



the weigh forward ▶

MODULE 2

Know Your Numbers

Achieving obesity health system improvements in identifying patients with obesity





Actor portrayal.

Know your numbers, know your risk

Obesity has a significant clinical and economic impact because it is associated with many comorbidities.¹ For the health of people affected, it is important to know the combined health risks and the relationship between these risks.

There are **multiple comorbidities** associated with obesity. Some of the most common ones are¹:



Dyslipidemia (high cholesterol)

~60% to ~70% of patients with obesity and 50% to 60% of patients with overweight have dyslipidemia²



Type 2 diabetes

~90% of adults who have diabetes also have overweight or obesity^{3,a}



Hypertension (high blood pressure)

It is estimated that at least 75% of hypertension incidence in adults is related to obesity⁴



Osteoarthritis

20.5% of adults with overweight and 27.5% of those with obesity have osteoarthritis^{5,b}

- Consult **health risk assessments or EHRs** to determine how many people have a BMI indicating obesity and/or evidence of comorbidities
 - The presence of comorbidities for obesity **may be a flag** for obesity

^aDefined as a body mass index (BMI) of 25 kg/m² or higher.

^bBased on data from the National Health Interview Survey (NHIS) conducted from 2019 to 2021.⁵

Understanding body mass index (BMI) and how it is calculated

BMI is the primary method for identifying people with obesity or overweight. It provides a more accurate measure of total body fat compared with body weight alone.⁶

Calculate BMI as follows⁶

$$\text{BMI} = \frac{\text{Weight (kg)}}{\text{Height squared (m}^2\text{)}}$$

If pounds and inches are used⁶

$$\text{BMI} = \frac{\text{Weight (lb)} \times 703}{\text{Height squared (inches}^2\text{)}}$$

Classifying overweight and obesity⁶

BMI

25-29.9 kg/m²
Overweight

30-34.9 kg/m²
Obesity Class I

35-39.9 kg/m²
Obesity Class II

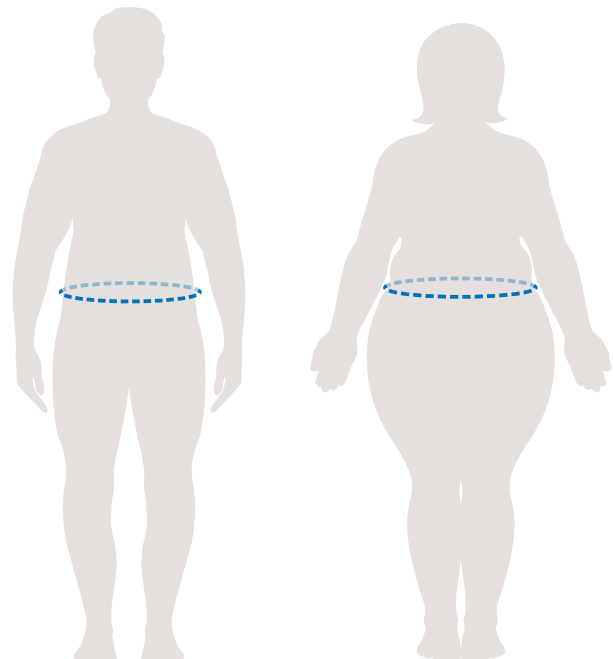
≥40 kg/m²
Obesity Class III

In most EHRs, a patient's BMI is autogenerated from height and weight measurements obtained during the visit.⁷

- Diagnoses of obesity are always clinically significant and should always be reported
- Physicians generally do not report a diagnosis of overweight without the presence of weight-related comorbidities

The role of waist circumference⁶

- Waist circumference can be measured to assess risk for weight-related comorbidities in patients with BMI between 25-34.9 kg/m²
- Measuring waist circumference is a useful method to evaluate a patient's abdominal fat before and during weight-reduction treatment
- Men who have waist circumferences greater than 40 inches, and women who have waist circumferences greater than 35 inches, are at higher risk of diabetes, dyslipidemia, hypertension, and cardiovascular disease because of excess abdominal fat



Ensure to capture obesity by coding correctly: ICD-10 codes associated with obesity⁸

Commonly reported codes

Description	Code
Obesity, unspecified	E66.9
Morbid (severe) obesity due to excess calories	E66.01

Other obesity-related codes

Description	Code
Obesity due to excess calories	E66.0
Morbid (severe) obesity due to excess calories	E66.01
Other obesity due to excess calories	E66.09
Drug-induced obesity	E66.1
Morbid (severe) obesity with alveolar hypoventilation	E66.2
Overweight	E66.3
Other obesity	E66.8

Counseling codes

Description	Code
Dietary counseling and surveillance	Z71.3
Other specified counseling	Z71.89

Disclaimer: Novo Nordisk does not guarantee the accuracy or propriety of any billing or coding information contained in this resource and does not recommend use of any specific codes for the treatment of an individual patient.

ICD-10=International Classification of Diseases, Tenth Revision.

Ensure to capture obesity by coding correctly: ICD-10 codes associated with obesity (cont'd)⁸

Coding for BMI ≥ 40 kg/m²

Description	Code
Body mass index (BMI) 40.0–44.9, adult	Z68.41
Body mass index (BMI) 45.0–49.9, adult	Z68.42
Body mass index (BMI) 50.0–59.9, adult	Z68.43
Body mass index (BMI) 60.0–69.9, adult	Z68.44
Body mass index (BMI) 70 or greater, adult	Z68.45

Screening codes

Description	Code
Encounter for screening for diabetes mellitus	Z13.1
Encounter for screening for nutritional, metabolic, and other endocrine disorders	Z13.2
Encounter for screening for nutritional disorder	Z13.21
Encounter for screening for metabolic disorder	Z13.22
Encounter for screening for lipid disorders	Z13.220
Encounter for screening for other metabolic disorders	Z13.228
Encounter for screening for other suspected endocrine disorder	Z13.29

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Actor portrayal.

ICD-10 codes for common comorbidities associated with obesity⁸



Dyslipidemia

Classified to category E78 and includes:

- Pure hypercholesterolemia: E78.0
- Pure hyperglyceridemia: E78.1
- Mixed hyperlipidemia: E78.2



Type 2 diabetes

Classified to category E11 and includes type 2 diabetes with and without manifestations such as:

- Neuropathies
- Circulatory complications
- Ophthalmic complications



Hypertension

Classified to category I10



Osteoarthritis

Classified to categories M15–M19

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Through proper coding of obesity, EHRs can be optimized^{9,a}



For patients with severe obesity, a clinically relevant weight-reduction goal should be established as a marker for weight-reduction success. This can categorize obesity-related comorbidities through an EHR, helping to control or manage them



EHR data was utilized from a large healthcare system in the United States to evaluate longitudinal weight changes for adult patients who had not undergone bariatric surgery



EHRs allowed the ability to identify increasing trends in weight gain, especially for younger populations

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Action steps for health systems



Verify that obesity is measured and captured appropriately as part of the standard patient examination within your EHR system.



Review results from obesity measurement of your patient population to understand the total cost impact of direct medical expenses.



Measure obesity, along with other common and easy-to-recognize comorbidities of obesity, in your patient population.

For patients with a diagnosis of **overweight and a weight-related comorbidity**, such as hypertension, type 2 diabetes, or dyslipidemia, consider criteria that include clinical alerts to determine the feasibility of an intervention with AOMs.¹

For patients with a **diagnosis of obesity and who have not been diagnosed with a weight-related comorbidity**, such as hypertension, type 2 diabetes, or dyslipidemia, consider criteria that include clinical alerts to determine the feasibility of an intervention with AOMs.¹



Evaluate the comprehensiveness of your health system's obesity-management strategy to determine opportunities to maximize effectiveness, such as:

- Ensuring appropriate coding of obesity and comorbidities
(see pages 4-6 in this module)
- Considerations for implementing a clinical pathway for obesity management
(see Module 3)
- Advocating for obesity management
(see Module 4)

^aThe study utilized EHR data from the University of Wisconsin Hospital and Clinics, spanning from June 1, 2008, to December 31, 2016. The study enrolled 59,816 patients aged 18 to 70 years with ≥ 2 BMI measurements at least 5 years apart and who had not undergone bariatric surgery. Primary outcomes included $\geq 5\%$ total body weight loss and weight reduction to a BMI < 30 kg/m².⁹

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