

Risk Assessment Framework for Patients with Anorexia Nervosa <18 years old				
	RED (High risk)	AMBER (Alert to high concern)	GREEN (Moderate risk)	BLUE (Low risk)
Body mass	%mBMI ¹ <70% (~below 0.4 th BMI centile]	%mBMI 70-80% [~between 2 nd and 0.4 th BMI centile]	%mBMI 80-85% [~between 9 th and 2 nd BMI centile]	%mBMI >85% [~above 9 th BMI centile]
	Recent loss of ≥ 1kg for two consecutive weeks	Recent loss of ≥ 500g-999g/week for two consecutive weeks	Recent loss of up to 500g/week for two consecutive weeks	No weight loss over past two weeks
Cardiovascular Health	Heart rate (awake) <40 bpm ¹	Heart rate (awake) 40-50bpm	Heart rate (awake) 50-60bpm	Heart rate (awake) >60bpm
		Sitting Blood Pressure (BP) Systolic <0.4 th centile (84-98mmHg ¹) Diastolic <0.4 th centile (35 -40 mmHg ³)	Sitting Blood Pressure Systolic <2 nd centile (88 - 105mmHg ³) Diastolic <2 nd centile (40 - 45mmHg ³)	Normal sitting blood pressure for age and gender with reference to centile charts ³
	Marked orthostatic changes (↓in systolic BP of ≥20mmHg, or ↑ in heart rate > 30bpm) History of Recurrent Syncope	Moderate orthostatic cardiovascular changes (↓ in systolic BP of ≥15mmHg, or diastolic BP fall of ≥ 10mmHg within 3 mins of standing, or ↑ in heart rate ≤ 30bpm) Occasional syncope	Pre-syncopal symptoms but normal orthostatic cardiovascular changes	Normal orthostatic cardiovascular changes
	Irregular heart rhythm (does not include sinus arrhythmia)			Normal heart rhythm
			Cool peripheries. Prolonged peripheral capillary refill time (normal central capillary refill time)	
ECG abnormalities ¹	Males and Females <15 years: QTc> 460ms Females (>15yrs): QTc>460ms Males (>15 yrs): QTc>450ms with evidence of bradyarrhythmia or tachyarrhythmia (excludes sinus bradycardia and sinus arrhythmia); ECG evidence of biochemical abnormality	Males and Females <15 years: QTc> 460ms Females (>15yrs): QTc>460ms Males (>15 yrs): QTc>450ms	Males and Females <15 years: QTc 440-460ms Females (>15yrs): QTc 450-460 ms Males (>15 yrs): QTc 430-450ms and taking medication known to prolong QTc interval, family history of prolonged QTc or sensorineural deafness	Males and Females <15 years: QTc< 440ms Females (>15yrs): QTc< 450ms Males (>15 yrs): QTc< 430ms
Hydration Status	Fluid refusal Severe dehydration (>10%): Reduced urine output, Dry mouth, Decreased skin turgor, Sunken eyes, Tachypnoea, Tachycardia ¹	Severe fluid restriction Moderate dehydration (5-10%): Reduced urine output, Dry mouth, Normal skin turgor, Some tachypnoea, Some tachycardia ⁴	Fluid restriction Mild dehydration (<5%): Dry mouth or not clinically dehydrated but with concerns about risk of dehydration with negative fluid balance.	Not clinically dehydrated
		Peripheral oedema		
Temperature	<35.5°C (tympanic) or 35.0°C axillary	<36 °C		

¹ Note these are slightly revised from the Junior MARSIPAN document.

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Biochemical Abnormalities	Hypophosphataemia, Hypokalaemia, Hypoalbuminaemia, Hypoglycaemia, Hyponatraemia, Hypocalcaemia	Hypophosphataemia, Hypokalaemia, Hyponatraemia, Hypocalcaemia		
Disordered eating behaviours	Acute food refusal or estimated calorie intake 400-600kcal per day	Severe restriction ($\leq 50\%$ of required intake). Vomiting. Purging with laxatives	Moderate restriction. Bingeing	
Engagement with management plan	Violent when parents try to limit behaviour or encourage food/fluid 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 by health care providers	Some insight into eating problems, some motivation to tackle eating problems, ambivalent towards changes required to gain weight but not actively resisting	Some insight into eating problems, motivated to tackle eating problems, ambivalence towards changes required to gain weight not apparent in behaviour
Activity and exercise	High levels of uncontrolled exercise in the context of malnutrition (>2hrs per day)	Moderate levels of uncontrolled exercise in the context of malnutrition (>1 hr per day)	Mild levels of uncontrolled exercise in the context of malnutrition (<1 hr per day)	No uncontrolled exercise
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		
Other mental health diagnosis		Other major psychiatric co-diagnosis eg OCD, psychosis, depression		
Muscular weakness	Stand up from squat: Unable to get up at all from squatting (score 0)	Stand up from squat: Unable to get up without using upper limbs (score 1)	Unable to get up without noticeable difficulty (score 2)	Stands up from squat without any difficulty (score 3)
SUSS Test	Sit up: Unable to sit up at all from lying flat (score 0)	Sit up: Unable to sit up from lying flat without using upper limbs (score 1)	Unable to sit up from lying flat without noticeable difficulty (score 2)	Sits up from lying flat without any difficulty (score 3)
Other	Confusion and delirium Acute Pancreatitis Gastric or oesophageal rupture.	Mallory Weiss Tear Gastro-oesophageal reflux or gastritis. Pressure sores.	Poor attention and concentration	

Calculating QTc interval: Cardiologists increasingly use the 'tangent method' ¹. A tangent is drawn to the steepest slope of the last limb of the T wave in lead II or V5. The end of the T wave is the intersection of the tangent with the baseline. QTc is defined as QT/\sqrt{RR} (Bazett's formula).

