Hull and East Riding Medical Emergencies in Eating Disorders (MEED) Protocol

Reference No:	
Version:	1
Author:	**Kim Flockton Clinical Lead (Evolve)**
Second Author	Second Authors - Dr Andrew Nelson, Dr Jacquie Smithson Consultant Gastroenterologists (HUTH)
First Issued On:	December 2023
Latest Issue Date:	
Review Date:	December 2026
Referenced Documents:	Medical Emergencies in Eating Disorders: Guidance on Recognition and Management
Ratified By:	CHCP Therapeutic & Pathways Group Meeting December 2023
Distribution:	CHCP Document Management System HUTH Pattie Humber Teaching NHS FT Intranet Humber and North Yorkshire Provider Collaborative MEED network meetings Hull and East Riding MEED network meeting

Document Revisions			
Date	**Author**	**Nature of Change**	**Reference**

This document can be found on CHCPs Document Management System (My Compliance)

HUTH Pattie

Humber Teaching NHS Foundation Trust Intranet

Please make sure you use the most current version.

CONTENTS

1. INTRODUCTION……..5
2. PURPOSE……..5
3. SCOPE……5
Target Patient group……5
East Riding Patients……5
Target Professional Group……5
4. FAIRNESS, RESPECT, EQUALITY, DIVERSITY, INCLUSION & ENGAGEMENT…… ……6
5. ABBREVIATIONS & DEFINITIONS……..6
6. ROLES & RESPONSIBILITIES……7
7. PROCESS……7
Identifying an eating disorder……7
Table 1. Physical consequences of anorexia nervosa and bulimia nervosa..... 8
8. Assessing and managing risk. 9
Table 2 MEED Risk assessment framework for assessing impending risk to life..11
Type 1 Diabetes and eating disorders (T1DE)……..…16
Weighing of patients with an eating disorder……17
Height of patient……..……18
Where to admit……18
Medical Re-feeding……19
9. Referral Pathways 222
Suspected Eating Disorder Pathway..... 222
Figure 1. Suspected Eating Disorder Pathway 233
Planned Admission to gastroenterology (Ward 100, Hull Royal Infirmary (HRI))..... 244

Figure 2. Planned admission pathway to Ward 100, HRI……25

Investigations and actions to be completed on admission to ward 100 HRI.25

Emergency Admission Pathway……27

Figure 3. MEED Emergency Admission Pathway 277

10. Compulsory admission and treatment..... 288

Figure 4. MEED Compulsory Admission and Treatment Pathway 288

11. Feeding Under Restraint 299

Figure 5. Feeding Under Restraint Pathway..... 322

Behavioral management of patients with an eating disorder on a medical unit……..……33

Use of the Mental Health Act……..34

Nursing assessment and care planning……35

Mental health management……..…35

Ongoing physical monitoring under Community Treatment Order (CTO).36

10. Review, Transfer and Discharge of patients 366

Transfer of care of patients with an eating disorder on a medical ward..36

Transfer of care from a general ward/AMU/A&E to Gastroenterology ward……..……..…37

Transfer of care from paediatric ward to adult ward……..37

Transfer of care from medical ward to SEDU……37

Review of care for patients with an eating disorder on a medical ward..38

Discharge options from the medical ward……38

11. The MEED expert working group..... 399

12. TRAINING REQUIREMENTS..... 411

13. APPROVAL 411

14. MONITORING & COMPLIANCE 411

15. REVIEW 422

16. REFERENCES & ASSOCIATED DOCUMENTATION 422

17. APPENDIX ONE - Regional Specialist Eating Disorder Units (SEDU) . 433

18. APPENDIX TWO – Guidance on Management of Clinical Findings 444

19. APPENDIX THREE – MEED Admission Request Form – Supporting Information..... 488

20. APPENDIX FOUR – A&E Letter 499

21. APPENDIX FIVE – Local Mental Health Service Contact Details (reviewed July 2023) 511

22. APPENDIX SIX – MEED Eating Disorder Physical and Nutritional Observation Handover Form 544

23. APPENDIX SEVEN – MEED Expert Working Group – Group Clinical Case Presentation Form 566

24. APPENDIX EIGHT – MEED Expert Working Group Terms of Reference 588

25. APPENDIX NINE – Clinical Case Discussion Form 599

26. APPENDIX TEN – MEED Expert Working Group Members list 2023 .. 611

1. INTRODUCTION

This protocol aims to provide local guidance on the management of patients with an eating disorder when they present with high levels of medical risk in the community and require treatment in a hospital setting. This document replaces the HULL MARSIPAN (Management of Really Sick Patients with Anorexia Nervosa) Protocol (February 2020)

The protocol draws directly from the recommendations outlined in the Royal College of Psychiatrists report CR233 Medical Emergencies in Eating Disorders: Guidance on Recognition and Management (May 2022). It has been developed by the Hull MEED expert working group with membership from City Health Care Partnership Community Interest Company (CHCP-CIC), Hull University Teaching Hospital (HUTH) and Humber Teaching NHS Foundation Trust.

2. PURPOSE

The purpose of this document is to outline the procedures and pathways to support the safe management of adult patients with an eating disorder requiring treatment in a hospital setting.

3. SCOPE

Target patient group

Adult patients registered with a Hull or East Riding GP (>18 years) presenting with an eating disorder.

East Riding Patients

Patients with an East Riding General Practitioner (GP) may not always be known to or be supported by Evolve - Hull Community Eating Disorder Service. If a patient is thought to be at high medical risk in the community, and either a hospital admission or admission to an eating disorder unit is required, the community mental health team (CMHT) involved, can refer to Evolve for support with management.

Target Professional group

Medical, nursing, and dietetic staff working in areas where an adult patient with an eating disorder may be assessed or managed e.g., accident and emergency, acute assessment unit, general medical wards or gastroenterology wards.

4. FAIRNESS, RESPECT, EQUALITY, DIVERSITY, INCLUSION & ENGAGEMENT

CHCP promotes the principles of FREDIE (Fairness, Respect, Equality, Diversity, Inclusion and Engagement) throughout the organisation and beyond. Whilst supporting and sustaining an inclusive and diverse workforce that is representative of the community it serves, equally we are committed to the provision of services that not only respect our increasingly diverse population but also which promotes equity of access and care.

This document has been developed with due consideration to the principles of FREDIE including completion of an equality impact assessment (EIA).

5. ABBREVIATIONS & DEFINITIONS

Abbreviations and Definitions:

A&E – Accident & Emergency

AHP – Allied Health Professional

AMU – Acute Medical Unit

ARFID – Avoidant Restrictive Food Intake Disorder

BMI – Body Mass Index

CHCP CIC - City Health Care Partnership Community Interest Company

CMHT - Community Mental Health Team

CPA – Care Program Approach

CTO - Community Treatment Order

CVP – Central Venous Pressure

ECG – Electrocardiogram

EIA – Equality Impact Assessment

EVOLVE – CHCP's Eating Disorder Service

FREDIE - Fairness, Respect, Equality, Diversity, Inclusion and Engagement

GP – General Practitioner

h - Height

HDU – High Dependency Unit

HRI – Hull Royal Infirmary

HUTH – Hull University Teaching Hospitals

ICU – Intensive Care Unit

ITU – Intensive Treatment Unit

IV – Intravenous

kcal - calories

kg - Kilograms

LFTs - Liver Function Tests

LORENZO - Patient Electronic Record System (HUTH)

MDT – Multi Disciplinary Team

MEED – Medical Emergencies in Eating Disorders

ml - Millilitres

NG – Nasogastric

NHSE – National Health Service England

NICE – National Institute for Health and Care Excellence

SEDU – Specialist Eating Disorder Unit

T1DE – Type 1 Diabetes and Eating Disorder

6. ROLES & RESPONSIBILITIES

Clinical lead (CHCP) – To be responsible for:

- Ensuring referral processes are followed within Evolve (Clinical Leads in other areas are responsible for ensuring the MEED pathways are followed in their own area of work)
- Renewing & updating the Protocol when required
- Chairing & arranging MEED meetings & quarterly expert working group meetings.

Gastroenterology Consultants (HUTH) Liaison Psychiatrists Humber Teaching NHS Foundation Trust) – To be responsible for:

- Ensuring awareness of and compliance to the Protocol within their clinical areas/organisations
- Renewing & updating clinical content when required

All ward nursing, Allied Health Professional (AHP), & support staff – To be responsible for:

- Reading and working in line with the Protocol

7. PROCESS

Identifying an eating disorder.

Patients with an eating disorder are predominantly managed successfully within community services. The physical monitoring of patients engaged in community

treatment for their eating disorder is usually taken on by the specialist eating disorder service unless otherwise agreed with the GP.

Patients with an eating disorder may present to accident and emergency departments and general medical settings with life threatening emergencies. Most medical problems arise from undernutrition and/or compensatory behaviors such as binging, purging, or other associated behaviors.

Patients with an eating disorder may present to the hospital with other complaints and may not disclose that they have an eating disorder. Table 1. below highlights how systems in the body can be affected by starvation and binging/purging and vomiting.

Table 1. Physical consequences of anorexia nervosa and bulimia nervosa

SYSTEM	STARVATION	BINGING/PURGING/VOMITING
Cardiovascular	Bradycardia Hypotension Sudden death	Arrhythmias Cardiac failure Sudden death
Renal	Mild pitting oedema **Electrolyte abnormalities:** hypophosphatemia, hypomagnesaemia, hypocalcaemia Renal calculi Renal failure	Severe oedema **Electrolyte abnormalities:** Hypokalaemia, hyponatraemia, hypochloraemia, metabolic alkalosis (vomiting), metabolic acidosis (laxative misuse), hypophosphatemia, hypomagnesaemia, hypocalcaemia Renal calculi Renal failure
Gastrointestinal	Parotid swelling Delayed gastric emptying Nutritional hepatitis Constipation	Parotid swelling Dental erosion Oesophageal erosion/perforation Gastric/duodenal ulcers Constipation
Skeletal	Osteoporosis Pathological fractures Short stature Proximal myopathies	Osteoporosis Pathological fractures

Endocrine	Amenorrhoea Infertility Hypothyroidism	Oligomenorrhea/amenorrhoea
Haematological	Anaemia Leukopenia Thrombocytopenia	Leukopenia/lymphocytosis
SYSTEM	STARVATION	BINGING/PURGING/VOMITING
Neurological	Generalised seizures Confused states EEG abnormalities Peripheral neuropathies Ventricular enlargement	Generalised seizures Confused states EEG abnormalities Peripheral neuropathies
Metabolic	Impaired temperature regulation Hypercholesterolemia Hypoglycaemia	Impaired temperature regulation Hypercholesterolemia Hypoglycaemia
Dermatological	Lanugo, brittle hair and nails	Calluses on dorsum of hands (Russell's sign)

Adapted from MARSIPAN College Report 2014

8. Assessing the risk.

As with all patients presenting to an acute medical setting, a timely risk assessment is required. The risk assessment of a patient with an eating disorder will need to include an assessment of the physical risk, an assessment of the psychological risk i.e., suicidality, the patient social circumstance and support while also considering insight, motivation, consent to treatment and the legal framework under which treatment may be required.

The information below is taken from MEED and outlines some specific challenges to accurately assess the risks in eating disorders.

- Patients can appear well, and this can falsely reassure the clinician.
- Consider parent/carer information when assessing risk.

- Patients may have an extremely powerful drive to exercise (including micro-exercise) that can override their lack of nutritional reserve, so that they appear very energetic right up to a physical collapse. Increased rather than reduced energy and activity levels is one of the features that distinguishes anorexia nervosa from starvation syndrome.
- Suicidal ideation is common in people with eating disorders. Suicide accounts for the cause of death for 20% of all deaths among adults with anorexia nervosa.
- Blood parameters that fall within laboratory reference ranges are frequently seen in advanced uncomplicated malnutrition and should not be taken as cause for reassurance.
- Do not reassure the patient that their risk is low. That will compound the dismissive nature of their eating disorder cognitions and increase perception that change is not necessary. Emphasise the severity of the problem and the lack of precision in risk assessment while making sure to conduct the necessary physiological and psychological examinations.
- Due to the nature of eating disorder cognitions and associated distress, a patient's fear of weight restoration may limit their capacity to provide an accurate account of their presentation. This can falsely reassure the clinician about the assessment of risk.

MEED offers a clear all age risk assessment framework for assessing impending risk to life. This is a guide to risk assessment and is not intended to replace full clinical evaluation. A patient with one or more red flags or two or more Amber flags should be considered high risk.

Table 2 MEED Risk assessment framework for assessing impending risk to life

	Red: High impending risk to life	Amber: Alert to high concern for impending risk to life	Green: Low impending risk to life
Medical history and examination			
Weight loss	Recent loss of weight of ≥1kg/week for 2 weeks (consecutive) in an undernourished patient[32] Rapid weight loss at any weight, e.g. in obesity or ARFID	Recent loss of weight of 500–999g/week for 2 consecutive weeks in an undernourished patient[126]	Recent weight loss of <500g/week or fluctuating weight
BMI and weight	• Under 18 years: %mBMI[33] <70% • Over 18: BMI <13	• Under 18: %m BMI 70–80% • Over 18: BMI 13–14.9	• Under 18: %mBMI >80%[34] • Over 18: BMI >15
HR (awake)	<40	40–50	>50

	Red: High impending risk to life	Amber: Alert to high concern for impending risk to life	Green: Low impending risk to life
Cardio-vascular health[35 36]	Standing systolic BP below 0.4th centile for age or less than 90 if 18+, associated with recurrent syncope and postural drop in systolic BP of >20mmHg or increase in HR of over 30bpm (35bpm in <16 years)	Standing systolic BP <0.4th centile or <90 if 18+ associated with occasional syncope; postural drop in systolic BP of >15mmHg or increase in HR of up to 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
Assessment of hydration status	• Fluid refusal • Severe dehydration (10%): reduced urine output, dry mouth, postural BP drop (see above), decreased skin turgor, sunken eyes, tachypnoea, tachycardia	• Severe fluid restriction • Moderate dehydration (5–10%): reduced urine output, dry mouth, postural BP drop (see above), normal skin turgor, some tachypnoea, some tachycardia, peripheral oedema	• Minimal fluid restriction • No more than mild dehydration (<5%): may have dry mouth or concerns about risk of dehydration with negative fluid balance
Temperature	<35.5°C tympanic or 35.0°C axillary	<36°C	>36°C
Muscular function[37]**: SUSS Test**	Unable to sit up from lying flat, or to get up from squat at all or only by using upper limbs to help (Score 0 or 1)	Unable to sit up or stand from squat without noticeable difficulty (Score 2)	Able to sit up from lying flat and stand from squat with no difficulty (Score 3)

	Red: High impending risk to life	Amber: Alert to high concern for impending risk to life	Green: Low impending risk to life
Muscular function: Hand grip strength[38]	Male <30.5kg, Female <17.5kg (3rd percentile)	Male <38kg, Female <23kg (5th percentile)	Male >38kg, Female >23kg
Muscular function: MUAC[39]	<18cm (approx. BMI<13)	18–20cm (approx. BMI<15.5)	>20cm (approx. BMI >15.5)
Other clinical state	Life-threatening medical condition, e.g. severe haematemesis, acute confusion, severe cognitive slowing, diabetic ketoacidosis, upper gastrointestinal perforation, significant alcohol consumption	Non-life-threatening physical compromise, e.g. mild haematemesis, pressure sores	Evidence of physical compromise, e.g. poor cognitive flexibility, poor concentration
ECG abnormalities	• **<18 years:** QTc >460ms (female), 450ms (male) • **18+ years:** QTc >450ms (females), 430ms (males) • Or any other significant ECG abnormality	• **<18 years:** QTc >460ms (female), 450ms (male) • **18+ years:** QTc >450ms (females), >430ms (males). • And no other ECG anomaly • Taking medication known to prolong QTc interval	• **<18 years:** QTc <460ms (female), 450ms (male) • **18+ years:** QTc <450ms (females), <430ms (males)

	Red: High impending risk to life	Amber: Alert to high concern for impending risk to life	Green: Low impending risk to life
Biochemical abnormalities [40]	• Hypophosphataemia and falling phosphate • Hypokalaemia (<2.5mmol/L) • Hypoalbuminaemia • Hypoglycaemia (<3mmol/L) • Hyponatraemia • Hypocalcaemia • Transaminases >3x normal range • Inpatients with diabetes mellitus: HbA1C >10% (86mmol/mol)		
Haematology	• Low white cell count • Haemoglobin <10g/L		
Disordered eating behaviours	Acute food refusal or estimated calorie intake <500kcal/day for 2+ days		

	Red: High impending risk to life	Amber: Alert to high concern for impending risk to life	Green: Low impending risk to life
Engagement with management plan	• Physical struggles with staff or parents/carers over nutrition or reduction of exercise • Harm to self • Poor insight or motivation • Fear leading to resistance to weight gain • Staff or parents/carers unable to implement meal plan prescribed	• Poor insight or motivation • Resistance to weight gain • Staff or parents/carers unable to implement meal plan prescribed • Some insight and motivation to tackle eating problems • Fear leading to some ambivalence but not actively resisting	• Some insight and motivation to tackle eating problems • May be ambivalent but not actively resisting
Activity and exercise	High levels of dysfunctional exercise in the context of malnutrition (>2h/day)	Moderate levels of dysfunctional exercise in the context of malnutrition (>1h/day)	Mild levels of or no dysfunctional exercise in the context of malnutrition (<1h/day)
Purging behaviours	Multiple daily episodes of vomiting and/or laxative abuse	Regular (=>3x per week) vomiting and/or laxative abuse	
Self-harm and suicide	Self-poisoning, suicidal ideas with moderate to high risk of completed suicide	Cutting or similar behaviours, suicidal ideas with low risk of completed suicide	

Key:
°C = degrees Celsius; ARFID = avoidant restrictive food intake disorder; BMI = body mass index; BP = blood pressure; bpm = beats per minute; cm = centimetre; ECG = electrocardiogram; g = grams; h = hour; HR = heart rate; kcal = kilocalories; kg = kilogram; L = litre; mmHg = millimetres of mercury; mmol = millimole; mol = mole; ms = millisecond; QTc = corrected QT interval; SUSS Test = Sit Up-Stand-Squat Test.

In addition, the following features are known to increase the level of physical risk:

- Excess exercise with low weight
- Blood in vomit
- Inadequate fluid intake in combination with poor eating
- Frequency of vomiting / laxative / diuretic misuse
- Alcohol abuse and co-morbid physical illness.
- Rapid weight loss

***Limitations of BMI as a risk marker:**

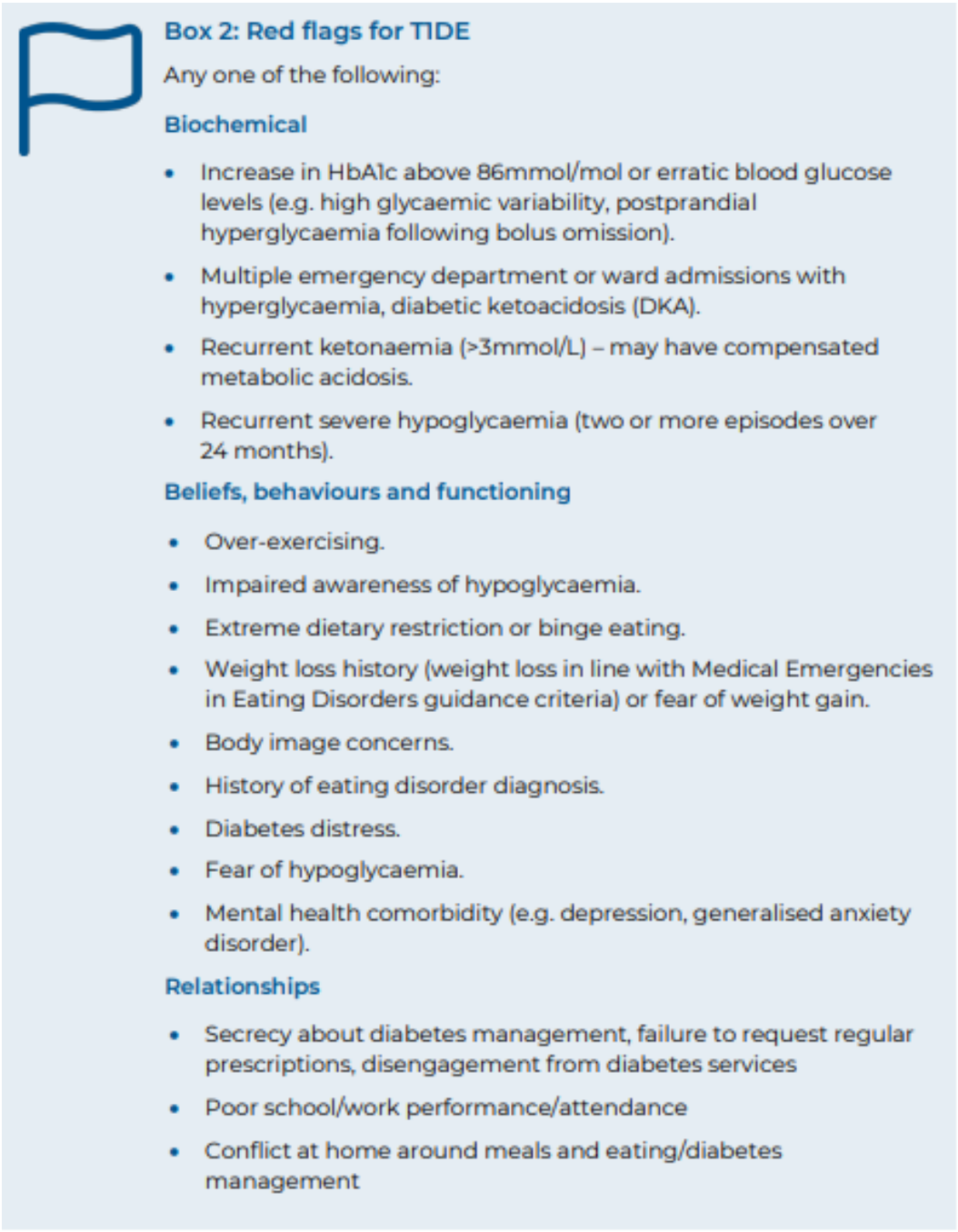
- Potential for deceit
- Less reliable if there has been a rapid change in weight.
- Does not account for rapidity and quantity of weight loss.
- Less reliable at extremes of height
- Higher risk for each BMI (body mass index) range for men (taller)
- Less reliable if there is self-induced vomiting or laxative abuse.
- Less reliable if fluid is restricted.
- Less reliable if there is physical co morbidity e.g., Diabetes, pregnancy.

BMI may not be critical with regards to the risks associated with fluid and electrolyte disturbance

Type 1 Diabetes and eating disorders (T1DE)

Patients with Type1 Diabetes can develop patterns of eating disorder behaviours which put them at high medical risk. For example, omission or restriction of insulin, restriction of food, over-exercise, self-induced vomiting, and laxative or diuretic misuse. Thyroid hormones or diabetes medication believed to reduce body weight may also be used. Insulin over-injection, either to cover binge eating or out of fear that high blood-glucose levels may cause long-term complications, have been observed. Insulin restriction puts patients at higher risk of the short and long-term complications of diabetes; insulin over-injection bears the risk of severe hypoglycaemia and loss of awareness of hypoglycaemia.

MEED CR233 Identify several red flags for T1DE highlighted in the box below.



Box 2: Red flags for T1DE

Any one of the following:

Biochemical

- Increase in HbA1c above 86mmol/mol or erratic blood glucose levels (e.g. high glycaemic variability, postprandial hyperglycaemia following bolus omission).
- Multiple emergency department or ward admissions with hyperglycaemia, diabetic ketoacidosis (DKA).
- Recurrent ketonaemia (>3mmol/L) – may have compensated metabolic acidosis.
- Recurrent severe hypoglycaemia (two or more episodes over 24 months).

Beliefs, behaviours and functioning

- Over-exercising.
- Impaired awareness of hypoglycaemia.
- Extreme dietary restriction or binge eating.
- Weight loss history (weight loss in line with Medical Emergencies in Eating Disorders guidance criteria) or fear of weight gain.
- Body image concerns.
- History of eating disorder diagnosis.
- Diabetes distress.
- Fear of hypoglycaemia.
- Mental health comorbidity (e.g. depression, generalised anxiety disorder).

Relationships

- Secrecy about diabetes management, failure to request regular prescriptions, disengagement from diabetes services
- Poor school/work performance/attendance
- Conflict at home around meals and eating/diabetes management

Management of T1DE requires close collaboration between the hospital diabetes team, the eating disorder team, and the mental health team. If T1DE is suspected. A referral should be made without delay to Evolve, who will initiate collaborative multidisciplinary management on current T1DE treatment pathways. Detailed guidance on the management of T1DE can be found in MEED Annex 3.

Weighing of patients with an eating disorder

Weight stabilisation and weight restoration for patients with anorexia nervosa is likely to be one of the main aims of their hospital admission and needs to be monitored

closely and documented accurately. The patient may find this process distressing. Some patients may have been closely monitoring their weight prior to their admission perhaps weighing themselves several times a day to guide their daily nutritional intake or exercise regime. Other patient may avoid weighing themselves or may use methods such as measuring themselves or trying on certain items of clothing to make sure they still fit to obtain a sense of reassurance that they perhaps have not gained any weight.

In the hospital environment this sense of control over monitoring their own weight and shape has been lost and becomes the task of the nursing and dietetic staff. Patients may be tempted to manipulate their weight on the ward due to intense fear about gaining weight.

It may be useful to have a discussion with the patient on admission about their expected weight monitoring and come to an agreements about the boundaries around this for example:

- Before weighing, check if the patients want to be told their weight.
- Weigh in a private area on the same calibrated scales.
- Weigh in light nightwear or a gown without slippers, socks or dressing gown.
- Agree the days when weighing will take place, ideally the time should be first thing in the morning before food and drink.
- Try and avoid making comments at the time of weighing about weight gain or loss but offer general support acknowledging any distress.
- It is advised to document the weight in notes which are kept away from the bed space to avoid patients tampering with the numbers.

Height of patient

This should be taken on admission ensuring that the patient is standing straight and not slouching as this can be a method to influence the BMI Calculation. Height should be documented clearly in the notes.

Where to admit?

Patients with an eating disorder who require medical treatment are usually admitted to either:

- A gastroenterology bed for medical re-feeding

- An acute medical bed for urgent treatment (e.g., IV (intra-venous) potassium replacement, cardiac complications, stabilization of blood glucose levels)
- A general psychiatric bed
- A regional SEDU (Specialist Eating Disorder Unit) bed.
- A critical care unit (High dependency Unit (HDU) or Intensive Treatment Unit (ITU).

Where a patient should be admitted depends on the clinical state of the patient and bed availability. The patient will have several needs all of which must be met. They include treatment for nutritional and other medical problems and management of behaviours which may compromise treatment. The management of these behaviours, which may include food avoidance and concealment, exercising, falsifying weight, excessive water drinking, are best achieved on a SEDU. However, the patient may be so physically ill that admission to such a unit may not be possible. In order to decide whether a patient can be admitted to a SEDU the needs of that patient must be matched with what the unit can provide. See (Appendix One) List of Regional SEDU
MEED CR233 suggests a list of services specialist eating disorder units should be able to offer:

SEDUs and SEDBs will normally be able to offer	SEDUs and SEDBs will not usually offer
Nasogastric tube feeding (insertions may be performed off-site)	Intravenous infusion
Daily biochemical tests and ECG	Artificial ventilation
Frequent nursing observations	Cardiac monitoring
Management of compensatory behaviours (water drinking, absconding, exercising, etc.)	Central venous pressure lines
Detection, prevention and management of refeeding syndrome	Total parenteral nutrition
Sedation or restraint of a highly distressed patient	Cardiac resuscitation ('crash') team
Use and management of mental health legislation and safeguarding frameworks	Treatment of serious medical complications
Treatment of pressure sores	24-hour immediate medical availability
Immediate cardiac resuscitation without presence of cardiac resuscitation ('crash') team	
Access to advice from physicians/paediatricians and dietitians in a timely and flexibly responsive manner, ideally in the form of a MEED group	

Medical Re-feeding

The preferred route of feeding is oral and if the medical risks allow, it is recommended in MEED CR233 that the patient be given the opportunity to take oral nutrition, for a

maximum of 24 hours, before considering other routes. However, some patients fail to gain weight when fed orally. Some may opt for oral nutritional supplements or nasogastric feeding as they may feel less responsible for the weight gain, rendering it more acceptable. Others may resist weight gain, or adequate fluid intake, by any means and nasogastric feeding may be necessary. This should certainly occur if poor nutritional intake is life threatening.

Feeding with a nasogastric tube is usually a short-term measure to achieve medical stabilisation, refeeding syndrome management and initial weight gain in a critically underweight patient (See MEED risk assessment) The insertion of a nasogastric tube should be undertaken by trained staff on a medical ward and local protocols should be followed. Nasal bridles should not be used as they are not considered to be the least restrictive option. Food and fluids should continue to be offered on the ward via the usual ward catering provision regardless of refeeding risk. Psychiatric advice should be sought before embarking on insertion of a nasogastric tube against the will of the patient. (See Feeding under restraint)

Refeeding and underfeeding syndromes

Re-feeding syndrome is a potentially fatal condition that occurs when patients who have had their food severely restricted are given large amounts of food via oral or nasogastric re-feeding as well as during parenteral nutrition. Re-feeding syndrome is characterised by fluid and electrolyte shifts, which may affect many body systems and can sometimes prove fatal. The effects of re-feeding syndrome include hypophosphatemia, hypokalaemia, hypomagnesaemia and altered glucose metabolism, deranged LFTs due to fatty liver are relatively common, but are not an indication to stop nutrition. Avoidance of the syndrome can be achieved by gradually increasing nutritional intake. Fluid retention can be due to reduced renal function and reduced metabolic rate present in malnutrition and oedema can be much greater if low serum albumin and/or dehydrated. During the early phase of feeding, even without re-feeding syndrome, patients often feel worse rather than better. Providing information and reassurance regarding stomach bloating, fluid retention and rapid weight gain can help with this. HUTH Trust adult re-feeding syndrome guideline provides further information on the management of re-feeding syndrome. Available on HUTH Pattie.

MEED CR233 contains detailed guidance on safe refeeding of patients with a restrictive eating disorder. It may be that patients with a low weight presenting to the hospital are initially managed on the Suspected eating disorder pathway or the Emergency admission pathway (here), hence may commence automatically on the HUTH starter feeding regime prior to a formal review by a Dietitian. As this regime is lower that what is recommended for refeeding of patients with an eating disorder, ward staff need to be aware that underfeeding can occur therefore an urgent dietetic referral needs to be made. Underfeeding can inadvertently prolong the acute risk of potentially life-threatening undernutrition.

When a patient with an eating disorder is admitted to a medical ward, it is the sole responsibility of the HUTH dietetic team to provide a nutritional management plan and advice regarding monitoring. The medical team are responsible for ongoing physical monitoring and electrolyte replacement as per HUTH Adult re-feeding syndrome guideline available on HUTH Pattie. All dietitians are trained to recognise risks and symptoms of re-feeding and plans provided will be in line with the assessed risk. If 'eating disorder' is identified on the dietetic referral, then these patients would be prioritised by the dietitian with the aim to assess within 48 working hours. Should patients be awaiting a dietetic assessment, e.g., at the weekend or periods of demand exceeding capacity of the dietitian, then ward staff should consider prescribing oral nutritional supplement as per the HUTH oral nutrition supplement pathway available on HUTH Pattie. This plan would then be reviewed during the formal assessment by the dietitian and amended accordingly. Patients are likely to be self-limiting with food intake but if they chose to increase their dietary intake, then food should not be restricted but bloods and observations should be monitored frequently with daily correction of electrolytes as required. It may also be beneficial for the ward or dietetic team to liaise with the Specialist Eating Disorder Dietitian at Evolve - Hull Community Eating Disorder Service.

MEED identifies clinical and laboratory features of established refeeding syndrome.

Note: Not all features need to be present.

1. Severely low electrolyte concentrations:

- Potassium <2.5mmol/l
- Phosphate <0.32mmol/l
- Magnesium <0.5mmol/l

2. Peripheral oedema or acute circulatory fluid overload

3. Disturbance to organ function including respiratory failure, cardiac failure or pulmonary oedema, raised liver transaminases.

9. Referral Pathways

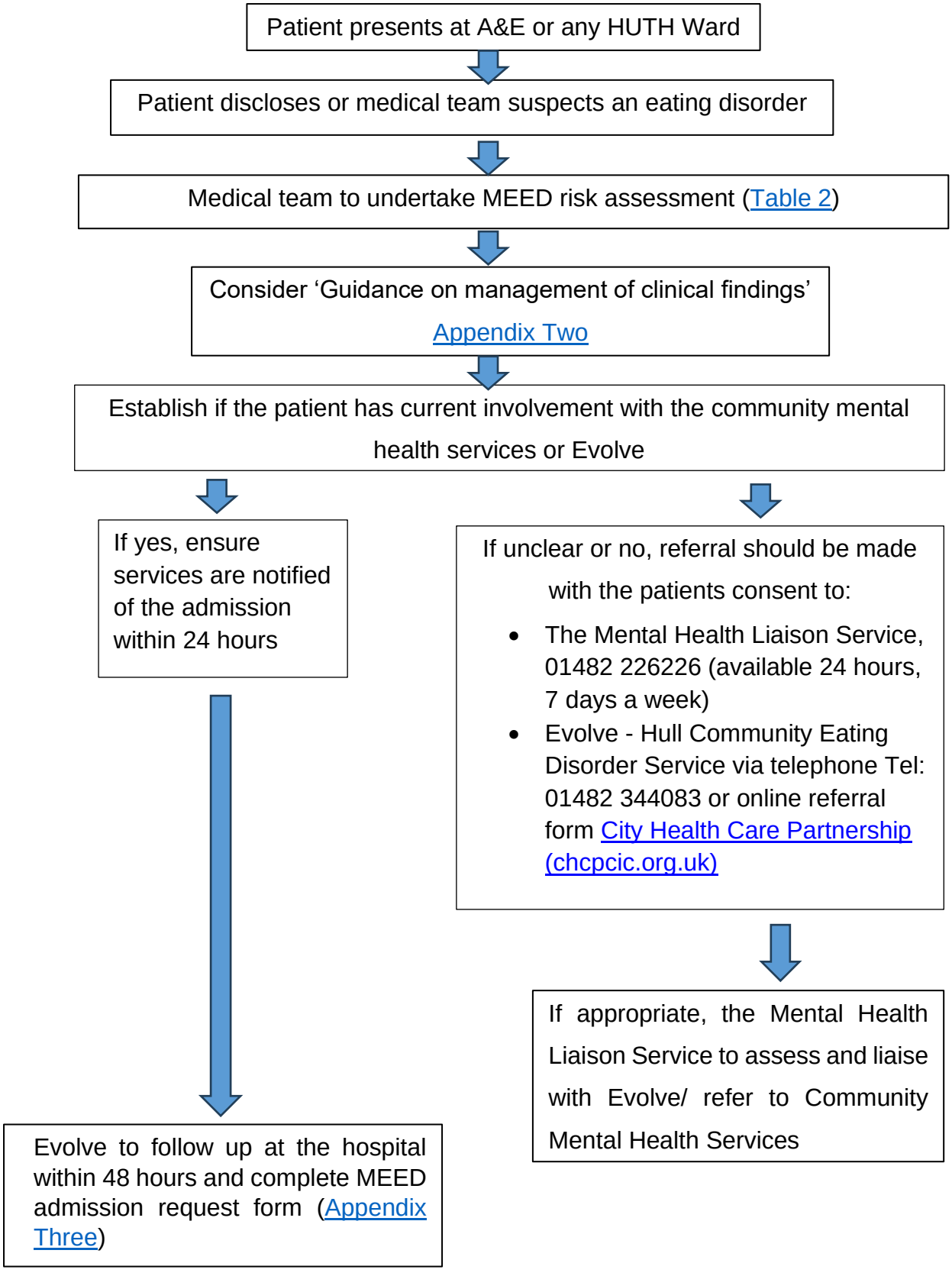
Patients with an eating disorder requiring medical treatment in HRI will be managed on the following pathways:

- Suspected Eating Disorder Pathway
- Planned Admission Pathway (Ward 100 HRI)
- Emergency Admission Pathway
- Compulsory Admission and Treatment Pathway
- Feeding Under Restraint Pathway

Suspected Eating Disorder Pathway

If an eating disorder is suspected in the hospital setting, for patients with a Hull or East Riding GP, with the patients consent, a referral can be made directly to Evolve - Hull Community Disorder Service by telephone or by using the online referral form, requesting an eating disorder assessment (see Evolve contact details in Appendix Five) If there is a need for urgent mental health intervention out of office hours, contact can be made with the Mental Health Liaison Service (See contact details in Appendix Five)

Figure 1. Suspected Eating Disorder Pathway



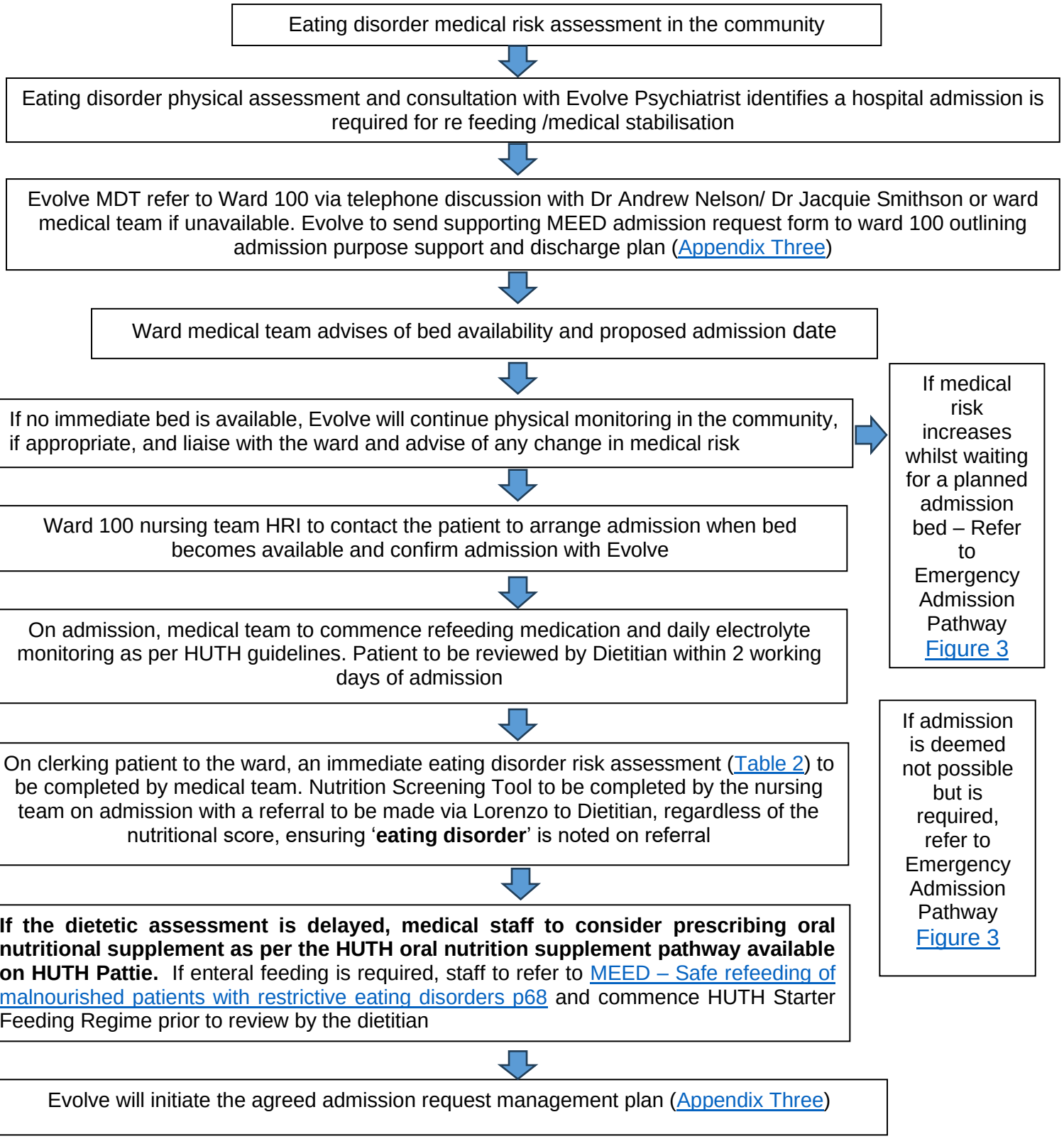
Planned Admission to gastroenterology (Ward 100, Hull Royal Infirmary (HRI))

Where possible, patients on the planned admission pathway should be admitted to the gastroenterology ward at the beginning of the working week to enable the assessment process. Patients who are admitted on this pathway will be known and actively working with Evolve - Hull Community Eating Disorder Service. In most cases, these patients will also be known to the mental health services and will have a Care Programme Approach (CPA) Care Coordinator and Psychiatrist who will work together to support the treatment process on the ward.

An admission request will be made by Evolve to the ward medical team by telephone, which will outline the current level of medical risk and reasons for admission, the ward support plan and discharge plan. Each patient will have an Evolve Key Worker who will provide a clear plan for admission and discharge which is documented in the notes using the MEED Admission Request – Supporting Information Form (See Appendix Three).

All supporting mental health professionals will remain actively involved during a patient's admission to support the patient, support the care planning and monitoring process and be available to advise the ward staff on the behavioural management of the patient if necessary.

Figure 2. Planned admission pathway to Ward 100, HRI



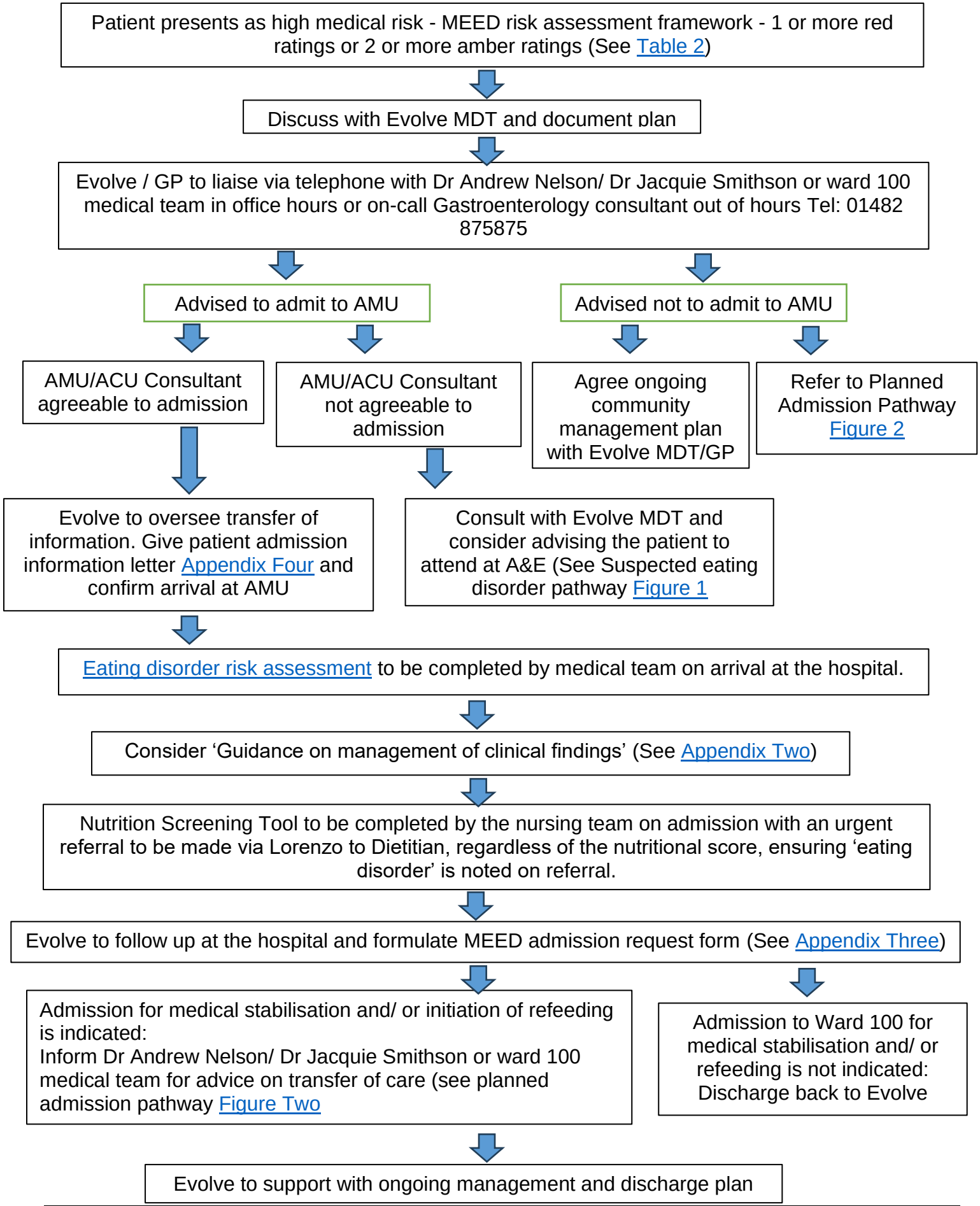
Investigations and actions to be completed on admission to ward 100 HRI

- Weigh patient and document weight on HUTH nutrition screening tool in admission paperwork.
- Height patient and document in admission paperwork, (do not rely on self reported height)
- Calculate BMI and document in admission paperwork
- Ensure the following blood tests are taken, K+, Mg + and Po4 daily and baseline Zinc and Selenium
- Medic to establish blood glucose monitoring
- Prescribe Pabrinex two pairs 1 and 2 TDS for 5 days initially –
- Prescribe Forceval multivitamin and mineral supplement –
- K+, Mg+ Po4 are below reference range correct orally or IV as per HEYH re-feeding guidelines available on HUTH Intranet
- Keep an accurate food record chart of all foods/fluids and amounts witnessed to have been taken.
- Refer to dietitian.

Management of Electrolyte Replacement

Electrolyte correction should be managed as per HUTH Trust Guidelines. Due to the relative higher level of risk in this group of patients, consideration should be given to earlier use of intravenous replacement.

Figure 3. MEED Emergency Admission Pathway



10. Compulsory admission and treatment

Some patients with eating disorders refuse life saving treatment. When treatment against the will of the patient becomes necessary, it should only be done in the context of a clear legal framework.

The hospital team should work in close collaboration with the mental health team and eating disorders team if a patient is refusing treatment or if the expected progress is not being made with their agreed medical treatment. MEED Chapter 8 offers clear guidance on compulsory admission and treatment for eating disorders.

Figure 4. MEED Compulsory Admission and Treatment Pathway

With reference to the MEED risk assessment framework (here) the managing medical team identify that the patient is not adhering to agreed treatment and there is a threat of acute deterioration, acute deterioration, or imminent risk to life.

An urgent referral should be made by the ward medical team to The Mental Health Liaison Service for consideration of treatment under the Mental Health Act.(MHLS), 01482 226226 (available 24 hours, 7 days) a week)

The MHLS will liaise directly with the Community Mental Health Team or the Mental Health Advice and Support Team if the patient is already under their care, and arrange for an assessment under the Mental Health Act to be carried out in the hospital

Should an admitted patient attempt to leave the hospital while waiting for the Mental Health Act assessment, the medical team should consider using holding powers Section 5(2) MHA. (Doctors 72 hours, Nurses 6 hours.)

These powers can be used by:

- The doctor or responsible clinician in charge of the patients care (e.g., medical consultant).
- Their nominated deputy (eg.an on call registrar)
- A registered mental health nurse or learning disabilities nurse working at the hospital
- Holding powers can not be used if the patient is not admitted to the hospital e.g., in A&E

Following the assessment, any relevant paperwork should be held in the patients notes.

Feeding Under Restraint

For some patients, due to the psychopathology of their eating disorder, are unable to accept treatment which results in weight gain, even when their life is at risk. Mental health legislation (Section 63 MHA) can be used to feed patients against their will using restraint. Decisions about feeding under restraint must be made collaboratively and under the appropriate legal framework.

https://www.bl.uk/britishlibrary/~/media/bl/global/social-welfare/pdfs/non-secure/g/u/i/guidance-on-the-treatment-of-anorexia-nervosa-under-the-mental-health-act-1983.pdf

Restraint should be used as a last resort and all other alternatives should be tried first.

If considering feeding under restraint, staff, including dietitians, should be familiar with best practice guidelines:

Enteral feeding young people with anorexia nervosa under restraint in inpatient settings | British Journal of Mental Health Nursing (magonlinelibrary.com)

The development of consensus-based guidelines for dietetic practice in nasogastric tube feeding under restraint for patients with anorexia nervosa using a modified Delphi process - PubMed (nih.gov)

The key principals of the best practice guidance highlighted in MEED CR233 include:

- Delivery of feed via push syringe bolus (not gravity bolus or enteral pump)
- Reducing the number of episodes of feeding to twice a day
- Increasing the volume of the bolus delivered as tolerated up to 1000ml per bolus.
- These principles ensure that feeds are given in line with the Mental Health Act (and equivalent UK legislation) code of practice.

Before restraint feeding commences, agreement should be reached about an exit plan from restraint feeding in the hospital. For example, transfer to SEDU when medical stability has been achieved.

Consideration should be given to ensuring the patients privacy and dignity are respected and every effort should be made to reduce the distress of the patient when feeding under restraint such as:

- Ensuring the feed happens at the agreed times.

- Consider the most appropriate method of feeding to reduce the amount of feeding time required.
- Be prepared with the feed drawn up ready at the time of feed and keep the volume of feed out of sight of the patient.
- Administer the feed from behind, if possible, to avoid the patient seeing the feed.
- Pre agree distraction techniques that may be helpful before, during and after the feeding.
- Offer the option of medication to assist with managing anxiety and distress.

Guidance advises (See links below) that following every restraint feed, an incident report should be completed. It needs to contain information about the nasogastric tube, a pH test result confirming that the feed has entered the stomach and not the lungs, which members of staff were involved in restraining the patient, what holds they used and how long the patient was restrained for.

The process of feeding under restraint can also be distressing for the staff involved therefore appropriate supervision support and debriefing opportunities should be given. Consideration should be given to using a post incident debrief and support toolkit. (Example below)

https://restraintreductionnetwork.org/uncategorized/rrn-launches-post-incident-debriefing-and-support-toolkit/

Paediatric restrictive practices and nasogastric feeding guidance (ngt-restrictive-practice.nhs.uk)

RCN-2022-NGT-feeding-under-restraint-pratical-guidance-for-childrens-nurses.pdf (rcpch.ac.uk)

MEED CR233 offers a summary of best practice:

- Medications used include oral olanzapine and oral and (rarely) parenteral benzodiazepines.
- Use the lowest dose possible because of the risk of physical complications, especially hypotension and respiratory arrest, in profoundly malnourished patients.

- Offer the patient access to psychological intervention in relation to their distress and offer clinical staff involved in delivering care, psychological supervision, or consultation.
- Ensure sedation takes place in a setting where staff are trained to manage complications.
- Monitor in medical ICU for the most severely compromised patients.
- Staff using physical restraint methods (e.g., for patients pulling out a percutaneous endoscopic gastrostomy [PEG] tube) should be appropriately trained in safe restraint specifically for patients with eating disorders.
- Close working between psychiatrists, physicians/paediatricians/intensivists and anaesthetists is essential.

Figure 5. Feeding Under Restraint Pathway

The hospital medical team consider the patient to be at high medical risk. (See Risk assessment tool) The Patient is detained to the hospital under Section 3 of MHA for treatment of their eating disorder and is resisting or not adhering to the agreed feeding/treatment in the hospital.

Medical team to explore with the patient all support options and routes of feeding i.e., oral supplements, supported intake of food at mealtimes or NG feed (bolus or continuous)

Patient is not able to agree a support plan to enable feeding or has demonstrated that they are unable to adhere to the feeding plan with the agreed support and is deteriorating or at risk of further deterioration.

The managing MEED Consultant Gastroenterologist to coordinate an emergency planning MEED meeting to discuss feeding under restraint. Expected attendance by:

- The managing Consultant Gastroenterologist (Chair)
- The managing Consultant Psychiatrist (Liaison/Community)
- CMHT Care Coordinator
- Ward Matron
- Ward Sister
- Safeguarding Lead
- Extra Care team
- Dietitian
- Representation from HUTH Mental Capacity/Dols
- Evolve Senior Eating Disorder Practitioner/Clinical Lead

Decision made to feed under restraint.

Decide in the emergency planning meeting the most appropriate and least restrictive method of restraint and location of treatment i.e., Ward or ICU and exit plan i.e., SEDU bed

Agree feeding regime, commencement date/time of first feed, frequency, including proposed timings, and method i.e., Nasogastric tube continuous/bolus.

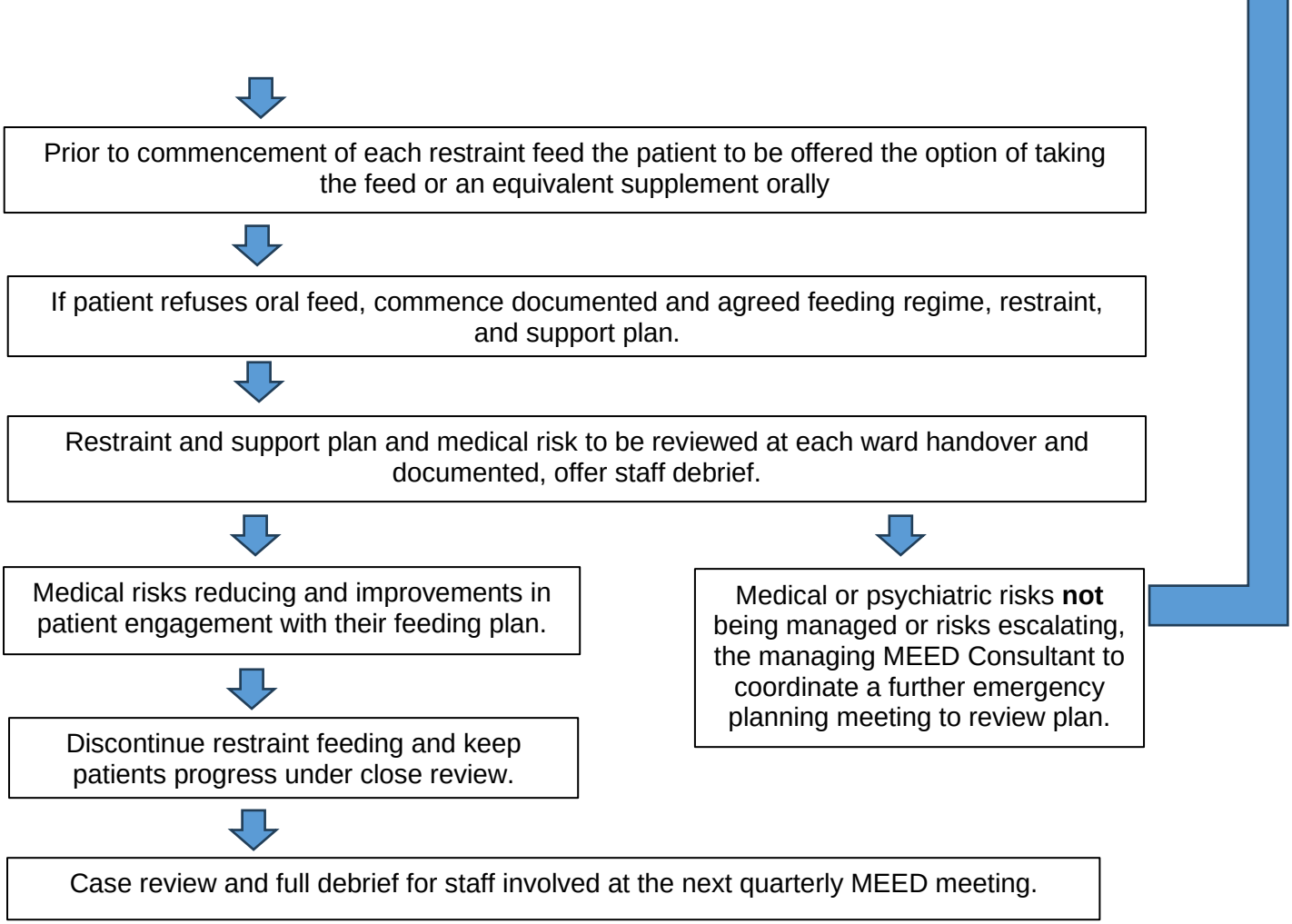
Decision made NOT to feed under restraint. Continue treatment on Compulsory admission and treatment pathway. Figure 4

Continue close monitoring of risk as per risk assessment framework and adherence to the medical treatment plan.

If further deterioration occurs or lack of progress is made, review decision.

Dols team arranges appropriately trained restraint support (Anvail) and Extra care team for additional support and observation in the event of escalation of mental health risk or if there is a risk of purging the feed

Agree appropriate action for the plan to be sensitively communicated with the patient and their carers/supporters.



Behavioural management of patients with an eating disorder on a medical unit

Patients with an eating disorder, especially anorexia nervosa, can be subject to an extreme compulsion to pursue thinness. This compulsion has been likened to addiction to heroin and patients will take terrible risks to satisfy it. They may deny that they have the compulsion to others and sometimes to themselves, and hardly be aware of their behaviours. These behaviours include falsifying weight by means such as drinking water before weighing, wearing weights or other items, and gripping the weighing machine with their toes to increase weight. They may engage in obsessive exercise such as running up and down hospital towers, standing, wiggling toes, and generally walking around. They may wear very little clothing to shiver. They may sabotage attempts at feeding by disposing of food, running nasogastric feed into the sink or a pillow and turning off drips. They may try and run away. They may vomit in the toilets. They may recruit friends and relatives to dispose of food or provide it for binges. A patient engaging in these behaviours can be very difficult and frustrating for busy ward staff to manage. Such behaviours may contribute to deterioration and sometimes death.

Where eating disorder behaviours are proving difficult to manage in the hospital environment and are negatively impacting on the patients progress with their treatment. Increased support and observation should be tried in the first instance. If this is not effective, then progressing to a formal treatment review meeting with all clinicians involved in the patient's care would be required.
For more guidance on behavioural management strategies consult MEED Chapter 6.

Use of the Mental Health Act

Under the Mental Health Act, feeding is recognised as treatment for anorexia nervosa and can be done against the will of the patient as a life-saving measure. The Mental Health Act should be considered from the outset, where a patient's capacity is doubted or if they object to the care plan. This is inclusive of any physical risk assessment, test or investigation recommended and correction or any other investigation that the medical team feel necessary for safe assessment and management.

If medical staff suspects that the Mental Health Act may be necessary, then the community mental health team should be contacted immediately. An out of hours request for assessment under the mental health act can be requested from the Mental Health Response Service.
If the patient is not known to community mental health services, the current pathway advises the ward to contact the Mental Health Liaison Service.

If the medical consultant is not satisfied with the agreed management plan, there should be direct contact between the Consultant Gastroenterologist and Consultant Psychiatrist. If there are concerns about the management, then a second opinion should be considered.

Medical consultants can no longer be the responsible clinician for a patient detained under the Mental Health Act and this duty lies with the consultant psychiatrist from the psychiatry service involved in the patients care. The responsible clinician is the approved clinician who has overall responsibility for the patient's case and will give direction for the treatment under compulsion; although the medical treatment will continue to be provided by the medical and nursing staff on the ward that are responsible for this treatment. The responsible clinician will clearly document the management plan within the medical notes (single patient record). Detailed

information about compulsory admission and treatment for eating disorders can be found in Section 8 of MEED CR233.

Nursing assessment and care planning

In view of the behaviours detailed above, it is important that on admission the above behaviours are considered and clearly documented in the nursing care plan.

For planned admissions such known eating disorder behaviours and proposed support requirements will be documented on the MEED admission request form (see Appendix Three). Because patients may search for opportunities to sabotage the refeeding process or compensate for nutrition received it is vital that any expectations are made clear to the patient and agreed boundaries are communicated clearly between nursing shifts.

The nursing care plan should be devised collaboratively with all professionals involved and must consider the patient's capacity, level of medical risk and Mental Health Act status. If any restrictions are necessary, guidance must be sought from the HUTH safeguarding team accessed through the Hull Royal Infirmary switchboard (01482 328541).

Consideration should be given to formulating a collaborative plan for managing behaviours which are contributing to a patient's medical risk. The plan should be written and agreed between the patient and the staff involved in their care. If the patient does not adhere to the management plan and the medical risks are increasing, the use of the Mental Health Act should be considered.

Staff should advise and encourage a patient to stick to their management plan. Measures taken to manage behaviour should be considered in relation to the current level of physical risk and if the patient is being treated under the Mental Health Act.

Mental health management

A patients mental health state should be closely observed, focusing on ideas of self-harm and/or ideas of suicide as well as thoughts and behaviours aimed at weight loss. It is common for people with eating disorders to have other psychiatric conditions such as obsessive-compulsive disorder, depression, or anxiety. The mental health risk, including the risk of self-harm and suicidal behaviour, may increase on admission to

the hospital due to patients increasing anxiety about receiving treatment resulting in weight gain or a reduction in the opportunity to engage in eating disordered behaviours in the hospital. Any change in a patient's mental health state should always be reported to the psychiatric team involved.

Behavioural indicators which would need to be communicated to the psychiatric team may include tampering with feed, self-harm, extreme distress, aggression and or agitation or excessive exercise.

Patients should be supported on the ward by people with training and experience in managing eating disorder behaviour. (See Training Section for e-learning) Additional staff to provide 1:1 observation may be needed on the ward to manage a patient's behaviour and reduce the risk. This should be arranged by the ward manager/ sister, using staff that have received training in supporting patients with eating disorders where possible. The cost of additional support on the ward would be met by the ward. Evolve have a resource of bank support staff who are specially trained in supporting eating disorders and may be accessed on a bank contract system.

Ongoing Physical Monitoring under Community Treatment Order (CTO)

On discharge from the ward some patients may require ongoing physical monitoring and future access to a hospital bed for stabilisation of their eating disorder risk under conditions of a community treatment order. This would be agreed by the psychiatrist and consultant gastroenterologist and reviewed as per mental health act management requirements.

10. Review, Transfer and Discharge of patients

Transfer of care of patients with an eating disorder on a medical ward (Consultant to Consultant Gastroenterology Ward 100 HRI)

Eating Disorder patients are managed by the Gastroenterology Consultant responsible for ward inpatients. Gastroenterology Consultant changeover typically occurs on a 2-weekly basis, and it is expected that a face-to-face handover will take place between consultants. Overnight handover is not generally considered necessary, unless particularly high risk and will be at the discretion of the daytime consultant. Weekend handover may be necessary in some cases, such as those in the high-risk category, those at high risk of refeeding syndrome, and those not complying with treatment or under the Mental Health Act.

From general ward/ AMU/ A&E to gastroenterology ward

Eating disorder patients should predominantly be managed on AMU or ward 100. In the instance that these patients present elsewhere in the hospital, then the ward 100 Gastroenterology Consultant and the ward Discharge Assistant should be informed that the patient requires a bed for management of their eating disorder on ward 100. Given the high risk of mortality in this patient group without appropriate management, the eating disorder patient should take priority for a bed over any elective admission patients. If immediate transfer is not possible then a Dietetic referral should be made via Lorenzo stating, 'Eating Disorder' (See Figure Three Emergency Admission Pathway).

Transfer of care from paediatric ward to adult ward

If an adult ward environment is deemed more appropriate than a paediatric ward, an admission onto ward 100 HRI could be considered from age 16 years. Liaison would be required with the paediatric team and the Children and Adolescent Mental Health Service (CAMHS) Eating Disorder Service. (See Appendix Five) The local CAMHS MEED Protocol should be used for reference and is available from the CAMHS Eating Disorder Service.

Transfer of care from medical ward to SEDU

Patients may become anxious about being transferred to another service e.g., SEDU or general psychiatric bed which may trigger compulsions relating to weight loss and increased mental health risk. Reassurance should be given, and extra monitoring considered. The transfer of patients under the MEED protocol directly from ward 100 to a SEDU for assessment or admission should be by hospital transport. The managing physician should decide whether the patient is medically stable enough to be transported and safely engage in the assessment for SEDU. Transport to a SEDU should be arranged by the discharging hospital. If the patient is transferred whilst detained under the Mental Health Act, then the appropriate MHA forms will need to be completed for transfer. The receiving service will require up to date information regarding the patient's physical status, required medication and recent behavioural observations. A discharge report using the MEED Eating Disorder Physical and Nutritional Observation Handover Form (see Appendix Six) should be completed by ward 100 and Specialist Dietitian and be communicated to the receiving service prior

to the patient being transferred. In the case of patients with Type 1 Diabetes, detailed information should be handed over about their diabetes management plan and local diabetes care team involved.

Review of care for patients with an eating disorder on a medical ward

Regular progress review meetings should take place to include the patient and family, the managing physician, a ward nursing staff representative, the patients care coordinator, psychiatrist, and a representative from Evolve. The details of the review meetings and any agreed action should be clearly documented in the patient's medical notes. At each meeting, progress should be discussed to determine whether the patient continues to require inpatient medical intervention that cannot be provided in the community or by day service treatment. Patients will have an individual support and review plan documented on their MEED Admission Request Form (see Appendix Three) within the ward medical notes. The patient can telephone Evolve for support and will receive the previously agreed level of support during their admission. The level of support required, and progress made will be collaboratively reviewed with the ward medical team, Evolve and the mental health services. Evolve will aim to attend at least 1 weekly ward round or MDT meeting on the ward. A review can be initiated by the ward as appropriate.

Discharge options from the medical ward:

Evolve will coordinate the most appropriate discharge management option:

- Evolve - day programme.
- Referral to Specialist Eating Disorder Inpatient Unit
- Community outpatient eating disorder management.
- Mental health unit bed

Patients should not remain on a medical ward any longer than deemed necessary. However, in the instance that there are no regional SEDU bed immediately available, Evolve will monitor the situation closely in collaboration with the patient's psychiatrist and the physician managing the patient on the ward. Evolve will liaise with the NHSE Case Manager about options to access an out of area bed (outside of the region) if appropriate.

11. The Hull MEED expert working group.

The MARSIPAN Report (2010; 2014) advised that trusts should establish a MARSIPAN expert working group to meet quarterly to discuss clinical issues, training, and develop care pathways for patients with anorexia nervosa. It is expected that the MARSIPAN Expert Working Group will have representation from all local Trusts at the quarterly meeting. The Hull MARSIPAN Working Group was established in 2016 and meets on a quarterly basis.

In May 2022 MEED superseded the MARSIPAN Guidance therefore the working group name changed to Hull MEED expert working group. See (see Appendix Eight) for the MEED Expert Working Group Meeting Terms of Reference.

Members of the Hull MEED Expert working group and any professionals involved in the care of a patient are formally invited to the meeting to present and discuss identified clinical cases. Professionals presenting a case should prepare by completing a MEED Expert Working Group Clinical Case Presentation Form (see Appendix Seven) Clinical discussions will be documented on the Clinical Case Discussion Form and copies provided to the meeting attendees on request (see Appendix Nine).

The Hull MEED expert working group membership 2023

The working group includes representation from Hull University Teaching Hospitals, Humber Teaching NHS Foundation Trust and Evolve – Hull Community Eating Disorder Service (CHCP CIC). See below for details of current MEED working group members.

For contact details see Appendix Ten.

Eating Disorder Nutrition Physician

This consultant nutrition physician would be made aware whenever a patient with an eating disorder was admitted to the hospital, would consult as soon as possible, and take over care in selected cases in which re-feeding is a significant part of treatment.

Current members:

- Dr J Smithson, Consultant Gastroenterologist, Ward 100, Hull Royal Infirmary
- Dr A Nelson, Consultant Gastroenterologist, Ward 100, Hull Royal Infirmary

Psychiatrist

Patients with an eating disorder admitted to a medical ward should have the full and ongoing support of a consultant psychiatrist, who should form a partnership with the physician. Input from psychiatric trainees is welcome but must be backed by involvement of the psychiatrist and regular contact between the two consultants. It is essential that psychiatrists providing support in this way be fully conversant with severe eating disorders and their management through specific training and experience.

Psychiatric support will be provided by the patient's local community psychiatrist. If a patient is waiting to be admitted to a SEDU then the receiving specialist eating disorder psychiatrist may be available for advice.

Current members:

- Dr Tarun Khanna, Consultant Psychiatrist (Evolve)

Liaison Psychiatry

The liaison psychiatrist within the Mental Health Liaison Service is available for consultation when there are patients who are newly presenting with an eating disorder and who are not under a community psychiatrist.

Current members:

- To be confirmed

Dietetics

The lead dietitian will be skilled in re-feeding provide guidelines on the refeeding of patients and will be consulted when a patient with anorexia nervosa is admitted to the hospital. The dietitian will liaise with specialist services where necessary.

Current Members:

- Penny Kingston, Lead Dietitian, Hull Royal Infirmary
- Jessica Parkin, Specialist Eating Disorder Dietitian, Evolve - Hull Eating Disorder Service
- Andrea Penascastro, Dietitian Ward 100

Nursing/Specialist Practitioner

Current Members:

- Kim Flockton, Clinical Lead, Evolve - Hull Community Eating Disorder Service
- Katharine Jones, Eating Disorder Practitioner, Evolve - Hull Community Eating Disorder Service
- Caroline Lewis, Perinatal Mental Health Team
- Rebecca Lee, Ward Sister (Ward 100 HRI)

12. TRAINING REQUIREMENTS

At induction to services all staff members are required to:

- Access, read and sign up to the Protocol.
- Have an awareness of the referenced resources.

Additional training needs to be identified via Development Review annually or as required via supervision.

For all staff involved with eating disorders it is recommended that they undertake the eLearning below.

Eating disorders training for health and care staff - elearning for healthcare (e-lfh.org.uk)

13. APPROVAL

Evolve - Hull Community Eating Disorder Service are the lead organisation in relation to the development of this protocol and will act as the lead organisation for the ratification process. This Protocol has been reviewed and approved by the stakeholders identified on the document checklist submitted to the CHCP ICS Therapeutic and Pathways Meeting which reviewed the checklist and ratified this document. Outside the lead organisation for ratification, MEED members are responsible for identifying and leading on presenting the Protocol for agreement of content as per their Trust policy.

14. MONITORING & COMPLIANCE

The Hull MEED Protocol 2023 will be monitored by the MEED expert working group with annual audits to monitor adherence to the recommendations made.

Audit standards will include:

- Establishment of a MEED expert working group

- MEED expert working group to meet quarterly and minutes to be documented and distributed to all members
- Assessment and management of medical inpatients with anorexia nervosa in line with MEED protocol and the MEED CR233

Audit results will be presented to the MEED expert working group audit meeting, which will agree actions arising from the recommendations, and monitor the progress of the actions.

15. REVIEW

This protocol will be reviewed every 3 years or sooner if prompted by changes in legislation or best practice requirements.

16. REFERENCES & ASSOCIATED DOCUMENTATION

- MARSIPAN, (2010) *MARSIPAN: Management of Really Sick Patients with Anorexia Nervosa.* Royal College of Physicians

- MARSIPAN, (2014) MARSIPAN: Management of Really Sick Patients with Anorexia Nervosa 2nd Edition. College Report CR189 Available from: rcpsych.ac.uk/usefulresources/publications/collegereports/cr/cr189.aspx

- Treasure, J., (2009) *A Guide to the Medical Risk Assessment for Eating Disorders*,
- Kings College, London

- Medical Emergencies in Eating Disorders: Guidance on Recognition and Management (2022) Royal College of Psychiatrists. College Report CR233

- https://www.bl.uk/britishlibrary/~/media/bl/global/social-welfare/pdfs/non-secure/g/u/i/guidance-on-the-treatment-of-anorexia-nervosa-under-the-mental-health-act-1983.pdf

- Paediatric restrictive practices and nasogastric feeding guidance (ngt-restrictive- practice.nhs.uk)

- RCN-2022-NGT-feeding-under-restraint-pratical-guidance-for-childrens-nurses.pdf (rcpch.ac.uk)

17. APPENDIX ONE - Regional Specialist Eating Disorder Units (SEDU)

Rharian Fields

Milton Rd, Grimsby DN33 1AX

Phone: 01472 808450

Rharian Fields :: NAViGO

Schoen Clinic

Haxby Rd, Clifton, York YO31 8TA

Phone: 01904 404400

Eating Disorder Treatment Centre | Private Eating Disorder Hospital | Schoen Clinic York (schoen-clinic.co.uk)

18. APPENDIX TWO – Guidance on Management of Clinical Findings

Table 2: Guidance on management of clinical findings

Check for/ measure	What to look for	When to be concerned	Specific management
HR	Bradycardia, postural tachycardia	<40bpm awake, or symptomatic postural tachycardia	Nutrition, monitor ECG
ECG (especially if bradycardic or any other cardiovascular system complication)	Other cause for bradycardia (e.g. heart block), arrhythmia, check QTc interval, check electrolytes, drugs	Prolonged QTc (males >450ms, females > 460ms), HR <40bpm, arrhythmia associated with malnutrition and/or electrolyte disturbances	Nutrition and correct electrolyte abnormalities, increased QTc – bed rest, discuss with cardiologist; medication for arrhythmia or bradycardia likely to be unhelpful
BP	See Table 1, Risk Assessment Framework	Systolic BP<90 or <0.4th percentile. Syncope	Nutrition and rest until postural hypotension improved; echocardiogram likely to be abnormal while malnourished
Hypothermia	Core temperature	<35.5°C	Nutrition, blankets, may need space blanket

Dehydration	Hypotension and bradycardia usually due to undernutrition	Fluid refusal, signs of dehydration	Oral rehydration solution orally or via a nasogastric tube unless there is hypovolaemia; beware of giving fluid boluses unless in hypovolaemia – cardiac compromise or hyponatraemia may occur; check

Check for/ measure	What to look for	When to be concerned	Specific management
			electrolytes and renal function
Hypovolaemia	Tachycardia or inappropriate normal HR in undernourished person, hypotension and prolonged capillary refill time		Senior medical/paediatric review. Normal saline 10ml/kg bolus, then review. If IV fluids are used then these should usually be normal saline with added KCl, with added electrolytes, e.g. phosphate, as required; consider other factors, e.g. intercurrent sepsis, as contributors
Other features of severe malnutrition	Skin breakdown and/or pressure sores		Nutrition. If skin breakdown or pressure sores present, seek specialist wound care advice. Avoid prolonged bed rest. Use special mattress and cushion.

Evidence of vomiting or laxative abuse	Low potassium, metabolic alkalosis or acidosis, enamel erosion, swollen parotid glands, calluses on fingers	Hypokalaemia as below, uncontrolled vomiting with risk of oesophageal and other visceral tears	Specialist nursing support and supervision to prevent vomiting
Hypokalaemia	Likely to be due to purging. Note: normal electrolyte level does not exclude medical compromise	<3.0mmol/L obtain medical/paediatric opinion, consider admission and	Correction; Consider IV initially if <2.5mmol/L (oral supplements may still be vomited); Beware

Check for/ measure	What to look for	When to be concerned	Specific management
		cardiac monitoring	hyperkalaemia. Monitor ECG
Hyponatraemia	Consider water-loading, medications, such as SSRIs, and diuretics. Check urine osmolality	Consider admission, obtain medical/ paediatric opinion,	Specialist nursing supervision to prevent water-loading. IV correction, proceed with caution. Review medication if needed.
Other electrolyte abnormalities	Check phosphate, magnesium, calcium. Consider refeeding syndrome	Follow refeeding guidelines	See Figure 4: Refeeding decision tree
Hypoglycaemia	Blood glucose by finger-prick and venous sample. Urine or blood ketones.	Occurs in very severe emaciation due to low glycogen stores, Usually accompanied by ketones.	Check for additional (e.g. sepsis) or alternative (Addison's disease, insulin abuse) diagnoses. If symptomatic, e.g. coma, give IV glucose. Otherwise, give food or complex carbohydrate preparations
Mental health risk or safeguarding/family	Suicidality, evidence of self-harm, family not coping	Urgent psychosocial evaluation. For <18s, may need admission for protection and assessment	If emotionally unstable personality disorder is suspected, avoid admission if possible and refer for urgent psychological treatment

Key: BP = blood pressure; bpm = beats per minute; IV = intravenous; ECG = electrocardiogram; HR = heart rate; KCl = potassium chloride; kg = kilogram; mmol/L = micromole per litre; ms = millisecond; QTc = corrected QT interval; SSRIs = selective serotonin reuptake inhibitors

19. APPENDIX THREE – MEED Admission Request Form – Supporting Information

MEED Admission Request - Supporting Information				
Date and time of telephone request for planned admission:		**Date:**		**Time:**
Discussed with:	**Name:**	**Designation:**		**Ward:**
Agreed planned admission date and details:				
Patient Name:				
D.O.B.:				
Address:				
Tel No.:				
NHS No.:				
Hospital No.:				
Name of referrer:				
Referring Service:				
Contact details of referrer:				
Legal Status:		**Informal admission:**	**Yes X No**	
		Details:		
Reasons for Admission Request:				
Patient History: *(include behaviours which may impact on the refeeding process, self-harm risks)*				
Support Plan:				
Proposed Discharge Plan*: (i.e. transfer to specialist unit, Evolve - Day Programme, community discharge at weight goal)*				
Evolve - Hull Eating Disorder Service Contact Details				
Address:				
Tel No.:				
Key Worker Name:				
Support Worker Name:				
Eating Disorder Specialist Dietitian Name:				
Mental Health Service Contact Details				
Contact:				
Mental Health Team:				
Psychiatrist Name:				
Contact:				
Care Coordinators Name:				
Contact:				
Rapid Response Service Contact Details:				
Hospital Mental Health Team:				
Date and time of proposed first contact with patient following admission:		**Date:**		**Time:**

20. APPENDIX FOUR – A&E Letter

Evolve – Hull Community Eating Disorder Service
City Health Care Partnership CIC
The Calvert Centre
110A Calvert Lane
Hull
HU4 6BH
Tel: 01482 344083

Private and Confidential

Dear A&E Doctor

RE: Eating Disorder Hospital Pathway- Medical Emergencies in Eating Disorders (MEED)

I have an eating disorder and I am under the care of Evolve – Hull Community Eating Disorder Service.
I am attending the hospital either because my treatment team think that the medical risk is high and requires further assessment and monitoring at the hospital, or because I am struggling with my eating disorder at home and feel unwell.

If you are not sure about what is required, a check list is printed on the reverse side of this letter. The eating disorder team at Evolve are available Monday-Friday 9-5pm Tel: 01482 344083. Please contact them to discuss my care if needed.

Please ask me about:

- Ask me about my weight, have I lost weight, how I like to be weighed and if I want to know my weight.
- When I last ate and drank, what it was and quantities, and if I need any support to eat while I am waiting.
- How I feel in my mood, if I have any other mental health problems, and if I have any thoughts of self-harm or suicide.
- If I engage in any behaviours that might put me at risk like self-induced vomiting, taking too many laxatives or any other medications to lose weight.
- If I would like my supporters to wait with me and know the results of my tests.

If I need to be admitted to the hospital, please refer to the guidance in the Hull and East Riding Medical Emergencies in Eating Disorders Protocol (MEED) which can be found on HUTH Pattie.

Yours sincerely

Appendix 3: Medical emergencies in eating disorders risk checklist for clinicians

Assessing

Does the patient have an eating disorder?

Yes: Anorexia nervosa- Bulimia nervosa- Other

Not sure: **Request psychiatric review**

Is the patient medically compromised?

- ☐ BMI <13 (adults); m%MBI <70% (under 18)?
- ☐ Recent loss of >1kg for 2 consecutive weeks?
- ☐ Acute food or fluid refusal/intake <400kcal per day?
- ☐ Pulse <40?
- ☐ BP low, BP postural drop >20mm, dizziness?
- ☐ Core temperature <35.5°C?
- ☐ Na <130mmol/L?
- ☐ K <3.0mmol/L?
- ☐ Raised transaminase?
- ☐ Glucose <3mmol/L?
- ☐ Raised urea or creatinine?
- ☐ Abnormal ECG?
- ☐ Suicidal thoughts, behaviours?

Is the patient consenting to treatment?

Yes:

No: Mental health assessment requested

Refeeding

High risk for refeeding syndrome?

- ☐ Low initial electrolytes
- ☐ BMI <13 or m%BMI <70%
- ☐ Little or no intake for >4 days
- ☐ Low WBC
- ☐ Serious medical comorbidities, e.g. sepsis

High risk? Management:

- **<20 kcal per kg per day**
- **Monitor electrolytes twice daily**
- **build up calories swiftly**
- **avoid underfeeding**

Lower risk? Management:

- **Start at 1,400–2,000kcal per day (50 kcal/kg/day) and build by 200 kcal/day, to 2,400kcal/day or more**
- **Aim for weight increase of 0.5–1kg/week**
- **Avoid underfeeding**

Monitoring

- ☐ Electrolytes (especially P, K, glucose)
- ☐ ECG
- ☐ Vital signs
- ☐ BMI

Managing

Are medical and psychiatric staff collaborating in care?

Yes:

No: Psych. consultation awaited

Are nurses trained in managing medical and psychiatric problems?

Yes

No and appropriately skilled staff requested/training in place

Are there behaviours increasing risk?

- ☐ Falsifying weight
- ☐ Disposing of feed
- ☐ Exercising
- ☐ Self-harm, suicidality
- ☐ Family to stress/anxiety
- ☐ Safeguarding concerns

Mobilise psychiatric team to advise on management

Note:
m%BMI = mean percentage BMI

Please do not use BMI as a single indicator of risk

of MEED CR233 college-report-cr189.pdf (rcpsych.ac.uk)

21. APPENDIX FIVE – Local Mental Health Service Contact Details (reviewed July 2023)

Hull and East Riding Mental Health Response Service
Miranda House
Gladstone Street
Hull
Tel: 01482 216 624

Hull and East Riding Home Based Treatment Team
Miranda House
Gladstone Street
Hull
Tel: 01482 336699

Hull and East Riding Mental Health Inpatient Units

- Avondale 01482 216624
- Newbridges 01482 335835
- Westlands 01482 335647
- Mill View Court 01482 344530
- Hawthorne Court 01482 336830
- Psychiatric Intensive Care Unit (PICU) 01482 216624

Hull and East Riding Community Mental Health Teams (CMHT)

Hull:

- **West Hull CMHT,** Waterloo Centre, 01482 335710
- **East Hull CMHT,** The Grange, 01482 303740
- **Early Intervention in Psychosis team (PSYPHER),** Townend Court, 01482 336786

East Riding:

- **Bridlington CMHT,** Crystal Villas, 01262 401292
- **Driffield CMHT,** Market Place, 01377 208370
- **Goole CMHT,** Bartholomew House, 01405 608220
- **Beverley CMHT,** Beverley Health Centre, 01482 344460
- **Haltemprice CMHT,** College House 01482 335959
- **Holderness CMHT,** Rosedale Community Unit, 01482 344400

PSYPHER - Psychosis Service for People in Hull and East Riding
Townend Court
Block A
298 Cottingham Road
Hull
HU6 8QG
Tel. 01482 336786

Hull and East Riding Child and Adolescent Mental Health Service (CAMHS)

Contact Point
Hull
01482 303688

East Riding of Yorkshire
01482 303810

Hull and East Riding CAMHS Crisis Response Team
01482 301701

Hull and East Riding CAMHS Eating Disorder Service
01482 347886

Inspire CAMHS Inpatient Unit
01482 303680

Primary Care Mental Health Services
Hull

- **Let's Talk** Tel: 01482 247111

Email: www.letstalkhull.co.uk

East Riding Of Yorkshire

NHS East Riding Talking Therapies (humber.nhs.uk)

Tel: 01482 335451
HNF-TR.SelfReferral@nhs.net

Hull and East Riding Hospital Mental Health Service (adult)

Mental Health Liaison Service Tel: 01482 226226

Department of Psychological Medicine
A&E mental Health Liaison Team
Psychiatry Liaison General Team
Perinatal Team

Department of Psychological Medicine
Gladstone Street
220-236 Anlaby Road
HULL
HU3 2RW
Tel. 01482 675376
Fax 01482 675389

Hull and East Riding Recovery support services

Hull ReNew Recovery Hub
Trafalgar House
43-45 Beverley Road
Hull HU3 1XH
01482 620013
earlyhelp.hull@cgl.org.uk

East Riding Partnership:
Contact Details:

Hull
East Riding Partnership Central Hub
7 Baker Street
Hull
HU2 8HP
Tel: 01482 336675
Email: hnf-tr.erphull@nhs.net

Goole
East Riding Partnership West Hub
100 Boothferry Road
Goole
DN14 6AE
Tel: 01405 608210
Email: hnf-tr.erpgoole@nhs.net

Bridlington
Becca House
27 St John's Avenue
Bridlington
YO16 4ND
Tel: 01262 458200
Email: hnf-tr.erpbridlington@nhs.net

Evolve - Hull Community Eating Disorder Service
The Calvert Centre
Calvert Lane
Hull
HU4 6BH
Tel: 01482 344082
Email: chcp.evolveeatingdisorders@nhs.net

22. APPENDIX SIX – MEED Eating Disorder Physical and Nutritional Observation Handover Form

MEED Eating Disorder Physical and Nutritional Observation Handover Form

The below physical and nutritional health information is required to facilitate and ensure the safe transfer of eating disorder patients from the acute hospital ward to specialist eating disorder treatment settings. For further information on management please refer to the Hull MEED protocol.
To support the safe transfer of care from Ward ……. Hull Royal Infirmary to ……..

Patient Name:	**DOB:**	**NHS Number:**
Basic Observations		
Examination	**Results**	**Date**
BP (systolic/ diastolic)		
Postural Drop		
Pulse		
Temperature		
Height		
ECG/ QTC (Please Attach)		
Blood biochemistry *(attach results where possible):*		
FBC		
U&E's - **Including:**		
Phosphate		
Magnesium		
Potassium		
Bicarbonate		
Glucose		
LFT's		
Additional/ relevant blood biochemistry		
Weight History		
Admission Weight (kg):	**BMI:**	**Date/Time of day recorded:**
% percentage weight loss/ gain (please circle as appropriate):		**Over:**
Spot Weight on Discharge (kg):	**BMI:**	**Date/Time of day recorded:**
% percentage weight loss/ gain (please circle as appropriate):		**Over:**
Current risk of refeeding syndrome:		

Additional/ Relevant Weight History Information:

Nutritional History				
Dietary Intake at admission: .....Kcal/day Protein: ..... g/day Fluids: ..... ml/ day				
Dietary Intake at discharge: .....Kcal/day Protein: ..... g/day Fluids: ..... ml/ day				
Route of feeding: **Please tick appropriate box*	**Oral intake only**	**Nasogastric and oral intake**	**Nasogastric only**	**Other**
Nasogastric Feed Regime at discharge:	**Feed type .....at ..... ml/hour delivered via pump/bolus** **Timing of feed .....**			
Nasogastric Feed regime at discharge:	**Energy .....Kcal/day Protein..... g/day Fluids ..... ml/day** **Additional fluids ..... ml/day**			

Description of any oral dietary intake at discharge including any oral nutritional supplements *(attach meal plan):*	
Oral intake provides:	**Energy .....Kcal/day Protein..... g/day Fluids ..... ml/day**
Oral Nutritional Supplement provides:	**Supplement Type ..... Times per day.....** **Energy .....Kcal/day Protein..... g/day Fluids ..... ml/day**
Detail any relevant medications prescribed at discharge:	
Any other relevant information (*inc any compensatory/ ED behaviours*:	

Completed by Name .....Designation .....

Telephone/Email contact:

Signed:

Date:

23. APPENDIX SEVEN – MEED Expert Working Group – Group Clinical Case Presentation Form

Client name:	
D.O.B:	
Address:	
NHS Number:	
GP Name & Address:	
Care Coordinators:	
Date, Time & Venue:	

Brief history of patient involved with mental health Services. Who is currently involved?

History of eating disorder i.e. any inpatient admission?

What is your own involvement and how is it going?

Current risks (mental health and physical)

Issues to be shared with group (what are the difficulties associated with the case, what is going well)

What are you hoping to get by bringing this case to the supervision group? E.g. ideas re intervention/management.

Are there any useful supporting documents to bring i.e. risk and relapse (FACE), assessment documents and eating disorder assessment?

Any discharge / transfer plans (any current ideas)?

Notes:

24. APPENDIX EIGHT – MEED Expert Working Group Terms of Reference

Updated July 2023

Terms of reference

The Terms of Reference is effective from July 2023 and will be reviewed every 12 months.

Meetings will be held over Microsoft Teams, quarterly for 90 minutes (13:00 – 14:30) on a Friday.
The group can be brought together at any time to discuss the management of high risk cases.

Role & Purpose of the MEED Working Group Meeting

- To create a forum to bring complex cases, gain supervision, sharing of roles, treatments and ideas.
- To discuss national guidance and recommendations.
- To discuss research and best practice.
- Discuss and manage any procedural issues/ setbacks in applying the protocol.
- To identify any training needs, opportunities and offer feedback from training attended.
- Invite external speakers to share best practice.
- To audit the MEED protocol

Membership

The MEED Working Group Meeting will comprise of:

- All members of the MEED Working Group.
- Students on placement.
- Community staff presenting cases

Members of the MEED Working Group Meeting will expect:

- To send any agenda items to the Chair in advance of the meeting.
- To send apologies for non-attendance to the Chair in advance of the meeting.
- To complete a Case Presentation pro forma prior to the meeting and send to the chair in advance to distribute to members of the group prior to the meeting.
- To document discussion of complex cases within the meeting using the MEED Case Discussion pro forma and attach to client healthcare records.

25. APPENDIX NINE – Clinical Case Discussion Form

Client name:	
D.O.B:	
NHS Number:	
GP Name & Address:	
Practitioner Presenting Case:	
Care Coordinators:	
Date, Time & Venue:	

Main themes of discussion:

Areas of good practice noted:

Considerations for further clinical supervision:

Any agreed actions:

Practitioner present	Designation	Signature

26. APPENDIX TEN – MEED Expert Working Group Members list 2023

Dr J Smithson
Consultant Gastroenterologist
Hull Royal Infirmary
Ward 100
Anlaby Road
Hull
HU3 2J2
01482 816792
Jacquelyn.smithson@hey.nhs.uk

Dr Andy Nelson
Consultant Gastroenterologist
Hull Royal Infirmary
Ward 100
Anlaby Road
Hull
HU3 2J2
01482 816792
andrew.nelson1@nhs.net

Dr Michael Lacey
Consultant Psychiatrist
Department of Psychological medicine
Clarendon House
Park Street
Hull
North Humberside
Hull
HU2 8TD
01482 617735

Dr Tarun Khanna
Consultant Psychiatrist (Evolve)
Evolve
The Calvert Centre
Calvert Lane
Hull
HU5 2ST
01482 344083
tarun.khanna@nhs.net

Penny Kingston
Lead Dietitian
Hull Royal Infirmary
Anlaby Road
Hull
HU3 2J2
01482 875875
Penny.kingston@hey.nhs.uk

Jessica Parkin
Specialist Eating Disorder Dietitian
Evolve
Hull Community Eating Disorder Service
The Calvert Centre
Calvert Lane
Hull
01482 344083
Jessica.parkin1@nhs.net

Kim Flockton
Clinical Lead
Evolve
The Calvert Centre
Calvert Lane
Hull
01482 344083
Kim.flockton@nhs.net

Katharine Jones
Eating Disorder Practitioner
Evolve
Hull Community Eating Disorder Service
The Calvert Centre
Calvert Lane
Hull
01482 344083
Katharine.jones2@nhs.net

Caroline Lewis
Specialist Perinatal Mental Health Nurse
Perinatal Mental Health Liaison Team
Hawthorn Court
Beverley
01482 336837
Caroline.lewis1@nhs.net