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Medically Actionable Disease Classification System for Obesity

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We were happy to see comments by Dr. Johannes Hebebrand (1) and Dr. Karl Nadolsky (2) regarding our publication, “Proposal for a Scientifically Correct and Medically Actionable Disease Classification System for Obesity” (3). It was our intention to stimulate further discussion around the need for a medically meaningful coding system for the disease, obesity.

Our proposed coding system based on the diagnostic term ‘Adiposity Based Chronic Disease’ (ABCD) (4) has four domains: A codes specify pathophysiology, B codes BMI classification, C codes biomechanical and cardiometabolic complications remediable by weight loss, and D codes the degree of the severity of complications (3). Novel aspects include distinct codes linking obesity to specific complications, and supplemental codes identifying aggravating factors that complicate care, including psychological conditions and social and environmental determinants of health. It is consistent with the complications-specific orientation of the AACE Obesity Guidelines (5) by emphasizing that a key objective of therapy is the prevention and treatment of complications conferring morbidity and mortality, as opposed to a singular focus on the amount of weight loss.

We are encouraged by Dr. Nadolsky’s strong agreement that obesity coding should be reformed and for the endorsement of the term ABCD (2). We also acknowledge his

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Disclosures:

Dr. Garvey has served on ad hoc advisory boards for Novo Nordisk, Boehringer-Ingelheim, Gilead, Amgen, BOYDSense, and the American Medical Group Association, and he has conducted research sponsored by the University of Alabama at Birmingham and funded by Sanofi, Lexicon, Pfizer, and Novo Nordisk. Dr. Mechanick has received honoraria for lectures and program development from Abbott Nutrition International.

recommendation to incorporate waist circumference within the BMI classification domain (i.e., B code). In ABCD, an elevated waist circumference reflects an abnormality in adipose tissue distribution and is relevant to cardiometabolic complications. Waist enters the coding scheme in the diagnosis of Metabolic Syndrome and as a distinct factor in assessing risk of future diabetes and cardiovascular disease using Cardiometabolic Disease Staging (CMDS) (6,7). Nevertheless, Dr. Nadolsky's recommendation should be taken into account as the dialog continues and a code is implemented.

Dr. Hebebrand reiterates the shortcomings of the International Classification of Diseases ICD-10 and ICD-11 regarding obesity (1). We agree that both our current proposal and a previous classification system advocated by the European Association for the Study of Obesity constitute evidence-based classification schemes and will promote greater recognition of obesity as a disease.

Dr. Hebebrand expressed the constructive criticism that our proposed scheme is quite complex. We agree that reformed obesity codes should provide a straight-forward applicable system. We believe the complexity of our scheme compares well with ICD-10 coding for other diseases such as diabetes, which has an extensive series of codes for pathophysiological category, degree of glycemic control, treatment modality (e.g., insulin or oral agents), and a long list of complications coupled with severity assessments. In addition, the 4 domains of our system -- pathophysiology (most will have ABCD without identifiable cause), BMI class, complication, and complication severity -- are quite intuitive and directly recapitulate information gathered in the medical evaluation of patients with obesity.

Dr. Hebebrand also raised two additional points that pertain to obesity complications. First, lean patients can have abnormalities in adipose tissue distribution and function without an increase in overall adipose tissue mass, and develop the same cardiometabolic complications as patients with obesity. We considered this at length in developing our coding proposal (3), and in the earlier designation of ABCD as a diagnostic term (4). Indeed, lean patients with lipodystrophy or South Asian patients with central adiposity (8) can have abnormalities in adipose tissue distribution and function (i.e., adiposity-based), and develop chronic complications like diabetes (i.e., chronic disease), such that the term ABCD could be applied. The second point is that patients may have diseases such as hypertension or osteoarthritis unrelated to obesity in which instance they should not be considered obesity complications. To resolve these issues, we settled on a clear criterion for the application of our obesity coding system. Our system should be applied to complications arising from or exacerbated by obesity that can be prevented or treated by weight loss therapy. In lean persons who are not candidates for weight loss therapy, and in patients with co-morbidities that are not related to obesity and/or not remediable by weight loss therapy, alternative codes specifically designed for these disease entities should be employed.

The ICD developed by the WHO serves multiple purposes that differ among countries and health systems. In some settings, ICD codes are primarily used to systematize diagnoses or as a tool to monitor disease frequency; whereas, ICD coding is extensively used as a billing platform in the US and other countries. These codes determine the level of compensation provided to health care professionals and, in the case of obesity, whether any compensation

will be available at all. Many health care agencies and benefit plans do not cover obesity care, and professionals do not derive compensation when current ICD codes for obesity are used. Our coding system was constructed to address this problem head-on. We were less interested in a textbook classification of obesity but rather a vibrant working document that encodes excellence in clinical care. Our system codes for health benefits that justify treatment of obesity as a disease, namely the amelioration of complications that exert such a heavy burden of suffering and social costs. We hope that a scientifically correct and medically actionable approach to diagnosis and coding will lead to greater acknowledgement of ABCD as a disease, access of patients to evidence-based therapies, and appropriate compensation for care based on disease severity and complexity.

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