Obesity Medicine Core Curriculum: Guidelines for Subspecialty Fellowship Programs

Introduction

This Core Curriculum summarizes the scope of activities and educational content included in a typical subspecialty program in Obesity Medicine for physicians who have previously completed a residency program in a recognized medical specialty. It was developed and approved by the Obesity Medicine Fellowship Council (OMFC) in the U.S. and Canada in 2024. This Core Curriculum is designed to inform fellowship program directors, faculty and potential trainees about the experiences and educational content central to the effective training of a physician subspecialist in Obesity Medicine. It is intended as a guide for subspecialty training programs and trainees, rather than a list of specific requirements for each recognized fellowship program in this discipline.

Successful completion of a recognized, one-year, full-time, clinical subspecialty fellowship program in Obesity Medicine should provide the education and training sufficient to allow trainees to provide state-of-the-art clinical care in this area. It should also qualify trainees for subspecialty certification by the American Board of Obesity Medicine, provided that they meet the other qualifications established by the Board.

This Core Curriculum is designed to be applicable to subspecialty fellowship programs focused on training physicians to care for either adult or pediatric patients. The pediatric obesity section is included to ensure that all obesity medicine subspecialty fellowship programs, whether focused primarily on the care of adults or children, include specific education in the prevention and treatment of obesity in people across the lifespan. Clinical experience in a pediatric obesity medicine practice is ideal; however, for training programs without access to this type of clinical experience, it could be covered through various collaborative or didactic experiences.

A. Educational Experiences

Core clinical experiences

- Comprehensive adult or pediatric obesity medicine outpatient practice
- Metabolic/bariatric surgery practice

Core didactic education experiences

- Core obesity management didactic program (lecture or workshop series)
- Obesity-focused journal club
- Obesity-focused seminar and/or grand rounds series

Elective Clinical Experiences

- Comprehensive pediatric or adult obesity medicine outpatient practice (complementing core obesity medicine outpatient experience)
- Inpatient obesity medicine service
- Inpatient metabolic/bariatric surgery service
- Diabetes, lipid management / preventive cardiology, sleep medicine, hepatology, nephrology, and rheumatology outpatient practices

- Nutrition, mental health, eating disorders, and physical / cardiac rehabilitation outpatient practices
- Bariatric endoscopy service
- Obesity prevention program

Elective research opportunities:

- Obesity basic research program
- Obesity clinical research program
- Obesity public health / population research

B. Curricular Framework

- 1. Obesity epidemiology
 - a. Prevalence and changes over time
 - b. Geographic distribution
 - c. Effect on mortality, longevity and quality of life
 - d. Economic impact

2. Biology of obesity

- a. Physiological regulation of fat mass, energy balance and body weight
- b. Gut-brain interactions in the control of body fat
- c. Signaling systems in metabolic regulation: neural, humoral, immune and microbial
- d. Contributions and regulation of appetitive drives, physical activity and thermogenesis
- e. Metabolic adaptation and its management in obesity
- f. Obesity pathophysiology
- g. Obesity etiology
- h. Genetic contributors to obesity
- i. Environment contributors to obesity
- j. CNS causes of obesity
- k. Medication-induced obesity
- I. Metabolic effects of obesity
- m. Inflammatory and immunological effects of obesity
- n. Implications of obesity heterogeneity: pathophysiology, clinical presentation and response to treatment

3. Social context of obesity

- a. Historical views of obesity
- b. Weight-related bias, stigma and discrimination
- c. Psychosocial and economic effects of obesity
- d. Social and cultural contributors to obesity and its care
- e. The impact of the cultural desire for thinness obesity understanding on access to care

- f. Inequities in obesity-related care
- g. Impact of language on obesity care

4. Obesity assessment

- a. Patient communication around weight and obesity
- b. Efficient, obesity-focused patient history
- c. Familial, environmental, behavioral and social determinants of obesity
- d. Previous obesity treatments and outcomes
- e. Obesity-focused physical examination
- f. Anthropometric assessment of obesity
- g. Effect of obesity and obesity treatment on muscle function
- h. Measurement tools and definitions
- i. Physiological assessment in clinical practice
- j. Comprehensive assessment of obesity severity
- k. Establishing treatment goals
- I. Principles of shared decision-making

Medical complications of obesity

- a. Metabolic and cardiovascular complications
- b. Immunological and inflammatory complications
- c. Neoplastic complications
- d. Structural and mechanical complications
- e. Mental health complications
- f. Eating disorders
- g. Nutritional complications
- h. Impact of obesity on health screening, diagnostic testing, treatment and treatment assessment
- i. Impact of obesity treatment on obesity complications

6. Strategies for obesity prevention

- a. Emergence of the obesity epidemic
- b. Primary and secondary obesity prevention strategies and outcomes
- c. Implications of obesity heterogeneity for effective prevention strategies

7. Strategies for obesity treatment

- a. Implications of obesity as a chronic disease
- b. Differences and overlap between treating obesity and promoting wellness
- c. Treating obesity to treat its complications
- d. Variability of treatment response
- e. Opportunities for precision obesity care

8. Lifestyle-based treatment of obesity

- a. Benefits, limitations and risks of calorie restriction
- b. Diet- and food-based treatments of obesity
- c. Benefits, limitations and risks of exercise treatment

- d. Benefits, limitations and risks of psychological treatment
- e. Setting goals for behavioral therapy
- f. Strategies for behavioral modification
- g. Management of stress-, sleep-, and circadian rhythm-related obesity
- h. Clinical identification of lifestyle treatment opportunities

9. Pharmacological treatment of obesity

- a. History of obesity pharmacotherapy
- b. Principles and clinical strategies for obesity pharmacotherapy
- c. Roles and responsibilities of regulatory agencies
- d. Nutrient-stimulated hormone-targeted therapy
- e. Other metabolic agents: metformin, SGLT-2 inhibitors
- f. Adrenergic agents
- g. Other CNS agents: topiramate, Zonisamide, bupropion, naltrexone
- h. Orlistat
- i. Expandable gel therapy
- j. Emerging pharmacotherapeutic opportunities

10. Endoscopic and medical device-based treatment of obesity

- a. Endoscopic management of metabolic surgery
- b. Endoscopic obesity treatment procedures
- c. Implantable obesity treatment devices
- d. Device-based treatment of diabetes mellitus

11. Surgical treatment of obesity

- a. Physical characteristics of metabolic surgery
- b. Mechanisms of action of metabolic surgery
- c. Clinical outcomes of metabolic surgery
- d. Preoperative management of the metabolic surgical patient
- e. Postoperative management of the metabolic surgical patient
- f. Long-term management of surgical complications and seguelae
- g. Regulation of metabolic surgical care
- h. Emerging metabolic surgical options

12. Combinatorial treatment of obesity

- a. Strategies for combining obesity therapies
- b. Combination pharmacotherapy
- c. Combination medical and procedural treatment

13. Health management during obesity treatment

- a. Evaluation and management of obesity complications and comorbidities
- b. Evaluation and management of patient expectations
- c. Evaluation and management of nutritional health
- d. Evaluation and management of physical capacity and muscle function

- e. Evaluation and management of mental health
- 14. Obesity in children and adolescents
 - a. Effects of obesity unique to children and adolescents
 - b. Clinical evaluation of obesity in children and adolescents
 - c. Genetic evaluation in pediatric obesity
 - d. Lifestyle and family-based treatment of pediatric obesity
 - e. Pharmacological treatment of obesity in children and adolescents
 - f. Surgical treatment of obesity in children and adolescents
 - g. Transition of care to adult providers
- 15. Assessment and management of syndromic and monogenic obesity
 - a. Clinical presentation of syndromic and monogenic obesity
 - b. Genetic evaluation in clinical practice
 - c. Management options for genetic and syndromic obesity
- 16. Management of obesity in special populations
 - a. Individuals with specific biological needs
 - b. Individuals with specific sociocultural needs
 - c. Global health and obesity care across diverse populations
- 17. Other diseases of adipose tissue
 - a. Lipidema
 - b. Lipodystrophy
 - c. Lipomatosis
- 18. Clinical data interpretation skills
 - a. Basics of statistical evaluation
 - b. Basics of study design and data analysis
 - c. Assessing evidence of causation
 - d. Challenges in obesity research
 - e. Clinical and policy implications of research findings
 - f. Ethical considerations in clinical research
- 19. Roles and responsibilities of a medical subspecialist
 - a. Specialized practice
 - b. Generalist education
 - c. Establishment of specialty referral criteria
 - d. Patient and specialty advocacy with the healthcare system
 - e. Contribution to research and scholarship
- 20. Teaching and communication skills around obesity
- 21. Clinical practice of obesity medicine
 - a. Obesity Medicine certification and credentialing

- b. Continuing education and maintenance of certification
- c. Practice organization and staffing
- d. Certification of non-physician providers
- e. Physical facilities
- f. Organization and operation of an effective comprehensive care team
- g. Efficient use of the electronic health record
- h. Design and implementation of quality assessment and improvement programs
- i. Financial management
- j. Career development strategies in obesity medicine
- k. Conflict of interest principles and interaction with corporate partners

22. Obesity-related public policy

- a. Implications of recognizing obesity as a disease
- b. Clinical practice guidelines
- c. Standards of obesity care
- d. Patient and societal financial expectations
- e. Health care insurance coverage of obesity care
- f. Optimizing the clinical benefit of available resources