

Intensive Care Unit Nutrition Guideline
Version 1.1, Review due 01/03/2024


North Bristol
NHS Trust

Intensive Care Unit Nutrition Guideline

This guideline is a quick reference guide to feeding patients on ICU at North Bristol NHS Trust.

Version 1.1	Valid from 01/03/2022	Review due 01/03/2024	Authors: Stephen Taylor, Rowan Clemente
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Introduction

This guideline applies to all patients admitted to Southmead ICU. Follow the enteral feeding process diagram on page 2 for all patients.

Aims and rationale

Days 1-2

Support physiological adaptation to critical illness by:

- Correcting micronutrient deficit to optimise metabolic and anti-oxidant systems.
- Provide minimal EN macronutrients to maintain GI function and immunity.

Days 3-6

Hypocaloric, high nitrogen feeding:

- Energy expenditure: Provide <60% if obese, <80% if other to avoid substrate intolerance
- Nitrogen: 0.2-0.32g/kg/day to optimise wound healing and acute-phase protein response.

Day 7 onwards

Meet full requirement.

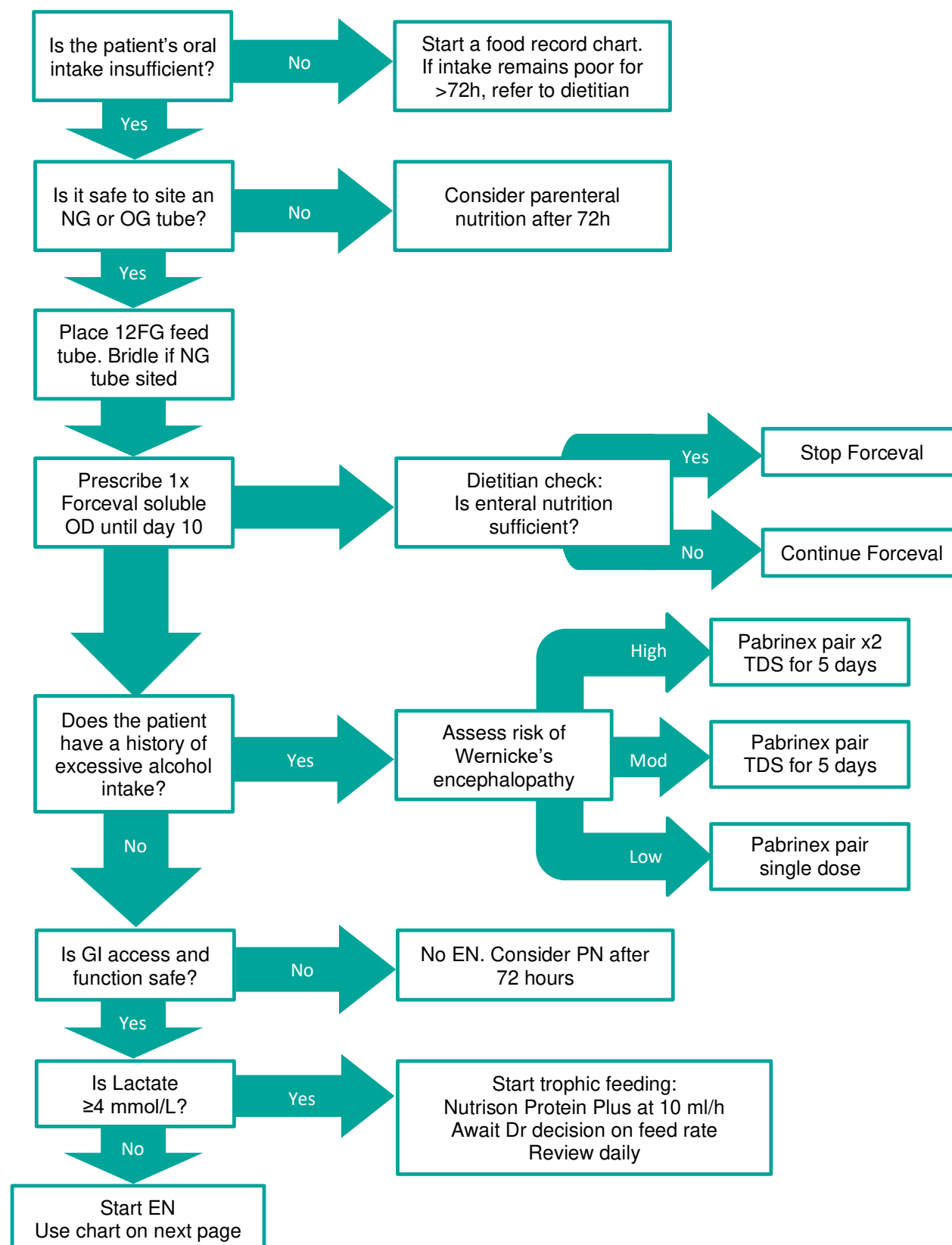
- Energy: Dietitian judges when to meet energy expenditure as substrate tolerance permits.
- Nitrogen and bolus feed/ food: Time to optimise activity-induced anabolism.

Enteral feeding decision tree

Following admission to ICU, the flow chart on the next page should be followed for all patients (excluding PACE admissions).

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Exceptional healthcare, personally delivered

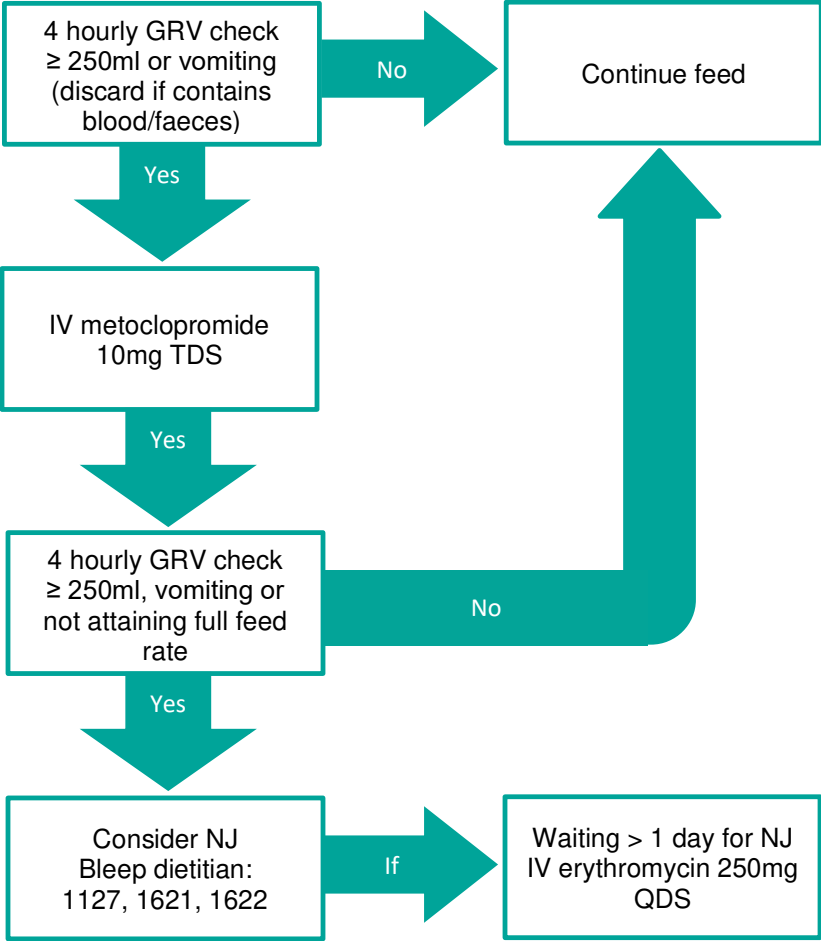
Nutrition action plan

The following decision tool is designed to summarise responsibilities of nursing and medical staff following admission along with providing an aide-memoire for enteral feeding rates and phosphate replacement.

		Screen	Action				Daily WR review
ADMISSION	Nurse	Insufficient food	Place 12F NGT if necessary and possible				Confirm tube position
		NGT in situ	Bridle, ensure clip 0.5cm from septum				
	Doctor	All patients	Forceval soluble 1 tablet OD NG until day 10				Dietitian may cancel
		Wernicke's risk	Pabrinex 1 pair	High 2 TDS	Possible 1 TDS	Low 1 OD	Symptom > dose review
			Duration	5 days	5 days	One off	
		Burn, CRRT	1 pair Pabrinex IV OD & 10mL Additracce IV OD				Dietitian will review
		No GI access / poor function	No enteral nutrition				Consider TPN after 72h
Lactate > 4.0	10ml/h Nutrison Protein Plus until WR decision.				Feed rate decision		

DAILY	Nurse	Start NG feed (ml/hr)		Most patients	Fluid restricted or K+ >5.0 & no CRRT	Check gastric residual volume 4 hourly		
			Nutrison	Protein Plus	Concentrated			
			Day 1 & 2	30	20		< 250mL bile/feed:	
			Then: full feed	Dietitian regime or use actual weight (kg)			→ Return + full feed rate	
			40kg	40	27		⬇️	
			50kg	45	30		≥ 250mL or blood / faecal / vomit	
			60kg	50	32		→ Discard + full feed rate	
			70kg +	55	35		⬇️	
	Doctor	Phosphate	IV polyfusor	ml	ml/hr	Hours	If 2nd > 250mL or vomit → Metoclopramide 10mg IV TDS	
		< 0.5 *		400	33	12	⬇️	
		< 0.65 *		300	25	12	24h: unresolved or ≤ full rate EN?	
			* If <72h of feed > ⬇️ feed to 30ml/h until phosphate > 1.0					⬇️
		<0.8		200	17	12	Request NJ via dieticians	
		0.8-1.0 or if previous day <0.8	Phosphate sandoz	1 tablet TDS			If > 24h delay for NJ: Erythromycin 250mg IV QDS	
CRRT		Adjust daily supplement to maintain PO4 at 1.0-1.4					Version 2.0, December 19	
New infusion	Recheck phosphate level before commencing							

Management of gastric aspirates



Total Parenteral Nutrition (TPN)

In hours

If the multidisciplinary team have made the clinical decision that TPN is required, bleep your Pod dietitian.

Out of hours

If the multidisciplinary team have made the clinical decision that TPN is required over the weekend:

- Complete the TPN calculator (intranet) to determine safest infusion rate

Responsibility	Name	Division / Specialty	Job Title
Authorised by	ICU SDM	Intensive Care Unit	-
Author	Stephen Taylor	Intensive Care Unit	Dietitian
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