

# QUENCH

## PRE-OPERATIVE FASTING TIMES IN EMERGENCY SURGERY PATIENTS: A QUALITY IMPROVEMENT PROJECT

K. Jones<sup>1</sup>, T.C. Miller<sup>2</sup>, K. Mann<sup>3</sup>, N. Littley<sup>4</sup>, T.R. Miller<sup>5</sup>, T. Coleman<sup>6</sup>, S. Mercer<sup>7</sup>

<sup>1</sup>Mersey School of Anaesthesia & A&E Clinical Fellow, Whiston Hospital, <sup>2</sup>ST7 Anaesthesia, Aintree Hospital, <sup>3</sup>General Surgery, Aintree Hospital, <sup>4</sup>CT1 Anaesthesia, Warrington Hospital, <sup>5</sup>ST6 Anaesthesia Whiston Hospital, <sup>6</sup>ST6 Anaesthesia, Arrow Park Hospital, <sup>7</sup>Consultant Anaesthetist, Aintree Hospital

### Introduction

- The aim of this project was to minimize pre-operative dehydration in patients attending for emergency surgery, in those able to safely tolerate oral fluids.
- There is currently a huge amount of work going into pre-operative optimization, however this can prove more difficult to achieve in emergency surgery patients.
- PQIP national data shows that 'Thirst' was the most prevalent factor in patient experience of anaesthetic related discomfort.<sup>1</sup>
- Thirst experience is a modifiable factor, unlike several of the remaining Bauer Patient Satisfaction Categories.
- Current ESA guidelines recommend starvation times of 6 hours from 'solid food' and 2 hours from water and clear fluids.<sup>2</sup>

### Methods

- We conducted two surveys at Aintree University Hospital to assess patient fasting times and experience, as well as patient and staff knowledge and understanding of recommended pre-operative fasting times.
- Data was collected from all patients attending the three AED theatres at Aintree Hospital 21<sup>st</sup> – 25<sup>th</sup> January.
- Staff across the Surgical Wards and AED theatres were surveyed, with roles including Doctors, Nurses, HCAs, ODPs, Recovery Staff & Catering Staff.

### Interventions

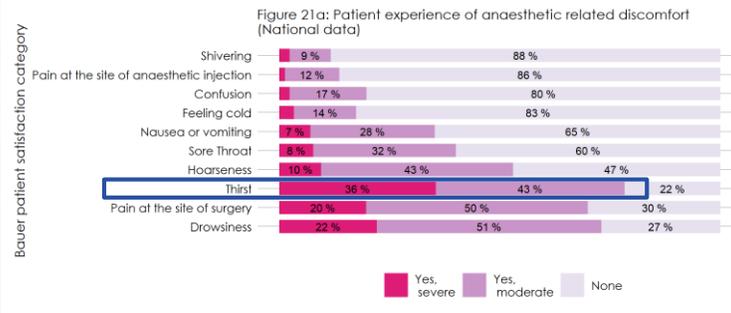
- Proposed interventions to reduce pre-operative dehydration in patients were discussed with Ward Sisters and presented at the local audit meeting.
- The primary recurrent issue was poor communication from Theatres.
- Interventions put into place included: Improving communication between theatre teams and ward staff; commenting on fasting times in emergency theatre huddles; having a nominated person to communicate with wards; poster display (Fig. 2); utilising patient bedspace whiteboards to aid ward catering staff; prescribing a drink for appropriate patients using the electronic prescribing system.

### Acknowledgements

- Aintree University Hospital Anaesthetic and Theatre Teams
- Dr Simon Mercer, Consultant Anaesthetist, Aintree University Hospital

### References

- Walker, M. Bell, T. M. Cook, M. P. W. Grocott, S. R. Moonasinghe, Patient reported outcome of adult perioperative anaesthesia in the United Kingdom: a cross-sectional observational study, *Br J Anaesth* 2016, 117 (6): 758–66
- Smith, Kranke, Murat, Smith, O'Sullivan, Sørveide et al, Perioperative fasting in adults and children: guidelines from the European Society of Anaesthesiology, *European Journal of Anaesthesiology* 2011, Vol 28 No 8



### PATIENT AWAITING SURGERY?

**2 HOURS** You can drink clear fluids up to **TWO HOURS** before your Anaesthetic, even if it's an urgent operation

Water Herbal Teas Cordial/Squash Black Tea & Coffee

**You can also have Chewing Gum & Boiled Sweets up to TWO HOURS** before your Anaesthetic

Fruit Juices with Pulp Milk

**6 HOURS** You can eat up to **SIX HOURS** before your Anaesthetic, even if it's an urgent operation

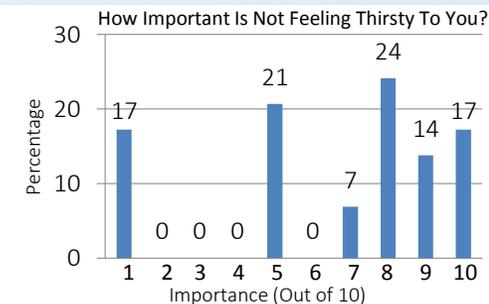
If unsure or you have any questions, please ask a Member of Staff

Aintree University Hospital NHS Foundation Trust

↑ Figure 1  
PQIP National Data for Patient Experience of Anaesthetic Related Discomfort

← Figure 2  
Poster for display on surgical wards to educate patients

↓ Figure 3  
Patient survey data from Quench 1 – How important is not feeling thirsty to you?



### Results

#### Quench 1 – Patients

- 29 patient surveys were completed (81% of emergency theatre patients), with 4 lost to follow up, 2 patients being unable to complete the survey and 1 patient refusing.
- The average fasting time for clear fluids was 9 hours, 32 minutes (range 2-24hrs)
- The average fasting time for food was 14 hours, 16 minutes (range 6-24hrs)
- All patients understood what 'Nil by Mouth' meant, but only 17% of those surveyed understood the rationale behind being kept NBM.
- 3% of patients were aware of the recommended fasting times for clear fluids and 17% were aware of the recommended fasting times for food.

#### Quench 1 – Staff

- 34 staff across a variety of surgical areas were surveyed.
- 71% of staff surveyed did not know why patients were kept Nil by Mouth pre-operatively, with incorrect answers including 'to avoid complications', 'safety reasons' and 'to help the surgery'.
- 42% of staff were aware of the recommended fasting times for clear fluids, and 58% were aware of the recommended fasting times for food.

Quench 2 will take place prior to the Anaesthesia 2019 Conference with complete results to follow

### Conclusion

- Quench 1 results showed that patients awaiting emergency surgery were kept fasted of both clear fluids and food far longer than the guidelines of 2 and 6 hours respectively.
- The primary issue in extended fasting times in emergency surgery patients was poor communication between theatre teams and ward staff.

Quench 2 will take place prior to the Anaesthesia 2019 Conference with complete results to follow