



Wards 5-6
Intensive Care Unit

Anorexia Nervosa

Part 2: An intensive care unit admission & intubation



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In the June edition of *Complete Nutrition (CN)* Magazine, the authors explained the multidisciplinary team (MDT) management of a planned admission to the intensive care unit (ICU) for a deteriorating 17-year-old female: 'Patient X'.* This second part covers the management of further admissions to medical wards and the ICU.

Background

Patient X resided within a secure eating disorder unit (SEDU) with diagnoses of anorexia nervosa (AN) and obsessive-compulsive disorder (OCD). Despite monitoring and clinical intervention, including nasogastric tube (NGT) feeding with physical restraint of up to six members of staff, their clinical status deteriorated to a life-threatening stage.¹

With meticulous MDT planning and consideration of mental capacity, and the numerous legal and ethical factors at play, Patient X's condition ultimately required admission to ICU for sedation and intubation as means of chemical restraint to permit safe and sustained NGT feeding. It was hypothesised that Patient X was so nutritionally depleted, they were not able to engage in mental health treatment. This intervention enabled a period of nutritional repletion and provided a safe environment to manage the very high risk of refeeding syndrome, following which Patient X would be able to return to the SEDU for ongoing treatment.

Post repatriation to the SEDU, mental health clinicians felt this intervention had improved physical health to an extent that permitted engagement in mental health therapy; and, if not for the ICU admission, they would have likely died. Following discharge, Patient X experienced a three-month period of stability before their health status deteriorated. The subsequent five months were scattered with A&E attendances and short acute admissions before significant deterioration occurred to the extent that required further consideration of ICU admission. This article aims to summarise the events, MDT considerations and management of subsequent admissions to medical wards and the ICU.

AN & OCD

AN and OCD are complex, multidimensional conditions.²

Anorexia nervosa

AN is an eating disorder and has the highest mortality rate compared to any other mental health disorder.² A 2025 report by the All-Party Parliamentary Group on Eating Disorders outlined the increasing eating disorder crisis in the UK.³ Related to under-resourced specialist care community pathways, insufficient access to early treatment leads to significant deterioration in health and, as a result, individuals present to acute NHS services for emergency care and medical stabilisation.³ This is demonstrated by the increasing incidence of acute NHS admissions for eating disorders, which has steadily increased since 2000, exceeding 30,000 for the first time in 2023-2024.³

AN mortality is most commonly related to severe malnutrition or suicide.³ Sadly, experts feel that many fatalities may have been preventable with timely access to intensive, evidence-based treatment.³ With a comprehensive MDT approach that is individualised to the patient's physical, mental, nutritional and therapeutic needs, eating disorders are fully treatable.³ Around 70% of individuals diagnosed with AN achieve remission within 10 years, however, 20-30% develop chronic illness.³ Higher rates of relapse and mortality are observed in the AN population who require hospitalisation at least once.³ Although, evidence is hopeful and shows that recovery from AN is possible, no matter the disease duration or severity.³

*Johnston P, Jackson E (2025). CASE STUDY: Anorexia Nervosa: An intensive care unit admission & intubation. CN; 25(4): 22-25

Obsessive-compulsive disorder

OCD is estimated to affect 1-4% of the UK population.⁴ While full recovery and extended periods of remission are possible, often individuals experience long-term debilitating symptoms.⁴ Relapse is common and experienced by more than 60% of people diagnosed with OCD.⁴ Factors associated with increased likelihood of relapse include longer duration of illness prior to diagnosis and/or treatment, increased severity of symptoms and diagnosis of a mental health illness co-morbidity.⁴ Fortunately, long-term treatment periods have been shown to improve prognosis and disease trajectory.⁴

Case study

Background

Two weeks post ICU discharge, a Debrief Learning Event review took place between the ICU and SEDU teams. Mental health clinicians reported anthropometric and behavioural progress, as evidenced by weight maintenance, eating in communal areas and greater engagement with psychological services. There was no plan for discharge and the risk of future relapse was highlighted. Patient X reported that they had found the ICU admission to be extremely distressing and that avoiding further ICU admission was the primary driver to engage in therapy, as opposed to treat the underlying health needs. ICU admission-related nightmares were reported, but no physical side effects were reported. Patient X expressed thanks for the treatment and care received.

Teams agreed that in the case of a similar presentation, they would consider ICU admission as a last resort if all other treatment options had been exhausted.

The MDT involvement both prior to and during admission was identified as a critical factor in the management of this case – not only within individual sites but also across multiple locations. The team also discussed the significant clinical and emotional challenges posed by the rarity and unique complexity of the presentation. It was emphasised whilst ICU admission was considered lifesaving, it is important to acknowledge that Patient X came very close to death during her hospital stay.

Post ICU discharge, Patient X turned 18 years old. Consequently, they no longer met the criteria for continued inpatient stay at the current youth SEDU, so a new facility was required. The combination of underlying diagnoses made finding an appropriate next location challenging. Patient X's complex mental health needs and risk of self-harm were considered too great to be managed on an eating disorder unit, while simultaneously the eating disorder treatment was felt too complex for a mental health bed. Within the UK, there is a very small number of eating disorder beds that would accept dual pathology. Regular meetings took place, including clinicians, commissioners and legal representatives. It was agreed to transfer Patient X to a mental health unit as they were considered too well for an eating disorder bed. Transfer took place 25/07/22, following which there was a significant increase in hospital attendances (see **Table 1**).

Table 1: Timeline of presentation to acute health services & summary of admissions

Admission date	Discharge date	Evening meal
10/08/2022	10/08/2022	A&E attendance post ingestion foreign body and self-ligature.
17/08/2022	18/08/2022	A&E attendance post ingestion foreign body and self-ligature.
09/09/2022	07/10/2022	- Acute admission with hyponatraemia and hypomagnesaemia, evidence of water loading and self-harm. Gradual weight reduction and purging behaviours. - Escalated to acute high dependency unit (HDU) for cardiac monitoring, consideration of NGT feeding and risk of refeeding syndrome. - Gradual weight gain without need for NGT.
12/10/2022	12/10/2022	A&E attendance post self-ligature.
27/10/2022	27/10/2022	A&E attendance with diarrhoea and vomiting, general aches and pains. Biochemical infection markers within normal parameters and able to tolerate oral diet and fluids.
11/11/2022	11/11/2022	A&E attendance with hoarseness of voice and difficulty in swallowing following self-ligature 48-hours prior. Symptoms resolved.
09/01/2023	12/01/2023	Admission to HDU with hypokalaemia (2.6 mmol/L) following increase in purging behaviour. Treated with IV potassium.
13/01/2023	17/01/2023	- Failed discharge. Refused blood testing and ONS, increased purging. Mental health unit reporting unable to manage medical risk going into the weekend. - Physical symptoms managed, nil engagement with the medical team and returned to the mental health unit.
19/01/2023	19/01/2023	A&E attendance with ongoing weight loss, refusal of diet and fluids and clinically dehydrated. Electrolytes and ECG within normal parameters. Discharged to the mental health unit.
24/01/2023	13/02/2023	- Elective admission due to concerns of reduced oral intake, weight loss and ongoing self-harm. Reported intake of one apple in eight days. No purging. For consideration of enteral feeding. - Five-day management on HDU with refusal of treatment, observations and oral intake. - MDT discussion and review by ICU team. Agreed for ICU admission for sedation and intubation to permit NGT feeding, medical stabilisation and investigation. 12-day admission to ICU before step down to HDU and discharged back to the mental health unit four days later.

Case presentation

In September 2022, Patient X was admitted with electrolyte disturbances. Nutritional status was a concern and following advice from specialist eating disorder dietitians, Patient X was managed with an oral diet plan. In line with National Institute for Health and Care Excellence (NICE) clinical guidance,⁵ Patient X was regularly reviewed by the ward dietitian and the multidisciplinary Nutrition Support Team (NST), including specialist nutrition support dietitians, nutrition nurses and a pharmacist. During the one-month admission, weight reduced from 41.8 kg to a low of 38.4 kg, before weight restoration was achieved to 42.8 kg on discharge.

Whilst further acute admission was avoided until January 2023, regular MDT meetings took place regarding the appropriateness and challenges of Patient X's management at the mental health unit. Salford was not the local hospital to the mental health unit and the team were advised Patient X would need to attend the local A&E for assessment as required. The number of non-Salford hospital attendances is not known by the authors.

Patient X had formed some relationships with team members at Salford and, consequently, refused to attend the local A&E and reported they would not comply with medical interventions unless treated at Salford. This raised concern throughout MDT as it was felt Patient X was manipulating team members to avoid compliance to treatment plans. It demonstrates some of the challenges experienced by clinicians with minimal mental health training who care for patients who frequently attend A&E.

In January 2023, nine months after discharge from ICU, Patient X presented with hypokalaemia of 2.6 mmol/L. 2022 clinical guidance published by the Royal College of Psychiatrists titled '*Medical Emergencies in Eating Disorders*' (MEED), states that individuals diagnosed with an eating disorder who present with hypokalaemia <3.0 mmol/L should be assessed by medical clinicians for consideration of acute admission and cardiac monitoring.¹ Hypokalaemia is frequently observed in the AN population, often secondary to self-induced vomiting and/or laxative misuse, in conjunction with inadequate nutritional intake.¹ In view of Patient X's clinical history and the high risk of deterioration, proactive intervention was felt appropriate and Patient X was admitted to HDU for monitoring and electrolyte correction. Weight on admission was 46.6 kg, giving a body mass index (BMI) of 16.7 kg/m². During admission to HDU, deranged electrolytes were corrected, oral nutrition support commenced, and Patient X was discharged to the acute mental health ward four days after admission.

12-days later, Patient X was re-admitted to HDU with an eight-day history of food and drink refusal. Weight had decreased to 41.4 kg, giving a worrisome BMI of 14.8 kg/m² and indicating -11.2% weight change. Oral and enteral nutrition support interventions were attempted during the initial two days of admission, however proved unsuccessful. Clinical guidance indicated an impending risk of life,¹ and the ICU MDT were contacted to query if admission for medical stabilisation would be appropriate. Patient X was assessed and, given the severity of malnutrition, the high risk of refeeding syndrome and clinical symptoms due to malnutrition,

stepped-up to ICU two days later under section-3 of the Mental Health Act.^{1,5}

ICU intervention

Patient X was intubated and sedated on admission to ICU as means of chemical restraint to facilitate NGT feeding. With the same rationale as their initial admission nine months previously, the intervention aimed to enable a period of nutritional repletion and safely manage the very high-risk of refeeding syndrome, thus improving health to an extent to be able to engage in mental health therapy. Weight on admission to ICU was 40 kg.

In line with MEED clinical guidance,¹ nutrition support via NGT commenced at 20 kcal/kg body weight/day and over eight days increased incrementally to a final regimen which provided 80 kcal/kg body weight/day. Patient X extubated on day eight of ICU admission. Weight had increased to 54.5 kg; however, this was related to left arm cellulitis and peripheral oedema, and assessment of hydration status indicated fluid overload, so it was felt this was unlikely to reflect dry weight. Oedema can indicate excessive fluid intake but specifically within the AN population can be exacerbated by the sudden cessation of vomiting and/or laxative withdrawal.¹

The following day, a cycle of repeated NGT removal by Patient X and re-insertion by staff led to mutual distress. A swallow assessment indicated safety to consume normal diet and fluids. Liaison with Patient X's eating disorder dietitian enabled access to their usual oral meal plan and this recommenced. To facilitate smooth transition, coordination and continuity of care and clear communication between specialist teams, the ICU and NST MDTs collaboratively reviewed Patient X prior to step down. Case history was discussed and a care plan suitable for implementation at ward-level was agreed. Two days later, with a weight of 53.0 kg, Patient X stepped down to HDU and four days after this, was discharged back to the mental health unit.

Post discharge

In line with NICE quality standards,⁶ Patient X was invited to attend ICU follow-up clinic but, unfortunately, did not attend. In September 2023, seven months after discharge from ICU, the team were informed that Patient X had made progress. They continued to reside at the mental health unit with day leave and had plans to enlist in further education and employment. Body weight was unknown, however mid-upper arm circumference (MUAC) was stable at 22.0 cm, indicating BMI was likely to be <20 kg/m².⁷

Summary

The authors felt it essential to share Part 2 of this case study to demonstrate the 'roller coaster' of disease trajectory often experienced by individuals diagnosed with chronic eating disorders and mental health co-morbidities. Consistent communication and planning between specialist clinical teams (mental health, ICU and NST) permitted the readmission to ICU to achieve its primary outcomes of medical stability and safe management of refeeding syndrome. It was felt that death was likely had the intervention not taken place.¹

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