

# Common Medical Issues for Eating Disorder Patients

## ***1. Refeeding syndrome***

Refeeding syndrome can be defined as the potentially fatal shifts in fluids and electrolytes that may occur in malnourished patients being refeed. The hallmark biochemical feature of refeeding syndrome is hypophosphataemia. However, the syndrome is complex and may also feature abnormal sodium and fluid balance; changes in glucose, protein, and fat metabolism, thiamine deficiency, hypokalaemia and hypomagnesaemia.

During prolonged fasting, hormonal and metabolic changes are aimed at preventing protein and muscle breakdown. Muscles use fatty acids as the main energy source, and the brain switches from glucose to ketone bodies. Intracellular minerals become severely depleted but serum concentrations of these minerals (including phosphate) may remain normal.

During refeeding, insulin levels rise and stimulate glycogen, fat, and protein synthesis. This process requires minerals such as phosphate and magnesium and cofactors such as thiamine. Insulin stimulates the absorption of potassium as well as glucose into the cells, followed by magnesium, phosphate and water. This results in a decrease in the serum levels of phosphate, potassium, and magnesium. The clinical features of the refeeding syndrome occur as a result of the functional deficits of these electrolytes and the rapid change in basal metabolic rate

We work on the assumption that all our patients are at high risk of developing refeeding syndrome when first admitted. To reduce the risks we:

- Start refeeding slowly, with a daily intake of about 1000kcal
- Start refeeding with a diet rich in phosphate (milk and dairy products)
- Load the patient with thiamine and give regular vitamin supplements (and omit calcium supplements which bind phosphate)
- Measure bloods up to daily
- Watch for physical symptoms as above. NB refeeding oedema in the absence of other symptoms or blood abnormalities is not the same as refeeding syndrome, and generally resolves with conservative management
- Use phosphate supplementation (and potassium if required) if necessary

## ***2. Complications of Eating disorder behaviours***

- o Vomiting and/or laxative abuse can cause hypokalaemia.
- o If a patient has been abusing laxatives and they are then stopped (either suddenly or gradually), there can be a large rebound weight increase and significant oedema. This makes restarting laxatives a higher risk than ever, and may be an indication for the withdrawal to be handled as an inpatient
- o Patients may water-load in order to falsify their weight or as part of a cleansing ritual, and develop hyponatraemia.

o Patients who vomit may have parotid enlargement, and poor dental health with eroded enamel, receding gums and severe sensitivity.

### ***3. Other common complications***

- Many patients are osteopenic or osteoporotic and at risk of stress fractures as well as fractures from falls. Many will have been over-exercising, and continue to do this even if in pain. We do DEXA scans every 2 years and routinely prescribe calcium and vitamin D supplements, but only use bisphosphonates or hormone replacement if advised by a specialist.
- In severe anorexia nervosa bone marrow activity falls and there may be complications from anaemia, neutropenia or thrombocytopenia. There is usually little to be done about these unless the platelet count falls significantly and the patient develops symptoms. Treatment of anaemia with iron can be dangerous in anorexic patients and is never started urgently.
- Hypoglycaemia is common but often asymptomatic.
- Increased sensitivity to cold may progress to hypothermia.
- Patients are immunocompromised, but may not develop the typical signs of an infection, in particular fever may be absent.

### ***4. Refusal or prolonged inability to eat***

Many patients will be eating minimal amounts prior to admission, or have stopped eating altogether. It is usually possible to reintroduce food, although it can require a lot of 1:1 support in the early days. We will always try to refeed patients orally, using normal food or supplements. Very occasionally this is not possible and we may have to use nasogastric feeding (NGF). Nursing staff have been trained to do this, and the decision to start NGF will not be made as an emergency as it involves the whole team. We anticipate that we will only have 2 or 3 patients a year requiring this. If the patient is compromised in any other way, eg has developed renal impairment or needs i/v therapy of any sort, s/he will be transferred to GWH for treatment.

### ***5. Psychiatric co-morbidity***

The commonest co-morbid psychiatric disorder in general eating disorder populations is anxiety; in our inpatients it is borderline personality disorder, followed by depressive disorder. Some patients may be more sensitive to the side effects of psychotropic medication due to low BMI; others can tolerate normal adult doses. Patients are very aware of which medications have the potential to cause weight gain.