More than 29 million Americans have diabetes. The Centers for Disease Control and Prevention predict that the prevalence of diabetes will increase from 9% to >30% in the next 35 years (1). More than 21 million medical office visits for diabetes are scheduled each year (2). A total of one in five dollars spent on health care in the United States (and one in three dollars spent through Medicare) are spent on people with diabetes (3). With this in mind, proper and accurate coding for diabetes is a necessity.

The International Classification of Diseases, 10th Revision—Clinical Modification (ICD-10) is designed to accurately classify and categorize all illnesses and diseases seen in the U.S. health care setting. (4) The coding system was updated in October 2015 to its 10th revision because it was thought that the 9th revision (ICD-9) no longer accommodated all of the new codes submitted to the system, and the ICD-9 codes were not descriptive enough to accurately reflect the state of patients’ diseases. For example, the ICD-9 system had 13,000 three- to five-digit codes. This system was not able to take in new codes and did not include a way to designate laterality. The ICD-10 system has 68,000 codes that are three to seven digits each and has the capacity to expand.

In general, ICD-10 codes can be up to seven characters long and are designed as follows: XXX.XXX.X (category, anatomic site/severity/extension). The first set of digits before the first decimal point describes the general disease or category. The next three digits after the first decimal point describe the etiology, anatomic site, severity, or clinical detail. Finally, some conditions will have a second decimal point, followed by a final digit that may define an initial or subsequent encounter, the laterality of a condition, or the number of weeks’ gestation (in the case of pregnancy). This may seem overly detailed, but it allows for greater specificity of the disease and its state.

Most codes for diabetes will require four or five digits to provide the level of detail required by ICD-10 (5). This article provides key updates for ICD-10 coding for diabetes and its complications. To make sense of the coding descriptions, the authors will

| TABLE 1. Diagnostic Criteria for Prediabetes* and Diabetes |
|-------------------------------------------------------------|
| Fasting glucose (mg/dL) | Normal | Prediabetes | Diabetes |
|-------------------------|--------|-------------|----------|
|                         | <100   | 100–125    | ≥126     |
| Random glucose or OGTT (mg/dL) | <140 | 140–199 | ≥200 |
| A1C (%)                  | <5.7   | 5.7–6.4    | ≥6.5     |

*For prediabetes, use the “abnormal glucose” code R73.09.
explain them based on the way one might approach diabetes clinically.

ICD-10 Codes for Diabetes
For proper coding of diabetes, ICD-10 codes should reflect the type of diabetes, its current status, and comorbidities of the disease. Compared to ICD-9, the ICD-10 codes are much more specific. Carefully choosing the most specific ICD-10 codes is important to ensure proper reimbursement.

Codes for Screening for Diabetes or Diagnosing Prediabetes

Screening for Diabetes: Z13.1
If a person has risk factors for diabetes and you want to screen him or her for the condition (via glucose measurement, oral glucose tolerance test [OGTT], or A1C test), you would use a Z code (which indicates screening or prevention services). Alternatively, using a code that indicates the presence of a risk factor for diabetes is also acceptable for reimbursement. The current acceptable risk factors include hypertension (I10) and obesity (E66.XX).

Prediabetes Diagnosis: R73.09
If a person has prediabetes, the recommended ICD-10 code for abnormal glucose is R73.09, but this code also covers abnormal fasting glucose, abnormal glucose tolerance, or an elevated A1C in the prediabetes range (Table 1).

Codes for Known Diabetes
When you are treating a person who has known diabetes, the first level of distinction is the type of diabetes. Under ICD-9, the main types of diabetes were coded 250.XX. To properly code for diabetes under ICD-10, four to five digits are needed. The following steps will help to ensure accurate diabetes coding.

Step 1. Confirm the Type of Diabetes
The current codes for common forms of diabetes are:
• Type 1 diabetes: E10.XXX
• Type 2 diabetes: E11.XXX

TABLE 2. Codes for Type 1 Diabetes With Complications

| Code    | Used to report type 1 diabetes:                        |
|---------|--------------------------------------------------------|
| E10.1X  | With the presence of diabetic ketoacidosis             |
| E10.10  | With diabetic ketoacidosis without coma                |
| E10.11  | With diabetic ketoacidosis with coma                   |
| E10.2X  | With renal disease                                     |
| E10.21  | With diabetic nephropathy                              |
| E10.22  | With diabetic chronic kidney disease                   |
| E10.29  | With other diabetic kidney                             |
| E10.3X  | With eye disease                                       |
| E10.31  | With ophthalmic complications without macular edema    |
| E10.319 | With ophthalmic complications with macular edema       |
| E10.321 | With mild nonproliferative diabetic retinopathy with macular edema |
| E10.329 | With mild nonproliferative diabetic retinopathy without macular edema |
| E10.331 | With macular edema                                     |
| E10.339 | Without macular edema                                  |
| E10.341 | With severe nonproliferative diabetic retinopathy with macular edema |
| E10.349 | With severe nonproliferative diabetic retinopathy without macular edema |
| E10.351 | With proliferative diabetic retinopathy with macular edema |
| E10.359 | With proliferative diabetic retinopathy without macular edema |
| E10.36  | With diabetic cataract                                  |
| E10.39  | With other diabetic ophthalmic complication             |
| E10.4X  | With nerve disease                                     |
| E10.40  | With diabetic neuropathy, unspecified                   |
| E10.41  | With diabetic mononeuropathy                           |
| E10.42  | With diabetic polyneuropathy                           |
| E10.43  | With diabetic autonomic (poly)neuropathy                |
| E10.44  | With diabetic amyotrophy                               |
| E10.49  | With other diabetic neurological complication           |
| E10.5X  | With peripheral vascular disease                       |
| E10.51  | With diabetic peripheral angiopathy without gangrene    |
| E10.52  | With diabetic peripheral angiopathy with gangrene       |
| E10.59  | With other circulatory complications                    |
| E10.6X  | With diabetes-related musculoskeletal, oral, or skin complications; hypoglycemia; or hyperglycemia |
| E10.61  | With diabetic arthropathy                              |
| E10.610 | With diabetic neuropathic arthropathy                  |
| E10.618 | With other diabetic arthropathy                        |
| E10.620 | With diabetic dermatitis                               |
| E10.621 | With foot ulcer                                       |

TABLE CONTINUED ON P. 234
• Gestational diabetes mellitus (GDM): O24.429

There are a number of special categories of diabetes that have a different pathogenesis from what is known for type 1 and type 2 diabetes. These are collectively called “secondary diabetes” and should not be confused with type 2 diabetes. For secondary diabetes, use the following codes:
• E08.XXX: “Diabetes due to underlying condition” is for diabetes caused by diseases such as cancer, pancreatitis, or nutritional deficiencies.
• E09.XXX: “Drug- or chemical-induced diabetes mellitus” is for diabetes induced by a drug or toxin.
• E13.XXX: “Other specified diabetes mellitus” is for genetic defects of β-cell function and insulin action or post-pancreatectomy diabetes.

Step 2. Describe Whether the Person’s Diabetes Is Currently Well Controlled
Level of control is indicated by the number after the decimal point. If a person’s diabetes is well controlled, that digit will be 9 (i.e., EXX.9). For example, a person with type 2 diabetes that is well controlled who has no complications would be indicated by the code E11.9. Likewise, a person with type 1 diabetes that is well controlled who has no complications would be indicated by the code E10.9.

It is important to remember that E11.9 actually describes only a minority of people with type 2 diabetes. One of the goals of ICD-10 is to better characterize the control of people with diabetes and the specifics of the complications that they are experiencing. However, many patients with diabetes have hyperglycemia, which is considered a complication. Therefore, a diagnosis code with a complication code is appropriate for the majority of people with diabetes.

All of the digits beyond the decimal point are the same regardless of the type of diabetes (e.g., type 1 vs. type 2 diabetes). Each numerical
Step 3. For Diabetes That Is Not Well Controlled, Identify Any Complications

The first digit after the decimal point describes both the level of metabolic control and the presence of complications. Further digits subcategorize the complications. As mentioned above, the number 9 after the decimal point (i.e., E10.9 or E11.9) both defines the diabetes as controlled (i.e., without hyperglycemia or hypoglycemia) and documents the absence of complications. Thus, using a 9 after the decimal point should be the exception rather than the rule, given that most people with diabetes have either suboptimal control, complications, or both. The following codes pertain to complications of type 2 diabetes:

- Severe hyperosmolarity: E11.0X
- Kidney complications: E11.2X
- Eye complications: E11.3X
- Nerve complications: E11.4X
- Peripheral vascular disease: E11.5X
- Other specified complications, including musculoskeletal, oral, and skin complications; hypoglycemia; and hyperglycemia: E11.6X
- Other unspecified complications: E11.8X
- Well-controlled type 2 diabetes without hyperglycemia, hypoglycemia, or complications: E11.9X

More detailed codes further subcategorize complications. Table 2 provides ICD-10 codes for complications associated with type 1 diabetes; Table 3 lists codes for complications associated with type 2 diabetes.
Step 4. Describe Any Identified Complication

This means you will use a primary diabetes code that describes the type of diabetes, then specify whether it is controlled and whether there is a complication, and then add a second code specific to that complication. Sample codes for complications of diabetes are shown in Table 4; codes for common comorbidities are shown in Table 5.

Example 1
A patient has type 2 diabetes with polyneuropathy, hypertension with albuminuria, and dyslipidemia. The coding to document this patient should be E11.65 (type 2 diabetes with hyperglycemia), E11.42 (type 2 diabetes with polyneuropathy), I10 (hypertension), R80.9 (microalbuminuria), and E78.2 (mixed hyperlipidemia).

Example 2
A patient with type 1 diabetes has an active foot ulcer on the bottom of his right foot. The coding to document this patient should be E10.621 (type 1 diabetes with foot ulcer) and L97.411 (non-pressure chronic ulcer of right heel and mid-foot limited to breakdown of skin).

Comorbid conditions affect the complexity of care and the treatments you choose and thus should be coded as diagnoses. One nice feature of the BMI coding shown in Table 5 is that all BMI codes start with Z68, and the digits after the decimal are the actual BMI rounded down to the whole number. In the authors’ experience, coding obesity to the level of the BMI has improved the ability to get coverage for additional medications. This suggests that some insurers may be relying on the coding to make coverage decisions.

Codes to Document Complexity of Care Provided

Finally, there are codes that demonstrate the additional work you do or the additional complexity of the care you are providing. These codes help to justify this higher level of care.
PRACTICAL POINTERS

DUGAN AND SHUBROOK

Did you provide dietary or exercise counseling? These are noted with an additional Z code:
- Dietary counseling and surveillance: Z71.3
- Exercise counseling: Z71.89

Is the patient using insulin? Note that the “long-term use” code Z79.4 can be used once the drug has been initiated for any person who is taking insulin chronically.

Is the patient on an insulin pump? Codes related to pump use include:
- Insulin pump: Z96.41
- Counseling, titration, removal, training, or fitting/adjustment of insulin pump: Z46.81
- Insulin pump complications: T85.694

Has the patient underdosed or overdosed insulin? Codes related to these situations include:
- Underdosing of insulin: T38.3X6
- Unintentional overdosing of insulin: T38.3X1
- Suspected self-harm by overdosing insulin: T38.3X2X

After these T codes, there should be a modifier at the end to denote initial encounter (A), subsequent encounter (D), or sequelae (S). For example, an initial encounter for intentional self-harm by overdosing insulin should be “T38.3X2A.”

Codes for Pregnancy in Diabetes

Codes to report pregnancy in women with diabetes include:
- Preexisting type 1 diabetes in pregnancy: O24.01
- Preexisting type 2 diabetes in pregnancy: O24.11
- GDM, diet controlled: O24.410
- GDM, insulin controlled: O24.414
- Obesity complicating pregnancy, unspecified: Q99.210

Conclusion

Remember the following steps when coding for patients with diabetes:
1. Document the type of diabetes they have.

| Table 5. Codes for Common Comorbid Disease Conditions, continued from p. 236 |
|-----------------|-----------------|
| Code            | Used to report: |
| Z68.32          | BMI 32.0–32.9 kg/m² |
| Z68.33          | BMI 33.0–33.9 kg/m² |
| Z68.34          | BMI 34.0–34.9 kg/m² |
| Z68.35          | BMI 35.0–35.9 kg/m² |
| Z68.36          | BMI 36.0–36.9 kg/m² |
| Z68.37          | BMI 37.0–37.9 kg/m² |
| Z68.38          | BMI 38.0–38.9 kg/m² |
| Z68.39          | BMI 39.0–39.9 kg/m² |
| Z68.41          | BMI 40.0–44.9 kg/m² |
| Z68.42          | BMI 45.0–49.9 kg/m² |
| Z68.43          | BMI 50.0–59.9 kg/m² |
| Z68.44          | BMI 60.0–69.9 kg/m² |
| Z68.45          | BMI >70.0 kg/m² |

G47.33 Obstructive sleep apnea
E28.2 Polycystic ovarian syndrome

Case Studies for Diabetes Coding

Case 1:
The patient is a 45-year-old man who has had type 1 diabetes for 25 years. At today’s visit, he is diagnosed with gastroparesis. He reports one hyperglycemic episode with a random glucose of 43 mg/dL. His A1C is 7.4%. The patient has a history of nonproliferative retinopathy and CKD stage 1. You provide dietary counseling during the visit. What codes would you use?

Answer:
- E10.65: Type 1 diabetes with hyperglycemia
- E10.43: Type 1 diabetes with gastroparesis (autonomic neuropathy)
- E10.329: Type 1 diabetes with nonproliferative retinopathy
- E10.649: Type 1 diabetes with hypoglycemia
- E10.22: Type 1 diabetes with CKD stage 1
- K31.84: Gastroparesis
- Z71.3: Dietary counseling
- Z79.4: Insulin use

Case 2:
The patient is a 53-year-old obese man (BMI 37 kg/m²) who has uncontrolled type 2 diabetes with A1C of 8.8%, CKD stage 3, controlled hypertension on an ACE inhibitor, and mixed hyperlipidemia. He takes daily insulin injections. What codes would you use?

Answer:
- E11.65: Type 2 diabetes with hyperglycemia
- E11.22: Type 2 diabetes with CKD
- N18.3: CKD stage 3
- E78.2: Mixed hyperlipidemia
- I10: Essential hypertension
- Z79.4: Insulin use
- Z68.37: Obesity
2. Document if their diabetes is controlled without any complications.
3. If their diabetes is uncontrolled or they have any complications, document the complications using the codes that fall to the right of the decimal point.
4. Add the secondary diagnosis code to support the diabetes code.

Box 1 offers two case studies to help you apply your knowledge of diabetes coding. Box 2 provides information about additional tools to help providers with ICD-10 coding.

Duality of Interest

J.S. serves as an associate editor for Clinical Diabetes. No other potential conflicts of interest relevant to this article were reported.

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