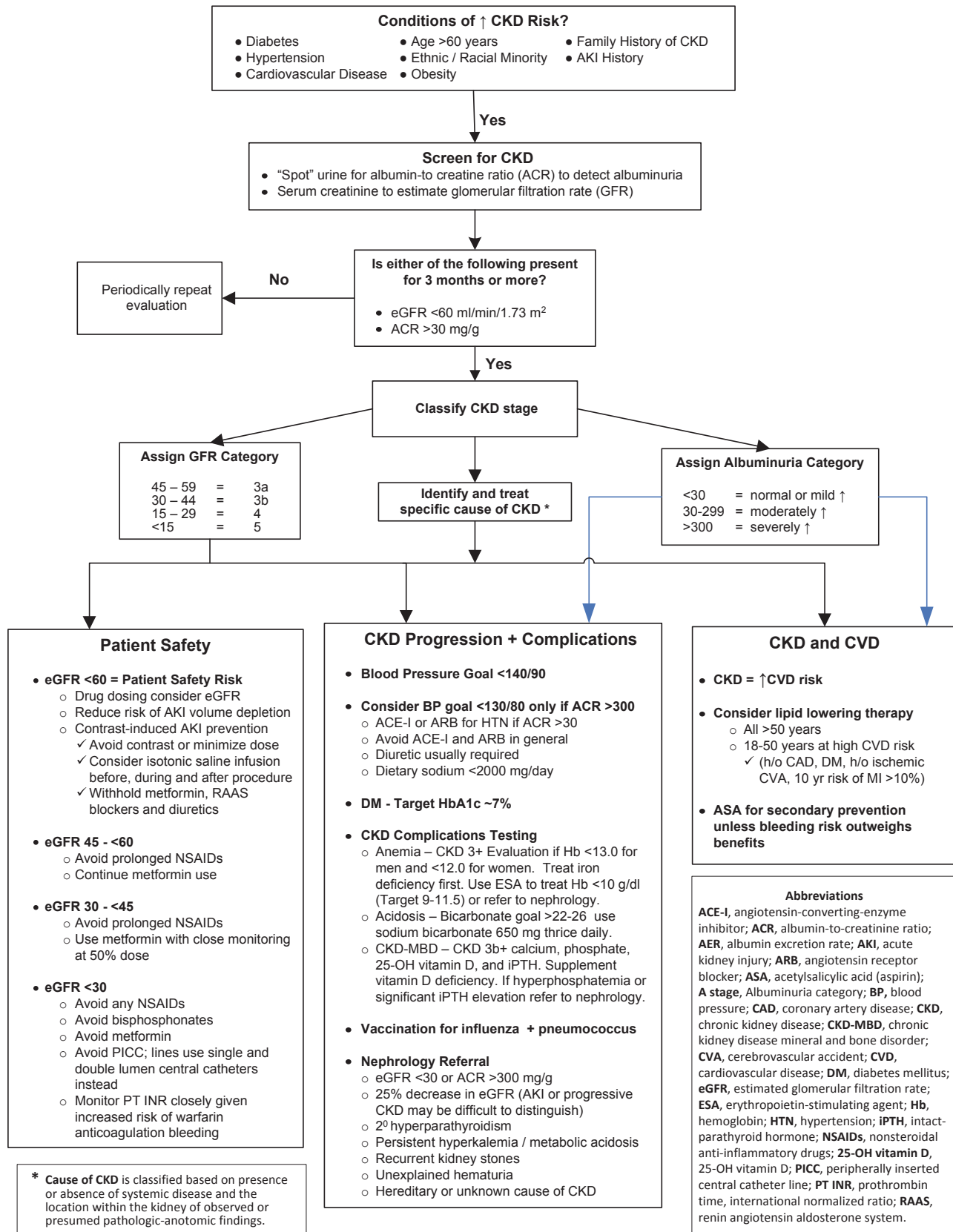


How to Manage Your CKD Patients



How to Evaluate for Chronic Kidney Disease

Know the criteria for chronic kidney disease (CKD).

- Abnormalities of kidney structure or function, present for >3 months, with implications for health
- Either of the following must be present for >3 months:
 - Markers of kidney damage (one or more)
 - GFR <60 ml/min/1.73 m²

Screen for CKD with two simple tests.

- “Spot” urine for albumin-to-creatinine ratio (ACR) to detect albuminuria
- Serum creatinine to estimate glomerular filtration rate (GFR)

What if CKD is detected?

- Classify CKD based on cause, GFR category, and albuminuria category
- Implement a clinical action plan based on patient’s CKD classification (see flip side)
 - Consider co-management with a nephrologist if the clinical action plan cannot be carried out
 - Refer to a nephrologist when GFR <30 mL/min/1.73 m² or ACR >300 mg/g
- Learn more at www.kidney.org/professionals

Why should you classify CKD?

- To have a more precise picture of each patient’s condition
- To guide decisions for testing and treatment
- To evaluate patient’s risk of progression and complications
- Because neither the category of GFR nor the category of albuminuria alone can fully capture prognosis of CKD

References

Inker LA, Astor BC, Fox CH, et al. KDOQI US commentary on the 2012 KDIGO clinical practice guideline for the evaluation and management of CKD. *Am J Kidney Dis.* 2014;63(5):713-735.

Kidney Disease: Improving Global Outcomes (KDIGO) CKD Work Group. KDIGO 2012 clinical practice guideline for the evaluation and management of chronic kidney disease. *Kidney Inter, Suppl.* 2013;3:1-150.



National
Kidney
Foundation®

30 East 33rd Street
New York, NY 10016
800.622.9010

www.kidney.org

How do you classify CKD?

- Identify cause of CKD*
- Assign GFR category
- Assign albuminuria category

*Cause of CKD is classified based on presence or absence of systemic disease and the location within the kidney of observed or presumed pathologic-anatomic findings.

GFR categories in CKD

Category	GFR (ml/min/1.73 m ²)	Terms
G1	≥90	Normal or high
G2	60-89	Mildly decreased*
G3a	45-59	Mildly to moderately decreased
G3b	30-44	Moderately to severely decreased
G4	15-29	Severely decreased
G5	<15	Kidney failure

*Relative to young adult level. In the absence of evidence of kidney damage, neither GFR category G1 nor G2 fulfill the criteria for CKD.

Albuminuria categories in CKD

Category	ACR (mg/g)	Terms
A1	<30	Normal to mildly increased
A2	30-300	Moderately increased*
A3	>300	Severely increased†

*Relative to young adult level. **ACR 30-300 mg/g for >3 months indicates CKD.**

†Including nephrotic syndrome (albumin excretion ACR >2220 mg/g)

Abbreviations

A Stage, albuminuria category; **ACE-I**, angiotensin-converting-enzyme inhibitor; **ACR**, albumin-to-creatinine ratio; **AER**, albumin excretion rate; **AKI**, acute kidney injury; **ARB**, angiotensin receptor blocker; **ASA**, acetylsalicylic acid (aspirin); **CAD**, coronary artery disease; **CKD**, chronic kidney disease; **CKD-MBD**, chronic kidney disease mineral and bone disorder; **CVA**, cerebrovascular accident; **CVD**, cardiovascular disease; **DM**, diabetes mellitus; **GFR**, estimated glomerular filtration rate; **ESA**, erythropoietin-stimulating agent; **G Stage**, GFR category; **Hb**, hemoglobin; **HTN**, hypertension; **iPTH**, intact-parathyroid hormone; **NSAIDs**, nonsteroidal anti-inflammatory drugs; **PICC**, peripherally inserted central catheter line; **PT INR**, prothrombin time, international normalized ratio; **RAAS**, renin angiotensin aldosterone system.