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Specialist help for eating disorders and health

NHS
North East and North Cumbria
Mental Health, Learning Disability and Autism Partnership

Emergency re-feeding plans for patients with a sensory restrictive eating disorder admitted to acute hospital wards.

Acute hospitals can be the right location to meet the temporary medical needs of young people and adults requiring urgent medical support for an eating disorder, if the correct reasonable adjustments are made to support the admission. Although any acute re-feeding plan needs to be delivered in the context of a highly individualised and formulation-driven treatment plan, physical health and mental health must be taken care of concurrently.

Who is the guidance for?

A sensory restrictive eating disorder is one in which a person restricts their eating due to the sensory characteristics of the food and/or environment. They would typically require adaptations for their sensory differences to support an effective admission. This guidance is intended to support re-feeding admissions on acute wards by providing practical advice and tools for patients with the following diagnoses, or suspected diagnoses: ARFID (avoidant/restrictive food intake disorder), Autism and/or Sensory Processing Disorder.

The guidance can be used by all clinical acute ward staff in isolation of mental health team input. The guidance can be used in full, or parts of it can be taken to inform an individualised care plan. It is not a pre-requisite that the guidance must be used by supporting mental health teams if all or part of the content is useful to an individual's care and treatment plan.

Patients as young as 2 years old can present with an Avoidant Restrictive Food Intake Disorder (ARFID) diagnosis or a sensory restrictive feeding disorder. As this is a broad guidance document across all ages, this guidance may not be suitable for those below school-age and clinical judgement should be used.

This guidance is not intended to be used to support those exclusively with anorexia nervosa, given the differences in presenting psychopathologies. However, for patients with autism and/or sensory processing disorder and a suspected or diagnosed eating disorder (such as anorexia nervosa) their individual needs should be understood and accommodated with reasonable adjustments made to the approach in their treatment and care (Cobbaert and Rose, 2023). In this way, this guidance can be used to support and inform a sensory-sensitive treatment approach - such as by using the sensory sensitive food menus, or integrated sensory tools.

The aim of any sensory-restrictive re-feeding admission is that a dietitian will devise a collaborated and individualised meal plan in discussion with the ward staff, patient, and family as soon as this is practicably possible (expected within 2 days of admission). However, in the rare event that this is not possible (such as weekends / bank holidays) feeding should not be delayed despite the sensory challenges presented and the following feeding plans should be started in lieu of an individualised plan.

Please note that this is an <u>expert consensus guidance document</u> developed by a cohort of specialist eating disorder dietitians. It is intended to guide, support and inform emergency re-feeding admissions for patients with sensory restrictive eating. It is not intended to replace the dietetic role, or to replace clinical judgement. As such, any started standardised feeding plans should be reviewed and replaced by a tailored dietitian-devised and patient-specific meal plan within a maximum of 4 days (allowing for a weekend + 2 bank holidays).

This guidance document was written and co-produced by dietitians from:
Cumbria, Northumberland, Tyne and Wear NHS Foundation Trust, Tees, Esk and Wear Valleys NHS Foundation Trust, InsightEating, and Bedfordshire and Luton CAMHS Eating Disorders Team

Risk assessment

Please note that for re-feeding to be started safely the appropriate risk assessment and risk monitoring must be followed. MEED Risk Guidance found at: college-report-cr233-medical-emergencies-in-eating-disorders-(meed)-guidance.pdf (rcpsych.ac.uk), particularly pages 30-36, supports this. A summarised crib sheet for MEED risk assessment can be found in Appendix 1.

Which starting calorie plan to use?

There are nuances to starting re-feeding requirements that are best placed with dietitians (such as determining pre-feeding calories, calculating current nutritional requirements, and accurately estimating fluid needs). However, in the interests of this short-term emergency, in the absence of specialist re-feeding assessment and input, it is recommended that an initial starting intake of 1400kcal/day (RCPSYCH, 2023) is safe for adolescent re-feeding for those <age 18 (page 78-79), or at least 30-35kcal/kg in adults which typically also equates to 1400 kcal/day.

It may be appropriate to start at 1000kcal for those <10 years old dependent on age, gender and clinical presentation.

For those with high-risk parameters for developing re-feeding syndrome (Table 1 below): for those <18 years old it is recommended that 1400kcal/day is safe except in patients at highest risk, provided that medical parameters are closely monitored (Page 76/Table 7 on MEED). In adults re-feeding calories are recommended as low as 10kcal/kg/day for those at very high risk of developing re-feeding syndrome (page 79 on MEED). Such low starting calories should be determined by the dietitian / local re-feeding policy and is beyond the scope of this document.

Table 1 – High risk parameters for refeeding syndrome (MEED page 78):

- Weight below 70% m%BMI *(see Appendix 2 for details on how to calculate)* or weight below 70% Weight4Height (in those <18 years) or BMI <13 kg/m2 (in adults)
- Anorexia nervosa in conjunction with acute medical illness (such as raised CRP / inflammatory response)
- WCC <3.8mmol/l
- Little or no intake for >4 days
- Already in established re-feeding syndrome (all/one of: low potassium / magnesium / phosphate, +/- peripheral oedema, +/- disturbance to organ function including respiratory failure, cardiac failure or pulmonary oedema, raised liver transaminases).

In cases, where the above risk factors are noted, example regimens which start at 1,000 kcal/day are shown in grey on the plans below. Clinicians should start re-feeding at the most appropriate corresponding plan or adjust these accordingly.

"The patient should not be started on fewer calories than they were consuming prior to admission; because feeding is the life-saving treatment that needs to be administered, this should be the clinical priority." (MEED, page 81)

In all cases of re-feeding a patient on the ward:

1. Follow MEED risk monitoring guidance including for re-feeding biochemistry, ECG, blood glucose, observations (including postural assessment for blood pressure and heart rate) and monitoring liver function tests.
2. Do not advance the feeding calories if potassium, magnesium or phosphate fall below normal levels *until this has been corrected back to normal levels.* **Note:** there are differences in normal phosphate level by age: 3–10 years 1.2–1.8mmol/L; 10–15 years 1.1–1.75mmol/L; >15 years 0.8–1.45mmol/L
3. Avoid intravenous (IV) Dextrose for replacing fluids

4. Seek dietetic review and an individual plan as soon as possible by instigating a referral to *both* your acute dietetic team and community eating disorders service.

Sensory specific re-feeding considerations:

To manage the risk of developing re-feeding syndrome the evidence suggests that thiamine should be prescribed daily and for the first 10 days of re-feeding as well as an age-appropriate multivitamin.

a. Forceval tablet or soluble (Adult or Junior) is the preferable option given its availability on the wards and its complete micronutrient profile.

For individuals with sensory restriction, micronutrient supplementation can present challenges. **You should discuss all alternative options with the patient (and family where appropriate), your medical team, and with pharmacy regarding suitable, age-appropriate available alternatives to Forceval**.

Although this is not an exhaustive list, some options to consider might be:

b. Liquid multi-vitamin (such as Abidec multivitamin drops for babies and children or ketovite liquid in adults) or dissolvable preparations (such as paediatric Seravit)
c. Chewy multi-vitamin/mineral (such as age-appropriate Centrum fruity chewables)
d. Vitamin spray (such as BetterYou MultiVit oral spray for those aged >13 years)
e. Vitamin sprinkles (such as Nutrigen Vitamixin for children
f. Spatone liquid iron (if additional iron is needed)
g. Chewable calcium (such as calcichew (if additional calcium is needed))
h. Intravenous vitamin and mineral support may provide an alternative administrative route which is well absorbed. This should be discussed with your medical and pharmacy colleagues.
i. Transdermal vitamin patches are not currently recommended due their weak evidence base. It would be up to the individual treating team whether they wish to consider these if there are no other viable alternatives.

ARFID Awareness UK resources provide an up-to-date guidance leaflet for dietitians on available supplement options for Children and Young People (CYP) RESOURCES | ARFID Awareness UK

Ward location

Side-room admissions rather than admission to a general bay/ward are preferable as these reduce the total sensory input. Where possible, using rooms with blinds and neutral colours are preferable. Whilst it may not always be practically possible, being mindful of monitors/trolly sounds and noise outside rooms/when walking past is helpful.

If a side room is unavailable consideration should be given on how to make a bay as helpful as possible. This includes asking if the sensory-sensitive person would prefer to be closer or further from the window, communal bathroom and nursing station. Ideally any subsequent move would be planned and would not take place unless necessary / in the patient's best interests (e.g. to a side room).

Recovery-limiting behaviours

The full supervision of meals (by parents or nursing staff) and limited bathroom access is routinely recommended and required for eating disorder admissions. However as sensory eating difficulty admissions are not driven by weight/shape concern, the following should be discussed with the patient/young person (YP) and family, and agreed as medically safe by the ward:

- Is there a risk of vomiting as a sensory regulation mechanism? If so, how can this risk be managed / minimised, and what would need to be put in place to support this?

Full parental or nursing meal supervision is also not routinely indicated in this patient group. Instead, the following questions should be considered to help support the creation of an ideal eating environment for the patient to help reduce their anxiety:

1) *Is there any unwanted sensory stimulus that may cause distress or discomfort before, during or after mealtimes?*
2) *Do they prefer to eat with other people? If so, is that a specific person and can the ward accommodate this during mealtimes?*
3) *Do they like you to talk to them and offer encouragement? Or do they prefer to eat in silence?*
4) *Do they prefer to watch their favourite TV show, use a tablet device or listen to music whilst eating?*
5) *Does it help to wear noise cancelling headphones?*
6) *Do they prefer to have the curtains closed (if on a bay)?*
7) *Does it help to eat alongside reading, puzzles or other distractions such as tablets and radio?*
8) *Does their chair have to face the door? Or a specific direction?*
9) *Can other people touch/prepare their food? Such as others removing lids from food pots.*
10) *Does it help to eat standing, on a beanbag, on or against a hard surface, or sitting on a physiotherapy ball for meals?*
11) *If sat in a chair, is it of an appropriate size and support? (e.g. can it be modified by adding blankets and cushions to enable the patent to feel tight and secure in their chair, or raisers placed under the feet as a footrest to make a more stable position for eating)*
12) *Do they prefer to eat in their room or an alternative location?*
13) *Do they prefer to be served first or last? Or at a specific time (if possible)?*
14) *Do they prefer to eat with their hands?*
15) *Do they prefer to eat outside usual mealtimes?*

Additional questions for CYP:

16) *Does it help when the person with them models eating (eats the same food with them)? Or do they prefer to eat alone?*
17) *Do they prefer it when someone sits next to them? In front of them?*

Consider options such as how the food can be presented with a routine appearance, how it can be made more acceptable (e.g., using specific branded products / kept separate on the plate) and the type of crockery and cutlery used. **The following checklist** can be used to support the re-feeding menu. It should be completed with the patient (and their family as appropriate) and is intended to support their experience and provide guidance to the ward staff. It should be printed and kept in the appropriate place in their care file as a reminder for staff throughout the admission.

Reasonable adjustment (if applicable)	**Tick if 'Yes'**
I would like to bring in and use my own plate / bowl / cutlery/ straw from home.	
I would like my milk served separately from my cereal portion.	
I would like my beans served separately from my toast.	
I would like my butter served separately from my bread/toast so I can add this myself.	
I would like my sandwich filling to be served separately.	
I would like my fruit cut up rather than served whole.	
I would like any 'hot food' to be served cold.	
I would like drinks to be served cold from the fridge.	
I would like my jacket potato and filling to be served separately.	
I would like my baked beans to be ( ) brand.	
I would like my biscuits to be ( ) brand.	
I would like my cereal to be ( ) brand.	
I would like my bread to be ( ) brand.	
Where a meal has 2 items, I would like these to be served separately rather than put in front of me at the same time. This may mean I have lots of 'eating episodes' but this helps me to avoid feeling too full and reduces my anxiety.	
Where possible, I would like my parent to be in charge of bringing me my specified meals and snacks so that they can give me these at more consistent/precise times each day.	

Where possible, within health and safety restrictions, I would like to request that my own preferred foods are brought onto the wards.	
(If bringing own food onto the ward) I would like to keep these in my room if possible, or to know where this will be stored and how to access it if not.	
I would like to request that all my foods remain separate and don't touch one another.	
I would like to request a milk alternative e.g. soya/almond/oat/rice/pea/coconut/other (please specify:).	
I would like my food to be served in its original packaging.	
I would/would not like to be asked to fill in ward menus.	
I would like to know in advance with as much notice as possible of any changes to my planned meals.	
Please list any additional preferences in this box:	

If there is an agreement that there will be no meal-time supervision, consideration should be given to what safeguards can be used to inform medical staff of any potential concerns (e.g., monitoring that food is not being thrown away in secret).

Further information on supporting sensory eating difficulties including sensory profiling for foods and the environment can be found at: PEACE Pathway – Supporting Eating Difficulties

The use of a wheelchair and bed rest should only be initiated if it is medically necessary for patient safety. This is because confined and restricted movement for a neurodiverse or sensory-sensitive person can be extremely difficult. This is also because whilst movement (including the use of self-regulating stimming behaviours) could be recovery-limiting, it is not driven by attempts to lose weight. As such, we recommend discussing with the patient (and family where appropriate) about how their sensory needs are regulated, then consider and agree safe options to support this. Examples might include (but are not limited to):

- Permitting 1 minute of pacing in the room before / after meals
- Facilitate an environment to allow eating standing up
- The use of physiotherapy balls can aid movement whilst limiting energy expenditure

Self-regulation strategies

Self-regulation strategies vary greatly between individuals and will be highly dependant upon the individual sensory profile of the YP. This is best completed by a specialist sensory Occupational Therapist (OT) assessment. However, in all cases, the starting point should always be to ask and listen to the patient (and their family) about their experiences and which strategies they use to help them/their child to self-regulate. Although this is not an exhaustive list, and won't apply to all patients, some examples of strategies which can help include:

- Allowing compassionate space for self-regulation stimming (some examples include rocking, tapping, finger-flicking, arm/leg flapping, humming and word repetition) in a way which accepts and doesn't draw attention to this behaviour, nor asks for it to stop.
- Using fidget / spinning toys or blu-tack / moulding clay
- Using weighted blankets / weighted lap pads (with occupational therapy guidance particularly in those with very low weights)
- Using temperature extreme objects (such as hot water bottles or ice-packs) or supporting the use of fans (due to noise / skin-feel)
- Using chewing toys / jewellery
- Using deep breathing strategies or the grounding 5,4,3,2,1 technique (naming 5 things you can see, 4 things you can touch, 3 things you can hear, 2 things you can smell and 1 thing you can taste)
- Using sunglasses in all environments or supporting rooms with blinds/curtains to open/close

- Using noise cancelling headphones or noise filtering ear-buds, or using white noise machines / background sound
- Using engaging activities such as puzzles, art and modelling
- Using radio / background music

Examples listed above could be brought onto the ward by the patient/family or may be supported by your OT Department. All additional items will need to be agreed by the health and safety policy of the ward. Further information on sensory processing can be found in **Appendix 3**.

Accessible Communication

Individuals and families with sensory restrictive eating difficulties who are admitted to hospital are likely to feel anxious and concerned, and may have had previous experience of feeling unheard, judged, criticised, or blamed. This is the most common negative complaint received of services. It is important that you offer an empathetic and validating response to their reported challenges.

It is important to consider that reasonable adjustments are made in your communications with the patient (and their family), ensuring this is as accessible as possible (Dell'osso *et al*., 2024). Some examples of communication adjustments include:

- Using simple and direct language
- Asking clear, non-ambiguous questions and tailoring these to the age of the patient
- Asking only one question at a time
- Slowing down verbal speech
- Accepting that there may be a communication delay and allowing a purposeful pause between your question and expecting a response
- Using communication devices
- Using visual aids to help explanations
- Following-up verbal communication with clear, written information and plans

Naso-gastric (NG) tube feeding considerations

If the insertion of a nasogastric tube (NGT) is necessary for medical purposes, allowing the neurodivergent/sensory-sensitive person to be in a sensory-safe environment (e.g., dimmed lighting, quiet, as few people present as possible and ideally with individuals whom the person is familiar with) during the procedure may be beneficial and reduce distress. The insertion of a nasogastric tube can be extremely overwhelming from a sensory perspective (e.g., touch, taste, interoceptive discomfort and/or pain) and minimising environmental stressors may help to reduce anxiety (Cobbaert and Rose, 2023).

Anticipatory and/or mitigating measures (e.g., discussing the possibility of NGT intervention with the patient at the beginning of their admission in anticipation of the need for emergency intervention) could also be of benefit (Fuller *et al*., 2023).

Where possible, supporting the explanation of the nasogastric tube process with visual aids (such as pictures and/or videos) and ensuring tailored age-appropriate information (of the rationale and process), would be of benefit in reducing anxiety. Where the patient has prior experience of NG feeding, listening to their experiences and trying to support their preferences is beneficial. This may include supporting their preferences for the size of tube used, preferred feeding nostril and/or type and location of tape. Giving as much choice to the patient as possible helps to increase their sense of control and reduce anxiety.

The use of restraint for NG feeding should be given careful, context specific consideration with the involvement of the full MDT, and in conjunction with your local hospital policy and guidelines, and mental health legislation.

Safeguarding in CYP

Ward and clinical staff should be aware that due to the high anxiety and distress exhibited by the young person, carers may find it difficult to adhere to the prescribed care plan around food and safety management. In rare cases, this can be become a safeguarding issue and will need to be sensitively addressed according to your local safeguarding policy.

Working with common co-occurring behaviours

Within those with eating disorders and sensory-sensitivity/neurodiversity it is not unusual to observe a co-occurrence of obsessive and/or compulsive behaviours (these may, or may not, be /diagnosed). These may interact with the restrictive eating behaviours (Rhind *et al*., 2014; Dell'osso *et al*., 2024). Obsessive/compulsive behaviours can include contamination fears or practicing specific food routines which help to increase the sense of safety around food. In an emergency context, clinical management advice for these behaviours is beyond the scope of this guidance. Where obsessive and/or compulsive behaviours are observed, it is important to include the mental health team to help support and understand these behaviours and integrate this into the holistic plan of care. This comorbidity has been associated with a poorer prognosis in those with eating difficulties, so the adaptation of treatment may be warranted (Rhind *et al.,* 2014).

Ensuring that patients know where their food is stored, how to access it, and how it is kept safe and uncontaminated can help to support such anxieties. This could include keeping food items with the patient if it is safe to do so.

Continuity of care risks

As with all aspects of healthcare, there are risks from the inadequate sharing of information between clinicians. This is more problematic for a neurodivergent/sensory-sensitive individual who may struggle to relay information or communicate their needs. They may also be more likely to struggle to form trusting staff relationships. Feeling heard from the beginning is more likely to lead to better engagement and therefore reduced admission length.

Ensuring an adequate and comprehensive hand-over of sensory-preference information, as well as the medical history, at staff handovers is essential. However, busy wards can struggle with this despite their best intentions. **Printing and displaying simple 'patient needs' templates on a patients' door works as a simple and practical reminder to all staff** and demonstrates to a patient that they have been heard. **Examples can be found in Appendix 4**

Staff training

Where possible, local mental health / eating disorder teams should support the implementation of this guidance by offering ward specific training.

Example for re-feeding a patient using an NG tube feed

Use a 1kcal per ml fibre-containing feed initially. For CYP please ensure you use a feed appropriate to the age/weight of the child.

		1 kcal per ml feed type	Pack Size	Total kcals provided per day
For patients who are high risk of refeeding syndrome (see Table 1), start on these meal plans	**High risk plan - Day 1**	1,000 mls at 50 mls/hour for 20 hours	1L	1,000kcal
	High risk plan - Day 2	1,200 mls at 60 mls/hour for 20 hours	1.5L	1,200kcal
For high-risk patients complete high risk plans day 1 & 2 before continuing onto standard plans below starting at Day 1-2				
For patients at lower risk of refeeding syndrome	**Day 1-2**	1,400 mls at 70 mls/hour for 20 hours	1.5L	1400kcal
	Day 3-4	1,640 mls at 82 mls/hour for 20 hours	1L x 2	1640kcal
	Day 5-6	1280 mls at 80 mls/hour for 16 hours **(note: change to 1.5kcal/ml feed)**	1.5L	1,920kcal

Most patients should start at Day 1-2 (1400kcal) of this feeding programme unless there are significant contraindications (see Table 1 on page 1).

Please refer to the Trust's own NG feeding policy. Give 30ml water as flushes before and after each feed. If the patient is not drinking an adequate amount to meet their fluid requirements, additional flushes can be given, aiming for total fluid to meet requirements as calculated.

Continuous feeding over 20 hours is recommended during the first 7-10 days or whilst an individual is medically unstable, to manage the risk of hypoglycaemia and issues with heightened interoception.

Example for refeeding a patient using oral nutrition supplements

Feed to be used: Use a 2.4kcal per ml sip-feed. In children this must be a feed appropriate to the age / weight of the child.

	For patients who are high risk of refeeding syndrome (see Table 1), start on these meal plans			**For patients at lower risk of refeeding syndrome**		
	High risk plan - Day 1	**High risk plan - Day 2**		**Day 1-2**	**Day 3-4**	**Day 5-6**
Breakfast	85mls	105mls	**For high risk patients complete high risk plans day 1 and 2 before continuing onto standard plans below starting at Day 1-2**	105mls	125mls	145mls
Mid-Morning	20mls	20mls		60mls	60mls	95mls
Lunch	125mls	125mls		145mls	165mls	165mls
Mid-Afternoon	20mls	85mls		85mls	85mls	95mls
Evening Meal	125mls	125mls		125mls	165mls	165mls
Supper	40mls	40mls		65mls	85mls	125mls
Totals	**1000kcal**	**1200kcal**		**1400kcal**	**1650kcal**	**1900kcal**

Most patients should start at Day 1-2 (1400kcal) of this feeding programme unless there are significant contraindications (see Table 1).

Reasonable adjustments:

In cases of sensory restrictive eating disorders there are likely to be sensory specificities to fluid texture (thickness), taste, smell and appearance (including packaging). Due to this, the full range of oral nutritional supplements should be considered as supported and advised by the dietitian as clinically appropriate. This should include options to use off-contract supplements and should be discussed with your ward pharmacist.

As they are nutritionally incomplete, and are high in carbohydrate load, the following supplements should not be used unless in consultation with the dietitian, who can assess the total re-feeding and nutritional risk: Ensure Plus Juice, Paediasure Juice, Polycal, or Fortijuice sip-feed versions.

Neutral flavours (e.g., neutral/vanilla) may be better tolerated, so it would be advisable to order these varieties to have in stock. It is also recommended that they are served cold.

If a sensory-restrictive person cannot tolerate single/large doses of supplement, consider splitting these into smaller, more frequent doses whilst reminding the patient about good dental hygiene. This can better suit those who experience extreme fullness or associated nausea.

Example meal plan for re-feeding a patient using a sensory restrictive food menu

The equivalent "mls" of nutritional supplement (use an age appropriate 2.4kcal/ml sip feed) are shown under each prescribed meal or snack. If the patient is unable to eat or accept the prescribed meal, the patient should be offered the equivalent volume of sip-feed.

	For patients who are high risk of refeeding syndrome (see Table 1), start on these meal plans			**For patients at lower risk of refeeding syndrome**	
	High risk plan - Day 1	**High risk plan - Day 2**		**Day 1-2**	**Day 3-4**
Breakfast	3 tbsp / 1 small box cereal + 100ml whole milk	3 tbsp / 1 small box cereal + 100ml whole milk + 1 carton orange juice / half glass of other fruit juice	**For high risk patients complete high risk plans day 1 & 2 before continuing onto standard plans below starting at Day 1-2**	3 tbsp / 1 small box cereal + 100ml whole milk + 1 carton orange juice/ half glass of other fruit juice	3 tbsp / 1 small box cereal + 200ml whole milk + 1 carton orange juice / half glass of other fruit juice
2.4kcal/ml sip feed equivalent	85 mls	105 mls		105 mls	125 mls
Mid-Morning	100 mls whole milk OR 1 piece of fruit	100 mls whole milk OR 1 piece of fruit		1 x white toast with I portion butter	1 x white toast with I portion butter
2.4kcal/ml sip feed equivalent	20 mls	20 mls		60 mls	60 mls
Lunch	1 cheese sandwich on white bread OR 2 x toast with 2 portions butter and half can baked beans or 1 microwave snap pot	1 cheese sandwich on white bread OR 2 x toast with 2 portions butter and half can baked beans or 1 microwave snap pot		1 cheese sandwich on white bread OR 2 x toast with 2 portions butter and half can baked beans or 1 microwave snap pot + 1 piece of fruit	1 cheese sandwich on white bread OR 2 x toast with 2 portions butter and half can baked beans or 1 microwave snap pot + 1 packet plain crisps
2.4kcal/ml sip feed equivalent	125 mls	125 mls		145 mls	165 mls
Mid- Afternoon	100 mls whole milk	Non-diet yogurt OR 1 pack crackers with 1 portion cheese		Non-diet yogurt OR 1 pack crackers with 1 portion cheese	Non-diet yogurt OR 1 pack crackers with 1 portion cheese
2.4kcal/ml sip feed equivalent	20 mls	85 mls		85 mls	85 mls
Evening Meal	1 cheese omelette with mashed potatoes and vegetable choice OR 1 tin heinz tomato soup with 2 slices of white bread and 2 portions of butter OR 1 jacket potato with 1 portion of butter and 1 portion of cheese or ½ can baked beans	1 cheese omelette with mashed potatoes and vegetable choice OR 1 tin heinz tomato soup with 2 slices of white bread and 2 portions of butter OR 1 jacket potato with 1 portion of butter and 1 portion of cheese or ½ can baked beans		1 cheese omelette with mashed potatoes and vegetable choice OR 1 tin heinz tomato soup with 2 slices of white bread and 2 portions of butter OR 1 jacket potato with 1 portion of butter and 1 portion of cheese or ½ can baked beans	1 cheese omelette with mashed potatoes and vegetable choice OR 1 tin heinz tomato soup with 2 slices of white bread and 2 portions of butter OR 1 jacket potato with 1 portion of butter and 1 portion of cheese or ½ can baked beans + 1 tub ice-cream
2.4kcal/ml sip feed equivalent	125 mls	125 mls		125 mls	165 mls
Supper	100mls whole milk + 1 digestive biscuit	100mls whole milk + 1 digestive biscuit		100mls whole milk + 2 digestive biscuits OR 200mls hot chocolate made only with whole milk	100mls whole milk + 2 digestive biscuits OR 200mls hot chocolate made only with whole milk + 1 digestive biscuit
2.4kcal/ml sip feed equivalent	40 mls	40 mls		65 mls	85 mls
Estimated kcals	**1000kcals**	**1200kcals**		**1400kcals**	**1650kcals**

Most patients should start at Day 1-2 (1400kcal) of this feeding programme unless there are significant contraindications (see Table 1 on page 1).

Reasonable adjustments:

This sensory restrictive menu is based on the PEACE Pathway menu (PEACE Pathway - The PEACE Menu) intended to give a broadly sensory-accepted menu preference at specific mealtimes. However, this will not meet the unique sensory preferences of all patients, and in many cases will require specific foods to be brought in from home (e.g., branded items) due to catering limitations. As such, sensory-restrictive patients are not limited to only these food choices, and it would be inappropriate to assume the sensory food preferences of individuals without full assessment.

Alternative/usual milk options are also permitted on this sensory restrictive plan.

A sensory restrictive example vegan meal plan can be found in Appendix 5.

Authors:

This guidance document was written and co-produced by specialist dietitians:

Clare Ellison (lead)	Advanced Eating Disorders Dietitian & ARFID Project Lead for the North-East and North Cumbria Provider Collaborative
Ursula Philpot	Freelance Consultant Dietitian, Senior Lecturer with Leeds Beckett University and Clinical Associate for the Yorkshire & Humber Clinical Network
Kirsty Thompson	Advanced Clinical Lead Dietitian for CYPS and Eating Disorders with Tees Esk and Wear Valleys NHS Trust
Michaela Harvey	Advanced Eating Disorders Dietitian for CEDS with Cumbria, Northumberland, Tyne and Wear NHS Trust
Saskia Wormleighton	Advanced Eating Disorders Dietitian for CEDS with Cumbria, Northumberland, Tyne and Wear NHS Trust
Paola Falcoski	Advanced Specialist Eating Disorders Dietitian with East London Foundation Trust, Bedfordshire and Luton CAMHS Eating Disorders Team
Sarah Cross	Advanced Clinical Lead Dietitian for Adult Eating Disorders with Tees Esk and Wear Valleys NHS Trust

In collaboration with:

Becky Jones	Expert by experience (neurodiversity and eating disorders)
Families in NENC (wished to remain anonymous)	Experts by carer experience (neurodiversity and eating disorders), North-East and North Cumbria
Dr Kim Pierson	Consultant Mental Health Paediatrician, Paediatric Lead for Mental Health & ADHD and Consultant Paediatrician for Community Eating Disorders Service, Bedfordshire and Luton CAMHS
Jenny Phaure	Clinical Director & Programme Lead, National Centre for Autism and Mental Health
Tara Tordoff	Advanced Paediatric Occupational Therapist, Great North Children's Hospital (Newcastle Upon Tyne Hospitals NHS Foundation Trust).

With thanks to (original authors and collaborators)

Amy Booth	Clinical Specialist Eating Disorders Dietitian for CEDS with Tees, Esk and Wear Valleys NHS Trust
Elisabet Oskarsdottir	Specialist Eating Disorders Dietitian for CYPS and CEDS with Tees, Esk and Wear Valleys NHS Trust
Laura Thornber	Specialist Eating Disorders Dietitian for CYPS and CEDS with Tees, Esk and Wear Valleys NHS Trust
Lynn Robson	ARFID Specialist Occupational Therapist, with Cumbria, Northumberland, Tyne and Wear NHS Trust
Owl Blue	Neurodiversity and Hidden Disabilities Charity, West Cumbria

Review Date

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This 2nd Edition was produced: **April 2024**
The 2nd Edition is due for review in April 2025.

If you wish to share any comments or feedback about this document, or suggest any ways that the project could be expanded upon, please contact: clare.ellison@cntw.nhs.uk

References

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Glossary of Terms

ARFID	Avoidant Restrictive Food Intake Disorder
CYP	Children and Young People
ECG	Echocardiogram
IV	Intravenous
MEED	Medical Emergencies in Eating Disorders
NG	Naso-Gastric
NGT	Naso-Gastric Tube
OT	Occupational Therapy
TV	Television
YP	Young Person

Appendix 1

MEED Risk Assessment Framework Crib Sheet Guide (all ages) from page 31 (MEED)

	RED	AMBER	GREEN
% W4H / m%BMI / BMI	Under 18: %mBMI <70% Over 18: BMI <13 kg/m2	Under 18: %mBMI 70-80% Over 18: BMI 13-14.9 kg/m2	Under 18: %mBMI >80%W4H Over 18: BMI >15 kg/m2
Weight loss	Recent weight loss ≥1kg/week x2/52 in undernourished pt/rapid weight loss at any weight (e.g. in obesity/ARFID)	Recent weight loss of 500-999g/week for 2/52 in an undernourished patient	Recent weight loss of up to 500g/week or fluctuating weight
Pulse	<40 bpm	40-50 bpm	>50 bpm
Cardio-vascular Health	**Standing systolic BP <0.4th centile** with recurrent syncope + **postural systolic drop >20mmHg / increase in HR >30BPM (35BPM in >16 years)**	**Standing systolic BP <0.4th centile** with occasional syncope; **postural systolic drop >15mmHg / increase in HR ≤30BPM (35BPM in >16 years)**	Normal standing systolic BP for age and gender with reference to centile charts. Normal orthostatic cardiovascular changes. Normal heart rhythm
ECG abnormalities	**>18 years**: QTc >460 ms (female) or 450 ms (male) **18+ years:** QTc >450ms (female), 430ms (male) **(all)** And/or any other significant ECG anomaly	**>18 years**: QTc >460ms (female) or 450 ms (male) **18+ years**: QTc >450ms (female), >430ms (male). **(all)** and no other ECG anomaly. Taking QTc prolonging medication	**>18 years** QTc <460ms (female) or 450 (male) **18+ years:** QTc <450ms (female) or <430ms (male)
Dehydration status	Fluid refusal Severe dehydration	Severe fluid restriction, moderate dehydration	Minimal fluid restriction, mild dehydration
Temperature	<35.5°C Tympanic <35°C Axillary	<36°C	>36°C
Biochemical abnormalities	Hypophosphataemia* + falling phosphate. Hypokalaemia (<2.5 mmol/l). Hypoalbuminaemia. Hypoglycaemia (<3mmol/l). Hyponatraemia. Hypocalcaemia. Transaminases (>3x normal range). DM: HbA1C >10% (86mmol/mol). ***Note differences in normal phosphate level by age:** **3–10 years, 1.2–1.8mmol/L;** **10–15 years, 1.1–1.75mmol/L;** **>15 years, 0.8–1.45mmol/L.**		
Haematology	Low WCC (<3.8) Haemoglobin (<10g/L)		
Purging Behaviour	Multiple daily vomiting and/or laxative abuse	Regular (≥3x/week) vomiting and/or laxative abuse	
Disordered eating behaviours	Acute food refusal <500kcal/day x≥2 days		
Engagement with management plan	Violent when parents try to limit behaviour or encourage food/fluid intake. Self harm. Parents unable to implement prescribed meal plan	Poor insight into eating problems, lacks motivation. Parents / carers unable to implement prescribed meal plan	Some insight into problems, some motivation. Ambivalence but not active resistance
Activity and exercise	High levels dysfunctional exercise (>2hrs/day) in context of malnutrition	Moderate levels dysfunctional exercise in the context of malnutrition (>1hr/day)	Mild levels of dysfunctional exercise in the context of malnutrition (<1hr/day)
Musculo-Skeletal Squat/ Sit up test	Unable to complete sit-up or squat without using arms as leverage (alert)	Unable to complete sit-up or squat without using arms to balance (concern)	Able to complete sit-up and squat without difficulty
Other clinical state	Life-threatening medical condition	Non-life-threatening physical compromise	Evidence of physical compromise
Mental Health State	Self-poisoning, suicidal ideas with moderate to high risk of completed suicide	Cutting or similar behaviours, suicidal ideas with low risk of completed suicide	

Full MEED guidance with additional detail can be found: college-report-cr233-medical-emergencies-in-eating-disorders-(meed)-guidance.pdf (rcpsych.ac.uk)

Appendix 2

Calculating Median BMI

Median BMI based on age (based on the 50th percentile)

Age	Median BMI Girls	Median BMI Boys
5	15.5	15.5
6	15.5	15.5
7	15.6	15.8
8	16	15.9
9	16.2	16
10	17	16.3
11	17.3	17
12	18	17.4
13	18.9	18
14	19.3	18.8
15	20	19.3
16	20.2	20
17	20.8	20.5
18	21.1	21

To calculate m%BMI

Calculate young persons current BMI (weight/height^2)

m%BMI = (Current BMI ÷ median BMI) x 100

Alternatively you can open the excel spreadsheet linked below to calculate % weight for height:

Weight for height tool.xls

Appendix 3

What is sensory processing?

Sensory processing is an automatic process that everybody experiences constantly throughout the day. When people refer to 'sensory' or 'sensory processing', they are referring to the way in which an individual person interprets the environment around them.

People can sometimes experience too-much or too-little information from one or more senses. You might hear this referred to as over responsivity or under responsivity. For example;

- *Over responsivity* to sound: May find loud noises distressing and may make efforts to block it out by covering their ears, avoiding the area where the noise comes from, or blocking out with humming noises or music. They may also get easily distracted / distressed by sounds such as a ticking clock, equipment alarms, and the sound of people eating.

- *Under responsivity* to taste: May seek out strong taste experiences such as spicy foods, sour foods, or salty foods.

Our sensory system helps us to understand what is going on around us and attributes meaning to what is experienced. See the table below for information on each sense:

Sense	**Purpose**	**Example**
Touch	Detect sensation through the receptors in the skin.	May avoid or seek out certain food textures, for example may avoid or seek out crunchy foods such as carrots or bread sticks.
Taste	Detected through the receptors within the mouth to understand how something tastes.	Might avoid strong tasting foods or prefer them.
Smell	Detected through the nose, helps us to detect smells.	May dislike certain food smells, or may seek out additional smell information by smelling foods up close.
Vision	Gaining visual information through our eyes about what we are seeing and how far away they are.	May dislike busy or cluttered visual environments, or may like visual stimulus to distract (i.e watching TV or a bubble tube).
Hearing	Detecting sound through the ears to interpret volume, intonation, and how far or close a person is away from a particular sound.	May dislike background noises and hearing other people eat, or may not notice sounds around them such as kettle whistling once boiled.
Proprioception	The sense within our muscles and tendons. This detects where our body is in relation to its surroundings and forms a person's body awareness. It is a calming sense which is often gained through exercise. You cannot be overstimulated by proprioception.	May seek out additional proprioception / deep pressure through their muscles. For example, may lean on the table and wrap their legs round the chair legs for additional information on where their body is. May also trip over and bump into things in their environment.
Vestibular	The sense of balance and motion detected within our inner ear through changes in head position and movement.	Might have poor balance and may fall out of their chair or be fearful of motions such as going up/down stairs or escalator. Or may seek out motion by rocking in their chair or spinning.
Interoception	The inner sense which detects all internal feelings such as hunger, thirst, pain, temperature, needing to urinate or open bowels, and anxiety.	May have difficulties recognising the likes of hunger, feeling full, anxiety, or pain.

Appendix 4

'Patient Needs' Template

To use this template: complete the timings for protected mealtimes in the box below. Ask the patient (and/or their family as appropriate) for their preferences from the list of sensory sentences below. Delete any sentences which do not apply. With their consent, print and display this clearly on their room door as a reminder for all hospital staff and visitors.

I require protected mealtimes, therefore staff <u>must not:</u>

- Enter my room for any non-emergency reason at meal/snack times, for a total duration of 30 minutes

My meal/snack times are:

1) .
2) .
3) .
4) .
5) .
6) .

I have sensory needs therefore please remember:

- I prefer to keep my blinds/curtains drawn at all times
- I prefer to keep my lights dimmed at all times
- I often choose to wear sunglasses even though you may not think I need them
- I like to have something in my hands
- I like to keep things in a set order in my room. When you clean, please be very mindful of this and ask me how it can be done in a way which best reduces my anxiety
- I choose to stand up for my meals
- I choose to eat in my chair/bed
- I do not like to engage in small talk
- I do not like to talk about food
- I use distractions at mealtimes to help manage my anxiety
- I often move my arms and legs to help me feel relaxed
- I like to be asked questions slowly and clearly
- I like to be given time to answer any questions
- I prefer to communicate non-verbally
- I don't like eye-contact
- It's important to me that I know who enters my room, please introduce yourselves
- I do not like lots of people to visit me at once. Please keep the number of clinicians to a minimum
- Where possible, I prefer to be seen by staff I'm familiar with
- It's important to me that I know what is happening – please use language I can understand
- I like to know what will happen next
- I like to understand the details of what is going on around me and so I often ask lots of questions
- I like to follow fixed routines and times
- I do not like surprises or things which are unexpected – wherever possible, please give me notice and an explanation of anything that is about to happen, or will be asked of me

Appendix 5

Example meal plan for re-feeding a patient using a sensory restrictive vegan food menu

	For patients who are high risk of refeeding syndrome (see Table 1), start on these meal plans		For high risk patients complete high risk plans day 1 & 2 before continuing onto standard plans below starting at Day 1-2	For patients at lower risk of refeeding syndrome	
	High risk plan - Day 1	**High risk plan - Day 2**		**Day 1-2**	**Day 3-4**
Breakfast	3 tbsp / 1 small box cereal + 100ml soya milk	3 tbsp / 1 small box cereal + 100ml soya milk ½ glass of fruit juice		3 tbsp / 1 small box cereal + 100ml soya milk ½ glass fruit juice	3 tbsp / 1 small box cereal + 100ml soya milk 1 glass of fruit juice
Fortisip Plant Based	135 mls	165 mls		165 mls	200 mls
Mid-Morning	100 mls soya milk OR 1 piece of fruit	100 mls soya milk OR 1 piece of fruit		1 x white toast with 1 portion vegan spread or ½ tbsp peanut butter	1 x white toast with 1 portion vegan spread or ½ tbsp peanut butter
Fortisip Plant Based	35 mls	35 mls		100 mls	100mls
Lunch	1 can Heinz vegetable soup with x2 slices of white bread and x2 portions of vegan spread. OR 2 x toast with x2 portions vegan spread and half can baked beans or 1 microwave snap pot	1 can Heinz vegetable soup with x2 slices of white bread and x2 portions of vegan spread. OR 2 x toast with x2 portions vegan spread and half can baked beans or 1 microwave snap pot		1 can Heinz vegetable soup with x2 slices of white bread and x2 portions of vegan spread. OR 2 x toast with x2 portions vegan spread and half can baked beans or 1 microwave snap pot + 1 piece of fruit	1 can Heinz vegetable soup with x2 slices of white bread and x2 portions of vegan spread. OR 2 x toast with x2 portions vegan spread and half can baked beans or 1 microwave snap pot + 1 packet plain crisps
Fortisip Plant Based	200mls	200mls		235mls	265mls
Mid-Afternoon	100ml soya milk.	200ml soya milk 1 small vegan cereal bar.		200ml soya milk 1 small vegan cereal bar.	200ml soya milk 1 small vegan cereal bar.
Fortisip Plant Based	35 mls	135 mls		135 mls	135 mls
Evening Meal	Peanut butter sandwich (2 slices of bread). OR 1 can Heinz vegetable soup with x2 slices of white bread and x2 portions of vegan spread. OR X 1 jacket potato with x1 portion of vegan spread and ½ can baked beans.	Peanut butter sandwich (2 slices of bread). OR 1 can Heinz vegetable soup with x2 slices of white bread and x2 portions of vegan spread. OR X 1 jacket potato with x1 portion of vegan spread and ½ can baked beans.		Peanut butter sandwich (2 slices of bread). OR 1 can Heinz vegetable soup with x2 slices of white bread and x2 portions of vegan spread. OR X 1 jacket potato with x1 portion of vegan spread and ½ can baked beans.	Peanut butter sandwich (2 slices of bread). OR 1 can Heinz vegetable soup with x2 slices of white bread and x2 portions of vegan spread. OR X 1 jacket potato with x1 portion of vegan spread and ½ can baked beans. + 1 small vegan cereal bar
Fortisip Plant Based	200 mls	200 mls		200 mls	265 mls
Supper	100mls soya milk + 1 digestive biscuit.	100mls soya milk + 1 digestive biscuit.		100mls soya milk + 2 digestive biscuits. OR 200mls vegan hot chocolate made only with soya milk.	200mls soya milk + 2 digestive biscuits. OR 200mls vegan hot chocolate made only with soya milk. + 1 digestive biscuit
Fortisip Plant Based	65 mls	65 mls		100 mls	135 mls
Estimated kcals	**1000kcals***	**1200kcals**		**1400kcals**	**1650kcals**

Most patients should start at Day 1-2 (1400kcal) of this feeding programme unless there are significant contraindications (see Table 1 on page 1).