

06 - Anorexia nervosa (AN)

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792 The Maudsley® Prescribing Guidelines in Psychiatry CHAPTER 9 Eating disorders The incidence of eating disorders continues to increase.¹ Lifetime risk of any eating disorder is 8.4% in women and 2.2% in men.² Those with eating disorders may misuse medication and substances to manage their weight (e.g. laxatives, diuretics, ADHD stimulants, slimming pills, semaglutide and caffeine).^{3,4} Other psychiatric conditions (particularly anxiety, depression and obsessive compulsive disorder [OCD]) often coexist with eating disorders, and this may in part explain the benefit sometimes seen with medication. Any medicine prescribed should be accompanied by close monitoring to check for possible adverse reactions, and the timing of medicine administration should be considered in the context of purging. Anorexia nervosa (AN) General guidance Medicines have limited efficacy in AN and none is currently licensed for this condition.⁵ Prompt weight restoration to a safe weight, family therapy and structured psychotherapy are the main interventions.^{6,7} The aim of (physical) treatment is to improve nutritional health through re-feeding and there is very limited evidence to support the use of any pharmacological interventions other than those used to correct metabolic deficiencies. Medicines may be used to treat comorbid conditions which should be managed according to usual guidance for the particular condition. These may need to be treated before addressing AN, depending on the severity.⁶ Weight restoration Medicines have a limited role in weight restoration.⁸⁻¹⁰ Olanzapine has shown a positive effect on weight in AN in seven RCTs.¹¹ One of these¹² showed that 87.5% of patients given olanzapine achieved weight restoration (vs 55.6% on placebo), although olanzapine use was limited by poor tolerance and low patient acceptability. There is also some non-RCT evidence to support the use of aripiprazole.^{13,14} One RCT with risperidone showed no benefit on weight.¹⁵ Early data for quetiapine were encouraging¹⁶ but were not replicated in a later RCT.¹⁷ A 2023 review and guideline concluded that amitriptyline, clomipramine, fluoxetine, citalopram and sertraline do not restore weight and are not recommended.¹⁵ Two case reports with mirtazapine suggest it may improve weight^{18,19} although a small case-control study was negative.²⁰ Benzodiazepines or antihistamines (e.g. promethazine) are not usually recommended for the promotion of weight gain.⁶ Metreleptin, a recombinant human leptin analogue, shows some promise with five cases reported of weight gain and improvement in hyperactivity and psychological symptoms associated with eating disorders.¹⁵ Dronabinol, a synthetic cannabinoid agonist, has some limited evidence supporting significant weight gain,²¹ but in the absence of any improvements in symptoms or psychological features. Adverse effects (particularly dysphoria) are common, and this may limit its usefulness.

Drug treatment of other psychiatric conditions CHAPTER 9 Treatment of psychological symptoms Antidepressants A Cochrane review found no evidence from four placebo-controlled trials that -

antidepressants improved eating disorder or associated psychopathology.²² It has been suggested that neurochemical abnormalities in starvation may partially explain this non-response.²² Co-prescribing nutritional supplementation (including tryptophan) with fluoxetine has not been shown to increase efficacy.²³ In the UK, NICE found little evidence to support the use of antidepressants.⁶ Naturalistic studies suggest an important risk of switch to mania.²⁴ Since 2021 case studies in adults with AN have shown that ketamine reduces depression scores and suicidality while improving psychological features of eating disorders.^{25,26} Psilocybin is hypothesised to alleviate neurobiological and behavioural features associated with AN, and several trials are underway.²⁷ Other psychotropic medicines Antipsychotics, benzodiazepines or antihistamines (e.g. promethazine) are often used to reduce the high levels of anxiety associated with AN. A 2023 expert guideline noted that a number of RCTs suggest olanzapine may reduce agitation, pre-meal anxiety and obsessional or abnormal beliefs, while there is relatively limited evidence that aripiprazole reduces eating-specific anxiety and one RCT with risperidone showed no benefit for body image or psychological symptoms.¹⁵ Quetiapine may improve psychological symptoms but there are few data.¹⁶ If antipsychotics are used, only prolactin-sparing antipsychotics should be considered owing to the risk of osteoporosis (i.e. avoid risperidone, amisulpride and sulpiride). Many other medications¹⁵ have been investigated in small placebo-controlled trials of varying quality and success. These include lithium, zinc, naltrexone and cyproheptadine. None is currently widely used in practice. Case reports¹⁵ have shown a potential role for valproate and growth hormone-releasing peptide-2. Relamorelin (a ghrelin agonist), oxytocin, growth hormone and testosterone are probably not effective.¹⁵ An RCT is to be conducted to assess short-chain fatty acids (acetate, propionate, butyrate) in AN.²⁸ Healthcare professionals should be aware of the risk of medicines that prolong the QT interval. All patients with a diagnosis of AN should have an alert placed in their prescribing record noting that they are at increased risk of arrhythmias secondary to electrolyte disturbances and potential cardiac complications associated with inadequate nutrition. Electrocardiogram (ECG) monitoring should be undertaken if the prescription of any medicine that may compromise cardiac functioning is essential.⁶

Treatment of physical aspects

Vitamins and minerals

Treatment with a multivitamin and multimineral supplement in oral form is recommended during both in-patient and out-patient weight restoration.⁶ Vitamin D supplementation may also be required.²⁹

Electrolytes

Electrolyte disturbances (e.g. hypokalaemia) may be asymptomatic and develop slowly. Life-threatening medical complications can result. Caution is required because electrolyte disturbances often resolve with re-feeding, but rapid correction may be hazardous

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