Diabetes mellitus

Clinical overview

Definition

Diabetes mellitus is a disorder in which the body does not produce enough or respond normally to insulin, causing blood sugar (glucose) levels to be abnormally high.[1]

Types

- **Type 1 DM (E1Ø.-):** Usually (but not always) diagnosed in childhood. The pancreas produces little to no insulin and daily insulin injections are required. The exact cause of type 1 DM is not known.[2]
- **Latent autoimmune diabetes in adults (LADA) (E13.-):** Also known as type 1.5 diabetes, this is a form of diabetes in which an adult has features of both type 1 and type 2 diabetes. Individuals with LADA demonstrate both the autoimmune destruction of beta cells of type 1 diabetes and the insulin resistance characteristic of type 2 diabetes. People with type 1.5 diabetes have autoantibodies to insulin-producing beta cells and gradually lose their insulin-producing capability, requiring insulin within 5–10 years of diagnosis.[3]
- **Type 2 DM (E11.-)**: Far more common than type 1, this type usually occurs in adulthood. The pancreas does not produce enough insulin to maintain normal glucose levels, often because the body tissues do not respond well to insulin (insulin resistance). In some cases, daily insulin injections are required. The exact cause of type 2 DM is not known, but excess weight and inactivity appear to be contributing factors.[4]
- **Diabetes in Remission (E11.A new code effective 10/01/2025)**: People with type 2 diabetes can achieve "remission" by sustaining normal blood glucose levels for at least three months without taking diabetes medication. There is still a lot of uncertainty around how long remission will last and what factors are associated with a relapse. Continued follow-up with the healthcare team is warranted for ongoing monitoring of glucose changes and diabetes complications.[5]
- **Secondary DM (EØ8.-, EØ9.-, and E13.-):** Always caused by another condition, such as malignant neoplasm of the pancreas, pancreatectomy, adverse drug effects or poisoning.[6]

Causes/Risk factors[7]

- Lifestyle and habits (obesity, physical inactivity, etc.)
- Genetics / family history / age
- Ethnicity (certain ethnic groups are at higher risk)

Signs and symptoms[7]

- Frequent urination (polyuria)
- Excessive thirst (polydipsia)
- Excessive hunger (polyphagia)

Diagnostic tools[8]

- Medical history and physical exam
- Urinalysis
- Blood tests [fasting or random blood sugar, glucose tolerance tests, glycohemoglobin (HbA1c), metabolic profiles]

Treatment[9]

- Lifestyle modification (dietary management and control of weight, blood pressure, and cholesterol; exercise)
- Medications (oral hypoglycemics, injectable non-insulin antidiabetics, or insulin injections)
- Monitoring for complications

Best documentation practices for healthcare providers

Subjective

- The HPI sets the background for the patient's presenting problem, from when first diagnosed until this encounter.
- May include Review of Systems (ROS), Past, Family, and/or Social History (PFSH), Active Problems List.
- Document any current symptoms related to the presence of Diabetes (e.g., excessive thirst, fatigue, slow healing wounds, blurred vision etc.)

Objective

The objective section should describe current physical exam findings related to DM and its complications or manifestations with cause-and-effect linkage clearly documented. Results of related laboratory and other diagnostic testing should be included.

Assessment/Impression

Specificity: Document DM to the highest level of specificity. Include all of the following:

- **Type or cause** – Type 1, Type 2, due to an underlying condition (specify condition), due to drugs or chemicals (specify drug or chemical), due to other condition or event (specify condition or event), type 1.5 aka latent autoimmune diabetes in adults (LADA).
- **All complications or manifestations** with clear cause-and-effect linkage. Best practice: Describe each complication as "diabetic," even when there are multiple complications. For example: "Diabetes mellitus Type 2 with diabetic peripheral neuropathy and diabetic foot ulcer."
- **Current status of diabetes control** – In ICD-10-CM, "uncontrolled" is considered a diabetic complication.
    - ICD-10-CM requires the provider to specify whether "uncontrolled" means hyperglycemia, hypoglycemia or both. There is no coding path in the ICD-10-CM manual for "uncontrolled" with no further specification.[10] **Note: Coders cannot interpret glucose or HbA1c values.**
    - Avoid vague descriptions such as "inadequately controlled," "out of control" or "poorly controlled."

"Long-term current use of insulin" is a diagnostic statement that should be included in the final assessment when appropriate. Best practice is to also include all of the following:

- Name(s) of the insulin being used
- Clear linkage of insulin therapy to diabetes
- Dosage regimen that shows regular and routine insulin use with ongoing refills

Example: "Long-term current use of insulin – continue Lantus 14 units every day at bedtime for diabetes mellitus, 3 refills."

Plan

- Document a specific and concise treatment plan for diabetes and all diabetic complications.
- Document details of medications prescribed with clear linkage to the diagnosis, orders for lab or other diagnostic testing, diet and exercise instructions, or referrals for diabetic education, if applicable.
- Address any additional steps being taken to treat the patient.

ICD-10-CM coding tips

Diabetic complications/manifestations

- Diabetic patients often experience one or more complications of diabetes that particularly affect the eyes, feet, kidneys, nervous and circulatory systems. These complications can occur at any time during diabetes.
- A patient may have multiple diabetic complications in more than one body area or system. To fully describe all of the diabetes complications that are present, assign as many codes as needed from categories EØ8- –

E13- and within each particular subcategory. Codes are sequenced based on the reason for the encounter.[11]

Cause-and-effect linkage

ICD-10-CM presumes cause-and-effect linkage between diabetes and certain conditions that appear in the alphabetic index as indented subterms under the various types of "**Diabetes, with**." These conditions are coded as diabetic complications, even in the absence of documentation explicitly linking them, unless the documentation clearly indicates these conditions are not caused by diabetes.[11]

For example, by stating:

- The actual nondiabetic-related cause
- The cause is not diabetes
- Diabetes is without complications
- The cause is unknown

Excerpt from alphabetic index:

Diabetes, diabetic (mellitus) (sugar) E11.9
with
amyotrophy E11.44
arthropathy NEC E11.618
autonomic (poly) neuropathy E11.43
cataract E11.36
Charcot's joints E11.61Ø
chronic kidney disease E11.22

(See alphabetic index under the various types of diabetes for a complete list of indented subterms under **Diabetes** > with).[10]

Note: The diabetes "with" convention does not apply to "not elsewhere classified (NEC)" index entries that cover broad categories of conditions. Rather, the NEC extension in the alphabetic index is applied when the medical record documents a specific diagnosis that is linked to diabetes as the cause, but for which ICD-10-CM does not provide a specific combination code.[11]

Secondary diabetes mellitus[10]

- Sequencing of secondary diabetes codes in relationship to codes for the cause of the diabetes is based on the tabular list instructions for categories EØ8.-, EØ9.- and E13.-.
- Secondary DM due to pancreatectomy (lack of insulin due to surgical removal of all or part of the pancreas) codes to E89.1, Postprocedural hypoinsulinemia. Assign a code from category E13 and a code from subcategory Z9Ø.41-, Acquired absence of pancreas, as additional codes.
- Secondary DM due to drugs may be caused by an adverse effect of correctly administered medications, poisoning or sequela of poisoning.

Uncontrolled diabetes mellitus

- If diabetes is uncontrolled, it is considered complicated.
- There is no default code for "uncontrolled diabetes." In ICD-10-CM, effective October 1, 2016, uncontrolled diabetes is classified by type and whether it is hyperglycemia, hypoglycemia, or both.[12]
- The provider must specifically state whether "uncontrolled" means hypoglycemia, hyperglycemia; OR state simply diabetes (by type) with hyperglycemia or diabetes by type with hypoglycemia.[12]

Diabetes mellitus (DM), hypertension (HTN) and CKD

Current diagnoses of CKD, HTN and DM and no documented cause-and-effect linkage between any combination of the three:

- Presume CKD is linked to both conditions and code both hypertensive CKD and diabetic CKD.
- Current DM coexisting with hypertensive CKD and no documented cause-and-effect linkage between DM and CKD: Code only hypertensive CKD; do not code diabetic CKD. The descriptor "hypertensive" specifically identifies HTN as the cause of CKD.

- Current HTN coexisting with diabetic CKD and no documented cause-and-effect linkage between HTN and CKD: Code only diabetic CKD. Do not code hypertensive CKD. The descriptor "diabetic" specifically identifies diabetes as the cause of CKD.

Additional reminders

- When the type of DM is not documented in the medical record, the default is type 2, which classifies to category E11-.[10]
- Prediabetes, borderline diabetes and latent diabetes all classify to code R73.0 Prediabetes.[10]
- Abnormal glucose and abnormal glucose tolerance classify to code R73.09 Other abnormal glucose.[10]
- Be aware of inconsistent, conflicting and contradictory EHR documentation during the same encounter with diabetes described as both:
  - Type 1 ***and*** Type 2
  - Controlled ***and*** uncontrolled
  - With ***and*** without complications

Coding examples

Example 1	
Medical record documentation	Patient presents for follow up of chronic concerns. Diagnosed with T1DM as a child. Developed retinopathy in 2020. She hasn't been good at taking her additional Lantus bolus. She should be taking this in addition to her insulin pump regimen. Exam- Lower extremities are positive for edema. Lungs clear to auscultation. Assessment- **Type 1 diabetes mellitus, poorly controlled-** patient should be getting an additional 34 units of Lantus every day. Discussed with patient how important taking prescribed insulin is for her Diabetes control. **Retinopathy**- schedule annual diabetic eye exam. **Hypertension associated with diabetes**- BP is in normal range.
ICD-10-CM codes	• **E10.65** Type 1 diabetes mellitus with hyperglycemia • **E10.319** Type 1 diabetes mellitus with unspecified diabetic retinopathy w/o macular edema • **E10.59** Type 1 diabetes mellitus with other circulatory complications
Rationale	The ICD-10-CM alphabetic index indicates diabetes mellitus described as poorly controlled codes to diabetes, by type, with hyperglycemia.[10] In the alphabetic index under Diabetes > type 1 > with, retinopathy is listed as an indented subterm. Thus, cause-and-effect linkage is presumed when the record does not specify any other cause of retinopathy.[10] There is no direct coding path for HTN associated with DM. There is Diabetes > type 1 > circulatory complication NEC. Since the circulatory complication is documented and linked to the DM, it is appropriate to code the NEC code E10.59.[10]

Example 2	
Medical record documentation	77-year-old female presenting today for follow up to T2DM and Medicare AWV. She reports she is currently on a low sugar diet. Since her diabetic medication adjustments, she has not had any further hypoglycemia episodes. Lantus 10 units daily in the AM. Patient reports fasting glucose levels below 120. She continues to follow up with nephrology. Impression: 1. **Chronic kidney disease stage 4**- continue to follow with nephrology. Avoid NSAIDS. 2. **Hyperlipidemia due to type 2 diabetes mellitus**- continue on statin. Recommend tighter glucose control through nutrition and medications.

	3. **Type 2 Diabetes**- Last A1c was 6.2. Repeating A1c today. 4. **Emphysema**- stable
ICD-10-CM codes	• **E11.22** Type 2 diabetes mellitus with diabetic chronic kidney disease • **N18.4** Chronic kidney disease, stage 4 (severe) • **E11.69** Type 2 diabetes mellitus with other specified complication • **E78.49** Other hyperlipidemia • **J43.9** Emphysema, unspecified
Rationale	ICD-10-CM Official guidelines for coding and reporting Section I.A.15 "with" states when DM and CKD are included in the same encounter and there is no contradiction, a cause-and-effect relationship would be assumed, and a combination code would be coded.[11] There is no direct coding path for HLD due to DM. Appropriate coding path would be Diabetes>with>complication>specified NEC E11.69.[11] Code also the Hyperlipidemia and stage of CKD to fully capture the manifestations.[11]

Example 3	
Medical record documentation	HPI- Patient here today for 6 month follow up on diabetes, HTN, CKD and prostate cancer. Diabetes is non-insulin dependent, and CKD is stage 3a based on the latest labs. PMH- Arthritis, CKD, Depression, Diabetes, HTN, prostate cancer years ago, PVD (peripheral vascular disease) Diabetic foot exam today is normal. Needs to schedule a diabetic eye exam. Deferred PSA check. Diagnoses 1. Diabetes mellitus 2. Hypertensive chronic kidney disease with stage 1 through stage 4 or unspecified CKD 3. Chronic kidney disease stage 3a
ICD-10-CM codes	• **E11.9** Type 2 diabetes mellitus without complications • **N18.31** Chronic kidney disease, stage 3a • **I12.9** Hypertensive chronic kidney disease with stage 1 through stage 4 chronic kidney disease, or unspecified chronic kidney disease
Rationale	When diabetes coexists with hypertensive CKD and no documented cause-and-effect linkage between DM and CKD only hypertensive CKD is coded. The descriptor "hypertensive" specifically identifies HTN as the cause of CKD therefore, a cause-and-effect relationship would not be presumed between the DM and CKD.

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