# Guideline for Treating Patients with Anorexia Nervosa when Admitted as a Medical Emergency

University Hospitals of Leicester NHS
NHS Trust

**Trust Reference E2/2012**

## PATIENTS PRESENTING WITH SUSPECTED OR CONFIRMED ANOREXIA NERVOSA

### AN – CONFIRMED

Inform Gastro registrar on-call 07584772263 To arrange transfer to ward 42 or Ward 43 0116 2586284

### AN – SUSPECTED

Do not discharge – refer to Liaison Psychiatry0116 2256218or on call duty Psychiatrist (via switchboard)

### Access MARSIPAN CHECKLIST(NOTE HIGH RISK INC BMI <13)

https://www.rcpsych.ac.uk/docs/default-source/members/marsipan-resources/eating-disorders-cr189-checklist.pdf?sfvrsn=d6ce3bb1_2

### ALERTS

Risk factors for refeeding syndrome incl

- Low initial electrolytes
- BMI <13
- Significant comorbidity inc infection , cardiac failure, alcoholism uncontrolled diabetes

Note risk of mortality also associated with underfeeding

### MEDICAL

- Bloods: FBC, clotting, U&E, PO4, Mg, Ca, LFT, TFT, haematinics
- Infection screen /consider empirical antibiotics
- ECG for QT interval &bradycardia (cardiac monitoring if rate < 50, QTC >450msec, arrhythmia)
- Micronutrient Supplementation iv Pabrinexand iv phosphate
- Fluid assessment incl. oedema

Start refeeding and daily monitoring according to MARSIPAN guidance .

**Note risk of Refeeding syndrome**

MARSIPAN Guideline

### NURSING

Refer to dietetic team

Refer / Inform SEDU

Document
-Vital signs / EWS
-Nutritional intake
-Fluid intake
-Blood glucose
-Medication compliance
-Activity and bed rest

### DIETETIC

Nutritional Assessment

•Nutritional intake plan
• Place Re-feeding Sticker in notes

For SEDU pts on NG feed continue existing plan and liaise with SEDU dietician

## ONGOING ACTIONS

### MEDICAL TEAM

- Agree aims of medical admission
- For SEDU patients clarify criteria for transfer back to SEDU
- Implement SEDU Inpatient care plan for patients with AN
- Regular review with Gastroenterology consultant incl once weekly liaison with SEDU consultant

### SEDU TEAM

Telephone liaison available from admission SEDU team to see within 72 hrs following formal referral .

Contact LAEDS 01162252557

Out of hrs 01162951474

### DISCHARGE

Gastro team and SEDU to liaise and agree appropriate discharge plan and follow up

If Transferred to SEDU: complete transfer document (available from SEDU) and liaise with SEDU medical team

## UHL ANOREXIA NERVOSA CARE PATHWAY: 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)

**MARSIPAN Guidelines** Management of Really Sick Patients with Anorexia Nervosa – internet link within pathway

**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 – detailed in Appendix 2 of the MARSIPAN guidelines MARSIPAN Guideline

### Contact Details

- **Leicestershire Adult Eating Disorders Service LAEDS 0116 2252557**
- **Written referrals to be faxed to 0116 225 2684**
- **Langley Inpatient Anorexia Unit nursing team 01162951474. UHL**
- **Dietetic Department: 0116 2585400 Bleep 4589**
- **Liaison Psychiatry Team 0116 2256218**
- **Consultant Gastroenterologist: Dr Stewart 0116 2586630 or mobile via UHL switchboard**
- **Ward 43 0116 2586284**
- **Gastroenterologist on call for the week: mobile 07584772263**

**MARSIPAN guidelines available on internet:** MARSIPAN Guideline

## 1.**Introduction**

Anorexia Nervosa is a serious illness with the highest mortality rate of any functional psychiatric illness. Those who suffer with it are usually females who should be in the prime of their lives. The most overt feature tends to be the extreme loss of weight due to inadequate food intake. What is more difficult to see is the extreme psychological turmoil that these patients are struggling with.

Treating these patients is a specialised business that involves trust, engagement and much patience. Occasionally they reach a state of physical collapse and, even then, remain deeply ambivalent about help. Often the anorexia is a maladaptive way of the patient managing deeply anxiety- provoking psychological issues. They can become stuck in a trap of wanting to get better on one hand, but on the other this means letting go of being able to manage terrifyingly overwhelming anxiety. Therefore ambivalence about getting better is to be expected.

## 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. They should be read in conjunction with the national *Management of Really Sick Patients with Anorexia Nervosa (MARSIPAN)* guidelines.

## 3.**Process**

### 3.1 Presentation

Rarely, these patients may require admitting to a medical bed, ideally to a gastroenterology ward. They may maintain a low Body Mass Index (BMI) for many years but then suddenly deteriorate. This should not be inferred as the natural endpoint of a chronic illness but rather that some new event has occurred. It is often the case that the sudden deterioration of an anorexic patient is related to occult infection. Owing to their disordered metabolism Anorexic patients rarely exhibit the classic signs of sepsis. They may well be hypothermic, with a low or normal white cell count and disordered liver function. In addition, they are often hypoglycaemic and dehydrated with extreme glycogen deficiency and low micronutrient levels. Furthermore inpatients with Anorexia Nervosa are classified as being high risk of developing refeeding syndrome (National Institute for Health and Clinical Excellence 2006).

### 3.2 Recommendations:

- Elective admission will usually have been arranged by an Eating Disorders Service consultant in conjunction with the lead 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. Admission should be directly to a gastroenterology ward or to the Acute Care Bay on AMU 15 at the Leicester Royal Infirmary Site when no gastroenterology bed is immediately available.

- If the admission is unplanned and/or out of hours Leicestershire Adult Eating Disorders Service (LAEDS), or another Eating Disorders Mental Health consultant, and Dr Stewart (or in his absence Dr Stewart's registrar) should be informed about the admission as soon as possible to ensure that specialised advice is accessed

| ASSESSMENT:<br>Patients who are admitted for Anorexia Nervosa in extremis should have the following baseline assessment | |
|---|---|
| 1 | A comprehensive physical assessment<br>including weight, height, BMI, Nutritional Screening using Malnutrition Universal Screening Tool (MUST) (British Association for Parenteral and Enteral Nutrition (BAPEN, 2006), assessment of hydration, cardiovascular status, muscle wasting and skin integrity. Early Warning Score will be calculated. Hypotension, or postural hypotension, is common and hypothermia may be present. |
| 2 | Baseline Investigations<br>Full Blood Count (FBC), C-reactive protein (CRP), serum biochemistry to include urea and electrolytes (U&E), calcium, phosphate, glucose, albumin, liver function tests (LFTs), INR, thyroid function, vitamin $B_{12}$, folate, iron, ferritin, magnesium, copper and zinc. An electrocardiogram (ECG) is also required. |
| 3 | Sepsis Screen<br>This is mandatory. It should include CXR, urine dip, MSU, blood cultures |

| MANAGEMENT | |
|---|---|
| 1 | Initial Management<br>Intravenous correction of hypoglycaemia and dehydration. Empirical antibiotics. Hypokalaemia may be present due to poor intake and/or to vomiting and laxative abuse and this should be corrected. |
| 2 | Dietetic Management<br>Dietetic involvement should be arranged as early as possible. A detailed dietary assessment should be undertaken to assess macronutrient and micronutrient status, although patients usually overestimate their intake<br><br>Patients should be prescribed thiamine replacement (National Institute for Health and Clinical Excellence 2006).<br><br>Although normal food and fluids would ideally be used, this may not initially be accepted by the patient. Nutritional support may take several forms; non-prescribable nutritional supplements, prescribable nutritional supplements, enteral tube feeding or, in the event of a non-functioning gut, parenteral nutrition.<br><br>Dietetic assessment should be sought for this high risk group before artificial enteral feeding commences. If this is not possible follow *Clinical Guideline for Starting Administration of a Nasogastric Enteral Tube Feed on an Adult Inpatient Encompassing, Recognising and Treating Re-feeding Syndrome*<br><br>(UHL draft awaiting approval and ratification 2006)<br><br>Slow and careful enteral re-feeding is necessary to attempt to prevent severe re-feeding syndrome (starting at a maximum of 10 kcals/kg/day initially, building up to full requirements over 4-7 days).<br><br>**In extreme cases, for example, BMI less than 14kg/m$^2$ use only 5kcal/kg/day and monitor cardiac rhythm continually.** |

| MONITORING | |
|---|---|
| 1 | Monitoring<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.<br><br>Patients should be asked to record a stool chart. |
| 2 | Biochemical monitoring<br>This should be done according to protocol for laboratory monitoring (National Institute for Health and Clinical Excellence 2006), in particular venous plasma glucose should be measured at least daily until stable. Please note: Capillary blood glucose measurements are unreliable in this context, leading to spurious diagnosis of hypoglycaemia.<br><br>Serum U&E, creatinine, phosphate and magnesium should also be measured daily until stable.<br><br>It is recommended that results are recorded on a serial data chart (Appendix A), as this will better demonstrate trends in results that may be as important as the absolute value.<br><br>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 2006), **unless** pre-feeding levels are high.<br>For information on approved methods of correction of low serum concentrations, see *Management of Hypokalaemia Guidelines* (UHL 2005) 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. It probably occurs as a result of secondary hyperaldosteronism (not hypoproteinaemia). In this event ask the ward Dietitian to assess current salt/sodium intake.
- Following admission to UHL these patients will usually be cared for on a shared care basis between Dr Stewart's 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**

| **Element to be Monitored** | **Lead** | **Method** | **Frequency** | **Reporting arrangements** |
|---|---|---|---|---|
| Adherence to guideline | LAEDS / DR Stewart | Due to the infrequent nature of these admissions each case should be reviewed post discharge with respect of adherence to the guideline | As required | |

## 5.**Supporting Documents and Key References**


British Association for Parenteral and Enteral Nutrition (2006) *Malnutrition Universal Screening Tool ("Must").*

CR189 MARSIPAN: Management of Really Sick Patients with Anorexia Nervosa 2nd edition: Royal College of Physicians/Royal College of Psychiatrists 2014
http://www.rcpsych.ac.uk/files/pdfversion/CR189.pdf

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.

UHL Management of Hypokalaemia Guidelines (Trust reference: C9/2002)

UHL Insertion and Management of Nasogastric and Nasojejunal Tubes in Adults (B39/2005)

UHL Out of hours Enteral tube feeding (Nasogastric) Starter Regimen for an Adult Inpatient (Including management of re-feeding syndrome) (B55/2006)

## 6. Key Words

*Anorexia Nevosa, refeeding, NG tubes, Mental Capacity Act, MCA*

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|---|---|
| V3 | Legal liability statement removed. Background colour of first flowchart box amende |

**Appendix A**

## Result chart for in-patients with Anorexia Nervosa

| **Date** | | | | | | | |
|---|---|---|---|---|---|---|---|
| Weight (tw) | | | | | | | |
| Venous plasma Glucose (d) | | | | | | | |
| Phosphate (d) | | | | | | | |
| Sodium (d) | | | | | | | |
| Potassium (d) | | | | | | | |
| Urea (d) | | | | | | | |
| Creatinine (d) | | | | | | | |
| Magnesium (d) | | | | | | | |
| AST (tw) | | | | | | | |
| ALT (tw) | | | | | | | |
| ALP(tw) | | | | | | | |
| Albumin (tw) | | | | | | | |
| INR (tw) | | | | | | | |
| CRP (tw) | | | | | | | |
| Calcium (w) | | | | | | | |
| Zinc (w) | | | | | | | |
| B12 (w) | | | | | | | |
| Folate (w) | | | | | | | |
| Haemoglobin (w) | | | | | | | |
| WCC (w) | | | | | | | |
| Platelets (w) | | | | | | | |

Parentheses indicated recommended frequency of measurements until patient is stabilised. (d) = daily, (w) = weekly, (tw) = twice weekly

The condition of the patient may dictate a different test frequency. The list is not exhaustive.