Day-patient treatment after short inpatient care versus continued inpatient care in young people with anorexia nervosa

A randomised controlled trial in Germany finds that day-patient treatment after short inpatient care in young people with anorexia nervosa seems no less effective than continued inpatient care for weight gain and maintenance in the 12 months after admission.

Overview: Anorexia nervosa is a psychiatric disorder where a person maintains a low body weight as a result of a preoccupation with weight (NICE 2009). Clinical features of anorexia nervosa include a weight at least 15% below that expected (in adults usually a BMI of less than 17.5 kg/m²) and self-avoidance of foods thought to be fattening to achieve weight loss.

Anorexia nervosa is not very common, but the disorder is associated with serious medical morbidity and high mortality. The incidence of anorexia in the UK is estimated to be 13.6 cases per 100,000 population in women and 1.3 cases per 100,000 population in men (Micali et al. 2013). The mortality rate for people with anorexia is estimated to be 5 times higher than in the general population (Arcelus et al. 2011).

Outpatient psychological therapies are usually the first-line treatment for people with anorexia nervosa, coupled with physical monitoring. For more severe cases of anorexia nervosa, inpatient treatment may be needed – but it is expensive. The cost of inpatient care of young people with anorexia nervosa in the UK has been estimated at £34,500 per patient over 2 years (Byford et al. 2007). In 2005-6, the mean cost per day for inpatient child and adolescent psychiatric services was £356 per patient (Royal College of Psychiatrists 2008), with daily inpatient costs thought to have increased since this period. Day-patient treatment is less costly and could ease the transition from hospital to home.

Current advice: The NICE guideline on eating disorders (currently being updated) recommends that most people with anorexia nervosa should be managed on an outpatient basis with psychological treatment (with physical monitoring). Therapies to be considered for the psychological treatment of anorexia nervosa include cognitive analytic therapy, cognitive behaviour therapy, interpersonal psychotherapy, focal psychodynamic therapy and family interventions focused explicitly on eating disorders. Family interventions that directly address the eating disorder should be offered to children and adolescents with anorexia nervosa. Outpatient psychological treatment for anorexia nervosa should normally be of at least 6 months’ duration.

If during outpatient psychological treatment there is significant deterioration, or the completion of an adequate course of outpatient psychological treatment does not lead to any significant improvement, more intensive forms of treatment (for example, a move from individual therapy to combined individual and family work; or day-care or inpatient care) should be considered.
The NICE Pathway on eating disorders brings together all related NICE guidance and associated products on the condition in a set of interactive topic-based diagrams.

**New evidence:** A randomised controlled trial by Herpertz-Dahlmann et al. (2014) assessed the safety and efficacy of day-patient treatment after short inpatient care versus continued inpatient treatment in young people with anorexia nervosa. Female patients aged 11–18 years, with a first hospital admission for anorexia nervosa and a BMI below the 10th percentile, were recruited from 6 centres in Germany. Exclusion criteria were: organic brain disease, psychotic or bipolar disorder, substance dependence or abuse, serious self-harming, an IQ below 85, and living more than 60 minutes from the treating department. All patients first received 3 weeks of inpatient care for observation or stabilisation, and were then randomised to either continued inpatient treatment (n=85) or day-patient care (n=87). The treatment programme (based on weight restoration, nutritional counselling, cognitive-behavioural therapy, and family therapy) was identical in both groups. Patients were discharged after maintaining their target weight (between the 15th and 20th age-adjusted percentiles) for 2 weeks.

At 12-month follow up, mean BMI in continuing inpatients had increased by 2.7 kg/m² (from 15.1 to 17.8 kg/m²), and among day patients by 3.2 kg/m² (from 14.9 to 18.1 kg/m²). Based on a clinically determined non-inferiority margin for a difference in change in BMI of 0.75 kg/m² at 12 months, day-patient care was not inferior to inpatient treatment (mean difference=0.46 kg/m², 95% confidence interval [CI] −0.11 to 1.02 kg/m², p<0.0001; adjusted for age, duration of illness and baseline BMI). Eight treatment-related serious adverse events occurred in the inpatient group (3 related to suicidal ideation) and 7 in the day-patient group (2 related to suicidal ideation).

The authors concluded that day-patient treatment after short inpatient care in young people with anorexia nervosa seems no less effective than continued inpatient care for weight gain and maintenance in the 12 months after admission. Study limitations included that 16 people assigned to the day-patient group transferred to the inpatient group (either voluntarily or for medical reasons) – although a per-protocol analysis did not considerably alter findings. Additionally, the results may apply to only young people with a first hospital admission for anorexia nervosa rather than those with more chronic illness.

**Commentary:** “This elegant German study compares day-patient treatment with continued inpatient care in young people with anorexia nervosa, but its findings may have limited applicability to the UK.

“NICE already recommends that patients with anorexia are treated in non-residential settings whenever feasible. Gowers et al. (2007) demonstrated lack of harm and potential benefits of this approach. For adolescent anorexia nervosa, NICE recommends the ‘Maudsley model’ of family-based treatment (Hughes et al. 2014). Implementation studies of family-based treatment demonstrate better and more economical outcomes than those reported by Herpertz-Dahlmann et al. (2014). In addition, this study measured day-patient treatment against current German treatment as usual, rather than against family-based treatment: the treatment believed to be most effective in this population.

“In flexible UK practice, inpatients often go home at weekends, and day patients attend their own schools or spend variable times in clinic. In this study, the difference between the two groups was spending evenings and overnights at home, in line with UK practice. This approach gave families responsibility for refeeding their child in a naturalistic setting. What a pity the study did not include reflections from patients and carers to provide qualitative feedback on the acceptability of this approach.

“Lastly, this study calculated the economic benefits for providing day-patient treatment, but on sites already containing specialist units. Establishing new sites is costly. Remote and rural areas lack super-specialist staff or minimum patient numbers, and demand excessive travel times.” – Dr Jane Morris, Consultant Psychiatrist, The Eden Unit, Royal Cornhill Hospital, Aberdeen

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