Nutrition Screening, Assessment and Management Procedure

1. Guiding Principles

This procedure establishes the minimum practice standards for the nutrition care and management in any acute, subacute, or residential aged care facilities (RACF) within WA Country Health Service (WACHS) facilities. WACHS have a responsibility to provide good quality and safe nutrition care for all patients. This procedure meets the requirement for National Safety and Quality Health Service Standards for nutrition and hydration, providing governance for:

- risk screening, assessment, care planning, monitoring and discharge planning
- nutrition management, planning and provision of food, fluids and nutrition support
- mealtime environment and assistance to eat and drink
- patient information and communication
- nutrition education and training for staff across WACHS.

The World Health Organisation (WHO) defines nutrition as the intake of food, considered in relation to the body's dietary needs. Good nutrition is an adequate, well balanced diet combined with regular physical activity as essential for good health. Poor nutrition can lead to reduced immunity, increased susceptibility to disease, impaired physical and mental development, unhealthy weight, and chronic conditions. Patients admitted to hospital may experience deterioration in their health and nutritional status. Appropriate nutrition and hydration support is important to promote:

- recovery, wound healing, muscle strength and mobility
- quality of life
- reduced hospital length of stay and likelihood of re-admissions
- achieving a healthy body weight.

This procedure is to be used in conjunction with the following Clinical Practice Standards (CPS):

- WACHS Enteral Tubes and Feeding – Adult CPS
- WACHS Dysphagia Screening and Assessment CPS
- WACHS Total Parenteral Nutrition CPS
- WACHS Adult Refeeding Syndrome Clinical Guideline
- WACHS Clinical Observations and Assessments CPS (physiological, neurovascular, neurological and fluid balance).

Further information relating to specialty areas including Child and Adolescent Health Service (CAHS), Women and Newborn Health Service (WHNS) can be found via HealthPoint if not covered in this policy.

2. Procedure

All patients must be screened for nutrition risks on admission as per the WACHS Admission, Discharge and Intra-Hospital Transfer Clinical Practice Standard and WACHS Malnutrition Management Framework. This aligns with the principles of the Australian Commission on Safety and Quality in Health Care's National Safety and Quality Health Service Comprehensive Care Standard.

Staff are to comply with the specific requirements for hand hygiene, aseptic technique and personal protective equipment, in alignment with the WACHS Infection Prevention and Control Policy.

2.1 Nutrition Risk Screening on admission

Comprehensive risk screening aims to identify those at risk of malnutrition and is therefore an essential component of minimising patient harm. Nutrition risk screening considers all risks such as dysphagia, special dietary requirements, presence of food intolerances or allergies as well as malnutrition and dehydration.[1]

On admission, patients and residents should have their nutrition and hydration status assessed and documented by nursing or medical staff using the following:

- MR111 WACHS Nursing Admission, Screening and Assessment Tool - Adults
- MR111P WACHS Paediatric Nursing Admission / Discharge Assessment
- RC5 Resident Admission Assessment Form

These forms include:

- the safest route of providing nutrition and hydration e.g. oral, enteral, intravenous.
- completion of malnutrition screen (section Malnutrition screening)
- screening for wounds/ pressure injuries
- requirement for assistive equipment or mealtime supports
- specific dietary needs documented
- weight and height
- specific risks associated with the frailty, falls, dysphagia and those with dementia.

Other nutrition related screening to be completed as clinically indicated such as dysphagia screening using the MR 64B WACHS Dysphagia Screening Tool and MR 124 WACHS Braden Scale and Pressure Injury Risk Assessment.

Each patient must have a nutrition and hydration care plan documented on:

- MR120 WACHS Adult Nursing Care Plan
- MR120P WACHS Paediatric Nursing Care Plan
- RC7 Resident Care Plan

Residential aged care:

- Please refer to Residential Aged Care - Nutrition and Hydration Flowchart – Aged Care Module Standard A3 and ACQS Standard 4
- Additional measures to consider are likes, dislikes, food preferences documented on the RC15 Dietary Preference Form.

For patients who weigh more than 120kg, please refer to Risk Assessment for Admission of the Heavier Patient Policy.

Hydration Screening

Hydration screening and monitoring requires assessment of three elements as outlined in the Clinical Observations and Assessments CPS (physiological, neurovascular, neurological and fluid balance) CPS:

- clinical assessment: signs and symptoms of dehydration or fluid overload
- clinical monitoring: Fluid Balance Chart (FBC), body weight
- laboratory assessment: Urea and electrolytes, creatinine.

Dehydration is assessed by:

- dry skin, reduced skin turgor
- dry mucosa
- reduced urine output
- very yellow or dark urine
- low blood pressure, increased heart rate.

Abnormal fluid (such as ascites, oedema) should be taken into consideration (dehydrated patients can still be oedematous). Please refer to the Clinical Observations and Assessments CPS (physiological, neurovascular, neurological and fluid balance) (Appendix 4 Fluid Balance Monitoring) for more details on assessing and monitoring hydration.

Malnutrition Screening

All patients on admission are to be screened for malnutrition risk using a validated malnutrition screening tool as per the WA Health Pressure Injury Prevention and Management Clinical Guideline and WACHS Malnutrition Management Framework

WACHS endorsed malnutrition screening tools include:

- MR60.1.5 WACHS Malnutrition Screening Tool (MST): recommended for screening in acute services
- MR60.1.8 WACHS Mini Nutritional Assessment Short Form (MNA-SF): recommended for screening in sub-acute services and RACF
- MR60.1.9 WACHS Paediatric Nutrition Screening Tool (PNST): recommended for screening all paediatric patients in acute and subacute services.

Malnutrition Rescreening

All admitted patients to **acute and subacute services** should be re-screened using a validated malnutrition screening tool weekly (acute) and monthly (subacute) or as clinically indicated, with the nutrition and hydration care plan updated as appropriate.

For **RACF** patients, malnutrition rescreening is recommended every 3 months or as clinically indicated when there is a change in health status or unintentional weight loss.

Refer to Residential Aged Care - Nutrition and Hydration Flowchart – Aged Care Module Standard A3 and ACQS Standard 4.

Patients who score "at risk" on any malnutrition screen are to be referred to a Dietitian for full nutrition assessment.

2.2 Referral to Dietetic Services

Nursing and medical staff should routinely screen and assess nutrition and hydration status in conjunction with other members of the multi-disciplinary team and refer to a Dietitian as clinically indicated. Referrals should be based on clinical presentation and health status. Please refer to Table 1 below for examples of referral indicators and health conditions that may require Dietetic assessment. Referrals are triaged as per WACHS Dietetic Clinical Prioritisation Framework. This is not an exhaustive list, and clinical judgement with patient consent is required for referral to Dietetics. Lower priority referrals or those not seen during an admission are redirected to Dietetic outpatient and community services or external providers accordingly.

Table 1: Indications for referral to Dietitian

Referrals Indicators	Additional Paediatric Indicators
Nutrition risks • MST score ≥ 2 • MNA – SF score ≤ 11 • Recent unintentional weight loss • Nutrition Impact Symptoms significantly impacting oral intake e.g. anorexia, nausea, taste changes, mucositis, constipation, diarrhoea, dysphagia, anaemia • Complex wounds / pressure injuries • Eating disorders • Antenatal care (based nutrition risk screen) **GIT** • Diverticular disease, ulcerative colitis, or Crohn's • Post GI surgeries • Chronic Liver disease + nutrition impact symptoms • Malabsorption or nutritional deficiencies • Stomas (new or complications with existing stomas) • Coeliac disease (new or complications) • Severe constipation and/or diarrhoea requiring dietary intervention **Nutrition support** • Enteral feeding • Parenteral feeding • Re-feeding syndrome	• PNST score ≥ 2 • Growth faltering • Infant feeding difficulties – breast or formula • Paediatric feeding concerns

• Food allergies **Chronic conditions / disease related (based on nutrition risks)** • Cancer cachexia • Renal disease / dialysis requiring dietary intervention (or deranged biochemistry) • CVA / Stroke nutrition screen • Obesity and related complications • Complications of Bariatric surgeries • Dyslipidaemia (new diagnosis or complications) • Diabetes (newly diagnosed or complications) • Gestational Diabetes	

Referrals based on BMI:

Referrals to Dietetics based on BMI cut offs alone and without patient consent for weight management support is not recommended. The community outpatient setting is the preferred setting for any successful long-term weight management intervention[2]. With new and emerging evidence, WACHS recommends the following BMI cut offs for over 65 years and recommended referral criteria as outlined in Table 2 below.

Table 2: Recommended BMI categories and nutrition risks[4,5]

BMI category	BMI and age Adults < 65 years	Adults 65 years and older	Referral criteria as per Table 1
Underweight	< 18.5 kg/m²	< 24 kg/m²	MST ≥ 2 Other clinical indicators
Healthy weight	18.5 – 25 kg/m²	24-30 kg/m²	Patient consent + clinical nutrition risk
Overweight	> 25 -30kg/m²	> 30 kg/m²	Patient consent + clinical nutrition risk
Obese	> 30 kg/m²	> 35 kg/m²	Patient consent + clinical nutrition risk

Source: Health Direct Online BMI Calculator: https://www.healthdirect.gov.au/bmi-calculator.

It is important to note, using BMI alone to identify risks of malnutrition and obesity is not recommended.

- It has been demonstrated that weight stigma around patients with obesity has led to poor identification of malnutrition risk in this patient group who are less likely to receive further nutrition assessment. Evidence suggests that BMI alone cannot be used as a surrogate measure for nutritional status and warrants routine nutritional screening for all hospital patients, and subsequent nutritional assessment and support for malnourished patients[5,6]
- Although BMI is widely used to assess and classify obesity, it is not an accurate tool for identifying adiposity-related complications[7] and further nutrition screening is required for referral to Dietetics.

The Edmonton obesity staging system has been proposed to guide clinical decisions from the obesity assessment and at each BMI category. This 5-stage system of obesity classification considers metabolic, physical and psychological parameters to determine the optimal obesity treatment (refer to Appendix 3).

2.3 Nutrition Assessment

Nutrition assessment may be defined as a comprehensive approach to diagnosing nutrition problems that uses a combination of the following: medical, nutrition, and medication histories; physical examination; anthropometric measurements; and laboratory data[8].

WACHS endorsed nutrition assessment tools include:

- MR60.1.6 WACHS Dietetics Subjective Global Assessment (SGA)
- MR60.1.7 WACHS Patient Generated Subjective Global Assessment (PG-SGA)

Nutrition assessment will indicate if the patient is well nourished or malnourished, the degree of malnutrition and determine the appropriate interventions to improve nutrition status and prevent further deterioration while in hospital[1].

Nutrition Assessment conducted by the dietitian includes (but is not limited too):

Food / Nutrition-Related History	Anthropometric Measurements	Biochemical Data, Medical Tests, and Procedures	Nutrition-Focused Physical Findings	Client History
Food and nutrient intake, medication intake, supplements knowledge / beliefs, previous diets, meal time behaviours, feeding difficulties	Height, weight, body mass index (BMI), weight history, growth charts, BMI z scores mid upper arm circumference (MUAC)	Nutritional blood markers (e.g. electrolytes, glucose) and tests, bowels, fluid balance	Physical appearance, muscle and fat wasting, swallow /dysphagia, oral health, appetite, quality of life indicators, cognition	Personal history, medical / health / family history, previous medical treatments, social history, food literacy, food security

Source: American Dietetic Association's International Dietetics and Nutrition Terminology (IDNT) Reference Manual: Standardized Language for the Nutrition Care Process, Third Edition.

2.4 Provision of Nutrition and Hydration

All patients and residents are to receive adequate nutrition and hydration according to individual requirements. This may be delivered via oral, enteral, or parenteral routes and documented on the appropriate care plan. Agreeing on realistic nutrition goals

with the patient and carers should be an integral component of any nutrition care planning. When setting goals, it is important to consider disease stage, nutrition impact symptoms, medical treatment, and involvement of the multidisciplinary team.

Food service and menus

Patients and residents are to have access to nutritionally adequate, safe food and fluids to support treatment, promote recovery, maintain function and enhance rehabilitation[1]. WACHS facilities have menus that comply with the Nutrition Standards for Adult Inpatients and Residential Aged Care Policy, providing suitable options for admitted acute adult inpatients, including the nutritionally well and the nutritionally at risk. The Policy provides guidance for menu provision in RACFs.

The following considerations for menu provision may include:

- all patients be supported to complete their own menus to promote choice
- patients with specific nutritional requirements can discuss these when being admitted by nursing staff and referred to Dietitian as clinically indicated
- culturally appropriate menu items be available and considered in menu planning
- on admission, nursing staff must update patient's dietary requirements, food allergies and therapeutic needs based on local food service systems
- when nutritional needs are elevated, energy and protein-enriched meals and snacks are available to improve nutritional intakes
- standard therapeutic diets, modified texture diets and thickened fluids are available and are based on current evidence and best practice. Patients on modified texture diets and thickened fluids are at higher risk of inadequate oral intake, especially if unable to self-feed[1]
- patients who cannot consume adequate nutrition orally, including those patients on texture modified diets, should be considered for oral nutrition support
- patients who are nil by mouth for more than three (3) days will be considered for enteral nutrition support[8]. In palliative or older adult patients, this may not be the most appropriate form of nutrition support[1]
- all food provided within WACHS must comply with relevant food safety guidelines as well as each health services' food safety programs
- staff are encouraged to only offer food to patients and residents that have been provided by the health service.
- safe food hygiene practices must be followed by families and/or carers who choose to bring food and fluids for patients residing in a hospital and/or residential aged care settings. Written information outlining safe food hygiene practices is available for both the health service and consumers. Refer to:
  - Food From Home – hospital guide: outlines food safety requirements to support families and carers who are bringing food from home for patients or residents.
  - Bringing Food From Home – consumer resource: outlines suitable foods that can be provided to patients and residents, including transport and storage to ensure safe food practices.

More information regarding food services, ordering of diet and fluids is in the Hospital Food Service Manual.

RACF are required to be compliant with the Nutrition Standards Policy. For more information on menu planning for aged care, please refer to Best Practice Food and Nutrition Manual (Ed 2).

Hydration

This may be provided via oral, intravenous/parenteral, subcutaneous or enteral routes as clinically indicated. Fluid should be readily available and provided with assistance in the patient's room to promote adequate hydration. All patients must have their hydration status clearly documented on appropriate care plans. Patients who require thickened fluids or whose fluid intake is insufficient should be considered for additional hydration support.

Monitoring of fluid balance should be maintained using the MR144 WACHS Fluid Balance Work Sheet for all patients and residents:

- receiving fluids via non-oral routes as clinically indicated
- with existing medical conditions or functional limitations that increase the risk of dehydration, i.e. dysphagia or nil by mouth (NBM)
- with fluid restrictions
- with poor fluid intake requiring monitoring as clinically indicated.

Refer to WACHS Clinical Observations and Assessments CPS (physiological, neurovascular, neurological and fluid balance) CPS (Appendix 4 Fluid Balance Monitoring).

Resources have been developed by the Dietetic Food Service Working Party to support clinicians in completing accurate fluid balance charts and monitoring:

- Nursing Guide
- Common Fluid Measurements for Hospitals
- Common Fluid Container Measurements.

Mealtimes

Hospital routines, clinical procedures and ward rounds can disrupt mealtimes and significantly reduce patients' nutrition intake. The mealtime environment and patient preparation are important to maximise a patient's enjoyment of their meal and enable consumption of appropriate amounts of food and fluid. For residents, enjoyable food is of paramount importance. Food and nutrition have a major role in meeting the physical and functional needs of residents and contribute significantly to quality of life.

Measures should be taken at mealtimes where possible to ensure that the environment is safe and conducive to eating by:

- minimising non-essential therapy or clinical procedures
- adjusting surroundings, sights, smells, noise and lighting
- providing feeding assistance where required
- encouraging patients who are able, to sit out of bed to eat their meals
- ensure patients are ready for their meals prior to the meal delivery by
  - waking the patient

  - ensuring the patient is correctly positioned for eating
  - clearing bed tables
  - toileting
  - hand washing
  - ensuring dentures are in place and mouth care is attended
- providing equipment/utensils to meet individual needs including adaptive aids, cutlery and drinking devices if dexterity is impaired. An Occupational Therapist is appropriately qualified to provide this assessment and recommendations.
- ensuring any requirement for mealtime set up support, feeding assistance and/or modified cutlery / equipment is communicated to catering services and documented appropriately in sites nursing handover and catering programs.

Sites can implement protected mealtimes, whereby all non-essential treatment, tests and therapy is not permitted 30 minutes before and after mealtimes. Wards should be adequately staffed at mealtimes and the importance of providing timely and individualised assistance with eating and drinking recognised in work allocations. Volunteers, carers and relatives can be involved in assisting patients and residents to eat if deemed safe by clinical staff[1].

2.5 Nutrition Care Planning

The nutrition care plan includes clearly identified goals and interventions such as dietary requirements and modifications, nutrition supplements, enteral nutrition, assistance with feeding, food and fluid intake records and dietetic advice[1].

Patients and carers are encouraged to have input into the nutrition care plan. Nutrition care plans are reviewed regularly and any changes in a patients' clinical condition should be monitored with appropriate changes to the nutrition care plan made as appropriate[1].

The nutrition and hydration care plan should consider the following factors:
- risk of malnutrition or dehydration
- dietary requirements e.g. high protein/ high energy diet, gluten free
- assistance required for drinking and feeding
- use of assistive feeding equipment
- involvement of the multidisciplinary team
- nutrition support required
- discharge planning.

Complex therapeutic dietary requirements or multiple food allergies:
- Refer to a dietitian for an individualised meal plan
- Refer to WACHS Food Allergy Guideline.

Fasting, clear or nourishing fluids:
- Consider nutrition support if greater than 3 days[8].

Dysphagia patients refer to:
- a Speech Pathologist for assessment and prescription of a texture modified menu (including diet and fluids)
- WACHS Dysphagia Screening and Assessment Clinical Practice Standard.

Patients with dementia, delirium or post-stroke:
- may display difficult mealtime behaviours
- have difficulty with eating and drinking for a variety of reasons
- refer to Appendix 1 for strategies to assist with these issues[12].

MR144C WACHS Food Intake Chart **should be used to monitor any decrease in oral intake for patients identified at risk of reduced oral intake**.

Patients with obesity or requiring weight management support:
- consider referral to WACHS community dietetics or private dietetic services
- consider referral to local chronic condition services (e.g. ICDC, ITC, Health Navigator)
- refer to GP to assess for Chronic Disease Management Plan
- consider use of WACHS Weight Management Menu Standards or special meal replacement plan based on referral and assessment by Dietitian.

For residents referred for obesity, it is not recommended they are placed on restrictive diets unless under the supervision of a Dietitian or Medical Officer. The standard menu should be provided to ensure residents can meet their nutritional requirements. The Australian and New Zealand Society of Geriatric Medicine position statement on Obesity and the Older Person states[13]:
- weight loss should never be recommended in older people purely because of the body mass index or waist circumference measurements
- weight loss should only be recommended where there is likely to be benefit to the individual or where their weight is affecting quality of life
- any weight loss programs in the elderly must aim to preserve muscle mass.

Eating Disorder Patients and Nutrition Management:
- Direct referral to Dietitian for menu plan and monitoring
- Please refer to North Metropolitan Health Service - WA Eating Disorders Outreach and Consultation Service for specific guidelines for admitted eating disorder patients.

2.6 Therapeutic Diets

Those patients and residents requiring diet modifications to meet their nutrition needs are allocated specific therapeutic diets. These diets have been modified from the standard diet to include extra nutrition, avoid certain nutrients or food components. Examples of these are:
- diagnosed food allergies – meals and snacks that avoid allergen/s
- special dietary requirements – low potassium, low fat, renal diet
- fluid diets post gastrointestinal surgery – clear or nourishing fluids
- nourishing foods – high energy high protein (HEHP)

- textured modified – level 6 soft and bite sized, level 5 minced and moist, level 4 pureed
- thickened fluids – level 4 extremely thick, level 3 moderately thick, level 2 mildly thick.

For a full list of available diets, refer to:
- the local hospital Food Service Manual
- Dietetics (sharepoint.com) to access Food Service Information such as therapeutic diet resources, ADA Diet Types Summary and Master List Diet Types in iSoft.

Food First Approach to malnutrition - high energy high protein diet

Patients and residents at greatest risk of malnutrition (MST ≥ 2 and MNA-SF ≤ 11) require a HEHP diet as part of their malnutrition management strategies to optimise nutritional intake. This includes:
- small frequent meals and snacks with a focus on nourishing foods and fluids
- common, readily available HEHP snacks that nursing staff may have access to, such as yoghurt, custard, cheese and crackers, nuts and dried fruit
- use of food fortifiers to increase energy and protein of meal items.

Refer to: HPHE Menu Standard.

2.7 Nutrition Support

Oral Nutrition Supplementation

Oral Nutritional Supplementation (ONS) is prescribed by the Dietitian or Medical Officer if there is no on-site Dietitian based on approved guidelines for prescribing ONS. Refer to Appendix 2: Clinical Guidelines for the provision of ONS in Adults.

The Dietitian should liaise with medical and nursing staff, and document ONS requirements according to site-based protocols. Documentation should include the supplement name, volume, frequency and time to be delivered. Please note it is not recommended to use medication charts for prescribing ONS. Options for prescribing ONS include:
- MR60.1.12 WACHS Oral Nutrition Support Chart
- nursing handover forms i.e. i.CM nursing handover or other site specific forms
- current menu ordering systems (ADA)
- MR120 WACHS Adult Nursing Care Plan
- MR120P WACHS Paediatric Nursing Care Plan
- RC7 Resident Care Plan

Refer to local procedures for providing ONS to patients.

Enteral Nutrition

Enteral nutrition (EN) is indicated for patients who are unable to meet their nutrition and hydration requirements orally or who cannot eat and drink safely but have a functioning gastrointestinal tract[8,10] .

EN is a nutritionally complete liquid formula administered directly into the stomach or small intestine using a specially designed tube[10] and is prescribed by a Dietitian. The Dietitian will ensure the type and volume of EN prescribed is consistent with the nutritional goals of the patient. Refer to: WACHS Enteral Tubes and Feeding – Adult Clinical Practice Standard for further information on management of enteral feeding.

Parental Nutrition

Parenteral Nutrition (PN) can be used for patients who are unable to tolerate or absorb adequate nutrition via oral and enteral routes. PN is the infusion of an intravenous nutrition formula into the bloodstream[8,11]. Total Parenteral Nutrition (TPN) is an infusion that provides a patient's complete nutritional requirements via a central line and peripheral parenteral nutrition (PPN) is an infusion into a peripheral vein using a formula of lower osmolarity[8,11].

The Dietitian, medical team and Pharmacist will prescribe a parental nutrition regime based on patient's requirements, clinical needs and nutritional goals of the patient. Refer to: WACHS Total Parenteral Nutrition Clinical Practice Standard for further information on management of TPN.

2.8 Nutrition Specific Monitoring[1,8]

All staff are required to routinely monitor a patient's ability to consume adequate diet and fluids, which includes the need for feeding assistance**.**

Patients, including surgical patients, are not to be left fasting for more than three (3) days or on a fluid only diet for longer than 5 days[8].

The short and long term goals of nutrition support should also be monitored as clinically indicated. Consider daily monitoring until stable, then 2-3 times a week. Dietitians and Medical officers may request additional monitoring measures depending on the individual patient's or resident's nutrition and hydration care plan. Daily monitoring of enteral and parenteral regimens occur until the patient is clinically stable. The indications, route, risks, benefits and goals of artificial nutrition support continue to be monitored as clinically indicated.

Individuals screened at **low risk of malnutrition** should be re-screened at least weekly while an inpatient, monthly for subacute patients, three (3) monthly for residents or as clinically indicated for all services where there is change in health or nutrition status[5].

The following clinical indicators of nutrition and hydration status may be monitored regularly by clinicians as part of the patient's individual nutrition and hydration care plan:

Clinical Indicator	Frequency of Monitoring – Acute	Residents Monitoring
Weight	On admission and at least once a week. Daily if there are concerns regarding fluid balance	On admission Monthly ongoing Change to health status
Height	On admission	On admission Resident reviews
Nutritional intake	Daily until stable, then twice weekly or as clinically indicated	As clinically indicated
Intake of Nutrition support (orally, enteral, parental)	Daily	Daily
Fluid balance	Daily until stable then as clinically indicated	As clinically indicated
Biochemistry	Twice weekly initially until stable or as clinically indicated	As clinically indicated
Refeeding specific monitoring	Daily until clinically stable – please refer to CPS	
Bowels	Daily	Daily
Urine output	Daily	Daily or as clinically indicated
Oedema / ascites	Daily or as clinically indicated	As clinically indicated
Blood glucose levels	Daily or as clinically indicated – refer to CPS	Daily or as clinically indicated – refer to CPS
Nutrition Impact Symptoms	Daily or as clinically indicated	Daily or as clinically indicated
Wound staging	Daily or as clinically indicated	Daily or as clinically indicated

Refer to individual monitoring sections of:

- WACHS Diabetes - Inpatient Management Clinical Practice Standard
- WACHS Enteral Tubes and Feeding – Adult Clinical Practice Standard
- WACHS Total Parenteral Nutrition Clinical Practice Standard
- WACHS Adult Refeeding Syndrome Clinical Guideline

2.9 Discharge Planning[1]

All patients who are identified as having nutrition risks during their hospital admission are to be discharged with a clear nutrition and hydration care plan.

The plan is to be clearly communicated to the patient and/or carer and ensure patients have timely access to adequate nutrition and hydration after discharge**.** If the patient has an on-going need for nutrition support products, the patient is to be provided with an appropriate discharge volume until their own supply is delivered via established home enteral nutrition (HEN) systems. Dietitians will establish ongoing HEN prescriptions with the appropriate service prior to discharge from the hospital. Refer to: Summary of Current Processes for Providing HEN to Clients.

The following factors should be considered in the patient discharge planning:
- the discharge destination
- information to access local community support services (i.e. meal delivery services) as required
- other Allied Health recommendations and care plans should be included in patient discharge documents
- appropriate follow up in the outpatient/community setting to monitor nutrition management
- strategies for managing any clinical risks identified during admission (e.g. refeeding syndrome, dehydration, inadequate nutrition) to be clearly communicated to the patient and/or carer
- appropriate consumer information and education on nutrition goals post discharge.

If a patient is being transferred to another facility, a clear handover will be written including patient identification, situation, background, assessment, recommendations (iSoBAR format) and all relevant information such as nutrition status, special dietary requirements and any specialised nutrition products to be provided.

Patient Information

Information regarding the role of nutrition and hydration in promoting recovery and general wellbeing should be made available to all patients, as clinically relevant or requested. The following points should be considered:
- information regarding nutrition and hydration intervention should be communicated to patients and their carer's in formats that they can understand and documented in the patient health record
- this should be always culturally appropriate
- information should be available in languages other than English for culturally and linguistically diverse (CALD) populations
- use of interpreters should be considered
- patients should be informed about hospital food services and policies involving food or drink brought in the community where appropriate
- patients and carers should be informed about site based processes for meal times and visiting hour regulations

- feedback and progress should be provided to the patient and carer by the relevant staff at appropriate intervals throughout the patient journey.

3. Definitions

Carer	A person who provides personal care, support and assistance to another individual who needs it because they have a disability, a medical condition (including a terminal or chronic illness) or a mental illness, or are frail and/or aged
Patient	A person who is receiving care in a health service organisation
Nutrition screening	A process to identify an individual who may be malnourished or at risk of malnutrition to determine if a detailed nutrition assessment is indicated
Nutrition assessment	A comprehensive approach to diagnosing nutrition problems that uses a combination of the following: medical, nutrition, and medication histories; physical examination; anthropometric measurements; and laboratory data
Malnutrition	Malnutrition refers to deficiencies, excesses or imbalances in a person's intake of energy and/or nutrients. The term malnutrition covers two broad groups of conditions. One is 'undernutrition'—which includes stunting (low height for age), wasting (low weight for height), underweight (low weight for age) and micronutrient deficiencies or insufficiencies (a lack of important vitamins and minerals). The other is overweight, obesity and diet-related non-communicable diseases (such as heart disease, stroke, diabetes and cancer). World Health Organisation
Nutrition Support	The provision of nutrients to patients orally and/or enterally (administration into the stomach or intestine) and/or parenterally (intravenous [IV] infusion) for the purpose of improving or maintaining a patient's nutrition status[8]

4. Roles and Responsibilities

Role	Responsibilities
Medical Officer	• Considers the patient's mental and physical ability to meet nutritional requirements • Assesses and monitors nutrition requirements in conjunction with the team to prescribe recommended treatments. Refers to Dietitian where indicated • Considers drug/nutrient reactions

Nursing Staff	• Completes nutrition screening • Coordinates protected mealtimes • Helps with feeding where required and documents any meal time or feeding supports in nursing handover program • Delivers and monitors oral, enteral and parenteral nutrition • Monitors diet intake as per Dietitian request, using food charts • Liaises with patient relatives and community supports • Thickening of fluids as required
Dietitian	• Assesses current/previous nutritional status and requirements • Plans nutrition care goals with the medical team and patient • Prescribes therapeutic diets and oral nutrition supplements • Prescribes and monitors of enteral and parenteral nutrition • Educates patients and significant other(s)/carers • Liaises with catering department and members of the multidisciplinary team • Organises nutrition support for discharge • Provides staff education regarding nutrition, screening and regular malnutrition auditing • Supports malnutrition auditing (CoBRA)
Speech Pathologist	• Assesses safety of oral feeding and swallow risks • Prescribes modified texture diet and thickened fluids • Educates patients and carers regarding modified texture diet and thickened fluids • Liaises with catering department and other members of the multidisciplinary team
Catering Service	• Provides a meal service for the hospital, including textured modified diets compliant with IDDSI guidelines • Provides standard therapeutic diets or individual meal plans • Liaises with Dietitian and Speech Pathology • Responsible for checking 3 points of patient ID on delivery of meals. This includes management of patient allergies which may be identified with a red arm band • Provides appropriate assistive feeding equipment as required
Pharmacist	• Advises on parenteral nutrition composition and compatibilities • Ensures supply and safety of parenteral nutrition solution • Advises on drug nutrient interactions and drug delivery
Other Allied Health: Occupational Therapy, Physiotherapy, Social Work	• Liaises with the team to set goals for nutrition care • Organises resources, services, and assistive equipment for feeding and drinking (documents accordingly) • Liaises with the team to optimise independence for meal preparation, feeding and drinking • Organises resources and equipment for discharge to ensure continuity of the nutrition and hydration care plan

Education and Training

Programs on nutrition care and malnutrition are available throughout WACHS. Courses available include:

- Nutrition Standards for Adult Inpatients and Residential Aged Care – Delivered as an eLearning package NUTWA EL1 (via MyLearning) and Face to Face presentation (NUTWA 001) by local Dietitians
- Malnutrition – Delivered as an eLearning package MALWA EL1 (via MyLearning) and Face to Face presentation (MALWA 001) by local Dietitians.
- Dysphagia Screening eLearning Package DYSWA EL1 (via MyLearning) or DYSWA 001 (Face to Face Presentation)
- Thickened Fluids and Modified Diet: Introduction eLearning Package THFIN EL1 (via MyLearning)
- Thickened Fluids and Modified Diet: Preparation eLearning Package THFWA EL1 (via MyLearning)

All Staff are required to work within policies and guidelines to make sure that WACHS is a safe, equitable and positive place to be.

5. Compliance

Failure to comply with this procedure may constitute a breach of the WA Health Code of Conduct (Code). The Code is part of the Integrity Policy Framework issued pursuant to section 26 of the *Health Services Act 2016* (WA) and is binding on all WACHS staff which for this purpose includes trainees, students, volunteers, researchers, contractors for service (including all visiting health professionals and agency staff) and persons delivering training or education within WACHS.

WACHS staff are reminded that compliance with all policies is mandatory.

6. Records Management

All WACHS corporate records must be stored in the approved Electronic Documents and Records Management System in accordance with the WACHS Records Management Policy

All WACHS clinical records must be managed in accordance with Health Record Management Policy.

7. Evaluation

Evaluation, audit, and feedback processes are to be in place to monitor compliance. This is the responsibility of Operations and Nurse Managers, in conjunction with Dietitians and Hotel Services Managers and/or Business Service Managers to ensure sites are meeting the requirements of this procedure annually through:

- CoBRA malnutrition audits
- audits of nutrition screening and nutrition assessments
- point prevalence of malnutrition

- customer food satisfaction surveys
- Food service audits and annual Nutrition Standards compliance survey
- consumer engagement.

8. Standards

National Safety and Quality Health Service Standards - 1.01, 1.07, 1.08, 2.01, 5.03, 5.04, 5.21, 5.27, 5.28
Australian Aged Care Quality Agency Accreditation Standards – 2 (a), 3 (b) 4 (f)

9. Legislation

Health Services Act 2016 (WA)

10. References

1. Royal Perth Bentley Group. Nutrition Policy
2. Hillier- Brown FC et al. A systematic review of the effectiveness of individual, community and societal-level interventions at reducing socio-economic inequalities in obesity among adults; *International Journal of Obesity* (2014) 38**,** 1483–1490
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4. Winter JE et al. (2014) BMI and all-cause mortality in older adults: a meta-analysis. American Journal of Clinical Nutrition, (2014) 99 (4): 875-890
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7. Wharton et al Obesity in adults: a clinical practice guideline Canadian Medical Association Journal (2020) 192 (31)E875-E891
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10. Dietitians Association of Australia (DAA). Enteral nutrition manual for adults in health care facilities. Deakin, ACT: DAA 2018
11. Dietitians Association of Australia (DAA). Parenteral nutrition manual for adults in health care facilities. Deakin, ACT: DAA; 2018:
12. Ensell C, Matheson N. Mealtime behaviours in people with dementia in the absence of dysphagia: education of nursing staff in an acute care setting. *ACQ.* 2009;11(2):92-96.

13. Visvanathan, R et al. Australian and New Zealand Society for Geriatric Medicine: position statement – obesity and the older person *Australas Journal of Ageing* (2012) 31 (4): 261-7: accessed 10th May 2022: ObesityandtheOlderPerson11Sept113.pdf (anzsgm.org)

11. Related Forms

MR60.1.5 WACHS Malnutrition Screening Tool
MR60.1.6 WACHS Dietetics - Subjective Global Assessment
MR60.1.7 WACHS Dietetics - Patient Generated Subjective Global Assessment (PG-SGA) Tool
MR60.1.8 WACHS Mini Nutrition Assessment – Short Form (MNA-SF)
MR60.1.9 WACHS Paediatric Nutrition Screening Tool
MR60.1.12 WACHS Oral Nutrition Support Chart
MR64B Dysphagia Screening Tool (Royal Brisbane Women's Hospital (RBWH)
MR111 WACHS Nursing Admission, Screening and Assessment Tool - Adults
MR111P WACHS Paediatric Nursing Admission / Discharge Assessment
MR120 WACHS Adult Nursing Care Plan
MR120P WACHS Paediatric Nursing Care Plan
MR124 WACHS Braden Scale and Pressure Injury Risk Assessment
MR144 WACHS Fluid Balance Work Sheet
MR 144C WACHS Dietetic - Food Intake Chart
MR184 WACHS Inter-hospital Clinical Handover Form
RC5 Resident Admission Assessment Form
RC7 Resident Care Plan
RC15 Dietary Preference Form

12. Related Policy Documents

WACHS Adult Dysphagia Screening and Assessment CPS
WACHS Adult Refeeding Syndrome Clinical Guideline
WACHS Allied Health Clinical Handover Policy
WACHS Aseptic Technique Policy
WACHS Clinical Observations and Assessments (physiological, neurological and fluid balance) Clinical Practice Standard
WACHS Diabetes - Inpatient Management Clinical Practice Standard
WACHS Documentation Clinical Practice Standard
WACHS Enteral Tubes and Feeding - Adults Clinical Practice Standard
WACHS Food Allergy Guideline
WACHS Hand Hygiene Policy
WACHS Infection Prevention and Control Policy
WACHS Inter-hospital Clinical Handover Form Procedure
WACHS Personal Protective Equipment (PPE) Procedure
WACHS Residential Aged Care - Nutrition and Hydration Flowchart – Aged Care Module Standard A3 and ACQS Standard 4
WACHS Risk Assessment for Admission of the Heavier Patient Policy
WACHS Total Parenteral Nutrition Clinical Practice Standard

13. Related WA Health System Policies

MP 0053/17 WA Clinical Alert (Med Alert) Policy
MP 0095/18 Clinical Handover Policy

14. Policy Framework

Clinical Governance, Safety and Quality

15. Appendices

Appendix 1: Feeding Behaviours and Dementia
Appendix 2: Provision of Oral Nutritional Supplements (ONS) in Adults
Appendix 3: Edmonton obesity staging system

This document can be made available in alternative formats on request for a person with a disability

Contact:	Coordinator Dietetics		
Directorate:	Health Programs – Allied Health	**EDRMS Record #**	ED-CO-22-266795
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Appendix 1: Feeding Behaviours and Dementia[12]

The following table is a guide only. Advice should be sought from Dietitian or Medical Staff for individual patient management.

Table reproduced from: Ensell C, Matheson N. Mealtime behaviours in people with dementia in the absence of dysphagia: education of nursing staff in an acute care setting.[9]

Mealtime Behaviours and Strategies	
Holding food or drink in the mouth	• Provide verbal cues to chew and swallow • Bring an empty spoon to the person's mouth to remind them to swallow the prior mouthful • Trial a range of tastes and temperatures
Spitting out food and fluids	• Offer a variety of food and drink • Take note of food and drink that is accepted, and offer readily • Liaise with the dietitian regarding supplements and offer intake in liquid form
Food / drink refusal	• Try to stimulate appetite prior to meals by offering fruit juice and encouraging exercise • Use indirect prompts e.g., "that looks nice" • Encourage the person to try the first mouthful to "get a taste" • Offer "grazing" meals or snacks throughout the day • Attempt to offer the person familiar foods e.g., ask family to supply home cooked meals as able • Ensure meal is high in calories/protein and liaise with Dietitian • Offer a range of options and cater to preferences • Offer finger foods if appropriate • Reduce distractions • Documentation of refusal
Problems with teeth	• If dentures have been left at home/care facility, organise someone to bring dentures to hospital • While waiting for dentures, offer a minced and moist diet • If the person usually eats without dentures, offer their usual diet • Use denture fixative for loose dentures • Oral hygiene after all oral intake • Referral to a dentist if appropriate
Eating non-food items	• Lock away all harmful or inappropriate items • Ensure all involved are aware of the problem
Reduced level of consciousness	• Only offer intake when the person is alert enough to swallow safely and able to maintain for a sufficient amount of time • Use a cold, wet face cloth to fully rouse the person before meals • Sit the person out of bed, or reposition in bed, to help them wake up
Food residue in mouth post meals	• Prompt the person to clear residue with finger or tongue • Encourage a drink to aid oral clearance • Massage cheeks to move residue centrally • Mouth care at the end of each meal • Upright positioning post meal for at least 30 minutes

Continued over page

Mealtime Behaviours and Strategies	
Wandering during meal times	• Use gentle physical prompts at the table e.g., put cup/cutlery back into the person's hands • Use simple verbal prompts and show the person their meal to aid understanding • Offer finger foods that can be consumed when "on the move" • Gently guide the person back to the table when they wander, and prompt them to continue their meal • Reduce distractions
Dry mouth	• Encourage regular sips of fluid during the day, particularly prior to meals • Swab the person's mouth with grape seed oil before meals • Use an artificial saliva • Offer extra sauce/gravy to moisten meal • Encourage the person to alternate diet and fluids
Eating or drinking too slowly	• Serve each course separately to retain warmth and appeal • If only small amounts are taken, liaise with the dietitian to ensure food is high in calories • Offer snacks between meals • Provide full assistance if required
Eating too quickly / taking large mouthfuls	• Minimise distractions and attempt to create a calm environment • Serve courses separately • Ensure food is chewed, swallowed and cleared prior to the next mouthful • Provide smaller/modified utensils e.g., teaspoon, spouted cup • Provide verbal and physical prompts to reduce rate of intake
Eating from others' plates	• Ensure individual boundaries are clear • Use physical or verbal prompts to help the person identify their food and utensils • Supervise meals
Lack of initiative during meals	• Draw the person's attention to their meal • Describe what is on the plate • Place cutlery into the person's hands • Guide them to take the first mouthful • Give verbal and physical prompts to continue their meal • Sit the person with those more able, so they can be prompted by their example
Difficulty with utensils or messy eating	• Cut food before serving • Serve one course at a time • Verbally orientate the person to the meal, plate and cutlery • Place cutlery directly into the person's hands • Refer to occupational therapist for modified utensils if required e.g., lipped plate, built-up cutlery, non-slip mat • Consider offering finger foods
Hemianopia / neglect	• Place the meal on the person's good side • Assist the person from their good side • Turn the plate during the meal • Provide verbal and physical prompts to attend to the neglected side during the meal

Appendix 2: Prescribing Oral Nutritional Supplements (ONS) in Adults – Recommendations for clinical practice

Nutrition assessment (intake, weight, disease status, nutrition impact symptoms) - *(using a validated assessment tool)*

Oral intake is inadequate + high risk (as per prescribing criteria) = requiring ONS

Recommended intervention:
- High energy high protein diet
- Trial ONS* as per ONS considerations below
  - Outpatient (OP): provide trial supply that will cover until a HEN supply can be established; this maybe up to 2 weeks
- 3 day food and fluid intake chart or diet history recall
- Agree on treatment goals with patient and document

Oral intake is inadequate + low risk (as per prescribing criteria) = food first approach

Recommended intervention:
- High energy high protein diet +/1 nourishing fluids
- 3 day food and fluid intake chart
- Provide dietary advice to maximise nutritional intake
- Agree on treatment goals with patient and document
- On review, assess to identify any change to risk

***ONS considerations for prescribing:**
- Trial ≥ 1.5kcal/ml products first
- Twice daily recommended and between meal prescription (*unless otherwise indicated)*
- Test preferences by offering samples of flavours and types (prevent flavour fatigue)
- Meet health condition/s (ie renal, fluid restricted, intolerances)
- Consider formats (liquid, powder, pre-thickened, puddings), styles (milk, juice, savoury), types (high protein, low volume, fibre-containing), flavours (neutral, vanilla, chocolate) and energy density (1–4kcal/ml) to meet individuals' preferences and needs[2]

ONS Prescription to include preferred product(s)/ flavour(s) + volume + timing + frequency

Review: Inpatients (IP): within 24-72 hrs of initial assessment Outpatients (OP):within 2 weeks to determine need for HEN prescription.

Monitor ONS Prescription:
- Tolerance of product + Compliance with ONS and dietary intake
- Weight and nutritional status
- Ability to pay for product (if required for outpatient)
- Nutrition impact symptoms
- Length of time ONS required
- Ongoing indication for ONS

Review as clinically needed for IPs (consider discharge HEN supply and planning) and OPs (1-3 months)

Refer to Summary of Current Processes for Providing HEN to Clients to set up outpatient supply

Goals not met and risk of malnutrition continues = ONS to be continued
- IP: Continue ONS prescription and plan for discharge:
  - Evaluate compliance to ONS and dietary advice; amend prescription as necessary, consider increase number of ONS per day (4)
  - Provide HEN supply for discharge (up to 2 weeks or as clinically indicated) and refer to appropriate outpatient clinic with minimum 2 weeks review
- OP: Reassess clinical condition, if no improvement, consider more intensive nutrition support or seek advice from treating medical team / GP (4)

Ongoing review as clinically needed for IPs (2-4 days) and OPs (1-3 months)

Goals met (improved intake and no longer at risk of malnutrition) OR There is no longer a benefit from taking ONS[2] = ONS no longer recommended
- Transitional cease ONS prescription (4): Consider reducing to 1 ONS per day before stopping (2 weeks for OP and 1 week IP)
- Provide high energy high protein education, written information and recommendations for monitoring nutritional status at home
- Provide dietetic department contact details

Prescribing guidelines:

- ONS should only be used when diet alone is insufficient to meet a client's daily nutritional requirements, and not as a food replacement
- Patients should be offered regular meals (fortified as required), snacks and nourishing fluids prior to initiating ONS unless clinically indicated (see guidelines for prescribing below)
- Patients should meet two or more of the criteria below to be eligible for ONS (high risk)[1,3]

Increased / Specialist nutrient requirements	Impaired ability to absorb nutrients
• Chronic pulmonary disease e.g. Cystic Fibrosis • Chronic renal failure • Anorexia nervosa • HIV/AIDS acute phase • Metabolic and haematological disorders • Trauma • Pre-surgery (ERAS) • Oncology (e.g chemo and radiotherapy) • Patient's nutritional requirements are > 120% of normal (e.g. energy or protein)	• Surgical resection/bypass e.g. gastrectomy, small bowel resection • Malignancy of the gastrointestinal tract e.g. pancreatic cancer • Inflammatory disorders e.g. Crohn's disease • Short bowel syndrome • Gastrointestinal fistulae • Radiation enteritis
Swallowing disorders	**Impaired ability to ingest nutrients**
• Oropharyngeal dysphagia e.g. stroke, neurodegenerative conditions, head and neck cancer	• Oropharyngeal, oesophageal tumours • Neurological disorders e.g. cerebrovascular accident, multiple sclerosis, motor neurone disease, trauma, Cerebral Palsy • Psycho-social ailments
Malnutrition	**Other**
• Moderate / Severe malnutrition as diagnosed via validated assessment tool • Oral intake <50% EER and predicted ongoing	• HEN required for >3months • Clinical protocol/pathway (ERAS)

Exclusion Criteria:

- Low risk – meets only one of the above criteria and is eating well from hospital menus (IPs)
- ONS used for convenience only

Special considerations:

- **Palliative/Terminal care:** ONS may contribute to the emotional and physical wellbeing of the patient and each case should be considered individually. At the end stages of life, weighing the patient is not indicated and the nutritional content of the meal is no longer of prime importance.
- **Diabetes:** optimal blood glucose control may not be a priority over dietary measures to reduce malnutrition risk. Diabetes medications may need to be reviewed if oral intake has changed significantly.
- **Substance misuse:** is not an indication for ONS prescription alone.

References:

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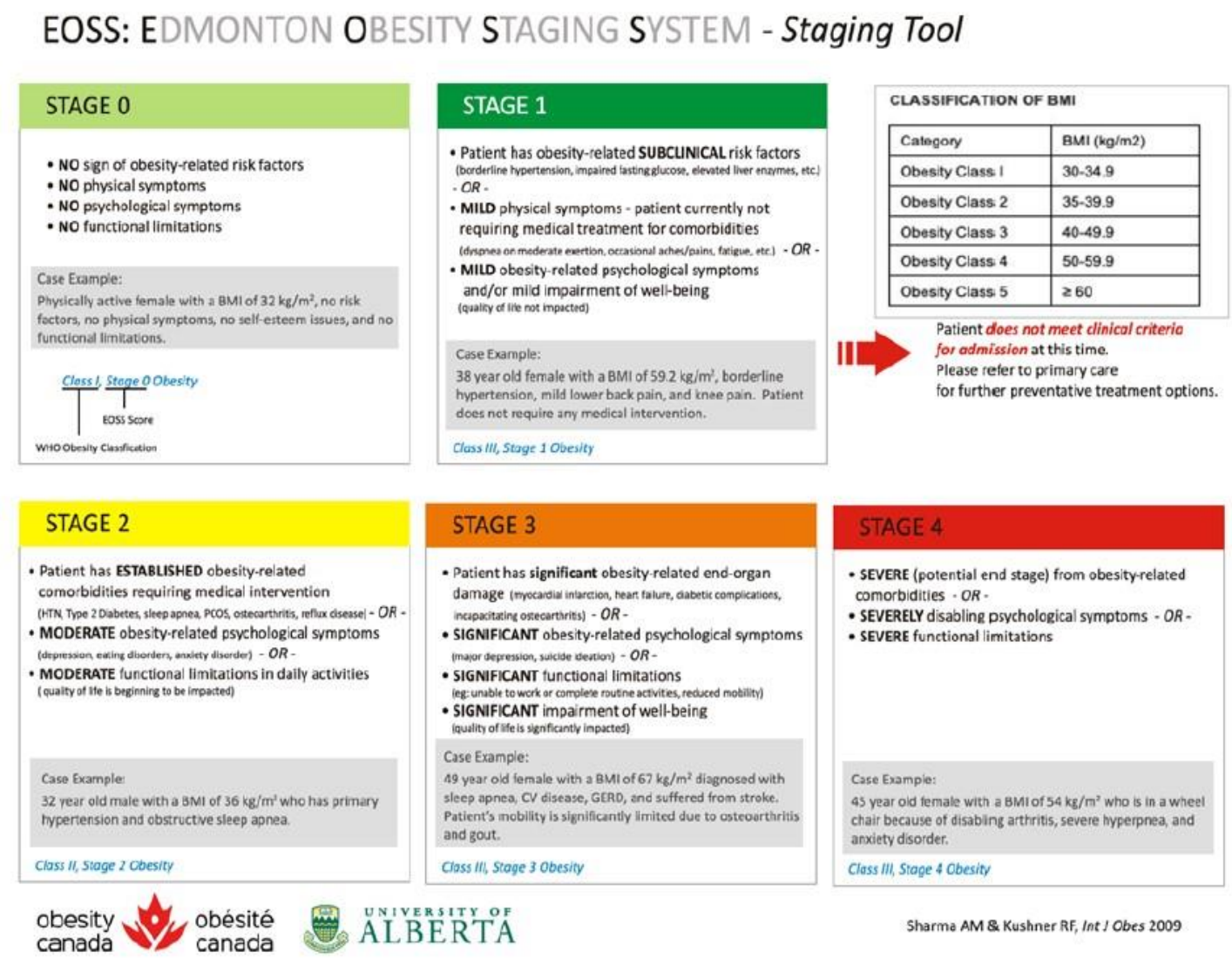
2. ANZ-Community-Malnutrition-and-Frailty-Guideline_March-2022_FINAL.pdf (dietitianconnection.com)
3. 1 Guidance | Nutrition support for adults: oral nutrition support, enteral tube feeding and parenteral nutrition | Guidance | NICE
4. Managing_malnutrition.pdf (malnutritionpathway.co.uk)

Acknowledgement: WA Dietetic Managers (2016)

Appendix 3: Edmonton obesity staging system

The Edmonton obesity staging system has been proposed to guide clinical decisions from the obesity assessment and at each BMI category. This 5-stage system of obesity classification considers metabolic, physical and psychological parameters to determine the optimal obesity treatment.

Appendix 1 (as supplied by the authors)
Figure 1. The Edmonton Obesity Staging System (29)



Source: [Canadian Adult Obesity Clinical Practice Guidelines - Obesity Canada]