Eating Disorders:
what you need to know

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What you need to know........

• Diagnoses
• Screening
• How they present
• Risk assessment
• Referral pathways
• Principles of treatment
• ED and SMD
Eating Disorders

Anorexia Nervosa
BMI<17.5
Core psychopathology
Amenorrhea

Bulimia Nervosa
BMI>17.5
Core psychopathology
Regular binge/purge 2x/week

Eating Disorder Not Otherwise Specified
Subclinical disorders
Binge eating disorder
Eating Disorders

Anorexia Nervosa
1 in 250 females
1 in 2000 males

Bulimia Nervosa
1 in 50 females
1 in 500 males

Eating Disorder Not Otherwise Specified
More common still but rates uncertain
Eating Disorders

Anorexia Nervosa
BMI < 18.5
Core psychopathology

Bulimia Nervosa
BMI > 18.5
Core psychopathology
Regular binge/purge 1x/week

Other Specified Feeding and Eating Disorders
Subclinical disorders

Binge Eating Disorder
Clinical Features

- Core psychopathology
- General psychopathology
- Behaviours
- Physical complications
Core Psychopathology

- Fear of fatness
- Pursuit of thinness
- Body dissatisfaction
- Body image distortion
- Self evaluation based on weight and shape
General Psychopathology & Starvation Syndrome

- Minnesota experiment (Keys)
- Depression
- Anxiety, social phobia
- Suicidal ideation
- OCD symptoms
Common Behaviours

- Dieting
- Fasting
- Calorie counting
- Excessive exercise
- Water loading
- Diet pills, thyroxine, diuretics, appetite suppressants
- Excessive weighing
- Body checking
- Culinary behaviours
- Avoidance
- Isolation

- Bingeing
- Purging
- Starve-binge-purge cycle
- Misuse of insulin
- Laxatives
- DSH
- Substance misuse
<table>
<thead>
<tr>
<th>System</th>
<th>Starvation</th>
<th>Bingeing/purging</th>
</tr>
</thead>
<tbody>
<tr>
<td>CVS</td>
<td>Bradycardia, Hypotension, Sudden death</td>
<td>Cardiac failure, Sudden death</td>
</tr>
<tr>
<td>Renal</td>
<td>Oedema, Electrolyte abnormalities, Renal calculi, Renal failure</td>
<td>Severe oedema, Electrolyte abnormalities, Renal calculi, Renal failure</td>
</tr>
<tr>
<td>GI</td>
<td>Parotid swelling, Delayed gastric emptying, Nutritional hepatitis, Constipation</td>
<td>Parotid swelling, Dental erosion, Oesophageal erosion/perforation, Constipation</td>
</tr>
<tr>
<td>Skeletal</td>
<td>Osteoporosis, Pathological fractures, Short stature</td>
<td>Osteoporosis, Pathological fractures</td>
</tr>
<tr>
<td>Endocrine</td>
<td>Amenorrhoea, Infertility, Hypothyroidism</td>
<td>Oligomenorrhoea/amenorrhoea</td>
</tr>
<tr>
<td>Haem</td>
<td>Anaemia, Leukopenia, Thrombocytopenia</td>
<td>Leukopenia/lymphocytosis</td>
</tr>
<tr>
<td>Neuro</td>
<td>Generalised seizures, Confusional states</td>
<td>Generalised seizures, Confusional states</td>
</tr>
<tr>
<td>Metabolic</td>
<td>Impaired temperature regulation, Hypoglycaemia</td>
<td>Impaired temperature regulation, Hypoglycaemia</td>
</tr>
<tr>
<td>Derm</td>
<td>Lanugo, brittle hair and nails</td>
<td>Calluses on dorsum of hands (Russell's sign)</td>
</tr>
</tbody>
</table>
Differential Diagnosis

- Depression
- Somatoform disorders
- OCD
- Hypopituitarism
- Addison’s disease
- Thyrotoxicosis
- Inflammatory bowel disease / malabsorption (eg Crohn’s, coeliac)
- Diabetes mellitus
- Carcinoma
- TB
SCOFF Questionnaire

S -Do you make yourself SICK because you feel uncomfortably full?

C -Do you worry you have lost CONTROL over how much you eat?

O -Have you recently lost more than ONE stone in a 3-month period?

F -Do you believe yourself to be FAT when others say you are too thin?

F -Would you say that FOOD dominates your life?
Risk Assessment in Eating Disorders

• AN has highest mortality rate of any psychiatric disorder (Arcelus et al, 2011)

• Most deaths due to physical complications of dieting, bingeing and purging

• 20-40% of deaths in AN due to suicide

• Severe and enduring eating disorders (SEED)
Physical Risk Assessment

1. Clinical history and physical examination

2. Body mass index (BMI)

3. Electrocardiogram (ECG)

4. Blood investigations
1. Clinical History and Physical Examination

- Rapid weight loss (>1kg/week)
- Physical comorbidity (e.g. diabetes)
- CVS (chest pain, postural dizziness, palpitations, blackouts)
- Excessive exercise
- Water-loading
- Alcohol
- Infection
- Haematemesis
- Pregnancy

- BMI
- Irregular pulse
- Bradycardia
- Hypotension
- Postural hypotension
- Hypothermia
- Proximal myopathy
2. Body Mass Index (BMI)

- BMI = \( \frac{wt(kg)}{ht(m)^2} \)
- <17.5 – AN
- <15 – moderate risk
- <13 – high risk

Proxy measure of physical risk
3. Electrocardiogram (ECG)

- Most deaths due to cardiac arrest
- Cardiac abnormalities in up to 86% of patients with AN (Lesinskiene et al 2007)
- T wave changes (hypokalaemia)
- Arrhythmias
- Bradycardia (<40bpm!!)
- QTc prolongation (>450ms!!)
# 4. Blood Investigations

<table>
<thead>
<tr>
<th>Condition</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Starvation</td>
<td>Hypoglycaemia</td>
</tr>
<tr>
<td>Vomiting</td>
<td>Hypokalaemia</td>
</tr>
<tr>
<td>Water-loading</td>
<td>Hyponatraemia</td>
</tr>
<tr>
<td>Laxative misuse</td>
<td>Hyperkalaemia, Hyponatraemia</td>
</tr>
<tr>
<td>Diuretics misuse</td>
<td>Hypokalaemia, hyponatraemia</td>
</tr>
<tr>
<td>Thyroxine misuse</td>
<td>↑T3/T4, ↓TSH</td>
</tr>
<tr>
<td>Bone marrow hypoplasia</td>
<td>Normocytic anaemia, Leucopenia</td>
</tr>
<tr>
<td>Re-feeding syndrome</td>
<td>Hypophosphataemia, Hypomagnesaemia, Hypocalcaemia, Hypokalaemia</td>
</tr>
<tr>
<td>Proximal myopathy</td>
<td>↑CK, ↑LFTs</td>
</tr>
</tbody>
</table>

- **FBC**
- **U&Es**
- **LFTS**
- **Glucose**
- **CK**
- **Phos, Mg, Ca**
- **TFTs**
## Physical Risk in Eating Disorders Index (PREDIX)

<table>
<thead>
<tr>
<th>SYSTEM</th>
<th>TEST OR INVESTIGATION</th>
<th>MODERATE RISK</th>
<th>HIGH RISK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nutrition</td>
<td>BMI</td>
<td>&lt;15</td>
<td>&lt;13 kg/m²</td>
</tr>
<tr>
<td></td>
<td>Rate of weight loss</td>
<td>&gt;0.5kg/week</td>
<td>&gt;1kg/week</td>
</tr>
<tr>
<td>Cardiovascular</td>
<td>Blood pressure</td>
<td>&lt;90/60 mmHg</td>
<td>&lt;80/50 mmHg</td>
</tr>
<tr>
<td></td>
<td>Postural drop</td>
<td>&gt;10 mmHg</td>
<td>&gt;20 mmHg</td>
</tr>
<tr>
<td></td>
<td>Pulse rate</td>
<td>&lt;50 bpm</td>
<td>&lt;40 bpm</td>
</tr>
<tr>
<td></td>
<td>Peripheral cyanosis</td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Musculo-skeletal</td>
<td>Stand up or sit up test</td>
<td>Grade 2</td>
<td>Grade 0-1</td>
</tr>
<tr>
<td></td>
<td>(proximal myopathy)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Temperature</td>
<td></td>
<td>&lt;35°C</td>
<td>&lt;34.5°C</td>
</tr>
<tr>
<td>Blood profile</td>
<td>White cell count</td>
<td>Concern if outside normal limits</td>
<td>&lt;2.0 x 10⁹/l</td>
</tr>
<tr>
<td></td>
<td>Neutrophils</td>
<td></td>
<td>&lt;1.0 x 10⁹/l</td>
</tr>
<tr>
<td></td>
<td>Haemoglobin</td>
<td></td>
<td>&lt;9.0 g/dl</td>
</tr>
<tr>
<td></td>
<td>Platelets</td>
<td></td>
<td>&lt;110 x 10⁹/l</td>
</tr>
<tr>
<td>Biochemistry</td>
<td>Potassium</td>
<td>Concern if outside normal limits</td>
<td>&lt;2.5 mmol/l</td>
</tr>
<tr>
<td></td>
<td>Sodium</td>
<td></td>
<td>&lt;130 mmol/l</td>
</tr>
<tr>
<td></td>
<td>Phosphate</td>
<td></td>
<td>&lt;0.5 mmol/l</td>
</tr>
<tr>
<td>Electrocardiogram</td>
<td>Pulse rate</td>
<td>&lt;50 bpm</td>
<td>&lt;40 bpm</td>
</tr>
<tr>
<td></td>
<td>Corrected QT interval (QTc)</td>
<td></td>
<td>&gt;450 msec</td>
</tr>
</tbody>
</table>
Principles of Treatment

- Usually done as an outpatient
- Most AN require specialist Rx
- BN & EDNOS will mainly be treated either in primary care or secondary services
- NG feeding last resort
- Treatment on a medical unit relatively rare

- **Nutritional rehabilitation and psychological intervention**
- Guided self-help, CBT, IPT, CAT, psychodynamic psychotherapy, family interventions, DBT
- Fluoxetine 60mg daily in BN
- Best services offer eclectic mix of therapies – not ‘one size fits all’
- CBT is not the panacea
Self-help Literature

Anorexia nervosa
• *Overcoming Anorexia Nervosa* (Freeman 2009)
• *The Anorexia Workbook* (Heffner 2004)

Bulimia nervosa and binge eating disorder
• *Overcoming Bulimia Nervosa and Binge Eating: A Guide to Recovery* (Cooper 1993)
• *Overcoming Binge Eating* (Fairburn 1995)

Family and carers

Eating disorders in men
ED and SMD

- 50% of ED have Hx SMD (CASA, 2003)
- 15-30% of SMD have Hx ED (Taylor 1993; Blinder 1998)
- Strong association with BN, BED and ANBP
- Often associated with DSH and trauma
- Laxatives most commonly abused (70% in BN)
- Abuse of stimulants, alcohol, NPS also high
- AN; SMR = 6 (Arcelus et al 2011)
- AN + SMD; SMR = 20 (Papadopoulos et al 2009)
ED and SMD

- Chronic, frequent relapses
- Ego-syntonic
- High risk
- Denial, treatment avoidance
- Primacy
- Compulsive behaviours
- Regulation of affect
- High rates of EUPD

- Different concepts of diagnosis and treatment
- Food necessary for survival
- Tolerance and withdrawal not applicable to ED
ED and SMD

- RCTs in ED treatment field limited and have mostly excluded SMD

- CBT, MET, IPT, DBT

- Integrated or sequential care?
What can you do?

• Diagnosis & screening
• Risk assessment / management
• Arrange medical monitoring (BMI, bloods, ECG)
• Arrange medication review
• Food/thought diaries (www.recoveryrecord.com)
• Guided self help and support groups
• Knowledge of local care pathways and MARSIPAN
Useful Resources


Yorkshire Centre for Eating Disorders

- National ED service based in Leeds
- Adult service (17 years +)
- 19 beds
- Community and Outreach services
- Outpatient service for national patients
- CBT, IPT, CAT, psychotherapy
Questions