

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/m² (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

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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

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We aimed to describe the current state of specialist obesity services for adults with clinically severe obesity in public hospitals in Australia, and to analyse the gap in resources based on expert consensus. We conducted two surveys to collect information about current and required specialist obesity services and resources using open-ended questionnaires. Organisational level data was sought from clinician expert representatives of specialist obesity services across Australia in 2017. Fifteen of 16 representatives of current services in New South Wales ($n=8$), Queensland ($n=1$), Victoria ($n=2$), South Australia ($n=3$), and the Australian Capital Territory ($n=1$) provided data. The composition of services varied substantially between hospitals, and patient access to services and effective treatments were limited by strict entry criteria (e.g. BMI 40 kg/m² or higher with specific complication/s), prolonged wait times, geographical location (major cities only), and out-of-pocket costs. Of these services, 47% had a multidisciplinary team (MDT), 53% had an exercise physiologist/physiotherapist, 53% had a bariatric surgeon, and 33% had pharmacotherapy resources. Key gaps included staffing components of the MDT (psychologist, exercise physiologist/physiotherapist) and access to publicly funded weight loss pharmacotherapy and bariatric surgery. There was consensus on the need for significant improvements in staff, physical infrastructure, access to services, education/training in obesity medicine, and targeted research funding. Based on the small number of existing, often under-resourced specialist obesity services that are located only in a few major cities, the vast majority of Australians with clinically severe obesity cannot access the specialist evidence based treatments needed.

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Breaking the silence: the critical role of the GP and practice nurse in talking to patients about their weight

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Background: General Practitioners and Practice Nurses are well positioned to play a vital role in addressing Australia's obesity

epidemic. However, many report low confidence when discussing or advising patients about weight management.

Training sessions that *LiveLighter* offers to GP's and Practice Nurses entitled "Talking to Patients about Weight" were evaluated. *LiveLighter* also examined perceptions of those who are overweight or obese about discussing their weight with health professionals.

Key findings from the survey and feedback from training are discussed.

Methods: Evaluation from *LiveLighter* one day face-to-face training sessions to GP's and Practice Nurses was analysed over a twelve month period. *LiveLighter* commissioned the Heart Foundation to conduct an online survey on 2,012 Australian adults aged 25–49 years.

Results: Doctors (34%) were the second most important source of information about weight and diet. Most people (77%) reported they felt either very comfortable or comfortable about speaking to a health professional about their weight.

Only 30% of survey participants report being advised by a health professional that they are overweight or should lose weight. Of those advised to lose weight 86% people acted on it.

Of the professionals who attended the *LiveLighter* training sessions 98% found it relevant to their work. Valued aspects of training were; Motivational Interviewing, The 5A's framework and *LiveLighter* resources and tools. Barriers to incorporating the training into their routine were lack of time and the need for practice.

Conclusion: This survey demonstrated the majority of respondents felt comfortable talking to a health professional about their weight and were highly likely to act on it if advised. GP's and Practice Nurses report low confidence when talking to patients about their weight. Training for GP's and Practice Nurses can improve confidence in this area.

Shape of Australia Report 2017, Prepared by the National Heart Foundation for LiveLighter.

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Assessing for obstructive sleep apnoea in a severely obese population in the ACT

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Background: Obesity is the main driver for Obstructive Sleep Apnoea (OSA), with the incidence of OSA in severely obese patients reported to be as high as 78% [1]. OSA can negatively impact health therefore timely diagnosis and appropriate management are crucial. The ACT Health Obesity Management Service (OMS) routinely assess for sleep-related symptoms and refer for polysomnography (PSG) when medically indicated. This study quantifies PSG referrals and new OSA diagnoses, reviews Epworth Sleepiness Scale (ESS) scores and compares with previous OMS data [2].

Methodology: A retrospective chart audit was performed on new patients who attended OMS from July 2016 to June 2017. Pre-existing OMS patients were excluded. Demographic and anthropometric data were collated along with PSG referrals and OSA diagnoses. Periodic ESS scores were reviewed and descriptive analyses were performed.

Results: Of 162 patients, 43 (26.5%) had pre-existing OSA. 60 patients (37.0%) were referred for PSG based on clinical suspicion. 7/60 (11.7%) declined PSG. 46/60 (77.0%) were diagnosed with OSA (13 = mild, 15 = moderate, 18 = severe). Concomitant Obesity

