Recommendations for the Clinical management of overweight and obesity in Adults and Children

DEPARTMENT
OF HEALTH
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FOREWARD

Guiding principles

It is recognised that prevention of overweight and obesity is one of the main objectives of the strategy and a guiding principle of management of overweight and obesity in our society. However detection and management of overweight and obesity is also recognised as an important component of this strategy. Measurement of BMI and waist circumference as part of routine medical care is central to detection of overweight and obesity. (Management guidelines (page 7) have been developed by the National Task Force on Obesity based on international best practice.) [218, 219, 218, 15, 220, 221, 222, 223.]

The following guiding principles have been proposed by the taskforce to form the basis of the management guidelines outlined in more detail below:

- It should be recognised that the cornerstone of management of overweight and obesity is sustained lifestyle change with the appropriate changes in diet and exercise.

- There is no single management programme that works for everyone and management therefore should be tailored to the individual.

- The individual and their health care provider should set out agreed realistic targets for weight reduction and where agreed targets are not achieved by lifestyle changes other treatment options should be considered- see treatment algorithm (page 9).

- For the management of overweight and obesity in childhood, the child, their parents and the healthcare professionals should agree realistic management programmes.

- Advice on lifestyle modifications should be offered to adult patients with a BMI between 25 and 30 as per the treatment guideline.

- Advice and management should be offered to adults with a BMI ≥ 30 and to those with a BMI ≥ 25 with co-morbidities e.g. COPD, IHD, Diabetes as per treatment guideline. Those with BMI ≥ 40 should be identified and have access to Consultant led multidisciplinary weight management teams as per treatment guideline.

Structures for management of overweight and obesity

Primary Care

Responsibility for the detection and management of overweight and obesity in adults and children will fall upon the primary care team with only a small percentage of complex cases needing referral to specialist centres for treatment. Therefore primary care teams will need to have the resources in place to effectively and sensitively manage patients presenting for support in the management of overweight and obesity. The multi-disciplinary primary care team as described in the Primary care strategy would support an integrated holistic approach to the management of overweight and obesity

- The primary care team managing overweight and obesity in adults and children should consist of or have access to, when clinically required, a general practitioner, practice nurse, community dietitian, physiotherapist and a qualified exercise specialist.

Resources outside primary care:

1. Self Help Peer support groups
2. GP exercise referral
3. Weight management support by phone with qualified health professional
4. Exercise specialists

Resources in Secondary care

- A needs assessment of the number of specialist centres needed for the management and treatment of more complex cases of overweight and obesity in adults and children should be carried out by the Population Health Directorate. These should be dedicated consultant led weight management centres with full multidisciplinary staffing and access to have dietetic, psychological, physiotherapy and exercise specialist staff. Access to Surgery should be available as a treatment modality through these centres.

- Provision of obesity medication under Long-term Illness scheme for suitable patients with diabetes.

Clinical Mangement Groups in Adults

Advice should be offered to patients with a BMI between 25 and 30

- Prevention advice should be offered to high risk individuals e.g. those with a family history of diabetes, smokers, people with learning disabilities, low income groups, patients on/starting medication that can cause weight gain.

Advice and Management should be offered to:

1. Patients with a BMI ≥ 30 and Patients with a BMI ≥ 25 with co-morbidities e.g. COPD, IHD, Diabetes
2. Patients with any degree of obesity coinciding with diabetes, other cardiovascular risk factors or comorbid diseases
3. Families with more than one overweight or obese member need special consideration and more intensive support.

Assessment - History

- Medical history – assess history of co-morbidities: diabetes, cardiovascular disease, operative history, medications (see Table 1s), drug allergies etc.
- Weight history (onset and progression of weight gain, peak weight)
- Dieting history (previous attempts, what diets, what worked, lowest weight achieved)
- Physical activity/inactivity history (number of hours in leisure/recreational activity, number of hours watching TV, number of hours in car, etc)
- Family history – diabetes, cardiovascular disease, etc
- Social and Work history – work and home environment, cigarettes, alcohol etc.
- Psychological history – history of depression, eating disorders
- Motivation and readiness to change – motivated?
- Barriers to change
- Current diet & level of activity

Table 1(S): Drugs that may cause weight gain

Category	Generic	Example
Antidepressants	Tricyclic anti-depressants Selective Serotonin re-uptake inhibitors (SSRIs) Monaminase oxidase inhibitors Lithium	Amitriptyline Imipramine Fluxetine
Anti-psychotics	Phenothiazines Clozapine Risperodone	
Diabetic drugs	Insulin Sulfonylureas	 glipizide
Beta Blockers		
Anti-histamines		
Anti-inflammatory drugs	Corticosteroids hydrocortisone prednisone	cortisone
Asthma drugs	Corticosteroids	
Anti-convulsants	Sodium Valproate Phenytoin GABA transaminase inhibitor	
Oral contraceptive	Progestogenic compounds	

Investigations

- Height and weight - BMI (≥25 overweight, ≥30 obese)
- Waist circumference (>102cms for men, >88cms for women lead to significantly greater health risks)
- Blood pressure, Urinalysis
- Blood tests: U&E's, TFT's, LFT's, fasting glucose and lipids, (Include assessment of sex hormones and cortisol if hirsute or moon-faced with central obesity)
- Other tests dictated by co-morbidities or results of above tests: eg Glucose tolerance test, HbA1c, ECG or exercise stress test, etc

Management – simple rules

- Obesity is a chronic problem – management is life-long
- Targets, management and expectations should be agreed with patients
- No one single treatment plan works for everybody – management must be tailored to each individual.
- Once a management plan is established group therapy may provide peer support which can increase compliance and maintenance of weight loss
- All successful treatments involve some form of lifestyle change affecting energy intake (diet) and energy expenditure (physical activity).
- It is easier to achieve short-term weight loss through dieting than increased physical exercise
- Regular increased exercise activity is more important for long-term weight loss and maintenance of weight loss.

Management aims

- No matter what the starting weight, a 10% body weight reduction has been shown to result in: [15, 220]
  - 20% reduction in all-cause mortality
  - 30% in diabetes-related deaths
  - 40% reduction in obesity-related cancer deaths
  - 10 mmHg reduction in systolic blood pressure
- The goal of management is to achieve, and maintain, a 10% reduction from baseline body weight.
- Initial target is for 5% weight loss in the first 3 months or a 5-10 cm reduction in waist circumference, achieved by a 500 kcal deficit through changes in diet and physical activity. A variety of diets involving a reduction in energy intake lead to short-term weight loss. Current evidence is that low fat healthy eating plans in combination with increased physical activity are the most effective for long-term weight loss*(See Box on Fad diets, page 8).
- Once this target has been achieved, an individualised plan should be agreed with the patient for reaching the 10% body weight reduction target.
- Maintenance of current weight may initially be more realistic than weight loss

Management – First Line

Diet

- Establish regular meals (including breakfast)
- Reduce dietary fat; avoid fried food; encourage grilled, boiled or baked; avoid crisps, biscuits, cakes; use low fat milk and low-fat spreads, avoid high sugar containing food
- Reduce alcohol intake
- Recommend fibre-rich foods, plenty of fruit and vegetables, lean meats, chicken and fish
- Encourage healthy snacks e.g. fruit instead of biscuits
- Provide advice to patients about food labelling
- Encourage self-monitoring i.e. food diaries to enable patient to see areas for change
- Standard diet sheets rarely effective
- Access to local dietetic services for advice is essential but needs to be improved.

Physical Activity

- The accumulation of at least 60-minutes per day of physical activity, on 6 days a week, is the current consensus for achieving and maintaining weight loss. This is the long-term goal.
- Initial recommendations should be that physical activity is increased significantly above the baseline level by life-style based changes. This includes decreasing sedentary activities such as watching television, computer games.
- Regular weight-bearing exercise (for example walking) that the person enjoys is most effective for weight loss
- A non-weight bearing form of activity (such as swimming or cycling) may be best for the very obese and immobile patients until their level of fitness improves and weight-bearing activities can be carried out.
- In addition encourage activity during daily routine; use stairs instead of lifts; walk to work; take a walk during lunch break; walk the dog; wash the car; do the garden
- Encourage activity as a whole for the family – walks or trip.

Other options

- Behavioural therapy has been shown to be effective in combination with diet and physical activity at promoting and maintaining weight loss. (Mulvihill and Quigley,2003)[206]
- Insufficient evidence to date that alternative therapies, such as hypnotherapy and acupuncture, are effective in weight management.

Evaluation of first line management

- Success of first line management is gauged by a 5% reduction in baseline body weight after 3 months or by a reduction in waist circumference of 5 – 10 cm.
- Evaluation and monitoring of psychological health.
- If these criteria are not reached second line treatment should be considered.

Second line treatment

Pharmacotherapy

- Pharmacotherapy can be a useful adjunct in treatment in those patients with a BMI>30, or in those with BMI≥27 with co-morbidities.
- Orlistat and Sibutramine are effective at achieving weight-loss – especially in combination with a low-energy, low-fat diet. Medication is only effective at achieving weight loss when it is being taken.
- Pharmacotherapy should be given under medical supervision and the prescribing physician should refer to drug information.

Third line treatment for morbidly obese patients

- Surgery is the most effective treatment for morbid obesity
- The mortality for untreated morbid obesity (>100% above ideal weight, BMI>40) is estimated at 4-6% per annum. The mortality in a surgically treated cohort is 0.6%[224].
- Surgical options include laparoscopic gastric banding (to reduce the functional capacity of the stomach) and 'Roux-en-Y' or gastric bypass procedure (reduces capacity of stomach and causes malabsorption).
- For the large majority of patients good weight maintenance has been observed for 3 to 8 years post-op.
- Assessing both peri-operative risk and possible long-term complications is important – the risk-benefit ratio should be assessed in each case.

Physical requirements in primary care
Accurate scales
Accurate stadiometer
BMI calculator with metabolic syndrome assessor.
Measuring tape
Phlebotomy / access to phlebotomy
Delivery of samples
Provision of urine dipsticks glucose protein

Obesity in Children and Adolescents

The whole area of definition of overweight and obesity in children and adolescents is currently being reviewed with a view to achieving international consensus. Until such a consensus is reached the taskforce is recommending that a child whose weight is 2 centile lines above their height centile be identified for assessment, regular review and appropriate lifestyle advice. These guidelines will be regularly reviewed in line with emerging evidence.

Assessment – History

- Birth history – antenatal history, birth weight and post –natal history
- Developmental history – developmental milestones
- Medical history – assess history of co-morbidities: diabetes, cardiovascular disease, operative history, what medicines on, drug allergies etc.
- Weight history (onset and progression of weight gain, peak weight)
- Dieting history (previous attempts, what diets, what worked, lowest weight achieved)
- Physical activity/inactivity history (number of hours in leisure/recreational activity, number of hours watching TV, number of hours in car, etc)
- Family history – diabetes, cardiovascular disease, etc
- Social and Work history – school and home environment, hobbies, sport etc.
- Psychological history – history of depression, eating disorders
- Motivation and readiness to change – motivated?
- Barriers to change
- Current diet & level of activity

Investigations

- Height and weight - BMI and plot centiles
- Waist circumference
- Blood pressure, Urinalysis
- Blood tests: U&E's, TFT's, LFT's, fasting glucose and lipids, (Include measurement of sex hormones and cortisol if hirsute or moon-faced with central obesity)
- Other tests dictated by co-morbidities or results of above tests: eg Glucose tolerance test, HbA1c, ECG or exercise stress test, etc

Management – simple rules

- Obesity is a chronic problem – management is life-long.
- Targets, treatments and expectations should be agreed with patients and parents
- No one single treatment plan works for everybody – management must be tailored to each individual.
- Once a management plan is established group therapy may provide peer support which can increase compliance and maintenance of weight loss.
- All successful management plans involve some form of lifestyle change affecting energy intake (diet) and energy expenditure (physical activity).

- No weight gain as height increases
- Weight gain slower than height gain
- Rapid weight loss and strict dieting are inappropriate for growing children unless under specialist care:
  - Over 7 years gradual weight loss of 0.5kg/month
  - Adolescents who have stopped growing may loose 0.5kg/week.
  - Diet and physical activity suggestions.

Irish Nutrition and Dietetic Institute Position on FAD Diets

There are many categories of fad diets on the market and all guarantee fast weight loss but are they all what they are made out to be?

Research has shown that the more crash diets you use the fatter you become.

Food specific diets These diets claim that one food has magical fat burning properties and that excluding other foods and eating this will result in weight loss. Eating large amounts of one food and excluding others may result in some weight loss simply because of calorie restriction, however it is not nutritionally balanced nor does it address bad eating habits, and there are no magical fat burning properties in foods.

High Protein low carbohydrate diets: These diets reduce carbohydrates to a minimum resulting in a diet that is low in fibre and B vitamins and high in protein and fat.

Liquid meal replacements: There are many over the counter meal replacements available. These diets may be useful in the short term as they are fortified with vitamins and minerals however they should ideally be used under medical supervision. While they may be useful in the short term they do not address good eating habits.

So what's the key to healthy weight loss? There are no fad diets, gimmicks or magical foods that help to loose weight. The most successful key to healthy weight loss is to have an eating plan that includes a variety of foods based on the healthy eating guidelines incorporating all shelves on the food pyramid, one that fits in with your lifestyle along with taking regular exercise

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