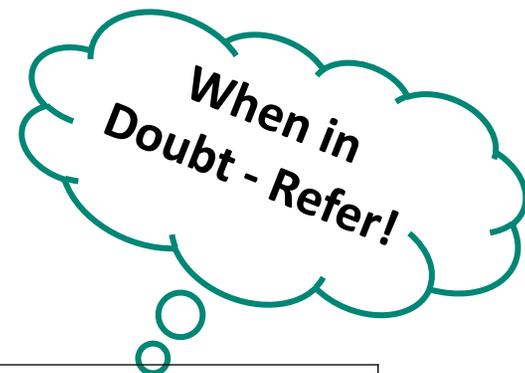


# When to Refer to a Nephrologist

- ✓ Acute change or sustained decline in kidney function
- ✓ Albuminuria greater than 300 mg/g or proteinuria/albuminuria of unknown cause
- ✓ Hematuria associated with proteinuria  
(for isolated microhematuria evaluate for urologic causes first)
- ✓ Difficult to control high blood pressure
- ✓ Significant abnormalities of serum electrolytes
- ✓ Recurrent or extensive nephrolithiasis
- ✓ Hereditary kidney disease



GFR categories (ml/min/ 1.73 m <sup>2</sup> )					
Description and range					
G1	G2	G3a	G3b	G4	G5
Normal or High	Mildly decreased	Mildly to moderately decreased	Moderately to severely decreased	severely decreased	Kidney Failure
≥90	60-89	45-59	30-44	15-29	<15

Persistent albuminuria categories	Description and range			GFR categories (ml/min/ 1.73 m <sup>2</sup> )					
	A1	A2	A3	G1	G2	G3a	G3b	G4	G5
	Normal to mildly increased <30 mg/g <3 mg/mmol	Moderately increased 30-300 mg/g 3-30 mg/mmol	Severely increased >300 mg/g >30 mg/mmol	Green	Green	Yellow	Red	Red	Red
Refer	Refer	Refer	Refer	Refer	Refer	Refer	Refer	Refer	Refer

Late nephrology referrals before the onset of chronic kidney failure remain too common. U.S. Renal Data Systems data indicates that **42% of new dialysis patients had no prior nephrology care<sup>1</sup>**.

<sup>1</sup>U.S. Renal Data System, *USRDS 2013 Annual Data Report: Atlas of Chronic Kidney Disease and End-Stage Renal Disease in the United States refers to Chapter 1, Volume 2, National Institutes of Health, National Institute of Diabetes and Digestive and Kidney Diseases, Bethesda, MD, 2013*

# Renal Management Facts for Primary Care Providers:



Western Nephrology  
*Caring for People with Kidney Disorders*

## Renal Artery Stenosis:

Current protocols recommend first trying medical therapy over angioplasty.

Angioplasty should generally be reserved for failure of medical therapy, recurring flash pulmonary edema, or worsening renal failure.

## Albuminuria:

An increased level of albumin in the urine is a sensitive marker of early glomerular disease.

Its presence is also associated with a higher risk of vascular disease. CKD patients with albuminuria are at increased risk of progression.

A random urine albumin should be ordered with a random urine creatinine, and evaluated as the Albumin/Creatinine Ratio.

## Common Agents that Compromise Renal Function:

- ♦Bactrim - in patients with kidney disease as it can elevate creatinine, and cause hyperkalemia and acidosis
- ♦NSAIDS - can cause hypertension, edema, renal failure, and hyperkalemia
- ♦IV Contrast – use caution in patients with decreased renal function

## Clinic Locations:

<b>Arvada/Lakewood</b> 303-232-3366	<b>Longmont/Dacono</b> 303-776-7759
<b>Lafayette/Boulder</b> 303-443-4200	<b>Westminster</b> 303-430-7000

[www.westneph.com](http://www.westneph.com)

## Combination Therapy with ACEI:

♦Evidence suggests that using ACE inhibitors in combination with angiotensin receptor inhibitors or direct renin inhibitors (Tekturna) does **not** provide renal or cardiac benefit, and is associated with increased adverse effects.

♦Avoid giving NSAIDs in combination with ACEI or ARB

## Hypertension Blood Pressure Targets:

This is a controversial topic with frequently changing recommendations.

Practitioners have typically relied on the updated JNC targets (SBP <140 in normal young subjects; <130 in diabetics and in proteinuric renal failure subjects). Recent data from NIH SPRINT study suggests that, in certain demographics, even lower blood pressure goals may be desired.