Obesity is a disease affecting patients seen in all medical specialties. The goal of the Bariatrics rotation is to help residents develop the skills required to prevent, evaluate, and manage obesity and obesity-related complications. This rotation will expose the resident to patients who have been referred or self-referred for bariatric surgery. The resident will become familiar with the preoperative evaluation and preparation for bariatric surgery. The focus will be on the doctor-patient relationship and improving physician care of obese patients. Residents will learn about motivating behavioral change, setting goals, nutrition, and lifestyle change. Finally, residents will learn indications for referral for medical and surgical weight loss.

Faculty will facilitate learning in the 6 core competencies as follows:

**Patient Care and Procedural Skills**

I. All residents must be able to provide compassionate, culturally-sensitive care for their obese patients.
   - R1s should become familiar with impact of obesity and obesity-related health conditions on patients and their families.
   - R2s should be able to formulate specific questions to seek directed and appropriate subspecialty consultation when necessary to further patient care.
   - R3s should be able to coordinate input from multiple consultants, for example in the perioperative setting, and manage conflicting recommendations.

II. All residents will demonstrate the ability to take a history with particular attention to medical, social, and diet histories and incorporate information from the electronic medical record.
   - R1s should be able to recognize factors contributing to obesity and the impact of obesity on other medical comorbidities.
   - R2s will independently obtain the above information and identify barriers to patient compliance and care.
   - R3s should be able to independently obtain the above details for patients with complex medical histories and multiple comorbid conditions.

III. Residents should be able to perform a physical exam, with specific attention to the cardiopulmonary exam, BMI, and body fat distribution.
   - R1s should become competent in routine preoperative physical exams.
   - R2s should be able to characterize exam findings that increase perioperative risk.
   - R3s should be able to independently perform a complete exam and understand the sensitivity and specificity of physical findings.

**Medical Knowledge**

I. R1s will become skilled in recognizing symptoms indicative of underlying obesity-related disease, such as acid reflux, musculoskeletal pain, and snoring, which may be altered with lifestyle change.

R2s should be able to incorporate presenting information into the context of past medical history and formulate a risk assessment of medical versus surgical treatment options for obesity.

R3s should be able to understand statistical concepts such as pretest probability, number needed to treat, etc. and incorporate this information into patient care decisions.

II. R2s will also develop an understanding of how the following comorbidities are affected by medical and surgical treatments for obesity:
- Coronary artery disease
- Depression
- Diabetes mellitus type II
- GERD
- Hyperlipidemia
- Hypertension
- Low back pain
- Osteoarthritis
- Sleep apnea

III. R3s will gain a better understanding of how comorbidities and obesity are interrelated and how changes in one variable affect the others.

IV. Residents will develop an understanding of general principles of nutrition and learn to incorporate this knowledge into patient management plans to prevent or manage disease.

- R1s will become familiar with evidence for non-pharmacologic methods of weight management, special diets (vegan, vegetarian, diabetic, etc); popular diets (low carb, Paleo, Weight Watchers); and supplements and their nutritional risks and benefits.

- R2s will become familiar with pharmacologic management of weight loss, including prescription diet drugs, herbal drugs, and over-the-counter drugs.

- R3s will gain a better understanding of balance between short and long term risks of medical and surgical treatment for obesity.

V. Residents will become familiar with the risks and benefits of the various surgical approaches to obesity and the care of patients postoperatively.

VI. Residents will
- learn USPTF guidelines related to obesity
- understand the calculation and interpretation of body mass index
- become familiar with food labels and their interpretation
- become skilled at setting specific patient goals for exercise, diet, and weight loss
• learn how to approach counseling patients to motivate behavioral change

VII. Residents will understand indications for ordering and interpretation of results from laboratory and imaging studies relevant to the assessment of bariatric patients and their perioperative risk, such as EKG, pulmonary functions testing, stress testing, comprehensive metabolic exercise testing, and polysomnography.

Practice-Based Learning and Improvement
I. All residents should be able to access current clinical practice guidelines on nutrition to apply evidence-based strategies to the care of their obese patients.
II. R2s should develop skills in evaluating studies in published literature, through Journal Club and independent study, and in assessing the impact of behavioral interventions on patient outcomes in their practices.
III. R3s should become proficient in honing time management skills in context of effectively motivating behavioral change.
IV. All residents should learn to function as part of a team, including the primary care physician, surgeon, nurse, dietician, and psychologist to educate patients on nutrition and weight management.

Interpersonal and Communication Skills
I. R1s must demonstrate organized and articulate electronic and verbal communication skills that facilitate effective communication with patients, families, and other health care professionals.
II. R2s must also develop interpersonal skills that facilitate collaboration with patients and educate patients in a manner appropriate to their educational level, literacy, and cultural background.
III. R3s should become skilled at coordinating a multidisciplinary approach to patient care and promoting behavioral change.

Professionalism
I. All residents should be aware of stereotypes regarding obesity and be able to educate and/or counsel patients in a sensitive manner that is respectful of gender, cultural, religious, economic, and educational differences on choices regarding their care.
II. R2s should be able to reflect on their own health behaviors and nutritional biases and consider how those habits impact their ability to counsel others.
III. R3s should be able to provide constructive criticism and feedback to more junior members of the team.
**Systems-Based Practice**

I. R1s must have a basic understanding that their diagnostic and treatment decisions involve cost and risk and affect quality of care.

II. R2s must be able to discuss alternative care strategies for weight management, taking into account the social, economic, and psychological factors that affect patient health and use of resources.

III. R3s should understand the impact of insurance status on patient access to treatment options for obesity and be aware of the availability of psychologists, dietitians, commercial weight loss programs, and other community resources to maximize care.

IV. R3s must demonstrate an awareness of strategies for population based health promotion and disease prevention as it relates to obesity as well as the public health costs of obesity.

V. Residents must be aware of current quality issues in bariatric medicine, such as the long-term impact of surgical treatment on the management of diabetes mellitus.

**Teaching Methods**

I. Supervised patient care in the clinic
   - Residents will initially be directly observed with patients, to facilitate the acquisition of excellent history taking, physical exam, and procedural skills.
   - As residents become more proficient, they will interact independently with patients and present cases to faculty.
     - For R1s, initial emphasis will be on improved understanding of nutrition, exercise, and basic goal setting.
     - For more senior residents, focus will be on medical decision-making, and residents will work with supervising physicians to finalize a care plan.

II. Conferences
   - Daily noon conference
   - Journal club

III. Independent study
   - Journal and textbook reading
     - *Annals of Internal Medicine Obesity Collection*
   - Residents may also consider reading select titles from the popular press which may influence patient perspectives, such as *Fast-Food Nation*, *Omnivore's Dilemma*, and *Food Inc.*, and attending a Weight Watchers meeting.
   - Additional reading as recommended by Attending physician
   - Online educational resources
     - NIH, National Center for Complementary adn Alternative Medicine (NCCAM) [http://nccam.nih.gov](http://nccam.nih.gov)
     - Up To Date
     - Clinical Key
• U.S. Department of Agriculture
  1. Center for Nutrition Policy and Promotion (CNPP)
     www.cnpp.usda.gov
  2. ChooseMyPlate.gov www.choosemyplate.gov
• U.S. Department of Health and Human Services

Evaluation
I. Mini-CEX bedside evaluation tool
II. 360 Evaluation at the end of the month - practice setting involves contact with multiple health-care professionals, including psychologist, dietician, physician assistant, and clinical nurses.
III. Attending written evaluation of resident at the end of the rotation.

Rotation Structure
I. Residents should contact the attending physician the day prior to confirm start time and location. Residents should notify the attending physician promptly if they cannot be in clinic at their assigned time.
II. Residents should be in clinic during their scheduled times.
   • Residents will be involved in discussion of patient presentation, generation of a differential diagnosis, development of a treatment plan, and patient follow up. In addition, residents will be involved in surgical procedures as is appropriate.
   • Case-based learning is most effective. Nightly reading/study should be based on patients seen during the day.
   • When doing consults, the resident should understand the question asked and provide a concise answer.
III. Residents may be asked to do focused literature searches or presentations during the course of the rotation.
IV. Call and weekend responsibilities TBD by the attending physician.
   • Hours worked must be consistent with ACGME requirements and are subject to approval by the Program Director.
V. Residents have noon conferences and should be excused in a timely fashion to attend.