# Guidelines for treating patients with Anorexia Nervosa when admitted as a medical emergency

University Hospitals of Leicester NHS
NHS Trust
**Trust Reference E2/2012**

## 1. Introduction

Anorexia Nervosa is a serious illness with the highest mortality rate of any functional psychiatric illness. Whilst the primary treatment is psychological management usually delivered by specialist eating disorder services, patients will occasionally reach a state of physical collapse and require medical, sometimes lifesaving, interventions. Patients with anorexia nervosa often do not recognise the severity of or possible fatal consequences of the illness and they can remain ambivalent or resistant to treatment, even to the last. Often anorexia nervosa is a maladaptive way of the patient managing deeply held anxieties with a sense of needing to be "in control", central to the disorder. Admission to medical wards is by its nature anxiety-provoking for patients who subsequently do not feel in control of their environment and nutritional intake. Anorexic behaviors can be worse when patients are admitted and advice on the general management of patients on medical wards is available through the Royal College of Psychiatrists Medical Emergencies in Eating Disorders guidance and through liaison with Leicestershire Adult Eating Disorder service.

## 2. Scope

These guidelines provide procedural guidance for medical, nursing and dietetic staff within University Hospitals of Leicester NHS Trust, who are responsible for providing care and treatment to this group of patients.

Extensive guidelines and advice are available on the medical management of patients with eating disorders in: **"Medical Emergencies in Eating Disorders Guidance on Recognition and Management"** which has replaced the previous "Marsipan" guidance

www.rcpsych.ac.uk/CR233

## 3. Process

### Presentation

Rarely, these patients may require admitting to a medical bed, ideally to a gastroenterology ward.

Patients may present with a deteriorating physical state due to ongoing weight loss if in the active phase of anorexia nervosa or due to destabilisation of a chronic picture for those who have been underweight for a prolonged period of time .

The deterioration of physical state in an individual who has previously maintained a low BMI, should not be inferred as the natural endpoint of a chronic illness but rather an indication that some new event has occurred. Sudden deterioration is often related

to occult infection. The presentation of sepsis in patients with anorexia nervosa is often atypical and may include: hypothermia, low or normal white cell count, disordered liver function, hypoglycemia, dehydration, extreme glycogen deficiency and low micronutrient levels. In all presentations inpatients with anorexia nervosa are recognised to be at high risk of refeeding syndrome but are also at high risk of further starvation. Deaths have occurred with both refeeding and underfeeding and whilst co-morbid conditions are being investigated and treated, the focus must remain on the nutritional management of these patients. Failures in NHS care causing preventable deaths were highlighted in the ombudsmen report following the death of Averil Hart.

## Arrangements for for Admission :

- Elective admission will usually have been arranged by an Eating Disorders Service consultant in conjunction with the lead nutrition clinician in UHL NHS Trust, Dr James Stewart, and the receiving medical team will have been briefed accordingly.

- In an emergency during working hours the Gastrointestinal (GI) Registrar of the Week should be informed to arrange admission and/or urgent clinical review (see flow chart). Admission should be directly to a gastroenterology ward or to the Acute Care Bay on AMU East at the Leicester Royal Infirmary when no gastroenterology bed is immediately available.

- If the admission is unplanned and/or out of hours Leicestershire Adult Eating Disorders Service (LEADS), or another appropriate eating disorders mental health consultant, and Dr Stewart (or in their absence Dr Stewart's registrar) should be informed about the admission within 12 hours or sooner if the patient is deteriorating to ensure that specialised advice is accessed.

| **Assessment**<br>Patients who are admitted for Anorexia Nervosa in extremis should have the following baseline assessment: | |
|---|---|
| **No.** | **Action** |
| 1. | <u>A comprehensive physical assessment</u><br>Including weight, height, BMI, assessment of hydration, cardiovascular status, muscle wasting and skin integrity. An Early Warning Score should be calculated.<br><br>Hypotension, or postural hypotension, is common and hypothermia may be present. |
| 2. | <u>Baseline Investigations</u><br>Full Blood Count (FBC), C-reactive protein (CRP), serum biochemistry to include urea and electrolytes (U&E), calcium, phosphate, glucose, liver function tests (LFTs), INR, thyroid function, vitamin $B_{12}$, folate, iron, ferritin, magnesium, copper and zinc. An electrocardiogram (ECG) is also required. |
| 3. | <u>Sepsis Screen</u><br>This is mandatory. It should include CXR, urine dip, MSU and blood cultures. |

| **Management** | |
|---|---|
| 1. | <u>Initial Management</u><br><br>Intravenous correction of hypoglycaemia and dehydration.<br>Empirical antibiotics should be considered.<br>Hypokalaemia may be present due to poor intake and/or vomiting/purging/laxative abuse and should be corrected.<br>. |
| 2. | <u>Dietetic Management</u><br>Dietetic involvement should be arranged as early as possible and should not be deferred to a specialist eating disorder dietitian.<br><br>A detailed dietary assessment should be undertaken to assess macronutrient and micronutrient status, although patients usually overestimate their intake. |

| Management | |
|---|---|
| | Patients should be prescribed oral/\iv thiamine replacement<br><br>Although normal food and fluids should ideally be used, this may not initially be accepted by the patient. In this situation further nutritional support may be required.<br><br>Nutritional support may take several forms: non-prescribable nutritional supplements, prescribable nutritional supplements or enteral tube feeding.<br><br>Parenteral nutrition is rarely if ever indicated.<br><br>Anorexic patients are at high risk of developing refeeding syndrome especially if enteral tube feeding is used.<br><br>Those at highest risk of refeeding syndrome are those with::<br><br>BMI<13kg/m2<br>Little/no intake for >4 days<br>Hypophosphataemia<br>Hypomagnasaemia<br>WCC <3.8<br><br>Dietetic assessment should be sought for this high risk group before artificial enteral feeding commences. If this is not possible follow UHL Clinical Guideline for Out of Hours Enteral Tube Feeding (Nasogastric) Adults.<br><br>Prior to enteral tube feeding all patients should be given IV phosphate and pabrinex to reduce the risk/prevent refeeding syndrome. This can be given synchronously with the feed and should not delay feeding.<br><br>Current guidelines (British Dietetic Association) recommend 30-35kcal/kg/day with the rate being increased by 200-300 kcal every 2-3 days<br><br>All patients on enteral tube feeding should be carefully monitored for refeeding syndrome |

| Monitoring | |
|---|---|
| 1. | Monitoring<br><br>Patients should be weighed twice per week. In the event that the patient refuses to be weighed, the Eating Disorders Service should be informed.<br><br>Daily blood pressure, temperature and pulse (unless clinical condition merits more frequent observation).<br><br>Strict fluid balance charts should be kept to include oral, enteral and intravenous fluids and urine output. |
| 2. | Biochemical monitoring<br><br>Serum electrolytes, phosphate and magnesium should be measured daily until stable; in particular venous plasma glucose should be measured at least daily until stable..<br><br>Electrolyte deficits should be corrected usually with IV replacement. |

| Monitoring | |
|---|---|
| | For guidance on the likely requirement of potassium, phosphate and magnesium in patients at high risk of developing refeeding problems, refer to: *CG32 Nutrition support in adults: oral nutrition support, enteral tube feeding and parenteral nutrition* (NICE 2017), **unless** pre-feeding levels are high.<br><br>For information on approved methods of correction of low serum concentrations see *Potassium Solutions for Intravenous Administration Including Guideline for Hypokalaemia UHL Policy*<br><br>NB Pre-feeding correction of low plasma levels is unnecessary and should not delay starting feeding. |

- Re-feeding oedema occurs in a substantial proportion of patients undergoing re-feeding. The mechanism is uncertain but may relate to rising insulin levels (not hypoproteinaemia).

- Following admission to UHL these patients will usually be cared for on a shared care basis between the Adult Nutrition Team and LAEDS.

- LAEDS team will provide support for the psychological care of these patients with daily contact if necessary. Out-of-hours advice and support can be requested from Langley Ward, Bennion Centre, Glenfield Hospital, Groby Road, Leicester. Very rarely these patients may be subject to the Mental Health Act (MHA). In this case direction must be taken from LAEDS and the UHL MHA Policy.

- It is of importance to recognise that naso-gastric feeding to treat anorexia nervosa against the patient's wishes is permissible when that patient is sectioned under the MHA. This is clearly supported by common law.

If a patient is not being detained under the MHA, it may be also be possible to provide care and treatment in the form of naso-gastric feeding under the Mental Capacity Act (MCA) if the patient lacks mental capacity to make decisions about proposed care and treatment at the time those decisions are required. The UHL MCA policy is available to support staff with the Act (available on INsite Document ID: 2735788666). Any best interest decisions under the MCA should be shared between the physician and psychiatrist involved, in consultation with others.

- Dr Stewart's team will provide the medical treatment necessary for these patients.

## 4. Monitoring and Audit Criteria

All guidelines should include key performance indicators or audit criteria for auditing compliance

| Key Performance Indicator | Method of Assessment | Frequency | Lead |
|---|---|---|---|
| Adherence to policy | Due to the infrequent nature of these admissions each case should be reviewed post discharge with respect to policy adherence. | Review of policy adherence per admission | LAEDS/Stewart |

## 5. Further information / Supporting References

- Medical Emergencies in Eating Disorders: Guidance on Recognition and Management RCPsych CR233 2022
- https://www.rcpsych.ac.uk/improving-care/campaigning-for-better-mental-health-policy/college-reports/2022-college-reports/cr233

- National Institute for Health and Clinical Excellence (2006) *CG32 Nutrition support in adults: oral nutrition support, enteral tube feeding and parenteral nutrition.* Date issued: February 2006. Updated 2017 Accessed via: https://www.nice.org.uk/guidance/cg32

  Potassium Solutions for Intravenous Administration Including Guideline for Hypokalaemia UHL Policy
  http://insitetogether.xuhl-tr.nhs.uk/pag/pagdocuments/Potassium%20Solutions%20for%20Intravenous%20Administration%20Including%20Guideline%20for%20Hypokalaemia%20UHL%20Policy.pdf

- University Hospitals of Leicester NHS Trust (2005) *Policy and procedures for the insertion and post-insertion management of a nasogastric tube in adults, children and infants.* Accessed via:
  INsite Documents: Article No. 24340. Latest version: November 2008

- Out of Hours Enteral Tube Feeding (Nasogastric) Adults UHL Guideline
- http://insitetogether.xuhl-tr.nhs.uk/pag/pagdocuments/Out%20of%20Hours%20Enteral%20Tube%20Feeding%20(Nasogastric)%20Adults%20UHL%20Guideline.pdf

- Nasogastric and Orogastric Tubes in Adults UHL Policy

  http://insitetogether.xuhl-tr.nhs.uk/pag/pagdocuments/Nasogastric%20and%20Orogastric%20Tubes%20in%20Adults%20UHL%20Policy.pdf

- Guideline for the Clinical Dietietic Management of Adult Inpatients at Risk of

Refeeding Syndrome (2021)

- http://insitetogether.xuhl-tr.nhs.uk/pag/pagdocuments/Risk%20of%20Refeeding%20Syndrome%20UHL%20Nutrition%20and%20Dietetics%20Guideline.pdf

## 6. Legal Liability Guideline Statement

Guidelines or Procedures issued and approved by the Trust are considered to represent best practice. Staff may only exceptionally depart from any relevant Trust guidelines or Procedures and always only providing that such departure is confined to the specific needs of individual circumstances. In healthcare delivery such departure shall only be undertaken where, in the judgement of the responsible healthcare professional' it is fully appropriate and justifiable - such decision to be fully recorded in the patient's notes

## Appendix A

This table is used to track the development and approval of the document and any changes made on revised / reviewed versions

| DEVELOPMENT AND APPROVAL RECORD FOR THIS DOCUMENT | | |
|---|---|---|
| **Author / Lead Officer:** | Dr J Stewart<br>Dr R Cashmore – LPT | **Job Title:**<br>**Cons Gastroenterologist**<br>**Cons Psychiatrist** |
| **Reviewed by:** | | |
| **Approved by:** | **Policy and Guideline Committee** | **Date of Latest Approval: 17/3/2023**<br>**Date First Approved: 28/9/12** |

| REVIEW RECORD | | | |
|---|---|---|---|
| **Date** | **Issue Number** | **Reviewed By** | **Description Of Changes (If Any)** |
| Oct 2013 | 2 | Dr Cashmore | Changes to contact details in table |
| Dec 2022 | 3 | Cashmore/Stewart | Changes to text |
| | | | |

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Leicestershire Partnership NHS
NHS Trust

**Admission from Specialist Eating Disorder Unit (SEDU)**

**Admission (in hours)** SEDU doctor to liaise with on call Gastroenterology Registrar (07584772263) who can arrange admission initially to AMU and then transfer to Gastroenterology ward 42 or 43 Gastroenterology Registrar to inform Dr Stewart's team immediately.

**Admission (out of hours**) Duty Psychiatrist to liaise with on call Medical SpR who will arrange admission to AMU. AMU to then arrange transfer to ward 42 or 43 and liaise with gastro team ASAP. If physical health deterioration requires urgent admission SEDU to use 999 (see admission via A&E)

**Admission from AMU or A&E Other wards**

A&E or AMU to inform Gastroenterology Registrar to arrange transfer to a gastroenterology ward42 or 43)

If AN patients admitted to other medical or surgical wards the team should inform the gastroenterology Reg. **If AN suspected but not confirmed team may request a Liaison referral initially**

## Admission actions

**Assessment risk of Refeeding syndrome** **High risk RFS: BMI,13, little or no intake >4 days, low K, low Po4,low Mg, WCC <3.8, low thiamine and other vits (page 70 MEED )**

Baseline bloods: FBC, clotting, U&E, PO4, Mg, Ca, LFTs, TFTs, haematinics.
- Sit up & squat-stand tests: see MEED guidelines
- ECG for QT interval & bradycardia (cardiac monitoring if rate < 50, QTC >450msec, arrhythmia)
- Micronutrient Supplementation - thiamine, B Co Strong and ketovite, +/- pabrinex if indicated plus electrolyte supplementation if indicated, liaise with pharmacy/ use re-feeding guidelines
- Fluid assessment incl. oedema
- Determine level of clinical observations
- Establish EDD

**Dietetic**
- Nutritional Assessment
- Nutritional intake plan for notes and patient
- Place Re-feeding Syndrome Guidelines in notes
- Liaise with Medical team
- Liaise with catering department re special requests.

**Psychiatric**
- Assess need for Psychological Support e.g. if high levels of distress Liaise with EDU for possible specialist nursing support
- Consider use of MHA (In hours SEDU Psychiatrist Out of hours Liaison or Duty Psychiatrist)

**Nursing**

To refer to dietetic team
Directly observe and document:
- Vital Signs and EWS
- nutritional intake
- fluid intake
- blood glucose
- stool chart
- medication compliance
- Activity & bed rest

## Ongoing Actions

**Gastroentology and SEDU team**

- Inpatient care plan for patients with AN implemented (see AN care plan)
- Aims of medical admission agreed. For SEDU patients clarify criteria for transfer back to SEDU.
- Twice weekly review with Gastroenterology Consultant (incl. one weekly review with SEDU consultant)

**SEDU Team**
SEDU Team will see within 72 hours following written / faxed referral (telephone liaison with SEDU available from admission)

**Medical – Daily:**
- U & Es, Glucose, PO4, Mg Ca LFTs until stable
- monitor for signs of infection (esp. iv access)
- r/v fluid status
- r/v clinical observations requirements
- Monitor compliance with feeding plan
- communicate full plan to nursing team - may include extra observations

**Dietetic**
- Dietetic review as clinically indicated – may be daily initially
- Liaison with EDU dietician 1/week minimum
- If non-compliant with eating plan seek advice from EDU

**Psychiatric**
- Psychological support
- Consideration of MHA
- Liaise with SEDU psychiatric team x 2/week
- Support other staff and ensure role boundaries

**Nursing ( specific advice in MEED)**
Directly observe & document:
- Vital Signs and EWS
- nutritional & fluid intake
- blood glucose
- medication compliance
- activity & bed rest
- Daily r/v in handover meeting
- Weigh x 2 per wk only, unless specified differently by medics.
- SEDU nurse visit if indicated
- Be aware of compensatory behaviors (chapter 6 MEED)

Consider use of constant observation if indicated (liaise with SEDU)

**Discharge**

Gastro team and SEDU to liaise and agree appropriate discharge plan

**Alerts**
**High risk RFS: BMI,13, little or no intake >4 days, low K, low Po4,low Mg, WCC <3.8, low thiamine and other vits ( MEED guidance) see MEED advice on safe refeeding**
**Be aware of underfeeding**
Caution with IV dextrose and potassium
No Nutritional Supplements to be prescribed without dietetic input. At weekends use re-feeding guidelines available on the intranet to guide management

## Glossary

**BMI**

Body Mass Index Weight in kg divided by height in metres squared

Less than 17.5kg/m2 is part of the diagnostic criteria for anorexia nervosa

BMI of less than 13kg/m2 is an indicator of very high risk

**Compensatory Behaviours**

Patients with anorexia nervosa may try to sabotage their treatment by increasing their physical activity (pacing, exercising in their room, exercising limbs in bed). They also need to be monitored closely to ensure they do not have access to laxatives, are not vomiting secretly and are complying with their nutritional plan – e.g. they may empty feed/supplements/meals out of the window, into the bin, smear them over their body / in their hair

**SEDU** Specialist Eating Disorder Unit: Langley Ward at the Bennion Centre, Glenfield Hospital is a specialist unit part of the Leicestershire Adult Eating Disorder Service

**EWS** Early warning score (available in end of bed documentation)

**MHA Mental** Health Act: Patients with Anorexia Nervosa may be detained and treated under the Mental Health Act. Patients coming from the SEDU, who are detained under the MHA, will have a mental health nurse with them for the duration of their admission at the NMUH

**Re-feeding Syndrome**

Severe fluid and electrolyte shifts and related metabolic implications in malnourished patients who are undergoing re-feeding. Close monitoring and correction of blood results is essential to avoid complications of electrolyte abnormalities

**Sit up and Squat-Stand test**

Part of the physical examination to assess risk in patients with Anorexia Nervosa

**Contact Details**

**Contact number for Leicestershire Adult Eating Disorders Service LAEDS is 0116 2252557**
**Written referrals to be faxed to 0116 225 2684**
**The nursing team on Langley Inpatient Anorexia Unit can also be contacted on 0116 2951474.**
**UHL Dietetic Department: 0116 2585400 Bleep 4589**

**Liaison Psychiatry Team 0116 2256218**
**Consultant Gastroenterologist: Dr Stewart: 0116 2586630**
**Ward 43 0116 2586279**
**Gastroenterology registrar on call for the week: mobile 07985459112**