

# **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 premorbid weight; date of and minimum weight reached; current weight; duration, onset of weight loss

### Diet

Recent pattern of 24hour 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
- o 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
  - o 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/√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. <u>The Psychiatry Liaison Nurse</u> 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:

- o ECG changes showing QTc >0.46s
- o Glucose < 3.0
- o Potassium < 3.0
- o Phosphate < 0.8
- Magnesium < 0.7</li>
- Postural drop in BP >20mmHg
- o Temperature (oral) <36 degrees Celcius
- Lying HR < 45/min</li>
- 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 Weight, Height plotted on centile charts be admitted to a medical ward for monitoring Orthostatic BP and PR, Temperature Urgent Bloods – Na, K, Cl, Gluc, iCa, Phos, Mg, Alb, ALP, Amylase, CBC Uncompensated volume depletion Urine for SG, ketones and glucose NSaline infusion 10ml/kg over 1-2 hours then ECG – measure QTc (QT/ $\sqrt{RR}$ ) maintenance NSaline Recheck electrolytes and change type of fluid as indicated Determine if patient needs acute iv Yes Monitor BP, PR regularly and readjust rate if fluid resuscitation as defined by one or tachycardia is induced more of the following: Electrolyte imbalance ECG changes Uncompensated volume depletion Electrolyte imbalances • Low K – add 40mmol KCl/litre into maintenance Increased cap refill time K + < 3.0QTc > 0.46sOrthostatic BP >20mmHg fluid and aim to correct over 24-48hrs Gluc < 3.0 Changes Low Gluc – oral/NG correction with a sugar Yes Phos < 0.8 Syncopal symptoms associated with drink. Use IV bolus 5ml/kg of % dextrose only if Mg < 0.7low K+ unconscious or severely altered mental state. Na <130 Beware rebound hypoglycaemia. Low Phos – start oral Phosphate 500mg bid daily No 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 Acute psychiatric crisis? MgSO4/kg/hr Low Na – use NSaline for maintenance fluid Re-evaluate appropriateness of fluids frequently depending on electrolyte If no, contact Eating If yes, contact changes Disorders Intake (2106 Psychiatry Liaison Recheck electrolytes 4-6 hours after starting fluid resuscitation then bid or fax 2271) and leave a Nurse or Psychiatry Monitor blood glucose via fingerprick for rebound hypoglycaemia message with name, Resident oncall for Monitor ECG changes with rehydration and electrolyte correction record number and assessment Involve Cardiology if any concerns re QTc contact details for Eating Disorders Intake (phone 2106, fax 2271) should be notified of any referral or follow up admission to a medical ward to allow for consultation and follow up

### **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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