Solent West (Southampton) CAMHS Team Care Pathway For Eating Disorders: A Guide for GPs

Contents

Introduction

This Eating Disorders Care Pathway has been developed by a variety of professionals with experience in working with young people with eating disorders; within this group of professionals there is variation of clinical expertise and backgrounds.

This pathway aims to ensure that young people who present with a suspected eating disorder in Southampton are responded to in a timely fashion by services and clinicians who have the skills and experience in assessing and treating individuals with an eating disorder.

The pathway aims to ensure that all people with an eating disorder and their parents or carers have equal access to treatments for eating disorders, regardless of: age, gender or gender identity, sexual orientation, socioeconomic status, religion, belief, culture, family origin or ethnicity, where they live and who they live with, any physical or other mental health problems or disabilities.

The Care Pathway is presented in the form of flow charts to ensure that it is user-friendly and that it can be used in clinical practice efficiently.

However, it is recognised that further information at times will be required; the appendices attached to this document offer a detailed appraisal of the steps required to assess and safely manage this complex client group. Contact details for Solent West CAMHS Team are also included.

This Care Pathway will be reviewed regularly to ensure that it remains in line with current research and good practice.

We recommend considering the following key points before using the Care Pathway.

Key Points

1. Children and adolescents become physically compromised more quickly than adults with the same weight loss. Therefore, they can move from low risk to high risk in a short space of time and need regular monitoring.

2. Anorexia Nervosa, Bulimia Nervosa and Other Specific Feeding and Eating Disorders (OSFED) are complex and challenging illnesses that can require a long period of treatment from a wide range of professionals.

3. Early identification and intervention are key to the management of complex eating disorders. Young people with suspected eating disorders should be referred early to Solent West CAMHS team or Paediatrics if physical health is of high concern; continued monitoring by primary care is paramount whilst awaiting a specialist assessment. Consultation should be sought as required from specialists (such as Paediatric team, CAMHS) during this period.

4. BMI (Body Mass Index) is only a proxy measure of medical risk and has limitations, particularly in children and adolescents. Plotting weight, height and BMI on percentile charts, or **using a Weight4Height calculation** is a more accurate way of detecting failure to thrive and comparing development to normal growth patterns. Some young people may be within a healthy range but still at risk physically e.g. with bulimia nervosa or with rapid weight loss. Junior MARSIPAN recommends the use of **% Median BMI** (see Junior MARSIPAN pages 19-20 for further detail).

5. Changes in a young person's behaviour, personality, social functioning; inability to eat and drink normally, which may emerge in a dramatic or subtle presentation, are good indicators of a developing eating disorder.

6. Eating disorders often have complex presentations. It is important to take into consideration various sources of information when making an assessment. School or college may be able to offer useful information on the behaviour of the young person both in general and around mealtimes. Every professional involved with the client has a responsibility to facilitate smooth transitions between settings and professionals, as well as to work in a multi-disciplinary manner.

7. All services that have responsibility for a young person whilst in their care, such as education, should be informed of any risks and care plans, and given guidance on maintaining the young person's safety whilst under their care. This would generally be done with parental and young person's consent, but if there is sufficient concern about the young person's safety, it can be done under the appropriate safeguarding legislation without consent.

8. Having awareness and understanding of the impact an eating disorder has on a family is crucial in evaluating the level of support the family can offer a young person in managing and recovering from their eating disorder. Where there are concerns that those caring for a young person are unable to support/engage in a safe treatment plan, safeguarding should become a consideration. This includes persistent non-attendance of appointments or engagement with physical monitoring, due to the potential medical risk posed. The Solent NHS Trust Was Not Brought policy is to be followed. If any clinician has safeguarding concerns, they should seek advice via their line manager and Solent Safeguarding team or from Child Protection Team (UHS). They should contact MASH to share information and discuss whether a referral is appropriate.

9. Due to the impact an eating disorder has on the systems around a young person, good communication is essential. Review meetings with written care plans is necessary in all cases, utilising the Care Programme Approach (CPA) process where appropriate, and will be shared with Primary Care.

10. Where a young person is seriously ill with an eating disorder and issues of refusal of treatment arise, appropriate agencies should be consulted to consider any necessary legal steps to be taken. Due to the nature of these illnesses, there is often a need to clarify consent to treatment. (See 'Legal aspects – guiding principles' Appendix 5 on page 23 for further details)

11. The young person's view (or demeanour suggesting a view) should always be taken into account in case management. It may vary from that of the parents and should be recorded regularly.

12. The appointment of a lead clinician and named GP in each case is critical for safe management.

13. Be aware that people with an eating disorder and their families may find it difficult or distressing to discuss it with healthcare professionals, staff and other service users. They may be vulnerable to stigma and shame and they may need interventions and information tailored to their age and level of development.

Diagnostic Classification

Classification of Anorexia Nervosa*

For a definitive diagnosis, all the following are required:-

A) Weight loss or, in younger children, a lack of weight gain, leading to a body weight at least 15% below that expected for age and height. **(Please note Atypical Anorexia Nervosa can present at a healthy weight)**

B) Weight loss is self-induced by avoidance of 'fattening foods'. One of more of the following may be present: self-induced purging via vomiting or laxative use; excessive exercise; use of appetite suppressants and/or diuretics.

C) Self-perception of being too fat, with an intrusive dread of fatness, which leads to a self-imposed low weight threshold.

D) Widespread endocrine disorder involving the hypothalamic-pituitary-gonadal axis is manifest in older females as amenorrhoea and in older males as a loss of sexual interest and potency. (An apparent exception is the persistence of vaginal bleeds in anorexic females who are on replacement hormonal therapy, most commonly taken as a contraceptive pill). If onset is pre-pubertal, the sequence of pubertal events is delayed or even arrested (growth ceases; in girls the breasts do not develop and there is primary amenorrhoea; in boys the genitals remain juvenile). With recovery puberty is often completed normally, but menarche is late.

Classification of Bulimia Nervosa

A) Recurrent episodes of overeating (at least twice a week over a period of 3 months) in which large amounts of food are consumed in short periods of time and an associated loss of control

B) Persistent preoccupation with eating, and a strong desire or a sense of compulsion to eat (craving)

C) Attempts to counteract the 'fattening' / ' calorific' effects of food by one or more of: self-induced vomiting; self-induced purging; alternating periods of starvation; use of drugs such as appetite suppressants, thyroid preparations or diuretics; neglect of insulin treatment in diabetics.

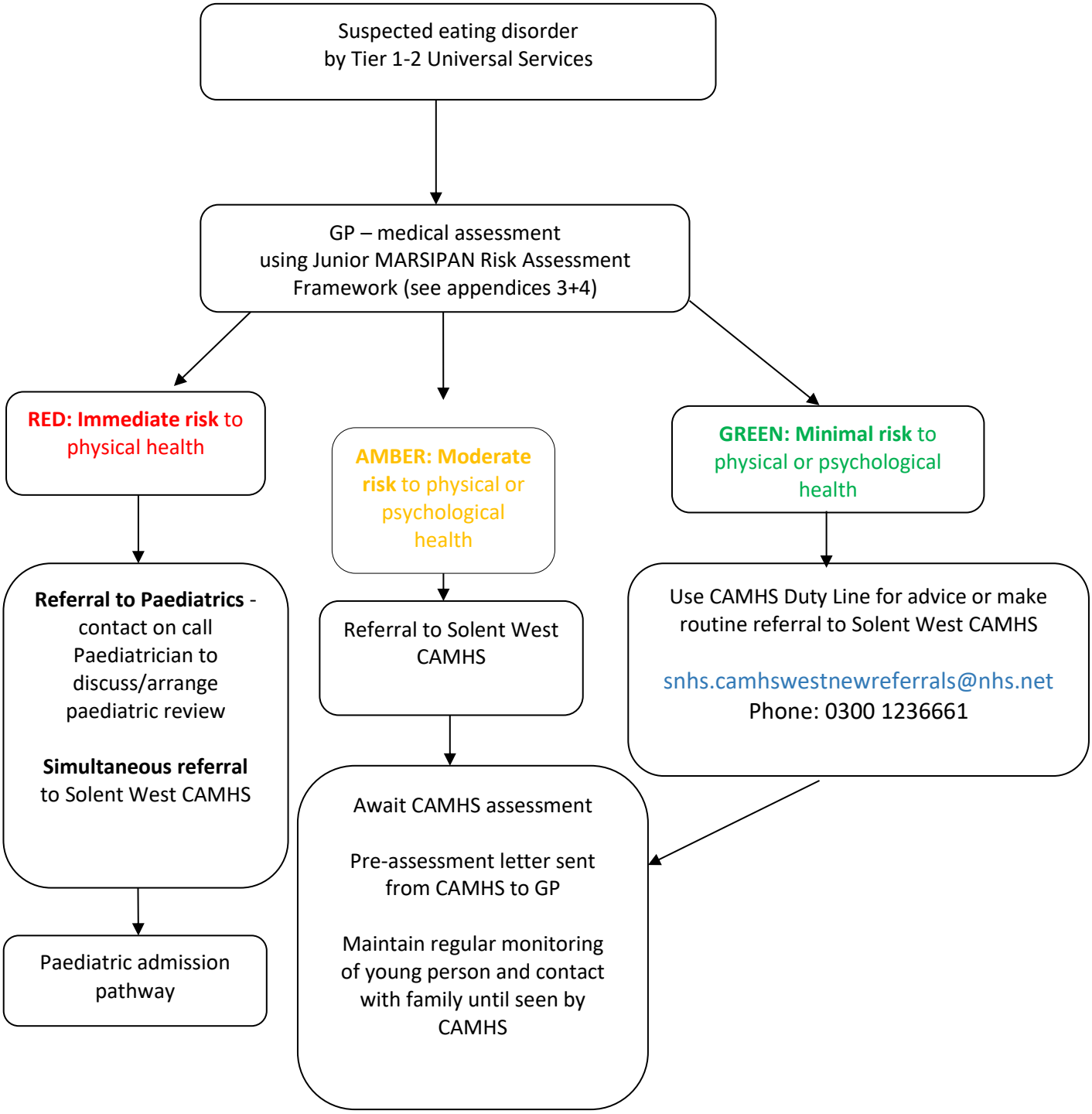
D) Self-perception of being too fat, with an intrusive dread of fatness.

OSFED

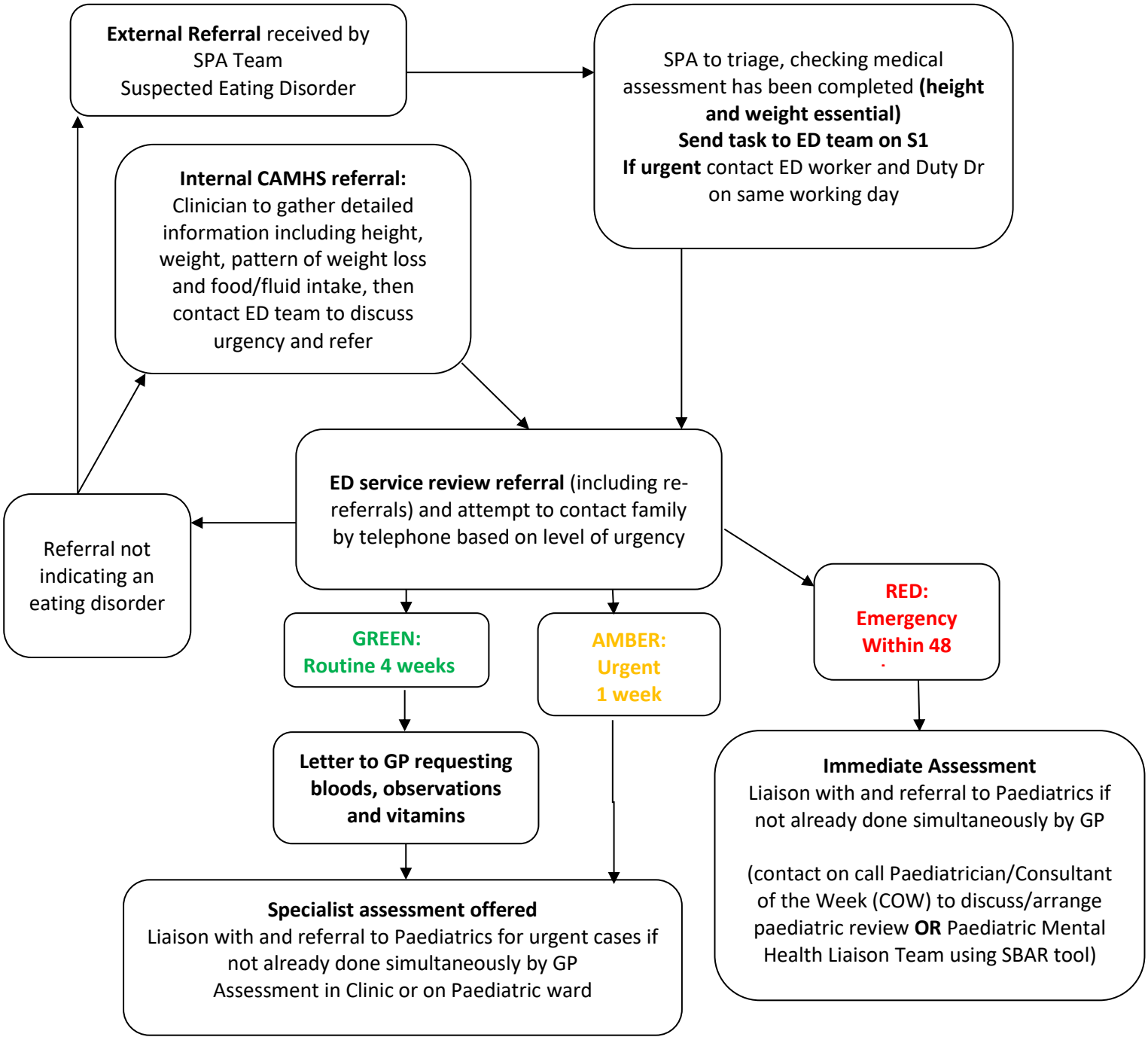
Commonly young people do not fulfil the ICD 10 diagnosis for anorexia nervosa but fit into the category of atypical eating disorder also known as OSFED (Other specific feeding and eating disorders). This classification of an eating disorder is equally serious and should be managed as with a young person who fulfils a diagnosis of anorexia nervosa or bulimia nervosa.

*NB: ICD-10 classification is most relevant for adults and older adolescents who have stopped growing. Prepubertal and peripubertal children and growing adolescents do not easily fit this classification.

1) Primary Health Care – Eating Disorders Care Pathway



(2) CAMHS Intervention – Eating Disorders Care Pathway



Ongoing care with Solent West CAMHS

The Eating Disorder Service within Solent West CAMHS is a provision of care offered within the community CAMHS team and is not a stand-alone service. The professionals within the Eating Disorders Service comprise of a mixed group of professional groups including psychology, psychiatry, nursing, occupational therapy, dietetics, family therapy.

For regular observations we have a weekly weights clinic at CAMHS. Very occasionally in low risk patients we may ask the GP to monitor physical observations if patient preference indicates.
(See Appendix 6 for physical obs monitoring form)

Appendix 1 Contact details

Solent West CAMHS Team	Horizon, Western Community Hospital Site, William Macleod way, Millbrook, Southampton SO16 4XE Tel: 02380 030061 Fax: 02380 698510 Email: snhs.camhswest@nhs.net
CAMHS Single Point of Access	Address and contact details as above

Appendix 2 – Junior MARSIPAN Physical Assessment

Check for/measure	*What to look for*	*When to be concerned (amber or red in Junior MARSIPAN risk assessment framework)*	*Specific management*
Heart rate	Bradycardia, postural tachycardia	<50 bpm or symptomatic postural tachycardia	Nutrition, ECG
ECG (especially if bradycardic or any other cardiovascular complication)	Other cause for bradycardia (e.g. heart block), arrhythmia, check QTc interval, check electrolytes	Prolonged QTc, heart rate <50 bpm, arrhythmia associated with malnutrition and/or electrolyte disturbances	Nutrition and correct electrolyte abnormalities, increased QTc – bed rest, discuss with cardiologist; medication for arrhythmia or bradycardia likely to be unhelpful unless symptomatic or tachycardic; should correct with nutrition and correct level of electrolytes
Blood pressure	Hypotension – refer to standardised charts for age and gender	Systolic, diastolic or mean arterial pressure below the 0.4th centile for age and gender, and/or postural drop of more than 15 mmHg	Nutrition, bed rest until postural hypotension improved; echo likely to be abnormal while malnourished
Hypothermia	Temperature <36°C will usually be accompanied by other features; beware of <35°C		Nutrition, blankets
Assess for dehydration	Hypotension and bradycardia usually related to malnutrition, not acute dehydration	Significant dehydration and malnutrition	Oral rehydration salts orally or via a nasogastric tube preferred treatment unless there is hypovolaemia; beware of giving fluid boluses unless in hypovolaemia – cardiac compromise or hyponatraemia may occur; check electrolytes and renal function
Hypovolaemia	Tachycardia or inappropriate normal heart rate in undernourished young person, hypotension and prolonged capillary refill time		Senior paediatric review. Normal saline 10 ml/kg bolus, then review. If IV fluids are used then these should usually be normal saline with added KCl, with added electrolytes, e.g. phosphate, as required; consider other factors, e.g. intercurrent sepsis, as contributors
Other features of severe Malnutrition	Lanugo hair, dry skin, skin breakdown and/or pressure sores		Nutrition; if skin breakdown or pressure sores present, seek specialist wound care advice
Evidence of purging	Low K, metabolic alkalosis or acidosis, enamel erosion, swollen parotid glands, calluses on fingers	Hypokalaemia as below, uncontrolled vomiting with risk of oesophageal and other visceral tears	Specialist nursing supervision to prevent vomiting

Hypokalaemia	Likely to be due to Purging. Normal electrolyte level does not exclude medical compromise	<3 mmol/l – admit; consider an HDU, PICU or ICU if <2–2.5 mmol/l	Correction; IV initially if <3 mmol/l (oral supplements may still be vomited); ECG
Hyponatraemia or Hypernatraemia	Less common but important; consider water-loading	<130 mmol/l – admit; consider an HDU, PICU or ICU if <120–125 mmol/l	If IV correction, proceed with care
Other electrolyte Abnormalities	Check PO_4, magnesium, calcium		
Hypoglycaemia		Hypoglycaemia is a relatively rare finding at presentation and implies poor compensation or coexisting illness (e.g. infection) – admit Once re-feeding is established, brief hypoglycaemia can be found after meals but should normalise rapidly	Oral or nasogastric correction where possible (sugar drink, hypostop); IV bolus if severe (altered conscious or mental state; seizures): 2ml/kg of 10% glucose followed by ongoing infusion containing glucose, e.g. 5ml/kg/h of 10% glucose with 0.45% saline to minimise the risk of rebound hypoglycaemia after IV dextrose bolus; glucagon in malnourished patients may not be effective as glycogen stores are likely to be low
Mental health risk or safeguarding/ family issues	Suicidality, evidence of self-harm, family not coping	Admit for comprehensive psychosocial assessment as per NICE self-harm guidance; admit for place of safety if necessary in safeguarding context	CAMHS involvement, apply local self-harm and safeguarding procedures as needed

Appendix 3 – Junior MARSIPAN Risk Assessment Framework

Junior MARSIPAN PHYSICAL RISK ASSESSMENT FRAMEWORK FOR YOUNG PEOPLE WITH EATING DISORDERS			
	RED (High risk)	AMBER (Alert to high concern)	GREEN (Moderate risk)
WEIGHT	Weight for Height <70%	Weight for Height 70-80%	Weight for Height 80-85%
	Result	Result	Result
	Recent weight loss of 1kg or more/week for two consecutive weeks	Recent weight of 0.5-1kg/week for two consecutive weeks	Recent weight loss of up to 0.5kg/week for two consecutive weeks
	Result	Result	Result
CARDIOVASCULAR HEALTH	Heart rate <40 bpm (or inappropriately high heart rate for degree of low weight)	Heart rate 40-50bpm	Heart rate 50-60bpm
	Result	Result	Result
		Sitting Blood Pressure Systolic <0.4th centile (84-98mmHg depending on age and sex) Diastolic <0.4th centile (35-40 mmHg depending on age and sex)	Sitting Blood Pressure Systolic <2nd centile (88-105mmHg depending on age and sex) Diastolic <2nd centile (40-45mmHg depending on age and sex)
	Result	Result	Result
	History of Recurrent Syncope Marked orthostatic changes (fall in systolic blood pressure of 20mmHg or more, or below 0.4th-2nd centiles for age, or increase in heart rate up to 30bpm)	Moderate orthostatic cardiovascular changes (fall in systolic blood pressure of 15mmHg or more, or diastolic blood pressure fall of 10mmHg or more within 3 mins standing, or increase in heart rate up to 30bpm) Occasional syncope	Pre-syncopal symptoms (e.g. light headedness, dizziness, blurred vision) but no orthostatic cardiovascular changes
	Result	Result	Result
	Irregular heart rhythm (does not include sinus arrhythmia)		
	Result		
ECG	QTc > 450 ms with	QTc >450ms	QTc < 450ms and taking

ABNORMALITIES	evidence of bradyarrhythmia or tachyarrhythmia (excludes sinus bradycardia and sinus arrhythmia) ECG evidence of biochemical abnormality		medication known to prolong QTc interval, family history of prolonged QTc or sensorineural deafness
	Result	Result	Result
HYDRATION STATUS	Severe dehydration: Low urine output Dry mouth Decreased skin turgor, sunken eyes Tachypnoea Tachycardia	Moderate dehydration: Reduced urine output Dry mouth Normal skin turgor Some tachypnoea Some tachycardia Peripheral oedema	Mild dehydration: May have dry mouth or Not clinically dehydrated but with concerns about risk of dehydration with negative fluid balance
	Result	Result	Result
TEMPERATURE	<35.5°C	<36 °C	
	Result	Result	
BIOCHEMICAL ABNORMALITIES	Hypophosphataemia	Hypophosphataemia	
	Result	Result	
	Hypokalaemia	Hypokalaemia	
	Result	Result	
	Hyponatraemia	Hyponatraemia	
	Result	Result	
	Hypocalcaemia	Hypocalcaemia	
	Result	Result	
CALORIE INTAKE	Acute food refusal or estimated calorie intake 400-600kcal per day or less	Severe restriction Vomiting Purging with laxatives	Moderate restriction Bingeing

	Result	Result	Result
ENGAGEMENT WITH CARE PLAN	Violent when parents try to limit behaviour or encourage intake Parental violence in relation to feeding (hitting, force feeding)	Poor insight into eating problems, lacks motivation to tackle eating problems, resistance to changes required to gain weight Parents unable to implement meal plan advice given	Some insight into eating problems, some motivation to tackle eating problems, ambivalent towards changes required to gain weight but not actively resisting
	Result	Result	Result
ACTIVITY AND EXERCISE	High levels of uncontrolled exercise (>2hrs per day)	Moderate levels of uncontrolled exercise (>1 hr per day)	Mild levels of uncontrolled exercise (<1 hr per day)
	Result	Result	Result
SELF HARM AND SUICIDE	Self-poisoning Suicidal ideas with moderate-high risk of completed suicide	Cutting or similar behaviours Suicidal ideas with low risk of completed suicide	
	Result	Result	
MUSCULAR WEAKNESS	Stand from squat: Unable to get up at all from squat (score 0)	Stand from squat: Unable to get up without using upper limbs (score 1)	Unable to get up without noticeable difficulty (score 2)
	Result	Result	Result
OTHER MENTAL HEALTH DIAGNOSIS		Other major psychiatric diagnosis e.g. OCD, psychosis, depression	

		Result	
OTHER	Confusion and delirium Acute Pancreatitis Gastric or oesophageal rupture	Mallory Weiss Tear Gastro-oesophageal reflux or gastritis Pressure sores	Poor attention and concentration
	Result	Result	Result

Appendix 4 – Junior MARSIPAN Management in General Practice

It is often parents rather than young people who seek help initially, often after a long period of the problem unfolding and hope that it will not develop fully into an eating disorder. By the time help is sought, the young person is often very unwell, and a single consultation about weight and eating concern is a strong indicator of a possible eating disorder (Lask *et al*, 2005). A 'wait and see' attitude is contraindicated.

Behavioural indicators of an eating disorder include reluctant attendance at the surgery or clinic, seeking help for physical symptoms, resisting weighing and examination, covering the body, being secretive or evasive, having increased energy levels (and in some cases agitation) and getting angry or distressed when asked about eating problems. Eating disorders may of course co-exist with other disorders.

Diagnostic features of an eating disorder are:

- refusal to maintain body weight or failure to gain weight during a period of growth
- intense fear of gaining weight
- disturbed body perception
- undue influence of body weight or shape on self-esteem
- denial of seriousness of current low body weight
- secondary amenorrhoea in girls post-menarche

The SCOFF questionnaire, although validated only in adults, can provide a framework for screening in children (Morgan *et al*, 1999). When an eating disorder is identified, direct challenge or confrontation is unlikely to be helpful. Reasonable aims for a first presentation are to:

- feedback findings from physical examination, including degree of underweight if relevant
- establish weight monitoring, plus a plan to follow if weight falls
- discuss psychiatric risk as needed
- provide the young person and the family with information about the nature, course and treatment of the eating disorder
- refer to the appropriate CAMHS or paediatric service depending on the level of risk

In general, the threshold for intervention should be lower for adolescents than for adults. In patients younger than 18, early intervention is associated with better outcome and a higher recovery rate than in later years. In practice, the referral may also depend on which service the parents or young person will accept, with preference often being for a paediatric over CAMHS referral. However, the needs of the child should be the primary basis for decisions about referral. Any referral must be accompanied by a full referral letter explaining why a particular route has been chosen.

Initial assessment should include general examination, including pulse rate and blood pressure, and baseline blood tests, with an ECG for underweight individuals or where there is concern regarding continuing weight loss. Height, weight and BMI should be measured, plotted on centile charts, and a percentage BMI should be calculated. Some drugs (e.g. antipsychotics, often prescribed to patients with anorexia nervosa) can lengthen the QTc and hence enhance the cardiac ill effects of malnutrition.
If weight loss is rapid and the history suggestive of an eating disorder, referral to CAMHS should be made (but rapid weight loss without signs suggestive of an eating disorder is no reason to refer to CAMHS). If weight is below 80% of median BMI for age and gender, the referral should be considered urgent. If it is below 70%, referral should be made directly to paediatric services for initial assessment. Referral letters must include current weight and height as well as other information relevant to assessing risk. It is particularly helpful to include any previous measures of weight or height, since this gives an idea of how severe and long-standing

the problem is. Extensive and time-consuming physical investigations should be avoided. Differential diagnosis includes:

- endocrine: diabetes mellitus, hyperthyroidism, glucocorticoid insufficiency
- gastrointestinal: coeliac disease, inflammatory bowel disease, peptic ulcer
- oncological: lymphoma, leukaemia, intracerebral tumour
- chronic infection: tuberculosis, HIV, viral, other
- psychiatric: depression, autistic spectrum condition, obsessive compulsive disorder (OCD)

Of these, an eating disorder is one of the most common. All children should have a routine blood screen including full blood count, electrolytes, liver function, renal function, including calcium, phosphate and magnesium, iron status, coeliac antibody screen, inflammatory markers, and thyroid function.

Rapid re-feeding in the community (which may be self-generated by means of bingeing) can risk **re-feeding syndrome.** Re-feeding syndrome is extremely rare but is more likely to occur in a young person with rapid weight loss and a BMI <0.4th centile, who has eaten little or nothing in the past week or who has abnormal biochemical parameters.
Support from dietician should be sought to advise on feeding in any young person considered at risk of re-feeding syndrome. Patients and parents should be advised not to increase nutritional intake rapidly, even if motivated to do so. If risk for re-feeding syndrome is high, blood tests are needed during the initial phase of re-feeding, particularly electrolytes, calcium, phosphate and magnesium. If the risk is high enough to require daily blood tests, the young person should be referred to hospital according to local protocol.

Until the young person is seen in the specialist clinic, he/she should be seen regularly (at least weekly) for weight monitoring, blood tests and ECG.

When a young person is under the care of CAMHS, a GP or general paediatrician may have to monitor their physical health. In such instances of shared care, regular communication between those responsible for the medical and mental health aspects of care, at least after each visit, is good practice.

Management of anorexia nervosa in primary care and other out-patient settings needs:

- Rapid exclusion of other conditions
- Risk assessment: age- and gender-specific BMI centile, blood pressure, heart rate, temperature, baseline blood tests and self-harm
- Refer to CAMHS every young person with probable anorexia nervosa
- Refer to paediatrics any child who has one or more criterion of a high risk with simultaneous referral to CAMHS
- If re-feeding in the community, check electrolytes, phosphate, magnesium as for in-patient care. Where regular blood tests are not feasible, in-patient admission should be sought
- Monitor at least weekly until seen by CAMHS or paediatric services.

Appendix 5 - Suspected Eating Disorder – Quick Guide for General Practitioners

Due to the complex medical and mental health presentation of eating disorders the young person does require an assessment by a GP as part of the initial referral pathway to CAMHS. This will ensure:
• That the young person is referred following the appropriate pathway
• That there is appropriate liaison with paediatrics and CAMHS

It is recommended that the Junior MARSIPAN Risk Assessment tool is referred to in order to ascertain level of risk and whether there is a need for paediatric referral alongside CAMHS EDT referral.
{Please see www.marsipan.org.uk and create an account to log into the risk assessment tool. An app for smartphones is also available}

Percentage BMI (or percentage WFH) = $\frac{\textbf{Actual BMI} \times 100}{\textbf{Median BMI (50th percentile) for age and gender}}$

Prior to a referral to CAMHS the information listed below should be obtained to aid prioritisation of the referral and to assess whether a more immediate paediatric referral is necessary. A copy of the Physical Obs Monitoring Sheet (see Appendix 6) should be faxed to CAMHS with referral (and with weekly weights).

• Weight and height (no shoes, light clothing)
• History of weight loss – amount lost, speed of loss and intention
• Blood pressure and pulse, sitting and standing
• Temperature
• ECG if clinically indicated (if pulse ≤50 or if any cardiac symptoms)
• History of excessive exercising, vomiting, abuse of laxatives or other diet pills
•Sit up and squat tests
•Capillary refill
• Menstruation history in females
• Bloods to include FBC, U+E, LFT, TFT, ESR, magnesium, calcium, phosphate, thiamine, glucose, iron, albumin, creatine kinase, coeliac screen

When to be concerned:

• Heart rate - less than 50bpm, symptomatic postural tachycardia - ECG indicated
• ECG - prolonged QTc, heart rate <50bpm, arrhythmia associated with malnutrition and/or electrolyte disturbance
• Blood pressure - systolic, diastolic or mean arterial pressure below the 0.4th centile for age/gender and/or postural drop of more than 15mmHg
{BP centile charts can be found at https://www.bcm.edu/bodycomplab/BPappZjs/BPvAgeAPPz.html or see attached PDF for Blood Pressure centile Charts }
• Signs of significant dehydration and malnutrition
• Temperature < 36C
• Evidence of purging –hypokalaemia, uncontrolled vomiting with risk of oesophageal and other visceral tears
• Hypokalaemia - <3mmol/l admit under paediatrics
• Hyponatraemia or Hypernatremia - related to dehydration or water loading- <130mmol/l admit under paediatrics
• Rapidity of weight loss, even when seemingly a healthy weight range
• Mental health risk- suicidality, evidence of self-harm, family not coping

Following receipt of referral the young person will follow either the paediatric or CAMHS care pathway depending on their presentation.

It is essential that whilst awaiting assessment by CAMHS the referring GP continues to monitor the young person regularly (weekly) taking into account the above information, with Paediatric referral if physical health risk increases.

Have a low threshold for prescribing a Multivitamin OD (e.g. Sanatogen Gold), Vitamin B co Strong TDS (e.g. Berocca) and Thiamine 50mg TDS to reduce the risk of re-feeding syndrome.
Prescription of the Oral Contraceptive or Hormone Replacement Therapy is **not** recommended.

Appendix 6: Physical Observations Monitoring Form

Physical Obs Monitoring – Eating Disorder

Patient's Name: _____ Date: _____
DOB: _____ GP or Practice Nurse: _____
GP Practice: _____

**** Please fax to …….. Southampton CAMHS Team - Fax No: **02380 698510**

Observation	**Result**	**Concern** Please discuss with GP who may wish to see patient	**Alert** Discuss with paediatric/medical on-call team
Weight in kg (in underwear)			
Amount of weight loss or gain since last reading		Loss of >0.5kg per week	Loss of >1.0kg per week
Height (in metres)			
BMI (weight kg / height m^2)		<16 Rapid weight loss at a higher BMI may be equally or more concerning if evidence of physical compromise	<14
Percentage BMI $\frac{\text{Actual BMI}}{\text{Median BMI (50th percentile) for age and gender}} \times 100$		70-80%	<70%
Pulse		45-55 Check ECG for prolonged QT and arrhythmias	<45
ECG (if appropriate)			
Blood pressure Sitting: Standing:		Systolic <90 Diastolic <70 Postural drop >10	Systolic <80 Diastolic <60 Postural drop >20
Temperature			<36
Temperature of hands		Cold	Very cold/Blue
Capillary refill			>3 secs
Squat test		Unable to get up without using arms for balance	Unable to get up without using arms for leverage
Sit up test		Unable to sit up without using arms for leverage	Unable to sit up at all
Rash			
Blood Test			
FBC		Hb <11 WCC <4.0 Neut <1.5	Hb <9 WCC <2.0 Neut <1.0

		Platelets <130	Platelets <110
U+E		K <3.5 Na <135 Urea >7	K <3.0 Na <130 Urea >10
LFT		Bilirubin >20 ALP >110 ALT >45 AST >40	Bilirubin >40 ALP >200 ALT >90 AST >80
Glucose		<3.5	<2.5
Phosphate		0.5 – 0.8	< 0.5
Magnesium		0.5 – 0.7	< 0.5
TFT			
Calcium			
Albumin			
Creatine Kinase			
ESR			

Appendix 7- Re-feeding Syndrome a guide for Clinicians

What is re-feeding syndrome?

Re-feeding syndrome is a serious potential complication of commencing feeding in someone who has experienced a period of 'starvation'. Highest risk is in first week.

The syndrome includes biochemical abnormalities and clinical findings. The most significant is a reduction in phosphate level, which may be followed by cardiovascular (tachycardia, cardiac failure and oedema, hypotension and arrhythmia) and neurological sequelae (confusion).

In starvation insulin secretion is decreased due to decreased intake of carbohydrate. Fat and protein stores are catabolised to produce energy and stores of essential electrolytes (phosphate, potassium and magnesium) may be depleted. When undernourished patients are re-fed the body switches back to carbohydrate metabolism, insulin is released and phosphate, magnesium and potassium are taken into cells resulting in the potential for hypophosphataemia (low phosphate level).

Who is at greatest risk?

- Very low weight <70% median BMI (weight4height)(red risk) 70-80% median BMI (amber risk)
- Fast rate of weight loss >1kg/week for 2 consecutive weeks (red risk) 500-999g/week for 2 consecutive weeks (amber risk)
- Minimal or no feeding prior to re-feeding, acute food refusal or calorie intake 400-600kcal/day. If in combination with vomiting or laxative misuse this will increase risk further
- Previous history of re-feeding syndrome
- Neutropenia (low white cell count on full blood count)

Monitoring for re-feeding syndrome

The young people at highest risk as indicted above should be discussed with paediatrics and re-fed in hospital if possible. If they are being managed in the community bloods (U+E LFTs calcium phosphate magnesium) should be checked before increasing dietary intake. If there are any abnormalities particularly in phosphate this must be discussed with child psychiatrist or paediatrician immediately and no attempt made to increase until phosphate level has been corrected.

Ideally bloods, pulse and blood pressure should be repeated as regularly as practically possible for 2 weeks (highest risk day 2-5). If any blood abnormalities, tachycardia (pulse greater than 100 not attributable to anxiety) or other physical symptoms occur immediate medical advice must be sought. Young people and their carers should also be advised to check for any evidence of oedema or swelling and to seek immediate medical advice if this occurs or if the young person becomes confused, drowsy or experiences any palpitations chest pain or shortness of breath.

**This guidance is based on RCPsych Junior MARSIPAN Jan 2012 and GOSH Clinical Guideline for the recognition, prevention and treatment of re-feeding syndrome in children and young people.*

Appendix 8 - Helpline and Resources

Books	**Further Help**
Anorexia Nervosa; A Survival Guide For Families, Friends and Sufferers by Janet Treasure ISBN 0-86377-760-0 Eating Disorders a Parents' Guide, from the Great Ormond Street Hospital Eating Disorders Clinic by Rachel Bryant-Waugh and Bryan Lask, ISBN 0-14-026371-3 Eating with your Anorexic – How my child recovered through family-based treatment and yours can too by Laura Collins ISBN 0071445587 Boys Get Anorexia Too – Coping with male eating disorders in the family by Jenny Langley ISBN 1412920221 Anorexia and Bulimia in the Family by Grainne Smith ISBN 0-470-86161-4 The Body Image Workbook: An 8-Step Program for Learning to Like Your Looks by Thomas F. Cash ISBN 1-57224-062-8 Biting the Hand that Starves You: inspiring resistance to anorexia/bulimia By Richard Maisel, David Epston and Alisa Borden ISBN 0393703371 Skills-based learning for caring for a loved one with an eating disorder: The new Maudsley method by Janet Treasure, Gráinne Smith, Anna Crane ISBN 0415431583	beat beating eating disorders Website: www.b-eat.co.uk Helpline: 0845 634 1414 open Monday to Friday 10.30am–8.30pm; Saturdays 1.00–4.30pm Email: help@b-eat.co.uk For young people aged 25 and under B-eat Youthline: 0845 634 7650 open Monday to Friday: 4.30–8.30pm Saturdays: 1.00–4.30pm Email: fyp@b-eat.co.uk TXT 07786 201820 Mental Health Matters Helpline – 0800 1070160. Offering confidential emotional support for service users and carers 5pm to 9am Monday to Friday and 24 hours at weekends and Bank Holidays. Overcoming Anorexia for Carers www.overcominganorexiaonline.com Anorexia and Bulimia Care www.anorexiabulimiacare.org.uk F.E.A.S.T Families Empowered and Supporting Treatment of Eating Disorders www.feast-ed.org

NICE (National Institute for Health and Clinical Excellence): Eating Disorders treatment guidelines for England and Wales. Available online at www.NICE.org.uk	Around the Dinner Table www.aroundthedinnertable.org Young Minds www.youngminds.org.uk/ Royal College of Psychiatrists – website contains links to leaflets and further information www.rcpsych.ac.uk/healthadvice/parentsandyouthinfo/parentscarers/eatingdisorders.aspx Self Help for Parents with Children who have an Eating Disorder www.parented.co.uk FREED from Eating Disorders resources https://freedfromed.co.uk/resources-for-patients-carers