Derby Teaching Hospitals NHS
NHS Foundation Trust

TRUST POLICY FOR ORAL NUTRITION & HYDRATION FOR ADULTS

Reference Number POL-RKM/1202/2013 Old ref. no CL RM 2014/025	**Version:** V1.2		**Status** Final	**Author: Carolyn Day** **Job Title**: Diabetic Team Leader
Version / Amendment History	Version	Date	Author	Reason
	1	Oct 2013	Amanda Patrick/Lorraine Stokes	Change from clinical guidelines and in response to national guidance
	1.1	Oct 2014	Amanda Patrick/Lorraine Stokes	Review
	1.2	Dec 2017	Carolyn Day/ Stephanie Owen	Review and update

Intended Recipients:

- All clinical staff
- Ward Hostesses and Nutrition Assistants
- Modern Housekeepers
- Facilities and other relevant Trust bodies

Training and Dissemination: via Trust intranet and training programmes

To be read in conjunction with:

- Food hygiene policy

Written in conjunction with

- Dietetic Department
- Speech and Language Therapy
- Rob Winfield – Head of Catering

In consultation with and Date:

- Nutrition and Hydration Steering Group – September 2017
- Infection Control Group (ICG) – May 2012
- Heads of Nursing (HONS) – May 2012
- Joint Professional Advisory Group (JPAC) – May 2012
- Facilities Operation Group – May 2012

EIRA stage One Completed	**Yes**
Stage Two Completed	No
Procedural Documentation Review Group Assurance and Date	
Approving Body and Date Approved	Approved by Trust Delivery Group
Date of Issue	January 2018

Review Date and Frequency	December 2021 then every three years
Contact for Review	Dietetic Department
Executive Lead Signature	Director of Patient Experience & Chief Nurse
Approving Executive Signature	Director of Patient Experience & Chief Nurse

Contents **Page**

1. Introduction

All patients within the Trust should receive first class care to meet their individual nutrition and hydration needs, within an organised culture and environment. This policy has been developed to support staff in the delivery of nutrition at ward level.

It is important to note that the information supplied does not replace the need for individual patient assessment and education by a suitably qualified member of staff as clinically indicated.

2. Purpose and outcomes

- To facilitate assessment of patients' nutritional needs.
- To provide information and support clinical staff in accessing hospital food.
- To provide guidance on documentation of patients' food intake.
- To provide information relating to dysphagia screening and modified consistency food and fluids.
- To provide guidance for staff in accessing the dietetic service.

3. Definitions used

BAPEN	British Association for Parenteral and Enteral Nutrition Website: http://www.bapen.org.uk
CVA	Cerebrovascular Accident (Stroke)
DTN	Dysphagia Trained Nurse
GPs	General Practitioners
LRCH	London Road Community Hospital
MUST	Malnutrition Universal Screening Tool
NICE	National Institute for Health and Clinical Excellence Website: http://www.nice.org.uk
RDH	Royal Derby Hospital
SLT	Speech and Language Therapy (or Therapist)
TTO	To Take Out (relating to prescribable/ACBS products)
WHO	World Health Organisation

4. Key responsibilities

4.1 Registered Nursing Staff

Responsible for the day-to-day implementation of this policy at ward level - mainly ensuring that patients are screened for malnutrition risk (and appropriate action plan implemented), offered the appropriate diet/fluids and referred to appropriate specialists as necessary (i.e. Dietitians, Speech and Language Therapists, etc).

4.2 Nutrition Assistants

Responsible for supporting registered nursing and ward staff in implementation of this policy at ward level – including a more focused and specialist role in the provision of food and fluids to patients with more complex nutritional needs or requiring modified feeding techniques.

4.3 Nutrition Nurse Specialists

Responsible for supporting registered nurses and ward staff. Will also have an active role and participate in the development and implementation of Trust nutrition initiatives and policies.

4.4 Dietitians

Responsible for the assessment of an individual's nutritional status and requirements with the subsequent provision of impartial, evidence based advice to them or their representative in order to address their nutritional needs.
Will also have an active role and participate in the development and implementation of Trust nutrition initiatives and policies.

4.5 Speech and Language Therapists

Responsible for the assessment, diagnosis and management of patients with swallowing difficulties (dysphagia).

4.6 Facilities

Responsible for the development and provision of a wide range of food/menus to meet the needs of the diverse patient population served by the Trust.

4.7 Nutrition and Hydration Steering Group

Responsible for providing strategic direction, implementing and reviewing Trust nutrition initiatives. Also ensures that systems are in place for auditing performance against relevant criteria identified in national guidelines/policies.

4.8 Chief Nurse and Director of Patient Experience

The Director of Nursing is the Executive Lead for Nutrition and is responsible for the implementation of this policy within the Trust.

5. Oral Hydration

Hydration can be defined as the process of providing adequate fluid to the body tissues. Fluid requirements are individual and can vary due to many factors such as age, gender, body mass, physical activity levels and climate.

Within the hospital setting it is important to consider where patients may have high fluid losses such as in cases of high body temperature/sweating, vomiting, diarrhoea, high stoma losses and drain losses.

Where patients are able to have oral fluids they should be encouraged to consume a range of fluids throughout the day.

Oral fluid intake should be documented on fluid balance charts.

If patients are unable to tolerate adequate oral fluids, the use of alternative routes for fluid provision should be discussed with the patients clinical team and alternative routes for the provision of fluids considered, e.g. IV/enteral.

6. Oral Nutrition for Adults

6.1 Implementation

6.1.1 Access to the policy

This policy is located on the Trust intranet and can be found by searching for 'nutrition' in the guidelines and policies section.
Other key documents regarding the nutritional care of patients can also be found in the same way.

6.1.2 Education and Training

Training is provided via Nutrition Link Nurses, covering topics such as mouthcare, positioning for feeding, dysphagia, managing a poor appetite. Other ad hoc themed sessions are also provided as required, e.g. dysphagia, nutritional screening (MUST).

6.2 Nutritional Screening

6.2.1 What is malnutrition?

Malnutrition can be described as a state of nutrition in which a deficiency or imbalance of nutrients such as energy, protein vitamins or minerals causes measurable adverse effects on body composition or function, or clinical outcome. Malnutrition may be both a cause and a consequence of ill health and disease, and often delays recovery from illness (NICE, 2012).

It is estimated that between 25% and 34% of patients admitted to hospital can be considered malnourished (BAPEN, 2015). Prevalence is higher in adults greater than 65 years of age. The more vulnerable at risk groups include those with chronic diseases, the elderly, those recently discharged from hospital, and those who are poor or socially isolated.

It was estimated that in 2012, malnutrition cost the NHS approximately £19.6 billion per year (BAPEN, 2015), a figure which has risen by 51% since 2007. It is therefore important to detect and treat malnutrition as early as possible.

6.2.2 How do we detect it?

Despite its high prevalence, malnutrition is often overlooked and untreated. However, through routine screening using a validated screening tool, patients at risk of malnutrition can be quickly and appropriately identified and treated.

NICE (NICE, 2012) recommends that people in care settings should be screened for the risk of malnutrition using a validated screening tool. This includes people admitted to hospital, attending an outpatient clinic for the first time, or having care in a community setting.

NICE (NICE, 2012) suggests the use of Malnutrition Universal Screening Tool (MUST) as it has been validated for use in any setting (e.g. hospitals, care homes or GP surgeries).

6.2.3 MUST

MUST (Section 9.1) is a 5-step screening tool designed to identify, with cautious interpretation of the results, any adult who is malnourished or at risk of malnutrition.

Early identification of malnutrition ensures that appropriate nutritional intervention is implemented promptly.

MUST assessment must therefore be undertaken on all adult patients (excluding obstetrics) within 24 hours of admission and weekly thereafter (or earlier if there is clinical concern).

MUST documentation is included within the 'Adult Risk Assessment' booklet.
Separate copies for repeat screening are available and can be ordered using the routine ward process for ordering documentation for patient records.

6.2.4 Interpretation of MUST score

Action plans are outlined on the reverse of the MUST document (Section 8.1).

In summary, these are:

MUST score	Risk Level	Action Required
0	Low	▪ Routine clinical care (refer to MUST document for details) ▪ Repeat screening weekly
1	Medium	▪ Continue actions as per low risk ▪ Commence food charts for at least 3 days ▪ Implement additional supportive measures (refer to MUST document for details) ▪ Offer snacks from snack menu (refer to snacks ordering process) ▪ If no improvement after 3 days, consider referral to dietitian ▪ Repeat screening weekly
2 or more	High	▪ Continue as per medium and low risk actions ▪ Refer to dietitian (unless no benefit is expected - e.g. death is imminent)

6.3 Protected Mealtimes

A protected mealtime system operates on wards at lunchtime on a daily basis.

This is a period of time when all non-urgent ward activity stops in order to prevent interruption and minimise distraction to patients during the meal service.

Ward nursing and therapy staff, modern housekeepers, hostesses and volunteers are encouraged to participate in this initiative in order to:

- Help prepare patients to eat (i.e. appropriate positioning of patient and tables, etc.).
- Offer encouragement to patients.
- Offer assistance to patients – including those requiring modified feeding techniques.
- Make the mealtime an enjoyable experience.
- Allow for closer monitoring of patients' food and fluid intake.

All urgent and essential ward activity will continue but staff should ensure that this causes the least possible disruption to the meal service.

However, although there is only one protected mealtime, it is important that focus is maintained on the importance of all meals in the provision of good, holistic care to patients.
It is the responsibility of all ward staff to ensure that where possible, the ethos of the protected mealtime is implemented during all mealtime services.

6.4 Trust Food Options

6.4.1 Hostess service

The ward hostess service operates from 07:30 to 18:30 daily.

Nursing staff liaise on a daily basis with their dedicated ward hostess to ensure that patients' dietary needs are communicated correctly.

Ward hostesses are part of the multidisciplinary team and are trained in food hygiene and customer care. They are responsible for serving three meals each day, plus additional snacks mid-morning and mid-afternoon as requested. Patients are offered meals from the appropriate menu, which is available from the Catering Department.

Ward hostesses are also responsible for serving five beverages per day, with nursing staff serving an early morning and evening beverage in addition. These beverages may include milk and Meritene® Shakes/Soups as requested on an individual patient basis.

Additional beverages are also provided on request and as appropriate by ward staff.

Meal orders are taken approximately two hours before the lunch and evening service, allowing patients to choose their meals close to the service, which is

beneficial for patients for a variety of reasons. On some wards, meal orders are taken the previous day.

If a patient is off the ward for an investigation or procedure and misses the mealtime service, it has been agreed that a member of ward staff must contact the relevant Facilities Helpdesk (RDH or LRCH) to order a meal that has been selected by the patient. Once the order has been received, ward hostesses will be contacted and instructed to prepare and deliver the meal to the patient directly.

6.4.2 Modern Housekeeper service

Modern Housekeeper service operates 07:00 to 16:00, Monday to Friday inclusive.

As part of their role, Modern Housekeepers are responsible for ensuring the patient mealtime experience is of a high standard, and all patients receive good quality food within the agreed time frame.

Modern Housekeepers will also enhance the hostess service at times of increased activity and will liaise with nursing staff when additional support is required to assist in the feeding of patients.

6.4.3 Menus available

There are a wide variety of menus currently available with the Trust.

The Crown Advantage Menu is the standard menu and offers a wide range of hot and cold food options for patients. It is reviewed twice per year to offer seasonal variation for both Spring/Summer and Autumn/Winter.

A wide variety of other menus, including modified consistency and “free from” menus, are available for those with special dietary requirements. Ward hostesses or Dietitians will be able to provide further information on the options available for individual patients.

6.4.4 Additional snack process.

Additional snacks are available and can be ordered on a named patient basis, tailored to individual need. Snack menus highlight those snacks suitable for patients with special dietary requirements (including modified consistencies).

Section 9.2 outlines the process which must be followed in order to ensure that snacks are received at ward level.

It is important to note that it is the responsibility of nursing staff to ensure that bedtime snacks (if ordered) are given to patients at ward level.

Meritene® Shakes and Soups are included on the additional snack list. These are non-prescribable build-up dietary supplements and so should be administered to patients in line with the additional snack process. These products may also be prescribed by Dietitians on an individual patient basis. In these cases, it is the responsibility of the prescribing Dietitian to ensure that these are added to the

snack matrix, but it remains the responsibility of nursing staff/ward hostesses to ensure that these are given at the prescribed time(s).

6.4.5 Twenty-four hour food availability.

Section 6.4.1 outlines the Hostess Service and options available to patients during this time.
However, if it is after 18:00 and a patient has missed the main meal service, snack boxes are available. These consist of a sandwich, fruit, yoghurt, biscuits and a cold drink, and can be ordered by contacting the relevant Facilities Helpdesk (RDH or LRCH).

6.5 Documentation of Food Intake

It is important that food record charts are completed accurately because they:

- Allow the Dietitian to assess the nutritional adequacy of the patient's food intake.
- Inform decisions regarding nutritional supplements and enteral feeds.
- Are a permanent record to be filed in the patient's medical notes.
- Facilitate communication between nursing shifts.

They should be completed for any patient where concern exists about their nutritional intake or the ability to monitor this, e.g. with medium/ high MUST, reduced ability to communicate with the patient about how they are eating, patients requiring assistance to eat.

How to complete a food record chart

- Fill in the patient's name and hospital number (or affix a sticker), hospital (RDH or LRCH) and ward location.
- Ensure the date is clearly written.
- Record the types of foods and drinks that are offered to the patient at each meal and snack time in as much detail as possible.
- Record how much of each food and drink is consumed. Try to estimate the proportion consumed (e.g. ½, ¾ or all).
- Use handy measures if exact quantities are unknown (e.g. cup or glass to describe quantities of fluid taken with a meal).
- Where oral nutritional supplements have been prescribed, record the amounts consumed on the food record chart (can also be recorded on the fluid chart).
- Record any relevant comments or observations (e.g. reason for refusal and if any alternative options offered).
- Clearly sign in the appropriate box next to the details that you have recorded.

It is important to note that if appropriate, ward staff can ask the patient or their visitors to complete food record charts.

Examples of a bad and good food record chart can be seen below.

A <u>bad</u> example of a food record chart:

DERBY HOSPITALS NHS FOUNDATION TRUST

FOOD CHART

PATIENT LABEL

HOSPITAL _____

WARD/DEPARTMENT _____

Please record all food and drinks, and give a careful description of the type and quantity in handy measures. E.g. slices, scoops, teaspoons.

NO DATE

DATE	FOOD / FLUID			
	OFFERED	TAKEN	COMMENTS	SIGNATURE
BREAKFAST	Refused ← WHAT WAS OFFERED? WHY WAS IT REFUSED?			
MID - AM	WERE ANY SNACKS ORDERED DURING THE DAY?			
LUNCH	Sandwich (WHAT FILLING?)	1 mouthful ← DESCRIBE QUANTITIES USING PROPORTIONS e.g. ¼, ½		
	Deosert (WHAT DESSERT?)	3 spoonfuls		
MID - PM	WHAT WAS THIS?			
EVENING	Meal	¼		
	Drink	← HOW MUCH WAS TAKEN?		
NIGHT TIME				

WPH 0412

A <u>good</u> example of a completed food record chart:

DERBY HOSPITALS NHS FOUNDATION TRUST

FOOD CHART

PATIENT LABEL

Joe Bloggs
00-00-00

HOSPITAL RDH

WARD/DEPARTMENT 401

Please record all food and drinks, and give a careful description of the type and quantity in handy measures. E.g. slices, scoops, teaspoons.

DATE	FOOD / FLUID			
14/10/12	OFFERED	TAKEN	COMMENTS	SIGNATURE
BREAKFAST	2 x weetabix with full cream milk Cup of tea with 1 sugar	1/2 all		
MID - AM	Fortisip Compact Ginger cake (from home)	none 2 pieces	Patient dislikes strawberry flavour Fortisip Compact	
LUNCH	Minced lamb, carrots + mash Jam sponge + custard	all 1/2		
MID - PM	Fortisip Compact (choc) Ginger cake	all 4 pieces		
EVENING	Egg sandwich Yogurt (thick + creamy)	all 3/4	didn't eat the crusts	
NIGHT TIME	Milky coffee	refused	patient feeling sick	

WPH 0412

PCL Wollaston Print 0121 429 8580

6.6 Referral to a Dietitian

Any registered member of staff is able to refer patients for dietetic assessment and advice.

Referrals can be made by:
- Electronic referral on iCM for all inpatient referrals. Outpatient clinic referrals will also be accepted via iCM.
- Letter on Trust headed paper.
- Completion of a dietetic referral card (blue with red top right hand corner).

Broad referral criteria are below and additional information can be found in the appendices (Section 9).

General	▪ Healthy eating ▪ Weight reduction ▪ Cardioprotective diet
Diabetes	▪ Newly diagnosed ▪ Type 2 with complications ▪ Patients to commence a basal bolus insulin regimen ▪ Gestational diabetes
Malnutrition	▪ High MUST score ▪ Dysphagia ▪ Anorexia or bulimia nervosa
Artificial nutrition support	▪ Enteral tube feeding ▪ Parenteral nutrition (see separate guideline)
Surgery	▪ Bariatric surgery ▪ Oesophagectomy ▪ Total / partial gastrectomy
Gastrointestinal	▪ Oesophageal cancer / stent placement ▪ Decompensated liver disease ▪ Intestinal failure/ short bowel syndrome ▪ Gastrointestinal obstruction ▪ Newly diagnosed coeliac disease (or symptomatic coeliac disease) ▪ Inflammatory bowel disease (e.g. weight loss, intolerance of diet, flare up, strictures, surgery, stoma formation) ▪ Malabsorption (e.g. IBD, pancreatitis) ▪ *Clostridium difficile* infection affecting nutritional status
Oncology	▪ Dietary advice for those undergoing chemo- and/or radiotherapy ▪ Head and Neck, Oesophageal or Lung cancer patients undergoing radiotherapy ▪ Lymphodema clinic
Renal	▪ Dialysis patients ▪ Phosphate ≥ 1.7mmol/l ▪ Potassium > 5.5mmol/l ▪ Patients requiring fluid restriction and reduced salt intake

6.6.1 Prescribable oral nutritional supplements

Oral nutritional supplements are often used when other treatment methods have failed to improve a patient's dietary intake. They are also used when patients have high estimated nutritional requirements which are unlikely to be met through dietary intake alone (e.g. to encourage wound healing).

Oral nutritional supplements are prescribable products and therefore, should not be given to patients unless prescribed.

Ideally, this should be after formal dietetic assessment for two reasons:

1. To ensure they are used in the most appropriate and cost effective way. In most cases, this will be in addition to other dietary intake and not a substitute for it.

2. Different supplements have different nutritional profiles and therefore, prescription is tailored to the individual patient. **Oral nutritional supplements are not interchangeable and so the correct product must be given to the patient.**

Examples of oral nutritional supplements used within the Trust are:

Milk-shake style	▪ Fortisip Bottle ▪ Fortisip Compact ▪ Fortisip Compact Protein
Juice style	▪ Fortijuce
Yogurt style drink	▪ Fortisip Yogurt Style
Dysphagic	▪ Nutilis Complete Stage 1 & 2 ▪ Nutilis Fruit Stage 3
Modular	▪ Calogen ▪ Super Soluble Maxijul

Most patients prefer supplements chilled but they can be stored and given at room temperature if desired. They can either be taken from the bottle with a straw or decanted into a beaker.
Once opened, supplements should be discarded after four hours (24 hours if kept in the fridge).

Referral to a Dietitian

- Patients who are admitted to hospital on oral nutritional supplements should be referred to the dietitian for review.
- Hospital doctors prescribing nutritional supplements should request a dietetic referral for assessment/review.

All patients being discharged on a prescribable nutritional supplement should have been referred to a dietitian for assessment as a request for appropriate supply in the community can then be arranged via GPs.
Local policy exists to prevent inappropriate prescribing (Derbyshire Joint Area Prescribing Committee, 2010).
It is recommended that maximum TTOs of 3 days supply should be provided from ward stock on discharge.

6.7 Patients with Dysphagia

Decisions for patients with a new and/or deteriorating oropharyngeal dysphagia (swallowing problems) should be checked using the nil by mouth pathway (On Flo in Guidelines and Policies: Nutrition/ Dysphagia SALT – Summary Clinical Guideline) and referral made to a Speech and Language Therapist (SLT) for a more comprehensive assessment as required. SLTs mainly assess for oro-pharyngeal dysphagia; but may see some patients with oesophageal problems.

6.7.1 Referral for assessment

Referral to a Dysphagia Trained Nurse (DTN)

The stroke wards (410 and 312) have their own DTNs to carry out an initial dysphagia screen of patients with a suspected swallowing problem for non-complex patients. Patients are referred on to SLT as required.

The water swallow screen is used on ICU with trained nurses and referral made to SLT as required.

Referring to Speech & Language Therapy (SLT)

Inpatient referrals can be made to the department via ICM. Verbal queries can be made via telephone on ext. 85891.
ENT referrals can be made direct to the ENT service on ext. 83182.

6.8 Modified Consistency Diets

Some patients may need to have a modified consistency diet which should be ordered from the appropriate menu.
Breakfast menu choices for all modified diets can be found in the menu books used by the ward hostesses.

Five modified textured diets are available within the Trust:

- Liquidised (usually recommended by Dietitians – see Section 9.13).
- Category ‘B’ - Thin puree diet (Yellow).
- Category ‘C’ - Thick puree diet (Green).
- Category ‘D’ - Pre-mashed diet (Orange).
- Category ‘E’ - Forkmashable diet (Blue).

Further information can be found in Section 9.11, including definitions of each modified texture as outlined in national guidelines (NPSA, 2011).

Patients assessed by a Speech and Language Therapist or Dysphagia Trained Nurse.

Where a SLT or DTN has assessed for a swallowing problem and recommended a modified consistency diet this will be documented in the medical notes and an instruction sheet placed behind the patient’s bed. SLTs use colour-coded instruction sheets which match with the appropriate menu. It is essential to only offer foods included on the specific menu unless agreed by SLT, who will

document this clearly on the colour-coded instruction sheet and in the medical notes.

7. Monitoring compliance and effectiveness

Monitoring requirement:	IR1 incident analysis Training records and competencies High Impact Actions Leadership in Patient Safety (LiPs) projects CQC assessment
Monitoring method:	IR1 incident analysis Ward assurance tool and audit Clinical audits
Report prepared on request by:	Nutrition and Hydration Steering Group
Monitoring report presented on request to:	Clinical Effectiveness Committee
Frequency of the report:	On request

8. References

- British Association of Parenteral and Enteral Nutrition – BAPEN (2010) Malnutrition Matters – Meeting Quality Standards in Nutritional Care - http://www.bapen.org.uk/pdfs/toolkit-for-commissioners.pdf (Last accessed September 2014)
- British Association of Parenteral and Enteral Nutrition – BAPEN (2011) Nutritional Screening Survey in the UK and Republic of Ireland 2011 - http://www.bapen.org.uk/pdfs/nsw/nsw-2011-report.pdf (Last accessed September 2014)
- Derbyshire Joint Area Prescribing Committee (2010) Oral Nutrition Support Guidelines for Adults (Clinical Guideline)
- National Institute for Clinical Excellence – NICE (2006) Nutrition Support in Adults – Clinical Guideline 32 (CG32) - http://www.nice.org.uk/CG32 (Last accessed September 2014)
- National Patient Safety Agency –NPSA (2011) Dysphagia Diet Food Texture Descriptors - http://www.thenacc.co.uk/assets/downloads/170/Food%20Descriptors%20for%20Industry%20Final%20-%20USE.pdf (Last accessed September 2014)
- National Institute for Clinical Excellence – NICE (2014) Cardiovascular disease: risk assessment and reduction, including lipid modification– Clinical Guideline 32 (CG181) - http://www.nice.org.uk/CG181 (Last accessed January 2017)

9. Appendices – Additional Information

In the following sections, guidance is included on managing a range of therapeutic diets in hospital.

It is important to note that some of the sections include examples of suitable foods assuming that the patient **does not** have dysphagia.

If the patient **does** have dysphagia, it the responsibility of clinical staff to ensure that they are offered choices that are of the recommended consistency with appropriate advice sought from SLT or Dietitians as required.

9.1 Malnutrition Universal Screening Tool (MUST)

DERBY HOSPITALS NHS FOUNDATION TRUST

'MUST - 'Malnutrition Universal Screening Tool' (ADULTS)

The 'Malnutrition Universal Screening Tool' ('MUST') is reproduced here with the kind permission of BAPEN (British Association for Parenteral and Enteral Nutrition).
For further information on 'MUST' see www.bapen.org.uk

Please affix patient's sticker here
(if available)
To include name, address, GP,
D.O.B. and Hospital No.

Royal Derby Hospital ☐
London Road Community Hospital ☐

Ward:

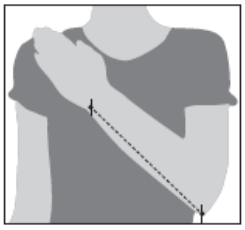
Consultant:

Parameter to be measured	Date / /	Date / /	Date / /	Date / /	Guidance Notes
Weight (kg) Circle whether measured (M) or recalled/estimated (E)	____ M / E	____ M / E	____ M / E	____ M / E	If unable to weigh: Use recently documented/self-reported weight (if reliable/realistic).
Adjusted weight (kg)	____	____	____	____	In presence of ascites/oedema subtract weight accordingly: Ascites / Peripheral Oedema Minimal: 2.2 kg / 1.0 kg Moderate: 6.0 kg / 5.0 kg Severe: 14.0 kg / 10.0 kg
Height (m) Circle whether measured (M) or recalled/estimated (E) or calculated from ulna length (C)	____ M / E / C	____ M / E / C	____ M / E / C	____ M / E / C	If unable to obtain height: Use recently documented height/ self reported height (if reliable/realistic) **OR** calculate using ulna length (see below).
Ulna length (cm)	____	____	____	____	Estimate height from ulna length: (see chart for details on how to measure and convert ulna length to height).
BMI (kg/m²) Circle whether measured (M) or estimated from MUAC (E)	____ M / E	____ M / E	____ M / E	____ M / E	Refer to BMI score chart. If unable to calculate BMI, use MUAC to estimate BMI. Record presence of obesity (BMI>30). Nutritional treatment of obesity should only commence once patient is medically stable.
MUAC (cm) (see overleaf to measure)	____	____	____	____	If unable to measure height & weight, use MUAC to estimate BMI. (If <23.5cm, BMI likely <20; If >32.0cm, BMI likely >30). Take serial measures to monitor weight loss (change of 10%= significant) & use with Step 4 guidance notes below.

'MUST' SCORES						Guidance Notes	
Step 1	**BMI Score**	0 / 1 / 2 (circle)	0 / 1 / 2 (circle)	0 / 1 / 2 (circle)	0 / 1 / 2 (circle)	BMI:>20 = 0 BMI:18.5-20 = 1 BMI:<18.5 = 2	**Do not use MUAC to generate a BMI score.** See MUAC box above for further information.
Step 2	**% unplanned weight loss score* (over the past 3-6 months)** **refer to weight loss score table*	0 / 1 / 2 (circle)	0 / 1 / 2 (circle)	0 / 1 / 2 (circle)	0 / 1 / 2 (circle)	<5% = 0 5-10% = 1 >10% = 2	Check medical notes for previous recently documented weights or ask patient/carer (if reliable/realistic).
Step 3	**Acute disease effect score**	0 / 2 (circle)	0 / 2 (circle)	0 / 2 (circle)	0 / 2 (circle)	If the patient is acutely ill **AND** there has been or is likely to be no nutritional intake for > 5 days: Score = 2 Otherwise, score = 0	
Step 4	**Overall risk of malnutrition**	**Total score (step 1 + 2 + 3)**				**0: low** **1: medium** **≥2: high**	**If unable to calculate overall risk score**, use MUAC & subjective indicators to help **estimate a risk category (L/M/H)**: e.g. thin looking; muscle wastage; reduced food intake; loose clothes/jewellery; anorexia; dysphagia; underlying disease; psycho-social/physical disabilities; acutely ill; no nutritional intake or likelihood of no intake for >5 days.
		L / M / H (circle)	L / M / H (circle)	L / M / H (circle)	L / M / H (circle)		
Step 5	**Management guidelines**	**DOCUMENT ACTION TAKEN WITHIN PATIENT NURSING RECORDS AS PER THE 'MUST' MANAGEMENT GUIDELINES OVERLEAF**					
Practitioner's initials							

'MUST' MANAGEMENT GUIDELINES		
RISK CATEGORY	**SUGGESTED ADVICE**	**CARE PLAN**
LOW RISK **Routine clinical care required**	Record malnutrition risk category	Transfer relevant statements to your nutrition care plan
	Treat underlying condition	
	Provide help and advice on food choices, eating and drinking when necessary	
	Ensure appropriate cutlery/utensils available to allow patient to eat/drink independently	
	Record need for special diets (ensure ward hostess aware)	
	Provide a pleasant environment in which to eat & drink (consider privacy, location, odours, hand-hygiene, table cleared, dentures in etc)	
	Document if family/carers wish to be involved with feeding	
	Assist patient to open packets (e.g. cheese & biscuits), remove lids and cut up food if necessary	
	Ensure mouth is clean – assist with oral hygiene if necessary	
	Prepare and position patient for mealtimes (sit patient in chair; ensure table within easy reach/ ensure dentures are clean, available and fit correctly)	
	Record patient's food/fluid preferences (and ensure ward hostess aware)	
	Identify any chewing/swallowing problems and manage according to local policy (e.g. referral to DTN/SLT; change to textured menu if poor dentition)	
	Repeat screening weekly for in-patients (or at next clinic appointment for outpatients)	
MEDIUM RISK **Observe Patient**	Continue to follow 'LOW RISK' advice	Transfer relevant statements to your nutrition care plan
	Keep food charts for at least 3 days (or ask patient to keep food diary if in outpatients clinic)	
	Provide guidance on high calorie, high protein menu choices	
	Offer assistance with eating/drinking where appropriate	
	Order high calorie, high protein snacks bd/tds (refer to 'additional snacks process' in ward kitchen)	
	Repeat screening weekly (or at next clinic appointment for outpatients)	
HIGH RISK **Nutritional Treatment Required*** *unless detrimental or no benefit is expected from nutritional support e.g. imminent death	Continue to follow 'LOW RISK' & 'MEDIUM RISK' advice	Transfer relevant statements to your nutrition care plan
	Refer to dietitian for dietary assessment and consideration of prescribable supplements/artificial feeding	
	Improve and increase overall nutritional intake	
	Monitor and review care plan weekly (or at next clinic appointment for outpatients)	
	Repeat screening weekly (or at next clinic appointment for outpatients)	

Estimating height from ulna length

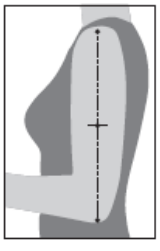


Measure between the point of the elbow (olecranon process) and the midpoint of the prominent bone of the wrist (styloid process). Use the non-dominant side if possible. Document the ulna length in the table overleaf. Refer to the table below to convert ulna length to height. Document the estimated height in the table overleaf, and circle 'C'.

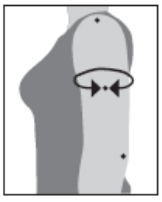
Ulna length	18.5	19.0	19.5	20.0	20.5	21.0	21.5	22.0	22.5	23.0	23.5	24.0	24.5	25.0	25.5	26.0	26.5	27.0	27.5	28.0	28.5	29.0	29.5	30.0	30.5	31.0	31.5	32.0
Men (<65 yrs)	1.46	1.48	1.49	1.51	1.53	1.55	1.57	1.58	1.60	1.62	1.64	1.66	1.67	1.69	1.71	1.73	1.75	1.76	1.78	1.80	1.82	1.84	1.85	1.87	1.89	1.91	1.93	1.94
Men (>65 yrs)	1.45	1.46	1.48	1.49	1.51	1.52	1.54	1.56	1.57	1.59	1.60	1.62	1.63	1.65	1.67	1.68	1.70	1.71	1.73	1.75	1.76	1.78	1.79	1.81	1.82	1.84	1.86	1.87
Women (<65 yrs)	1.47	1.48	1.50	1.51	1.52	1.54	1.55	1.56	1.58	1.59	1.61	1.62	1.63	1.65	1.66	1.68	1.69	1.70	1.72	1.73	1.75	1.76	1.77	1.79	1.80	1.81	1.83	1.84
Women (>65 yrs)	1.40	1.42	1.44	1.45	1.47	1.48	1.50	1.52	1.53	1.55	1.56	1.58	1.60	1.61	1.63	1.65	1.66	1.68	1.70	1.71	1.73	1.75	1.76	1.78	1.79	1.81	1.83	1.84

Measurement of MUAC (Mid-Upper Arm Circumference):

If MUAC is <23.5cm, BMI is likely to be <20kg/m² and if >32.0cm, BMI is likely to be >30kg/m²



The subjects left arm should be bent at the elbow at a 90 degree angle with the upper arm held parallel to the side of the body. Measure the distance between the bony protrusion on the shoulder (acromion) and the point of the elbow (olecranon process). Mark the mid-point.



Ask the subject to let arm hang loose and measure around the upper arm at the mid-point, making sure that the tape measure is snug but not tight.

9.2 Additional Snack Process

Additional snacks can be ordered on a named patient basis at ward level by Registered Nursing Staff, using the following process:

To order snacks:

1. Choose appropriate snack(s) from 'Snack Menu'. Copies available in ward kitchen, from Ward Hostess or on the intranet.
2. Add chosen snack(s) to 'Additional Snack Form'. This is located in the ward kitchen and copies can be found on the intranet.
3. Ward Hostess will submit completed form to their supervisor for snacks to be uploaded onto the electronic snack matrix by Catering.

To cancel snacks:

1. Cross through the patients' name on the 'Additional Snack Form' and inform the Ward Hostess that snacks are no longer required.
2. Ward Hostess will inform their supervisor and the electronic snack matrix will be updated accordingly.

To transfer snacks:

When a patient is transferred to another ward, nursing staff should inform the receiving ward of the snack order and cancel the snack delivery to their own ward (see above section).

It is important to note that Dietitians have access to the electronic snack matrix and this will be used to order and amend snacks following dietetic assessment. This will not alter additional snack orders made by nursing staff without dietetic assessment.

Delivery, storage and administration of snacks at ward level:

1. Snacks will be delivered to the ward each morning.
2. Snacks will be individually wrapped and labelled with the date, patient name and ward.
3. Ward Hostess should place perishable snacks in the fridge. Non-perishable snacks (i.e. crisps, biscuits, slices of cake) should be placed in a prominent place in the kitchen.
4. Ward Hostess will give out mid-morning and mid-afternoon snacks on the respective drinks round (including milk, Meritene Shakes/Soups if these have been requested).
5. Nursing staff are responsible for ensuring that bedtime snack (if ordered) is given on the evening beverage round.

9.3 Healthy Eating

The ‘Eatwell Guide’ shows different types and proportions of foods that adults should aim to eat in order to maintain good health.

The Guide is based on the following food groups:

- **Carbohydrates:**

E.g. Bread, rice, pasta, potatoes and other starchy foods.
Try and use it as a base for each meal.
Try to choose whole grain varieties to help increase fibre within the diet.

- **Fruit and vegetables:**

Aim for at least 5 portions per day
1 portion = 80g or 2-3 heaped tablespoons.
Fruit juice only counts as 1 portion (150ml).
Include a variety to ensure you get an assortment of vitamins and minerals.

- **Protein:**

E.g. Beans, pulses, fish, eggs, lean meat.
1 portion is approximately the size of the palm of your hand.
Try to include 2 portions of fish per week (at least one oily fish).
Try to avoid processed meat and pick lean cuts when possible.

- **Dairy and alternatives:**
  They are good sources of calcium within the diet.
  Aim for 3 portions per day (1 portion is equal to 1 x matchbox piece of cheese, 1x yoghurt, 200ml glass of milk)
  Try to select low sugar and low fat options.

- **Oils and spreads:**
  Use in small amounts.
  Try to choose unsaturated options (e.g. olive oil, rapeseed oil)

- **High sugar and high fat foods:**
  E.g. crisps, chocolate, pastries, biscuits, cake.
  Eat in moderation.

Healthy eating and the elderly

Adults over the age of 65 years can generally follow the guidelines above. Those with a reduced appetite require a more nutrient dense diet to minimise the risk of malnutrition.

Managing healthy eating in hospital

Healthier options are marked on appropriate menus with a red heart.
If healthy eating is appropriate during an inpatient admission, patients should be encouraged to choose these options from the menu.
In cases where patients are very unwell or eating only small amounts, their food choices should not be restricted. A high energy/high protein diet should be encouraged.

Referral to a Dietitian

Patients should not routinely require a referral to a Dietitian for healthy eating advice.

If appropriate, clinical areas should keep supplies of 'The Eatwell guide", which is available to download for free from the NHS Choices website:

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/528193/Eatwell_guide_colour.pdf

9.4 Vegetarianism and Veganism

There are many variants of a vegetarian diet. These are:

- **Piscaterian:** exclude meat and poultry, but consume fish and possibly other seafood, eggs, milk and dairy produce.
- **Lacto-ovo-vegetarians:** exclude meat, poultry and fish but consume eggs, milk and dairy produce.
- **Lacto-vegetarians:** exclude meat, poultry, fish and eggs but consume dairy produce.
- **Vegans:** exclude all animal flesh and product, derived ingredients and additives.

Vegetarian diets that are appropriately planned are both nutritionally adequate and healthy. However, vegetarians and vegans who do not adequately plan their

diet and do not replace vital sources of proteins, vitamins and minerals may have nutrient deficiencies. Generally, dietary intake should be based on healthy eating principles to ensure a balanced and healthy diet (see Section 8.3).

Possible vegetarian and vegan nutrient deficiencies and alternative dietary sources:

Nutrient	Sources
Protein	Pulses (lentils, peas, beans), tofu, soya, nuts, seeds Quorn, cheese and eggs
Iron	Pulses, green vegetables, wholemeal bread and fortified breakfast cereals, dried apricots, prunes, nuts and raisins
Zinc	Wholemeal bread, brown rice, almonds, nuts, chickpeas, pumpkin seeds and cheese
Calcium	Calcium-fortified soya/rice milk and orange juice, green leafy vegetables (except spinach), bread (white), dried fruit and tinned fish with bones
Vitamins B_2 and B_{12}	Yeast extract, foods fortified in these vitamins (e.g. fortified breakfast cereals), fortified soya/rice milk, eggs and other dairy foods
Selenium	Brazil nuts, bread, eggs, soya beans, mushrooms, grains, seeds and bananas
Vitamin D	Margarine, fortified breakfast cereals (check label), fortified soya milk and soya yoghurts (check label), dried skimmed milk and eggs.

Managing this diet in hospital
Vegetarian options are marked on the hospital menu with a green 'V' and separate menus are available to offer a more diverse range.
These items may contain milk, other dairy products and eggs. It is important to liaise with the catering department if a patient is experiencing difficulty in choosing suitable meals from the menu.

Referral to a Dietitian
If there is concern about the long term nutritional adequacy of a patient's diet, dietetic referral should be considered and an outpatient appointment will be offered.

9.5 Obesity

Overweight and obesity are defined as abnormal or excessive fat accumulation that may impair health.
Being overweight and obese is associated with a range of chronic health problems, including:

- Coronary heart disease (CHD).
- Cardiovascular disease (CVD).
- Diabetes.
- Osteoarthritis.
- Cancer.
- Respiratory disease.

Body mass index (BMI) is a simple index of weight-for-height and is calculated by dividing a person's weight (in kilograms) by the square of his or her height (in meters). A BMI measurement is therefore represented as kg/m^2.

The WHO define overweight and obese as follows:
- BMI greater than or equal to $25kg/m^2$ is overweight.
- BMI greater than or equal to $30\ kg/m^2$ is obesity.

Principles of a weight reducing diet

A weight-reducing diet should be based on healthy eating principles (see Section 8.3) and behavioural change. This may include:

- Eat a variety of different foods to ensure a balance of nutrients.
- Eat 3 appropriately sized meals a day.
- Have at least 5 portions of fruit and vegetables a day.
- Avoid eating too fast. Try to make meals last around 20 minutes.
- Avoid snacking in between meals.
- Limit intake of high-calorie processed foods and beverages.
- If you drink alcohol, drink sensibly (within government recommended limits).

Patients should also be encouraged to increase their physical activity and where indicated, appropriate advice should be sought from a relevant healthcare professional (i.e. doctor or physiotherapist).

Referral to a Dietitian

Obesity is not an acute problem and therefore inpatient referrals for weight reducing advice are not appropriate. The patient should enquire with his/her GP about weight management services in the community.

Patients who have a medical condition requiring dietary advice *with co-existing obesity* (e.g. diabetes, CHD) may be offered an outpatient clinic appointment.

9.6 Cardioprotective Diet

There are many factors associated with cardiovascular disease, including an individual's age, gender, diet, lifestyle, family history and associated co-morbidities (e.g. hypertension, diabetes and poor glycaemic control, obesity). When several risk factors exist together, the risk of cardiovascular disease is much increased. Management of risk factors such as dyslipidaemia, hypertension, smoking, obesity and raised blood glucose is essential in the treatment of cardiovascular disease (CVD).

Blood lipids are influenced by many factors including diet, alcohol, certain medical conditions, genetic lipid disorders, some types of drug therapy, body weight and physical activity.

A fasting blood lipid profile measures total cholesterol, LDL cholesterol, HDL cholesterol and triglycerides. High concentrations of total and LDL cholesterol or triglycerides (or both) will need further investigation and treatment. Management of dyslipidaemia is achieved by lifestyle changes including diet together with lipid modification drug therapy.

Principles of dietary treatment

Following a cardioprotective diet has shown to be beneficial in the treatment of CVD by positively affecting certain risk factors. The following principles are based on the healthy eating principles identified in Section 8.3.

- Establish a regular meal pattern, to include three portion-controlled, nutritionally-balanced meals per day.
- Reduce total fat intake to 30% or less of total energy intake.
- Reduce saturated fats to 7% or less of total energy intake (from meat, dairy, processed meat products, takeaways, cakes and confectionary, etc.).
- Achieve an intake of dietary cholesterol of less than 300 mg/day.
- Replace saturated fat with monounsaturated and polyunsaturated fats (e.g. olive oil, rapeseed oil, sunflower oil or spreads based on these oils).
- Include at least five varied portions of fruit and vegetables per day.
- Choose wholegrain varieties of starchy carbohydrate foods.
- Include 2 portions of fish each week, one of which should be oily fish (e.g. mackerel, pilchards, sardines, salmon, fresh tuna).
- Reduce daily intake of sugar and products containing refined sugars (including fructose) to less than 30g per day.
- Reduce daily intake of salt to less than 6g per day (equivalent to 2.4g sodium).
- Limit alcohol intake to 14 units per week, and spread this evenly over three days or more.
- Achieve/maintain a healthy weight (BMI 20-25).

Managing this diet in hospital

Patients should be encouraged to choose the healthier options from the menu.

Referral to a Dietitian

Dietetic referral should be made for patients who it is believed may benefit from a cardioprotective diet including those with very raised lipids and those with raised lipids who need to follow dietary advice for co-existing medical conditions (e.g. diabetes) or those who wish to lose weight.

9.7 Management of symptoms that may reduce oral intake

A number of symptoms common in hospital patients may cause a reduction in food intake. These can exist in isolation or together so the guidance in the following paragraphs may need to be combined.

Dry Mouth

Patients can struggle with a dry mouth for a variety of reasons, including a poor fluid intake and a side effect of some medications. Having a dry mouth can lead to a poor appetite, reduced food intake and weight loss.

Encourage patients to:

- Drink sips of fluid frequently throughout the day - fizzy drinks and fruit juices can be refreshing.
- Suck ice cubes to keep their mouth cool and refreshed.
- Choose moist foods with extra gravy, sauce or custard.
- Avoid foods that might stick to the roof of their mouth - e.g. chocolate and pastry.

- Eat citrus fruits, pineapple, chewing gum and boiled sweets, all of which can stimulate saliva production.
- Use lip balm or Vaseline if their lips are also dry.

Sore Mouth

A sore mouth can be caused by some treatments, medications or infection. It can lead patients to restrict their intake of food and drinks in order to avoid pain. This can result in dehydration and weight loss.

Encourage patients to:

- Drink sips of fluid frequently throughout the day and choose nutritious fluids - e.g. full fat milk, warm milky drinks and instant soups made with milk.
- Choose foods that are soft and moist - e.g. porridge, soup, shepherd's pie with gravy, fish-in-sauce with mashed potato, milk puddings, and yogurt.
- Be careful with rough textured foods - e.g. toast, which can further irritate the lining of the mouth.
- Avoid foods and drinks that are spicy, salty or acidic.
- Avoid foods and drinks that are very hot. Ice cream, ice lollies and cold drinks can sooth a sore mouth. If both hot and cold foods and drinks irritate their mouth, encourage foods and drinks served at room temperature.
- Try drinking through a straw.

Taste Changes

Sometimes food and drinks may taste different, unpleasant or may not seem to taste at all. This may be as a result of medication, chemotherapy, radiotherapy, infection, mouth sores or dental problems. Taste changes are usually temporary, but can result in food avoidance and weight loss.

Encourage patients to:

- Choose foods that appeal to them and they like the taste of. Avoid any foods that taste unpleasant, but retry these after a few weeks as their taste may change.
- Try foods that are served cold or at room temperature, rather than hot foods.
- Choose foods with strong flavours and aromas, such as those containing herbs, spices, lemon juice or mustard.
- Enhance the flavour of meals by adding a sauce, pickle or vinegar.
- Choose sharp-tasting foods and drinks which can refresh the mouth e.g. fresh or tinned fruit, especially pineapple and citrus varieties, fruit juices, boiled sweets or mints.
- Keep their mouth fresh by cleaning their teeth or dentures thoroughly and regularly; a mouthwash may also be useful.

If food seems very salty, encourage patients to avoid foods with a high salt content - e.g. packet soups, gravy and sauces, bacon, canned meat, salted nuts and crisps.

If tea and coffee seem tasteless or bitter, encourage patients to try:

- Adding some/more sugar or artificial sweetener.
- Sweetened fruit juice - e.g. orange, apple or pineapple. If the acidity stings their mouth, suggest diluting the juice with water, lemonade or tonic water.
- A sweetened fizzy drink - e.g. lemonade, Coca Cola, Lucozade or Lilt.

Nausea and Vomiting

Nausea and vomiting may occur for a variety of reasons. They can significantly reduce a patient's intake of food and fluids. Medication is usually required to alleviate these symptoms, but patients should also be encouraged to try:

- Eating little and often to avoid letting their stomach get too empty or overloaded.
- Avoiding having drinks with and just before meals; in between meals, cold drinks should be sipped at intervals or slowly through a straw – patients should aim to drink 6-8 cups of any fluid each day.
- Choosing very soft or liquid foods, which require little or no chewing and are therefore easier to eat than some other foods.
- Avoiding cooking smells by eating in a well ventilated room and choosing cold foods - e.g. sandwiches, salad with cold meat, egg or cheese and cold puddings.
- Choosing foods that are fairly dry and have a plain flavour - e.g. toast, cream crackers and plain biscuits.
- Avoiding fried, greasy and fatty foods.
- Chewing food well, eating slowly, relaxing after meals, but avoiding lying down immediately after eating to help digestion.
- Choosing ginger or peppermint flavoured foods and drinks, as these can help to alleviate nausea.

Referral to a Dietitian

When symptom management is proving difficult despite the above interventions, patients should be referred to the dietitian for dietetic assessment/review as outlined in Section 6.6.

9.8 Low Residue Diet

A low residue diet may be used in patients who suffer symptoms associated with conditions such as inflammatory bowel disease (IBD) or irritable bowel syndrome (IBS), and in preparation for some types of bowel surgery. The aim of the diet is to prevent the build up of food/ waste products in the bowel, or to prevent irritation of a sensitive bowel.

Please note that the low residue diet used for some x-ray investigations may differ slightly and you should liaise with the radiology department to clarify their requirements.

Managing the diet in hospital

A low residue menu is available from the ward hostess team.

Appropriate additional snacks can be ordered from the snack menu for those with a reduced appetite (see Section 5.4.4 and 8.2).

Examples of suitable snacks include:

- Cream crackers with butter and cheese.
- Custard.
- Smooth yoghurt (no fruit bits).
- Mousse (no bits).
- Sandwiches on white bread (no salad or pickle) .

- Rice pudding.
- Plain biscuits.
- Chocolate / Madeira cake.
- Crisps.
- Plain scone with butter.
- Meritene milkshake.
- Tinned peaches/apricots.
- White bread/toast.
- Jelly.
- Cornflakes / Rice Krispies.
- Milk.

Visitors may also provide chocolate (without dried fruit or nuts), chocolate biscuits, plain biscuits and any items from the above list if they wish.

Referral to a Dietitian
All patients requiring a low residue diet for the management of a medical condition (or in conjunction with another special diet) should be referred to the dietitian for appropriate advice.

Those requiring a low residue diet in preparation for surgery should be assessed on an individual basis and referred if necessary (i.e. if they are malnourished based on nutritional screening and/or likely to need to continue the diet post-surgery/on discharge).

9.9 Lactose Free Diet

Lactose is the naturally occurring sugar found in cow's milk.
Lactose intolerance is an inability to digest lactose due to an enzyme (lactase) deficiency. This can be diagnosed by a breath test.

Principles of dietary treatment
- To alleviate the symptoms of lactose intolerance (diarrhoea, wind, bloating) by eliminating lactose containing foods from the diet.
- To maintain an adequate calcium intake by replacing lactose containing foods with calcium-fortified alternatives.

Lactose is contained in foods which include any of the following terms in their ingredients list:

- Milk (cow, goat or sheep)
- Modified milk
- Milk solids
- Lactose
- Non-fat milk solids
- Cream
- Skimmed milk powder
- Artificial cream
- Yoghurt

Suitable substitutes for the above include:
- Soya milk (fortified with calcium)

- Dairy free margarine
- Soya desserts/yoghurts (fortified with calcium)

Butter and hard cheeses **are allowed** on a lactose free diet.

Please note that a lactose free diet is <u>not</u> completely milk free. Those patients who are intolerant to milk protein need to follow a completely milk free diet.

<u>Managing the diet in hospital</u>
Lactose free meals are available from the Allergy menu (see Section 5.4.3) which can be requested along with soya milk (fortified with calcium) for use on cereals and in drinks. If a patient requires dairy free margarine, this will be bought in on request and can be arranged by notifying the ward hostess/catering department.

Suitable food items for visitors to bring include peanuts, plain crisps, soya desserts, jelly, fruit, boiled/jelly sweets, plain chocolate, milk free biscuits, fruit squash and fizzy drinks.

However, it is important that patients are encouraged to check food labels as many manufactured foods contain lactose.

Medications should be reviewed by a pharmacist as some may contain lactose.

<u>Referral to a Dietitian</u>
Patients who will benefit from referral to a Dietitian include:
- A new diagnosis of lactose intolerance (based on breath test).
- Pre-existing intolerance who remain symptomatic.
- Pre-existing intolerance with difficulties following the diet.
- Pre-existing intolerance with difficulty meeting food needs in hospital.
- Long-stay patients who may have an inadequate calcium intake.

9.10 Gluten Free Diet

Gluten free diets are used in the treatment of Coeliac Disease and Dermatitis Herpetiformis once a definitive diagnosis is made.

Coeliac Disease is usually diagnosed with an initial coeliac serology blood test and in some cases, a duodenal biopsy demonstrating villious atrophy. Dermatitis Herpetiformis is usually diagnosed by clinical judgement - with a biopsy of uninvolved skin to demonstrate the presence of IgA antibodies moving to a duodenal biopsy if this is inconclusive.

Gluten is the protein found in wheat, rye and barley. A similar protein is found in oats. These grains, and foods containing them, should be avoided on a gluten free diet.

<u>Principles of dietary treatment</u>

The following foods are examples of those containing gluten and should be avoided:

- Wheat and oat breakfast cereals e.g. Special K, Weetabix, Shredded Wheat, Readybrek, Porridge
- Pasta, Semolina, Couscous
- All foods made from flour e.g. Bread, Cakes, Biscuits, Pizza, foods with batter or breadcrumbs
- Manufactured foods such as Soups, Sauces, Gravy, Sausages, Malted milk drinks, flavoured crisps. Patients should be encouraged to check food labels

Naturally gluten free foods, which can be eaten freely, include:
- Plain meat/chicken/fish
- Eggs
- Cheese
- Milk
- Potatoes
- Rice
- Fruit and vegetables
- Corn
- Plain crisps
- Tea, coffee, fruit juice and fruit squash
- Sugar
- Jam, Honey, Marmalade

Lists of gluten free manufactured foods are available to patients through the organisation Coeliac UK (www.coeliac.org.uk).

Managing the diet in hospital
Gluten free meals area available from the Allergy menu. Gluten free bread (which can be toasted using toasting bags) and snacks are available and can be arranged by notifying the ward hostess/using the additional snack process.

Referral to a Dietitian
Patients who will benefit from referral to a Dietitian include:

- Newly diagnosed Coeliac Disease or Dermatitis Herpetiformis.
- Inpatients with Coeliac Disease who require, or request, dietetic review.
- Inpatients with Coeliac Disease with difficulty accessing sufficient food.

In most cases, patients will be offered an outpatient clinic appointment.

9.11 Modified Consistency Diets

Category 'B' – Thin Puree Diet (Yellow)

Principles of dietary management
This diet is recommended only by SLTs and is blended to a moist, pouring double cream consistency. It does not hold its shape and cannot be eaten with a fork.

Suitable choices for Breakfast are:
- Pureed Fruit
- Fromage Frais

There is a limited choice of main meals and desserts available and these must be ordered from the appropriate menu (unless advised differently by SLT).

Category 'C' – Thick Puree Diet (Green)

Principles of dietary treatment
Foods should be blended to a smooth mousse / thick puree consistency with no bits or lumps present. It should be thick enough to form furrows with the prongs of a fork. It can be piped or moulded.

Managing the diet in hospital
This diet is recommended by SLTs or DTNs predominantly. (Some patients may also be recommended to use this as part of a short term plan to reintroduce food following a procedure, e.g. bariatric surgery, stent insertion.)

Suitable choices for Breakfast are:
- Smooth porridge (ordered from the Diet Bay)
- Smooth 'Thick and Creamy' yogurts
- Smooth rice pudding
- Pureed fruit

Main meals and desserts must be ordered from Category 'C' menu (unless recommended by SLT).

Category 'D' - Pre-Mashed Diet (Orange)

Principles of dietary treatment
Pre-mashed foods are usually mashed down to the correct consistency by the manufacturer. It requires very little chewing (e.g. finely minced meat). There should be no pips, seeds, shells, bones or gristle and any sauce/gravy must be a very thick, non-pouring consistency,

Managing the diet in hospital
This diet is recommended by SLTs or DTNs predominantly. (Some patients may also be recommended to use this as part of a short term plan to reintroduce food following a procedure, e.g. bariatric surgery, stent insertion.)

Suitable choices for Breakfast are:
- Porridge (ordered from the Diet Bay)
- 'Thick and Creamy' yogurts
- Rice pudding
- Pureed fruit

Main meals and desserts must be ordered from Category 'D' menu (unless recommended by SLT).

Category 'E' - Forkmashable Diet (Blue)

Principles of dietary treatment
Forkmashable foods are soft tender moist foods that require some chewing. Pieces of meat should be no bigger than 15mm. All foods should be able to be mashed with a fork and usually requires a very thick, non-pouring sauce/gravy.

There should be no pips, seeds, shells, bones or gristle.

Managing the diet in hospital
This diet is recommended by SLTs or DTNs but can also be ordered for patients with no teeth or poor dentition. (Some patients may also be recommended to use this as part of a short term plan to reintroduce food following a procedure, e.g. bariatric surgery, stent insertion.)

Suitable choices for Breakfast are:
- Porridge (Ready Brek)
- 'Thick and Creamy' yogurts
- Rice pudding
- Pureed fruit
- Mashed banana
- Weetabix (not suitable if the patient also needs thickened fluids)

Main meals and desserts must be ordered from Category 'E' menu (unless recommended by SLT).

9.12 SLT Modified Consistency Fluids

National descriptor stage	Consistency	Description
Stage 1	**Syrup**	▪ **Pours easily like runny honey** ▪ **Leaves a thin coat on the back of a spoon**
Stage 2	**Custard**	▪ **Cannot be drunk through a straw but can be drunk from a cup** ▪ **Leaves a thick coat on the back of a spoon** ▪ **Pours slowly**
Stage 3	**Pudding**	▪ **Used rarely and only recommended by SLT for select patients** ▪ **Cannot be dunk from a cup** ▪ **Needs to be given on a spoon**

Instructions for thickening drinks to the appropriate consistency

(GUIDE ONLY – check instructions on label of thickener prior to use)

Thickening drinks **using a shaker**	Thickening drinks **using a fork or spoon**
▪ Add 200ml of drink required into the shaker ▪ Add the correct amount of thickener ▪ Screw the lid on the shaker and shake ▪ Pour drink into a cup or beaker ▪ Leave to stand for the allotted time to allow the drink to thicken (out of patients' reach)	▪ Pour 200ml drink into a cup/beaker ▪ Add the correct amount of thickener using the appropriate scoop included in the tin or individual advice given by SLT ▪ Mix well using a fork or spoon ▪ Leave to stand for the allotted time to allow the drink to thicken (out of patients' reach)

CAUTION:

- Milk-based drinks and fruit juices may take longer to thicken and consistency may change if left to stand for a considerable period of time.
- Always ensure that the drink is out of reach of the patient whilst left to stand to thicken.
- Do not thicken nutritional supplements, e.g. Fortisip. Please refer to the dietitian for advice if a nutritional supplement is required for a dysphagic patient.

9.13 Liquidised Diet

A liquidised diet may be necessary for patients with swallowing difficulties caused by conditions such as achalasia, oesophageal cancer or oesophageal strictures.

Liquidised diet may also be recommended for patients with the following conditions:

- Gastric outlet obstruction.
- Bowel strictures where the lumen is sufficiently narrow that any solid matter can cause blockage and induce vomiting.

It may also be recommended for those who have undergone bariatric surgery or those who have had a total/partial gastrectomy.

Principles of dietary treatment
Liquidised diet should be of a consistency that is free from lumps and can be sucked through a straw.

Managing the diet in hospital
A liquidised diet is available by notifying the ward hostess and is usually recommended by a dietitian.

Referral to a Dietitian
Patients who it is thought may require a liquidised diet should be referred for dietetic assessment and advice.

9.14 Diet after Oesophageal or Duodenal Stent placement

Oesophageal stents and duodenal stents are placed in some patients with oesophageal/duodenal obstructions caused by cancer/strictures. They 'open up' the oesophagus/duodenum to allow eating and drinking to continue.

All patients manage differently after stent placement and they should be encouraged to gradually build up their confidence with foods. Once a stent has been placed it is important that the correct diet is commenced to enable us to assess tolerance to dietary re-introduction. The appropriate clinical guideline will be attached to the patient's medical notes and should be followed by endoscopy and ward staff.

Copies of these clinical guidelines are also available on the intranet as follows:

- Guideline for reintroduction of diet/fluids post **oesophageal** stent placement.

- Guideline for re-introduction of diet/fluids post **duodenal** stent insertion.

Principles of dietary treatment
- To re-introduce food gradually to ensure the stent is functioning as expected.
- To ensure long term nutritional requirements are achieved.

It is important to ensure that patients have fluids while they are eating to ensure the stent stays clear.

Patients should be encouraged to chew foods well and extra sauce should be offered if needed.

Managing the diet in hospital
Main meals and desserts should be ordered from the appropriate menu according to the stage of dietary re-introduction (see Section 9.11 and 9.12 for information about modified consistency diets).

Referral to a Dietitian
All patients should be referred to the dietitian at stent placement, if not before. Patients should not be discharged home until they have been seen by the dietitian.

9.15 Diet after Bariatric Surgery

Bariatric surgery is performed on suitable obese patients who have tried and failed to achieve clinically beneficial weight loss by all other appropriate non-surgical weight loss methods, following multiple diets and medication. Bariatric surgery may also be the option of choice instead of lifestyle interventions or drug treatment, for adults with a BMI of more than 50 kg/m^2, where previous interventions have not been effective.

Surgery is not an easy route to weight loss and patients must be active participants in this process to maximise weight loss and maintain a good nutritional status.
Three types of bariatric surgery are currently performed in the Trust. These are adjustable gastric banding, gastric bypass and sleeve gastrectomy.

Adjustable gastric banding
This procedure involves placing an adjustable band around the top part of the stomach creating a small pouch. This restricts the size of the stomach enhancing satiety and therefore helping to reduce portion sizes.

Gastric bypass
This operation has two parts (restrictive and malabsorptive) to help patients lose weight. The restrictive part decreases the capacity of the stomach from its capacity of 2-3 litres to 20-30ml. This limits the amount of food that can be eaten to about 5-6 tablespoons. The calorie intake decreases and at the same time, patients experience an earlier feeling of satiety.

The malabsorptive part comprises of separating the food from digestive juices that come from the liver, pancreas, stomach and small intestine. Normally the food is mixed with these juices before it can be digested properly and absorbed into the

body. During surgery, the gastrointestinal tract is rearranged so that food does not mix with digestive juices until much further down the intestine.

Restrictive and malabsorptive elements result in both a decreased intake in the amount of food that can be eaten and reduced absorption. Further, due to changes in hormone levels following the surgery, the sensation of hunger is often minimised.

Sleeve gastrectomy

The sleeve gastrectomy is performed by stapling down the stomach to form a tube approximately 20% of the original stomach size. This process forms a new stomach which will hold up to 200ml of fluid at any one time. The remaining 80% of the stomach is removed and the digestive tract below the stomach remains intact. The procedure severely restricts the amount of food that can be eaten at any time, resulting in both early and prolonged satiety.

Patients having a gastric band will usually stay in hospital overnight. Patients having gastric bypass and sleeve gastrectomy are expected to stay in hospital for 2-3 days depending on recovery.

Managing the diet in hospital

All patients will commence onto a liquid diet for a two week period immediately following surgery, as part of the bariatric enhanced recovery after surgery protocol (ERAS). Meritene shakes and soups (sieved) can be provided and patients should be encouraged to start by sipping slowly to prevent any discomfort. Prescribable nutritional supplements should not be given unless directed.

There is a discharge protocol for the prescription of micronutrient supplements following bariatric surgery. Advice should be sought from the medical team.

Referral to a dietitian

All patients admitted to the ward should be referred to the Bariatric Dietitians (see Section 6.6).

9.16 Renal Diet

A renal diet may be necessary for patients with acute kidney injury (AKI) or chronic kidney disease (CKD). Some patients will be treated with haemodialysis or peritoneal dialysis, whilst others will not require dialysis.
CKD is characterised by a gradual reduction in glomerular filtration rate (GFR), which leads to an increase in serum urea and creatinine levels. Other biochemical levels, such as potassium or phosphate, often increase as kidney function reduces.

Principles of dietary treatment

- To prevent malnutrition, or help treat pre-existing malnutrition.
- To control biochemistry within acceptable limits, depending on the medical treatment.
- To prevent fluid overload and large fluid gains between dialysis sessions.

All patients have different dietary requirements. However, renal diets are usually low in sodium (salt) and may contain low levels of potassium, phosphate and fluid. The necessity for these dietary restrictions will be assessed by the dietitian.

Managing the diet in hospital

An appropriate diet will be organised for renal patients by the dietitian.
The Renal menu is low in potassium, phosphate and salt, and should be ordered until the Dietitian can assess the patient. For those patients who are admitted out of office hours, or are already on a renal diet, nursing staff should liaise directly with the ward hostess/catering department.

If visitors wish to provide food gifts, these should be limited to the following (unless advised otherwise by the dietitian):

- Plain biscuits (e.g. Rich Tea, Digestives, Marie, Ginger Nuts, Shortbread)
- Plain crackers, crispbreads (not Ryvita® or other rye crispbreads), breadsticks or rice cakes
- Sandwiches on white or wholemeal bread, with fillings such as plain meat or chicken, egg mayonnaise, tuna or tuna mayonnaise
- Fruit: apples, satsumas, mandarins or clementines, plums, nectarines or tinned fruit with the juice drained off
- Drinks: any fizzy drinks or squash apart from blackcurrant squash (no added sugar varieties should be used for patients with diabetes)
- Sweets: boiled or jelly sweets, fruit pastilles, fruit gums, chewy sweets (e.g. Starburst), mints (sugar free versions for patients with diabetes)

Referral to a Dietitian

All haemodialysis or peritoneal dialysis patients admitted to the ward should be referred to the Renal Dietitians (see section 6.6).

All other patients requiring a renal diet (i.e. those not receiving dialysis) should be referred to the ward dietitian who will assess the need for any dietary restriction and will liaise with the renal dietitian, the medical team and the patient.