Chronic kidney disease (CKD)

Clinical overview

Definition (MALKINA.ANNA, 2019)
Chronic kidney disease (chronic renal failure) is a long- standing, progressive deterioration of renal function.

Kidney function (National Kidney Foundation, 2024a)
- Removes wastes and extra fluid
- Keep the right balance of important chemicals in the blood, such as sodium, potassium, phosphorus and calcium
- Release hormones that control blood pressure and other functions

Causes (National Kidney Foundation, 2024a)
- Sometimes the cause is unknown however, major causes include hypertension and diabetes mellitus
- Glomerulonephritis involves damage to your glomeruli, tiny filters inside your kidneys
- Inherited, congenital or autoimmune conditions
- Severe infections
- Frequent, untreated and/or long-lasting UTI's
- Long-term use of NSAIDs

Signs and symptoms (National Kidney Foundation, 2024a)
May include:
- Abnormal lab values
- Changes in urine output (e.g., Urinating less, more frequently, bubbly or foamy urine)
- Swelling due to fluid buildup in the tissues (edema) or muscle cramps
- Weight loss, loss of appetite, Nausea and/or vomiting
- Trouble sleeping or concentrating, feeling tired
- Dry, itchy skin

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

Diagnostic tools (National Kidney Foundation, 2024b)
- Blood tests (BUN, Creatinine, eGFR)
- Urine tests
- Imaging including ultrasound, CT, MRI
- Renal biopsy

Treatment (National Kidney Foundation, 2024a)
Managing the disease that is most likely causing the CKD
- Medications, linked to diagnosis, to slow progression
- Exercise, weight control and limited salt, potassium and phosphorus intake
- Smoking cessation
- Avoidance of dehydration, NSAIDs, alcohol or drugs
- Dialysis
- Kidney transplant

Best documentation practices for healthcare providers

Subjective
The subjective section of the office note, document the presence or absence of any current patient-reported symptoms of chronic kidney disease (e.g., fatigue, weakness, changes in urine output, etc.).

Objective
The objective section should include 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
- Describe the final diagnosis 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.

Plan
- 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.
- Include the date or time frame for the next appointment.

Coding tips

Chronic kidney disease – synonyms/equivalent terms
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".
- Chronic renal impairment does NOT code to CKD.

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.
(AAPC, 2023)

Estimated glomerular filtration rate (eGFR)
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. (National Kidney Foundation, 2024b)

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) dialysis
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.Ø-)
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.
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 (AAPC, 2023)

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 I5Ø).
- 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. (AAPC, 2023)

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: As of October 1, 2018, 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 status

- 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.Ø, 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.
- 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. (American Hospital Association ("AHA"), 2019)

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.

Coding examples

Example 1	
Assessment	1. Diabetic renal complication of elevated microalbuminuria 2. CKD stage 3b
ICD-10-CM code	E11.22 Type 2 diabetes mellitus with diabetic chronic kidney disease N18.32 Chronic kidney disease stage 3b
Comments	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. (American Hospital Association (AHA), 2019)

Example 2	
Assessment	Chronic kidney disease stage 5 on chronic routine hemodialysis M, W, F
ICD-10-CM code	N18.6 End-stage renal disease Z99.2 Dependence on renal dialysis
Comments	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) (AAPC, 2023)

Example 3	
Assessment	Type 2 diabetes mellitus, Chronic kidney disease, stage 3
ICD-10-CM code	E11.22 Type 2 diabetes mellitus with diabetic CKD N18.3Ø Chronic kidney disease, stage 3 unspecified
Comments	Documentation does not link Type 2 diabetes to stage 3 CKD however, ICD-10-CM presumes the linkage when no other cause is documented.

Example 4	
Assessment	Hypertensive heart and chronic kidney disease stage 4 with congestive heart failure
ICD-10-CM code	I13.Ø Hypertensive heart and chronic kidney disease with heart failure and stage 1 through stage 4 chronic kidney disease, or unspecified chronic kidney disease I5Ø.9 Heart failure, unspecified N18.4 Chronic kidney disease, stage 4 (severe)
Comments	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. (Leon-Chisen, 2023)

References

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