CHILDREN’S SERVICES

GUIDELINES FOR THE MANAGEMENT OF ANOREXIA NERVOSA / EATING DISORDER

Ideally, there should be joint clinical management between the Paediatric team, Dieticians and the Eating Disorders Service.

*ADMISSION CRITERIA:*

One or more of the following:

- Rapid weight loss > 1kg/ week
- Weight for height (WFH) <75%, BMI < 2\textsuperscript{nd} centile (WFH = \text{actual BMI} \times 100) (50\textsuperscript{th} centile for age BMI)
- Medically compromised, e.g. syncope, seizures, severe electrolyte imbalance, cardiac failure, arrhythmias etc.
- Severe dehydration
- Biochemical abnormalities - low electrolytes, glucose, albumin
- Severe bradycardia (<50 b/min day, <45 b/min night)
- Hypotension (<80/50) mmHg)
- Hypothermia (<35˚C)
- Persistent vomiting/ bingeing/ purging
- Severely depressed and/ or suicidal ideation / acute psychosis
- Failure or poor response to outpatient treatment

*SALIENT POINTS IN HISTORY:*

- Duration of symptoms, rapidity of weight loss
- Early feeding history
- Restrictive diet, bingeing, purging, laxative/ diuretic abuse, excessive exercise
- Intake including fluids on good/bad days, urine output
- Feeling of hunger, fullness
- Fear of fat and/or weight gain / unhappy to eat to gain weight
- Suicidal ideation, deliberate self-harm/ overdose
- Co-morbid mental illness (Anxiety, Phobia, OCD, Depression)
- Menstrual history
- Sleep disturbance
- Relationships, school
- Family history of Eating Disorder or Mental Illness
- History to elicit complications
- History to rule out other conditions e.g. Hyperthyroidism, Diabetes Mellitus, Malignancy, Infection, IBD, Coeliac Disease, Autoimmune Disorders etc
*SALIENT POINTS ON EXAMINATION:*

- Weight, height, BMI, WFH
- Temperature, hydration, lying and standing BP and HR (>20 b/min, >10 mmHg drop is a concern)
- Oversized clothes, decreased subcutaneous fat and muscle mass
- Note pubertal status
- Blue peripheries
- Bradycardia, hypotension, arrhythmia, murmur
- Alopecia, Lanugo hair
- Peripheral oedema
- Abdominal bloating / tenderness

SUSS Test – Sit Up Squat Stand

**Sit up**
The patient is asked to sit up from lying supine on a flat surface without using the hands, if possible.

**Squat**
The patient is asked to squat and to rise without using the hands, if possible.

**Rating**
The scale used for rating both squatting and sitting is as follows:
- 0 completely unable to rise
- 1 able to rise only with use of hands
- 2 able to rise with noticeable difficulty
- 3 able to rise without difficulty.

- **Signs of bingeing/purging:** Russells' sign (callous on back of hand from induced vomiting), dental erosions, palatal petechiae / scratches, parotitis
- **Signs of vitamin and mineral deficiency:** Anaemia, bruises, glossitis, bleeding gums, hypercarotenemia (yellow skin + white conjunctiva), Chvostek's (↓Mg), Trousseau's sign (↓Ca)
- **Look for signs of Deliberate Self Harm**
- **Think of other conditions if:** Enlarged thyroid, hepatosplenomegaly, lymphadenopathy
- **Assess risk (see Appendix 1)**

*SALIENT POINTS ON INVESTIGATION at first presentation:*

- FBC + film, Clotting levels, ESR/CRP
- U+Es, LFTs, Amylase, Lipid Profile(Hypercholesterolaemia), Glucose
- Calcium (ionized), Magnesium, Phosphate
- Ferritin, Iron studies, Vit D, Folate, B12
- TFTs (Sick Euthyroid Syndrome)
- VBG (Hypochloraemic alkalosis with bingeing/purging, metabolic acidosis with laxatives)
- Coeliac screen, Igs
• ECG (prolonged QTc interval >450 ms, bradycardia)
• Urinalysis – proteinuria, haematuria, glucose, ketones
• Consider: β HcG/ urine pregnancy test (if persistent vomiting), autoimmune screen etc if criteria for Eating Disorder not fulfilled
• Pelvic ultrasound if not recently performed

If patient already screened, baseline investigations required: FBC, U+Es, Gluc, LFTs. Ca, Phos, Mg, VBG, ECG

*MANAGEMENT

• Joint with EDS and Dietician
• Manage in open bay – **DO NOT ISOLATE**
• Strict input and output chart
• Most patients will have cool peripheries, prolonged CRT and bradycardia and will not require fluid boluses which can be dangerous in this setting
• If patient has a prolonged CRT and a **normal HR** they may be hypovolaemic – consider cautious bolus of 10ml/kg 0.9% saline
• Observations at least 6 hourly including blood glucose
• Daily weights – aim for 1 kg increase per week
• Accompany visits to the bathroom
• Encourage to use bathroom before meals
• **Remember FOOD = MEDICINE** therefore all intake must be supervised and documented
• **Remember Refeeding can have cardiac, neurological, haematological complications (Phosphate shifts) and strict protocol must be followed***(see refeeding guideline hyperlink)*
• Allow 30 minutes for meal and 15 minutes for snack and replace food or fluid dropped or hidden
• Do not allow patient to visit bathroom for 1 hour following meals
• If patient refuses to eat or drink (see Feeding Against Consent hyperlink)
• Treat bacterial infections aggressively
• If laxatives are required avoid stimulants
• In some cases patient can be allowed a short supervised time off the ward
• Aim to transfer to Inpatient Unit (via EDS) once **medically** stable

See below hyperlinks for Eating disorder pathways:

Eating Disorders Pathway: 8-18 years
Eating Disorders Pathway:
Patient with Anorexia Nervosa with Medical Compromise / in Crisis

Dr Gillian Baksh, Consultant Paediatrician
November 2012
Presented at the Paediatric Clinical Guideline Forum on Monday 19th November 2012
<table>
<thead>
<tr>
<th><strong>BMI and weight</strong></th>
<th><strong>High Risk</strong></th>
<th><strong>Amber</strong></th>
<th><strong>Moderate</strong></th>
<th><strong>Low</strong></th>
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<td>% median BMI &lt;70% (approx &lt;0.4th BMI centile) Recent loss of weight of 1Kg or more/week for 2 consecutive weeks</td>
<td>% median BMI 70-80% (approx 2nd-0.4th BMI centile) Recent loss of weight 500-999g/week for 2 consecutive weeks</td>
<td>% median BMI 80-85% (approx 9th-2nd BMI centile) Recent weight loss of up to 500g/week for 2 consecutive weeks</td>
<td>% median BMI &gt;85% (approx &gt;9th BMI centile) No weight loss over past 2 weeks</td>
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<th><strong>CVS Health</strong></th>
<th><strong>HR &lt;40 bpm (awake)</strong></th>
<th><strong>HR 40-50 bpm (awake)</strong></th>
<th><strong>HR 50-60 bpm (awake)</strong></th>
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<th><strong>CVS Health</strong></th>
<th><strong>H/o recurrent syncope:</strong> marked orthostatic changes (fall in systolic pressure 20mmHg or more or increase in HR of &gt;30 bpm); irregular heart rhythm (not sinus)</th>
<th>Occasional syncope; moderate orthostatic changes (fall in systolic pressure 15mmHg or more or distolic BP fall &gt;10mmHg within 3 mins standing or increase in HR of up to 30 bpm)</th>
<th>Pre-syncopal symptoms but normal orthostatic CVS changes</th>
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<th><strong>ECG abnormalities</strong></th>
<th><strong>QTc&gt;460ms (girls) or 400ms (boys)</strong> with brady/tachyarrhythmia (excludes sinus)</th>
<th><strong>QTc&gt;460ms (girls) or 400ms (boys)</strong></th>
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<th><strong>Fluid refusal</strong></th>
<th><strong>Severe dehydration (10%)</strong></th>
<th><strong>Moderate dehydration (5-10%)</strong></th>
<th><strong>Mild dehydration (&lt;5%)</strong></th>
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<th><strong>&lt;35.5 °C tympanic or 35 °C axillary</strong></th>
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<th><strong>Hypophosphataemia, hypokalaemia, hypoaalbuminaemia, hypoglycaemia, hyponatrema, hypocalcaemia</strong></th>
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