University Hospitals Sussex
NHS Foundation Trust

PRE-OPERATIVE ORAL FLUID FASTING FOR ADULT SURGICAL PATIENTS – A GUIDELINE FOR 'SIPTILSEND'

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Target audience:	This guideline is for use by the following staff groups: • Pre-operative Assessment nurses • Ward managers/Nursing staff/HCAs • Anaesthetists • Surgeons • Theatre ODPs/Nursing staff/HCAs
Accessibility	On the Trust info-net / MicroGuide

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1. Introduction

1.1 Data from an audit conducted in December 2022 at the Royal Sussex County Hospital (RSCH) showed excessive pre-operative oral fluid fasting times in patients undergoing emergency and elective surgery. The current guidance is that patients refrain from drinking clear fluids for 2 hours pre-operatively[1]. However, two separate audits conducted by our department in 2017 and 2022 showed that the median fasting time for clear fluids was 5 hours. Our 2017 audit also showed that prolonged fasting had a negative impact on patient experience.
Research into pre-operative fasting suggests that prolonged fluid deprivation can be detrimental to patients' psychological and physiological states; causing anxiety, discomfort & dissatisfaction, malaise, hypotension, hypoglycaemia, and possibly even post-operative delirium. It can also cause a catabolic state and increase post-operative nausea and vomiting[2].
Current recommendations for pre-operative fasting aim to minimise the volume and acidity of stomach contents to reduce the risk of aspiration; however, evidence that restrictive oral fluid fasting reduces this risk is lacking. Instead, it has been shown that gastric emptying of water can occur within 35 minutes, and rate of emptying can in fact be higher with larger volumes of water[3,4]. In one large-scale study, there was no increased incidence of pulmonary aspiration despite having a liberal fluid fasting regimen[2].
Many centres in the UK[2,5,6,7] & worldwide[8,9] have already readdressed the rationale for current pre-operative fluid fasting guidance. It is known that prolonged oral fluid deprivation has many undesirable effects on patients. The evidence continues to demonstrate that reducing fasting times does not increase the risk of aspiration. As a result, many hospitals have adopted more liberal fluid fasting strategies, one such example being 'SipTilSend'[5,6]. Under this guideline, patients are permitted to drink up to 170mls of clear fluid per hour until the time at which they are summoned or 'sent' for their surgery. The results from these centres have shown significantly reduced fluid fasting times, a reduction in patient thirst, distress, and post-operative nausea & vomiting, with no associated increases in aspiration or other

complications.
The above evidence was presented at our departmental Quality, Safety & Patient Experience (QSPE) anaesthetic governance meeting in January 2023, alongside insights from other NHS hospitals who have already successfully adopted liberal fluid fasting policies. Following this presentation, the anaesthetists in attendance were canvassed on the concept of a change in practice at our Trust. The new proposal was met with widespread support from the department with all in agreement that they would support the introduction of a 'SipTilSend' guideline to replace current fluid fasting practice.

2. Purpose and Scope

2.1 Following auditing of our practice, extensive review of the published literature and communication with other NHS hospitals on successful implementation, consultant anaesthetists at University Hospitals Sussex (East) NHS Foundation Trust plan to modify current Trust pre-operative oral fluid fasting guidelines - from a 2-hour oral clear fluid fasting guideline to a 'SipTilSend' strategy with still water. This is expected to improve clinical care (by reducing inappropriate fasting times & enhancing post-operative recovery time) and improve patient well-being.

2.2 This document outlines the protocol for the management of pre-operative fasting for adult patients undergoing elective and urgent surgery or non-surgical procedures requiring general anaesthesia, regional anaesthesia or sedation provided by an anaesthetist.

2.3 If the patient is having a test/procedure e.g., a radiological test/endoscopy, specific fasting/preparation may be required.

3. Definitions

3.1 *Clear fluids include water, dilute squash, clear fruit juice, non-carbonated isotonic sports drinks, black tea & coffee, ERAS carbohydrate drinks.
3.2 *Food includes any amount of solid food or milk.

3.3 Nasogastric, gastrostomy or jejunal feed is regarded as food.
3.4 Chewing gum, boiled sweets & mints are considered food for the purposes of pre-operative fasting.

4. Roles and responsibilities

4.1 The accountable director is the Clinical Director of Patient Services
4.2 The accountable committee is the Patient Safety & Quality Committee
4.3 The consultant anaesthetist's responsibility will be to support nursing staff in successful delivery of the new guideline, in conjunction with medical/surgical colleagues.
4.4 The Ward Manager's responsibilities will be to ensure that existing ward staff are trained and supported to use this new guideline. Education of new starters should include this guideline.
4.5 The responsibilities of the nursing staff will be to follow the new default position of allowing the patient to drink sips of water until they are 'sent for' unless there is a clear exemption discussed and documented to this.
4.6 Health Care Support Workers to supply patients with clear fluids.

5. Guideline implementation

5.1 Patients having scheduled (elective and urgent) surgery:

- Patients attending for surgery under the care of an anaesthetist can continue to drink clear fluids* until they leave home for the hospital. Following arrival to the ward or Theatre Admissions Unit (TAU), they can then **sip still water only** from a standard hospital cup/beaker (170ml), which may be refilled every hour if required.
- Patients should not drink from bottles or flasks and should not have free access to water; exceeding 170ml per hour of water prior to surgery may delay or even cancel their operation.
- When the theatre team call the ward or TAU to 'send' for the patient, the patient must stop drinking.
- This is applicable to all elective patients with no significant risk factors for gastric aspiration (see section 5.5 for potential

exclusions).

- Prior to a scheduled admission, all other information should be provided by the preoperative assessment team advising patients of the importance of adequate fluid intake pre-operatively and explain the minimum fasting periods.

5.2 Patients having unscheduled (emergency) surgery:

- 'SipTilSend' is applicable to all emergency patients with no significant risk factors for gastric aspiration (see section 5.5 for potential exclusions). However individualised fluid fasting instructions may be necessary for these patients depending on the clinical scenario. The attending clinicians must communicate fluid fasting instructions for specific patients to the responsible nursing staff. Close coordination between theatre and ward nursing staff is required for emergency surgery patients.
- The method of delivery for 'SipTilSend' remains the same; patients can sip still water only from a standard hospital cup/beaker (170ml), which may be refilled every hour if required. When the theatre team call the ward to 'send' for the patient, the patient must stop drinking.
- As above; patients listed for surgery should not drink from bottles or flasks and should not have free access to water; exceeding 170ml per hour of water prior to surgery may delay or even cancel their operation.

5.3 Fasting periods

All other minimum fasting periods prior to surgery remain **unchanged**, i.e.

- 6 hours fasting for solid food* or milk
- 2 hours fasting for clear fluids*

5.4 Permitted fluids for our 'SipTilSend' guideline currently include:

- Still water

Fluids not currently permitted under our 'SipTilSend' guideline:

- Fruit juices
- Sports drinks (including non-carbonated sports drinks)

- Nutritional drinks e.g., Fortisip, Fortijuice
- ERAS carbohydrate drinks
- Diluted squash
- Milk/milky drinks
- Tea/coffee with milk
- Carbonated drinks

5.5 Exclusions from 'SipTilSend':
'SipTilSend' is now the default instruction for all adult surgical patients; however certain patients may be considered high risk for aspiration & will require different instructions. Any necessary deviations from the guideline will be decided at the pre-operative assessment or by the anaesthetist or surgeon prior to surgery. Exemptions from 'SipTilSend' must be clearly communicated to the ward team by the anaesthetist or surgeon and clearly documented in the patient's notes.

Exceptions to the 'SipTilSend' guideline for adult surgical patients may include:

- patients undergoing medical upper GI endoscopy and/or colonoscopy
- patients with risk factors for gastric aspiration including:
    - Significant history of symptomatic gastro-oesophageal reflux disease or hiatus hernia
    - Documented history of gastric immobility or gastroparesis e.g., autonomic dysfunction related to diabetes
    - Admission for upper gastrointestinal surgery, where the patient has a known obstructing lesion
    - Significant dementia or learning difficulties where a patient is unable to limit water consumption to sips/170mls per hour (unless facilities to monitor exist e.g., parental or carer supervision)
- patients with active vomiting
- patients with bowel obstruction

5.6 Patients who are 'nil by mouth' for medical or surgical reasons are still allowed to moisten their lips & mouth with water.

5.7 Patients should be encouraged to sip water until 'sent' for, but should not be forced to drink if they are unable to or feel unwell.

5.8 If a patient has been fasted from fluids for more than 4 hours, ward staff must contact the anaesthetist/theatre team to ask if it would be acceptable for the patient to have a drink. Maintenance intravenous fluids should be administered to all patients not receiving fluids for more than 4 hours.

6. Training Implications

6.1 Ward staff and theatre staff will be trained in the use of this new guideline. This will be carried out at ward meetings and via email for existing staff, and at induction for new staff. 'SipTilSend' champions will be appointed to roll out the new guideline in all departments.

6.2 The Trust intranet will be updated with this new guideline

6.3 Patient and carer information leaflets given out during the pre-assessment process will be updated to include these new guidelines.
The leaflets will then be reviewed on a 3 yearly basis.

7. Monitoring Arrangements

7.1 The performance of University Hospitals Sussex (East) NHS Foundation Trust theatres with respect to the number of patients starved of clear fluids for excessive lengths of time will be audited annually. The results of this audit will be presented at Quality Safety and Patient Experience (QSPE) meetings which are attended by medical and nursing staff.

7.2 Any serious untoward incident (e.g., regurgitation, aspiration) that could possibly be attributed to this change in guideline will be reported and investigated through the Trust incident reporting system – Datix.

8. Due Regard Assessment Screening

8.1 This guideline does not single out or discriminate against any group or groups of patients.

9. Links to other Trust policies

10. Associated documentation

10.1 Patient/carer information leaflets are given out during the pre-assessment process so only minor changes will be needed to incorporate this new guideline.

10.2 Existing ward documentation that is used to record oral intake of fluids will continue to be used.

11. References

1. https://www.nice.org.uk/guidance/ng180/evidence/h-preoperative-fasting-pdf-8833151061
2. McCracken, G. C. & Montgomery, J. (2018). 'Postoperative nausea and vomiting after unrestricted clear fluids before day surgery: A retrospective analysis.' European Journal of Anaesthesiology: 35, 337-342.
3. Okabe, T., Terashima, H., & Sakamoto, A. (2015). 'Determinants of liquid gastric emptying: comparisons between milk and isocalorically adjusted clear fluids.' British Journal of Anaesthesia: 114, 77-82.
4. Oshahi, Y., Walker, J., Zhang, F. (2018). 'Pre-operative gastric residual volume in fasted patients measured by bedside ultrasound: an observational study'. Anaesthesia and Intensive Care: 46, (6) 608-13.
5. Gray, C., Watson, H., & Checketts, M. (2022). ''SipTilSend': The end of pre-operative fluid deprivation'. Volume 77, Issue S4. Special Issue: Abstracts of the Annual Congress 2022, 14–16 September.
6. Sands, R., Wiltshire, R., Isherwood, P. (2022). 'Preoperative fasting guidelines in National Health Service England Trusts: a thirst for progress.' British Journal of Anaesthesia: 129 (4), 100-102.
7. Checketts, M.R. (2023). 'Fluid fasting before surgery: the ultimate

example of medical sophistry?' Anaesthesia: 78 (13), 147-149.

8. Rüggeberg A. & Nickel E.A. (2022). 'Unrestricted drinking before surgery: an iterative quality improvement study'. Anaesthesia: 77(12), 1386-1394.
9. Marsman M., Kappen T.H., Vernooij, L.M. et al. (2022). 'Association of a Liberal Fasting Policy of Clear Fluids Before Surgery with Fasting Duration and Patient Well-being and Safety'. Journal of American Medical Association Surgery: 158(3), 254-263.

Appendix 1 -

Example of a standard hospital beaker / cup:
(containing 170ml of still water)

Other acceptable drinking cups:
Standard 7oz white plastic or polystyrene vending machine cups
(filled to 3/4 of capacity – this equates to just under 170ml)

Appendix 2 - Due Regard Assessment Tool

		Yes/No	Comments
1.	Does the document/guidance affect one group less or more favourably than another on the basis of:		
	• Age	Yes	Applies to children only
	• Disability	No	Support will be given (See 5.5)
	• Gender	No	
	• Gender identity	No	
	• Marriage and civil partnership	No	
	• Pregnancy and maternity	No	
	• Race	No	Support will be given (See 5.5)
	• Religion or belief	No	
	• Sexual orientation, including lesbian, gay and bisexual people	No	
2.	Is there any evidence that some groups are affected differently and what is/are the evidence source(s)?	No	
3.	If you have identified potential discrimination, are there any exceptions valid, legal and/or justifiable?	N/A	
4.	Is the impact of the document/guidance likely to be negative?	N/A	

5.	If so, can the impact be avoided?	N/A	
6.	What alternative is there to achieving the document/guidance without the impact?	N/A	
7.	Can we reduce the impact by taking different action and, if not, what, if any, are the reasons why the policy should continue in its current form?	N/A	
8.	Has the policy/guidance been assessed in terms of Human Rights to ensure service users, carers and staff are treated in line with the FREDA principles (fairness, respect, equality, dignity, and autonomy)	No	

To be completed and attached to any policy/guideline when submitted to the appropriate committee for consideration and approval.

If you have identified a potential discriminatory impact of this policy/guideline, please refer it to the ward manager of TAU, RSCH, or the Consultant Anaesthetist together with any suggestions as to the action required to avoid/reduce this impact.