Screening for Chronic Kidney Disease: Time to Say No

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Introduction

Chronic kidney disease (CKD) is common and often asymptomatic at the time of diagnosis. Yet CKD is associated with substantial increases in the risk for cardiovascular (CV) events and overall mortality. These facts suggest the potential value of population-based screening for CKD.

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that screening improves important outcomes. The American Society of Nephrologists (ASN) [3] retorts that all adults should undergo periodic screening for CKD.

Who is right? The current review examines the science behind these recommendations and offers a solution for the busy primary care clinician.

Background

provides an example of the competing agendas that change and change again during an ordinary clinic visit.

What does it take to navigate these complexities? First, it requires a patient-centered approach. A systematic review and meta-analysis found that physicians trained in empathic care with an emphasis on communication were able to change their practice habits, even after a brief intervention. [5] However, only more complex programs were found to be reliably effective in improving patient health behaviors and satisfaction. The mixed results of this body of research reconfirm how challenging these outcomes are.

But good communication and people skills are not enough. Good primary care physicians know their science and are able to inform patients with understandable and pertinent data to practice shared decision-making. This includes an understanding of current guidelines for preventive care. If we as primary care physicians cannot provide evidence-based preventive care, who will?

So, let's summarize the arguments for and against screening everyone for CKD.

The Evidence for Screening

Medical conditions need to fulfill certain criteria in order to be recommended for screening. [6] They need to be detectable at an asymptomatic stage, and there must be an adequate screening test available. The screened condition must be amenable to an available intervention after screening that improves the chances of healthy outcomes, and the cost of this process should be acceptable to society.

There is no doubt that CKD fulfills at least some of these criteria. CKD is common and frequently undiagnosed, although the precise prevalence of undiagnosed CKD varies substantially with the population studied and the methods used to diagnose CKD. In a study of nearly 25,000 adults with at least 2 measurements of their estimated glomerular filtration rate (eGFR), the prevalence of CKD was 28.2%. [7] Only 26.5% of patients with evidence of CKD had an established clinical diagnosis of kidney disease. Studies conducted in India and Iceland found rates of CKD among community-dwelling adults that ranged between 4% and 13%, and the prevalence of proteinuria was 0.9%-2.4%. [8,9]

CKD is not only common, but it is also associated with profound health risks. A retrospective analysis of data from over 1 million adults found that compared with adults with an eGFR of 60 mL/min/1.72 m^2 of body surface area or more, the adjusted hazard ratios for both mortality and CV events increased linearly as eGFR declined (Table).

Table. Mortality HR With Declining eGFR [10]

eGFR (mL/min/1.72 m ^{2})	Mortality HR	CV Event HR
45-59	1.2	1.4
30-		

benefit to patients with isolated impaired GFR or albuminuria, and ACEIs have a weak, if any, effect on the risk for mortality among patients with CKD.

Angiotensin II receptor blockers (ARBs) similarly can reduce the risk for ESRD among patients

remained stable through 2002 but was twice as high among non-Hispanic black adults and Mexican-American adults compared with non-Hispanic white adults. [14] It is not only adults who might have unrecognized

‡Given the close association between hypertension and diabetes and the risk for CKD, as well as the paucity of evidence that treatment of CKD in the absence of these comorbid conditions improves outcomes substantially, it makes sense for clinicians to focus on the identification and treatment of hypertension and diabetes instead of CKD.