Trust Guideline For The Management of: Children and Adolescents under the age of 16 with Suspected Eating Disorders

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4	September 2019	Consultant Paediatrician, Paediatric Dietitian	Under the age of 16 added. Central Youth services added. Patients not under CEN-CAEDS must have mental health assessment with 24 hours added.
5	April 2023	MEED oversight group	Rewrite of guideline from junior MARSIPAN to MEED in line with national recommendations

Previous Titles for this Document:

Previous Title/Amalgamated Titles	Date Revised
None	Not applicable

Distribution Control

Printed copies of this document should be considered out of date. The most up to date version is available from the Trust Intranet.

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Monitoring and Review of Procedural Document

The document owner is responsible for monitoring and reviewing the effectiveness of this Procedural Document. This review is continuous however as a minimum will be achieved at the point this procedural document requires a review e.g. changes in legislation, findings from incidents or document expiry.

Relationship of this document to other procedural documents

This document is a clinical guideline applicable to Norfolk and Norwich University Hospital (NNUH) for patients under the age of 16 admitted to paediatric wards; please refer to local Trust’s procedural documents for further guidance.

Guidance Note

This guideline has been approved by the Trust's Clinical Guidelines Assessment Panel as an aid to the diagnosis and management of relevant patients and clinical circumstances. Not every patient or situation fits neatly into a standard guideline scenario and the guideline must be interpreted and applied in practice in the light of prevailing clinical circumstances, the diagnostic and treatment options available and

the professional judgement, knowledge and expertise of relevant clinicians. It is advised that the rationale for any departure from relevant guidance should be documented in the patient's case notes.

The Trust's guidelines are made publicly available as part of the collective endeavour to continuously improve the quality of healthcare through sharing medical experience and knowledge. The Trust accepts no responsibility for any misunderstanding or misapplication of this document**.**

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1. Introduction

1.1. Rationale

A range of eating disorders may present in children and young people and the majority will be managed entirely through CEN-CAEDS. The eating disorders spectrum includes anorexia nervosa which is an eating disorder characterised by a weight loss of at least 15% of expected body weight, a devastating fear of weight gain, relentless dietary habits that prevent weight gain, and a disturbance in the way in which body weight and shape are experienced. This condition has potential life-threatening physiological effects, secondary endocrine and metabolic changes and enduring psychological disturbance. Most patients recover completely but require ongoing multidisciplinary support from CEN-CAEDS, CAMHS/Central Youth Services. However 20% develop a chronic eating disorder and the mortality rate is 5%, due to suicide or medical complications of the disease. It is most common in adolescent girls occurring in up to 0.7% of this group. It may also affect males, younger children and adults.

Some patients with eating disorders which do not fit the classification of anorexia nervosa (according to DSM-5, ICD -11) but may still have similar behavioural and risk issues. For this reason the guideline provides a framework for assessing patients with suspected eating disorders including anorexia nervosa.

Patients less than 16 years of age with suspected or confirmed eating disorders might be referred to Children Assessment Unit (CAU) from CEN-CAEDS, CAMHS (Children and Adolescent Mental Health Service) or Central Youth Services but others may present to CAU or Jenny Lind Out Patients from primary care or A and E department. Patients over 16 will be referred to adult services but managed according to these guidelines up to the age of 18 wherever they are admitted in the acute Trust. Patients referred over 18 are managed by the adult team according to the adult MARSIPAN guidelines. These guidelines for children and adolescents are based on the Junior MARSIPAN guidelines.

If an eating disorder is suspected and red or amber flags have been identified by CEN-CAEDS then urgent assessment in primary care or in the acute hospital is undertaken with medical risk assessment and to exclude other diagnoses.

1.2. Objectives

- Provide clear guidance for undertaking risk assessments in children and young people ≤18years of age with suspected eating disorders seen at Norfolk and Norwich university Hospital.
- Define which groups of patient require admission to the acute hospital ward
- Identify key components for safe management of inpatients.
- Provide clear guidelines for liaison between CEN-CAEDS, CAMHS/Central Youth Services and acute crisis service including shared care for admitted patients (referral to Central Norfolk Child and Adolescent Eating Disorders Service CEN-CAEDS within working hours unless significant immediate risk of self-harm or psychotic symptoms needing immediate intervention and support from CAMHS/Central Youth Services).

- Develop clear discharge plans for all patients.

Contact details for CEN-CAEDS, CAMHS (up to age 14), Central Youth Services age 14-18), Hellesdon Hospital, CAU and AMU are in Appendix 5.

1.3. Scope

This guideline is designed to support the assessment and management of children and young people under the age of 16 presenting with suspected eating disorder to paediatric services and NNUH, through ChED, CAU or JLOPD. It is based on the MEED national guidance and includes local contacts to facilitate delivery of joined up care between physical and menta health services.

1.4. Glossary

The following terms and abbreviations have been used within this document:

Term	Definition
AMU	Acute Medical Unit
BMI	Body Mass Index
CAMHS	Children and Adolescent Mental Health Service
CAU	Childrens Assessment Unit
CEN-CAEDS	Central East Norfolk – Children and Adolescent eating disorders service
ChED	Childrens Emergency Department
CPA	Care Programme Approach
ECG	Electrocardiogram
EDL	Electronic Discharge Letter
HDU	High Dependency Unit
JLOPD	Jenny Lind Outpatient Department
MARSIPAN	Management of really sick patients with eating disorder
MEED	Medical Emergencies in Eating Disorders
OCD	Obsessive–Compulsive Disorder
ORS	Oral Rehydration Solution
SIADH	Syndrome inappropriate ADH secretion
SEDB	Specialist Eating Disorder Units Beds

2. Responsibilities

NNUH staff will provide acute assessment and initial management plans for inpatients
CEN-CAEDs will support inpatient care and provide follow up of discharged/non-admitted patients.

3. Processes to be followed

3.1. Differentials/coexisting conditions include

- Endocrine: diabetes mellitus (NICE NG 69 May 2017) hyperthyroidism, glucocorticoid insufficiency.
- Gastrointestinal: coeliac disease, inflammatory bowel disease, peptic ulcer.

- Oncological: lymphoma, leukaemia, intracerebral tumour.
- Chronic infection: tuberculosis, HIV, viral.
- Psychiatric: depression, autism-spectrum disorder, Obsessive–Compulsive Disorder (OCD).

3.2. Medical Risk assessment and admission criteria

The risk assessment tools provide a structured approach to examination of patients with a suspected eating disorder to identify red and amber flag signs which will guide management decisions. Patients with anorexia nervosa can seem deceptively well; no one parameter mentioned is a good indicator of overall level of risk or illness.

- Patients who have one or more high risk (red flag) features will require immediate admission
- Patients with concerning features (amber flag) should be discussed with the acute paediatric consultant on call

	Assessment	Red Flags (Admit)	Amber Flags (Low threshold for admission, discuss with consultant)
History	History of weight loss		Suspected eating disorder with history of weight loss>1kg/week for 2 consecutive weeks
	History of syncope		Occasional
	Fluid and food intake	Fluid refusal Acute food refusal or estimated calorie intake 400–600 kcal per day	Severe fluid restriction Severe dietary restriction (less than 50% of required intake), vomiting, purging with laxatives
	Exercise habits	High levels of uncontrolled exercise in the context of malnutrition (>2 h/day)	Moderate levels of uncontrolled exercise in the context of malnutrition (>1 h/day)
	Suicidal ideation	Self-poisoning, suicidal ideas with moderate to high risk of completed suicide	Suicidal ideas with low risk of completed suicide
	Acute co morbidity	Acute medical problems like uncontrolled diabetes	Major psychiatric co-diagnosis, e.g. OCD, psychosis, depression Mallory–Weiss tear, gastritis, pressure sores
Examin	**Assessment**	**Red Flags (Admit)**	**Amber Flags (Low threshold for admission, discuss with consultant)**
	Percentage BMI	Percentage median BMI < 70%	Percentage median BMI 70–80%
	Measure heart rate and sitting	Heart rate (awake) <40 bpm)	Heart rate (awake) 40–50 bpm
		Sitting systolic/diastolic below	Sitting BP: systolic <2nd centile

ation	then standing blood pressure (BP)	0.4th BP– centiles for age and gender	or diastolic <2nd centile
		Marked orthostatic changes (fall in systolic BP of 20 mmHg or more,	Moderate orthostatic cardiovascular changes (fall in systolic BP of 15 mmHg or diastolic BP fall of 10 mmHg or more within 3 minute standing
	Hydration status (reduced urine output, dry mouth, skin turgor, tachycardia)	Severe dehydration (10%):	Moderate dehydration
	Temperature	<35.5°C tympanic or 35.0°C axillary	<36°C
	Muscle weakness	Severe muscular weakness: unable to sit up at all from lying flat or unable to get up at all from squatting, unable to raise arm above head	Unable to sit up without using upper limbs or unable to get up without using upper limbs
Investigation	ECG	Irregular heart rhythm (excluding sinus arrhythmia) QTc>450 ms (girls) QTc >430 (boys) with bradyarrhythmia or tachyarrhythmia ECG evidence of biochemical abnormality	QTc>450 (girls) ms QTc>430 (boys)
	Electrolyte disturbance	Hypophosphataemia (<0.5mmol/L)	Hypophosphataemia (0.5-0.7mmol/L)
		Hypokalaemia (<3mmol/L)	Hypokalemia (<3.5 mol/L)
		Hypoglycaemia (<2.5mmol/L)	Hypoglycaemia (<3.5 mmol/L)
		Hyponatraemia (<130mmol/L)	Hyponatraemia (<135 mmol/L)
		Corrected hypocalcaemia (<1.8mmol/L)	Corrected hypocalcaemia (1.8-2.05 mmol/L)
		Hypomagnesemia (<0.6mmol/L)	Hypomagnesemia (0.6-0.8 mmol/L)

3.3. Notes

- Weight and BMI: Patients should be weighed in underwear after emptying bladder and ideally before meals. Dignity and privacy should be respected as much as possible but weight must be supervised by a member of staff

BMI= Weight in kilograms divided by height in meters squared (weight (kg) / [height (m)]^2)

Calculate % BMI

$$\text{Percentage BMI} = \frac{\text{Actual BMI}}{\text{Median BMI (50}^{th}\text{centile for age and gender)}} \times 100$$

Median BMI for age can be read from BMI charts (see appendix 5).

- Referrals might be made by CEN-CAEDS, CAMHS or Central Youth Services to review ECG. ECGs performed by cardiology technicians at NNUH will be suitable but those scanned or faxed are often not of adequate quality and may need to be repeated.
- Bloods: on admission send free flowing venous blood for full blood count, electrolytes, liver function, renal function, including calcium, phosphate and magnesium, vitamin D, iron status, IgA and tissue transglutaminase, CRP ,ESR, and thyroid function, capillary blood gas.
- Urine: dipstix analysis, urine electrolytes, consider pregnancy check in amenorrhoea and after discussion with the young person.
- Abdominal pain may be due to acute pancreatitis, superior mesenteric artery syndrome or gastritis secondary to excessive vomiting.
- Other features of severe malnutrition: lanugos' hair, dry skin, skin breakdown and/or pressure sores need to be documented.

3.4. Management during admission and shared care arrangements

3.4.1. General

- Admit under care of Paediatric Gastroenterology if under 16 years at presentation or Adult Gastroenterology team if over 16 years. Care will be shared with CEN-CAEDS and Paediatric or adult dieticians with expertise in management of eating disorders. Out of hours cover will be provided by the on call acute paediatric/adult services.
- Establish the level of nursing supervision needed (see Appendix 5: Nursing management plan for children and young people under 18 years with eating disorders) and the level of parental care if appropriate.
- When a patient is admitted to the acute unit ensure CEN-CAEDS and/or CAMHS/Central Youth Services and any involved subspecialty team are informed of admission. Patient's admitted to the ward who are not already under the CEN-CAEDS team should have a mental health assessment within 24 hours Monday to Friday or be seen by the Crisis team if admitted during the weekend. Patients who are previously known to CEN-CAEDS or CAMHS/Central Youth Services but who have acute mental health issues (e.g. suicidal ideation or new self-harm, severe anxiety, psychosis) in addition to the eating disorders should be referred to CAMHS/Central Youth Services for assessment. Out of hours this may through the crisis team.
- Blood monitoring including for refeeding syndrome will be done daily unless otherwise agreed by Paediatric Gastroenterology Team. This will include

electrolytes, urea and creatinine, magnesium, phosphate, calcium, liver function teats (see appendix 8 for full details).

- Arrange regular multidisciplinary reviews and document in notes
  - Daily review by acute paediatric team, more frequent if meeting HDU criteria
  - Review with CEN-CAEDS during weekdays as clinically indicated. Some of these may be by telephone dependant on clinical case
  - Dietetic review available during weekdays dependent on clinical need and capacity
  - Paediatric (if under 16) Gastroenterology medical team to review and provide support 3 times per week minimum.
  - Weekly meeting of key staff of senior team members which can include Paediatric Gastroenterologist, nursing staff, CEN-CAEDS team member. To discuss as part of this meeting how likely the patient is to require an inpatient SEDU bed.
  - Involve the parents and the young person in discussions about the treatment plan unless there are contra-indications as agreed by the shared care team
  - Document clearly aims of admission, how progress will be assessed and discharge plans.
- Safeguarding assessment should be undertaken as per Trust Guideline trustdocs Id 1179
- Vitamin and thiamine supplementation to be considered (see Appendix 1)
- Patients who are known to self-induced vomiting need specific guidance and advice from CEN-CAEDS. If the patient has been taking laxatives there are risks of suddenly stopping these if the patient has had prolonged heavy use.

3.5. Cardiovascular Management

Bradycardia, hypotension and ECG abnormalities usually improve with active management of fluid balance, electrolyte abnormalities and nutrition and specific treatment is rarely required.

Specific management of patients with ‘red’ or ‘amber flags’ as below:

Cardiovascular Red Flags	Strict bed rest with continuous ECG monitoring, admit to HDU bed, and discuss ECG changes with local or tertiary paediatric cardiologist
Cardiovascular Amber Flag	Limited mobilisation with 1:1 support, continuous ECG monitoring admit to HDU bed, discuss ECG changes with local or tertiary paediatric cardiologist

3.6. Management of fluids

3.6.1. Hypovolaemia

Due to the increased risk of heart failure in severe malnutrition IV fluids should be used with caution. Use sodium chloride 0.9% 10 mL/kg bolus, then review.

3.6.2. Dehydration

Oral Rehydration Solution (ORS) orally or via a nasogastric tube preferred treatment unless there is hypovolaemia or vomiting. If IV maintenance fluids required; use 0.45% sodium chloride with 5% glucose with added electrolytes, as determined by blood results.

3.6.3. Oedema

This will usually resolve as nutrition improves and rarely requires specific treatment. Albumin infusions should be avoided due to risks of heart failure and refeeding syndrome.

3.6.4. Hypoglycaemia

Correction should be orally where possible (sugar drink, Hypostop®)

IV bolus if severe (altered conscious or mental state; seizures): 2mL/ kg of 10% glucose followed by infusion containing glucose, e.g. 5mL/ kg/h of 10% glucose with 0.45% sodium chloride to minimise the risk of rebound hypoglycaemia after IV glucose bolus; Glucagon may not be effective in malnourished patients if glycogen storages are low.

3.7. Management of Electrolytes Disturbance

3.7.1. Potassium

Hypokalaemia due to self-induced vomiting is associated with a metabolic alkalosis Hypokalaemia and acidosis suggests the possibility of laxative misuse.
Specific management of patients with 'red' or 'amber flags' as below:

Red flags	K<2 mmol/L consider intensive care, may need central venous access for correction
	K 2-2.5mmol/L, admit to HDU institute ECG monitoring. Correct with the addition of intravenous KCl to IV fluids. (Do not exceed 0.4mmol/kg/h)
	K2.5-3.0 admit to HDU, ECG, oral supplementation may be considered
Amber flags	Oral supplementation

3.7.2. Sodium

Hyponatremia can be caused by water-loading to hide body mass loss, underlying sepsis, (SIADH), excessive sodium loss due to diarrhoea/vomiting or iatrogenic

Serum levels should be above 135 mmol/L. In general, however, plasma sodium is a poor indicator of total body sodium so measurement of urinary electrolytes on admission and daily serum electrolytes are needed.

Specific management of patients with 'red' or 'amber flags' as below:

Red flags	Na <120–125 mmol/L, HDU, continuous ECG, IV management only after senior advice.

	Sodium126-130 mmol/L – admit; strict fluid balance
Amber flags	Daily monitoring until normal

3.7.3. Calcium and Magnesium

Hypocalcaemia (corrected) and hypomagnesaemia are unusual but increase the risk of arrhythmia. Specific management of patients with 'red'or 'amber flags' as below:

Red flags	Corrected Ca<1.8 mmol/L should be treated with IV calcium gluconate is following BNF guidelines. Institute ECG monitor, HDU admission, correct for hypomagnesaemia.
	Mg <0.6mmol/L, institute ECG and blood pressure monitoring. Correct with IV 0.2mL/kg 50% $MgSO_4$ (max 10mL) in 250mL sodium chloride 0.9%
Amber flags	Corrected Ca 1.8-2.05 mmol/L ensure adequate intake or use oral supplement
	Mg 0.6-0.8 ensure adequate intake or use oral supplement

3.7.4. Phosphate

Hypophosphataemia may occur secondary to starvation or re-feeding syndrome. Specific management of patients with 'red flags' as below:

Red flags	P <0.32mmol/L, institute ECG and blood pressure monitoring, IV potassium dihydrogen phosphate (0.08 - 0.16 mmol/kg) over 6 hours
	P 0.32-0.8mmol/L Start oral phosphate supplements

3.7.5. Serum urea and creatinine

Regular monitoring to check for renal failure or dehydration is required.

3.7.6. Haematological Abnormalities

Leucopoenia, especially neutropaenia, and some thrombocytopenia can occur. Anaemia is less common.

3.8. Feeding Regime

3.8.1. Meal plan

A safe meal plan should be overseen by a paediatric/adult dietician and agreed with the team and the family to form the basis of a clear treatment plan. If a patient already known to CEN-CAEDS has an agreed feeding plan this should be followed as much as possible during inpatient admissions. See Appendix 1 (Dietetic management).

3.8.2. Observation

Observe and document meal and snack times, the amount and the person who is present. This should include the length snack and meal taken.

If the patient is unable to meet the prescribed calorie intake within 24 hours of commencing the meal plan then nasogastric tube insertion should be considered by the Paediatric/Adult Gastroenterology team in conjunction with CEN-CAEDS, balancing the level of risk and the wishes of the child and parents. Such a discussion may help to improve the child's cooperation in accepting either the normal diet or oral supplements.

3.8.3. NG feeding

Nasogastric feeding is usually a short-term measure, tailed off as oral intake improves. Nasogastric feeds can be intermittent, bolus or continuous depending on the needs of the young person. Supplemental drinks or bolus nasogastric feeds need to be observed or closely monitored, even when given by pump feed.

3.8.4. Weight

Weighing should be on the same scales, supervised by a member of staff. The timing of weights will be agreed by the team and documented on the weekly planner (Appendix 6).

3.9. Recognising and avoiding re-feeding syndrome

3.9.1. Pathophysiology

Prolonged starvation causes protein breakdown with loss of skeletal and cardiac muscle mass. This is associated with loss of phosphate (the most abundant intracellular anion), potassium and water. The serum levels of phosphate and potassium may remain normal but the body as a whole may be depleted of these ions. When the malnourished patient receives a carbohydrate load, the body switches from catabolism to anabolism. This leads to a large increase in intracellular requirements for phosphate and causes hypophosphataemia. Phosphate is needed in many intracellular enzyme systems. Severe hypophosphatemia can lead to life threatening neurological and cardiovascular consequences. The same applies to potassium and thiamine.

3.9.2. Patients at risk of re-feeding syndrome

Patients at risk of re-feeding syndrome are those with very low weight for height, minimal or no nutritional intake for more than a few (3–4) days, weight loss of over 15% in the past 3 months, and those with abnormal electrolytes or ECG before re-feeding , active co morbidities (such as diabetes or infections),signs of heart failure.

Re-feeding syndrome is most likely to occur in the first few days of re-feeding but may occur up to 2 weeks after. Blood tests (Urea and Electrolytes, corrected calcium, phosphate, magnesium) should be done daily during the at-risk period, usually days 2–5. In those with electrolyte disturbances the tests may need to be more frequent. Biochemical monitoring should continue for a fortnight or until electrolyte parameters are stable.

For further details see Appendix 1.

3.10. Discharge from the acute medical ward

- Admission to the acute paediatric/adult service is reserved for patients who are physiologically unstable or at significant acute risk. Medium to longer term management will be in specialist eating disorder units beds (SEDB) or community as determined by the CEN-CAEDS team.
- The decision about discharge should only be made after multidisciplinary discussion at senior level with full multidisciplinary assessment of physical, nutritional and mental health needs of the patients. Forming a Care Programme Approach (CPA) will usually be part of this process and is undertaken by CEN-CAEDS team member. Discharge planning will be discussed as part of weekly MDT meeting involving acute team and CEN-CAEDS.
- Transfer to an SEDB should be possible if nasogastric tube feeding is still required.
- Where the patient is clinically stable for transfer to SEDB but no bed is available, a continuing multidisciplinary plan for care must be agreed and implemented until transfer is possible.
- Full documentation and plans for post-discharge care are required at the point of discharge with definite plans in place to address needs. Electronic Discharge Letter (EDL) to be copied to CEN-CAEDS team on discharge. A management plan should be completed by CEN-CAEDS on discharge.

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5. Audit of the service to be delivered

Compliance with the process will be monitored through the following:

Key elements	Process for Monitoring	By Whom (Individual / group /committee)	Responsible Governance Committee /dept	Frequency of monitoring
Patients presenting with eating disorders to CAU AMU or AandE are referred to CEN-CAEDS	Audit	Mental health nurse or Paed gastro team member	Paediatric	Biennual
Appropriate admissions, investigations, feeding, and follow up arrangements.	Audit	Mental health nurse or Paed gastro team member	Paediatric	Biennual

The audit results are to be discussed at Paediatric governance meetings to review the results and recommendations for further action. Then sent to Women's and Children's Sub-Board who will ensure that the actions and recommendations are suitable and sufficient.

6. Appendices

Appendix 1: Dietetic management and Re-feeding Syndrome

During the early stages of re-feeding, meal plans should ideally not exceed the recommended healthy eating guidelines of 50% carbohydrate total energy intake (TEI) to help reduce the risk of the re-feeding syndrome.

It is important to consult the parents/family when drawing up a meal plan; so that the family's usual diet can be accommodated as much as possible. It is recommended to allow the patients to avoid three individual things they dislike. Generic dislikes e.g. all fatty food is not allowed. A choice of snacks from a list of items with similar calorific value is helpful. A balanced diet should be provided including 45–65% carbohydrates, 10–35% proteins and 20–35% fats. Calcium intake should be 1200–1500 mg per day. Patients should take a daily multivitamin and iron supplement if appropriate on assessment.

The meal plan should ideally comprise solid food; if meals are not completed, the child/young person has the option to make up lost calories with **nutritionally complete** 1.5 kcal/mL sip-feeds (e.g. Fresubin® Energy, Ensure® Plus, Fortisip®). Dietitians should avoid adult supplements/feeds in younger patients and use age-appropriate paediatric supplements/feeds (e.g. Paediasure®, Frebini® Energy, Fortini®) during the early stages of re-feeding to help reduce the risk of the re-feeding syndrome. Using a fat-free supplement alone (e.g. Paediasure® Plus Juce, Fresubin® Jucy) is not advisable.

Consider the prescription of thiamine and multivitamin supplements. If phosphate, magnesium or potassium blood levels are below the lower limit of normal consider supplementing. CEN-CAEDS start patients on Ketovite ongoing, thiamine is given for the first 2 weeks of refeeding, and recommend an over the counter vitamin D supplement is taken May to October unless vitamin D level is low and therefore a prescribed higher dose supplementation is required. If a patient known to CEN-CAEDS is admitted and is on any of these supplements please continue them.

Refeeding syndrome

A common recommendation is to increase daily baseline intake by 200 kcal/ day, dependent on biochemistry. If phosphate drops, then intake should remain static, not reduce, until it stabilises.

For most patients, the aim is to reach full nutritional requirements for steady weight gain to begin in 5–7 days. Once over the initial re-feeding period, usually after the first week, the meal plans should be altered to ensure continued weight gain of 0.5–1 kg a week.

Avoidance of re-feeding syndrome, which is insulin-mediated, can also be encouraged by restricting carbohydrate calories and increasing dietary phosphate. A diet that incorporates foods high in phosphate (e.g. milk – 1 pint of milk or equivalent as yoghurt will generally provide enough phosphate) is helpful.

Starting intake should not be lower than intake before admission. For most young people starting at 20 kcal/kg/day or higher, such as 1000 kcal per day or quarter/half portions, appears to be safe. However, electrolytes and clinical state need careful monitoring. In the individuals who are at highest risk, a lower starting intake (e.g. 5–10 kcal/kg/day) is recommended. In these patients, clinical and biochemical review should be carried out twice daily at first, with calories increasing in steps unless there is a contraindication, and continuing to increase until weight gain is achieved.

Meal plans

The following meal plans are for use if a patient is admitted when a dietitian is unavailable. On admission to the ward the appropriate meal plan, according to medical assessment, should be commenced.

Meal Plan 600kcal

Patient to be encouraged where possible with meals, if refuses meal/snack supplement option to be given orally

	Meals	Amount eaten *tick appropriate option*	Orally
Breakfast	Light yoghurt OR 200mLs semi-skimmed milk (can be made into hot drink)	<1/2 ☐ >1/2 ☐ All ☐ <1/2 ☐ >1/2 ☐ All ☐	70mL Fresubin Energy
Snack	85mls fruit juice (1 x clear plastic carton) OR small piece of fruit	<1/2 ☐ >1/2 ☐ All ☐ <1/2 ☐ >1/2 ☐ All ☐	30mL Fresubin Energy
Lunch	½ jacket potato OR 1 piece of toast	<1/2 ☐ >1/2 ☐ All ☐ <1/2 ☐ >1/2 ☐ All ☐	100mL Fresubin Energy
	With 1 tablespoons baked beans OR 2 tablespoons of spaghetti hoops	<1/2 ☐ >1/2 ☐ All ☐ <1/2 ☐ >1/2 ☐ All ☐	
Snack	85mls fruit juice (1 x clear plastic carton) OR small piece of fruit	<1/2 ☐ >1/2 ☐ All ☐ <1/2 ☐ >1/2 ☐ All ☐	30mL Fresubin Energy
Evening meal	1/4Portion of main course from menu With 2 tablespoons cooked vegetables With 1 scoops mashed potato OR 1 tablespoons rice OR 1 egg-sized roast potatoes OR 1/2 slice bread	<1/2 ☐ >1/2 ☐ All ☐ <1/2 ☐ >1/2 ☐ All ☐ <1/2 ☐ >1/2 ☐ All ☐ <1/2 ☐ >1/2 ☐ All ☐ <1/2 ☐ >1/2 ☐ All ☐ <1/2 ☐ >1/2 ☐ All ☐	100mL Fresubin Energy
Snack	Light yoghurt OR 200mLs semi-skimmed milk (can be made into hot drink)	<1/2 ☐ >1/2 ☐ All ☐ <1/2 ☐ >1/2 ☐ All ☐	70mL Fresubin Energy

Fluid	Minimum of 6 glasses (of 200mLs) each day

Note	On a Sunday lunch and evening meal can be interchanged to fit with menu

Meal Plan 800kcal

Patient to be encouraged where possible with meals, if refuses meal/snack supplement option to be given orally

	Meals	Amount eaten *tick appropriate option*	Orally
Breakfast	Small bowl of cornflakes / rice crispies with semi-skimmed milk with a portion of fruit OR 1 slice of toast with butter / margarine with a portion of fruit OR light yoghurt and a portion of fruit	<1/2 ☐ >1/2 ☐ All ☐ <1/2 ☐ >1/2 ☐ All ☐ <1/2 ☐ >1/2 ☐ All ☐	95mL Fresubin Energy
Snack	85mls fruit juice (1 x clear plastic carton)	<1/2 ☐ >1/2 ☐ All ☐	25mL Fresubin Energy
Lunch	Small jacket potato OR 2 pieces of toast With 1 tablespoons baked beans OR 2 tablespoons of spaghetti hoops	<1/2 ☐ >1/2 ☐ All ☐ <1/2 ☐ >1/2 ☐ All ☐ <1/2 ☐ >1/2 ☐ All ☐	130mL Fresubin Energy
Snack	85mls fruit juice (1 x clear plastic carton)	<1/2 ☐ >1/2 ☐ All ☐	25mL Fresubin Energy
Evening meal	1/2 Portion of main course from menu With 2 tablespoons cooked vegetables With 2 scoops mashed potato OR 2 tablespoons rice OR 2 egg-sized roast potatoes OR 1 slice bread	<1/2 ☐ >1/2 ☐ All ☐ <1/2 ☐ >1/2 ☐ All ☐ <1/2 ☐ >1/2 ☐ All ☐ <1/2 ☐ >1/2 ☐ All ☐ <1/2 ☐ >1/2 ☐ All ☐ <1/2 ☐ >1/2 ☐ All ☐	195mL Fresubin Energy
Snack	Light yoghurt OR 200mLs semi-skimmed milk (can be made into hot drink)	<1/2 ☐ >1/2 ☐ All ☐ <1/2 ☐ >1/2 ☐ All ☐	65mL Fresubin Energy

Fluid	Minimum of 6 glasses (of 200mLs) each day

Note	On a Sunday lunch and evening meal can be interchanged to fit with menu

Meal Plan 1000kcal

Patient to be encouraged where possible with meals, if refuses meal/snack supplement option to be given orally

	Meals	Amount eaten *tick appropriate option*
Breakfast	Large bowl of cornflakes / rice crispies with semi-skimmed milk with a portion of fruit	<1/2 ☐ >1/2 ☐ All ☐
	OR 1½ slices of toast with butter / margarine with a portion of fruit	<1/2 ☐ >1/2 ☐ All ☐
	OR thick and creamy yoghurt and a portion of fruit	<1/2 ☐ >1/2 ☐ All ☐
Snack	85mls fruit juice (1 x clear plastic carton)	<1/2 ☐ >1/2 ☐ All ☐
Lunch	Small jacket potato OR 2 piece of toast	<1/2 ☐ >1/2 ☐ All ☐
	With 1 tablespoons baked beans	
	OR 2 tablespoons of spaghetti hoops	
	OR ¾ of a sandwich	<1/2 ☐ >1/2 ☐ All ☐
Snack	2 x biscuits OR light yoghurt	<1/2 ☐ >1/2 ☐ All ☐
Evening meal	Portion of main course from menu	<1/2 ☐ >1/2 ☐ All ☐
	With 2 tablespoons cooked vegetables	<1/2 ☐ >1/2 ☐ All ☐
	With 2 scoops mashed potato	<1/2 ☐ >1/2 ☐ All ☐
	OR 2 tablespoons rice	<1/2 ☐ >1/2 ☐ All ☐
	OR 2 egg-sized roast potatoes	<1/2 ☐ >1/2 ☐ All ☐
	OR 1 slice bread	<1/2 ☐ >1/2 ☐ All ☐
Snack	Light yoghurt	<1/2 ☐ >1/2 ☐ All ☐
	OR 200mLs semi-skimmed milk (can be made into hot drink)	<1/2 ☐ >1/2 ☐ All ☐
Fluid	Minimum of 6 glasses (of 200mLs) each day	
Note	On a Sunday lunch and evening meal can be interchanged to fi	

Appendix 2: Compulsory admission and treatment

Young people aged less than 16 can be treated against their will if at least one parent consents to treatment on their behalf. However, if the child actively fights the parent's decision regarding the necessity of the treatment, compulsory treatment needs to be considered.

If both the child and the parent refuse treatment, local safeguarding procedures should be followed and use of the Children Act (2004) might be necessary under these criteria. The Children Act applies up to the age of 19.

Mental health legislation states that in severe anorexia nervosa, when there is life-threatening physical risk and an unwillingness or inability to agree to treatment, compulsory treatment can and should be instituted. If NNUH staff suspects that assessment under the mental health act may be necessary, then psychiatric services should be contacted. If the patient is under a team already, contact the relevant team (Appendix 7); the AMHP Office may need to be contacted, based at Hellesdon Hospital. Day time and out of hours via Hellesdon Hospital switchboard on 01603 421421.

NHSE Guidance on minimising use of restrictive practices in relation to NG feeding can be found here: https://ngt-restrictive-practice.nhs.uk/

Appendix 3: Behavioural management of children and young people with eating disorders

If weight gain is less than expected (>0.5–1.0 kg/week), consider weight-losing behaviours which are part of the illness and punitive responses should be avoided. Advice from CEN-CAEDS team is recommended.

If sudden significant changes in weight are observed (e.g. 2 kg within a few days), consider water-loading and other fluid manipulations or simply correction of dehydration or fluid retention due to high ADH levels.

Eating disorder behaviours might include:

- Exercise/activity. Total bed rest may be indicated if the young person is severely unwell, although this is only exceptionally needed. Some degree of gentle activity (watching TV with others, reading a book or doing some crafts) can help reduce distress without any additional risk. However, it is important to keep the patient warm and supervised.

  Arrangements for toileting and washing will need to be considered.

- Purging or other methods of avoiding weight gain. Self-induced vomiting may be decreased by supervising patient for 1 hour after each meal or a snack. Do not have bed next to sink or in side room
- Bingeing: less common in young people than adults but may occur
- Self-harm. An assessment by the psychiatry team is required if there is any concern about the risk of self-harm, actual self-harm or suicidal ideation. Consider in such cases removal of all sharp items from personal belongings.
- Psychiatric conditions such as OCD or anxiety. In these situations, advice about specific management is required from the psychiatry staff.
- Involve all staff so they know not to do anything to collude with eating disorder e.g. removing uneaten food

Appendix 4: BMI/Target Weight Calculator for Girls

BMI/Target Weight Calculator for Girls

	9 Years		10 Years		11 Years		12 Years		13 Years		14 Years		15 Years		16 Years	
Centile	25th	50th	25th	50th	25th	50th	25th	50th	25th	50th	25th	50th	25th	50th	25th	50th
BMI	15.1	16.4	15.6	16.8	16.1	17.5	16.7	18.1	17.3	18.8	17.9	19.4	18.4	20.0	18.8	20.4
Height in m																
1.20	21.7	23.6	22.5	24.2	23.2	25.2	24.0	26.1	24.9	27.1	25.8	27.9	26.5	28.8	27.1	29.4
1.21	22.1	24.0	22.8	24.6	23.6	25.6	24.5	26.5	25.3	27.5	26.2	28.4	26.9	29.3	27.5	29.9
1.22	22.5	24.4	23.2	25.0	24.0	26.0	24.9	26.9	25.7	28.0	26.6	28.9	27.4	29.8	28.0	30.4
1.23	22.8	24.8	23.6	25.4	24.4	26.5	25.3	27.4	26.2	28.4	27.1	29.4	27.8	30.3	28.4	30.9
1.24	23.2	25.2	24.0	25.8	24.8	26.9	25.7	27.8	26.6	28.9	27.5	29.8	28.3	30.8	28.9	31.4
1.25	23.6	25.6	24.4	26.3	25.2	27.3	26.1	28.3	27.0	29.4	28.0	30.3	28.8	31.3	29.4	31.9
1.26	24.0	26.0	24.8	26.7	25.6	27.8	26.5	28.7	27.5	29.8	28.4	30.8	29.2	31.8	29.8	32.4
1.27	24.4	26.5	25.2	27.1	26.0	28.2	26.9	29.2	27.9	30.3	28.9	31.3	29.7	32.3	30.3	32.9
1.28	24.7	26.9	25.6	27.5	26.4	28.7	27.4	29.7	28.3	30.8	29.3	31.8	30.1	32.8	30.8	33.4
1.29	25.1	27.3	26.0	28.0	26.8	29.1	27.8	30.1	28.8	31.3	29.8	32.3	30.6	33.3	31.3	33.9
1.30	25.5	27.7	26.4	28.4	27.2	29.6	28.2	30.6	29.2	31.8	30.3	32.8	31.1	33.8	31.8	34.5
1.31	25.9	28.1	26.8	28.8	27.6	30.0	28.7	31.1	29.7	32.3	30.7	33.3	31.6	34.3	32.3	35.0
1.32	26.3	28.6	27.2	29.3	28.1	30.5	29.1	31.5	30.1	32.8	31.2	33.8	32.1	34.8	32.8	35.5
1.33	26.7	29.0	27.6	29.7	28.5	31.0	29.5	32.0	30.6	33.3	31.7	34.3	32.5	35.4	33.3	36.1
1.34	27.1	29.4	28.0	30.2	28.9	31.4	30.0	32.5	31.1	33.8	32.1	34.8	33.0	35.9	33.8	36.6
1.35	27.5	29.9	28.4	30.6	29.3	31.9	30.4	33.0	31.5	34.3	32.6	35.4	33.5	36.5	34.3	37.2
1.36	27.9	30.3	28.9	31.1	29.8	32.4	30.9	33.5	32.0	34.8	33.1	35.9	34.0	37.0	34.8	37.7
1.37	28.3	30.8	29.3	31.5	30.2	32.8	31.3	34.0	32.5	35.3	33.6	36.4	34.5	37.5	35.3	38.3
1.38	28.8	31.2	29.7	32.0	30.7	33.3	31.8	34.5	32.9	35.8	34.1	36.9	35.0	38.1	35.8	38.8
1.39	29.2	31.7	30.1	32.5	31.1	33.8	32.3	35.0	33.4	36.3	34.6	37.5	35.6	38.6	36.3	39.4
1.40	29.6	32.1	30.6	32.9	31.6	34.3	32.7	35.5	33.9	36.8	35.1	38.0	36.1	39.2	36.8	40.0
1.41	30.0	32.6	31.0	33.4	32.0	34.8	33.2	36.0	34.4	37.4	35.6	38.6	36.6	39.8	37.4	40.6
1.42	30.4	33.1	31.5	33.9	32.5	35.3	33.7	36.5	34.9	37.9	36.1	39.1	37.1	40.3	37.9	41.1
1.43	30.9	33.5	31.9	34.4	32.9	35.8	34.1	37.0	35.4	38.4	36.6	39.7	37.6	40.9	38.4	41.7
1.44	31.3	34.0	32.3	34.8	33.4	36.3	34.6	37.5	35.9	39.0	37.1	40.2	38.2	41.5	39.0	42.3
1.45	31.7	34.5	32.8	35.3	33.9	36.8	35.1	38.1	36.4	39.5	37.6	40.8	38.7	42.1	39.5	42.9
1.46	32.2	35.0	33.3	35.8	34.3	37.3	35.6	38.6	36.9	40.1	38.2	41.4	39.2	42.6	40.1	43.5
1.47	32.6	35.4	33.7	36.3	34.8	37.8	36.1	39.1	37.4	40.6	38.7	41.9	39.8	43.2	40.6	44.1
1.48	33.1	35.9	34.2	36.8	35.3	38.3	36.6	39.6	37.9	41.2	39.2	42.5	40.3	43.8	41.2	44.7
1.49	33.5	36.4	34.6	37.3	35.7	38.9	37.1	40.2	38.4	41.7	39.7	43.1	40.8	44.4	41.7	45.3

1.50	34.0	36.9	35.1	37.8	36.2	39.4	37.6	40.7	38.9	42.3	40.3	43.7	41.4	45.0	42.3	45.9
1.51	34.4	37.4	35.6	38.3	36.7	39.9	38.1	41.3	39.4	42.9	40.8	44.2	42.0	45.6	42.9	46.5
1.52	34.9	37.9	36.0	38.8	37.2	40.4	38.6	41.8	40.0	43.4	41.4	44.8	42.5	46.2	43.4	47.1
1.53	35.3	38.4	36.5	39.3	37.7	41.0	39.1	42.4	40.5	44.0	41.9	45.4	43.1	46.8	44.0	47.8
1.54	35.8	38.9	37.0	39.8	38.2	41.5	39.6	42.9	41.0	44.6	42.5	46.0	43.6	47.4	44.6	48.4
1.55	36.3	39.4	37.5	40.4	38.7	42.0	40.1	43.5	41.6	45.2	43.0	46.6	44.2	48.1	45.2	49.0
1.56	36.7	39.9	38.0	40.9	39.2	42.6	40.6	44.0	42.1	45.8	43.6	47.2	44.8	48.7	45.8	49.6
1.57	37.2	40.4	38.5	41.4	39.7	43.1	41.2	44.6	42.6	46.3	44.1	47.8	45.4	49.3	46.3	50.3
1.58	37.7	40.9	38.9	41.9	40.2	43.7	41.7	45.2	43.2	46.9	44.7	48.4	45.9	49.9	46.9	50.9
1.59	38.2	41.5	39.4	42.5	40.7	44.2	42.2	45.8	43.7	47.5	45.3	49.0	46.5	50.6	47.5	51.6
1.60	38.7	42.0	39.9	43.0	41.2	44.8	42.8	46.3	44.3	48.1	45.8	49.7	47.1	51.2	48.1	52.2
1.61	39.1	42.5	40.4	43.5	41.7	45.4	43.3	46.9	44.8	48.7	46.4	50.3	47.7	51.8	48.7	52.9
1.62	39.6	43.0	40.9	44.1	42.3	45.9	43.8	47.5	45.4	49.3	47.0	50.9	48.3	52.5	49.3	53.5
1.63	40.1	43.6	41.4	44.6	42.8	46.5	44.4	48.1	46.0	49.9	47.6	51.5	48.9	53.1	49.9	54.2
1.64	40.6	44.1	42.0	45.2	43.3	47.1	44.9	48.7	46.5	50.6	48.1	52.2	49.5	53.8	50.6	54.9
1.65	41.1	44.6	42.5	45.7	43.8	47.6	45.5	49.3	47.1	51.2	48.7	52.8	50.1	54.5	51.2	55.5
1.66	41.6	45.2	43.0	46.3	44.4	48.2	46.0	49.9	47.7	51.8	49.3	53.5	50.7	55.1	51.8	56.2
1.67	42.1	45.7	43.5	46.9	44.9	48.8	46.6	50.5	48.2	52.4	49.9	54.1	51.3	55.8	52.4	56.9
1.68	42.6	46.3	44.0	47.4	45.4	49.4	47.1	51.1	48.8	53.1	50.5	54.8	51.9	56.4	53.1	57.6
1.69	43.1	46.8	44.6	48.0	46.0	50.0	47.7	51.7	49.4	53.7	51.1	55.4	52.6	57.1	53.7	58.3
1.70	43.6	47.4	45.1	48.6	46.5	50.6	48.3	52.3	50.0	54.3	51.7	56.1	53.2	57.8	54.3	59.0
1.71	44.2	48.0	45.6	49.1	47.1	51.2	48.8	52.9	50.6	55.0	52.3	56.7	53.8	58.5	55.0	59.7
1.72	44.7	48.5	46.2	49.7	47.6	51.8	49.4	53.5	51.2	55.6	53.0	57.4	54.4	59.2	55.6	60.4
1.73	45.2	49.1	46.7	50.3	48.2	52.4	50.0	54.2	51.8	56.3	53.6	58.1	55.1	59.9	56.3	61.1
1.74	45.7	49.7	47.2	50.9	48.7	53.0	50.6	54.8	52.4	56.9	54.2	58.7	55.7	60.6	56.9	61.8
1.75	46.2	50.2	47.8	51.5	49.3	53.6	51.1	55.4	53.0	57.6	54.8	59.4	56.4	61.3	57.6	62.5
1.76	46.8	50.8	48.3	52.0	49.9	54.2	51.7	56.1	53.6	58.2	55.4	60.1	57.0	62.0	58.2	63.2
1.77	47.3	51.4	48.9	52.6	50.4	54.8	52.3	56.7	54.2	58.9	56.1	60.8	57.6	62.7	58.9	63.9
1.78	47.8	52.0	49.4	53.2	51.0	55.4	52.9	57.3	54.8	59.6	56.7	61.5	58.3	63.4	59.6	64.6
1.79	48.4	52.5	50.0	53.8	51.6	56.1	53.5	58.0	55.4	60.2	57.4	62.2	59.0	64.1	60.2	65.4
1.80	48.9	53.1	50.5	54.4	52.2	56.7	54.1	58.6	56.1	60.9	58.0	62.9	59.6	64.8	60.9	66.1
1.81	49.5	53.7	51.1	55.0	52.7	57.3	54.7	59.3	56.7	61.6	58.6	63.6	60.3	65.5	61.6	66.8
1.82	50.0	54.3	51.7	55.6	53.3	58.0	55.3	60.0	57.3	62.3	59.3	64.3	60.9	66.2	62.3	67.6
1.83	50.6	54.9	52.2	56.3	53.9	58.6	55.9	60.6	57.9	63.0	59.9	65.0	61.6	67.0	63.0	68.3
1.84	51.1	55.5	52.8	56.9	54.5	59.2	56.5	61.3	58.6	63.6	60.6	65.7	62.3	67.7	63.6	69.1
1.85	51.7	56.1	53.4	57.5	55.1	59.9	57.2	61.9	59.2	64.3	61.3	66.4	63.0	68.5	64.3	69.8

Appendix 5: BMI/ Target Weight Calculator for Boys

BMI/Target Weight Calculator for Boys

	9 Years		10 Years		11 Years		12 Years		13 Years		14 Years		15 Years		16 Years	
Centile	25th	50th	25th	50th	25th	50th	25th	50th	25th	50th	25th	50th	25th	50th	25th	50th
BMI	15.1	16.1	15.3	16.5	15.8	16.9	16.3	17.4	16.8	18.0	17.4	18.7	18.0	19.3	18.5	20.0
Height in m																
1.20	21.7	23.2	22.0	23.8	22.8	24.3	23.5	25.1	24.2	25.9	25.1	26.9	25.9	27.8	26.6	28.8
1.21	22.1	23.6	22.4	24.2	23.1	24.7	23.9	25.5	24.6	26.4	25.5	27.4	26.4	28.3	27.1	29.3
1.22	22.5	24.0	22.8	24.6	23.5	25.2	24.3	25.9	25.0	26.8	25.9	27.8	26.8	28.7	27.5	29.8
1.23	22.8	24.4	23.1	25.0	23.9	25.6	24.7	26.3	25.4	27.2	26.3	28.3	27.2	29.2	28.0	30.3
1.24	23.2	24.8	23.5	25.4	24.3	26.0	25.1	26.8	25.8	27.7	26.8	28.8	27.7	29.7	28.4	30.8
1.25	23.6	25.2	23.9	25.8	24.7	26.4	25.5	27.2	26.3	28.1	27.2	29.2	28.1	30.2	28.9	31.3
1.26	24.0	25.6	24.3	26.2	25.1	26.8	25.9	27.6	26.7	28.6	27.6	29.7	28.6	30.6	29.4	31.8
1.27	24.4	26.0	24.7	26.6	25.5	27.3	26.3	28.1	27.1	29.0	28.1	30.2	29.0	31.1	29.8	32.3
1.28	24.7	26.4	25.1	27.0	25.9	27.7	26.7	28.5	27.5	29.5	28.5	30.6	29.5	31.6	30.3	32.8
1.29	25.1	26.8	25.5	27.5	26.3	28.1	27.1	29.0	28.0	30.0	29.0	31.1	30.0	32.1	30.8	33.3
1.30	25.5	27.2	25.9	27.9	26.7	28.6	27.5	29.4	28.4	30.4	29.4	31.6	30.4	32.6	31.3	33.8
1.31	25.9	27.6	26.3	28.3	27.1	29.0	28.0	29.9	28.8	30.9	29.9	32.1	30.9	33.1	31.7	34.3
1.32	26.3	28.1	26.7	28.7	27.5	29.4	28.4	30.3	29.3	31.4	30.3	32.6	31.4	33.6	32.2	34.8
1.33	26.7	28.5	27.1	29.2	27.9	29.9	28.8	30.8	29.7	31.8	30.8	33.1	31.8	34.1	32.7	35.4
1.34	27.1	28.9	27.5	29.6	28.4	30.3	29.3	31.2	30.2	32.3	31.2	33.6	32.3	34.7	33.2	35.9
1.35	27.5	29.3	27.9	30.1	28.8	30.8	29.7	31.7	30.6	32.8	31.7	34.1	32.8	35.2	33.7	36.5
1.36	27.9	29.8	28.3	30.5	29.2	31.3	30.1	32.2	31.1	33.3	32.2	34.6	33.3	35.7	34.2	37.0
1.37	28.3	30.2	28.7	31.0	29.7	31.7	30.6	32.7	31.5	33.8	32.7	35.1	33.8	36.2	34.7	37.5
1.38	28.8	30.7	29.1	31.4	30.1	32.2	31.0	33.1	32.0	34.3	33.1	35.6	34.3	36.8	35.2	38.1
1.39	29.2	31.1	29.6	31.9	30.5	32.7	31.5	33.6	32.5	34.8	33.6	36.1	34.8	37.3	35.7	38.6
1.40	29.6	31.6	30.0	32.3	31.0	33.1	31.9	34.1	32.9	35.3	34.1	36.7	35.3	37.8	36.3	39.2
1.41	30.0	32.0	30.4	32.8	31.4	33.6	32.4	34.6	33.4	35.8	34.6	37.2	35.8	38.4	36.8	39.8
1.42	30.4	32.5	30.9	33.3	31.9	34.1	32.9	35.1	33.9	36.3	35.1	37.7	36.3	38.9	37.3	40.3
1.43	30.9	32.9	31.3	33.7	32.3	34.6	33.3	35.6	34.4	36.8	35.6	38.2	36.8	39.5	37.8	40.9
1.44	31.3	33.4	31.7	34.2	32.8	35.0	33.8	36.1	34.8	37.3	36.1	38.8	37.3	40.0	38.4	41.5
1.45	31.7	33.9	32.2	34.7	33.2	35.5	34.3	36.6	35.3	37.8	36.6	39.3	37.8	40.6	38.9	42.1
1.46	32.2	34.3	32.6	35.2	33.7	36.0	34.7	37.1	35.8	38.4	37.1	39.9	38.4	41.1	39.4	42.6
1.47	32.6	34.8	33.1	35.7	34.1	36.5	35.2	37.6	36.3	38.9	37.6	40.4	38.9	41.7	40.0	43.2

Appendix 6: Nursing Management Plan for Children and Young People Under 18 Years with Eating Disorders

Nursing Management Plan For Children and Young People Under 18 Years With Eating Disorders	*Patient Identifier Label*

Consultant *detail*		Dietitian *detail*	
Eating Disorders Team *detail*		Meal Plan in Place *detail*	

	Care Domain	Level of Activity Allowed							
1	Activity Level	**Strict bed rest** • Wheelchair to toilet / bathroom • Stay in bed – not to leave ward or go to adolescent room • ? need for low air loss mattress / VTE assessment		**Rest** • Able to sit in chair by bed • Wheelchair to adolescent room and toilet • VTE assessment		**Mobilise around ward** • Minimise physical activity • Walk to toilet / bathroom / adolescent room		**Off ward in wheelchair**	
		Date	/ /	Date	/ /	Date	/ /	Date	/ /
		Print name		Print name		Print name		Print name	
		Signature		Signature		Signature		Signature	
2	Supervision Level	**Constant** • Supervised in toilet / bathroom • Keep curtains open • ? need to request special • Accompanied at all times				**Around meal times** • For 1hour post meal and 30minutes post snack • Keep curtains open at all times • Accompanied at times away from bed space			
		Date				Date			
		Print name				Print name			
		Signature				Signature			
3	Monitoring	**HDU care** • Constant cardiac monitoring		**Close** • Cardiac / saturation monitoring overnight for at least 48 hours		**Normal** • 4 hourly TPR		**Other - *specify***	
		Date	/ /	Date	/ /	Date	/ /	Date	/ /
		Print name		Print name		Print name		Print name	
		Signature		Signature		Signature		Signature	

4	Family Involvement	Usually family involvement is encouraged and can be part of constant supervision. CEN-CAEDS will advise if this is not appropriate.
Any further instructions		

Appendix 7: Weekly Planner

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Breakfast supervision							
Lunch supervision							
Evening meal supervision							
CAED-CENs visiting (time)							
Target kcal for day							

Bloods needed							
To be weighed							

Appendix 8: Blood monitoring

	Admission							
Please document date taken in box								
	Admission	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
Date:								
FBC	√	Consider based on clinical condition /previous result(s)						
Urea, creatinine and electrolytes	√	√	√	√	√	√	√	√
Calcium	√	√	√	√	√	√	√	√
Phosphate	√	√	√	√	√	√	√	√
Magnesium	√	√	√	√	√	√	√	√
Liver function	√	Consider based on clinical condition /previous result(s)						
Vit D	√	X	X	X	X	X	X	X
Iron								
IgA and tTg-IgA	√	X	X	X	X	X	X	X
CRP	√	Consider based on clinical condition /previous result(s)						
ESR	√	Consider based on clinical condition /previous result(s)						
Thyroid function	√	Consider based on clinical condition /previous result(s)						
Blood gas	√	Consider based on clinical condition /previous result(s)						
Glucose	√	Consider based on clinical condition /previous result(s)						
CK	√	Consider based on clinical condition /previous result(s)						
Amylase	If abdominal pain	Consider based on clinical condition /previous result(s)						

LFTs to be monitored once weekly, and discussed with gastro team if abnormal

CK if at severe risk of refeeding and/or rhabdomyolysis suspected

Glucose should be monitored regularly

Blood tests usually required up to day 5, but will vary dependant on the child potentially up to 2 weeks or longer.

Appendix 9: Contact details for clinical teams

CEN-CAEDS	Central Norfolk Child and Adolescent Eating Disorders Service	Norfolk and Suffolk NHS Foundation Trust	01603 978455	
	Donna Woodcock	Eating Disorder Clinical Nurse Specialist	01603 978455	donna.woodcock@nsft.nhs.uk
	Dr Zeinab Iqbal	Consultant Child and Adolescent Psychiatrist	01603 978455	zeinab.iqbal@nsft.nhs.uk
	Dr Marita Bulto	Associate Specialist in Child and Adolescent Psychiatry	01603 978455	marita.bulto@nsft.nhs.uk
Day time and Out of hours on call Psychiatry Services including crisis team	Hellesdon Hospital	Switch board	01603 421421	
Day time AMHP	Approved Mental Health Practitioner	Office	01603 421421	
		Direct line	01603 217699	
CAMHS	Up to age 14		01603 272800	
Central Youth Services	14 to 18		01603 974670	
CAU	Children's Assessment Unit	Jenny Lind Children's Hospital, NNUH, Colney Lane Norwich, NR5 7UY	01603 289774	
		Advice line -	01603 646580	Consultant or SpR 0900-2200 Monday-Friday, 1400-2100 weekends
Paediatric Gastroenterology Team	Dr Morris (secretary)	Consultant in Paediatric Gastroenterology	01603 289936	paediatricgastroenterology@nnuh.nhs.uk
	Dr Briars (secretary)	Consultant in Paediatric Gastroenterology	01603 287174	paediatricgastroenterology@nnuh.nhs.uk
Paediatric Dietitians	Sara Pullan	Specialist Paediatric Dietitian	01603 287011	
Adult Gastroenterology Team	Dr Charlotte Pither	Consultant Adult Gastroenterologist	01603 288143	
	Dr Dana Ismail	Consultant Adult Gastroenterologist	01603 288345	
AMU	referrals via switchboard		01603 286286	
Adult Dietitians			01603 287011	

Adult nutrition team	Ben Booth BHSc (Hons) RGN	Senior Nutrition Nurse Specialist Norfolk and Norwich University Hospital	01603 287159	benbooth@nhs.net

7. Equality Impact Assessment (EIA)

Type of function or policy	Update of guideline

Division	Womens and Children's	**Department**	Paediatric
Name of person completing form	Dr Mary-Anne Morris	**Date**	17/4/2023

Equality Area	Potential Negative Impact	Impact Positive Impact	Which groups are affected	Full Impact Assessment Required YES/NO
Race	none	none	n/a	no
Pregnancy & Maternity	none	none	n/a	no
Disability	none	none	n/a	no
Religion and beliefs	none	none	n/a	no
Sex	none	none	n/a	no
Gender reassignment	none	none	n/a	no
Sexual Orientation	none	none	n/a	no
Age	none	none	n/a	no
Marriage & Civil Partnership	none	none	n/a	no
EDS2 – How does this change impact the Equality and Diversity Strategic plan (contact HR or see EDS2 plan)?	n/a			

- **A full assessment will only be required if: The impact is potentially discriminatory under the general equality duty**
- **Any groups of patients/staff/visitors or communities could be potentially disadvantaged by the policy or function/service**
- **The policy or function/service is assessed to be of high significance**

IF IN DOUBT A FULL IMPACT ASSESSMENT FORM IS REQUIRED

The review of the existing policy re-affirms the rights of all groups and clarifies the individual, managerial and organisational responsibilities in line with statutory and best practice guidance.