and 1 was excluded due to missing data). At the time of audit, 20 out of 71 patients were lost to follow up (28%).

There were 53 female and 18 male patients that attended, with an average age of 50.5 years (range 18–73). Referrals originated from GPs ($n = 65$), endocrinologists ($n = 4$) and cardiologists ($n = 2$). Ethnicity included Caucasian ($n = 64$), Aboriginal ($n = 3$), Indian ($n = 2$), Fijian-Indian ($n = 1$) and Peruvian ($n = 1$). The average weight of the patients was 143.1 kg (range 95.4–288.8), average height was 1.678 m (range 1.511–1.912), average BMI was 50.7 kg/m^2 (range 34.7–97.6) and average waist circumference was 145.3 cm (range 116–276). Some of the most common co-morbidities in these patients were diabetes mellitus, hypertension, hyperlipidaemia, sleep disordered breathing and chronic pain.

All patients received multidisciplinary care with dietitian, physiotherapist, clinical psychologist, nursing and medical appointments. VLED was initiated in 16 patients. Any form of weight-modulating pharmacotherapy was initiated in 35 patients, including 23 on metformin, 18 on GLP-1 analogues, 1 on phentermine and 1 on topiramate, and 11 patients were identified as surgical candidates.

The adult arm of our service has seen patients with a wide spectrum of obesity, medical co-morbidity and treatment suitability. An ongoing challenge includes balancing weight loss interventions with management of complex medical co-morbidities and a high rate of patient attrition from clinic.

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Efficacy of very low-energy diets for weight loss: a systematic review of intervention studies in children and adolescents with obesity

Sarah Andela[1,*], Tracey L. Burrows[2], Louise A. Baur[1,3], Daisy Coyle[4], Clare E. Collins[2], Megan L. Gow[1,3]

[1] *The University of Sydney, Sydney, NSW, Australia*
[2] *The University of Newcastle, Newcastle, NSW, Australia*
[3] *The Children's Hospital at Westmead, Sydney, NSW, Australia*
[4] *The George Institute for Global Health, Faculty of Medicine, UNSW, Sydney, NSW, Australia*

Objectives: Very Low-Energy Diets (VLEDs) lead to rapid weight loss in adults. This systematic review aimed to evaluate the efficacy and safety of VLEDs for weight loss in children and adolescents with obesity.

Methods: A systematic literature search of six health and medical databases was conducted in November 2017. Eligible studies were in English, studied a VLED providing ≤800 kcal/day (3350 kJ) or <50% daily estimated energy requirements in children and adolescents (≤18-years) with obesity and reported at least one weight-related outcome. Quality appraisal was conducted using The Academy of Nutrition and Dietetics quality criteria checklist and study data extracted. Meta-analysis was performed using Comprehensive Meta-Analysis software.

Results: Twenty-four studies met inclusion criteria and were included (16 pre-post studies, 4 non-randomised comparison studies, 2 randomised controlled trials, 2 chart reviews). The VLED intervention duration ranged from 3–24 weeks. Meta-analysis of 20 studies reporting the effect of VLED intervention on weight outcomes indicated a mean 8.1 kg weight loss (95% confidence interval [CI]: 7.1 to 9.0 kg, $p < 0.001$) post-intervention. Adolescent-only studies (10–18 years) had greater weight loss compared to child and adolescent studies (17.7 kg, CI: 9.9 to 25.6 kg, $p < 0.001$, $n = 4$ versus 7.9 kg, CI: 7.0 to 8.9 kg, $p < 0.001$, $n = 16$). Meta-analysis of seven studies reporting weight at follow-up (up to 14.5 months from baseline) indicated mean 5.2 kg weight loss (CI: 2.7 to 7.7 kg, $p < 0.001$) from baseline. Only 12 studies reported intervention side-effects, five reported no adverse effects and seven reported mild side effects, including fatigue, hunger, nausea.

Conclusions: Current evidence suggests VLEDs are safe and effective for treating children and adolescents with obesity. Compared with traditional dietary interventions, VLEDs appear to be more effective for weight loss, although further studies in children are warranted. Future studies should determine strategies for maintaining weight loss following a VLED intervention and comprehensively assess adverse effects associated with VLED adherence.

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Clinical Obesity Services in Public Hospitals (COSiPH) in Australia: a position statement based on expert consensus

Evan Atlantis[1,2,3,4,*], Nic Kormas[5,6,4], Katherine Samaras[7,8], Paul Fahey[1], Priya Sumithran[1,9,10], Sarah Glastras[11], Gary Wittert[2], Kellie Fusco[2], Ramy Bishay[12], Tania Markovic[13,14], Lucy Ding[11,15], Kathryn Williams[16,17], Ian Caterson[13,14], Viral Chikani[18], Paul Dugdale[19,20], John Dixon[21,22]

[1] *Western Sydney University, Penrith, NSW, Australia*
[2] *Medicine, University of Adelaide, Adelaide, Australia*
[3] *Capital Markets Cooperative Research Centre, Sydney, New South Wales, Australia*
[4] *Diabetes Obesity Metabolism Translational Research Unit, Campbelltown Hospital, Campbelltown, New South Wales, Australia*
[5] *Endocrinology, Campbelltown and Camden Hospitals, Campbelltown and Camden, NSW, Australia*
[6] *Department of Endocrinology & Metabolism, Concord Repatriation General Hospital, Concord, New South Wales, Australia*
[7] *Department of Endocrinology, St Vincent's Hospital, Darlinghurst, New South Wales, Australia*
[8] *Diabetes and Metabolism Division, Garvan Institute of Medical Research, Darlinghurst, New South Wales, Australia*
[9] *Austin Health Weight Control Clinic, Heidelberg, Victoria, Australia*
[10] *Department of Medicine (Austin Health), University of Melbourne, Heidelberg, Victoria, Australia*
[11] *Department of Endocrinology, Diabetes & Metabolism, Royal North Shore Hospital, St Leonards, New South Wales, Australia*
[12] *Metabolic & Weight Loss Clinic, University Clinics, Western Sydney University, Blacktown Hospital, Blacktown, New South Wales, Australia*
[13] *Boden Institute, Charles Perkins Centre, University of Sydney, Sydney, New South Wales, Australia*
[14] *Metabolism & Obesity Services, Royal Prince Alfred Hospital, Camperdown, New South Wales, Australia*