Customizing Diagnosis and Weight Management Strategies

Adiposity-based chronic diseases (ABCD) are a group of conditions stemming from excess and/or dysfunctional body fat. This pocket guide explores the comprehensive management of obesity by addressing its pathophysiology and diverse patient phenotypes.

Adiposity-based Chronic Disease (ABCD):

ABCD encompasses diseases related to excess body fat, including cardiometabolic, biomechanical, and psychosocial complications.

Common Complications of (ABCD):

- **Cardiometabolic:** Increased risk of heart disease, type 2 diabetes, and steatotic liver disease.
- **Biomechanical:** obstructive sleep apnea, osteoarthritis, and reduced mobility.
- **Psychosocial:** Depression, anxiety, and experienced weight bias/stigma

Practical Strategies for Healthcare Professionals:

Assessment and Diagnosis:

Use standardized tools for accurate assessments.

- Body Mass Index (BMI)
- Waist circumference
- Body composition analysis
- Health history
- Identify complications and risk factors
- Physical examination

Personalize Obesity Treatment:

- Identify individualized goals for weight that include health and quality of life outcomes.
- Base recommendations for lifestyle modification, Anti-Obesity Medications and/or surgery on patient factors and phenotypes.
- Create a supportive environment by actively listening to the patient, avoiding stigmatizing language and empowering patients to take an active role.

- Phenotyping patients allows for a more personalized approach to obesity care by contextualizing ABCD in a broader context, which includes:
  - Genetic variability
  - Environmental influences

Psychosocial factors

Proposed Model for Patient Phenotyping

- **Hungry Brain - (Neurological Phenotype):** This phenotype is influenced neurological aspect of how the brain regulates appetite. The hypothalamus plays a key role in processing signals such as leptin (produced by fat cells) and ghrelin (produced by the stomach) that regulate hunger and satiety. Phenotyping may involve assessing satiation and satisfaction after meals.

- **Hungry Gut - (Gastrointestinal Phenotype):** The gastrointestinal system releases hormones, such as ghrelin, cholecystokinin (CCK), and peptide YY (PYY), that influence hunger and satiety. Phenotyping may involve assessing fullness after meals and gastric emptying

- **Emotional Hunger (Psychosocial Phenotype):** Emotional hunger involves eating in response to emotions rather than physical hunger. Assessing emotional triggers, stress levels, and coping mechanisms can identify this phenotype.

- **Slow Burn (Metabolic Phenotype):** The metabolic phenotype involves assessing efficiency in burning calories. Assessing resting energy expenditure is part of the metabolic phenotyping.

Empowering healthcare professionals with a personalized and comprehensive approach to obesity management ensures lasting health outcomes. By understanding the diverse phenotypes and addressing the root causes of obesity, we pave the way for effective, tailored interventions that promote sustained weight loss and overall well-being.

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