Sheffield Teaching Hospitals NHS
NHS Foundation Trust

Sheffield Health and Social Care NHS
NHS Foundation Trust

SHEFFIELD MARSIPAN PROTOCOL

For management of seriously ill people with anorexia nervosa

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Sheffield Health and Social Care NHS Foundation Trust
and
Sheffield Teaching Hospitals NHS Foundation Trust

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Introduction

This document addresses the care of seriously ill patients with an eating disorder in Sheffield, particularly ensuring that they receive appropriate physical health care overseen by a multidisciplinary team (The Marsipan Group). It was produced in response to the Royal College of Psychiatrists' MARSIPAN report (2010), which addressed concerns over a number of patients with severe anorexia nervosa dying due to under treatment, some on medical inpatient wards. It applies to patients with an eating disorder, who are at risk of becoming seriously physically unwell and may require admission. Usually such patients will have a BMI of less than 15.

The aim of this document is to ensure that all staff involved in the care of seriously ill patients with an eating disorder provide consistent, high quality physical health care in a coordinated way. It provides advice for nursing, medical and dietetics staff, including those working out of hours who may have limited experience working with people with eating disorders. The aim is to provide adequate nutrition to patients to achieve weight restoration and medical stability. Wherever possible this should be achieved in a collaborative way, that provides psychological as well as physical benefit.

This protocol starts with guidance on acute management of ill patients, for practical reasons. It then considers nursing care, then pathways for such patients.

It is important that this protocol is used by all staff to initiate treatment for patients with anorexia outside of normal working hours, as delays in treatment at such times can have severe and fatal consequences.

Sheffield Eating Disorder Service should be made aware of all admissions of patients with an eating disorder to Sheffield Teaching Hospitals: SEDS can be contacted Mon-Fri on 0114 2716938. If the patient is not already known to SEDS, a written referral (preferably using the referral form) will be required.

Assessment of medical condition and risk

Severe anorexia and bulimia lead to increased risk of many physical health problems, some life-threatening, see table 1. The average patient with anorexia nervosa has a six times higher risk of death that someone of the same age without anorexia.

Table 1: Acute physical health complications of anorexia / bulimia

- **Cardiovascular**
  - Hypotension, postural hypotension + collapse (BP lying + standing)
  - Bradycardia (Pulse)
  - ECG abnormalities (QTc, arrhythmias)
  - Oedema, dehydration, circulatory failure
- **Biochemical and haematology abnormalities**
  - Hypokalaemia – often due to vomiting or diuretic use
  - Hyponatraemia - sometimes due to water loading
  - Renal effects eg. due to dehydration
  - Hypoglycaemia - if present, suspect occult infection, especially with low albumin or raised c- reactive protein
- **Neurological/muscular**
  - Vitamin deficiencies eg. Wernike's encephalopathy
  - Proximal muscle weakness
  - Cognitive impairment
- **Gastrointestinal**
  - Ulcers + inflammation
  - Constipation
  - Due to vomiting: dental damage, hand calluses, parotid glands
- **Infection**
  - Inflammatory response to infection can be reduced
  - Temperature can be normal
  - Increased risk of infection with low neutrophil count.
- **Hypothermia**

Body Mass index (BMI) should not be used as sole assessment of risk and table 2, below gives other clinical indicators of risk.

Body mass index = weight (in kilograms) / height (in metres)^2.

A healthy BMI is between 18.5-25, with anorexia requiring a BMI of <17.5 for diagnosis. Below 17.5 amenorrhoea and osteoporosis are likely. Below BMI 15 there is loss of tissue in organs, with this compromising the function of bone, heart and brain. (J Treasure – guide to physical risk assessment for eating disorders 2009 Institute of Psychiatry Kings College)

Table 2: Medical assessment – based on "a guide to the medical risk assessment for eating disorders" (Treasure, 2009)			
System	**Test/investigation**	**Concern**	**Alert**
Nutrition	BMI	<14	<12
	Weight loss/week	>0.5kg	>1.0kg
	Skin Breakdown	<0.1cm	>0.2cm
	Purpuric rash		+
Circulation	Systolic BP	<90	<80
	Diastolic BP	<70	<60
	Postural drop (sit-stand)	>10	>20
	Pulse rate	<50	<40
Squat test	Unable to get up without using arms for balance	+	
	Unable to get up without using arms as leverage		+
Sit up test	Unable to sit up without using arms as leverage	+	
	Unable to sit up at all		+
Temperature		<35C	<34.5C
Bone Marrow	WCC	<4.0	<2.0
	Neutrophils	<1.5	<1.0
	Hb	<11	<9
	Acute Hb drop (MCV and MCH raised – no acute risk)		+
	Platelets	<130	<110
Salt / water balance	Potassium	<3.5	<3.0
	Sodium	<135	<130
	Magnesium	0.5-0.7	<0.5
	Phosphate	0.5-0.8	<0.5
	Urea	>7	>10
NB. Renal impairment is possible with only mildly elevated urea and creatinine			
Liver	Bilirubin	>20	>40
	Alk Phosphatase	>110	>200
	AST	>40	>80
	ALT	>45	>90
	GGT	>45	>90
Nutrition	Albumin	<35	<32
	CK	>170	>250
	Glucose	<3.5	<2.5
ECG	Pulse rate	<50	<40
	QT interval corrected		>450
	Arrythmias		+
	Non- specific T- wave changes, hypokalaemic changes		
Differential dx	TFT, ESR		
Other	Oedema		
	Signs of vitamin / nutritional deficits		
	Assessment of dehydration status		
	Hepatomegaly		

The following features from the patient's history are known to increase the level of risk:

- Rapid weight loss
- Excess exercise with low weight
- Blood in vomit
- Inadequate fluid intake in combination with poor eating
- Frequency of vomiting/ laxative/ diuretic misuse
- Alcohol abuse and co-morbid physical illness

A sudden increase in nutrition can cause refeeding syndrome in someone at a very low weight, who has had very minimal nutrition for a period of time. This is covered in a separate section below.

Prescribing electrolyte replacement, vitamins and minerals and associated monitoring

Initial investigations for all patients with a BMI less than 15
The following bloods should be done in order to assess physical health risks and the need for electrolyte replacement therapy:

- FBC, U&Es, LFTs, CK, glucose
- Phosphate, calcium, magnesium, zinc, copper, selenium
- Iron profile (ZPP), vitamin B12, folate
- TFTs, CRP
- Vitamin D, PTH

An ECG should also be completed

Other investigations to consider

- Sex hormones
- Coeliac serology

Initial supplementation for severely ill and all nasogastrically (NG) fed patients
Before starting feeding:

- Give full dose thiamine 3 times daily for 48 hours, slow intravenous (e.g. Pabrinex®, note the risk of anaphylaxis) and start tablets 100 mg twice daily for the duration of the admission (MARSIPAN 2010).
- Start a balanced multivitamin / trace element supplement (eg. Forceval® once daily). (Wakefield and Williams 2009, Cockfield 2011, NICE 2004, MARSIPAN 2010, Mehanna 2008, Royal Australian and New Zealand Guidelines, 2004)
- Start Vitamin B Co strong, 1 tablet tds (NICE 2004, BDA refeeding guidance 2011, Royal Australian and New Zealand Guidelines,2004)
- Check electrolyte results for potassium, calcium, magnesium, phosphate (Cockfield 2011, MARSIPAN 2010)
- Correct electrolyte levels if low (potassium <3.2, phosphate <0.6, magnesium <0.55)
- Provide generous electrolyte replacement unless blood levels are high

Monitoring during nasogastric feeding or refeeding of severely ill patients:

- Monitor potassium, phosphate, calcium, magnesium and glucose daily for first 7–10 days
- Additional finger-prick glucose monitoring if clinically indicated. There is increased risk of hypoglycaemia at 10am or at night.
- Correct electrolytes as appropriate
- BP, pulse and temperature: as per SHEWS (Sheffield hospital early warning score) protocol.
- FBC, LFTs, weight twice weekly
- Copper and zinc 3 monthly if abnormal
- ECG monitoring may be indicated.
- There is a danger of serious electrolyte disturbance during rehydration.

Table 3: Examples of electrolyte replacement therapy (This is not intended to recommend specific brands)		
	Oral	**Intravenous (only if severe)**
Hypokalaemia	Sando-K® 1-2 tablets tds if K<3.2	Eg. if potassium ≤2.5 depending on physical risk. Potassium chloride 20–40 mmol in sodium chloride 0.9% 500–1000 ml, as required. Higher doses (e.g. 20 mmol over 2–3 hours) may be required in severe cases but should only be given with ECG monitoring and appropriate medical supervision. (MARSIPAN, WPH guidelines 2008)
Hypo-phosphataemia (NB. Serum calcium may drop during phosphate supplementation)	Phosphate-Sandoz® 4–6 tablets daily	Eg. if Phosphate less than 0.4. Phosphates (e.g. Addiphos®3) 50 mmol phosphate over 24 hours. Addiphos contains 30 mmol of potassium per 20ml. It must be given adequately diluted and be shaken regularly. (STH critical care guidelines)
Hypo-magnesaemia	Magnesium glycophosphate 2g tds (NB. 1g=4mmol)	30 mmol MgSO4 in 500 ml 5% dextrose or saline over 24 hours if Mg<0.5 mmol/l; ECG monitoring must be available (WPH guidelines 2012, STH Acute Medicine Guidelines)
Hypocalcaemia	Adcal D3 bd	Calcium gluconate injection (10%) 10 ml (if Ca<1.8 mmol/l) (MARSIPAN)

Nutrition planning

It is vital that a nutrition plan is made for all severely ill anorexic patients admitted to hospital within the first 24 hours. Out of hours this will necessitate the involvement of nursing and medical staff on duty.

The following sections have been designed to assist staff in doing this in a systematic and safe way.

Where admissions are anticipated a nutrition plan may be faxed across by SEDS at the point of admission. If an admission occurs Mon – Fri 9am-5pm then it is appropriate to contact SEDS to gain their involvement in making an immediate nutrition plan.

Assessment of re-feeding syndrome risk

Refeeding syndrome
Refeeding syndrome represents a group of clinical symptoms that are seen in malnourished patients, when they restart or significantly increase nutrition. In starvation the body adapts to the lack of energy by resorting to using fat as an energy source, the body will also be depleted in nutrients that are not stored and also those lost in the breakdown of protein and glycogen such as potassium and phosphate. In re introduction of food or feed the body uses specific nutrients to digest the food such as thiamine which is not stored in the body, other B vits and phosphate.

The main features of the syndrome are hypophosphataemia, hypokalaemia, hypomagnesaemia, abnormalities in glucose metabolism, thiamine deficiency. Deranged LFTs due to fatty liver are relatively common, but are not an indication to stop nutrition.

Fluid retention can be due to reduced renal function and reduced metabolic rate present in malnutrition. Oedema can be much greater if low serum albumin and/ or dehydrated.

During the early phase of feeding, even without re-feeding syndrome, patients often feel worse rather than better. Providing information and reassurance regarding stomach bloating, fluid retention and rapid weight gain can help with this.

Assessing refeeding risk
The consensus of expert opinion regarding refeeding syndrome is that the following factors put someone:

At risk:
Rapid weight loss of 1kg or more/week, low BMI< 14kg/m2, wt loss of 15% in last 3-6month, low phosphate, potassium or magnesium, current abuse of drugs eg. insulin or diuretics, purging, little or no intake for 10days (Wakefield and Williams, 2009, NICE 2006, Stanga 2008, Crook 2001).

At severe risk:
Sig ECG abnormalities, significant uncorrected electrolyte abnormalities, active comorbidities e.g infections, significant co morbidities e.g. cardiac, extremely low BMI <10 (MARSIPAN 2010).

If at risk of refeeding, monitoring and correcting biochemistry whilst initiating nutrition is of paramount importance.

Nutritional calculations and planning

Calculating the nutritional requirements of a patient at risk of refeeding syndrome

If **at risk** MARSIPAN and other documents of expert opinion (Crooks 2001, suggest starting at 20kcal per kg/day
e.g if a person weighed 35kg then their kcal requirements per day would be 35kg x 20kcal =700kcal per day

If **at severe risk** then start at 10kcal per kg/day.
e.g. for someone with a 35kg body weight you would be thinking about 10kcal x 35kg = 350kcal per day
Clinical and biochemical review should occur twice a day for these patients. Calories should be increased in steps to 20kcal per kg/day within 2 days unless there is a contraindication. (Marsipan 2010)

From 20kcal per kg/day, increases would be an additional 300kcal/day after 3-4 days then again every couple of days until meeting calculated requirements or achieving weight gain of 0.5 – 1kg. (Royal Australian and New Zealand Guidelines 2004)
The initial aim is to stabilise the pt medically and stabilise weight for the first 7-10 days then start to increase weight.

Whether using food supplements or NG feed it would be important to spread this intake over the day to help to prevent hypoglycaemia.

Nutrition planning for people at risk of refeeding syndrome

Nutrition can be provided as food, supplements, naso-gastric feed or a combination of these. The pros and cons for each option are listed below. The best plan will depend on an individual's circumstances, particularly how severely unwell they are, what they were managing prior to admission, what they feel able to manage currently and based on effective plans during previous admissions.

If an initial plan is made using oral intake, it is important to have back up plans about moving onto supplements and NG feed if the client is unable to follow the plan, with resulting weight loss or inadequate weight gain. However if the client follows the plan and still looses weight or does not gain weight adequately, then amounts within that plan need to be increased.

	Pros	Cons
Food	Encourages normal eating – which is essential long term Client engaged in the process of recovery – taking responsibility promotes psychological as well as physical change. More potential for nutritional learning for client Maintains progress that client has already made	Difficult to make big changes rapidly Cognition and engagement might be impaired by low weight Logistics of food provision in a general hospital Very exact nutritional calculation difficult eg. if severe risk of refeeding syndrome Relies on client motivation and honesty
Supplements	Can be easier for pt to make the kcal changes needed to gain weight Pts can treat supplements as medication Can be used solely or along side food and/or enteral feed. Can be taken at meal/snack times to help to prepare the pt to make the change to food. Clients still engaged in process of recovery Can be continued at home	Not encouraging normal eating Pt can feel safe with supplements due to known kcal intake making transition to food difficult. Limited flavours and can feel repetitive.
NG feed	Some patients are relieved to have the decisions taken away until at a higher weight and more cognitively able Can be given over 24 hours to help prevent hypoglycaemia Can be carefully controlled to prevent re –feeding syndrome for those who are high risk Can be beneficial to supplement oral intake in those that are struggling to gain weight	Passive – less responsibility of the pt for recovery (although involving the patients in a clear plan of what NG feeding involves and expectations and a clear ending can help with this) Not developing normal eating Visual impact of the tube Intrusive, placement of the tube can mimic trauma or events the patients may have suffered.

Oral – food
When looking at a meal plan for the clients consider the following points:
- Include high phosphate foods initially to help prevent re-feeding syndrome e.g. glass of milk morning and evening
- Including food with a high sodium content may exacerbate oedema often seen in refeeding. (Mehler 2010)
- Consider the level of carbohydrate in the diet – high carbohydrate could exacerbate refeeding syndrome – 50-60% energy from carbohydrates (Stanga 2008).
- Fluid intake should be no more than 30-35ml/kg/day from all sources (MARSIPAN 2010)

Example of a meal plan for someone who weighs 35kg

"At severe risk"	**Day 1: Start at 10kcal per kg = 350kcal**	**Day 2**	**Day 3-4 increase by 300kcal = 1000kcal**
"At risk"	N/A	Day 1: Start at 20kcal per kg per day =700kcal	Day 3-4 increase by 300kcal = 1000kcal
Breakfast	100ml milk 1 x weetabix OR half slice of toast and spread	100ml ss milk 1 x toast and spread OR 2 weetabix	2 tbsp cereal 100mls ss milk
Mid morning			1 x toast 1tsp spread
Lunch	1/4 sandwich	½ sandwich	1/2 sandwich
Mid-afternoon		Yoghurt (non diet)	Yoghurt (Non diet)
Evening meal	1/4 cooked meal (inc equal portions of carbohydrates, protein and veg)	½ cooked meal (inc equal portions of carbohydrates, protein and veg)	½ cooked meal (inc equal portions of carbohydrates, protein and veg)
Supper	100mls ss milk	100ml ss milk	150mls ss milk + fruit/biscuits x2
	~ 350kcal	~700kcal	~1000kcal

Low risk
If pt is low risk of developing refeeding start intake at current reported intake and increase by 300kcal every couple of days if weight gain is required.

TIPS TO HELP CALCUALTE MEAL PLAN
100mls Semi skimmed milk ~50kcal
1 slice of toast ~80kcal and spread ~50kcal
1 sandwich ~ 350kcal
1 x weetabix ~ 70kcal
Cooked meal ~ 400kcal

Oral - supplements
These can be use alone or as an adjunct to food intake or enteral feeding.

When thinking about use of supplements ensure a plan is discussed and agreed with the pt:
- the expected benefit and that if supplements do not helping the client achieve this benefit an agreement that they would be discontinued.
- if successful a plan of when they would be phased out e.g. timeframe or at an agreed BMI.

To help to calculate intake:
Fortisp compact: 300kcal per 125 ml bottle = 2.4kcal per ml
Fortisip bottle: 300kcal per 200ml bottle = 1.5kcal per ml

An example of a meal plan based on supplements:
(Calculations based on a person weighing 35kg)

Fortisip compact :

	If at severe risk start at 10kcal per kg = 350kcal per day	If at risk start at 20kcal per kg = 700kcal per day	Day 3-4 Add 300kcal =1000kcal
Breakfast	25ml	60ml	100ml
Snack	25ml	40ml	40ml
Lunch	25ml	60ml	100ml
Snack	25ml	40ml	40ml
Evening meal	25ml	60ml	100ml
Supper	25ml	40ml	40ml
Could be prescribed:	Fortisip compact 25mls 6 times/day (08, 12, 14, 18, 20, 22hrs)	Fortisip compact 60mls tds (08,14,20hrs) & 40mls tds (12, 18, 22hrs)	Fortisip compact 100mls tds (08, 14, 20hrs) & 40mls tds (12, 18, 22hrs)

Fortisip Bottle:

	If at severe risk 10kcal per kg = 350kcal per day	If at risk start at 20kcal per kg = 700kcal per day	Day 3-4 Add 300kcal =1000kcal
Breakfast	50ml	100ml	150ml
Snack	25ml	50ml	75ml
Lunch	50ml	100ml	150ml
Snack	25ml	50ml	75ml
Evening meal	50ml	100ml	150ml
Supper	25ml	50ml	75ml
Could be prescribed:	Fortisip bottle 50mls tds (08, 14, 20hrs) & 25mls tds (12, 18, 22hrs)	Fortisip bottle 100mls tds (08, 14, 20hrs) & 50mls tds (12, 18, 22hrs)	Fortisip bottle 150mls tds (08, 14, 20hrs) & 75mls tds (12, 18, 22hrs)

Enteral feeding via an NG tube –
Although a dietician will usually be involved in NG initiation, if necessary medical staff can prescribe NG feed. This has been confirmed by pharmacy and is also documented in the Sheffield Teaching Hospitals Nutrition Handbook, September 2009.

If a patient is unable to use oral intake either by food or supplements NG feeding may need to be used. NG feeding may be appropriate for high risk patients to enable to low kcal requirements to be accurately measured and given evenly over 24hours.

Use a 24hour regimen of a 1kcal/ml feed for first 7days of re feeding.

An example of an NG feeding plan for someone who weighs 35kg:

If at severe risk :		**If at risk:**	
Day 1 : 10kcal per kg = 350kcal/kg	Nutrison standard 350mls over 24hours = 15mls/hr	20kcal per kg if At risk = 700kcal	Nutrison standard 700mls over 24hours = 30mls/hr
Day 2 20kcal per kg =700kcal	Nutrison standard 700mls over 24hours = 30mls/hr	Continue as above	
Day 3-4 add 300kcal =1000kcal		Nutrison standard 1000mls over 24hours = 42ml/hr	
Day 5-6 add another 300kcal = 1300kcal		Nutrison standard 1300mls over 24 hours = 55mls/hr	

If at low risk start at patient's current kcal intake and add 300kcal every couple of days if weight gain is required.

Nutritional plan for people who are not at risk of refeeding syndrome.

Many people who are at a low weight will have slowed metabolism and therefore can require up to 25% less than the average (Polito et al 2000), however if the aim of the admission is for weight gain an extra 2630kcal per week for 1kg weight gain may needed to be added to the nutritional plan.

After 3 weeks of adequate intake metabolic rate has normally recovered but patients may need more kcals to fully recover to a normal weight.

Think about the individual:
It would be important to get an idea of what the client was managing before being admitted to ensure enough nutrition is offered in hospital and also a meal plan that they are most likely to adhere to.

To gain weight some anorexic patients may need a very high kcal intake (70-80kcal/kg.day) and supplements may be useful to help patients manage the quantity.

Mental Health Act use

Detention under Section 2 or 3

Detention under the mental health act is only used in extreme circumstances, where the treatment of anorexia nervosa is necessary due to the disorder being a serious immediate threat to health. Being detained can sometimes lead to patients complying with treatment but not really being psychologically engaged or making the psychological changes that are needed for recovery, however occasionally it is necessary. When the mental health act has to be used, it does not have to be a hostile situation and it should be explained in terms of professionals' duty to keep the person safe.

It can be used to keep the patient in hospital against their will or to give nutrition compulsorily. In this situation, feeding, whether this is oral or via nasogastric means is the treatment for the mental illness under the mental health act. In order for someone to be assessed under the mental health act a senior psychiatrist (section 12 approved), another doctor and an "approved mental health professional" (usually a mental health social worker) need to be involved.

Physical health medication and investigations can not be carried out under the mental health act unless the physical condition is related causally (in either direction) to the mental disorder, for example treatment with potassium supplements could be given under the mental health act if the hypokalaemic state is due to the eating disorder. For none related conditions the patient either has to consent to these or if the patient does not have capacity, the mental capacity act can be used.

Once someone is detained under the mental health act, providing treatment can still be very challenging. It becomes a legal obligation for nursing staff to provide treatment once someone is detained and it is important that a plan of how nutrition is going to be provided and monitored is in place and implemented.

The goal of the nursing interventions with patients with anorexia nervosa would be to encourage a patient's voluntary co-operation with the treatment plan which may include establishing a healthy oral intake of food and fluids. Securing the patient's collaboration and understanding is important to the long term management of the illness.

Nursing interventions

- Ensure that regular, multidisciplinary reviews take place with the psychiatrist, mental health/eating disorders team and general ward team.
- Enable the patient's access to a mental health advocate
- Ensure access to a solicitor to discuss legal issues and prepare appeal to the Mental Health Tribunal if the patient requests this. The patient should be made aware at the time of detention that they have a right to appeal. There is a file on the ward with patient information leaflets relating to different sections.

- In accordance with the Mental Health Act code of practice, valid consent should always be sought for any proposed medical treatment, including nursing care. Therefore, it is important to continue to give sufficient information to the patient to ensure he/she understands (in broad terms) the nature, likely effects and risks of treatment, likelihood of success and alternatives. *The provision of information should be ongoing due to the cognitive impairment that is often a result of malnourishment and low B.M.I.*
- Agreement to leave the ward should only happen following discussion with the patient's psychiatrist (responsible clinician). In order to leave the hospital (for whatever reason) the leave MUST be authorised by the consultant psychiatrist (responsible clinician) AND a Section 17 leave form MUST BE completed. Leave should be closely monitored and recorded on the appropriate form. The outcome of the leave should also be included.
- Ensure risk assessment of absconding and review level of observations with staff team and psychiatrist as necessary. Should the patient leave the hospital without leave being agreed, contact the police and report as missing as per policy.
- Appropriate forms and leaflets are available from either the ward clerk or medical records department.
- Please refer to Mental Health Act Commission Guidance Note "Guidance on the Treatment of Anorexia Nervosa under the Mental Health Act 1983"

Nursing care and special nursing

Weighing of patients with Anorexia Nervosa

Weight gain for a client may be an aim or outcome of the admission if for example weight may be life threateningly low. Weighing can be a difficult and distressing experience for a client with an eating disorder as the patient evaluates themselves as a person on the basis of weight and shape. It is important to be aware that some patients may have been weighing themselves many times a day, others may avoid it completely.

In a study by Jaffa et al (European Eating Disorders Review, 2011; 19:368) 30 - 57% of patients reported falsifying their weight due to severe anxiety and fear. Therefore, the following suggestions may limit the opportunities for such events to take place:

- Before weighing a patient, check if they wish to be told their weight or not.

- Privacy, dignity and comfort are an essential element of the weighing process.

- Weighing will usually be twice a week on a Weds and Sunday, although this may occasionally be altered following a discussion with the patient, nursing staff and dietician.

- Ideally, patients should be weighed on the same calibrated weighing scales.

- Patients should be weighed in light night wear, without slippers/socks or dressing gown.

- Ideally, patients should have an empty bowel and bladder prior to weighing. However, this should not be a reason for weighing not to take place, e.g if patient is complaining of constipation. Catheters should be emptied.

- Weighing should take place early morning prior to breakfast or fluid intake to minimise opportunities for the patient to consume large amounts of fluid (water loading) in order to give an inaccurate reading.

- If a patient refuses to be weighed, gently explain to him/her the necessity of weighing for the success of the treatment and discharge plan which will have been agreed at the point of admission.

Rest:
Unless otherwise agreed, patients admitted to hospital at a low weight should be on bed rest. They should not be leaving the ward until this is agreed with the MDT team. Patients who are not under the Mental Health Act cannot legally be prevented from leaving the ward, but can be discouraged. However, it should be recognised that they may be using these opportunities to exercise and in other ways sabotage weight gain.

Fluids:
Some patients drink large amounts of fluid, which can cause dangerous overloading and electrolyte disturbance. At the other end of the spectrum, some patients restrict fluid intake as part of anorexia. Where either of these are suspected or urea and electrolytes are abnormal, fluid balance should be carefully monitored. It may also be appropriate to use IV fluids if U&Es are abnormal.

Supervision:
In some circumstances supervision of bathroom use is required due to extreme physical health compromise or to monitor for abnormal behaviours. This will normally be decided as part of the care plan if required.

Other nursing issues:

- Usually, patients should be nursed in open bays to enable close monitoring and observation of toilet/bathroom use, physical activity or other compensatory behaviours. Sometimes for patients with high levels of anxiety, single rooms are however appropriate.

- Ensure room is kept warm as patients are vulnerable to hypothermia

- To promote consistency of care, all staff should endeavour to ensure that communication between *all* professionals involved in the care of the individual has taken place before any major clinical decisions are made.

- To avoid patient related alterations, weight and TPR charts should be documented in both patient folders and nursing notes.

- On admission, patient property should be searched and documented to monitor for laxative, diuretic or diet pill use. This should be done in collaboration with the patient and ideally the patient should be made aware of this procedure prior to admission.

- The eating plan is a medical intervention and should be adhered to by all health staff as well as patients.

Guidelines for communication with patients with Eating Disorders

Eating Disorders are a way of expressing emotional distress and coping with difficult and painful life experiences. Being able to "control" their weight gives a patient a sense of control over their life which may often be painful and unpredictable. Patients are often fearful of losing control. Admission to hospital involves giving up control. Many patients will want to please staff but the fear of losing control may lead them sometimes to doing things in secret
Communication is an essential aspect of nursing care. However, many nursing staff find it difficult to care for a patient with an eating disorder as they are fearful of "saying the wrong thing"

Communicating with patients:-

- Try to establish a trusting and supportive relationship with the patient to encourage direct expression of thoughts and feelings. This will help counterbalance the perception of the nurse as being an "enforcer" of treatment and disinterested in the patient as a person.
- Work collaboratively with the patient. Be open with them about their care and treatment. If giving advice that the patient does not wish to cooperate with, give clear rationales for the advice and ascertain their capacity to understand the information.
- Actively listen
- Give clear explanations and reassurances as malnourishment and a low BMI can often effect cognitive functioning, concentration and information processing
- Do not enter "battles" with patients as this will only cause tension and stress to all concerned. However, it is important to maintain boundaries and a consistent approach. This may include challenging rude and unacceptable behaviour by the patient.
- Focus on positive aspects and congratulate on the smallest of achievements
- Avoid comments on physical appearance as this can be misinterpreted and perceived negatively even when meant in a warm and good humoured way.

Discussions involving food/eating/mealtimes

- Limit discussion about food itself but discuss fears in a neutral and supportive way. Such fears may be most acute at pre and post meal times
- Do not make comments like "just eat it" "is that all you're having?" "oh no not another salad" "this isn't a hotel you know"
- Do not use threats such as "we'll have to force feed you then" as many patients may have experienced similar threats during their early life. No one can be forced to recover.

Communication issues during weighing

- Please refer to weighing guidelines

Communication during bathing / using the toilet / intimate investigations

- This can be a particularly difficult experience for a patient with anorexia nervosa. He/she will have spent a long time hiding their bodies from others. They may feel embarrassed and ashamed by their bodies. Gentle reassurance is important. Comments such as “come on, I’ve seen it all before” or “you’re all skin and bone” are less helpful.

Communication within the staff team

Limited motivation for change and the physical risks associated with anorexia nervosa can lead to high levels of anxiety amongst staff. Such anxiety can increase the likelihood of staff being pulled into certain “roles”, making it difficult to provide effective care.

“rescuing” role

Many patients with Anorexia nervosa want to please others and try and make them feel as if they have a “special relationship”. However, this can result in a staff member feeling overly responsible for a patient, which in turn may affect neutrality and objectivity. If little progress is made by the patient, staff members can often feel frustrated with both patient and other clinicians.

“*controlling” role*

Patients who do not co-operate with treatment and self neglect cause great concern in staff. This can lead to staff making decisions for patients that can be perceived as controlling by the patient and reinforces previous experiences. This can result in secretive behaviours.
It is important to be creative in finding ways to give choice and self responsibility to the patient
It is important to negotiate wherever possible.

“Rejecting” role

Patients with eating disorders greatly fear being rejected by others and will be highly sensitive to the suggestion that this may be the case. Staff can often feel frustrated and angry when working with this patient group and this will be easily picked up by the patient.

Staff splitting

Members of the team can easily be pulled into the above roles at different times which can lead to tension and conflict within the team. Staff splitting can have an adverse effect on both staff and patients.
It may be helpful to accept that this may happen at times but it is essential for the team to remain consistent in its approach to the patient.

Criteria for medical as opposed to psychiatric admission

- Physical health deterioration or high immediate risk of deterioration
- Need for nasogastric feeding
- High risk of developing refeeding syndrome
- Other physical health issues requiring admission
- Patients known to Sheffield Eating Disorder Service, who reaches a pre-existing threshold for readmission, based on previous history

Indications and pathway for specialist eating disorder unit (SEDU) admission

- Severe eating disorder, where community treatment has been ineffective eg. Due to severity, adverse social circumstances at home
- Some potential for lasting benefit from inpatient admission following MDT assessment
- Consent from the patient, unless rarely the patient is detained
- All specialist eating disorder unit admission funded by the NHS in Sheffield are arranged through Sheffield Eating Disorder Service (SEDS). SEDS will liaise with the Specialist Commissioning Group (SCG) and the inpatient unit involved.

Sheffield Marsipan Group

In accordance with the Marsipan guidance the group below has been formed in Sheffield for:

- All Sheffield patients aged 18 and above
- All Sheffield patients aged 16 and above who are not receiving ongoing treatment from Child and adolescent mental health services (CAMHS)
- Patients from other areas admitted to Hadfield 1 with the agreement of SEDS eg. Rotherham patients in some circumstances

Sheffield Marsipan group members			
Consultant Endocrinologist (Physician)	Dr William Bennet	Sheffield Teaching Hospitals NHS Foundation Trust	Ext 14840
SEDS Consultant Psychiatrist in Eating Disorders	Dr Ruth Walton	Sheffield Eating disorder Service (SEDS), Sheffield Health and Social Care NHS Foundation Trust	0114 2716938
SEDS Specialist Dietician	Alison Bent		
SEDS Specialist nurse	Andrea Morrall		

Patients with an eating disorder who require a medical admission, should ideally be admitted to Hadfield 1 under Dr Bennet unless a co-existing medical problem necessitates admission to a different ward. Patients with an eating disorder on Hadfield 1 will have a weekly review involving the Marsipan group as above, usually on a Wednesday.

SEDS will also provide liaison and support for patients admitted to other wards within the teaching hospitals due to their eating disorder.

Sheffield Eating Disorder Service should be made aware of all admissions of patients as per the above list with an eating disorder to Sheffield Teaching Hospitals: SEDS can be contacted Mon-Fri on 0114 2716938.

Patients from other Healthcare Facilities

CAMHS, Rotherham, Barnsley and independent sector such as Riverdale Grange and Alpha patients

Approved clinician responsibility for the clients admitted from each of the above facilities will be agreed on a case by case and a further document is being agreed.

References

Cockfield, A. and Philpot, U., (2011) *BDA Mental Health Group's Refeeding Protocol for Seriously Ill Patients with Anorexia Nervosa*, The British Dietetic Association , Birmingham.

Crook, M., Hally, V., and Panteli, J., (2001) *The importance of Refeeding Syndrome*, Nutrition, vol 17

Jaffa 2011

MARSIPAN, (2010) *MARSIPAN: Management of Really Sick Patients with Anorexia Nervosa.* Royal College of Physicians.

Treasure, J (2009) *A guide to the medical risk assessment for eating disorders*. Section of Eating Disorders at the Institute of Psychiatry and the Eating Disorders Unit at SLaM

Mehanna, H. M., Moledina, J., and Travis, J. (2008) *Refeeding Syndrome: what is it, and how to prevent and treat it.* BMJ, 336 1495-1498.

Mehler, P., Winkelman, A., Anderson, D., Guadiani, J., (2010) *Nutritional Rehabilitation : Practical Guidelines for Refeeding the anorectic Patient*, Journal of Nutrition and Metabolism

Mental Health Act Commission (1997) *Guidance on the treatment of Anorexia Nervosa under the mental health act 1983*. Mental Health Act Commission.

National Institute for Clinical Excellence (2004) *Eating Disorders: Core interventions in the treatment and Management of Anorexia Nervosa, Bulimia Nervosa and related Eating Disorders (Clinical Guidance CG9)* British Psychological Society and Gaskell.

National Institute for Clinical Excellence (2006) *Nutrition Support in Adults: Oral Nutrition Support. Enteral Tube Feeding and Parenteral Nutrition (clinical Guideline CG32).* National Collaborating Centre for Acute Care at the Royal College of Surgeons of England.

Polito, A., Fabbri, A., Ferro-Luzzi, A., Cuzzolaro, M., Censi, L., Iarapica, D., Fabbrini, E., Giannini, D., (2000) *Basal Metabolic Rate in Anorexia Nervosa: Relation to Body Composition and Leptin Concentrations,* American Journal of Clinical Nutrition, 71 (6) 1495-1502

Royal Australian and New Zealand College of psychiatrists clinical practice guidelines team for anorexia nervosa, (2004) *Australian and New Zealand clinical practice guidelines for the treatment of anorexia nervosa*, Australian New Zealand Journal of Psychiatry 38 pp659-670

Sheffield NHS Teaching Hospitals Foundation Trust, (2008), *Intravenous Phosphate Replacement Guidelines in Critical Care. C L Min Clinical Guidelines*, Sheffield NHS Teaching Hospitals Foundation Trust intranet. (accessed 14/08/13)

Sheffield NHS Teaching Hospitals Foundation Trust, *Hypomagnesaemia. Acute Medicine Clinical Guidelines*, Sheffield NHS Teaching Hospitals Foundation Trust intranet. (accessed 14/08/13)

Stanga, Z., Brunner, A., Leuenberger, M., Grimble, R., Shenkin, A., Allison, S. and Lobo, D., (2008) *Nutritional in clinical Practice: the refeeding syndrome: illustrative cases and guidelines for prevention and treatment.* European Journal of Clinical Nutrition 62, 687-694

Treasure, J., (2009) *A Guide to the Medical Risk Assessment for Eating Disorders*, Kings College, London

Wakfield, A. and Williams, H., 2009, Practice Recommendations for the Nutritional Management of Anorexia Nervosa in Adults, Dieticians Association of Australia

Western Park Hospital, (2008), *Hypokalaemia, Guidelines for the Management of Specialist Cancer Services Clinical Guidelines*, Sheffield NHS Teaching Hospitals Foundation Trust intranet. (accessed 14/08/13)

Western Park Hospital, (2012), *Hypomagnesaemia – Management of at WPH. Department of Oncology Clinical Guidelines*, Sheffield NHS Teaching Hospitals Foundation Trust intranet. (accessed 14/08/13)

Date:	For Office Use Only – Insight No:……

SHEFFIELD EATING DISORDERS SERVICE – REFERRAL FORM

ESSENTIAL INFORMATION –
Referral cannot be processed unless all boxes are completed

Referrer Details		GP Details	
Name:		**Name:**	
		Job Role:	
Address:		**Address:**	
Postcode:		**Postcode:**	
Tel No:		**Tel No:**	
Fax No:		**Fax No:**	
E-Mail:		**E-Mail:**	

Patient Information		
Name:	**D.O.B:**	**NHS No:**
Address:		
Postcode:	**Telephone:**	

Weight (Kg):	**Height (m):**	**BMI:**

Binge Eating:	Yes / No	At present, how many times in a week?
Self-induced vomiting:	Yes / No	At present, how many times in a week?
Laxative abuse:	Yes / No	At present, how many times in a week is the recommended dose exceeded?
Exercise:	Yes / No	At present, what exercise & how many times in a week?

Blood Results Required:

- **Please enclose copies of recent UEC, FBC and bone densitometry if available**

PLEASE NOTE:

THIS SHEET MUST BE ACCOMPANIED BY FURTHER INFORMATION AS DETAILED OVERLEAF TO PROVIDE BACKGROUND INFORMATION AND AN OVERVIEW OF REASON FOR REFERRAL

REASON FOR REFERAL & BACKGROUND INFORMATION

Please summarise below or attach referral letter to provide us with other relevant information including reason for referral, duration of problems, development of difficulties, family and social circumstances, previous treatment, views of treatment, other relevant psychological or physical issues (e.g. diabetes, depression) and any other relevant information (e.g. life events).

Is the client aware of the referral? Yes/No

Is the client already in contact with the Mental Health Services? Yes/No

Current CPA Level: …….. **Care Co-ordinator: ……..**

Please list other services/agencies involved:

Please note this information is essential for us to process this referral and prioritise our waiting list. Failure to supply this information will lead to a delay in accepting the referral.

WHEN COMPLETED, FAX OR POST THIS FORM TO:

SHEFFIELD EATING DISORDERS SERVICE,
ST GEORGE'S COMMUNITY HEALTH CENTRE,
WINTER STREET,
SHEFFIELD,
S3 7ND.

TELEPHONE: (0114) 2716938, FAX: (0114) 226 2223