

Conference on ‘Malnutrition matters’

Symposium 8: Feeding size 0: the challenges of anorexia nervosa Managing anorexia from a dietitian’s perspective

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Anorexia nervosa has the highest mortality rate of any psychiatric condition and its management is complex and multi-faceted, requiring a multidisciplinary team approach. Dietitians are an important part of the multidisciplinary team, offering objective nutritional advice with the aim of helping the patient to develop an improved relationship with food. Refeeding patients with a low body weight requires careful management; nonetheless, refeeding the low-weight patient with anorexia presents many additional complications, largely of a psychological nature. Treatment plans need to consider psychological, physical, behavioural and psychosocial factors relating to anorexia nervosa. Currently, there is no consistent approach and a paucity of evidence to support best practice for weight restoration in this group of patients. Tube feeding is utilised at varying BMI in anorexia nervosa, mainly in an inpatient setting. However, its use should be seen as a last resort and limited to a life-saving intervention. Weight restoration is best managed by an experienced dietitian within a specialist eating disorders team, using normal foods. This approach is ideal for nutrition rehabilitation, promoting skills for eating and normal behaviour and providing a longer-term solution by challenging unhelpful coping strategies from the onset. Dietitians have a unique mix of skills and knowledge in numerous areas including nutrition, physiology, psychology, sociology and behaviour change, which can be applied to support patients with thoughts and behaviours around food, weight and appetite. Further research is required into the effectiveness of dietetic interventions in eating disorders in order to establish an evidence base for best practice.

Anorexia nervosa: Tube feeding: Nutrition

Anorexia nervosa is a psychiatric condition that varies in severity, from mild to severe and chronic cases, resulting in extreme dieting and starvation⁽¹⁾. With a mortality rate amongst the highest of all psychiatric illnesses⁽²⁾, anorexia nervosa is a life-threatening disorder. Not only does severe weight loss increase the risk of medical complications, but other associated behaviours, such as bingeing, purging, over-exercising and deliberate self-harm, pose a substantial risk to both physical and psychological health and well-being.

As a result of its complex nature a multidisciplinary team approach to the management and treatment of anorexia nervosa is essential. It has been suggested that the most successful way to achieve recovery in this patient

group is to blend together the expertise of the numerous members of the multidisciplinary team⁽³⁾. Dietitians are becoming increasingly recognised as an important part of the team, providing a specialist role in assisting patients to restore a normal body weight, achieve a dietary intake that meets nutritional requirements and to provide nutrition education. They have a unique mix of skills and knowledge in areas including nutrition, physiology, psychology, sociology and behaviour change, which can be applied to support patients with thoughts and behaviours around food, weight and appetite.

The present paper will address how patients with anorexia nervosa are managed from a dietitian’s perspective; from the initial stages of refeeding, through to weight

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Table 1. BMI and treatment settings for patients with anorexia nervosa

BMI (kg/m ²)	Risk	Setting
≥16.0	Low	Outpatient
15.9–14.0	Moderate	Outpatient or inpatient
≤13.9	High	Inpatient

stabilisation and normalised eating. Considerations such as the psychological, physical, behavioural and psycho-social aspects of eating will also be explored.

Settings

As the severity of eating disorders can vary, decisions about treatment plans and settings should be made on an individual basis. Most patients suffering from anorexia nervosa can be managed in an outpatient setting and will not require intensive inpatient treatment. An example of how patients may be categorised is shown in Table 1.

BMI should not be the only measure of physical or psychological risk⁽⁴⁾. The National Institute for Health and Clinical Excellence recommends that ‘a physician or paediatrician with expertise in the treatment of medically at risk patients with anorexia nervosa should be considered for all individuals who are medically at risk’⁽⁵⁾. The National Institute for Health and Clinical Excellence also suggests that inpatient treatment should be considered for the following patients with anorexia nervosa: those whose disorder has not improved with appropriate outpatient treatment; those whose disorder is associated with high or moderate risk; those for whom there is a substantial risk of suicide or severe self-harm⁽⁵⁾.

Judgement about the extent of physical risk that a patient presents is difficult, as there is little evidence to causally link specific measurable variables such as BMI with mortality risk, except at extremes. A review of mortality rates and cause of death has found that sudden death has no clear relationship with length of illness or age⁽²⁾. Instead, very low serum albumin and a weight of <60% of ideal body weight (BMI <12 kg/m²) are the best indicators. However, one of the few long-term studies on mortality, in which patients were followed up at both 5 and 20 years post treatment, has found that mortality is unpredictable, with 40% of deaths in patients classed as ‘poor outcome’ at 5 years follow-up, but surprisingly 40% classed as ‘intermediate outcome’ and one death from the ‘good outcome’ category⁽⁶⁾. Of these deaths, 50% were attributed to electrolyte imbalances and 50% to suicide.

In agreement with these findings, it has been claimed that individual response to starvation is hugely variable⁽⁷⁾, and thus the risk of sudden death is difficult to predict, relying heavily on clinician judgement together with the assessment of a range of factors⁽⁴⁾: excess exercise+low weight; blood in vomit; frequent vomiting; laxative abuse; poor fluid intake; chronic low weight; type of food restriction (high protein and low carbohydrate); rapid weight loss (>0.5 kg/week).

If inpatient treatment is deemed necessary, it should take place in a setting that can provide the skilled implementation of refeeding, with careful physical monitoring and in combination with psycho-social interventions⁽⁵⁾.

Weight restoration

The first 7–10 d of the reintroduction to food poses a substantial risk of refeeding syndrome and its related complications⁽⁵⁾. Medical stabilisation of electrolytes, liver function tests and the electrocardiogram are a priority. Thus, initial feeding (7–10 d) is aimed at medical stabilisation, as opposed to weight gain, as well as building the patient’s tolerance to an energy intake that will promote weight restoration. Currently, there is no consistent approach and a paucity of evidence to support best practice for weight restoration in this patient group. However, most inpatient programmes commence refeeding at approximately 2092–2929 kJ (500–700 kcal) per d, depending on body weight and previous intake. Careful management of electrolyte balance is required, along with the supplementation of vitamins and minerals^(5,8).

Weight change during the early stages of refeeding is unpredictable. Weight may fall as a result of a reduction in fluid intake in comparison with previous fluid overloading or over-hydration. Also, weight can drop as a result of a sudden increase in energy requirements⁽⁹⁾, coupled with the low level of energy consumed at this initial phase. Weight gain may not occur until 2–3 weeks into treatment. In contrast, some individuals may gain weight quickly from the onset for a variety of reasons, e.g. previous dehydration, rapid weight loss or obesity. Energy and fluid prescriptions should be monitored and adjusted frequently to ensure minimal symptoms of refeeding and a safe rate of weight gain.

Next, there follows a period of steady weight restoration until a safer weight is achieved, ensuring a substantial reduction in physical risk. Once this outcome is achieved, the rate of weight gain can be raised to 0.5–1 kg/week, which usually requires a 10 460–12 552 kJ (2500–3000 kcal)/week increase⁽⁵⁾. From the authors’ experience (A Cockfield and U Philpot, unpublished results) intakes can be adjusted to ensure that adequate weight gain continues by introducing increments of 837–1255 kJ (200–300 kcal)/d.

A weight gain of 0.5–1.0 kg is recommended⁽⁵⁾. There is a shortage of studies in this area, but two studies have drawn conclusions that are similar^(10,11). These studies have found that the period of time patients have to maintain weight up to discharge predicts time to re-admission; the more time patients have to maintain their weight, the slower the rates of re-admission. It has also been shown that patients who gain weight rapidly (>750 g/week) are more likely to show rapid post-discharge weight loss⁽¹¹⁾. Slower weight gains (of 500 g/week) result in more sustained weight maintenance. Furthermore, caution is expressed against forced fast weight gain under inpatient conditions, and it is suggested that rapid weight gain at the beginning of treatment, followed by a reduced rate of weight gain, could increase the chance of later weight maintenance.

Emergencies

The National Institute for Health and Clinical Excellence proposes that through early identification and intervention patients should be engaged and treated before reaching severe emaciation⁽⁵⁾. However, there are cases for which an emergency admission is needed because of deteriorating health and physical risk, and a decision must be made about where this admission takes place. Since refeeding patients at dangerously-low body weights (BMI <13.9 kg/m²) is high risk, an admission to a medical ward is often deemed necessary. Ideally, this admission should be to a medical ward that is experienced in refeeding patients with anorexia nervosa, and under the care of a physician with a special interest in eating disorders. In the absence of this type of setting a refeeding protocol (Appendix) should be in place, together with frequent liaison with local specialist services, or an urgent out-of-area assessment and advice must be sought. All assessments and events involved in the refeeding process should be explained to the patient and, where possible, options and risks discussed in an honest and supportive way.

Psychological and behavioural considerations

In anorexia nervosa behaviours are used to help manage unbearable thoughts, beliefs or emotions. In other words, food restriction, over-exercising and a preoccupation with food distract the patient from these negative thoughts and beliefs. Through the repeated use of eating-disorder behaviours anorexia nervosa eventually becomes egosyntonic in nature⁽¹²⁾, i.e. it becomes part of the sufferer's identity. Weight restoration involves giving up the patient's coping mechanism and exposing them to their unbearable thoughts and feelings. Recovery allows new skills to be learned, so the individual can stop self-defeating behaviours and develop self-enhancing ways of coping. For this reason weight restoration and psychotherapy must be used concurrently if treatment is to be effective. Thus, refeeding patients with anorexia nervosa is markedly different from refeeding patients without an eating disorder and requires a skilled multidisciplinary team approach.

Supported nutrition

Irrespective of body weight, rate of weight loss or the history of the eating disorder, in the absence of any life-threatening medical complications, any patient with an eating disorder can restore their body weight with the use of normal foods, as opposed to artificial nutrition. Nonetheless, supported nutrition is essential.

Patients with an eating disorder find eating to promote weight gain distressing, both physically and psychologically. As a result of delayed gastric emptying and impaired gut motility, the consumption of large amounts of food can be uncomfortable^(13,14). Also, with an intense dread of weight gain and the risk of losing control and their identity, patients need psychological and emotional support to eat⁽¹²⁾. This process is best managed under the care of a specialist eating disorders service, where trained health

professionals can put in place sufficient boundaries to allow patients to begin eating again without coercion. Some inpatient eating disorder units encourage peer challenging and support from fellow inpatients with an eating disorder.

An individualised initial eating plan is prescribed that includes foods from all the major food groups, i.e. carbohydrate, protein, fat, vegetables and dairy. This eating plan is only a baseline and is intended to help the patient start eating, as opposed to meeting their nutritional requirements. The eating plan is also non-negotiable, i.e. the patient has to consume all foods from the plan and not leave any of it. This regimen is often enforced by health professionals, who remain with the patients, supporting them until all the food has been eaten, irrespective of the time taken, or other patients stay in the dining room until all the food has been consumed. What is negotiable is the choice of the food from the food group. For example, with protein patients are able to choose whether it is meat, fish or a vegetarian form of protein. Gradually, the eating plan is increased to ensure continuing weight restoration. Patients are also monitored and any nutrient deficiencies corrected. Over time, a therapeutic and trusting relationship is built up between the patient and the dietitian, which is an important component for recovery⁽¹⁵⁾. However, since recovery is not achieved through weight restoration alone⁽¹⁶⁾, the responsibility for eating, making dietary changes and establishing a healthy body weight is slowly handed back to the patient.

There is a misconception that patients with an eating disorder have a good understanding of nutrition, but evidence suggests otherwise. Research into the nutritional knowledge of these patients shows that their expertise is on the energy value of foods, with a poor comprehension of their overall nutritional requirements and how to consume a healthy balanced meal and/or diet⁽¹⁷⁾. Also characteristic of the illness itself are faulty ideas and attitudes towards eating⁽¹⁸⁾. A major part of the nutritional rehabilitation is to consider psycho-social factors. This process includes assessing patient's skills and knowledge in areas such as meal planning, shopping, cooking and portioning. Patients with anorexia nervosa often have functional deficits in relation to these issues. Ability to judge an adequate portion or the components of a balanced meal can be severely distorted. The dietitian has a vital role in ensuring a normal range of foods are consumed, establishing normal meal patterns and portions, reducing the fear of dietary change and addressing any abnormal beliefs towards food⁽¹⁹⁾. Further research is required into the effectiveness of dietetic interventions in eating disorders in order to establish an evidence base for best practice.

Sip feeds

The frequent use of sip feeds and/or nutritional supplements is not usually helpful. They encourage patients away from the experience of food, re-enforce their avoidance of foods and can foster dependency on artificial food sources. However, there may be cases for which they are helpful and supportive in the short term, e.g. for weaning off tube

feeding, and as a 'top-up' for patients struggling with satiety and the volume of food required to promote weight gain.

Tube feeding

The challenge of refeeding patients with anorexia nervosa at a very low weight, combined with their psychological needs, is enormous and a multidisciplinary team assessment is essential. The decision to tube feed is complex and requires careful planning, i.e. it may be extremely distressing for patients with a history of physical or sexual abuse. Characteristic of an eating disorder is a reluctance to accept treatment and ambivalence, i.e. at the same time wanting to and not wanting to have treatment⁽¹²⁾, and thus tube feeding may be necessary as a last resort. Some indicators for tube feeding are a life-threatening low weight (BMI <12 kg/m²) and/or poor compliance with dietary intake or (at higher weights) a high physical risk score⁽²⁰⁾ with falling weight and non-compliance with oral intake.

There is evidence that supplementary nasogastric feeding may be a useful and acceptable method of weight restoration. Voluntary use of tube feeding in inpatient settings has been shown to improve weight gain and reduce length of stay, with no detrimental effects on therapeutic relationship or treatment-satisfaction scores^(13,21). Delayed gastric emptying and impaired intestinal motility makes eating difficult and voluntary short-term supplementary tube feeding may be useful in some individuals, at varying BMI, in specialist inpatient settings. Nevertheless, refeeding with food teaches skills for eating, promotes normal behaviour, challenges unhelpful coping strategies and should be considered the first treatment option for patients with an eating disorder.

It has been argued that enforced tube feeding damages the therapeutic alliance⁽²²⁾. Conversely, it has been claimed that tube feeding in the correct way does not impact on the therapeutic relationship⁽²³⁾. Most current literature focuses on tube feeding as a life-saving intervention, used to safely manage medical risks⁽⁵⁾. Working with the patient to support the reintroduction of food and returning control and choice at the earliest possible point is crucial in enabling them to move towards accepting further treatment.

Involuntary treatment

When patients with anorexia nervosa refuse treatment, even when their health is at risk, issues of patient autonomy can conflict with protection of their best interests. Healthcare professionals have a moral and legal obligation to save life, which creates difficult situations in which patients, their families and health professionals are engaged in struggles around treatment options⁽¹²⁾. Where patients are unwilling to cooperate with refeeding and weight restoration, involuntary feeding may need to be considered.

Patients with anorexia nervosa may refuse treatment because of: fear of loss of personal identity; fear of loss of advantages of anorexia nervosa; feeling the choice of giving up the eating disorder is not theirs to make; needing

to be coerced before they feel able to comply; relative unimportance of death in comparison with anorexia nervosa⁽¹²⁾.

The issue of capacity to consent is especially difficult to assess in anorexia nervosa for many reasons. Patients have the right to refuse treatment as long as they possess the capacity to do so, even if their reasons are irrational or unreasonable. Thus, the legal criterion for capacity focuses on the patient's understanding of their illness and its consequences. Patients with an eating disorder often have a good understanding of the risks involved and the ability to reason, but still refuse life-saving treatment. Competence is different from capacity, as it incorporates factors such as appreciation of information applied to oneself, but is poorly defined⁽¹²⁾. However, competence should be considered together with capacity, the Mental Health Act 2007⁽²⁴⁾ and the Human Rights Act 1998⁽²⁵⁾ when patients refuse treatment.

Feeding against the will of the patient should be an intervention of last resort and is a highly specialised procedure, requiring expertise in the care and management of those with severe eating disorders and the associated physical complications⁽⁵⁾. It has been reported that patients consider their experience of involuntary feeding to be degrading and an infringement of their human rights, as well as making them feel imprisoned and punished⁽¹²⁾. However, at a higher body weight these same patients are pleased that the decision to refuse treatment had been overridden, thus proving the complexity of assessing capacity and competency.

The National Institute for Health and Clinical Excellence states that healthcare professionals who do not have the specialist experience of managing patients with an eating disorder, or in times of uncertainty, should seek advice from an appropriate expert when considering a compulsory admission⁽⁵⁾.

Conclusion

Anorexia nervosa is bound up in identity and is often viewed as more important to the sufferer than its detrimental physical side effects or the risk of dying. Weight restoration is associated with a strong decrease in physical and cognitive symptoms and is considered essential for effective psychotherapy⁽¹³⁾, which should occur simultaneously. Nonetheless, weight restoration is difficult because of physical symptoms such as delayed gastric emptying, early satiety⁽¹⁴⁾ and other behavioural and psychological factors, and thus the setting needs careful consideration. Rapid weight gain and low weight at discharge are both risk factors for relapse⁽¹¹⁾. Supported nutrition is the treatment of choice for anorexia nervosa and tube feeding is a life-saving intervention and a last resort. Refeeding must not be undertaken without adequate psychological support and requires a multidisciplinary team multi-agency approach. Dietitians specialising in eating disorders are ideally placed to support patients with weight gain and normalised eating. However, there is a paucity of research on nutritional interventions in anorexia nervosa.

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Appendix

Refeeding protocol

This protocol has been developed to offer guidelines in the care of a recently admitted patient with severe anorexia nervosa (defined as BMI <15 kg/m²) for the physicians, psychiatrists, nursing staff and dietitians involved in the care.

Most patients with anorexia nervosa should be managed on an outpatient basis, but if there is a substantial deterioration in their physical condition or mental state, then inpatient care should be considered.

It is important, before admission, to agree with both the patient and the care team the aims of the admission, e.g. admission for weight restoration or management of major risk of suicide or self-harm.

Nasogastric feeding is associated with substantial physical risks, including refeeding syndrome. The setting for tube feeding should be a multidisciplinary team decision, e.g. if physical risk is high refeeding patients on a medical ward may be considered. However, staff experienced in managing patients with an eating disorder should be present, which may require mental health nursing staff to assist patients on the medical ward.

By the nature of their illness these patients require care from various professionals and regular multidisciplinary reviews are vital to coordinate this care.

These recommendations are guidelines rather than rigid rules and have been based on the care offered to patients within the specialist eating disorder service. However, this protocol is based on a specialised service and therefore some of the recommendations may not be possible in other settings.

These guidelines are not intended to replace the liaison role with the specialist eating disorder service.

Procedures

- Assess patient for nasogastric feeding or oral diet.
- Initiate nasogastric feeding if: planned admission for nasogastric feeding; BMI <12 kg/m² and/or poor

compliance with oral diet; deteriorating liver function tests; deteriorating electrolytes; deteriorating electrocardiogram; as deemed medically necessary.

(c) Before commencing feed:

1. weigh patient and calculate BMI;
2. book electrocardiogram if no recent result is available;
3. take blood samples, e.g. full blood count, urea and electrolytes, liver function test, albumin, C-reactive protein, phosphate, Mg and Ca;
4. call dietician, liaison psychiatry and book mental health nurses if needed;
5. pass nasogastric tube in accordance with hospital policy. Use Mental Health Act 2007⁽²⁴⁾ if necessary.

(d) Commencing nasogastric feed:

6. commence feed according to care plan (see later);
7. do not allow to eat. Do not attempt to negotiate meal plans or arrange supplemented drinks;
8. try not to rehydrate using intravenous fluids (insulin stimulation with dextrose administration precipitates refeeding syndrome). Double-ended port on the end of nasogastric feed can be used to rehydrate whilst feeding if needed;
9. prescribe necessary electrolyte supplementation as medically necessary and commence administration as nasogastric feed commences and run concurrently with feed;
10. prescribe and administer immediately before feed commences and then daily vitamin supplements according to Table 1A.

Table 1A. Daily vitamin supplements to commence with feeding

Thiamin	200–300 mg/d, before feed
Vitamin B Compound Strong tablet*	One to two tablets three times daily
Multivitamin tablet (e.g. Forceval†)	Once daily
Magnesium glycerophosphate	Once daily after feeding begins for first 5–7 d
Phosphate Sandoz‡	Once daily after feeding begins for first 5–7 d

*Actavis UK Ltd, Barnstaple, Devon, UK.

†Alliance Pharmaceuticals Ltd, Chippenham, Wilts., UK.

‡HK Pharma Ltd, Hitchin, Herts., UK.

11. start fluid chart;
12. start stool chart (consider use of a commode).

Table 2A. Factors to be monitored

U&E, FBC, albumin, CRP, LFT, phosphate, Mg and Ca	Daily or as medically directed
Fluid balance chart	Daily
Temperature, pulse, BP	Daily or as medically directed
Weight	Daily in night clothes in the morning for the first 10 d then twice weekly
ECG	On admission then as medically directed
Stool	Daily
Blood glucose	Only if breaks in feeding. Consider monitoring every 4 h

U&E, urea and electrolytes; FBC, full blood count; CRP, C-reactive protein; LFT, liver function test; BP, blood pressure; ECG, electrocardiogram.

Table 3A. Electrolyte supplementation

	Oral	Intravenous
Hypokalaemia:		
Mild (3.1–3.6 mmol/l)	Sando K ⁺ ; four to eight tablets daily (each tablet 12 mmol K ⁺)	As medically necessary
Moderate (2.5–3.0 mmol/l)		
Severe (<2.5 mmol/l)		
Hypophosphataemia:		
Mild (0.70–0.80 mmol/l)	Phosphate Sandoz*; four to six tablets daily (each tablet 16 mmol phosphate)	Phosphate polyfusor‡; 50 mmol phosphate; 81 mmol Na; 10 mmol K
Moderate (0.32–0.69 mmol/l)		
Severe (<0.32 mmol/l)		
Hypomagnesaemia:		
Mild (0.55–0.74 mmol/l)	Maalox	As medically necessary
Moderate (0.40–0.54 mmol/l)	suspension†; 10–20 ml daily	
Severe (<0.40 mmol/l)		

*HK Pharma Ltd, Hitchin, Herts., UK.

†Sanofi-aventis, Guildford, Surrey, UK.

‡Fresenius Kabi, Warrington, Ches., UK.

Table 4A. Feeding regimen

Addressograph: Authorised by:	
Date commenced:	
Day 1	300 ml high-fibre feed (4.2 kJ (1 kcal)/ml) at 13 ml/h for 24 h
Day 2	400 ml high-fibre feed (4.2 kJ (1 kcal)/ml) at 17 ml/h for 24 h
Day 3	600 ml high-fibre feed (4.2 kJ (1 kcal)/ml) at 25 ml/h for 24 h
Day 4	800 ml high-fibre feed (4.2 kJ (1 kcal)/ml) at 35 ml/h for 24 h
Days 5–7	1000 ml high-fibre feed (4.2 kJ (1 kcal)/ml) at 50 ml/h for 20 h
Day 8	1300 ml high-fibre feed (4.2 kJ (1 kcal)/ml) at 65 ml/h for 20 h
Day 9	1600 ml high-fibre feed (4.2 kJ (1 kcal)/ml) at 80 ml/h for 20 h
Day 10	2000 ml high-fibre feed (4.2 kJ (1 kcal)/ml) at 100 ml/h for 20 h

Maintain at this rate until dietitian review. Once biochemically stable the following increases in feeding rate are possible:

2000 ml high-fibre feed (4.2 kJ (1 kcal)/ml) at 100 ml/h for 20 h

Rest for 4 h

2000 ml high-fibre feed (4.2 kJ (1 kcal)/ml) at 125 ml/h for 16 h

Rest for 8 h

2000 ml high-fibre feed (4.2 kJ (1 kcal)/ml) at 150 ml/h for 13.5 h

Rest for 11.5 h

Table 4A (cont.)

Further increases in rate and feed may be necessary
In the interest of patient safety:
Check stomach pH before commencing feed
Feeding tube must be flushed before and after each feed or bolus and before and after the administration of medication
For nasogastric tubes aspirate using a 50 ml syringe to check position (see Trust guidelines)
To decrease the risk of aspiration keep the head of the bed elevated 30°–45°
Hang feed for ≤ 12 h (see infection control policies)
A new giving set should be used every 24 h

Nursing assessment and care plan formulation

The rationales behind the points covered in the care plan are:

1. bed rest: required in view of compromised physical state of patient;
2. fluids: often patients drink large amounts of fluid causing dangerous fluid overloading and electrolyte disturbance or drink very little;
3. supervise showers and washes: because of patient's compromised physical state monitor for abnormal behaviours and consider monitoring temperature;
4. toilet supervision: because of patient's compromised physical state and consider monitoring for abnormal behaviours;
5. meals: supervisor to give support to patients and to model normal eating patterns;
6. leave: dependent on physical well-being;
7. physical observations: patients vulnerable to hypothermia and hypoglycaemia; in addition to physical observations ensure room is kept warm.

Table 5A. Problem solving

Problem	Consider
Rapid weight gain (< 1.5 kg/week after rehydration)	Review fluid chart and daily overall energy and fluid intake, especially carbohydrate Reduce feed if necessary Reduce oral fluid intake if necessary or any additional fluids Spot weight checks to ensure patients are not manipulating weight
Slow weight gain	Check feed is up to 293–419 kJ (70–100 kcal)/kg. If weight gain is still slow, feed is being tampered with or vomiting or overactivity. Book mental health nurse if needed for 24 h supervision or support for patient Spot weight checks; 24 h 1:1 nursing
Suspected fluid loading or manipulation of weight	Spot weight checks; 24 h 1:1 nursing
Patients wishing to negotiate about feed regimen, eating or drinking	Liaise with specialist unit Not usually appropriate during initial refeeding phase
Patient wanting laxatives	Check history of previous abuse and stool chart
Suspicion of vomiting	Use commode
Raised K and bicarbonate	Book mental health nurse
Patient is overactive (e.g. pacing) or standing up all day	Book mental health nurse; agreed short (5 min), supervised and purposeful walks once medically stable

Table 6A. Points to consider in nursing care plan formulation

BMI (kg/m ²).....	Severe anorexia		Low-risk anorexia
	<13 (high risk)	13–15 (moderate risk)	15–16.9
Bed rest	24 h Risk assessment for tissue viability Liaise with tissue viability nurse about special mattress	6 h (divided into three 2 h periods) Social rest (patients to take responsibility for their own well-being)	Social rest (patients to take responsibility for their own well-being)
Fluids	Input and output to be measured (supervised) Liaise with dietitian Water supply in room to be turned off to reduce fluid overloading if it is problematic	Liaise with dietitian about fluid balance May need to consider turning off water to reduce fluid overloading	Liaise with dietitian about fluid balance**
Showers and washes	Supervised washes only within bedroom area recommended	Supervised showers recommended to monitor physical well-being and activity	Unsupervised showers (depending on physical well-being)
Toilet	Supervised to ensure physical safety and accurate fluid balance	Unsupervised (but fluid balance may be required) Liaise with dietitian	Unsupervised (depending on physical well-being)
Nutrition	Liaise with dietitian about NG feeding Supervised (and ≤ 1 h post-meal supervision) All meals to be advised by dietitian Monitor for effects of refeeding syndrome	Supervised (and ≤ 45 min post-meal supervision) All meals to be advised by dietitian	Unsupervised (depending on behaviours, physical well-being and need for support) Liaise with dietitian
Leave	No leave when on medical ward Short-period wheelchair leave when on psychiatric ward	Short periods in wheelchair where appropriate (depending on physical well-being)	Unescorted or escorted (as appropriate)
Physical observations	BP, pulse and temperature (four times daily) Monitor blood glucose (four times daily using blood glucose monitoring machine and finger prick)	BP, pulse and temperature (twice daily) Monitor blood glucose (once daily, depending on physical well-being)	BP, pulse, temperature and monitor blood glucose (depending on physical well-being)

NG, nasogastric; BP, blood pressure.