidisciplinary team*. Accessed 20/4/16

3. The Association of Anaesthetists of Great Britain and Ireland (January 2010) *Pre-operative Assessment – The Role of the Anaesthetist.* Available online at: www.aagbi.org

4. M.D. Smith, J McCall, GP Herbison, M Soop, J. Nygren The Cochrane Collaboration (August 2014) *Preoperative carbohydrate treatment for enhancing recovery after elective surgery* (Review) *Cochrane Database Syst Rev.* 2014 Aug 14;8

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The more senior the grade or specialist the member of staff the less variation was seen in terms of knowledge of or application of guidelines. This was true for all questions asked. This implies that more teaching is needed on the subject for, in particular, junior doctors. Overall knowledge of last ingestion times for food and fluid were good; however for milky drinks and clear fluid containing sugar this was more variable.

Intervention

Audit presentation to FY1s plus poster in clinical areas for all other staff

Fig 3. NBM policy poster

Results

14 FY1 responders originally (100% of Kent and Canterbury hospital FY1s)

Re-audit of knowledge after presentation improved correct policy understanding to 100% (with 12 present)

Re-audited knowledge 6 months later

Surveymonkey survey of guideline knowledge from Oct 2016: 8 responders.

Self-reported knowledge of existence of guidelines improved by 37.5% over all (50%-87.5%)

Clear fluids : 50%- 50% correct

Free fluids: 50%- 50%% correct

Food: 64%- 62.5% correct

Still one responder who said NBM from midnight for food and free fluid

Conclusions

The intervention which was put in place **did not** help to cement knowledge of proper NBM times in the **long term** for the FY1s surveyed.

Beliefs about a 'nil by mouth from midnight' regimen are deeply ingrained, perhaps because the consequences of delaying a surgery due to eating and drinking past minimum starvation time is so costly.

Authors: Dr. Catherine Allen MBBS, BA Hons FY2

Dr. Mohammed Ali cons. Anaesthetist MBBCh, FRCA, PhD, MSc, PGCert, Medical Pedagogy

Kent and Canterbury Hospital, East Kent Hospitals University NHS Foundation Trust