SLHD: Royal Prince Alfred Hospital Guideline

Fasting for Tests and Procedures	
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SLHD – RPA Fasting for Tests and Procedures

1. Introduction

In the healthcare environment, many procedures and tests may require the patient to fast for some period beforehand. Patients may also be fasted for some time after surgery, and also to help manage gastrointestinal symptoms. Often this fasting occurs unnecessarily or for periods exceeding the recommended fasting times. Early oral/enteral nutrition (within 24 – 48 hours) after surgery and in the critically ill is associated with a reduction in mortality and infectious complications. Excessive fasting times can contribute to malnutrition in hospital patients and promote loss of normal gut function in critically ill and surgical patients. Repeated audits indicate that the average patient may be fasting for more than one-third of their hospital stay. This guideline provides recommendations for fasting times in patients who are undergoing tests and procedures at RPA.

2. Aims of this Guideline

- To ensure that correct fasting times are implemented for all patients who need to be fasted for tests and procedures at RPA
- To reduce the incidence of excessive or unnecessary fasting, which can contribute to hospital acquired malnutrition and adverse patient outcomes

3. Risk Statement

SLHD Enterprise Risk Management System (ERMS) Risk # 107 Governance for Safety and Quality in Health Service Organisations

- Compliance with this policy will minimise the distress that prolonged fasting can cause in hospital patients, as well as the loss of gut function that can result from an extended fasting period.
- Malnutrition increases mortality and morbidity risk, as well as the cost of hospital stay. Malnutrition causes delayed healing and increased risk of infectious complications. Compliance with this policy will reduce the risk of unnecessarily causing or exacerbating malnutrition in hospital patients by excessive fasting.

4. Scope

This policy must be implemented by any discipline or area within RPA Hospital providing care for patients who are having any test or procedure that requires fasting.

5. Resources

Implementing this policy does not require any additional resources.

6. Implementation

Steps to support implementation include:

- Education of staff in hospital ward areas and relevant departments
- Easily accessible versions of the policy (for example in flipchart format) available for reference in ward areas and relevant departments

7. Key Performance Indicators and Service Measures

- Correct fasting times are adhered to (audited regularly; inclusive of incidents and complaints).

8. Procedures

At all times adequate hydration should be ensured when patients need to be fasted for any test or procedure. In patients whom a prolonged fast (>6hrs) may compromise renal function, consideration should be given to commencing IV fluids. All patients who are nil by mouth (NBM) for a surgical reason where there is excessive fluid loss (such as acute abdomen, fistula, intestinal failure etc) should receive IV fluids regardless of the length of fasting time.

8.1 Elective Surgery

8.1.1 Morning lists and all-day lists

Patients on morning theatre list or all-day list for elective surgery should be placed on the ‘Fluids - Pre-Operative Oral Diet’ from 12 midnight the night before, and then NBM from 6am the morning of theatre or at the time specified by the Anaesthetist for that list.

Check with each surgeon as to whether intravenous parenteral nutrition will be allowed to continue during the surgical procedure, or whether it should be stopped prior to leaving the ward.

8.1.2 Afternoon Lists

Patients on afternoon theatre list for elective surgery may have a light breakfast (eg tea/coffee and toast) before 7am (an early breakfast pack can be ordered and delivered to the ward the night before) and should then be placed on the ‘Fluids - Pre-Operative Oral Diet’, and then NBM from 11.30am or at the time specified by the Anaesthetist for that list.

Check with each surgeon as to whether intravenous parenteral nutrition will be allowed to continue during the surgical procedure, or whether it should be stopped prior to leaving the ward.

8.2 Emergency Surgery and Radiology

Patients having emergency surgery should be placed on the ‘Fluids - Pre-Operative Oral Diet’ from 12 midnight and then NBM from 6am the morning of theatre or at the time specified by the Anaesthetist for that list.

Patients receiving enteral nutrition should have their feeds stopped at 2am.

For patients on parenteral nutrition please contact radiology for instructions as to whether TPN should be weaned. For surgery, check with each surgeon as to whether intravenous parenteral nutrition will be allowed to continue during the surgical procedure, or whether it should be stopped prior to leaving the ward.

8.2.1 Emergency Lists

At 5pm each evening the surgical team should review the emergency list and, in consultation with the duty anaesthetist or general anaesthetic registrar decide which patients are unlikely to be starting surgery before 8am the next day. These patients may have dinner and then should be placed on the ‘Fluids - Pre-Operative Oral Diet’ from 12 midnight and NBM from 6am the morning of theatre.

All NUMs and Medical Teams should have access to the daily emergency list on eMR. It is the responsibility of the team to follow up on the timing of their patient on the list. It is the responsibility of the NUMs to follow up with the teams regarding the timing of their patient on the list.

8.2.2 Standby Radiology Cases

At 4pm the Transport and Radiology Anaesthetic registrar should review the standby radiology cases and, in consultation with the Radiologists, decide which patients will not have their radiology procedure before 8am the next day. These patients may have dinner and then placed on the 'Fluids - Pre-Operative Oral Diet' from 12 midnight and NBM from 6am the next morning.

8.3 Computed Tomography (CT) Scans

Fasting is not required for CT scans other than the ones listed below.

Procedure	Recommended fast	Preparation for patients on enteral nutrition	Preparation for patients on parenteral nutrition
● CT Neck + Chest + Abdomen ● Chest + Abdomen ● Liver, Upper Abdomen and Pelvis ● Pancreas ● Hepatic/renal angiogram (including liver biopsy)	No fasting required *	No fasting required *	TPN can continue. Please make sure there is alternate venous access (eg a second lumen or cannula)
Cholangiogram	NBM 4 hours	Stop feeds 4 hours prior to scan	
Enterography	NBM 6 hours	Stop feeds 6 hours prior to scan	
Colonography	NBM from midnight, with bowel prep 1 day prior	No feeds from midnight, with bowel prep 1 day prior	

* Fasting times may vary for patients that have delayed gastric emptying or at risk of aspiration

8.4 PET-CT Scans

ALL patients attending for a PET-CT scan are encouraged to drink water throughout the fasting period. Patients with diabetes will require individualised instructions, which are provided by the PET nurse.

Procedure	Recommended fast	Reparation for patients on enteral nutrition	Preparation for patients on parenteral nutrition

Whole-body, and neurological	NBM 5 hours other than water to drink	Stop feeds 5 hours prior to appointment time	Do not stop TPN
Sarcoidosis	Low carbohydrate, high fat diet from 48 hours prior to scan until 18 hours prior to scan NBM 18 hours other than water to drink	Contact Department for specific instructions	Contact Department for specific instructions
Cardiac viability	Contact Department. PET Nurses will provide specific preparation instructions for this procedure		

8.5 Ultrasound

Procedure	Recommended fast	Preparation for patients on enteral nutrition	Preparation for patients on parenteral nutrition
Abdomen/liver/ upper abdomen	NBM other than water to drink, for 6 hours prior to ultrasound (No fasting required for patients who have previously had a liver transplant) NOTE: allowed water to drink	Stop feeds 6 hours prior to scan	Do not stop TPN
Renal/urinary tract/ KUB, abdominal wall ultrasound (eg marking for ascitic tap)	No fasting required	Do not stop feeds	Do not stop TPN

**** If fasting a patient for an ultrasound, please call the ultrasound department and ensure the examination is triaged and has a booking time.**

8.6 Barium Swallow / Videofluoroscopic Swallow Study (VFSS)

Procedure	Recommended fast	Preparation for patients on enteral nutrition	Preparation for patients on parenteral nutrition

Barium swallow/barium meal	Nil solids for 6 hours Suitable for the 'Fluids - Preop Oral Diet' up to 2 hours before scan. NBM for 2 hours prior to scan	Stop feeds 6 hours prior to scan	Do not stop TPN
Barium meal with follow-through small bowel series	NBM 6 hours	Stop feeds 6 hours prior to scan	Do not stop TPN
Videofluoroscopic Swallow Study (VFSS) (previously known as MBS - Modified Barium Swallow)	No fasting required	Do not stop feeds	Do not stop TPN

8.7 Endoscopy

Intravenous fluids (including parenteral nutrition) do not need to be stopped prior to leaving the ward for endoscopy as they can continue during the scope. Note some patients may require a longer fasting time than that described below, for example in cases of gastric outlet obstruction, or suspected gastroparesis. The gastroenterologist will advise a longer fasting time where required.

8.7.1 Elective Upper Endoscopy

Morning Lists

Patients on morning list for upper endoscopy should be placed on the 'Fluids – Pre Operative Oral Diet' from 12 midnight the night before, and then NBM from 6am the morning of the scope or at the time specified by the Endoscopist for that list.

Afternoon Lists

Patients on afternoon list for upper endoscopy may have a light breakfast (eg tea/coffee and toast) before 7am (an early breakfast pack can be ordered and delivered to the ward the night before) and should then be placed on the 'Fluids - Pre-Operative Oral Diet', and then NBM from 11.30am or at the time specified by the Endoscopist for that list.

8.7.2 Emergency Endoscopy

Patients requiring an urgent endoscopy overnight in theatres should generally be fasted from the time of going on the emergency list. At 5pm each evening the Gastroenterology/Surgical registrar on call should review the emergency list (in consultation with their Consultant, Duty anaesthetist/registrar and theatre staff where needed) and decide which patients are unlikely to be having their procedure scope before 8am the next day. If it is safe for these patients to have oral intake, they should have dinner and then should be placed on the 'Fluids - Pre-Operative Oral

Diet' from 12 midnight and NBM from 6am the morning of the scope. (Note some patients will not be safe for any oral intake, for example in cases of upper gastrointestinal bleeding or an obstructing oesophageal foreign body.)

Patients receiving enteral nutrition should have their feeds stopped at 2am.

Check whether intravenous parenteral nutrition will be allowed to continue during the scope, or whether it should be weaned prior to leaving the ward.

8.7.3 Colonoscopy

Patients having a colonoscopy will receive detailed preparation instructions. In general, the procedure is as follows:

- two days before the procedure: patients commence on a low-fibre diet avoiding any items with red or purple food colouring
- one day before the procedure: patients consume only clear fluids (no red or purple colouring) and bowel preparation fluid
- day of the procedure: patients continue on clear fluids until fasting starts, 6 hours prior to the colonoscopy appointment time

8.8 Nuclear Medicine

All patients attending for a Nuclear Medicine scan (except biliary, gastric emptying and Meckel's diverticulum scans) are encouraged to drink water throughout the fasting period.

Procedure	Recommended fast	Preparation for patients on enteral nutrition	Preparation for patients on parenteral nutrition
Cardiac sestamibi	Caffeine-free diet for 24 hours prior to test NBM from midnight before the test	Stop feeds at midnight	Do not stop TPN
Cardiac sestamibi viability	NBM from midnight before the test	Stop feeds at midnight	Do not stop TPN
Biliary study (HIDA)	NBM 4 hours and no longer	Stop feeds 4 hours prior to scan	Do not stop TPN
Gastric emptying	NBM 4 hours	Stop feeds 4 hours prior to scan	Do not stop TPN
Meckel's diverticulum	NBM 6 hours	Stop feeds 6 hours prior to scan	Do not stop TPN

All renal scans (eg GFR, DTPA, MAG3, DMSA)	No fasting required drink 1000mL water in the hour prior to injection	Do not stop feeds	Do not stop TPN
●Bone scan ●Gated heart pool scan ●Gallium scan ●GI bleeding study ●I-131 therapy ●Lachrymal study ●Lung scan (V/Q) ●Lymph flow study – limbs ●MIBG scan ●MIBG therapy ●Octreotide study ●Parathyroid sestamibi ●Shunt (CSF) patency ●Thyroid scan ●White blood cell study	No fasting required	Do not stop feeds	Do not stop TPN

8.9 Magnetic Radiology Imaging (MRI)

The MRI Radiology department will instruct the ward when to start fasting a patient – do not place a patient NBM until you have been instructed.

Procedure	Recommended fast	Preparation for patients on enteral nutrition	Preparation for patients on parenteral nutrition
Magnetic Resonance Cholangiopancreatography (MRCP)	NBM 4 hours	Stop feeds 4 hours prior to scan	TPN needs to be weaned and ceased prior to MRI. Refer to Parenteral Nutrition policy for details.
MRI of pelvis, prostate, uterus, ovaries, bladder, rectum, liver, pancreas	Nil solids for 4 hours Suitable for the ‘Fluids - Preop Oral’ Diet up to 2 hours before scan. NBM for 2 hours prior to scan	Stop feeds 4 hours prior to scan	
Magnetic Resonance Enterography	NBM 6 hours	Stop feeds 6 hours prior to scan	

8.10 Angiogram and Interventional Radiology

Procedure	Recommended fast	Preparation for patients on enteral nutrition	Preparation for patients on parenteral nutrition
All angiograms / Interventional Radiology procedures	Nil solids for 6 hours Suitable for the ‘Fluids - Preop Oral’ Diet up to 2 hours before scan. NBM for 2 hours prior to scan	Stop feeds 6 hours prior to scan	Do not stop TPN

8.11 Parenteral Nutrition

When weaning and ceasing TPN, replace with 5% dextrose running at the same rate, or halve the TPN rate for 2 hours before stopping. During this period, monitor blood glucose levels regularly in any patients who have diabetes or who are receiving insulin. IV dextrose may be required to maintain normoglycaemia. Refer to the Parenteral Nutrition (Ward Patients) Policy RPAH_GL2015_023 for more detailed information on weaning and ceasing TPN.

8.12 Ordering Preoperative Diets

The ’Fluids - Pre-Operative Oral Diet’ order can be given to patients until two hours before a procedure that involves anaesthesia or sedation. Unlike the normal ‘Clear Fluids’ diet, it does not contain fat, insoluble fibre or protein which delay gastric emptying. Foods allowed include water, black tea/coffee, apple juice and other pulp-free juices, cordial, rehydration fluids, lemonade, sugar and sweeteners (no red, blue or purple colourings allowed).

‘Fluids - Preop Oral Diabetes’ order is specific for patients with diabetes. Foods allowed include water, black tea/coffee, diet cordial or lemonade, carbohydrate-free rehydration fluids, and sweeteners (no red, blue or purple colourings allowed)

Note: the pre-operative oral diet is NOT suitable for people requiring thickened fluids and should not be used for patients with dysphagia who are on a thickened fluids regimen.

‘Early Breakfast’ order provides an early breakfast pack for patients who need to fast from 6am or 7am. It should be ordered through eMR prior to 1800h the day before. It will be delivered via the supper trolley and placed in the ward refrigerator labelled with the patient's name and bed number.

8.13 Postoperative Diet Orders

After surgery, the Enhanced Recovery After Surgery (ERAS) strategy has been shown to decrease morbidity and reduce length of hospital stay (and costs).

ERAS is an integrated evidence-based multi-disciplinary approach to perioperative care that includes minimising preoperative fasting and ensuring early (ie post-op day 0) resumption of normal food after surgery, particularly gastrointestinal surgery.

Late meal orders: patients who were previously fasting can obtain a late meal order on return to the ward so that their meal is not missed. During business hours this order can be placed by paging the ward's Dietitian Assistant. After hours, ring the kitchen on extension 57316.

8.14 Escalation Process for Cancelled Procedures

In order to minimise unnecessary fasting time when procedures are delayed or cancelled, the following escalation process has been developed.

Unnecessary fasting time when procedures are delayed or cancelled either as an incident or as consumer feedback-complaint, should be recorded on ims +

Incidents

The Principal Incident Type is "Nutrition and Food"; the category of Nutrition and Food is –'NBM/Fasting extended periods or not indicated"

Consumer Feedback-Complaints

The complaint category is 'Management of Facilities and the complaint element is Nutrition and Food. There is an additional text box for the notifier to describe the fasting issue

Procedure delayed/cancelled for the first time:

- Nursing Unit Manager to clarify the reason for the delay/cancellation with the relevant department, advise the patient of the delay/cancellation, document in the patient's record and enter an IIMS.
- Notify Nurse Manager Patient Flow by phone (during business hours) and email, or after hours notify NARMU by phone as well as an email notification to the Nurse Manager Patient Flow.

Procedure delayed/cancelled for the second time:

- Nursing Unit Manager to clarify the reason for the delay/cancellation with the relevant department, advise the patient of the delay/cancellation, document in the patient's record and enter an IIMS.
- Notify Nurse Manager Patient Flow by phone (during business hours) and email, or after hours notify NARMU by phone as well as an email notification to the Nurse Manager Patient Flow.
- Notify Patient Safety and Quality Unit
- Nurse Manager Patient Flow will advise the Operational Nurse Manager of the second cancellation for further escalation and action.
- An incident is to be entered into the Incident Information Management System (IIMS)

As for all delays experienced by patients, update the 'Waiting for What' reason in the Patient Flow Portal.

9. Definitions

NBM	'Nil By Mouth' diet order – nothing to eat or drink
TPN	Total Parenteral Nutrition
NUM	Nurse Unit Manager
ERAS	Early Recovery After Surgery programme
NARMU	Nursing and Administration Resource Management Unit
IIMS	Incident Information Management System

10. Consultations

Michael Hensley (RPA Director of Medical Services), Lara Leibbrandt (Consumer Participation Coordinator), Robyn Eglinton (RPA Nursing Exec), Peter Lee (RPA Director of Theatres), Richard Waigh (RPA Director Radiology), Michael Paleologos (RPA Director Anaesthetics), Stella Pillai (NM theatres), Graeme Slade (Quality Unit Representative), Sarah Vaughan (Emergency Fellow), Belinda Errington (Clinical Superintendent surgery), Francesca Grace (Radiology General Manager), Peter Kelly (NUM Endoscopy), Arthur Kaffes (Director Endoscopy), David Koorey (Endoscopy), Professor Michael Fulham (Head of Department, PET and Nuclear medicine), Marie Nicolas (PET and Nuclear medicine), Angela Brewer (Deputy Chief MRS), Cathy McGuinness (NUM Radiology), Shila Jeram, Courtney Roberston, Christina Farr, Peter Bell, Bernard Ng (Department of Radiology), Catherine Hollow (CT Section Manager), Roger Traill (Anaesthetics), Lynn Jones (TPN NP), Catherine Taylor (Consumer Representative).

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12. National Safety and Quality Health Service (NSQHS) Standards, 2nd Edition

Clinical Governance Standard

Partnering with Consumers Standard

Preventing and Controlling Healthcare-Associated Infection Standard

Comprehensive Care Standard

Communicating for Safety Standard