

Emergency Department Assessment and Management Guidelines for Patients with Eating Disorders

- This document outlines the management of young people diagnosed with eating disorders who present to the Emergency Dept. The focus should be the symptoms that created the crisis, resulting in the presentation.
- **It is not expected that the Emergency physician needs to treat the eating disorder, start the re-feeding process or provide psychotherapy.**
- **The aim is for assessment of medical stability/instability, resuscitation and stabilization as needed, followed by an assessment re mental state and risk of self harm.**
- The acute medical complications of malnutrition to evaluate include bradycardia, hypothermia, hypotension, arrhythmias including prolonged QTc, significant orthostatic changes, mental status changes, electrolyte disturbances, hypoglycemia, and refeeding syndrome.

Reasons for presentation –

- New patient referred by parent/other professional for diagnostic clarification
- Diagnosis made/suspected in emergency when patient has presented with a complication of the eating disorder e.g. amenorrhoea, syncope etc.
- Known patient with acute crisis – physical or psychiatric

Relevant features on History

- **Weight**
Date of and pre-morbid weight; date of and minimum weight reached; current weight; duration, onset of weight loss
- **Diet**
Recent pattern of 24-hour dietary intake; estimate calories taken per day (if possible) and note if calorie counting; fluid intake (for dehydration); idiosyncratic nutritional issues e.g. food phobias and avoidance of specific food groups
- **Activity/Exercise**
Time spent doing sport/training; secretive exercise in room e.g. sit-ups, push-ups
- **Binge/Purging Behaviours**
Purging frequency, Ipecac use, laxative use, diuretics, diet pills, other medications
Binge eating - quantity, frequency, type of food, sense of loss of control around eating
- **Menstrual History**
Menarche, menses history, usual cycle, timing of amenorrhea in relationship to weight loss
- **Eating Disorder Behaviours**
Body image distortion, pursuit of thinness, fear of fatness or fear of weight gain
- **Treatment**
Previous admission(s) to hospital, any psychiatric/psychological treatment including outpatient treatment, medications used, treating team(s) involved in current care

- **Physical Symptoms and Medical Complications**
Syncope (arrhythmia, dehydration), palpitations (arrhythmia), chest pain and/or respiratory symptoms (CHF), constipation (ileus), feeling cold (malnutrition), hair loss (malnutrition), easy bruising (cytopenia), Cognitive changes (malnutrition)
- **Psychological**
Depression, suicidal ideation and self harm
- **Relevant past medical history (must exclude)**
 - Hyperthyroidism
 - Coeliac disease
 - Inflammatory bowel disease
 - Diabetes

Relevant features on Physical Examination:

- Mental health status – if basic screen for suicide and self harm is positive, contact Psychiatry Liaison nurse OR Psychiatry Resident oncall
- Weight of patient in underwear and a gown (if possible)
- Plot Height and Weight on growth chart with any previous measurements
- General examination with a focus on:
 - Vital signs – temperature, lying and standing heart rate (HR) and blood pressure (BP), orthostatic changes in HR and/or BP. Also note regularity/irregularity of heart rate.
 - Hydration status – capillary refill, mottling, perfusion, urine output, peripheral edema
 - Muscular weakness (SUSS test) – assesses difficulty in standing from squatting position or sitting up from lying position
 - Mental Status: Confusion, slurred speech, poor attention and concentration
 - Other - lanugo hair, skin integrity (e.g. ulcers/skin breakdown), bruising (can be petechiae or ecchymoses), muscle wasting, dentition, swollen salivary glands, signs of self-harm.

Suggested investigations on first presentation:

- CBC, differential
- Na, K, Cl, Urea, Creatinine, ionised calcium, phosphorous, magnesium, glucose, albumin, alkaline phosphatase, amylase
- 12 lead ECG; assess rate, rhythm, QTc ($QT/\sqrt{R-R}$) and look for QTc > 0.44 seconds as per Division of Cardiology protocol
- Urine specific gravity and dipstick looking for hydration status, ketones, glycosuria and proteinuria
- To exclude other causes of weight loss, add ESR, Tissue Transglutaminase antibody, TSH
- Consider urine drug screen and appropriate toxicology screen if indicated from history

The patient who is purging:

Consider the following medical complications/presentations related to purging behaviour –

- Aspiration pneumonitis
- Pneumonmediastinum
- Haematemesis
- Acute abdomen, i.e., gastric perforation
- Acute pancreatitis
- Rectal prolapse

Management:

Standardized mortality rates in AN are 12 times higher than the annual death rate from all causes in females 15-24 years of age. The Standardised Mortality Rate in Vancouver for AN is 10.5 (95% CI). Major causes of mortality in eating disorders in adolescents are:

1. Suicide (the highest cause of death)
2. Cardiac arrhythmia and circulatory failure
3. Complications of substance abuse

Therefore, management in the Emergency Department has to concentrate on screening for suicide risk, cardiac risk and presence of co-morbid substance abuse.

After assessment:

- If there is an acute psychiatric crisis, contact the Psychiatry Liaison Nurse or the Psychiatry Resident for an assessment re need for admission to CAPE. The Psychiatry Liaison Nurse or the Psychiatry Resident should then contact Eating Disorders Intake re the presentation of a newly diagnosed patient to allow follow up via the Eating Disorders Program.
- **If there is medical instability (see below) or evidence of dehydration with elevated urea and creatinine, start i.v. fluid resuscitation (see algorithm).**

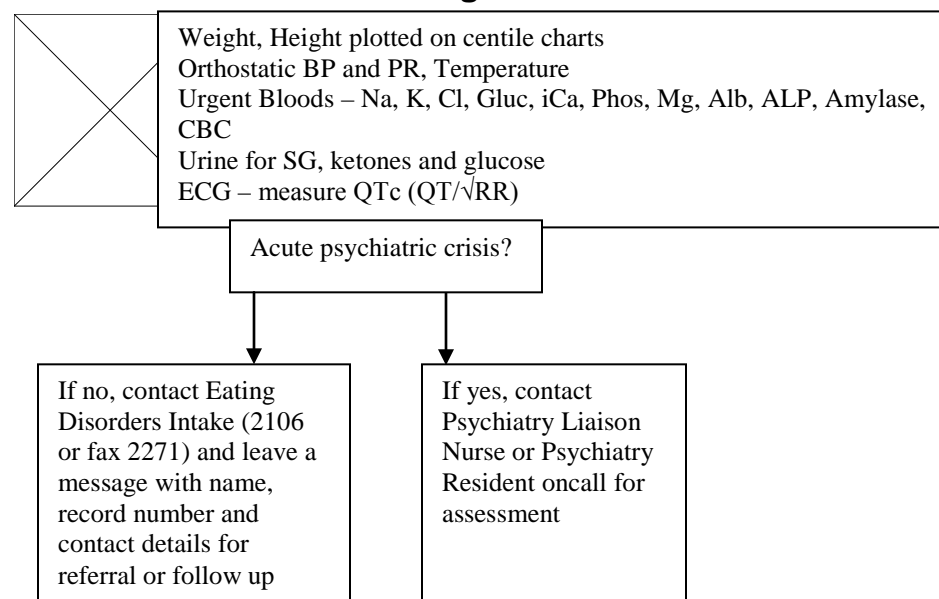
Medical instability as defined as:

- ECG changes showing QTc >0.46s
- Glucose <3.0
- Potassium <3.0
- Phosphate <0.8
- Magnesium < 0.7
- Postural drop in BP >20mmHg
- Temperature (oral) <36 degrees Celcius
- Lying HR < 45/min
- ***Patients presenting with any or a combination of the above features should be admitted to a medical ward for monitoring of electrolytes and cardiac rhythm as these are markers of cardiac risk during refeeding.***

Acute psychiatric crisis:

- Suicidal ideation
- Overdose/any attempts at significant self harm
- Exacerbation of psychiatric co-morbid symptoms that require acute intervention.

Flowchart of medical management:



If acute resuscitation is required, the patient should be admitted to a medical ward for monitoring

Uncompensated volume depletion

- NSaline infusion 10ml/kg over 1-2 hours then maintenance NSaline
- Recheck electrolytes and change type of fluid as indicated
- Monitor BP, PR regularly and readjust rate if tachycardia is induced

- Re-evaluate appropriateness of fluids frequently depending on electrolyte changes
- Recheck electrolytes 4-6 hours after starting fluid resuscitation then bid
- Monitor blood glucose via fingerprick for rebound hypoglycaemia
- Monitor ECG changes with rehydration and electrolyte correction
- Involve Cardiology if any concerns re QTc
- Eating Disorders Intake (phone 2106, fax 2271) should be notified of any admission to a medical ward to allow for consultation and follow up

- Rebound hypoglycaemia**
- Low Phos – start oral Phosphate 500mg bid daily and monitor phosphate levels daily to bid
 - Low Mg – start oral Magnesium 500mg bid daily or if unable/<0.5, iv Magnesium infusion at 25-50mg/kg/dose tid at max infusion rate of 125mg MgSO₄/kg/hr
 - Low Na – use NSaline for maintenance fluid

TELEPHONE CONSULTATION:

The Eating Disorders Program may be contacted at 875-2106 (Eating Disorders Program - Intake) for referrals of new patients during business hours. We would also like to be informed if pre-existing patients present to the Emergency Department in a physical or psychiatric crisis. You can leave a message at ext 2106 OR fax a note/referral to ext 2271.

References

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