



# ACCURATE CODING & DOCUMENTATION NEPHROLOGY

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# AGENDA

- INTRODUCTION TO NEPHROLOGY
- ANATOMY OF THE KIDNEY
- COMMON DISEASE IN NEPHROLOGY
- CODING NEPHROLOGY
- FINAL TIPS & TAKEAWAYS

## NEPHROLOGY

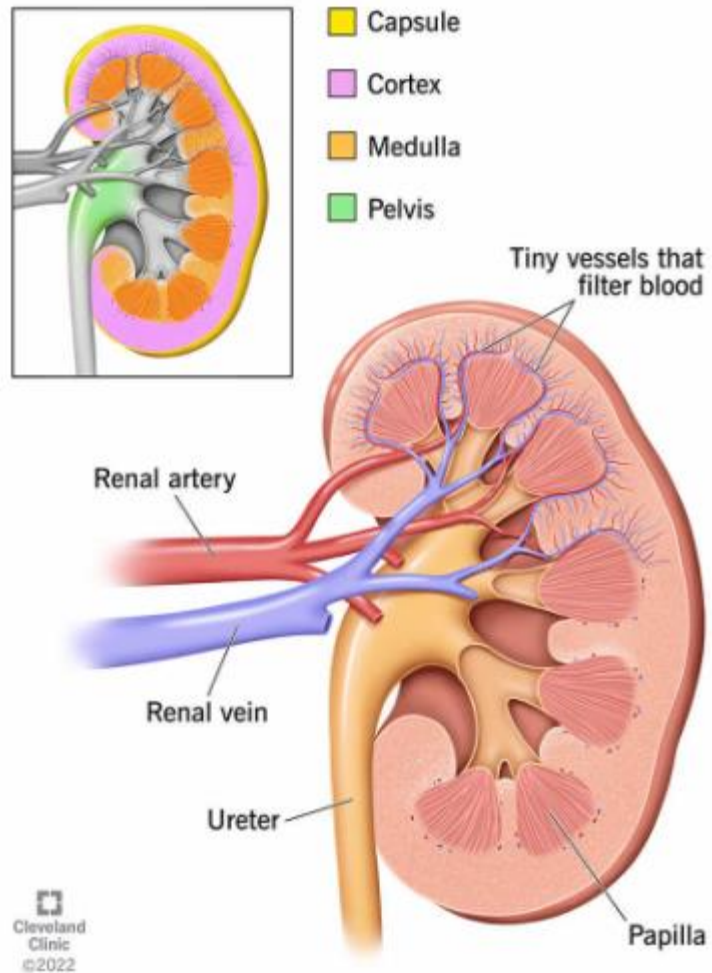
### STUDY OF THE KIDNEYS

### Key Terms

**Nephrologist:** Clinician who specializes in the care and treatment of kidneys and kidney disease

**Renal:** Related to the kidneys; Ex. Renal Specialist, Renal Disease

- ❖ Kidneys are reddish-brown colored, bean shaped organs that filter blood and are part of the urinary system as they remove waste in urine
- ❖ Kidneys help to balance the fluid in the body made up mostly of water as well as electrolytes.
- ❖ Other functions include: controlling the pH balance of your blood, make glucose if you blood is lacking, create renin – a protein that increases blood pressure, produce hormones like calcitriol and erythropoietin.
- ❖ Adrenal gland produces hormones, like cortisol.
- ❖ We are born with two kidneys, but ultimately can survive with one.



# ANATOMY OF THE KIDNEY

NEPHROLOGY =  
STUDY OF THE KIDNEYS

COMMON  
PATHOLOGIES  
AND DISEASE  
OF THE KIDNEYS

- ❖ Chronic Kidney Disease (CKD)
- ❖ Kidney Stones
- ❖ Acute Kidney Injury
- ❖ Kidney Cysts (Renal Cysts)
- ❖ Polycystic Kidney Disease
- ❖ Kidney Cancer
- ❖ Kidney (Renal) Failure
- ❖ Kidney Infection (Pyelonephritis)
- ❖ Solitary Kidney (acquired or congenital)

- ❖ Cramping muscles
- ❖ Dark urine or urine with blood in it
- ❖ Foamy urine
- ❖ Itchy, dry skin
- ❖ More frequent urination
- ❖ Puffy eyes or swollen ankles and feet
- ❖ Sleep problems, fatigue and lack of appetite
- ❖ Urinalysis Abnormalities
- ❖ Elevated eGFR
- ❖ High Blood Creatinine levels

COMMON SIGNS AND  
SYMPTOMS OF KIDNEY  
DISEASE

# Chronic Kidney Disease

AKA — Chronic Kidney Failure

Definition of CKD:

Chronic kidney disease is when the kidneys have become damaged and have a hard time doing their jobs.

## Causes of CKD

- Diabetes
- High blood pressure
- Heart disease and/or heart failure
- Obesity
- Over the age of 60
- Family history of CKD or kidney failure
- Personal history of acute kidney injury
- Smoking/use of tobacco products
  - Glomerular diseases
  - Inherited conditions
  - Autoimmune conditions
  - Severe infections
- Kidney cancer, stones, frequent/untreated UTIs, abnormalities at birth

# Chronic Kidney Disease

## Risks of CKD:

As the disease progresses, it can be life threatening. It also increases the risk of other health problems like heart disease and stroke.

- Cardiovascular disease
  - High blood pressure
  - Anemia
  - Metabolic acidosis
- Mineral and bone disorder
  - Hyperkalemia
  - Kidney failure

## Testing & Diagnosis

- eGFR – Blood test
- uACR – Urine Test
  - Kidney Biopsy
  - Imaging



# Chronic Kidney Disease – Staging with eGFR

STAGE

1	90 ml/min and above	Normal/Elevated
2	60-89 ml/min	Mild
3a	45-59 ml/min	Moderate
3b	31-44 ml/min	Moderate
4	15-29 ml/min	Severe
5	Less than 15 ml/min	End Stage (ESRD)

# Chronic Kidney Disease – Treatment

## Treating Complications

- BP Meds (ACE inhibitors)
- Meds to lower cholesterol
  - Diuretics
- Supplements to protect the bones

## Lifestyle Changes

- Low protein / cholesterol / sodium diet
- Adjusting intake of potassium, phosphorus and/or calcium
  - Quit smoking
- Weight control & Increased activity

## Dialysis

Purpose: Artificially removes waste products and extra fluid from your blood

## Transplant

Surgical placement of a healthy kidney from a donor (living or cadaver) to the recipient.

# Chronic Kidney Disease - Coding

Acute kidney failure and chronic kidney disease (N17-N19)

N18 Chronic kidney disease (CKD)

N18.1 Chronic kidney disease, stage 1

N18.2 Chronic kidney disease, stage 2 (mild)

N18.3 Chronic kidney disease, stage 3 (moderate)

N18.30 Chronic kidney disease, stage 3 unspecified

N18.31 Chronic kidney disease, stage 3a

N18.32 Chronic kidney disease, stage 3b

N18.4 Chronic kidney disease, stage 4 (severe)

N18.5 Chronic kidney disease, stage 5

N18.6 End stage renal disease

N18.9 Chronic kidney disease, unspecified

## Coding Tips

### Diagnosis / Status / Plan M\*E\*A\*T

- ❖ Documentation should show how the condition affects care, treatment and/or management at the encounter
- ❖ Remember, as a coder, we would not interrupt lab results (such as eGFR) to determine staging
- ❖ Be careful of conflicts in staging
- ❖ It is important to document the causal relationship between CKD and other medical conditions

# Chronic Kidney Disease - Coding

## Diagnosis / Status / Plan

Assessment: CKD Stage 3B, eGFR remains stable, following with Nephrology.

**Code: N18.32 - Chronic kidney disease, stage 3b**

HPI: Pt follows with Dr. Smith for his CKD and is doing well, currently staged at stage 3.

Assessment & Plan: Continue with ACE inhibitor for CKD, limit sodium.

**Code: N18.30 - Chronic kidney disease, stage 3 unspecified**

A&P: Patient has progressed to late stage 4 CKD. We will begin to prepare for dialysis, sending for updated eGFR next week and will proceed as dictated by those results.

**Code: N18.4 - Chronic kidney disease, stage 4 (severe)**

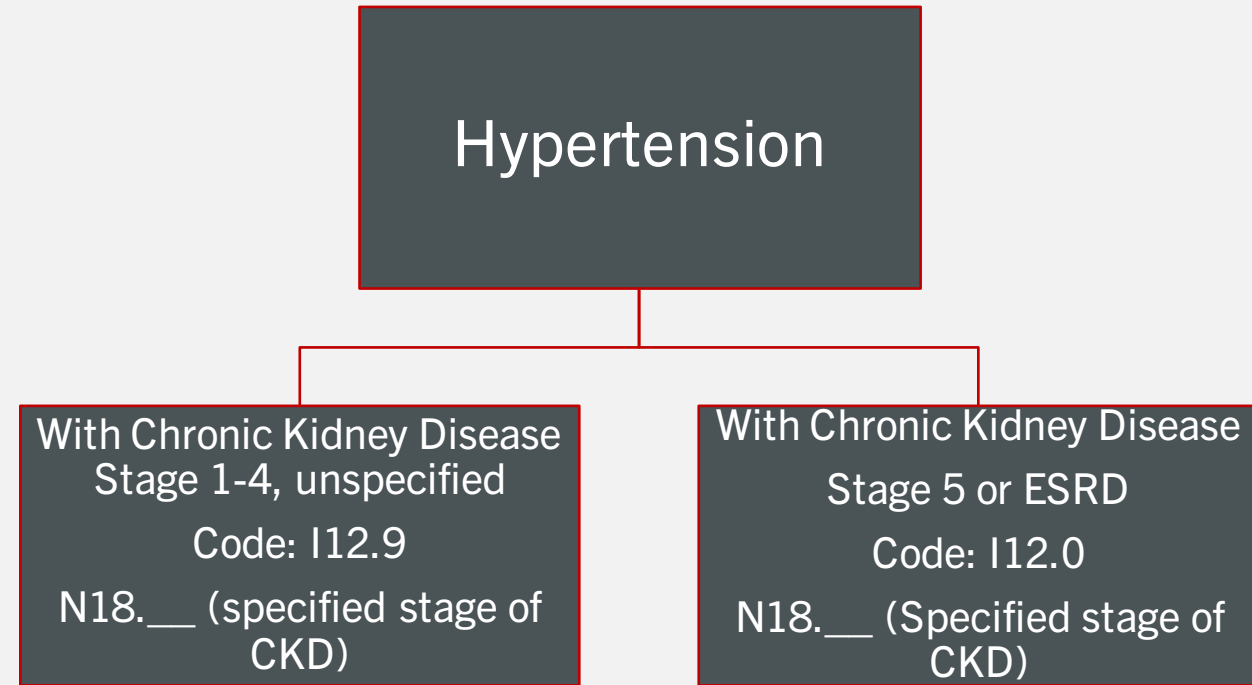
# Chronic Kidney Disease - Coding

**Hypertensive disease** codes are combination codes, meaning one code encompasses more than one condition.

Documentation must support each condition encompassed in the code selected.

Additional codes may be required to identify the highest known specificity of each condition.

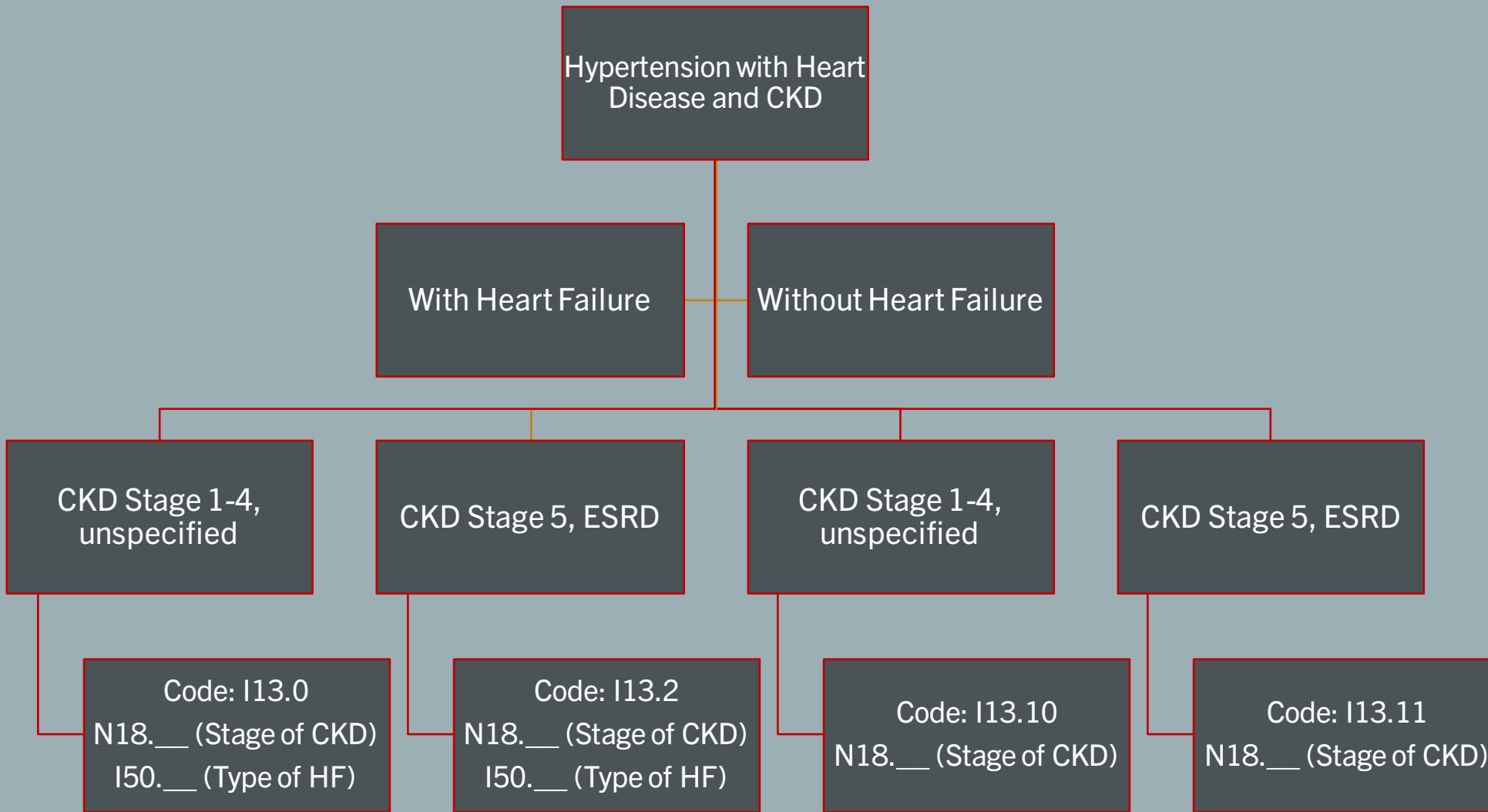
The appropriate code from category N18 should be used as a secondary code with a code from category I12 to identify the stage of chronic kidney disease.



**I12.0** - Hypertensive chronic kidney disease with stage 5 chronic kidney disease or end stage renal disease

**I12.9** - Hypertensive chronic kidney disease with stage 1 through stage 4 chronic kidney disease, or unspecified chronic kidney disease

# Chronic Kidney Disease - Coding



**I50.1** – Left ventricular failure, unspecified

**I50.2\_** – Systolic (congestive) heart failure

**I50.3\_** - Diastolic (congestive) heart failure

**I50.4\_** - Combined systolic (congestive) and diastolic (congestive) heart failure

**I50.8\_** - Other heart failure

**I50.9** - Heart failure, unspecified

# Chronic Kidney Disease - Coding

## Diagnosis / Status / Plan

HPI: Pt here today for follow up of HTN, CAD, CHF, CKD3b. HTN stable on Atenolol. Follows with cardiology for CAD and CHF, no chest pain reported.

Assessment: CKD Stage 3B - stable, CHF (diastolic, chronic) well compensated today, continue ACE inhibitors, no NSAIDS, continue close follow up with cardiology and nephrology.

**Code: 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, **N18.32** - Chronic kidney disease, stage 3b, **I50.32** - Chronic diastolic (congestive) heart failure, **I25.10** - Atherosclerotic heart disease of native coronary artery without angina pectoris

# Renal Complications in the setting of Diabetes

1 in 3 Diabetics  
have a form of diabetic  
nephropathy

E11.21 Type 2 diabetes mellitus with diabetic nephropathy

E11.22 Type 2 diabetes mellitus with diabetic chronic kidney disease

E11.29 Type 2 diabetes mellitus with other diabetic kidney complication

~ When coding E11.22 –  
Code also the stage of CKD



# Chronic Kidney Disease & Diabetes - Coding

## Diagnosis / Status / Plan

HPI: Pt here today for follow up. Patient seeing nephrology now for CKD3a.

Assessment: Diabetes stable on insulin, seeing endocrinology. CKD has recently progressed, GFR will be monitored by nephrologist regularly.

### Code:

**E11.22** - Type 2 diabetes mellitus with diabetic chronic kidney disease,

**N18.31** - Chronic kidney disease, stage 3a

# Acute Kidney Injury

AKA – AKI / AKF

Definition of AKI:

Occurs when kidneys suddenly cannot filter waste products from the blood, causing harmful levels of wastes to build up, and possibly throwing the blood's chemical makeup out of balance. Can range from mild to severe.

## Causes of AKI

- A condition that slows blood flow to your kidneys
- Damage to kidneys
- Block in the ureters

## Treatment

- IV fluids
- Medicine to control Potassium or restore calcium
- Dialysis

# Acute Kidney Injury- Coding

Acute kidney failure and chronic kidney disease (N17-N19)

N17 Acute kidney failure

N17.0 Acute kidney failure with tubular necrosis

N17.1 Acute kidney failure with acute cortical necrosis

N17.2 Acute kidney failure with medullary necrosis

N17.8 Other acute kidney failure

N17.9 Acute kidney failure, unspecified

## Types of AKI

**Tubular Necrosis:** Part of the body's kidneys are damaged, and flow of blood and oxygen are compromised. In otherwise healthy people this is reversible with early treatment.

**Acute Cortical Necrosis:** Death of tissue in the outer part of the kidney (cortex) that is a result of blockage in the small arteries that supply blood to the cortex. Usually caused by a major, catastrophic disorder that causes decreased BP.

**Medullary Necrosis:** Death of cells and tissue in the medulla and renal papillae. The dead tissue reduces kidney function, eventually leading to failure.

# Acute Kidney Injury- Coding

## Common Conflicts in Documentation

Assessed: N17.9 – Acute Kidney Injury, unspecified

Plan: AKI resolved; patient is doing well today.

**Outcome:** If a condition is resolved, we must code history of. Therefore, the appropriate ICD-10 code here would be Z87.448.

**Z87.448** - Personal history of other diseases of urinary system

## Diagnosis / Status / Plan

HPI: Pt was discharged from the hospital yesterday after being admitted 3 days ago for AKI.

Assessment: Patient is improving, but we will continue to monitor closely. See back in 2 days.

**Code: N17.9 - Acute Kidney Injury, unspecified**

Assessment: Pt is no longer requiring dialysis after admission for AKI last week. He will continue Veltessa and limit potassium in diet. If improved at next visit, we can consider stopping Veltessa.

**Code: N17.9 - Acute Kidney Injury, unspecified**

# Dialysis

## Hemodialysis

A machine removes blood from your body, filters it through a dialyzer (artificial kidney) and returns the cleaned blood to your body.

- 3–5-hour process may take place either in a hospital or a dialysis center
- At home hemodialysis may be more convenient but can be needed 4-7-times a week. Can be done while sleeping.
- Prep for hemodialysis includes an AV fistula or AV graft
- Crash dialysis does not allow time for a fistula and will then be provided with a catheter into a vein your chest, neck or leg.

## Peritoneal Dialysis

Tiny blood vessels inside the abdominal lining (peritoneum) filter blood with the use of a dialysis solution. This solution works as a cleansing liquid that contains water, salt and other additives.

- Catheter is inserted through your belly into the peritoneum and is permanent.
- The process takes 60-90 minutes, and patient can go about their usual activities during the process.
- This has to be done up to 4xs a day and the solution stays in your stomach all night.
- An automated peritoneal dialysis machine will allow a pump to move the fluid in and out of the body while you sleep.

# Dialysis - Coding

T82.4 Mechanical complication of vascular dialysis catheter

T82.41 Breakdown (mechanical) of vascular dialysis catheter

T82.42 Displacement of vascular dialysis catheter

T82.43 Leakage of vascular dialysis catheter

T82.49 Other complication of vascular dialysis catheter

T85.818 Embolism due to other internal prosthetic devices, implants and grafts

T85.828 Fibrosis due to other internal prosthetic devices, implants and grafts

T85.838 Hemorrhage due to other internal prosthetic devices, implants and grafts

T85.848 Pain due to other internal prosthetic devices, implants and grafts

T85.858 Stenosis due to other internal prosthetic devices, implants and grafts

T85.868 Thrombosis due to other internal prosthetic devices, implants and grafts

T85.898 Other specified complication of other internal prosthetic devices, implants and grafts

Z91.15 Patient's noncompliance with renal dialysis

Z91.151 Patient's noncompliance with renal dialysis due to financial hardship

Z91.158 Patient's noncompliance with renal dialysis for other reason

Z99.2 Dependence on renal dialysis

Include: Z99.2

## Z99.2 Dependence on renal dialysis

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

PE: Pt has a well healed fistula and is meeting with Dr. Abc to start discussing home hemodialysis. She is close to needing it.

Code: Z99.2 – Dependence on renal dialysis

\*This is not an all-inclusive list.

# Kidney Transplant

When a patient reaches end stage renal disease, their kidneys have lost about 90% of their ability to function properly.

## Why Transplant?

- ❖ Better quality of life
- ❖ Lower risk of death
- ❖ Dietary restriction relief
- ❖ Treatment cost is lower long term

## Types of Transplant

- ❖ Cadaver Donor
- ❖ Living Donor

# Kidney Transplant - Coding

## Z94.0 Kidney transplant status

HPI: Pt here today for yearly physical. No new issues, doing well. Seeing cardiology for follow up of fib. Nephrology following post kidney transplant in 2021; no new issues to report, consistent with meds.

### 2) Chronic kidney disease and kidney transplant status

Patients who have undergone kidney transplant may still have some form of chronic kidney disease (CKD) because the kidney transplant may not fully restore kidney function. Therefore, the presence of CKD alone does not constitute a transplant complication. Assign the appropriate N18 code for the patient's stage of CKD and code Z94.0, Kidney transplant status. If a transplant complication such as failure or rejection or other transplant complication is documented, see section I.C.19.g for information on coding complications of a kidney transplant. If the documentation is unclear as to whether the patient has a complication of the transplant, query the provider.



# Kidney Transplant - Coding

## T86.1 Complications of kidney transplant

**T86.10 Unspecified complication of kidney transplant**

**T86.11 Kidney transplant rejection**

**T86.12 Kidney transplant failure**

**T86.13 Kidney transplant infection**

**T86.19 Other complication of kidney transplant**

## (b) Kidney transplant complications

Patients who have undergone kidney transplant may still have some form of chronic kidney disease (CKD) because the kidney transplant may not fully restore kidney function. Code T86.1- should be assigned for documented complications of a kidney transplant, such as **transplant failure or rejection** or other transplant complication. Code T86.1- should not be assigned for post kidney transplant patients who have chronic kidney (CKD) unless a transplant complication such as transplant failure or rejection is documented. If the documentation is unclear as to whether the patient has a complication of the transplant, query the provider.

Conditions that affect the function of the transplanted kidney, other than CKD, should be assigned a code from subcategory **T86.1**, Complications of transplanted organ, Kidney, and a secondary code that identifies the complication.

For patients with CKD following a kidney transplant, but who do not have a complication such as failure or rejection, *see section I.C.14. Chronic kidney disease and kidney transplant status.*

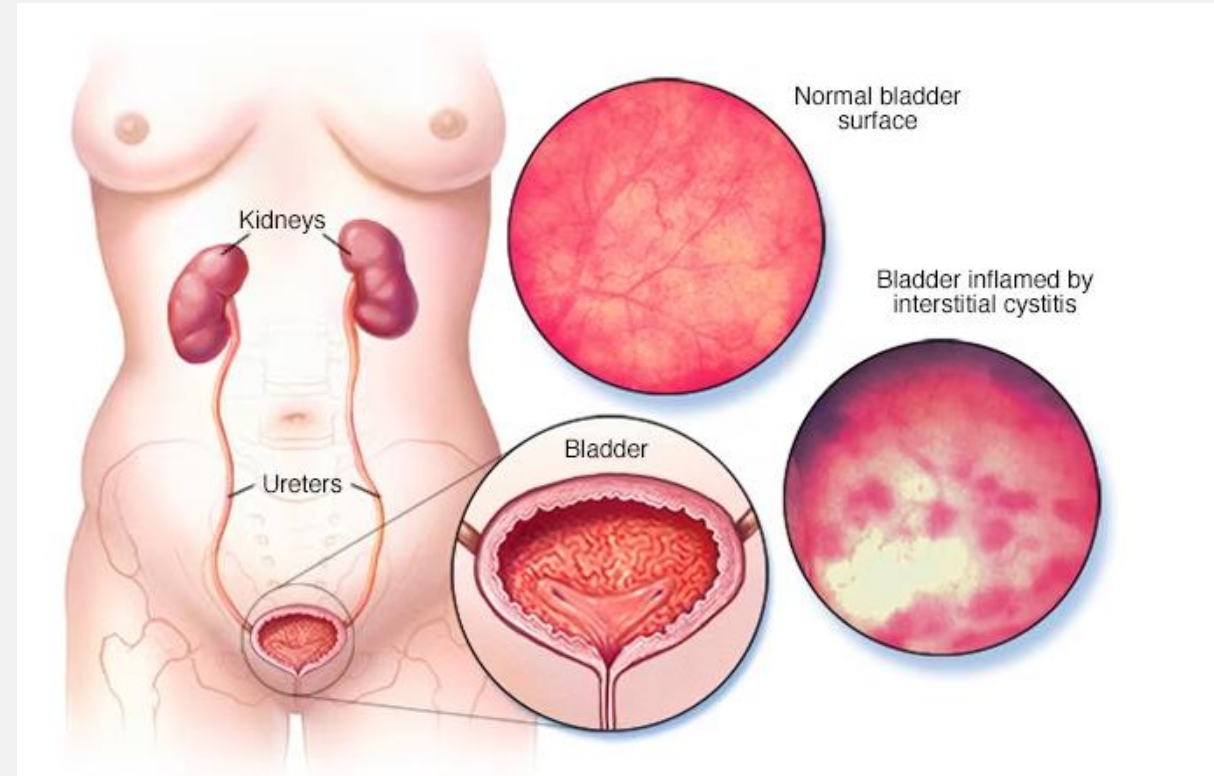
**See I.C.1.d.4. for sequencing of sepsis due to infection in transplanted organ**

# Interstitial Cystitis

- Chronic condition that causes bladder pressure, pain and sometimes pelvic pain
- Often affects woman more than men
- Impacts quality of life and has no cure
- Treatment includes medications and various modalities of therapy

## Symptoms

- Pain in pelvis
  - Persistent, urgent need to urinate
  - Frequent urination, small volume
- Pain while bladder fills, followed by relief at urination
  - Pain during intercourse



# Interstitial Cystitis

## Causes

- Possible defect in the epithelium of the bladder
- Many other contributing factors: sex, age, chronic pain disorder

## Complications

- Reduced bladder capacity
  - Lower quality of life
- Sexual intimacy problems
  - Emotional distress

## Diagnosis

- Pelvic exam
- Urinalysis
- Cystoscopy
  - Biopsy
  - Cytology

## Treatment

- NSAIDS to relieve pain
- Tricyclic antidepressants
  - Antihistamines
  - Nerve stimulation
  - Surgery

# Interstitial Cystitis - Coding

N30 Cystitis
N30.0 Acute cystitis
N30.00 Acute cystitis without hematuria
N30.01 Acute cystitis with hematuria
N30.1 Interstitial cystitis (chronic)
N30.10 Interstitial cystitis (chronic) without hematuria
N30.11 Interstitial cystitis (chronic) with hematuria
N30.2 Other chronic cystitis
N30.20 Other chronic cystitis without hematuria
N30.21 Other chronic cystitis with hematuria

\*Use additional code to identify infectious agent (B95-B97)

HPI: Pt with interstitial cystitis presents today for concerns over recent episode of hematuria.

Assessment and Plan: Chronic Interstitial Cystitis. Will send for urinalysis today. Dependent on results may consider resuming neurostimulation.

Code: N30.11 - Interstitial cystitis (chronic) with hematuria

# Glomerulonephritis

**Definition:** Inflammation of the tiny filters in the kidneys.

**AKA:** Nephritic Syndrome

## Symptoms:

- ❖ Pink or cola-colored urine
  - ❖ Foamy or bubbly urine
  - ❖ High blood pressure
- ❖ Fluid retention (edema) with swelling
- ❖ Urinating less than usual.
  - ❖ Nausea and vomiting.
  - ❖ Muscle cramps.
  - ❖ Fatigue.

## Causes

- ❖ Infection
- ❖ Autoimmune disease
- ❖ Vasculitis
- ❖ Sclerotic conditions

## Complications

- ❖ Acute Kidney Failure
- ❖ Chronic Kidney Disease
- ❖ High Blood Pressure
- ❖ Nephrotic syndrome

## Treatment

- ❖ Treatment is directed at underlying cause, with the goal of protecting kidney function

# Glomerulonephritis - Coding

Glomerular diseases (N00-N08)

**N03 Chronic nephritic syndrome**

**N03.0 Chronic nephritic syndrome with minor glomerular abnormality**

**N03.1 Chronic nephritic syndrome with focal and segmental glomerular lesions**

**N03.2 Chronic nephritic syndrome with diffuse membranous glomerulonephritis**

**N03.3 Chronic nephritic syndrome with diffuse mesangial proliferative glomerulonephritis**

**N03.4 Chronic nephritic syndrome with diffuse endocapillary proliferative glomerulonephritis**

**N03.5 Chronic nephritic syndrome with diffuse mesangiocapillary glomerulonephritis**

**N03.6 Chronic nephritic syndrome with dense deposit disease**

**N03.7 Chronic nephritic syndrome with diffuse crescentic glomerulonephritis**

**N03.8 Chronic nephritic syndrome with other morphologic changes**

**N03.9 Chronic nephritic syndrome with unspecified morphologic changes**

**N03.A Chronic nephritic syndrome with C3 glomerulonephritis**

## TAKEAWAYS

- Knowledge is Power
- Clinical Understanding is key to Accurate Coding
- Coding to the highest specificity is Key!
- Use Combination Codes!
  - Watch for 'code also' conditions



# QUESTIONS?

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