The Prevalence of Clinical Manifestations of Refeeding Syndrome in Medically Admitted Eating Disorder Patients

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Introduction:

Eating disorders are a group of mental disorders that are characterised by serious disturbance in eating behaviour and weight regulation as a result of core psychopathology around eating and body image. Patients often require acute hospital admissions for medical stabilisation and weight restoration. The management of these patients aims to balance the risk of refeeding syndrome (RFS) with the risk of underfeeding patients. Calorie provision recommendations in patients at risk of RFS differ between best practice international RFS guidelines and recommendations set out in the Medical Emergency in Eating Disorders (MEED) guidelines which were the primary guidelines followed in this patient cohort.

Method:

A retrospective analysis was carried out using hospital statistic systems to identify patents admitted for medical treatment of eating disorders over a twelve month period. Twenty three patients were identified and lab results from the first ten days of admission were reviewed assessing electrolyte disturbances. Where these were identified chart reviews were completed assessing clinical manifestation of RFS. The results were collated and analysed.

Results:

Number of Patients	23
Average Length of stay (range)	25 days (3 - 77 days)
Gender	23 female/0 male
Age Average (range years) Number under 18 years	 24.8 years (16 – 56 years) 5 patients
Dietetic intervention Diet and ONS NG + Diet +/- ONS	 17 6
Range of BMI	10.5 - 23.5 kg/m^2
Number of patient with ≥2 electrolyte disturbances or PO4 <0.60 (%)	2(8.6%)
Number of patients with clinical manifestation of RFS (tachycardia, tachypnea, oedema) (%)	1(4.3%)
Range of BMI of patients who experienced electrolyte disturbances	10.5 - 11.8 kg/m^2
Range of BMI of patients who experienced clinical manifestation of RFS	10.5 kg/m^2

In 2024 there were 23 patients medically admitted for medical management of ED and refeeding in the acute medical setting. Twenty one of these patients presented from July to December 2024.

Patients admitted to the acute medical wards were treated in accordance with departmental RFS guidelines with the exception of the calorie provision recommendations.
The MEED Guideline recommendations were followed where calorie provision start at:

- 10-20kcal/kg for high RFS risk patients and
- 30-35kcal/kg for medium to low RFS risk patients.
- for under 18s the patients were commenced at 1400kcal and 1400-2000kcal respectively.

Two patients experienced electrolyte disturbances and only one developed RFS symptoms (oedema). These were noted to have occurred in patients with BMIs ranging from 10.5-11.8kg/m^2 on admission.

Conclusion:

The above findings would indicate MEED Guidelines allow for safe and prompt refeeding of patients despite calorie provision recommendations being higher than RFS guidelines. Electrolyte abnormalities were only observed in patients with BMI<12kg/m^2.
From this audit defined meal plans with higher calorie provision are being trialled with the aim of reducing length of stay and commencing safe but efficient refeeding in this cohort.

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