

BACKGROUND

Chronic Kidney Disease (CKD) affects 10 to 16 percent of the U.S. population and its prevalence may be increasing. There are currently 1,288 out of every 100,000 Pennsylvanians on dialysis. In addition to the physical and emotional toll on patients and their families, CKD poses a significant financial challenge to society and to the Medicare system, especially when it progresses to End Stage Renal Disease. Many causes of kidney disease are preventable or may be corrected.

WHO IS AT RISK?

- Patients with cardiovascular disease (CVD), diabetes mellitus, or hypertension (HTN)
- Patients 55 years old or older
- Patients with albuminuria over 30 mg/day or persistent albuminuria
- African Americans, Hispanics and Native Americans



WHAT ARE COMMON RISK FACTORS?

- Diabetes mellitus and HTN
- AKI (Acute Kidney Injury)
- Proteinuria
- Low socioeconomic status
- Obesity (BMI greater than 25)
- Cystic Disease (including acquired cysts)
- Heavy soda consumption may contribute to hyperphosphatemia
- Microhematuria
- Increasing age

WHAT CAN YOU DO?

CKD is often asymptomatic in early stages. Reasonable recommendations may include:

- Referring a patient to a nephrologist if eGFR is $<30\text{ml}/\text{min}/1.73\text{m}^2$, after AKI or if considered high risk. Those with deteriorating renal function and significant comorbid conditions should also be referred. Refer a patient for HTN when taking more than three medications, the patient is adherent and HTN is still not controlled. Also refer when secondary HTN is highly suspected.
- Recent change in blood pressure (BP) control for patients with CKD is now the same as for diabetics. BP control recommendations for diabetics include:
 - BP $<140/90$ if albumin to creatinine ratio (ACR) <30
 - BP $<130/80$ if albumin to creatinine ratio (ACR) >30
- Weight reduction (ideally maintaining a BMI below 25)
- Ambulatory BP monitoring is more accurate than random office checks. There is growing evidence of the importance of nocturnal dipping and bedtime administration of hypertensives

HOW CAN WE SLOW THE PROGRESSION OF CKD?

CKD progression can be slowed by managing diabetes, controlling BP, avoiding nephrotoxic agents and procedures and following a healthy lifestyle. Physicians may also recommend mild dietary protein restriction (0.8g/kg/day) and more plant derived protein as well as oral alkali in some cases (those with metabolic acidosis and more advanced CKD, stage 4 or 5).

For more information, contact the Chronic Renal Disease Program at 717-772-2762.