

Clinical overview

Definition¹

Chronic kidney disease (chronic renal failure) is a long-standing, progressive deterioration of renal function.

Kidney function²

- Removes wastes and extra fluid
- Keeps the right balance of important chemicals in the blood, such as sodium, potassium, phosphorus and calcium
- Releases hormones that control blood pressure and other functions

Causes/risk factors²

- Sometimes the cause is unknown; major causes include hypertension, diabetes mellitus and glomerulonephritis
- Inherited, congenital or autoimmune conditions
- Severe infections (e.g., frequent, untreated and/or long-lasting UTIs)
- Long-term use of NSAIDs

Signs and symptoms²

- Abnormal lab values or changes in urine output (e.g., urinating less, more frequently, foamy urine)
- Swelling due to fluid buildup in the tissues (edema) or muscle cramps
- Weight loss, loss of appetite, nausea and/or vomiting

Note: There may be no symptoms in the early stages of CKD.

Diagnostic tools²

- Laboratory tests (blood and urine)
- Imaging including ultrasound, CT, MRI
- Renal biopsy

Treatment²

Managing the disease(s) or condition(s) that are most likely causing the CKD

- Medications, linked to diagnosis, to slow progression
- Lifestyle changes (exercise, nutrition and smoking cessation)
- Avoidance of dehydration, NSAIDs, alcohol or drugs
- Dialysis, kidney transplant

Best documentation practices for healthcare providers

Subjective³

- 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 the presence or absence of any current patient-reported symptoms of chronic kidney disease (e.g., fatigue, weakness, changes in urine output, etc.).

Objective³

Document physical exam findings (e.g., elevated blood pressure, edema, weight loss, etc.) and related diagnostic testing results. Include objective confirmation of any surgically placed AV shunts for dialysis.

Assessment/Impression³

- Describe the final diagnosis clearly, concisely and to the highest level of specificity.
- Document the current stage of chronic kidney disease. Do not document multiple stages of CKD without supporting documentation.
- Include the current status of CKD (stable, worsening, improved, etc.).
- State the cause of CKD, if known. Use linking terms or descriptors that clearly show cause and effect.

Plan³

- Document a clear and concise treatment plan for CKD, linking related medications to the diagnosis.
- Include specific details of current dialysis status (hemodialysis, peritoneal dialysis, frequency, etc.).
- Indicate in the office note to whom or where any referral or consultation requests are made.
- Address any additional steps being taken to treat the patient.

ICD-10-CM coding tips

Chronic kidney disease – synonyms/equivalent terms⁴

ICD-10-CM classifies chronic kidney disease, chronic renal disease, chronic renal failure and chronic renal insufficiency to category N18- Chronic kidney disease (CKD). Therefore, when the physician documents a specific stage of any of these equivalent terms, it is appropriate to assign the corresponding code under category N18-. For example: "Chronic renal failure stage 3" codes the same as "Chronic kidney disease stage 3" → N18.3.

Notes:

- The equivalent terms must be described as "chronic."
- N18.9, Chronic kidney disease, unspecified includes: Chronic renal disease, Chronic renal failure NOS (not otherwise specified), Chronic renal insufficiency, Chronic uremia NOS, Diffuse sclerosing glomerulonephritis NOS; when there is no stage documented.

Estimated glomerular filtration rate (eGFR)⁵

- The eGFR is a blood test to estimate how well the kidneys are removing waste products from the blood. A "normal" eGFR varies according to age – it decreases as you get older. Your eGFR number is used to determine your stage of CKD.
- Medical coders are not allowed to calculate the stage of CKD based on documentation of the eGFR; rather, the provider must document the current stage.
- If a physician documents the eGFR but does not document the stage of CKD (or current chronic hemodialysis), unspecified code N18.9 is assigned.

Renal (kidney) dialysis⁴

Renal dialysis status classifies to code Z99.2, Dependence on renal dialysis and includes:

- Hemodialysis status
- Peritoneal dialysis status
- Presence of arteriovenous shunt for dialysis
- Renal dialysis status NOS

Excludes1: Encounter for fitting and adjustment of dialysis catheter (Z49.0-)

Excludes2: Noncompliance with renal dialysis (Z91.15-)

Do not assign code Z99.2, Dependence on renal dialysis, for the presence of an AV fistula when the patient has not started dialysis. Although the AV fistula was placed in anticipation of a future need for dialysis, the patient has not yet started dialysis; therefore, code Z99.2 is not assigned.

Chronic kidney disease and associated conditions

ICD-10-CM Official Guidelines for Coding and Reporting (section I.A.15) advise the word "with" or "in" should be interpreted to mean "associated with" or "due to" when it appears in a code title, the alphabetic index or an instructional note in the tabular list. The classification presumes a causal relationship between the two conditions linked by these terms in the alphabetic index or tabular list. These conditions should be coded as related even in the absence of physician documentation explicitly linking them, unless the documentation clearly states the conditions are unrelated or when another guideline exists that specifically requires a documented linkage between the two conditions.

The word "with" in the alphabetic index is sequenced immediately following the main term or subterm, not in alphabetical order.⁶

When no other cause is specified in the medical record, the ICD-10-CM classification presumes a cause-and-effect relationship between:

- Hypertension and chronic kidney disease
- Hypertension and heart disease
- Diabetes and chronic kidney disease

If the provider determines CKD is not a complication of hypertension or diabetes, the medical record documentation must clearly indicate hypertension and/or diabetes are not the cause.

The provider should clearly document cause-and-effect relationships through the use of linking terms, such as "due to," "secondary to," "associated with," "related to," etc. Best practice is to use descriptors such as "hypertensive" or "diabetic."

Hypertensive heart and chronic kidney disease

The codes in category I13, Hypertensive heart and chronic kidney disease, are combination codes that include all three conditions: hypertension, heart disease and chronic kidney disease.

- If heart failure is present, use an additional code to identify the type of heart failure (category I50).
- Assign an additional code from category N18 to identify the stage of chronic kidney disease.
- Category I13 specifies that the conditions included at I11 (hypertensive heart disease) and I12 (hypertensive CKD) are included in I13.
- If a patient has hypertension, heart disease and CKD, code from category I13 rather than code the conditions separately.

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:
 - The ICD-10-CM Official Guidelines for Coding and Reporting I.C.9.2. Hypertensive Chronic Kidney Disease was revised to read "Assign codes from category I12, Hypertensive chronic kidney disease, when both hypertension and a condition classifiable to category N18, Chronic kidney disease (CKD), are present. CKD should not be coded as hypertensive if the provider indicates the CKD is not related to the hypertension."

CKD and kidney transplant status⁶

- Patients who have undergone kidney transplant may still have some form of CKD because the kidney transplant may not fully restore kidney function. Therefore, the presence of CKD alone does not constitute a transplant complication.

- When there is no documentation of kidney transplant complication: Assign the appropriate code from category N18 for the patient's stage of CKD and code Z94.0, Kidney transplant status.
- If a transplant complication – such as failure, rejection or other transplant complication – is specifically documented, assign a code from subcategory T86.1-, Complications of kidney transplant. Use an additional code to identify the complication.
- A code from subcategory T86.1- should not be assigned for post-kidney transplant patients who have CKD unless a transplant complication, such as transplant failure or rejection, is specifically documented.
- If the documentation is unclear as to whether the patient has a complication of kidney transplant, query the provider for clarification.
- Conditions that affect the function of the transplanted kidney, other than CKD, should be assigned a code from subcategory T86.1- and a secondary code that identifies the complication.

Nephropathy, nephritis, nephrosis, chronic kidney disease and renal complication NEC

- ICD-10-CM does not presume linkage between diabetes and nephritis, diabetes and nephrosis, or diabetes and renal complication NEC. Rather, in order to code these conditions as diabetic complications, the medical record must specifically link them to diabetes as the cause.⁴
- As a general rule, it would be redundant to assign codes for the interim diabetic renal condition (nephropathy, nephritis, nephrosis, renal complication NEC) *and* diabetic chronic kidney disease (E11.22) as diabetic chronic kidney disease is a more specific condition.⁷

Additional reminders

- If a patient has hypertensive chronic kidney disease and acute renal failure, the acute renal failure should also be coded. Sequence according to the circumstances of the admission/encounter.
- Use caution: Chronic Renal Impairment does not code to N18-.

Coding examples

Example 1	
Medical record documentation	70-year-old male with history of diabetes, CKD stage 3b & microalbuminuria. Review of most recent labs showed elevated microalbuminuria. Assessment: Diabetic renal complication of elevated microalbuminuria and CKD stage 3b
ICD-10-CM codes	E11.22 Type 2 diabetes mellitus with diabetic chronic kidney disease N18.32 Chronic kidney disease stage 3b
Rationale	It would be redundant to assign codes for the interim diabetic renal condition (nephropathy, nephritis, nephrosis, renal complication NEC) and diabetic chronic kidney disease (E11.22) as diabetic chronic kidney disease is a more specific condition. ⁷

Example 2	
Medical record documentation	Patient returns for follow-up of Chronic kidney disease stage 5 on hemodialysis M,W,F. PE: Catheter placement intact Assessment: Chronic kidney disease stage 5 on chronic routine hemodialysis
ICD-10-CM codes	N18.6 End-stage renal disease Z99.2 Dependence on renal dialysis
Rationale	Instructional notes under code N18.5 advise CKD requiring chronic dialysis classifies to N18.6 even when the condition is not specifically documented as end-stage renal disease. Excludes1 CKD stage 5 requiring chronic dialysis (N18.6) N18.6 End stage renal disease Includes CKD requiring chronic dialysis Use additional code to identify dialysis status (Z99.2) ⁴

Example 3	
Medical record documentation	CC: Patient with history of diabetes presents for follow-up of CKD stage 3. GFR appears to be stable on recent labs. Will recheck GFR at next visit. Impression: Type 2 diabetes mellitus, Chronic kidney disease, stage 3
ICD-10-CM codes	E11.22 Type 2 diabetes mellitus with diabetic CKD N18.30 Chronic kidney disease, stage 3 unspecified
Rationale	Documentation does not need to provide a link between the diagnoses of diabetes and chronic kidney disease to assign code E11.22. This link can be assumed since the chronic kidney disease is listed under the subterm "with." 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 and due to some other underlying cause besides diabetes. ⁸

Example 4	
Medical record documentation	Mrs. Johnson is here for her Annual Wellness Visit ROS: Cardiovascular - no chest pain, palpitations or edema Impression: Hypertension, chronic kidney disease stage 4, congestive heart failure
ICD-10-CM codes	I13.0 Hypertensive heart and chronic kidney disease with heart failure and stage 1 through stage 4 chronic kidney disease, or unspecified chronic kidney disease I50.9 Heart failure, unspecified N18.4 Chronic kidney disease, stage 4 (severe)
Rationale	The codes in category I13, Hypertensive heart and chronic kidney disease, are combination codes that include hypertension, heart disease, and chronic kidney disease. The inclusion note at category I13 specifies that the conditions classified to categories I11 and I12 are included together in I13. Therefore, if a patient has hypertension, heart disease, and chronic kidney disease, then a code from I13 should be used rather than individual codes for hypertension, heart disease, and chronic kidney disease, or codes from I11 or I12. ⁹

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