Dietetic Care Pathway for Obesity Management (Adults)

Appointment	Targets of Nutritional intervention	Discharge Criteria
Initial appointment 60 minutes	**Opening introduction** ▪ Explain Weight Management Programme to patient, including number of sessions/ discharge criteria ▪ Obtain consent for assessment/treatment. **Assessment tools (optional)** ▪ HADS score (Hospital Anxiety Depression Scale)(if this identifies an issue could consider contacting the GP for review/initiation of appropriate medication) ***(Appendix 1)*** ▪ The SCRAM questionnaire (Sleep Apnoea) **Classification of obesity** ▪ Current weight/ BMI ▪ Document in the care plan the degree of overweight or obesity in adults using various methods e.g. weight ***(Appendix 2),*** waist circumference. ***(Appendix 3)*** ▪ Discuss with the patient possible health risks associated with being overweight or obese. **Clinical Assessment** Presenting symptoms, medical history, medication, relevant investigations e.g. BP, Blood glucose, lipid profile, LFT's etc, co-morbidities e.g. Type 2 diabetes, hypertension, cardiovascular disease, osteoarthritis, dyslipidaemia and sleep apnoea, depression and poor mental health. **Social History** Shopping and food preparation. Support networks e.g. family, friends, carers. Smoking - consider referral to 'Stop Smoking service'. **Exercise/Activity** Establish current level of exercise/activity – type and frequency. Consider referral to local HSC exercise scheme as appropriate). **Weight/Diet History** ▪ Weight History to include family history of overweight and obesity and co-morbidities, age of onset of obesity, pattern of weight loss/ gain. ▪ Current/ previous use of anti-obesity medication or surgery ▪ Dieting history e.g. previous weight loss attempts ▪ Establish current eating habits: - Dietary intake – e.g. 'typical day' approach - Meal / eating pattern – weekdays & weekends, frequency, number of meals & snacks, skipping meals ▪ Weight loss expectations/ importance of losing weight to the patient **Behaviour Lifestyle Assessment** **Suggested areas to cover may include the following:**	

	▪ Gain understanding of patient's thoughts on referral e.g. what prompted referral ▪ Use a scale 1-10 to help explore: importance/ level of readiness to adopt change, motivation and confidence to make changes (for outcome measures) ▪ Explore patient understanding of their weight and the diagnosis in more detail e.g. extent to which patients feel weight is under their control and possible reasons for weight gain e.g. as a result of medical problems ▪ Explore any beliefs about eating, physical activity and weight gain that are unhelpful if the person wants to lost weight (helps build confidence and motivation) e.g. what might make losing weight difficult and dispel any dietary myths **<u>Weight Management Dietary Interventions</u>** ▪ Encourage people to improve their diet even if they do not lose weight, because there can be other health benefits ▪ The main requirement of a dietary approach to weight loss is that total energy intake should be less than energy expenditure. ▪ Discuss different dietary options with the patient to empower them to decide the most appropriate dietary approach to follow. - 600-1000 kcal/day deficit that reduce calories by lowering the fat content/refined CHOs recommended for sustainable weight loss - Low-calorie diets (800–1600 kcal/day), but be aware these are less likely to be nutritionally complete. - Intermittent fasting e.g. 5:2 diet - Very low calorie diet (600-800kcals/day) - Total diet replacement/meal replacements (highlight these are currently not prescribed in NI and would be self-funded)(**see Appendix 4**) Consider the following: ▪ Improving eating behaviours e.g. establish structured and regular meal pattern ▪ Nutritionally adequate diet – base intake on the Eatwell Guide. Focus on frequency, amount and type of foods eaten e.g. food proportions as per Eatwell guide, portion sizes, lower calorie alternatives ▪ Food labelling advice ▪ As appropriate calculate nutritional requirements (using Henry or Mifflin- St. Jeor equations or NDR 'Weight loss you can see' resource), revise meal plan / food portions to meet reduction required ***(Appendix 5)*** **<u>Exercise/Physical Activity (PA)Treatment Options</u>** ▪ Encourage patients to build up to the recommended activity levels for weight maintenance, using a managed approach with agreed goals. ▪ Aim for at least 30 minutes of moderate or greater intensity PA on 5+ days a week for health benefits. The activity can be in 1 session or several sessions lasting 10 minutes or more	

	▪ Note to help with weight loss most people may need to do 45–60 minutes of moderate-intensity activity day e.g. brisk walking, cycling or swimming. ▪ Consider referral to exercise programme within local area (NB health professionals to ensure all sections of the form are completed including BP otherwise forward onto GP for completion and onward referral). ▪ Encourage patients to also reduce the amount of time they spend inactive, such as watching television, using a computer or playing video games. **<u>Pharmacological Interventions</u>** ▪ Consider pharmacological treatment only after dietary, exercise and behavioural approaches have been started and evaluated ▪ Consider drug treatment for people who have not reached their target weight loss or have reached a plateau on dietary, activity and behavioural changes (e.g. Orlistat/Xenical- see ***Appendix 6)*** (suggest to GP to prescribe as appropriate) ▪ Make the decision to start drug treatments after discussing the potential benefits and limitations with the person, including the mode of action, adverse effects and monitoring requirements, and the potential impact on the person's motivation. ▪ Consider discontinuation of drug treatment if 5% weight loss not achieved, as per prescribing recommendations. **<u>Weight Loss Targets</u>** ▪ If appropriate – discuss individual and ***realistic*** weight loss goals and manage expectations ▪ The more weight loss, the greater the health benefits, particularly if a patients loses > 5% of their body weight and maintains this for life ▪ Preventing future weight gain and maintaining a lower weight trajectory leads to health benefits **BMI 30 – 35 kg/m^2** minimum 3%, ideal 5-10% target weight loss **BMI >35kg/m** minimum 5-10%, ideal 15- 20% target weight loss ▪ Aim weekly weight loss 0.5-1kg (1-2lbs). **<u>Choose appropriate weight management intervention option(s) and weight loss target (Appendix 7)</u>** ▪ Formulate nutritional diagnosis and agree outcome measures (as per Trust guidelines). ▪ Agree 2-3 SMART goals/develop a change plan – may include physical activity, portion control etc ▪ Encourage self-monitoring – food diaries/taking photographs of main meals and weighing self at home ▪ Problem solving (as arises) – to help patients cope with various emotional / social situations (refer to Behaviour change techniques summary) ▪ Encourage family support (where available)	DNA/two consecutive CNA's Patient does not consent to treatment Patient declines further input Patient not ready to commit

	▪ Literature - provide supporting literature ▪ Provide contact details ▪ Agree decision for review ▪ Complete relevant report to referrer and/or GP.	to treatment programme/non compliance
1st – 5th reviews Every 2 - 4 weeks OR Every 1 – 3 months during maintenance phase (at clinical discretion) 45 minutes	▪ Clinical assessment including weight/BMI ▪ Evaluation of agreed aims/ targets (review nutritional outcomes and adjust as appropriate) ▪ Review activity – type and frequency of activity/exercise ▪ Check adherence/tolerance to pharmacological treatment and nutritional adequacy - Consider withdrawing drug treatment in people who have not reached weight loss targets (Continue Orlistat therapy beyond 3 months only if the person has lost at least 5% of their initial body weight since starting drug treatment). ▪ Praise successes – however small – at every opportunity to encourage the person through the difficult process of changing established behaviour ▪ If appropriate – reassess readiness to change ▪ Review weekly weight loss goal ▪ Agree decision for review	DNA/two consecutive CNA's Patient does not consent to treatment Patient declines further input Patient not ready to commit to treatment programme/non compliance Treatment completed
6th review appointment Between 6 months – 1 year 45 minutes	▪ Clinical Assessment Weight/BMI ▪ Evaluation of agreed aims/ targets. ▪ Review activity – type and frequency of activities/exercise ▪ Review weekly weight loss goal ▪ Pharmacological intervention: make the decision to use drug treatment for longer than 12 months (usually for weight maintenance) after discussing potential benefits and limitations with the patient. **<u>Way Forward</u>** ▪ Weight Maintenance ▪ Encourage people to eat a balanced diet in the long term, consistent with other healthy eating advice • Encourage continued self-monitoring – food diaries/ weighing self at home ▪ Signposting – consider ongoing support via, for example, supermarket tours, commercial weight loss groups, smoking cessation, exercise groups, support worker review etc ▪ Onward referral to psychology input, as appropriate ▪ Literature - provide supporting literature	As above

Appendix 1

Hospital Anxiety and Depression Scale (HADS)

Tick the box beside the reply that is closest to how you have been feeling in the past week.
Don't take too long over you replies: your immediate is best.

D	A		D	A	
		I feel tense or 'wound up':			**I feel as if I am slowed down:**
	3	Most of the time	3		Nearly all the time
	2	A lot of the time	2		Very often
	1	From time to time, occasionally	1		Sometimes
	0	Not at all	0		Not at all
		I still enjoy the things I used to enjoy:			**I get a sort of frightened feeling like 'butterflies' in the stomach:**
0		Definitely as much		0	Not at all
1		Not quite so much		1	Occasionally
2		Only a little		2	Quite Often
3		Hardly at all		3	Very Often
		I get a sort of frightened feeling as if something awful is about to happen:			**I have lost interest in my appearance:**
	3	Very definitely and quite badly	3		Definitely
	2	Yes, but not too badly	2		I don't take as much care as I should
	1	A little, but it doesn't worry me	1		I may not take quite as much care
	0	Not at all	0		I take just as much care as ever
		I can laugh and see the funny side of things:			**I feel restless as I have to be on the move:**
0		As much as I always could		3	Very much indeed
1		Not quite so much now		2	Quite a lot
2		Definitely not so much now		1	Not very much
3		Not at all		0	Not at all
		Worrying thoughts go through my mind:			**I look forward with enjoyment to things:**
	3	A great deal of the time	0		As much as I ever did
	2	A lot of the time	1		Rather less than I used to
	1	From time to time, but not too often	2		Definitely less than I used to
	0	Only occasionally	3		Hardly at all
		I feel cheerful:			**I get sudden feelings of panic:**
3		Not at all		3	Very often indeed
2		Not often		2	Quite often
1		Sometimes		1	Not very often
0		Most of the time		0	Not at all
		I can sit at ease and feel relaxed:			**I can enjoy a good book or radio or TV program:**
	0	Definitely	0		Often
	1	Usually	1		Sometimes
	2	Not Often	2		Not often
	3	Not at all	3		Very seldom

Please check you have answered all the questions

Scoring:

Total score: Depression (D) _____ Anxiety (A) _____

0-7 = Normal

8-10 = Borderline abnormal (borderline case)

11-21 = Abnormal (case)

Appendix 2

Classification of overweight and obesity- Adults

Define the degree of overweight or obesity in adults using the following table:

Classification	BMI (kg/m 2)
Healthy weight	18.5–24.9
Overweight	25–29.9
Obesity I	30–34.9
Obesity II	35–39.9
Obesity III	40 or more

Appendix 3

BMI classification	Waist circumference		
	Low	High	Very High
Overweight	No increased risk	Increased risk	High risk
Obesity 1	Increased risk	High risk	Very high risk

For men, waist circumference of less than 94 cm is low, 94–102 cm is high and more than 102 cm is very high.
For women, waist circumference of less than 80 cm is low, 80–88 cm is high and more than 88 cm is very high

Appendix 4

NICE guidance Obesity: identification, assessment and management November 2014

1.7.6 Consider low-calorie diets (800–1600 kcal/day), but be aware these are less likely to be nutritionally complete. **[2006, amended 2014]**

1.7.7 Do not routinely use very-low-calorie diets (800 kcal/day or less) to manage obesity (defined as BMI over 30). **[new 2014]**

1.7.8 Only consider very-low-calorie diets, as part of a multicomponent weight management strategy, for people who are obese and who have a clinically-assessed need to rapidly lose weight (for example, people who need joint replacement surgery or who are seeking fertility services). Ensure that:

- the diet is nutritionally complete
- the diet is followed for a maximum of 12 weeks (continuously or intermittently)
- the person following the diet is given ongoing clinical support. **[new 2014]**

1.7.9 Before starting someone on a very-low-calorie diet as part of a multicomponent weight management strategy:

- Consider counselling and assess for eating disorders or other psychopathology to make sure the diet is appropriate for them.
- Discuss the risks and benefits with them.
- Tell them that this is not a long-term weight management strategy, and that regaining weight may happen and is not because of their own or their clinician's failure.

- Discuss the reintroduction of food following a liquid diet with them. **[new 2014]**

1.7.10 Provide a long-term multicomponent strategy to help the person maintain their weight after the use of a very-low-calorie diet. **[new 2014]**

Appendix 5

How to Calculate a 600-1000kcal Deficit Diet

Work out patient's 'Estimated Energy Requirements for Modest Weight Loss', as follows:

1.BMR: Based on patient's age, gender and current weight (in kg) as listed in the chart below, predict the patient's Basal Metabolic Rate (BMR).These are based on Mifflin-St.Joer equations stated below.

Population	Estimating RMR
Generally Healthy Overweight, Obese and Normal Weight Adults	**Mifflin-St. Jeor equation (MSJ)** (some limitations in elderly and ethnic populations). Men: RMR = 10(wt in kg) + 6.25(ht in cm) - 5(age in yrs) + 5 Women: RMR = 10(wt in kg) + 6.25(ht in cm) - 5(age in yrs) – 161

Note: MSJ equation has been validated in predominantly Caucasian adults under 60 years. Accuracy is lower in obese adults, and any prediction equation can be imprecise when applied to an individual.

2. PAL: Incorporate their Physical Activity Level (PAL) based on the gender and activity level shown in the chart below. Few patients are likely to have activity levels above the inactive

Physical Activity Level (PAL) value is

non-occupational activity	occupational activity light		occupational activity moderate		occupational activity moderate/heavy	
	Males	Females	Males	Females	Males	Females
non active	1.4	1.4	1.6	1.5	1.7	1.5
moderately active	1.5	1.5	1.7	1.6	1.8	1.6
very active	1.6	1.6	1.8	1.7	1.9	1.7

3. EER: Calculate the person's daily estimated energy requirement to maintain weight by multiplying BMR and PAL.

4. EER for weight loss: Subtract 600 -1000 calories from the above figure to estimate the person's energy requirement for modest weight loss.

Appendix 6

Xenical/Orlistat check list

		Yes	NO
1	BMI > 30		
2	BMI > 27 with at least one co-morbidity e.g. diabetes, HTM, raised cholesterol		
3	Person is aware of the need to follow a low fat diet (<30% total energy from fat)?		
4	Person is aware that they need to eat a high intake of fruit and vegetables?		
Contraindications			
5	Is the person on levothyroxine?		
6	Is the person pregnant or breastfeeding?		
7	Does the person have gallbladder problems?		
8	Does the person have malabsorption issues?		
9	Is the person on cyclosporine?		
10	Is the person on amiodarone?		
11	Is the person on insulin or other diabetes medications?		
12	Is the person on many seizure medications?		
13	Is the person on any blood thinners?		

Guidance

5. Levothyroxine - thyroid levels need to be closely monitored. Each taken at least 4 hours apart

6,7 &8. Not recommended to take orlistat.

9. Cyclosporine levels reduce when orlistat commenced. Cyclosporine should be taken 3 hours after orlistat

10. Amiodarone - reduces when orlistat commenced. No clinical trials. Seek Dr advice before commencing

11. Dramatic weight loss and reduce oral intake can have an impact on diet quality. Person needs to be aware of hypos and may need diabetes medications altered. Need to speak with a Diabetes Specialist Nurse or doctor.

12 Orlistat can reduce the effectiveness of these medications and can lead to increased seizures

13. Orlistat affects Vitamin K absorption; therefore, need to closely monitor INR if on a blood thinner.

Other considerations:

Fat soluble vitamins A, D, E & K absorption will be decreased. Recommended person eat a high intake of fruit and vegetables (no. 4). A supplement can be beneficial to minimise the loss, especially a vitamin D supplement.

If the person does not lose at their review appointment, discuss with the person the need to stop orlistat

Dosage: 120mg x3 per day. No additional effect if more taken.

Appendix 7:

Behaviour change techniques / strategies summary

- Readiness to change – importance and confidence
- Self- monitoring of behaviour and progress eg. food diary
- Typical day
- Ambivalence
- Exploring options for change to help negotiate goals
- Goal setting – SMART, written agreement
- Monitoring
- Rewards e.g. if weight loss goal achieved
- Difficulties experienced with SMART goals and how to overcome – learning to cope with setbacks
- Lapse and Relapse
- Dealing with cravings
- Internal and External Triggers
- Behaviour chain
- Resistance training
- Processing unhelpful thoughts, feelings and behaviours

Obesity References[1]

[1] **Resources:**

- Manual of Dietetic Practice, 5th Edition: Chapter 2.2 Assessment of Nutritional Status and 4.5 Food Law and Labelling
- BDA: Advanced Nutrition & Dietetics in Obesity: Section 7: Public Health and the prevention of obesity.
- Food Standards Agency: http://www.food.gov.uk/northern-ireland/nutritionni
- Institute of Clinical Excellence Guidelines: (NICE) http://www.nice.org.uk/nicemedia/pdf/CG43PublicInfo2.pdf / http://www.nice.org.uk/nicemedia/pdf/word/CG43NICEGuideline.doc

https://cks.nice.org.uk/obesity#!scenario

- Calculator, stadiometer, weighing scales and measuring tape
- NHLBI Obesity Education Initiative (2000).