

A guide to admission and inpatient treatment for people with eating disorders in Queensland

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Acknowledgements

This guide has been developed following a literature review (see references 1-14) and key stakeholder consultation encompassing clinicians from mental health services, general medical services, and emergency departments, as well as general practitioners.

Background

Eating disorders are associated with significant psychiatric and medical morbidity. Effective management requires close collaboration between clinicians working in psychiatric and medical settings. The overarching principle that guides the management of patients with eating disorders within Queensland Health (QH) is that patients have access to the level of health service they require as determined by their medical and mental health needs. In practical terms this means that patients have a right to access medical and mental health services across the continuum of care including community, inpatient and specialist services.

Objectives

The aims of these guidelines are to provide recommendations to assist treating teams

- to manage the medical and psychological risks and needs of people with eating disorders
- to promote coordinated care with a smooth transition across medical, mental health and specialist services
- to include families and carers in the service response to people affected by eating disorders
- to encourage state-wide consistency in treatment and management

Queensland Eating Disorder Service (QuEDS)

QuEDS (formerly known as EDOS) is available to provide support for treating teams using management guidelines developed jointly with the Queensland Directors of Medicine, Emergency Medicine and Mental Health. QuEDS may be able to facilitate access to specialist beds at the RBWH if a trial of local treatment with QuEDS input has not been able to achieve treatment goals.

Physical indicators for admission to inpatient beds

Table 1 was developed following reviews of current literature and the guidelines utilised by QuEDS for safe and effective treatment of inpatients with an eating disorder, and further consultation with all Qld Directors of Medicine, Emergency Medicine and Mental Health. The table lists physical parameters that are relevant in considering whether psychiatric versus medical admission is indicated. **If any parameter is met at the time of assessment, inpatient treatment is advised** in accordance with the Royal Australian and New Zealand College of Psychiatrists guidelines (2). The list in the table is not exhaustive; therefore any other medical problems which are of concern should be discussed with the relevant medical team.

	Psychiatric admission indicated [Ⓜ]	Medical admission indicated [Ⓟ]
	(bold parameters highlight adolescent criteria that are different to those for adults)	
Weight loss	Rapid weight loss (i.e. 1 kg/wk over several weeks) or grossly inadequate nutritional intake (<1000kCal daily)	
Re-feeding risk	Low	High
Systolic BP	<90 mmHg (<80 mm Hg)	<80 mmHg (<70 mm Hg)
Postural BP		>20 mmHg drop with standing
Heart rate		≤40 bpm (<50 bpm) or > 120 bpm or postural tachycardia > 20bpm
Temp	<36.0	<35.5 or >38°c
12-lead ECG	Normal sinus rhythm	Any arrhythmia including QTc prolongation, or non-specific ST or T-wave changes including inversion or biphasic waves
Blood sugar		<3.0 mmol/L
Sodium	<130 mmol/L*	<125 mmol/L
Potassium	Below normal range	<3.0 mmol/L
Magnesium		Below normal range
Phosphate		Below normal range
eGFR	>60ml/min/1.73m ² and stable	<60ml/min/1.73m ² or rapidly dropping (25% drop within a week)
Albumin	Below normal range	<30 g/L
Liver enzymes	Mildly elevated	Markedly elevated (AST or ALT >500)
Neutrophils	<1.0 x 10 ⁹ /L	<0.7 x 10 ⁹ /L
Weight	Body Mass Index (BMI) 12-14 (75-85% IBW, see IBW Ready Reckoner)	BMI <12 (<75% IBW, see IBW Ready Reckoner)
Other	Not responding to outpatient treatment	
* Please note, any biochemical abnormality which has not responded to adequate replacement within the first 24 hours of admission should be reviewed by a Medical Registrar urgently		

Table 1: Physical indicators for psychiatric and medical inpatient admission of patients with an eating disorder.

[Ⓜ] Psychiatric admission is indicated if BMI <14 for adults or 75-85% IBW for adolescents, or there are other abnormalities of physical parameters that are not of sufficient severity to warrant medical admission.

[Ⓟ] In some cases, as indicated in the column of indicators under the 'Medical admission' heading, an initial medical admission is indicated. Generally speaking, this is recommended if BMI <12 for adults or weight is <75% IBW for adolescents, or there are significant abnormalities of physical parameters.

Goals of Inpatient Treatment

The goals of inpatient treatment include (in the following order): medical stabilisation; prevention and treatment of re-feeding syndrome; weight restoration; reversal of cognitive effects of starvation so the person can benefit from psychotherapy; engagement of informal carers and family or community support; and arrangement of appropriate outpatient follow-up care.

Best practice guidelines for medical ward admissions

All patients admitted to medical wards should receive assessment by the local Consultation Liaison Psychiatry team then referred to QuEDS or local eating disorder specialists as required, with these teams providing ongoing advice and support to the treating medical team as appropriate.

The local Consultation Liaison Psychiatry (C/L) team should ensure adequate, regular and frequent (up to daily if required) support is provided to the medical team to assist them with behavioural and psychological management. The C/L psychiatry team can interview the patient and family for collateral information and assess support; provide advice and support to medical staff on how to manage challenging behaviours, and can coordinate involvement of QuEDS in team reviews either in person or via telephone.

Guidelines for transfer from medical ward to mental health unit

1. All patients should be medically stable for a minimum of 24 hours prior to transfer; as evidenced by:

- a. Systolic BP 90mm (>80mm for adolescents) or above
- b. Heart Rate >50 and <100 bpm
- c. No significant postural tachycardia or hypotension
- d. Patient has been on goal nutrition for at least 48hrs
- e. Normal ECG
- f. Normal electrolytes

NB: Postural tachycardia of > 20bpm persisting for more than 7-10 days with verifiable consistent nutrition is less likely to be associated with medical compromise, and so should not preclude transfer to a mental health ward if the treating physician has established that the patient is medically stable.

2. Patients should ideally be at a BMI of 14 (>75%IBW for adolescents) before transfer to a mental health ward, though transfer can occur with BMI between 12 and 14 if there is agreement between the medical and mental health units, and the patient has been medically stable for at least 24 hours.
3. The risk of refeeding syndrome has passed (7-10 days from commencement of refeeding) There should be clear evidence that the patients have received adequate nutrition evidenced by medical stabilisation, and be receiving full energy requirements for weight restoration. Electrolytes should be within normal limits after goal nutrition is reached.

QuEDS is available to consult with the medical, mental health and C/L psychiatry teams weekly or as required, by tele-conference, video-conference or on site. Specialised eating disorders support and training can also be accessed via QuEDS. (Please contact via QuEDS@health.qld.gov.au)

Best practice guidelines for admissions to, and discharge from, adult mental health inpatient units

- a) The receiving inpatient mental health treatment team should be consulted, and have input into the treatment plan prior to admission.
- b) The mental health treating team should have timely access to advice and support from the local department of medicine, including transfer back to a medical bed if indicated.
- c) All treating teams can access QuEDS for advice throughout treatment.
- d) If the patient is admitted directly to a mental health unit, monitoring and treatment of refeeding syndrome should be undertaken in the first two weeks as per the guidelines for medical admission.
- e) Patients should be at a BMI of 17-20 before discharge.
- f) All patients should be linked in to appropriate medical and mental health follow up (both within a week of discharge), with a discharge summary provided to the receiving service, and a documented individualised treatment plan, including readmission criteria, developed in consultation with the consumer, their family, and the follow up agencies. Please note that QuEDS can help to facilitate referral to appropriate services.
- g) Patients are to be transferred to a specialist eating disorders bed at the RBWH if the criteria below are met, and a bed is available.

Criteria and guidelines for transfer to RBWH adult specialist eating disorders beds

- a) The patient has been offered a trial of treatment in their local mental health inpatient unit with input from QuEDS.
- b) Despite QuEDS support, the goals of inpatient treatment have not been met.
- c) QuEDS agrees to the transfer to a specialist eating disorders bed at the RBWH, and has developed a written treatment plan in consultation with the consumer, family and referring team.
- d) The local service agrees to maintain ongoing contact with the patient during the admission, and provides follow up treatment on discharge.
- e) If the local service has two or more patients admitted with an eating disorder on any one ward, high priority will be given to transfer.

Best practice guidelines for inclusion of families and carers in treatment

Involving family and significant others. Unless there are contraindications or the individual is opposed, family or significant others should be enlisted as partners in the assessment and treatment process. Given the considerable burden on family members it is important that the family is provided with appropriate support and information.

(Clinical Practice Guidelines for the Treatment of Eating Disorders. Royal Australian and New Zealand College of Psychiatrists; 2014.)

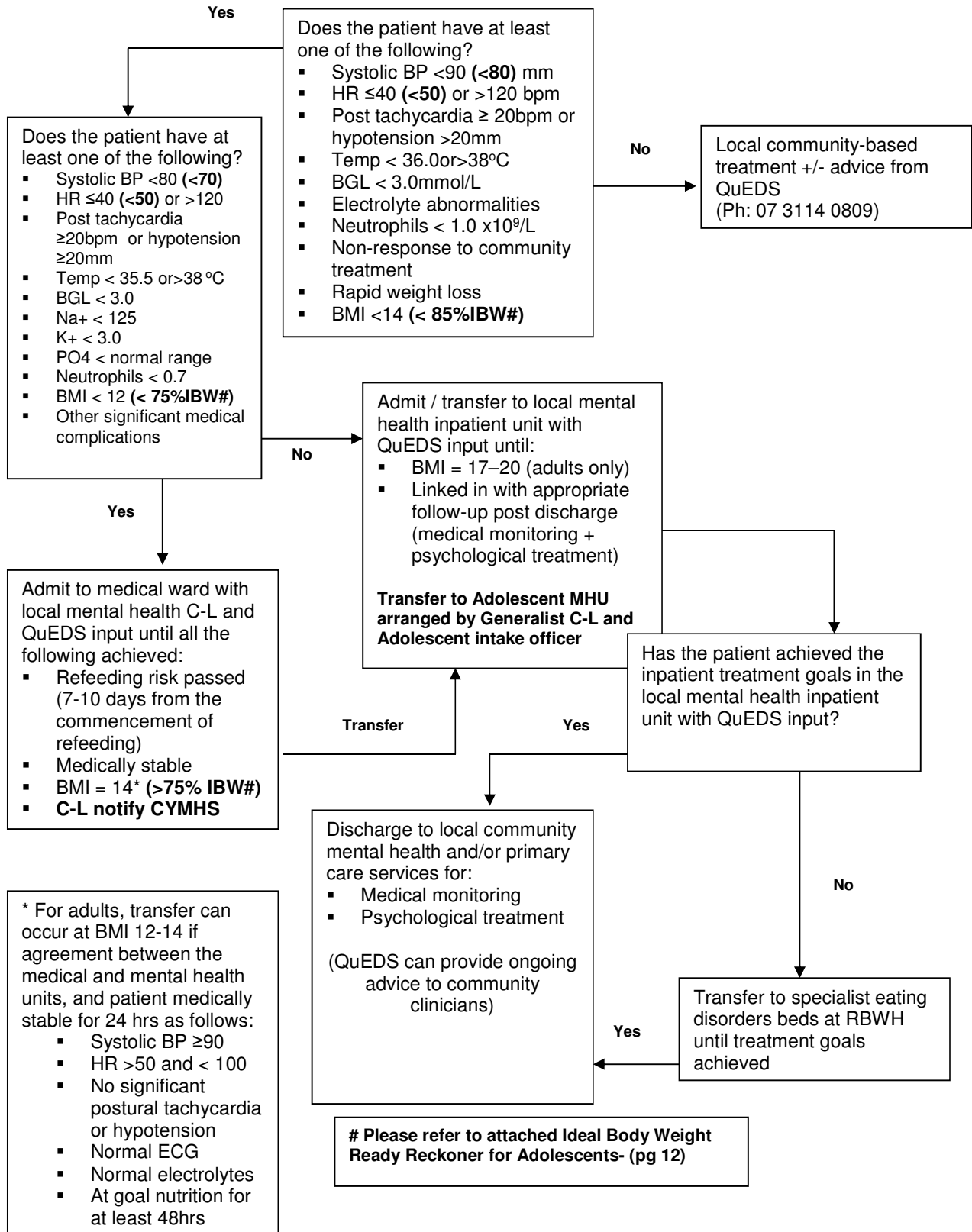
People with moderate to severe eating disorders require the assistance of family or other carers to support them to contain eating disorder behaviours and implement treatment in the practice of daily living. Family or other carer assistance plays an important role in reducing the level of intensity and the duration of treatment required. It is therefore important that family or other carers be actively engaged and supported in the treatment process.

The role of family or carers is so important to the success of treatment that they cannot be excluded from the treatment team without consequences for the effectiveness of that treatment.

(The National Agenda for Eating Disorders 2017 to 2022. Butterfly Foundation; 2016.)

Flowchart of admission pathways for patients with eating disorders.

Bolded parameters in the chart highlight adolescent criteria that are different to those for adults



Queensland Eating Disorder Service Inpatient Management Guideline

These guidelines have been developed following a review of the relevant literature by the QH Statewide Eating Disorder Service (QuEDS) in conjunction with key stakeholders.

QuEDS provide a consultation liaison service to Queensland hospital clinicians with the goal of increasing the capacity of local services to safely and effectively treat people with eating disorders.

Please contact QuEDS intake officer on Ph 3114 0809 to initiate a referral to the QuEDS consultation service.

TO MINIMISE THE RISK OF RE-FEEDING SYNDROME IT IS RECOMMENDED YOUR TEAM COMMENCE THESE ACTIONS IMMEDIATELY

Medical Management

- Commence supplemental thiamine (300mg daily IVI first 3 days, then oral) and multivitamins prior to nutrient delivery. Continue thiamine 100 mg TDS and multivitamin daily after the first three days.
- It is strongly advised that the patient has medical monitoring for at least the first 7–10 days and whilst re-feeding risks are high.
- Immediately - FBC, E/LFTs, phosphate, Mg, ECG, B12/folate, TFTS and other investigations as indicated by clinical findings.
- Daily E/LFTs, phosphate, Mg, ECG are necessary until goal energy intake is reached. Immediately replace K, PO₄, Mg if these are found to be deficient using Q health guidelines “Prescribing Guidelines for HYPO-Electrolyte Disturbances in Adults”
https://www.health.qld.gov.au/_data/assets/pdf_file/0023/700088/electrolyte-glines-adult.pdf
- Consider reduction of above blood tests to every second day if no changes to meal plan and as clinically indicated. Further decrease blood tests to twice weekly with weight in week three as the admission progresses (aligning blood tests with weigh days is a useful indicator of fluid status in addition to urine specific gravity). Daily ECGs can decrease after initial re-feeding risk period to second daily or twice weekly as clinically indicated.
- Patients on nasogastric feeds require BGL QID + 0200hrs . Patients on oral meal plans should also be carefully monitored for hypoglycaemia with QID BGLs taken at 0600hrs plus 1 – 2 hrs post each main meal, + 0200hrs. (This is because low glycogen stores and an abnormal insulin response may lead to post-meal low BGLs, and low BGLs in the morning/overnight.) Once goal nutrition is reached, continue QID BGLs for another week, if remain normal this can reduce in frequency to BD. If BGLs remain normal at BD for another week the treating team can consider ceasing (unless remaining clinically indicated).

Hypoglycaemic episodes often occur in the early re-feeding stage of severely malnourished clients. Low BGLs (<4.0mmol/l) should be managed according to the document 'Insulin Subcutaneous Order and Blood Glucose Record Adult that include Guidelines for Medical Officer responding to Blood Glucose Alerts and Hypoglycaemia Management in Diabetes: BGL less than 4 mmol/L'.

<http://qheps.health.qld.gov.au/medicines/docs/sw006-adult-insulin-subcut-bgl.pdf> However, in view of the risk of excess simple carbohydrate precipitating re-feeding syndrome and rebound hypoglycaemia in these patients secondary to inadequate glycogen stores, wherever the above document recommends giving a fast acting carbohydrate, a slow acting carbohydrate (eg. one of the following: Tetrapak of Resource Plus/Ensure Plus/Fortisip/glass milk and crackers), should be given in addition at the same time.

- Manage constipation as clinically indicated with stool softeners only, no stimulant laxatives.

Nutritional Management

The following nutritional recommendations are supported by papers published in the adolescent eating disorder field^{1,2,3,4,5}, and expert opinion of those working with adults. The recommendations are aimed at optimising medical stability, while reducing medical risk, time to goal energy, and length of admission.

All patients should commence feeding at 1500kcal / 6300kJ per day as outlined below, and measured weight should not be discussed with the patient.

NB patient-reported allergies/intolerances/self-imposed restrictions are common. Unnecessary limitations on nutrient choice can impact negatively on nutritional rehabilitation. Medically diagnosed conditions eg coeliac, anaphylactic reactions to dairy protein etc must be acted upon, however, clinical judgement should be used as to the appropriateness of other restrictions without a formal diagnosis eg gluten intolerance, FODMAP, vegan choices etc

Medical admissions (also see QuEDS nutrition flowchart)

- Recommend commence 24hr continuous nasogastric feeds delivering 1500kcal / 6300kJ using a low fibre, energy dense (1.5kcal/ml or 6.3kJ/ml recommended) enteral feed. The commencement of nasogastric feeds should not be delayed, and can be prescribed by a medical officer whilst awaiting Dietitian consultation.
- Fluid requirements should be calculated according to age and weight. Limit oral water intake to 250ml/day. No other oral liquid or food, apart from that required for medication or hydration purposes, is to be taken whilst on nasogastric feeds. Monitor fluid intake (requirement ~40ml/kg unless medical management indicates other)
- No food is allowed to be brought in from outside/home, nor are diet foods, lollies or chewing gum as these can be used to diminish appetite and/or may have a laxative effect.
- If nasogastric feeding is not possible, or while awaiting nasogastric tube placement or the commencement of nasogastric feeds, the patient should be promptly provided with an oral liquid meal plan as outlined below for the interim:

6300kJ Default Liquid Meal Plan

Breakfast 0730hrs: 1 bottle/tetrapak of Fortisip, or Resource Plus or Ensure Plus (200-237ml)

Morning Tea 1000hrs: ½ bottle/tetrapak of above

Lunch 1230hrs: 1 bottle/tetrapak of above

Afternoon Tea 1530hrs: ½ bottle/tetrapak of above

Dinner 1730hrs: 1 bottle/tetrapak of above

Supper 1930hrs: ½ bottle/tetrapak of above

Late Supper 2130hrs: ½ bottle/tetrapak of above

- Continue progressing prescribed nutrition in 2000kJ increments every 2 days until goal energy* is reached
 - Goal Energy: Initial goal energy is usually 12000kJ to provide for nutritional repletion, however co-existing medical conditions may influence goal energy – exercise clinical judgement in such cases. Young males may require higher goal nutrition for adequate weight gain and medical stability. Tolerance, rate of weight restoration, and progression towards medical stability should be monitored. (see attached nutrition flow chart)
- Continue liaising with medical team re: electrolytes, ECGs, oedema etc.
- Consider transition to an oral meal plan when goal energy has been provided for 48 hours and:
 - The patient is medically stable: commence a 3 step plan at goal energy, leaving the nasogastric tube in place until not required for three consecutive days.
 - The patient is not medically stable: continue 24hrs nasogastric feeds until medically stable or progress to a combination of overnight nasogastric feeds with an accompanying 3 step meal plan to meet goal energy.
- The process for the three step meal plan (which ensures the provision of goal energy) is as follows
 - Step 1: Prescribed meals; if less than 100% completed in allocated time frame, go to step 2

- Step 2: Liquid Supplement; if less than 100% completed in allocated time frame, go to step 3
- Step 3: Nasogastric Bolus; remainder of liquid supplement to be delivered via nasogastric bolus (see attached 3 step meal plan)

Once at goal nutrition it is appropriate to provide feedback to the patient re weight progress using Body Mass Index Banding (See QuEDS weight chart). Weight in kilograms should not be discussed with patient.

Mental Health admissions

- Commence a 1500kcal / 6300kJ oral meal plan as outlined below. The use of high protein liquid supplements, taken orally (step2) or via nasogastric bolus (step3) (as per the 6300kJ default liquid meal plan below) is strongly recommended if the patient consumes less than 100% at any meal or snack.

6300kJ Default Meal Plan

BF: 1 cereal with 150ml Milk, and 1 fruit (or

MT: 175-200g yoghurt/portion pack crackers and cheese

L: 1 Main Meal Option (salad, sandwich, or hot meal option)

AT: 250ml yoghurt/2 sweet biscuits +150ml milk

D: 1 Main Meal Option (salad, sandwich, or hot meal option)

S: 150ml glass milk/soy milk + piece fruit/2 sweet biscuits

Step2 meal replacement - 250ml Sustagen/Resource Plus/Fortisip)

Step2 snack replacement – 250ml Breaka/250ml milk

- Arrange urgent dietetic review.
- Continue progressing prescribed nutrition in 2000kJ increments every 2 days until goal energy* is reached
 - Goal Energy: Initial goal energy is usually 12000kJ to provide for nutritional repletion, however co-existing medical conditions may influence goal energy – exercise clinical judgement in such cases. Young males and excessive exercisers may require a higher goal for adequate weight gain and medical stability. Tolerance, rate of weight restoration, and progression towards medical stability should be monitored.
- Continue liaising with medical team re: electrolytes, ECG's, oedema etc.
- Monitor fluid intake (requirement ~40ml/kg unless medical management indicates other)
- Ensure the current meal plan is clearly written out with a supplement replacement option of equivalent energy content documented for each meal and snack. Copies of the meal plan should be made available for patient and staff (see QuEDS 3 step meal plan).
- It is essential that only food on the meal plan is consumed i.e. *No food to be brought in from outside hospital, and no diet foods/lollies/chewing gum as these can be used to diminish appetite and/or may have a laxative effect.*
 - Menu items can be adjusted according to food availability within your service
 - Nutrient intake should be divided over a minimum of 3 meals and 3-4 snacks
 - Snacks may be required as a late supper or during the night to avoid low BGLs
 - Foods of low energy density should be limited e.g. fruit (max 3 serves per day), soup etc.
 - Coffee/tea should be limited to 3 cups/day
 - At least one hot main meal should be included each day
 - Ensure adequate protein source at each meal – encourage high quality protein options
- If an average weight gain of 1kg/week is not achieved with the provision of goal energy, or inadequate intake is suspected, the following options should be considered by the treating team.
 - Ensure meals and post meal are supervised adequately
 - Assess and manage compensatory behaviours
 - Cease leave
 - Add to meal plan with 60ml shots x 4/day of a 2kcal/ml drink (Resource2, Two-cal HN, Novosource2) to increase energy intake by 2000kJ – given as a medication
 - Supervise showers and toilet

- Consider 1:1 nursing supervision
- Weight Goal for discharge – BMI >17kg/m², or progression of 2 BMI bands from admission weight if admitted at BMI ≥ 16kg/m².
- Meal Plan for Discharge – Negotiate meal plan for discharge with patient keeping in mind the long term weight goal of achieving a normal body weight ie >BMI 20kg/m². Meal plan can include liquid supplements.

Nursing Management

- **Initially no leave off the ward due to medical risk.**
- Patient requires full bed rest if medically unstable (supervised bathroom privileges are supported unless the treating physician is concerned that this would compromise staff safety).
- **Observations**
 - **QID lying & standing blood pressure and pulse 2 minutes apart.** Staff should notify RMO if:
 - Pulse is below 50bpm or above 120bpm,
 - Temp below 35.5c, and/or;
 - Systolic BP below 90mm (**adolescent < 80mm**), or if;
 - Significant postural drop of more than 20mmHg; or postural tachycardia > 20 bpm
- **BGLs/hypoglycaemic events (see note in medical management).**
- **Daily ECG** unless otherwise specified by medical officers.
- **Accurate assessment of the patient's nutritional status and eating behaviours:**
 - **Weight** twice weekly:
 - Measure and record, weight, height & urine specific gravity the morning after admission at 6.30am after voiding, and repeat each Monday and Thursday using the same set of scales for each weight measure
 - **Height** (at beginning of admission):
 - Should be measured in early morning, check patient is standing at full height, legs straight.
 - **Bowel chart:** record bowel activity (or lack of) daily as patient will have reduced gut motility
 - **Intake:**
 - Record all offered food & fluids as well as all consumed intake including fluids.
 - All meals should comply directly with the current meal plan as prescribed by the dietician, patient should not be allowed to choose meal from the menu at this stage: see nutritional management plan.
- **Monitor and contain eating disorder behaviours**
 - **Visual observations** minimum frequency 15 minute intervals: Note- It is often more effective particularly on medical wards to provide 1:1 constant supervision.
 - **Shared room** (rather than single room)
 - **Exercise:** Limit physical activity (may require bed rest with supervised bathroom privileges to reduce energy expenditure)
 - **Support during challenging times:**
 - Support at meals and post meals monitoring for purging/ chewing and spitting
 - All toilet needs must be attended prior to meals
 - When risk is high supervise in toilet and shower
 - **Laxatives/diuretics:**
 - Senna based laxatives and stimulants should not be prescribed
 - Manage constipation as clinically indicated, e.g. with stool softeners
 - No laxatives from home, and supervise toilet use
 - **Inappropriate fluid intake:** Monitor fluid intake for under or over drinking
 - **Restriction:** If possible provide supervision during and after meals to observe and record intake contain inappropriate behaviours and address any non-compliance with meal plan with gentle prompting.
- Request family members to assist with the management plan by NOT bringing in food and medications (laxatives) from home or allowing patient to exercise.

Key medical considerations

ELECTROLYTES AND HAEMATOLOGY

The first two weeks of refeeding pose the greatest risk to the patient with an eating disorder. Potential biochemical abnormalities include hypokalaemia, hypophosphataemia, hypomagnesaemia and hypocalcaemia: thus patients must be monitored for electrolyte disturbance on a daily basis and urgent replacement instituted if indicated. Continued electrolyte disturbances such as hyponatraemia, hypokalaemia, hypocalcaemia, and hypochloraemia may reflect ongoing vomiting or laxative abuse, water-loading, or a total body deficit. Orthostatic pulse or blood pressure changes can be indicative of either dehydration or malnutrition. Despite prolonged starvation, hypoalbuminaemia is rare in anorexia, and should prompt a search for occult infection. Haematological complications result from starvation-induced bone marrow suppression, and include anaemia, neutropenia (relatively common in anorexia), and thrombocytopenia.

REFEEDING COMPLICATIONS

Although phosphate and magnesium levels may initially present within the normal range, they often drop precipitously during refeeding. Thiamine deficiency is common and may worsen during refeeding. Replacement must occur promptly at the time of admission, immediately prior to starting nutrition.

CARDIAC RISK

Cardiovascular complications include sinus bradycardia, hypotension, tachycardia, postural hypotension and tachycardia, impaired myocardial performance, pericardial effusion, mitral valve prolapse and sudden death. ECG abnormalities in eating disorders (particularly anorexia) include bradycardia, low QRS, P and T wave voltages, ventricular tachyarrhythmia, non-specific ST-T changes, presence of U waves, and prolongation of the QTc interval.

QTc interval prolongation does not necessarily reflect underlying biochemical derangement, and studies have demonstrated QTc interval prolongation in individuals with normal electrolyte levels and demonstrated no correlation between BMI and QTc interval.

A cardiovascular review and ECG should also be performed regularly to detect cardiovascular manifestations of refeeding syndrome.

Some patients rapidly develop peripheral oedema and cardiac failure, and this should be suspected in the presence of rapid weight gain. The risk of heart failure in refeeding syndrome is reduced by controlled, closely monitored realimentation.

QuEDS is available to consult with the medical, mental health and C/L teams weekly, or as required, by tele-conference, video-conference or on site. Specialised eating disorders support and training can also be accessed via QuEDS. Please contact via QuEDS@health.qld.gov.au or phone 3114 0809.

QuEDS resources and guidelines can also be accessed at:
<https://metronorth.health.qld.gov.au/rbwh/healthcare-services/eating-disorder>

Discharge Planning

In order to provide patients with an opportunity to utilise community treatment, it is recommended that the patients should meet each of the following six criteria prior to discharge

1. Medically stable
2. Psychologically safe
3. BMI \geq 17 (or 2 BMI bands increase if admitted at BMI \geq 16)
4. Demonstrated adequate nutritional intake on the ward & during periods of leave
5. Have an established community treatment plan including:
 - a) GP review for ongoing medical monitoring at least weekly or more frequently dependent on clinical indications. Monitoring to include weight, bloods, physical observations (postural measures of both BP & HR).
 - b) Assigned case manager from the local mental health service
 - c) Community dietician if available
 - d) Psychosocial support – If the patient is willing, evidence-based psychological treatment (e.g. CBT-e, SSCM, or Day Program delivered by clinician experienced in treatment of eating disorders) and referral of carers to appropriate support services for skills training to identify risk, encouraging help seeking and treatment engagement, and sustaining a recovery focus. A GP care plan for rebate to access private services may also be required.
6. Have an established early intervention plan (e.g. identified readmission weight) developed where possible in collaboration with their family and community supports with a goal of providing for voluntary solution focussed admission.

Voluntary or involuntary readmission should be facilitated if BMI \leq 14, or medically compromised in line with medical parameters outlined on page 2 of this document.

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QuEDS resources and guidelines can also be accessed at:

<https://metronorth.health.qld.gov.au/rbwh/healthcare-services/eating-disorder>

**Enquires regarding this document should be directed to
QuEDS on (07) 3114 0809 QuEDS@health.qld.gov.au**

Ideal Body Weight (IBW) Ready Reckoner for Adolescents: *Girls 7-18yo*

Age	BMI at 100% IBW (100% <i>m</i> BMI)	BMI @ 75% IBW (75% <i>m</i> BMI)	BMI @ 85% IBW (85% <i>m</i> BMI)
7	15.4	11.6	13.1
7.5	15.6	11.7	13.3
8	15.8	11.9	13.4
8.8	16	12.0	13.6
9	16.3	12.2	13.9
9.5	16.6	12.5	14.1
10	16.8	12.6	14.3
10.5	17.2	12.9	14.6
11	17.4	13.1	14.8
11.5	17.8	13.4	15.1
12	18	13.5	15.3
12.5	18.4	13.8	15.6
13	18.7	14.0	15.9
13.5	19	14.3	16.2
14	19.4	14.6	16.5
14.5	19.6	14.7	16.7
15	19.9	14.9	16.9
15.5	20.2	15.2	17.2
16	20.4	15.3	17.3
16.5	20.6	15.5	17.5
17	20.9	15.7	17.8
17.5	21.1	15.8	17.9

Ideal Body Weight (IBW) Ready Reckoner for Adolescents: *Boys 7-18yo*

Age	BMI at 100% IBW (100% <i>m</i> BMI)	BMI @ 75% IBW (75% <i>m</i> BMI)	BMI @ 85% IBW (85% <i>m</i> BMI)
7	15.5	11.6	13.2
7.5	15.6	11.7	13.3
8	15.8	11.9	13.4
8.8	16	12.0	13.6
9	16.2	12.2	13.8
9.5	16.4	12.3	13.9
10	16.6	12.5	14.1
10.5	16.9	12.7	14.4
11	17.2	12.9	14.6
11.5	17.5	13.1	14.9
12	17.8	13.4	15.1
12.5	18.1	13.6	15.4
13	18.4	13.8	15.6
13.5	18.8	14.1	16.0
14	19.2	14.4	16.3
14.5	19.5	14.6	16.6
15	19.8	14.9	16.8
15.5	20.2	15.2	17.2
16	20.6	15.5	17.5
16.5	20.9	15.7	17.8
17	21.2	15.9	18.0
17.5	21.6	16.2	18.4

Adapted from a table compiled by the Victorian Centre of Excellence in Eating Disorders (CEED) 2013.

APPENDIX II

A Guide to Using the Qld Mental Health Act 2016 (MHA) for Patients with an Eating Disorder

Eating Disorders are mental illnesses that can be life-threatening, and associated with impaired capacity due to the mental illness itself as well as the physical effects of starvation on the brain. It is appropriate to use the MHA in situations in which the patient's impaired capacity is putting them at risk and there is no less restrictive way of ensuring the person receives treatment. Please find below a list of the criteria for involuntary treatment under s14 of the MHA, along with notes to assist in deciding whether the criteria apply to a patient with an eating disorder:

The treatment criteria are all of the following:

a) the person has a mental illness;

NB: Anorexia Nervosa, Bulimia Nervosa, Other Specified Feeding or Eating Disorder (Previously Eating Disorder Not Otherwise Specified) and Un-specified Feeding or Eating Disorder (USFED) are all listed as mental illnesses in DSM-V.

b) The reasons you believe the person does not have capacity to consent to be treated for the illness;

NB: The Minnesota Semi-starvation Study conducted by physiologist Ancel Keys (See http://en.wikipedia.org/wiki/Minnesota_Starvation_Experiment) demonstrated that loss of 25% of body weight led to profound cognitive changes in all subjects. Such starvation-induced changes include obsessive preoccupation with food and eating and loss of perspective and insight. These changes were only reversed when weight was restored. (Please note this is not a decline in intelligence level, but can be identified in impaired decision making.)

c) The reasons you believe that not providing involuntary treatment for the illness may result in;
I. imminent serious harm to the person or others; or

NB: Anorexia Nervosa has the highest mortality rate (20%) of any psychiatric illness. Deaths are due to reversible complications of malnutrition and patient suicide.

II. the person suffering serious mental or physical deterioration

NB: The Minnesota Semi-starvation Study conducted by physiologist Ancel Keys demonstrated that starvation causes predictable mental, behavioural and physical symptoms that only reverse with nutritional rehabilitation.

d) The reasons you believe that there is no less restrictive way for the person to receive treatment and care for the person's mental illness;

NB: The guide to admission and inpatient treatment criteria are based on RANZCP clinical guidelines; and have been endorsed by the Statewide Mental Health Network, The Statewide General Medicine Network, and the Queensland Divisions of General Practice. These pathways recommend (immediate) inpatient treatment if any ONE of the following criteria is met in relation to a suspected or diagnosed eating disorder or malnutrition:

- Temp < 35.5°C
- BMI <14
- Systolic BP <90
- HR ≤40 or >120
- Significant postural tachycardia or BP changes
- Electrolyte abnormalities
- Non-responsive to community treatment

Enquiries regarding the use of the MHA for hospital patients with an eating disorder can be directed to QuEDS on 07 3114 0809. NB It is suggested that General Practitioners contact their local hospital and ask to be put through to the Mental Health Acute Care Team for advice and assistance with using MHA.

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