CLINICAL GUIDELINE

Sip Till Send - Radiology

A guideline is intended to assist healthcare professionals in the choice of disease-specific treatments.

Clinical judgement should be exercised on the applicability of any guideline, influenced by individual patient characteristics. Clinicians should be mindful of the potential for harmful polypharmacy and increased susceptibility to adverse drug reactions in patients with multiple morbidities or frailty.

If, after discussion with the patient or carer, there are good reasons for not following a guideline, it is good practice to record these and communicate them to others involved in the care of the patient.

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Lead Author:	Alex Nath
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Important Note:

The Intranet version of this document is the only version that is maintained.
Any printed copies should therefore be viewed as 'Uncontrolled' and as such, may not necessarily contain the latest updates and amendments.

Sip Till Send Policy NHS GGC Diagnostic Directorate

Objective

Policy for pre-operative fasting in the Diagnostic directorate.

Scope

This document provides guidance for staff in pre-operative fasting of adult, non-pregnant patients in the whole NHSGGC diagnostic directorate. Primarily this will be directed at those undergoing procedures who would usually be fasted for sedo-anaesthetic considerations.

Audience

All staff involved in the peri-operative management of adult, non-pregnant patients in the QEUH, VACH, GGH, GRI, RAH, IRH and Stobhill ACH.

Background

Current guidance on fasting in the UK comes from the European Society of Anaesthesiology's "Perioperative Fasting in Adults and Children" (2011). This states that adult patients should be allowed to drink clear fluids and tea/coffee with a small volume of milk for up to 2 hours prior to surgery, and should omit solids for 6 hours before surgery.[1] Within NHSGG&C diagnostic services, we currently follow "The preoperative fasting for elective surgical patients (270)" policy. There have been recent changes in the understanding of the physiology of gastric emptying, supported by new evidence[2], which has questioned the previous time limits. As a result, alternative fasting policies are being followed. One unit's

Dr Alex Nath
Consultant Interventional Radiologist GG&C

experience of more than 10 000 patients who had unrestricted fluids until sending demonstrated reduced nausea and improved patient satisfaction with no episodes of pulmonary aspiration.[2]

Prolonged fasting is uncomfortable for patients and does not result in smaller gastric volumes, higher residual pH or lower aspiration risk[3.] In fact, prolonged fasting has been shown to increase gastric volume[3]. The recent use of gastric ultrasound has found that it is more common to have a "full stomach" than previously thought[4, 5]. Whilst aspiration is a significant complication of anaesthesia, the incidence is low. The Royal College of Anaesthetists' National Audit Project 4 (NAP 4) measured 36 cases of aspiration in 115 000 anaesthetics of which 8 patients died and 2 suffered brain damage. This suggests that the majority of patients with a "full stomach" do not suffer clinically detectable aspiration.

Current fasting policy within NHS GGC perioperative care areas is informed by the Pre-operative Fasting for Elective Surgical Patients Guideline (270) which states 2 hours fasting from clear fluids prior to induction of anaesthesia and 6 hours for solid food milky drinks and sweets. Audit of fasting times in trauma patients has shown very prolonged average times – almost 7 hours for clear fluids and 13 hours for solids. Currently the diagnostic services directorate does not have its own policy for this and is not under auspices of the perioperative care directorate.

This policy has been adapted from the "NHS GGC South Sector Sip Till Send" policy written by Dr Laura Jack and Dr Dmitry Sokolov, Consultant Anaesthetists[6].

Recommendations

We should develop a NHS GG&C Diagnostic directorate pre-procedural fasting policy. This should complement other current policies that we currently follow. As stated below there is a move to adopt "Sip Till Send" and for sake of simplicity for all ward and staff users and patient experience/comfort we should adopt the same.

Sip Till Send is a policy pioneered by Ninewells Hospital in Dundee and the Scottish Hip Fracture Audit Steering Group.

Their recommendations were as follows:

- The volume of fluid to be taken from 2h pre-operatively until theatre should be small e.g. <150ml per hour, and the volume and constituents of acceptable drinks should be stated in the fluid policy
- Units may wish to consider which, if any, patients should be excluded from Sip Till Send. Clinicians should be free to adapt the policy on an individual basis depending their documented assessment of risk. This should be communicated to the ward staff pre-operatively and discussed at the surgical brief to ensure fasting instructions are adhered to
- All patients should continue to receive assessment of aspiration risk as part of their routine anaesthetic assessment and the anaesthetic planned accordingly
- The policy should be introduced using Quality Improvement methodology, and should involve education and discussion with the wider multidisciplinary team including nursing and surgical colleagues. The policy should be introduced across the unit as a whole.
- Whilst our remit is for patients with hip fracture, it is logical to extend the same fasting policy to apply to all patients in the same unit, or at least all those patients on orthopaedic trauma wards as prolonged fluid fasting/deprivation regularly occurs across the board, and there is no logical reason to treat patients differently. Multiple fasting policies should be avoided.
- Units must collect data on significant adverse events such as pulmonary aspiration by approved mechanisms such as the DATIX incident reporting system, which should be analysed through a morbidity and mortality process, and should be used to inform changes to the fasting policy.

NHS Tayside have monitored for critical incidents related to their changed fasting policy and found that there was one case of regurgitation out of 3887 cases with no long-term sequelae

for the patient. This is in-line with the usual quoted rate of aspiration being between 1/2000 – 1/3000.

As the diagnostic services directorate for NHS GGC we propose to adopt the NHS GGC fasting policy, in line with the Sip Till Send recommendations as follows including documented adjustments (underlined):

- All patients should receive assessment of aspiration risk as part of their routine ward nursing admission documentation as is already performed
- All patients for invasive procedures who would usually fast as per previous policies (written by the theatres user group) including but not exclusively Interventional Radiology procedures, biopsies and drainages (elective and emergency) should receive 150ml of water per hour until they are sent for by the Interventional Radiology Nurses or whichever staff member at the specific site usually sends for the patient (unless NBM for another medical or surgical reason e.g. unsafe swallow, bowel obstruction)
- This policy does not apply to patients undergoing imaging studies unless desired to by the supervising radiologist or practionner.
- Specific exceptions would be any upper GI intervention, including: upper GI stenting, radiologically inserted gastrostomy (RIG), nasogastric (NG) and nasojejunal (NJ) tube insertions, gastrojejnual (GJ) tube insertion and exchanges, upper GI tract biopsies and upper GI fluoroscopy.
- Patients should receive their usual medication and analgesia whilst fasting for their attendance with the exception of oral anti-coagulants, angiotensin converting enzyme inhibitors (ACE inhibitors or ACE-Is) and some oral hypoglycaemic agents (i.e. metformin) unless otherwise stated
- Some other patients may be excluded from Sip Till Send. The individual sites across the imaging directorate and clinicians are free to adapt the policy on an individual basis depending the documented assessment of risk
- Each individual site should collect data on significant adverse events such as pulmonary aspiration by approved mechanisms such as the DATIX incident reporting

system, which will be analysed through a morbidity and mortality process and clinical governance meetings which will be used to inform changes to the fasting policy

- Also, patients attending on the day of procedure should also adopt this same policy up until the time they leave their home. Exclusions are the same as detailed above. These patients will be informed in their pre-procedural documentation sent to them in advance.

References

1. Smith I, Kranke P, Murat I, Smith A, O'Sullivan G, Søreide E, Spies C, in't Veld B; European Society of Anaesthesiology. Perioperative fasting in adults and children: guidelines from the European Society of Anaesthesiology. Eur J Anaesthesiol. 2011 Aug;28(8):556-69. doi: 10.1097/EJA.0b013e3283495ba1. PMID: 21712716.

2. McCracken, G. C. & Montgomery, J. Postoperative nausea and vomiting after unrestricted clear fluids before day surgery: A retrospective analysis. European journal of anaesthesiology 35, 337-342

3. Brady M, Kinn S, Stuart P. Preoperative fasting for adults to prevent perioperative complications. Cochrane Database Syst Rev. 2003;(4):CD004423. doi: 10.1002/14651858.CD004423. PMID: 14584013.

4. Dupont G, Gavory J, Lambert P, Tsekouras N, Barbe N, Presles E, Bouvet L, Molliex S. Ultrasonographic gastric volume before unplanned surgery. Anaesthesia. 2017 Sep;72(9):1112-1116. doi: 10.1111/anae.13963. Epub 2017 Jul 11. PMID: 28695978.11.

5. Bouvet L, Desgranges FP, Aubergy C, Boselli E, Dupont G, Allaouchiche B, Chassard D. Prevalence and factors predictive of full stomach in elective and emergency surgical patients: a prospective cohort study. Br J Anaesth. 2017 Mar 1;118(3):372-379. doi: 10.1093/bja/aew462. PMID: 28203726.

6. Jack L, Sokolov D. Sip till Send NHS GGC South Sector Policy September 2022. Trust Policy.

“Sip Till Send” Quick Reference NHS GG&C Diagnostic Directorate

- All patients should receive assessment of aspiration risk as part of their routine nursing admission documentation as is currently performed
- All patients (except pregnant and paediatric patients) for radiological guided procedures or interventions should receive 150ml of water per hour until they are sent for by the relevant staff member (unless NBM for another medical or surgical reason e.g. unsafe swallow, bowel obstruction)
- Upper GI interventions (NG tubes, NJ tubes, Gastrostomy and upper GI stenting) are excluded from this policy – if in doubt ask the relevant clinician performing the procedure
- All food and liquids other than water should be withheld as is already done
- Patients should receive their usual medication and analgesia whilst fasting for their procedure with the exception of oral anti-coagulants, ACE-Inhibitors and some oral hypoglycaemic agents (metformin for example) unless otherwise stated
- Some patients may be excluded from Sip Till Send. Clinicians are free to adapt the policy on an individual basis depending the documented assessment of risk
- The individual sites in NHS GG&C Imaging Directorate will collect data on significant adverse events such as pulmonary aspiration by approved mechanisms such as the DATIX incident reporting system, which will be analysed through a morbidity and mortality process, Clinical Governance meeting review and will be used to inform changes to the fasting policy

Dr Alex Nath
Consultant Interventional Radiologist GG&C
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