

Module Specification

Module Summary Information

1	Module Title	Obesity and Type 2 Diabetes
2	Module Credits	20
3	Module Level	7
4	Module Code	LBR7634
5	Semester Taught	1 online only

6	Module Overview
<p>This module is suited to healthcare professionals or others with an interest in obesity, prevention and management of type 2 diabetes. It gives an insight into the complex link between obesity and health, specifically in relation to type 2 diabetes and co-morbidities. This underpins a specialist and holistic approach.</p> <p>Obesity in the UK and internationally is a contemporary health concern, with recognition that it is one of the leading preventable causes of death currently. This is also reflected in many countries internationally and the problems with over nutrition, especially in counties like India are presenting a twin epidemic with 14% of India's population experiencing under nutrition and 86% over nutrition due to increasing western influences and accessibility to food.</p> <p>Rising rates of childhood obesity have been recognised as a UK national emergency and this is becoming increasing apparent internationally also.</p> <p>The module provides insight into screening and detection methods for obesity and type 2 diabetes and will consider the evidence base to both prevent and manage these conditions at both an individual and a population level. The genetics, epidemiology, evolution, aetiology, psychological consequences and pathogenesis of obesity and diabetes is critically examined.</p> <p>Effective management of obesity and diabetes requires many complex interrelated issues including psychological and quality of life concerns. Evidence based treatment opportunities are critically appraised as to efficacious and effectiveness nationally and internationally. Obesity related diabetes is recognised as a long-term condition and its care requires specialist, inter-disciplinary and individualised person-centred teamwork.</p> <p>This module is designed to be a clinically orientated and practical course. It will lead to an understanding of the rationale behind current approaches to care of people with obesity.</p> <p>This module is delivered as a standalone, or as part of the MSc in Advancing Diabetes Care pathway. This module aligns with the post-graduate philosophy and is designed to be flexible and practice-led. You will have the opportunity to develop skills of enquiry, reflection and problem solving. An online learning approach is taken. You will be encouraged to think critically and share practice experiences within an online discussion forum with your fellow students, as well as engaging in both directed and self-directed learning activities. You will be an active partner in your own learning and development and in return you will receive regular feedback and feed forward aimed at developing your academic skills, and have the opportunity to discuss your progress with the module team.</p>	

7	Indicative Content
<p><i>This section covers indicative subject matter only. This is not intended as a schedule of learning but as a list of indicative topics that will be taught / covered in the module.</i></p> <ul style="list-style-type: none"> • Screening and detection methods for obesity and type 2 diabetes. • Under-nutrition and over-nutrition – role of food and emerging western diets and food access • Unique presentation of obesity depending on ancestry and cultural heritage • Role of fat – intra-abdominally and subcutaneous • Evidence to prevent and manage obesity and type 2 diabetes at both an individual and a population level. • Rural, community, urban and intercity population presentations of type 2 diabetes • Genetics, epidemiology, evolution, aetiology and pathogenesis of obesity and diabetes. • Insulin resistance and systemic inflammation and Inflammatory approaches in obesity. • Evidence based management encompassing complex interrelated issues including psychological and quality of life. • Evidence based treatment opportunities nationally and internationally. Emerging new evidence and policy about treatment access and titration. • Clinical inertia in type 2 diabetes and obesity management approaches. • Eating disorders and psychological responses. • Stigma and human factors. • Obesity related diabetes as a long-term condition. • Cardiovascular risk reduction strategies. • Surgical versus medical treatment options. • Specialist, inter-disciplinary and individualised person-centred teamwork. 	

8	Module Learning Outcomes	
On successful completion of the module, students will be able to:		
1	Critically examine and evaluate the epidemiology, pathogenesis, clinical features and management of obesity and obesity related diabetes and co-morbidities.	
2	Critically review the role of nutritional factors in the pathogenesis of obesity, insulin resistance and diabetes.	
3	Critically review the psychological issues, hedonic hunger and aspects of living with obesity and quality of life issues.	
4	Critically examine the evidence and effectiveness of current and emerging treatment strategies in terms of medicine, surgery and psychology in the treatment and management of obesity.	

9	Module Assessment		
Learning Outcome Number <i>(from table 8)</i>	Coursework	Exam	In-Person
1	x		
2	x		
3			x
4	x		

10 Breakdown Learning and Teaching Activities		
Learning Activities	Hours	Details of Duration, Frequency and other comments
Scheduled Learning (SL) includes lectures, practical classes and workshops as specified in timetable	40	<i>The online learning is released to students in blocks every two weeks, these are accompanied by a live webinar following each block release and tutorial time build into each webinar also. The students therefore can work through each section in their own way to fit around their clinical practice. No student within this programme has study leave.</i>
Directed Learning (DL) includes placements, work-based learning, peer group learning external visits, on-line activity, Graduate+, peer learning, as directed on VLE	40	<i>The blocks of learning contact activities to undertake, feedback to be added and student team meetings, quizzes, activities, vlogs and downloads for sections of learning.</i>
Private Study (PS) includes preparation for exams	120	<i>Assignment preparation</i>
Total Study Hours:	200	

11 Key Texts and Online Learning Resources	
Purchase Due to the variety of potential information sources and the changing nature of the topic(s) we have not recommended any “must purchase” titles.	
Essential (Books/Journals/Specific chapters/Journal Articles)	
Textbooks Albury C, Strain WD, Brocq SL, Logue J, Lloyd C, Tahrani A; Language Matters working group (2020) The importance of language in engagement between health-care professionals and people living with obesity: a joint consensus statement. <i>Lancet Diabetes Endocrinol.</i> 8(5):447-455. doi: 10.1016/S2213-8587(20)30102-9. PMID: 32333880. (date accessed: 12/01/2021) All-Party Parliamentary Group on Obesity (2020) The Future of Obesity Services A policy paper produced by the All-Party Group on Obesity, https://static1.squarespace.com/static/5975e650be6594496c79e2fb/t/5fbe2a92e18c5c478ec569a0/1606298265632/Obesity+APPG+-+The+Future+of+Obesity+Services.pdf Childhood Obesity: a plan for action Gov.UK https://www.gov.uk/government/publications/childhood-obesity-a-plan-for-action/childhood-obesity-a-plan-for-action [date accessed: 14/03/19] Davies M, D’Alessio D, Fradkin J et al (2018) Management of Hyperglycemia in Type 2 Diabetes, 2018. A Consensus Report by the American Diabetes Association (ADA) and the European Association for the Study of Diabetes (EASD), <i>Diabetes Care</i> , 41(12): 2669-2701. https://doi.org/10.2337/dci18-0033 (date accessed: 02/01/2021) Dulloo A, Montani J (2015) Pathways from dieting to weight regain, to obesity and to the	

metabolic syndrome: an overview. *Obes Rev* 16: 1–6. doi:10.1111/obr.12250

International Diabetes Federation (2018) Diabetes Atlas 9th edition. www.diabetesatlas.org/ [date accessed: 14/03/19]

Health matters: obesity and the food environment, Gov.UK, <https://www.gov.uk/government/publications/health-matters-obesity-and-the-food-environment/health-matters-obesity-and-the-food-environment--2> [date accessed: 14/03/19]

Kemp E, Bui M, Grier S (2013) When food is more than nutrition: Understanding emotional eating and overconsumption. *Journal of Consumer Behaviour* 12: 204–213.

Laiterapong L, Ham S, Gao Y et al (2019) The Legacy Effect in Type 2 Diabetes: Impact of Early Glycemic Control on Future Complications (The Diabetes & Aging Study), *Diabetes Care*, 42 (3) 416–426; DOI: 10.2337/dc17-1144 (date accessed: 02/01/2021)

Matthews D, Paldanius P, Proot P et al (2019) Glycaemic durability of an early combination therapy with Vildagliptin and Metformin versus sequential Metformin monotherapy in newly diagnosed type 2 diabetes (VERIFY): a 5-year multicentre, randomised, double-blind trial, *The Lancet*, DOI:[https://doi.org/10.1016/S0140-6736\(19\)32131-2](https://doi.org/10.1016/S0140-6736(19)32131-2) (date accessed: 02/01/2021) Miller W, Rollnick S (2013) Motivational Interviewing: Preparing People to Change.

Guildford Press, New York

National Institute of Health and Care Excellence (2014) Obesity: identification, assessment and management, <https://www.nice.org.uk/guidance/CG189>

National Institute of Health and Care Excellence (2015) Obesity Prevention, <https://www.nice.org.uk/Guidance/CG43> [date accessed: 14/03/19]

National Institute of Health and Care Excellence (2015) Type 2 diabetes in adults: management. NG28. www.nice.org.uk/guidance/ng28

Nolan CJ, Ruderman NB, Kahn SE, Pedersen O, Prentki M (2015) Insulin resistance as a physiological defense against metabolic stress: implications for the management of subsets of type 2 diabetes. *Diabetes* 64(3): 673–686. doi:10.2337/db14-0694 [date accessed: 14/03/19]

Pandey A, Patel KV, Bahnson JL, et al.; (2020) Look AHEAD Research Group. Association of intensive lifestyle intervention, fitness, and body mass index with risk of heart failure in overweight or obese adults with type 2 diabetes mellitus: an analysis from the Look AHEAD trial. *Circulation*, 141:1295–1306 (date accessed: 02/01/2021)

Stapleton P, Doyle W (2013) Mood cravings and food cravings in overweight and obese Australian adults: clues to treatment in food diaries. *Current Research in Psychology* 4(1): 6–15

World Health Organisation, Obesity, <http://www.who.int/topics/obesity/en/>

World Health Organisation (2018) Obesity, <http://www.euro.who.int/en/health-topics/noncommunicable-diseases/obesity> [date accessed: 14/03/19]

Websites

APPG for Obesity Strategic Council <https://obesityappg.com/inquiries>

British Dietetic Association: <http://www.bda.uk.com>

British Society for Paediatric Endocrinology and Diabetes (BSPED): <https://www.bsped.org.uk/>

Diabetes Care for Children and Young People Journal:

<https://www.diabetesonthenet.com/journal/diabetes-care-for-children-young-people>

Diabetes UK: <http://www.Diabetes.org.uk/>

European Association for the Study of Diabetes: <http://www.easd.org>

Forum for Injection Technique (FIT4Diabetes): <http://www.fit4diabetes.com/united-kingdom/fit-recommendations/>

International Diabetes Federation: <https://www.idf.org/>

International Society for Paediatric and Adolescent Diabetes (ISPAD): <https://www.ispad.org/>

Juvenile Diabetes Research Foundation (JDRF): <https://jdrf.org.uk/>

Medicine Matters: <https://diabetes.medicinematters.com/en-GB>

National Children and Young Persons Diabetes Network: <http://www.cypdiabetesnetwork.nhs.uk/>

National Institute for Clinical Excellence: <http://www.nice.org.uk>

Statistics on Obesity, Physical Activity and Diet: <https://digital.nhs.uk/data-and-information/publications/statistical/statistics-on-obesity-physical-activity-and-diet>