Nutrition and Hydration Procedure

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1. Purpose

The WA Country Health Service (WACHS) aims to provide high quality and safe nutrition care for all consumers. This procedure sets out the requirements of WACHS strategic and co-ordinated approach to nutrition from admission to discharge or transfer of care. This aims to ensure that all consumers have access to appropriate nutrition and hydration support during their admission to any WACHS facility.

This procedure aligns with the standards of care related to nutrition and hydration in the National Safety and Quality Health Service Comprehensive Care Standard and Aged Care Quality Standards (food, nutrition and dining), providing governance for:

- risk screening, assessment, care planning, monitoring and discharge planning
- planning and provision of food, fluids and nutrition care plans based on current evidenced based practice
- menu planning and assessments by dietitians
- mealtime and dining environment, including assistance to eat and drink
- consumer and carer information and communication
- nutrition education, training and support for staff across WACHS
- quality improvement processes in place to meet assessment requirements.

2. Procedure

ATTENTION

All patients and residents must be screened for nutrition and hydration risks on admission. Patients identified at risk of malnutrition must be referred to a dietitian for full nutritional assessment and nutrition care plan.

Patients admitted to hospital and aged care residents (residents) with poor nutritional status are at increased risk of malnutrition, reduced immunity, increased susceptibility to disease, impaired physical and mental health, unhealthy weight, and chronic conditions. Providing appropriate nutrition and hydration during a patient's admission is important to:

- promote recovery, wound healing, muscle strength and improve patient outcomes
- improve quality of life
- reduce hospital length of stay and likelihood of re-admissions.

Food, drink and the dining experience can have a huge impact on a person's quality of life. That is why in residential care homes, it is important to:

- engage residents about what and how they like to eat and drink
- offer choice of meals that are appetising and nutritious, including texture modified diets
- support older people to consume as much as they want and exercise dignity of risk.

2.1 Risk Screening

Comprehensive nutrition and hydration screening aims to identify risk factors for malnutrition and forms an essential component of minimising patient harm on admission. Nutrition risk screening considers all clinical alerts and risks such as dysphagia, special dietary requirements, food allergies, nutrition impact symptoms, malnutrition and dehydration.

On admission, patients and aged care 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

These forms include screening and documentation for:
- the safest route of providing nutrition and hydration
- physical assessment
- completion of malnutrition screen (see Malnutrition Screening)
- screening for wounds and pressure injuries
- requirement for assistive equipment or mealtime supports and assistance
- specific dietary needs
- weight and height
- specific risks associated with frailty, falls, dysphagia and those living with dementia
- nutritional impact of symptoms of disease or treatment.

Additional nutrition related screening and assessments are to be completed as clinically indicated, includes:
- MR64A WACHS Speech Pathology Adult Swallowing Assessment
- MR64B WACHS Dysphagia Screening Tool
- MR124 WACHS Braden Scale and Pressure Injury Risk Assessment.

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

On admission to hospital, it is important to identify if the patient is at risk of developing **refeeding syndrome**. Screening for refeeding includes consideration of recent intake, evidence of weight loss and screening for electrolyte deficiencies (see Appendix A).

Hydration Screening

Hydration screening requires review for signs and symptoms of dehydration or fluid overload such as:
- 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 when completing hydration screens as dehydrated patients can still be oedematous.

Documentation of any identified risks should be outlined in the healthcare record.

Malnutrition Screening

All patients and residents on admission are to be screened for malnutrition risk using a validated malnutrition screening tool.

WACHS endorsed malnutrition screening tools include:
- MR60.1.5 WACHS Malnutrition Screening Tool: recommended for screening for adults (noting the malnutrition screening tool (MST) is included on the MR111 form)

- MR60.1.9 WACHS Paediatric Nutrition Screening Tool: recommended for paediatric screening.

Rescreening for nutrition risks

All admitted patients to **acute and subacute services** should be re-screened using the MST weekly or with any change in condition and episode of care.

For **residential care homes**, malnutrition re-screening is recommended every three months or as clinically indicated when there is a change in health status or unintentional weight loss.

2.2 Nutrition and Hydration Care Plans

Each patient must have a nutrition and hydration care plan documented on admission using the following forms regardless of if they have any identified risks or are referred to a dietitian. These are documented on the following forms and are reviewed each shift and updated when there is a change in care needs, health status or treatment plan

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

For residents, their nutrition, hydration and dining preferences are documented on admission, at scheduled reviews and when there is a change in preferences or support needs using the following forms:

- RC7 Resident Care Plan
- RC15 Dietary Preference Form

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, health status and consent by the patient/ resident or carer (legal guardian or substitute decision maker).

Refer to Table 1 for examples of referral indicators and health conditions that may require referral to a dietitian for full nutrition assessment. Referrals are triaged as per WACHS Dietetic Clinical Prioritisation Framework. This is not an exhaustive list, and lower priority referrals or those not seen during an admission are redirected to outpatient or community services accordingly.

Examples of Dietetic Referral Indicators
Nutrition risks: • MST score ≥ 2 • Recent unintentional weight loss • Current or predicted poor oral intake due to presenting medical or surgical condition or treatment modalities • NBM for more than 3 days (consider nutrition support) • Risks for refeeding syndrome (minimal intake, weight loss +/- deranged electrolytes potassium, magnesium, phosphate and calcium)

• Nutritional impact symptoms of disease or treatment e.g. anorexia, nausea, dysgeusia, mucositis, constipation, diarrhoea, dysphagia, anaemia • De-ranged nutritional biochemistry / electrolytes (i.e. poor glycaemic control on admission, chronic kidney disease (CKD) 4-5, nutritional deficiencies) • Presence of health condition that increases nutrition requirements (i.e. wound healing, chronic pulmonary disease, active cancer diagnosis) • Eating disorders for treatment during acute admission • New or complex food allergies • New diagnosis of diabetes (including gestational diabetes) • Stomas (new or complications) • New diagnosis of disease condition with evidence of nutrition risks (impaired ability to tolerate nutrition or increased nutrient requirements) on admission **Nutrition support:** • Oral nutrition support • Enteral feeding • Parenteral feeding. **Antenatal care** (based on the Women and Newborn Health Service (WNHS) Clinical Practice Guideline - Increased Body Mass Index): • Pre -pregnancy Body Mass Index (BMI) greater than 35 (Refer to WACHS Maternity High BMI and Bariatric Surgery Risk Management Policy) for outpatient dietetic referral.
Additional paediatric indicators: • PNST score $\geq$ 2 • Growth faltering (based on weight for length z scores) • Feeding concerns.

Table 1: Indications for referral to dietitian

Referrals based on Body Mass Index for weight management support

Referrals to dietetic services based on BMI cut offs alone and without patient/resident consent for weight management support are not accepted. The community outpatient setting is recommended for successful weight management interventions. Although BMI is widely used to assess and classify obesity, it is not an accurate tool for identifying adiposity-related complications and further nutrition screening for health-related impacts is required for referral to dietetics.

The Edmonton obesity staging system is a tool to assess overall health and function related to living with obesity. The tool is recommended to guide clinical decisions regarding metabolic, physical and psychological parameters to determine the optimal obesity treatment (refer to Canadian Adult Obesity Clinical Practice Guidelines).

2.3 Nutrition Assessment

A full nutrition assessment will indicate if the patient or resident presents with nutrition risk factors is malnourished, the degree of malnutrition and is used to determine the appropriate interventions required to prevent further deterioration. Dietitians are appropriately trained to complete malnutrition assessments using validated assessments for adults such as:

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

Assessment of paediatric malnutrition includes using appropriate growth charts and measures such as weight for length z scores to verify severity of malnutrition. Dietitians readily access PediTools for diagnostic indicators related to identifying and documenting malnutrition risks in children. Refer to Consensus Statement: Indicators Recommended for the Identification and Documentation of Paediatric Malnutrition for full details.

To ensure accurate clinical coding, it is the responsibility of the treating clinician to diagnose and document conditions with clarity, specificity, detail, and evidence of the provision of care through a documented treatment plan. For example, documentation of malnutrition in the health record should include “malnutrition” with any assessment tool used, severity of malnutrition, whether it is community or hospital acquired and nutrition care plans with clear interventions. For more information on best documentation practice for common nutrition related conditions, refer to Dietitian Documentation for Admitted Patients.

2.4 Nutrition Care Planning

Patients, residents and carers are encouraged to have input into the nutrition care plan and identified nutrition goals of care as discussed with the dietitian and treating medical team. Nutrition care plans are reviewed regularly, with updates based on any changes to clinical condition or nutritional status.

The nutrition care plan should consider the following factors:

- risk of malnutrition or dehydration
- therapeutic dietary requirements e.g. high protein/ high energy diet, gluten free
- assistance required for drinking and eating
- use of assistive feeding equipment
- involvement of the multidisciplinary team
- nutrition support required - nutrition supplements, enteral or parenteral nutrition
- food and fluid intake monitoring
- management of identified nutrition risks (refer to Appendix B)
- discharge planning.

2.5 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 must be documented on the appropriate care plan. Establishing nutrition goals of care with the patient/resident and carers should be an integral component of the comprehensive care plan. When setting goals, it is important to consider disease stage, nutrition impact symptoms, medical treatment, and involvement of the multidisciplinary team.

All documented goals of patient care should be documented on:

- MR 00H.1P Paediatric Goals of Patient Care
- MR00H.1 Goals of Patient Care
- RC 00H.1 Resident Goals of Care

It is important to consider the role of nutrition and hydration in planning and providing end-of-life care. This includes following documented goals of patient care and advance health directive, recognising a drop in food and fluid intake is part of the dying process.

Nutrition & Food Services

Patients and residents must have access to nutritionally adequate, safe food and fluids to support treatment, promote recovery, maintain function and wellbeing. WACHS provides meal service options as per the Nutrition Standards for Adult Inpatients and Residential Aged Care Policy. The Policy also includes food, nutrition and dining considerations for residents.

The following considerations for meal services include:

- all patients and residents be supported to complete their own menus to promote choice
- patients and residents with specific nutritional requirements can discuss these when being admitted and referred to site dietitian or food service staff to assist with menu planning as needed
- 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 in sites food service systems
- nourishing meals and snacks are available to improve nutritional intakes
- standard therapeutic diets, modified texture diets and thickened fluids are available based on current evidence and best practice
- all food provided within WACHS must comply with relevant food safety guidelines, legislation and the WACHS Food Safety Program
- safe food hygiene practices must be followed by families and/or carers who choose to bring food and fluids for patients and residents
- 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 will be outlined in each site Hospital Food Service Manual.

Hospital kiosks and vending machines are outside of scope of this procedure. Refer to the WA Health MP 0142/12 Healthy Options WA Food and Nutrition Policy.

Special considerations are required to meet food, nutrition and dining needs for residents as outlined in Aged Care Quality Standards. For more information on menu planning for residential care facilities, please refer to Food, nutrition & dining: resources for providers | Aged Care Quality and Safety Commission.

Hydration

Hydration may be provided via oral, enteral, intravenous/parenteral or subcutaneous routes as clinically indicated. All patients and residents must have their hydration status clearly documented in their health record and on appropriate care plans.

Fluids should be readily available and provided with assistance in the patient and residents' rooms to promote adequate hydration unless there is a fluid restriction in place. Patients and residents on a fluid restriction require a visible sign with the numerical restriction value in their room and appropriate measures in place. This can include smaller cups, taped water jugs and restricted access to additional fluids at meal and mid meal service times.

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

- 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)
- on thickened fluids
- with fluid restrictions
- with poor fluid intake requiring monitoring as clinically indicated.

Resources have been developed by the WACHS Dietetic Network to support clinicians in completing accurate fluid balance charts and monitoring:

- Fluid balance management: clinical guide
- Common Fluid Measurements for Hospitals
- Common Fluid Container Measurements.

Mealtimes

Hospital routines, clinical procedures, and ward rounds can disrupt mealtimes and significantly reduce nutrition intake. The mealtime environment and preparation are important to maximise enjoyment of meals and encourage consumption of appropriate amounts of food and fluid.

For residents, the mealtime experience can contribute significantly to quality of life and ensuring adequate nutritional intakes. Residents who enjoy their dining experience are more likely to eat and drink well, reducing the risk of malnutrition, dehydration, and unplanned weight loss.

Protective measures should be taken at mealtimes where possible to ensure that the environment is safe, free from interruptions and promotes adequate intake by:

- minimising non-essential therapy or clinical procedures occurring around mealtimes, known as "protected mealtimes"
- adjusting surroundings, sights, smells, noise, and lighting
- providing assistance to eat and drink where required
- encouraging consumers who are able, to sit out of bed to eat their meals
- ensure consumers are ready for their meals by:
    - waking the consumer
    - ensuring correct positioning for eating
    - clearing bed tables

  - toileting
  - hand washing
  - ensuring glassing, hearing aids and dentures are in place and mouth care is attended to
- 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 the above is communicated to food services and support staff, and documented appropriately
- ensuring wards are adequately staffed at mealtimes to provide timely and individualised assistance with eating and drinking as required
- supporting the use of volunteers, carers and relatives in assisting patients and residents to eat if deemed safe by clinical staff
- explaining to patients and residents what the food is – especially if they are on a texture modified diet
- waiting until the resident has finished the first course before serving the next
- setting up the residential dining room with tablecloths, cutlery, flowers etc to provide contrast and a visual cue to residents that mealtime is about to occur.

2.6 Therapeutic Diets

Patients and residents requiring dietary 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:

- patients with diagnosed food allergies are provided with meals and snacks that avoid identified allergen/s
- patients with chronic health conditions may require avoidance of certain nutrients, for example low sodium diets for patient with cardiac failure
- patients require fluid diets post gastrointestinal surgery as per treating medical team
- patients presenting with dysphagia may be recommended textured modified diets by speech pathologists such as level 6 soft and bite sized, level 5 minced and moist, level 4 pureed (refer to Adult Dysphagia Screening and Assessment)
- patients presenting with dysphagia may also require thickened fluids such as level 4 extremely thick, level 3 moderately thick, level 2 mildly thick (refer to Adult Dysphagia Screening and Assessment).

Therapeutic dietary needs must be updated on the food service ordering system and communicated with food services. Allergy and Diet Application (ADA) and iClinical Manager (iCM) have global lists of diet types that may not all be available at each site. For a full list of available diets at each site, refer to the local hospital Food Service Manual.

Information on therapeutic menu standards and diet types are available at WACHS Food Service Information.

Food First Approach to Malnutrition - high energy high protein diet

Patients and residents at greatest risk of malnutrition may require a nourishing diet to optimise nutritional intake. Nurses can allocate high energy high protein (HEHP) to patients and residents based on MST score and recommended actions. HEHP menus will provide:

- meals and menu options that include nourishing foods and fluids
- nourishing snacks that nursing staff have access to outside of set meal service times via ward pantries such as yoghurt, custard, cheese and crackers, sandwiches, toast, and dried fruit
- food fortification to increase energy and protein of standard menu items.

Clinicians can refer to the WACHS High energy high protein menu standard for further information.

2.7 Nutrition Support

All WACHS facilities must consider the need for alternative nutrition support such as oral nutrition supplements, enteral nutrition or parenteral nutrition when oral intake is inadequate or contraindicated.

Oral Nutrition Supplementation

Oral nutritional supplementation (ONS) are prescribed by dietitians only. Where there is no on-site dietitian available, treating teams are encouraged to only prescribe readily available nutrition support products approved for the site by local dietetic services.

The dietitian should liaise with medical and nursing staff, and document ONS requirements in the health care record and nursing care plans including the supplement name, volume, frequency, and administration time. WACHS Medication Prescribing and Administration Policy does not recommend using medication charts for prescribing ONS in hospitals. Dietitian are recommended to prescribe ONS using MR60.1.12 WACHS Oral Nutrition Support Chart.

Residents who are prescribed ONS should have this charted on RC170 Residential Medication Chart (page 2).

Clinicians can refer to Prescribing ONS for Adults for further information.

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[4]. A nutritionally complete liquid formula is administered directly into the stomach or small intestine using a specially designed tube and is prescribed by a dietitian. The dietitian will ensure the type and volume of enteral feed prescribed is consistent with the nutritional goals of the patient.

Clinicians can refer to:

- WACHS Enteral Tubes and Feeding – Adult Clinical Practice Standard for further information on management of enteral feeding.
- WACHS MR60.1.10 Adult Enteral Feeding Form or MR144D WACHS Neonatal - Paediatric Enteral Feeding Prescription for enteral feeding regimes.

For patients being discharged into the community with a feeding tube, it is recommended patients and/or carers receive education and demonstration on managing feeds and caring for the tube. Refer to MR60.1.16 WACHS Enteral Feeding Discharge Form and ensure this is completed prior to the patient being discharged.

Blended Tube feeds

A blended tube feed (BTF) involves blended food that is administered through a feeding tube as a form of enteral nutrition. BTF is considered a safe option, if prepared, stored and administered correctly. BTF is used more frequently in community settings for patients and residents with gastrostomy feeding tubes.

WACHS does not provide BTFs to patients when admitted to local hospital sites. Patients and residents may request to bring their own BTFs from home. There are medical, nutritional and practical considerations and risks which need to be discussed and agreed upon with the treating team, dietitian, nurse manager and the patient and/or carer prior to commencing BTF.

For all patients requesting to a BTF, please complete the MR60.1.15 Inpatient Blended Tube Feeds Intended Use Statement prior to commencing BTF and provide the patient and carer with Blended Tube Feeding Patient Information Sheet.

If a resident and their carer is requesting BTFs, this must be discussed with the facility manager and dietitian to determine:

- capacity of the site to prepare a BTF
- capacity of the site to support a carer providing a BTF
- if the BTF meets long term nutritional requirements of the resident.

Refer to Appendix C: Blended tube feeding for admitted patients for full information and requirements for supporting the administration of BTFs.

Parenteral Nutrition

Parenteral nutrition (PN) can be used for patients in hospital settings 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[4] Total parenteral nutrition (TPN) is an infusion that provides a patient's complete nutritional requirements. PN can be delivered via a central line (central PN) or a peripheral line (peripheral PN). Not all sites have access to PN and should follow local site processes if PN is to be considered. The dietitian, treating team and pharmacist must assess the patient and prescribe a PN regime based on line access, nutrition requirements, clinical needs, and goals of care**.**

Refer to:

- WACHS Adult Parenteral Total Nutrition Procedure for further information on management of central PN. All central PN must be prescribed on MR60.1.11 WACHS Adult Total Parenteral Nutrition form
- WACHS Adult Peripheral Parenteral Nutrition Procedure for further information on management of peripheral PN (PPN). All PPN must be prescribed on MR 60.1.14 WACHS Dietetics - Adult Peripheral Parenteral Nutrition Form.

2.8 Nutrition Specific Monitoring

All staff are required to routinely monitor patients and residents' diet and fluid intake and nutritional risks**.** Those at risk of malnutrition or dehydration will require additional monitoring as clinically indicated. All goals of nutrition care should be monitored in line with clinical progress or deterioration, discharge planning and other health related goals.

The following forms and procedures provide specific details for clinical monitoring requirements. Dietitians and treating teams may request additional monitoring measures depending on the individual nutrition and hydration care needs. The nursing care plan must specify the frequency of monitoring. Monitoring includes:

Parameter	Monitoring tool	Additional notes
Food intake	MR144C WACHS Food Intake Chart	If food intake is 50% or less consistently over three days, consider a referral to the dietitian
Oral nutrition supplement	MR60.1.12 WACHS Oral Nutrition Support Chart	Record intake of ONS
Fluid balance	MR144 WACHS Fluid Balance Work Sheet	
Bowels	MR 144E WACHS Bowel Chart	WACHS Bowel Management Clinical Practice Standard
Weight Height BMI	On admission: • MR111 WACHS Nursing Admission, Screening and Assessment Tool - Adults • MR111P WACHS Paediatric Nursing Admission / Discharge Assessment • RC5 Resident Admission Assessment Daily weights to be recorded on MR144 WACHS Fluid Balance Work Sheet or MR 140A WACHS Adult Observation and Response Chart (A-ORC) as clinically indicated or required by treating team Ongoing weights can also be recorded on: • MR60.1.5 WACHS Malnutrition Screening Tool (adults) • MR60.1.9 WACHS Paediatric Nutrition Screening Tool (paediatrics) • RC170 WACHS Residential Medication Chart (residents)	
Blood glucose monitoring	As clinically needed based on MR156A Insulin Subcutaneous Order and Blood Glucose Record - Adult Form	WACHS Diabetes - Inpatient Management Clinical Practice Standard
Nutritional biochemistry	As per treating medical team For refeeding bloods, refer to Appendix A	
Enteral feeding aspirates	Enteral Tubes and Feeding – Adults Clinical Practice Standard	

Table 2

2.9 Discharge Planning

All patients are to be discharged with clear nutrition and hydration goals. All nutrition discharge plans must be clearly communicated to the patient and/or carer**.** The following factors should be considered for discharge planning:

- the discharge destination
- requirement for local community support services (i.e. meal delivery services)
- other allied health recommendations and care plans
- relevant education to the patient and carer
- appropriate follow up in the outpatient/community services.

If a patient is being transferred to another facility, a clear handover is to include patient identification, situation, background, assessment, and readback (ISOBAR format) as described in the MP 0095/18 Clinical Handover Policy.

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 provided via the appropriate home enteral nutrition (HEN) program. Dietitians will establish ongoing HEN requirements prior to discharge from the hospital. Information on options for health serviced funded HEN is available in WACHS Funded Home Enteral Nutrition Program Procedure. Patients not eligible for health service funded HEN can still be registered via self-funded programs by dietitians.

3. Roles and Responsibilities

The **dietitian** is responsible for:

- conducting nutrition assessment of anthropometry, biochemistry, clinical, medical and diet history
- planning nutrition care goals with the medical team and patient
- prescribing therapeutic diets and oral nutrition supplements
- prescribing and monitoring of enteral
- consulting on parenteral nutrition administration rates and tolerance
- educating patients and significant other(s)/carers
- liaising with food service teams and members of the multidisciplinary team
- organising nutrition support for discharge
- providing staff education regarding malnutrition screening and management
- participating in quality improvement activities to monitor nutrition and hydration practices.

The **treating health care team** is responsible for:

- considering the patient's mental and physical ability to meet nutritional requirements
- assessing and monitoring nutrition requirements in conjunction with the team to prescribe recommended treatments
- ordering of bloods to monitor specific conditions
- referring to dietitian where indicated
- considering drug/nutrient reactions.

The **nurse** is responsible for:

- completing nutrition and hydration screening
- referring to allied health as required
- completing care planning

- coordinating protected mealtimes
- assisting with eating and drinking where required and documenting any meal time or feeding supports
- delivering and monitoring oral, enteral and parenteral nutrition
- thickening of fluids as required and ensuring access to adequate hydration
- monitoring nutrition and hydration parameters and liaising with the treating medical team if outside acceptable parameters
- liaising with patient relatives and community supports before discharge.

The **speech pathologist** is responsible for:
- assessing safety for oral feeding and swallow risks
- recommending modified texture diet and thickened fluids
- educating patients and carers regarding modified texture diet and thickened fluids
- liaising with catering services regarding diet and fluid requirements.

The **food service staff** are responsible for:
- providing a meal service for the hospital, including textured modified diets compliant with IDDSI guidelines
- providing standard therapeutic diets or individual meal plans as directed by dietitian
- checking three points of patient ID on delivery of meals
- providing appropriate assistive feeding equipment as required.

The **pharmacist** is responsible for:
- completing a comprehensive medication review as required
- ensuring all medications are given by the most appropriate route of administration
- maintaining appropriate stock of parenteral nutrition solutions available
- advising on drug nutrient interactions and drug delivery.

The **allied health team** is responsible for:
- liaising with the treating medical team to set goals for patient care
- organising resources, services, and assistive equipment for feeding and drinking
- sourcing equipment for discharge to support feeding.

All staff are required to comply with the directions in WACHS policies and procedures as per their roles and responsibilities. Guidelines are the recommended course of action for WACHS and staff are expected to use this information to guide practice. If staff are unsure which policies procedures and guidelines apply to their role or scope of practice, and/or are unsure of the application of directions they should consult their manager in the first instance.

4. Monitoring and Evaluation

WACHS professional leads for dietetics, aged care, and nursing will monitor compliance with this procedure. Routine monitoring will include file audits of nutrition screening, evidence of nutrition assessment completion and nutrition care planning, point prevalence malnutrition reports, customer meal satisfaction surveys, food service audits and reporting to relevant Safety and Quality committees.

Evaluation of this procedure will be carried out by the Dietetic Professional Lead, in consultation with stakeholders. Regional evaluation of performance measures may include, but are not limited to:

- CIMS Datix incident data
- Regional Clinical Governance audit tools.

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6. Definitions

Nil

7. Document Summary

Coverage	WACHS wide
Audience	All staff
Records Management	Health Record Management Policy
Related Legislation	Health Services Act 2016 (WA)
Related Mandatory Policies / Frameworks	• MP 0095/18 Clinical Handover Policy • MP 0122/19 Clinical Incident Management Policy • MP 0175/22 Consent to Treatment Policy • MP 0131/20 High Risk Medication Policy • MP 0051/17 Language Services Policy. • MP 0053/17 Patient Alert Policy • Clinical Governance, Safety and Quality Framework
Related WACHS Policy Documents	• Adult Dysphagia Screening and Assessment Clinical Practice Standard • Adult Peripheral Parenteral Nutrition Procedure • Adult Total Parenteral Nutrition Procedure • Allied Health Clinical Handover Policy • Aseptic Technique Policy • Central Venous Access Devices (CVAD) and Long Peripheral Venous Catheter (PVC) Management - Clinical Practice Standard • Clinical Documentation Policy • Diabetes - Inpatient Management Clinical Practice Standard • Enteral Tubes and Feeding - Adults Clinical Practice Standard • Food Allergy Guideline • Goals of Patient Care Guideline • Hand Hygiene Policy • High Risk Medications Procedure • Infection Prevention and Control Policy • Inter-hospital Clinical Handover Form Procedure • Maternity High BMI and Bariatric Surgery Risk Management Policy • Medication Prescribing and Administration Policy • Patient Identification and Procedure Matching Policy • Personal Protective Equipment Procedure • Potassium Supplementation Policy • Risk Assessment for Admission of the Heavier Patient Policy • Specialised Medication - Intravenous Phosphate Supplementation in Adults Guideline
Other Related Documents	• CAHS Refeeding Syndrome Prevention and Management in Malnourished Children Guideline • EMHS (Royal Perth Bentley Group) Nutrition Policy • EMHS Nutrition and Hydration Policy • NMHS Nutrition and Hydration Policy

	• WNHS Clinical Practice Guideline- Increased Body Mass Index
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 • MR60.1.9 WACHS Paediatric Nutrition Screening Tool • MR60.1.10 WACHS Adult Enteral Feeding Form • MR60.1.11 WACHS Adult Parental Nutrition Form • MR60.1.12 WACHS Oral Nutrition Support Chart • MR60.1.14 WACHS Adult Peripheral Parenteral Nutrition Form • MR 60.1.15 Inpatient Blended Tube Feeds Intended Use Statement • MR64B Dysphagia Screening Tool • 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 • MR64A WACHS Speech Pathology Adult Swallowing Assessment) • MR140A WACHS Adult Observation and Response Chart (AORC) • MR144 WACHS Fluid Balance Work Sheet • MR 144C WACHS Dietetic - Food Intake Chart • MR156A WACHS Insulin Subcutaneous Order and Blood Glucose Record – Adult Form • MR184 WACHS Inter-hospital Clinical Handover Form • RC5 Resident Admission Assessment Form • RC7 Resident Care Plan • RC15 Dietary Preference Form • MR60.1.16 WACHS Enteral Feeding Discharge Form
Related Training Packages	Available from MyLearning: • Nutrition Standards for Adult Inpatients in Residential Aged Care (NUTWA EL1) • Malnutrition (MALWA EL1) • Thickened Fluids and Modified Diet: Introduction (THFIN EL1) • Thickened Fluids and Modified Diet: Preparation (THFWA EL1) • Dysphagia screen training for nurses - Dysphagia Screening (DYSWA EL1)

Aboriginal Health Impact Statement Declaration (ISD)	4607
National Safety and Quality Health Service (NSQHS) Standards	1.01, 1.03, 1.07, 1.08, 2.01, 5.03, 5.04, 5.21, 5.27, 5.28
Aged Care Quality Standards	1, 6
Chief Psychiatrist's Standards for Clinical Care	Nil

8. Document Control

Version	Published date	Current from	Summary of changes
4.00	2 October 2025	2 October 2025	• change of title • update procedure with inclusion of blended tube feeding, peripheral parenteral nutrition and refeeding syndrome.

9. Approval

Policy Owner	Chief Operating Officer
Co-approver	Executive Director Clinical Excellence Executive Director Nursing and Midwifery Services
Contact	Professional Lead Dietetics
Business Unit	Health Programs, Central Office
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This document can be made available in alternative formats on request.

Appendix A: Refeeding Syndrome Assessment and Management

Refeeding Syndrome (RFS) is a potentially fatal shift in fluids and electrolytes that may occur in severely malnourished or starved patients when first reintroducing feeding (either by oral, enteral or parental routes).[9] The condition typically appears in the first days of commencing nutrition support and is potentially fatal if not managed. The goal of nutrition support is to reach estimated nutritional requirements while minimising metabolic and clinical complications and maintaining normal biochemistry.[10,11]

The primary features of RFS electrolyte derangement include hypophosphatemia, hypokalaemia, hypomagnesaemia and sodium and fluid imbalance. For more information on pathophysiology of RFS, refer to Refeeding syndrome.

Assessment of refeeding risk

The level of clinical risk associated with RFS is compounded by pre-existing nutritional status. Identifying patients at high risk of developing RFS allows careful management to prevent clinical deterioration associated with RFS. Patients are at high risk of developing RFS if they have:

ONE or more of the following**:**
- BMI less than 16 kg/m^2
- unintentional weight loss greater than 15% within the last 3 to 6 months
- little or no nutritional intake for more than 10 days
- low levels of potassium, phosphate or magnesium before feeding.

TWO or more of the following**:**
- BMI less than 18.5 kg/m^2
- unintentional weight loss greater than 10% within the last 3 to 6 months
- little or no nutritional intake for more than 5 days
- a history of alcohol abuse or drugs including insulin, chemotherapy, antacids or diuretics.
- gastrointestinal losses

Management of refeeding syndrome

People at high risk of RFS should be managed by treating medical teams and dietitians to ensure safe feeding practices and appropriate electrolyte replacement is considered.

Screen for electrolyte deficiency and replacement (where possible prior to commencing nutrition support):
- treating medical team to monitor daily bloods for potassium, phosphate, magnesium, and calcium during feeding
- treating medical team must supplement and /or correct any electrolyte deficiencies
- for patients with electrolyte deficiency, feeding can still commence immediately at a rate as recommended by the dietitian and with careful monitoring by treating medical team. If there is evidence of severe electrolyte deficiency, then is it recommended to replace electrolytes over 1-2 days (refer to Therapeutic Guidelines) and wait to levels stabilise before progressing to reaching target nutrition rates[11].

For recommended electrolyte replacement therapy please refer to:

- WACHS procedures:
  - Specialised Medication - Intravenous Phosphate Supplementation in Adults Guideline
  - Potassium Supplementation Policy
- Therapeutic Guidelines (accessed via: WACHS Library)

Thiamine and multivitamins:

- Treating medical team to consider commencing thiamine (100-300 mg) orally or intravenously for 3 days[11]. Dose can then be reduced to 100 mg orally or intravenously for 7 days, or as clinically indicated
- balanced daily multivitamin and trace element supplement for the first 10 days of refeeding or until nutrition support or diet provides the recommended intake of micronutrients[4, 10, 11]

Maintain neutral fluid balance:

- Treating medical team will correct any fluid imbalances with careful rehydration as patients are prone to fluid overload. The goal is to maintain a 'neutral' fluid balance by restoring circulatory volume and monitoring fluid balance and overall clinical status closely[4]

Nutrition support:

- The goal of nutrition intervention is to reach estimated nutritional requirements whilst minimising metabolic and clinical complications and maintaining normal biochemistry.[4]
- The dietitian will prescribe nutrition support according to nutrition assessment, risk level and choice of nutrition support route (oral, enteral or parenteral).
- For patients at risk of refeeding syndrome, commence feeding at ≥50% of estimated energy requirements provided that close electrolyte and clinical monitoring, and concurrent supplementation are provided as needed.[11]
- Patients should reach target rate for nutrition (energy) requirements within 24-74 hours of commencement of nutrition support, provided that medical monitoring is available and any symptoms of RFS are managed.[11]
- Oral diet should be encouraged where possible using the standard ward diet as prescribed by the dietitian. Special meals plans can also be used. It is encouraged **NO** additional food is to be provided from outside the hospital in initial management.
- Oral nutritional supplements (≥ 1.5cal/mL) can be prescribed by the dietitian if oral food intake is insufficient to meet nutritional requirements.
- For patients requiring enteral nutrition, consider:
  - administer enteral feed continuously over 24 hours
  - suggested starting rates at 50% estimated energy requirements using a 1.5 kcal/mL feed and grade up 10mL every 12 hours until reach target rate and symptoms of RFS are maintained. Where possible, patients should reach target rates within 24-72 hours.
- For patients requiring parenteral nutrition, goal rates should be achieved within 72 hours to prevent undernutrition.[11]

Monitoring

Parameter	Frequency
Nutrition intake	Daily monitoring until clinically stable, twice weekly when stable
Fluid balance charts	Daily monitoring until clinically stable, twice weekly when stable
Weight	Daily if concerns with fluid balance, otherwise weekly
GI function (nausea, vomiting, diarrhoea, constipation)	Daily monitoring until clinically stable, twice weekly when stable
Cardiac	Routine cardiac monitoring is not required for all patients at risk of RFS unless requested by medical team for patients who have developed cardiac arrhythmias or severe electrolyte deficiency requiring continuous infusion of potassium or magnesium
Electrolytes (magnesium, potassium, phosphate)	Baseline, daily if deficient, three times a week until stable
Blood glucose levels	4 hourly until patient is clinically stable, daily when stable
Vitals	4 hourly until patient is clinically stable, daily when stable OR as directed by treating medical team

Table 3

If a dietitian is not available within 48 hours:

- ensure multivitamin and thiamine is prescribed, electrolytes reviewed, and electrotype replacement commenced if necessary, as per treating medical team
- order the patient small meal serves from the standard hospital diet with no snacks, no high carbohydrate-based fluids (juice, cool drink) or desserts, and no food that is provided from outside the hospital
- do **not** provide the patient with additional oral nutrition supplements until the patient has been assessed by the dietitian
- if the patient requires enteral or parenteral feeding refer to:
    - Adult After Hours Enteral Feeding Regimen in the WACHS Enteral Tubes and Feeding – Adults Clinical Practice Standard for starting rates until seen by a dietitian
    - Adult Total Parenteral Nutrition Procedure for starting rates until seen by a dietitian.

Please refer to Child and Adolescent Health Service (CAHS) Refeeding Syndrome Prevention and Management in Malnourished Children for specific refeeding assessment and management in children.

Please refer to WAEDOCS Eating Disorders Management of Youth Adults for specific refeeding management for patients admitted with an eating disorder.

Appendix B: Nutritional Risk Considerations

Nutrition Risk	Considerations	Reference
Food allergies	• May require referral to dietitian for individual meal plan • Ensure allergies are accurately captured in ADA / site food service system	WACHS Food Allergy Guideline
Refeeding risk	• Requires a gradual nutrition support plan • Monitor daily as per treating medical team	Refeeding Syndrome (Appendix A)
Nil by mouth (NBM)	• Patients who are malnourished or nutritionally at risk and placed NBM should be considered for alternative feeding as soon as possible, including peripheral parenteral nutrition or enteral nutrition. • Patients who are well nourished and NBM or fasting for more than five days should be considered for alternative feeding, including parenteral nutrition or enteral nutrition	Adult Peripheral Parenteral Nutrition Procedure
Dysphagia	• May require a texture modified diet or fluids • Ensure appropriate diet is selected on sites food service system • Refer to a speech pathologist for assessment or complete a dysphagia screen	Dysphagia Screening and Assessment Clinical Practice Standard
Dementia, delirium or post-stroke	• May experience behavioural changes caused by changes to the brain, and can also be affected by the environment, health status, and medication • May have difficulty with eating and drinking for a variety of reasons • Require a nutrition care plan to ensure appropriate intakes of food and fluids • Ensure needs are met (e.g. toileting, pain management etc.) prior to mealtimes to reduce risk of changed behaviour as an expression of unmet need • Be referred to a speech pathologist for assessment or have a dysphagia screen completed	Mealtime behaviours and dementia for strategies
Medically requiring weight loss for treatment or ongoing care	• Consider use of WACHS Weight Management Menu or special diet for formulated meal replacement (FMR) based on assessment by dietitian and patient's consent if appropriate during their inpatient admission • Restrictive diets are not recommended for residents unless under the supervision of a dietitian or treating medical team[3] • Use of obesity medications to be considered within goals of care	
Eating Disorders	• Direct referral to a dietitian for assessment and nutrition care plan • Refer to WAEDOCS Eating Disorders Management for specific guidelines for admitted eating disorder patients.	WA Eating Disorders Outreach and Consultation Service

Table 4

Appendix C: Blended tube feeding for admitted patients

The purpose of this section is to provide guidance around the safe delivery of a blended tube feed (BTF) for patients admitted to WACHS sites and residents in residential aged care facilities. These guidelines are strictly for those patient/residents who are already established on BTF prior to their admission.

BTF is not standard practice at WACHS, however if a patient/resident is already established on a BTF at home and chooses to continue using BTF during their admission, WACHS can provide support and advice to ensure the patient/resident is safely meeting their nutritional requirements within capacity of the local site. The decision to use a BTF whilst admitted to WACHS is a joint decision between the patient, carer, treating medical team, site nurse unit manager (NUM) and the dietitian. This decision is dependent on:

- the presenting clinical condition
- BTF meeting the nutritional requirements during the admission
- site resourcing
- preparation and storage of BTF
- food safety recommendations.

The decision must be clearly documented in the health record and will be reviewed as necessary based on changes to patient/resident's clinical condition and site capacity.

WACHS will not provide or prepare a BTF, the patient/resident must supply all BTFs in accordance with food safety regulations. The patient/carer(s) are required to take full responsibility for the feeds, including preparation (off-site), transport, administration (support may be provided by the site based on capacity) and cleaning of equipment throughout the admission. This will be documented on the MR 60.1.15 Inpatient Blended Tube Feeds Intended Use Statement.

The following steps are required for administration of blended tube feeds:

1. The dietitian must assess the patient/residents nutritional status and adequacy of recipe/s being used, and record regime on either MR60.1.10 WACHS Adult Enteral Feeding Form or MR144D WACHS Neonatal - Paediatric Enteral Feeding Prescription
2. The dietitian must also document an alternative regimen on an ADDITIONAL enteral feeding form using an alternative enteral nutrition feed, in the event there of:
   a. inadequate supply of BTF
   b. patient, resident, carer or nursing staff is unable to administer
   c. the decision to use BTF is changed by treating medical team.
3. Patient, resident, carer, dietitian and treating medical team are required to complete MR 60.1.15 Inpatient Blended Tube Feeds Intended Use Statement, acknowledging the potential risks associated with BTF administration and acknowledgement of full responsibility for use of BTF during the admission.
4. If a BTF is to be administered, the NUM must ensure the BTF is stored appropriately on the ward and the patient/resident, carer or nursing staff as relevant, has access to suitable facilities to prepare the BTF safely prior to administration within available site resources.
5. Sites will need to determine storage capacity of BTF i.e. 1-2 days vs weeks supply.
6. Administration of BTF by nursing staff will require approval from the NUM ensuring infection prevention and control processes, and food safety practices for administering enteral feeds.

7. A dedicated space is to be allocated that will provide a clean environment for reheating a BTF appropriately and to administration preparation requirements.
8. For administration of hot foods, a handheld temperature probe must be accessed from the site kitchen to check the temperature of the BTF prior to administering. The temperature probe must be cleaned prior to and after each use with an appropriate cleaning and sanitizing wipe approved by the catering staff and stored in a clean dry dedicated container between uses whilst kept on the ward.
9. Site kitchens are not to be contacted or have any requests made to them to prepare, store, or reheat BTF.

Food safety regulations:

- Transport:
  - All fresh food items should be transported in a heat or cool pack to ensure foods are kept at correct temperatures (below 5°C for cold food and over 60°C for hot food) to avoid food related illnesses.
- Storage:
  - BTF that is stored must be clearly labelled with patient's name, UMRN, ward and room number, and date.
- Administration:
  - Hot food: BTF must be reheated to 70°C for at least two minutes (it is recommended that the patient/resident or carer uses a food temperature probe to monitor the temperature of the food. The BTF should then be cooled before it is given to avoid risk of burns and discomfort; a guide is to allow the BTF to cool until it is at a temperature at which it could comfortably be eaten orally. It should be administered within 30 mins of reheating.
  - Cold food: BTF should be removed from the fridge and administered within 30 minutes to allow this to come to room temperature.
  - As a rule, BTF should be prepared as close to the administration time as possible and should not remain at room temperature for longer than two hours (this includes the time for administration of feed) for both hot and cold options.
  - Due to variation in size of PEG tubes, a slow plunge method, using a 60ml enteral syringe, is the method of choice for the administration of BTF.
  - The feeding tube should be flushed with a water flush after a BTF to ensure that the feeding tube remains patent, preventing blockages.
  - Continuous feeding is not an appropriate method for administering BTFs.
  - It is recommended nursing staff observe the administration process by the patient/resident or carer(s) in the first instance to ensure good practice.

Troubleshooting:

- If the feeding tube becomes blocked, only use cold or warm water to flush via a push/pull action with a 60ml syringe.
- If there is no BTF available for the next feed, or the patient/resident, carer or staff are unable to administer:
  - Patient/resident consents to having standard enteral feed as per MR 60.1.15 Inpatient Blended Tube Feeds Intended Use Statement.
  - The dietitian will provide an alternate feeding regime charted on MR60.1.10 WACHS Adult Enteral Feeding Form or MR144D WACHS Neonatal - Paediatric Enteral Feeding Prescription.