

Chronic Kidney Disease (Category N18) ICD-10-CM



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Chronic Kidney Disease (CKD) is a condition characterized by a gradual loss of kidney function over time as defined by the National Kidney Foundation.

Characteristics of CKD

- Kidney disease is considered to be a silent disease because it often has no symptoms and can go unnoticed until it is very advanced. Timely detection and treatment can slow and prevent the progression of kidney disease.
- When kidney function is compromised, it is defined as renal/kidney failure.
- The decrease in renal function can evolve very slowly or very fast. Chronic failure progresses gradually over at least 3 months and can lead to permanent renal failure.
- CKD has countless causes with diabetes mellitus (DM) and hypertension (HTN) being the most frequent.
- The diagnosis of CKD involves at least two abnormal markers of damage or two anomalous glomerular filtration rates (GFRs) persisting for more than 3 months.
- CKD is staged accordingly to GFR with formulas designed for infant/children and for adults. Those stages show the progressive severity.

CKD facts

- HTN causes CKD, and CKD causes HTN.
- Persistent proteinuria (i.e., protein in urine) indicates CKD is present.
- Kidneys have a higher blood flow than the brain, liver or heart.
- Every 30 minutes, kidneys filter all the blood in the body, removing waste and excess fluid.
- A person can lose up to 90% of their kidney function before experiencing any symptoms.
- Once the kidneys fail, dialysis or a kidney transplant is required.

Coding CKD

When it comes to coding for CKD, there is not much difference between ICD-9 and ICD-10. The ICD-10-CM classifies CKD based on severity, which is designated by stages 1-5, and end-stage renal disease (ESRD) based on GFR values and dialysis treatment.

When coding for patients with both acute renal failure and CKD, an additional code for acute renal failure is required.

Often, the CKD stage codes are secondary to a code for the underlying cause of CKD, such as hypertensive kidney disease or diabetes with kidney complication.

CKD classification

Stage 1	90-130 mL/min	Stage 4	15-29 mL/min
Stage 2	60-89 mL/min	Stage 5	<15 mL/min
Stage 3	30-59 mL/min	ERSD	Dialysis

Stage	Code	Description
Stage 1	N18.1	Slightly diminished function, kidney damage with normal or relative high GFR
Stage 2	N18.2 = mild CKD	Mild reduction in GFR with kidney damage
Stage 3	N18.3 = moderate CKD	Moderate reduction in GFR
Stage 4	N18.4 = severe CKD	Severe reduction in GFR, preparation for renal replacement therapy
Stage 5	N18.5	Established kidney failure or permanent renal replacement therapy (RRT), excludes CKD stage 5 requiring dialysis
ERSD	N18.6	Patients with CKD requiring dialysis
CKD and ERSD	N18.6 only	
If kidney transplant	Z94.0	
On dialysis treatment	Z99.2	
Code assignments based on physician documentation of the specific stage and not the GFR alone.		

CKD and hypertension

A. ICD-10-CM coding guidance

The ICD-10-CM code book does not have a hypertension table in the index. One reason is the reference to terms malignant and benign hypertension were removed as they were considered outdated. All three previous designations in ICD-9 are now reported with just one ICD-10 code for essential hypertension, code I10.

According to the *ICD-10-CM Official Coding Guidelines* (as of October 1, 2016), “The classification presumes a causal relationship between hypertension and heart involvement and between hypertension and kidney involvement...these conditions should be coded as related even in the absence of provider documentation explicitly linking them, unless the documentation clearly states the conditions are unrelated.”

B. Hypertensive CKD

Category I12 (hypertensive CKD) applies when both HTN and CKD are stated as diagnoses. If the documentation specifically identifies a different cause, CKD should not be coded as hypertensive. (Reference table below for additional coding guidance.)

C. Hypertensive heart and CKD

Combination category I13 (hypertensive heart and CKD) applies when both hypertensive heart disease and hypertensive kidney disease are stated as diagnoses.

(Reference table below for additional coding guidance)

Category I13 includes the conditions from I11 and I12 categories. If a patient has hypertension, heart disease and CKD, only a code from I13 should be used. Do not use individual codes for hypertension, heart disease and CKD, or codes from I11 or I12.

ICD-10 code	Description	Additional codes needed
I12.0	Hypertensive CKD stage 5 or ESRD	To identify stage of are needed
I12.9	Hypertensive CKD stage I-4 or unspecified	To identify stage of CKD (N18.1-N18.4, N18.9)
I13.0	Hypertensive heart (with failure) and CKD stage I-4 or unspecified	To identify heart failure (I50.-) and a code to identify stage of CKD (N18.1-N18.4, N18.9)
I13.10	Hypertensive heart (without failure) and CKD stage I-4 or unspecified	To identify stage of CKD (N18.1-N18.4, N18.9)
I13.11	Hypertensive heart (without failure) and CKD stage 5 or ESRD	To identify stage of CKD (N18.5-N18.6)
I13.12	Hypertensive heart (with failure) and CKD stage 5 or ESRD	To identify heart failure (I50.-) and a code to identify stage of CKD (N18.5-N18.6)

CKD and diabetes mellitus

In ICD-10-CM, more than one code is required for patients with diabetic CKD. A combination code indicating the type of diabetes with diabetic CKD, along with a code identifying the stage of CKD.

The following codes indicate diabetic CKD in ICD-10-CM:

Code	Description
E08.22	DM due to underlying condition
E09.22	Drug or chemical induced diabetes mellitus
E10.22	Type I DM with diabetic CKD
E11.22	Type II DM with diabetic CKD
E13.22	Other specified DM with diabetic CKD

Based on the type of diabetes, a code from above would be assigned.

- For category N18, CKD, there is an instructional note to code first any associated diabetic CKD (E08.22, E09.22, E10.22, E11.22, E13.22). Category N18 would be reported after the diabetes code, as secondary, to specify the stage of CKD (N18.1-N18.6, N18.9).
- It is also advised to use an additional code to identify dialysis status (Z99.2), if applicable. Code N18.6, end-stage renal disease, is to be reported for CKD that requires chronic dialysis.
- In ICD-10-CM, there is an assumed cause and effect relationship between diabetes and CKD when both conditions are documented in the medical record. However, if documentation specifies that diabetes is not the underlying cause of CKD, it should not be coded as a diabetic complication.
- To prevent inaccurate coding and reporting of unrelated conditions, documentation should clearly identify when two conditions are related with linking verbiage, such as “due to...”

Anemia in CKD

Code D63.1, Anemia in CKD, is a manifestation code (i.e., not to be reported as a primary/ first listed diagnosis). It is necessary to first identify the underlying stage of CKD from category N18.

Example:

- A patient with ESRD, currently on dialysis, has anemia due to chronic renal failure.
 - ICD-10-CM: ESRD (N18.6), anemia in CKD (D63.1) and dialysis status (Z99.2)

CKD and kidney transplant

Patients with a kidney transplant may still suffer some type of CKD as the transplant may not completely reinstate kidney function. Thus, having CKD alone does not mean that there is a transplant complication. Assign a code to establish the stage of CKD (N18 category) and kidney transplant status (Z94.0). If a complication resulting from the transplant (e.g., failure or rejection) is clearly documented, it would be appropriate to code the complication of kidney transplant from subcategory T86.1-.

CKD coding examples

- Patient has hyperkalemia due to CKD.
 - ICD-10-CM: hyperkalemia (E87.5), CKD unspecified (N18.9)
- A patient is seen for diabetic CKD, stage 3. The patient has type 2 diabetes and takes insulin on a daily basis.
 - ICD-10-CM: type II DM with CKD (E11.22), CKD stage 3 (N18.3), insulin use (Z79.4)
- Patient has hypertensive heart disease and ESRD. He also was diagnosed with heart failure.
 - ICD-10-CM: hypertensive heart disease, with heart failure, ESRD (I13.2), ESRD (N18.6), heart failure (I50.9)
- A patient has chronic systolic (congestive) heart failure due to hypertension with stage 5 CKD.
 - ICD-10-CM: hypertensive heart disease with heart failure and CKD 5 (I13.2), CKD 5 (N18.5), chronic systolic (congestive) heart failure (I50.22)
- Patient has hypertension and ESRD, on dialysis three times a week.
 - ICD-10-CM: hypertensive ESRD (I12.0), ESRD (N18.6), dialysis status (Z99.2)
- Patient receives treatment of DM, type 2. Patient is also on hemodialysis for ESRD .
 - ICD-10-CM: type II DM with ESRD (E11.22), ESRD (N18.6), dialysis status (Z99.2)
 - Rationale: In ICD-10-CM, there is an assumed relationship with ESRD and diabetes, unless documentation states otherwise.

References

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