

Out of Hours Emergency Enteral Feeding Regimen (Including Risk Reduction for Re-feeding Syndrome)

This guidance does not override the individual responsibility of health professionals to make appropriate decisions according to the circumstances of the individual patient in consultation with the patient and / or carer. Health care professionals must be prepared to justify any deviation from this guidance.

Introduction

This out of hours emergency enteral feeding regimen is designed for use on the wards over weekends / bank holidays and out of hours when a Dietitian is not available. This regimen includes risk reduction for re-feeding syndrome. For further information regarding re-feeding syndrome please see the Identification and Management of Re-feeding Syndrome Guideline, WAHT-NUT-006

Please note that this policy is not intended for critical care patients, please see critical care feed guidelines for specific advice regarding critical care patients.

For advice on out of hours parenteral nutrition regimens please contact Pharmacy (Parenteral Nutrition Guidelines – WAHT-NUT-007).

This Guideline Is For Use By The Following Staff Groups:

Qualified Doctors, Qualified Nurses, Pharmacists and Dietitians.

Lead Clinician(s)

Dr Thea Haldane

Consultant Gastroenterologist

Approved by Nutrition and Hydration Committee on:
(Noted by Medicines Safety Committee and Trust
Management Executive)

14th December 2021

Review Date:

10th May 2026

This is the most current document and should be used until a revised version is in place

Key amendments to this guideline

Date	Amendment	By:
Jun 2010	Appendix 1 - Enteral feeding regimen – Text changed to 'Version 2 April 09' to highlight the regimen had been reviewed.	Jo Brown
May 2011	Appendix 1 Enteral feeding regimen reformatted	Jo Brown
	Appendix 2 updated in line with NUT-006	Jo Brown
June 2011	Re-approved by Nutrition steering committee.	Jo Brown
March 2013	Extended while under review	Jo Brown
May 2013	Guideline extended whilst under review	Jo Brown
June 2013	Guideline extended whilst under review	Jo Brown
August 2013	Guideline extended whilst under review	Jo Brown
29/10/2013	Guideline extended for 6 months whilst under major review	Nalinee Owen
25/03/2014	Guideline extended for 3 months	Nalinee Owen
24/11/2014	Guideline extended for 3 months	Nalinee Owen
28/01/2015	Guideline extended until 30 th April 2015	Jo Brown
24/04/2015	Guideline extended until 30 th June 2015	Jo Brown
24/06/2015	Guideline extended until 30 th September 2015	David Aldulaimi
Sept. 2015	Amendments to the emergency enteral feed regimen and re-feeding syndrome protocol in line with NICE & BAPEN.	Dr Haldane and the nutrition team
October 2017	Document extended for further two years, no new changes	Dr Haldane
December 2017	Sentence added in at the request of the Coroner	
17 th September 2019	Document extended for 6 months to ensure current guidelines are adapted to new national guidelines	Dr Haldane
6 TH May 2020	Document extended for 6 months during COVID period	
October 2020	Document extended for 6 months whilst review takes place	Sarah Pritchard
21 st May 2021	Document extended for 6 months whilst review process is completed	Sarah Pritchard
November 21	Document reviewed and updated Prescription chart altered, refeeding risk section of flow chart – prescription changed. Feed type has been changed and soya/vegan alternative included. Body of text altered for clarification.	Dr Haldane, Hollie Rossiter, Carl Robinson
November 2025	Document extended for 6 months to allow for Consultant review	Andrea Milton

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Out of Hours Emergency Enteral Feeding – Regimen (Including Risk Reduction for Re-feeding Syndrome).

Competencies Required

Instigation and action of the out of hours emergency enteral feeding regimen and re-feeding syndrome protocol should be initiated and signed by a doctor, grade registrar or above (as is required for NG tube placement).

All Acute Dietitians and Pharmacists should have a clear understanding of the implementation of the out of hours emergency enteral feeding regimen and re-feeding syndrome protocol. The ward dietitian's will take over prescription of the feed for the patient as soon as possible, after receipt of the referral.

Patients Covered

The out of hours emergency enteral feeding regimen covers all patients requiring enteral tube feeding during weekends, bank holidays and when a Dietitian is not available. This document does not cover ITU, where a separate policy is in place.

The out of hours regime can be found on page 4, on the reverse of all emergency enteral feeding regimens there is the protocol for the assessment of re-feeding syndrome see page 5 (see re-feeding syndrome guidelines WAHT-NUT-006).

Patients must be referred at the earliest opportunity to the dietetic team via email on ICE.

Scope of this document

The purpose of this document is to enable clinicians to safely start enteral feed regime's out of hours when there is no dietetic cover. The feed regimes suggested are therefore a simplification of what would be prescribed by a dietitian. If followed correctly, the regimes will not put patients at risk of developing refeeding syndrome in a malnourished patient and this should therefore not delay commencement of feeding until a dietitian is available to review the patient. Choosing the correct regime will require a patient to be weighed and a MUST score to be calculated. These should be done in all patients on admission. Patients may be at risk if an estimated weight, or incomplete MUST score is used to establish risk of refeeding syndrome. , this is part of the standard MUST scoring which should be completed for all patients admitted.

Enteral tube use

- NG position must be checked before commencing each bag of feed and administration of medications, as per NG guidelines (**WAHT-NUT-065**)
- See PEG guidelines for use of PEG (**WAHT-NUT-004**)
- Ensure patient is positioned at 45 degree angle when feeding to reduce the risk of aspiration.

DEPARTMENT OF NUTRITION AND DIETETICS

OUT OF HOURS EMERGENCY ENTERAL FEED REGIMEN

IMPORTANT – PLEASE NOTE:-

Please follow the flow chart overleaf to determine if the patient is at risk of re-feeding syndrome, then follow the appropriate feed regimen option below.

Name:
 Hospital No:
 NHS No:
 D.O.B:
 Male † Female †
 Consultant: Ward:

Patient IS at risk of Re-feeding Syndrome

Daily regimen:-
 Feed Type: Nutrison 1.0 or Nutrison soya (for vegan patients or cows milk intolerance)
 Volume of Feed: 500ml per day
 Pump rate: 25ml per hour for 20 hours/day
 Additional fluids as per Doctors advice
 Doctors Signature: Date:

-Please ensure all steps over page are followed
 -Continue this feed regimen until re-feeding bloods (potassium, phosphate and magnesium) are within normal range.
 -Refer to dietitian via ICE

-Continue daily regimen until Dietetic review

Patient is NOT at risk of Re-feeding Syndrome

Daily Regimen:-
 Feed Type: Nutrison 1.0 or Nutrison soya (for vegan patients or cows milk intolerance)
 Volume of Feed: 1000ml per day
 Pump rate: 50ml per hour for 20 hours/day
 Additional fluids as per Doctors advice
 Doctors Signature: Date:

-Refer to Dietitian via ICE
 -Continue above regimen until dietetic review

Re-feeding Syndrome: Identification of those at risk

Establish BMI, degree of unintentional weight loss in the last 3-6 months, period of little or no nutritional intake, potassium, magnesium and phosphate levels and any history of excess alcohol or drugs such as insulin, chemotherapy, antacids and diuretics.

Has the patient had any one of the following:

- BMI < 16kg/m²
- Weight loss of >15% over the last 3-6 months
- Poor nutritional intake for 10 days
- Low electrolytes.

Has the patient had any two of the following:

- BMI < 18.5kg/m²
- Weight loss >10% over the last 3-6 months
- Poor nutritional intake for 5 days
- Drug history as above

Patient is at risk of re-feeding syndrome – follow the flow chart below and refer immediately to the Dietitian

- Prior to commencing nutrition prescribe thiamine to be given at least 30 minutes before and during the first 10 days of feeding: high dose thiamine (200-300mg/day) orally or via NGT/PEG or IV Pabrinex - one pair of intravenous high potency ampoules in 100ml sodium chloride 0.9% over 15-30 minutes (this contains 250mg of Thiamine). Plus multivitamins e.g. forceval one tablet once a day.

Starting to Feed Safely - In Patients at risk of Re-feeding Syndrome

Step 1:

Commence enteral nutrition as per appropriate feeding regimen over page (if there are any concerns with swallow please refer to speech and language therapy).

Step 2:

Measure electrolytes: even if normal, replace potassium, phosphate and magnesium (see appendix 1 / discuss with pharmacy for guidance on electrolyte replacement). Only withhold supplementation if levels are high.

Step 3:

- Monitor potassium, magnesium, phosphate, calcium and sodium daily until bloods are normal and stable and the patient is receiving their target nutritional support, then continue to check bloods on a weekly basis.
- Continue to replace potassium, phosphate and magnesium (unless high) until the patient is receiving their target nutritional support.

Step 4:

- Monitor blood glucose levels (BMs) four times daily, as per BM chart.
- Monitor daily fluid balance.
- Doctors to assess the need for additional / replacement fluids on an individual basis. Unless contraindicated aim for 20-30ml/kg/day taking into account current fluid intake.

NB. The more rapidly calories are delivered and the rate of feed increased, the greater the demand on circulating electrolytes; thus there will be an increased risk of re-feeding.

Appendix 1

Electrolyte Supplementation in Re-feeding Syndrome

ELECTROLYTE	SUPPLEMENTATION METHOD	ADDITIONAL COMMENTS
PHOSPHATE	Refer to Trust guideline WAHT-PHA-011 http://nww.worcsacute.nhs.uk/EasysiteWeb/getresource.axd?AssetID=11948&type=full&servicetype=Attachment	Check calcium, potassium and phosphate levels after phosphate infusion. Use lower doses in renal impairment (consult pharmacy)
POTASSIUM	<u>Level below 2.5mmol/l, if symptomatic or unable to take orally</u> 20mmol in 500mls or 40mmol in 1000mls of 0.9% sodium chloride at a maximum recommended rate of 10mmol per hour. Repeat as necessary after measuring potassium levels. NB Higher concentrations are used in the ITU/HDU setting for patients with central venous access. <u>Level above 2.5 mmol/l and able to take orally</u> Sando-K tablets 4 to 8 tablets per day in divided doses.	
MAGNESIUM	Refer to Trust guideline WAHT-PHA-012 http://nww.worcsacute.nhs.uk/EasysiteWeb/getresource.axd?AssetID=11950&type=full&servicetype=Attachment	

Monitoring Tool

This should include realistic goals, timeframes and measurable outcomes.

How will monitoring be carried out?

Who will monitor compliance with the guideline?

Page/ Section of Key Document	Key control:	Checks to be carried out to confirm compliance with the policy:	How often the check will be carried out:	Responsible for carrying out the check:	Results of check reported to: <i>(Responsible for also ensuring actions are developed to address any areas of non-compliance)</i>	Frequency of reporting:
	WHAT?	HOW?	WHEN?	WHO?	WHERE?	WHEN?
	Were patients commenced on the appropriate out of hours feed regimen according to their re-feeding risk? Was the feed regimen followed signed by a Doctor? Was thiamine / Pabrinex prescribed appropriately? Were re-feeding bloods measured and supplemented if levels were normal? Were re-feeding bloods monitored at appropriate intervals?	Foundation year 1 and 2 training session discussing nutrition, re-feeding and parenteral guidelines. Retrospective audits	Annually Annually	Senior dietitian and senior pharmacist Dr Haldane and the nutrition team	Results of the audit will be reported back to members of the nutrition and hydration committee. Audit results will also be reported back to appropriate directorates as necessary via Dr Haldane.	Annually

References

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- BAPEN (2012) Re-feeding Syndrome: Identification of those at risk – decision tree, <http://www.bapen.org.uk/pdfs/decision-trees/refeeding-syndrome.pdf> (last accesses 20/02/15)
- Liverpool (2011) Trust Clinical Policy, Management of re-feeding syndrome

Contribution List

Key individuals involved in developing the document:

Name	Designation
Dr. Thea Haldane	Consultant Gastroenterologist
Carl Robinson	Team lead, dietician , WAHT
Hollie Rossiter	Senior Dietitian, WRH
Keith Hinton	Pharmacist, WAHT

Circulated to the following individuals for comments:

Name	Designation
Morag Ingles	Dietetic Manager
All Acute Dietitians	AH, WRH, KH
Dr Rees	Consultant Gastroenterologist,
Dr Ahmad	Consultant Gastroenterologist,
DR Baker	Consultant Gastroenterologist
Dr Prabhakaran	Gastro- Medics, ALEX
Dr Cheung	Consultant Gastroenterologist
Dr Gee	Consultant Gastroenterologist,
Dr Hudson	Consultant Gastroenterologist,
Dr Elagib	Consultant Gastroenterologist,
Dr Bhaskar	Consultant Endocrinologist, WRH
Mr Zilvetti	Consultant Surgeon, WRH
	Consultant Anaesthetics, WRH
Dr Mitchell	Consultant Anaesthetics, ALEX

Circulated to the chair of the following committee's / groups for comments:

Name	Committee / group
Clare Hubbard	Chair of Nutrition and Hydration Committee
	Chair of Medicines Safety Committee
	Director of Critical Care, Patient Safety
	TME

Supporting Document 1 - Equality Impact Assessment Tool

To be completed by the key document author and included as an appendix to key document when submitted to the appropriate committee for consideration and approval.

Please complete assessment form on next page;



Herefordshire & Worcestershire STP - Equality Impact Assessment (EIA) Form
Please read EIA guidelines when completing this form

Section 1 - Name of Organisation (please tick)

Herefordshire & Worcestershire STP		Herefordshire Council		Herefordshire CCG	
Worcestershire Acute Hospitals NHS Trust	x	Worcestershire County Council		Worcestershire CCGs	
Worcestershire Health and Care NHS Trust		Wye Valley NHS Trust		Other (please state)	

Name of Lead for Activity	
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Details of individuals completing this assessment	Name	Job title	e-mail contact
Date assessment completed			

Section 2

Activity being assessed (e.g. policy/procedure, document, service redesign, policy, strategy etc.)	Title: Out of Hours Emergency Feeding Starter Regimen (Including Risk Reduction for Re-Feeding Syndrome)
What is the aim, purpose and/or intended outcomes of this Activity?	See body of document
Who will be affected by the development & implementation of this activity?	<input type="checkbox"/> Service User <input type="checkbox"/> Staff <input type="checkbox"/> Patient <input type="checkbox"/> Communities <input type="checkbox"/> Carers <input type="checkbox"/> Other _____ <input type="checkbox"/> Visitors <input type="checkbox"/>
Is this:	<input checked="" type="checkbox"/> Review of an existing activity <input type="checkbox"/> New activity <input type="checkbox"/> Planning to withdraw or reduce a service, activity or presence?
What information and evidence have you reviewed to help	

inform this assessment? (Please name sources, eg demographic information for patients / services / staff groups affected, complaints etc.)	See body of document
Summary of engagement or consultation undertaken (e.g. who and how have you engaged with, or why do you believe this is not required)	See body of document
Summary of relevant findings	See body of document

Section 3

Please consider the potential impact of this activity (during development & implementation) on each of the equality groups outlined below. **Please tick one or more impact box below for each Equality Group and explain your rationale.** Please note it is possible for the potential impact to be both positive and negative within the same equality group and this should be recorded. Remember to consider the impact on e.g. staff, public, patients, carers etc. in these equality groups.

Equality Group	Potential positive impact	Potential neutral impact	Potential negative impact	Please explain your reasons for any potential positive, neutral or negative impact identified
Age				
Disability				
Gender Reassignment				
Marriage & Civil Partnerships				
Pregnancy & Maternity				
Race including Traveling Communities				
Religion & Belief				
Sex				
Sexual Orientation				
Other Vulnerable and Disadvantaged Groups (e.g. carers; care leavers; homeless; Social/Economic deprivation, travelling communities etc.)				
Health Inequalities (any preventable, unfair & unjust differences in health status between groups, populations or individuals that arise from the unequal distribution of social, environmental & economic conditions within societies)				

Section 4

What actions will you take to mitigate any potential negative impacts?	Risk identified	Actions required to reduce / eliminate negative impact	Who will lead on the action?	Timeframe
How will you monitor these actions?	See body of document			
When will you review this EIA? (e.g in a service redesign, this EIA should be revisited regularly throughout the design & implementation)	See body of document			

Section 5 - Please read and agree to the following Equality Statement

1. Equality Statement

- 1.1. All public bodies have a statutory duty under the Equality Act 2010 to set out arrangements to assess and consult on how their policies and functions impact on the 9 protected characteristics: Age; Disability; Gender Reassignment; Marriage & Civil Partnership; Pregnancy & Maternity; Race; Religion & Belief; Sex; Sexual Orientation
- 1.2. Our Organisations will challenge discrimination, promote equality, respect human rights, and aims to design and implement services, policies and measures that meet the diverse needs of our service, and population, ensuring that none are placed at a disadvantage over others.
- 1.3. All staff are expected to deliver services and provide services and care in a manner which respects the individuality of service users, patients, carer’s etc, and as such treat them and members of the workforce respectfully, paying due regard to the 9 protected characteristics.

Signature of person completing EIA	Completed on behalf ow owner
Date signed	
Comments:	
Signature of person the Leader Person for this activity	
Date signed	
Comments:	



Supporting Document 2 – Financial Impact Assessment

To be completed by the key document author and attached to key document when submitted to the appropriate committee for consideration and approval.

	Title of document:	Yes/No
1.	Does the implementation of this document require any additional Capital resources	No
2.	Does the implementation of this document require additional revenue	No
3.	Does the implementation of this document require additional manpower	No
4.	Does the implementation of this document release any manpower costs through a change in practice	No
5.	Are there additional staff training costs associated with implementing this document which cannot be delivered through current training programmes or allocated training times for staff	No
	Other comments:	

If the response to any of the above is yes, please complete a business case and which is signed by your Finance Manager and Directorate Manager for consideration by the Accountable Director before progressing to the relevant committee for approval