

# Newsletter



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The December issue of *Nephron Clinical Practice* (Vol. 110, No. 4, 2008) includes a number of articles dealing with the pressing matter of global CKD. This issue of **Nephron News** includes a commentary on the mini review by Iseki addressing CKD detection programs in Japan. I also discuss the article by Emara et al. concentrating on issues related to the accuracy and precision of a number of GFR estimation equations for the detection of mild-moderate CKD. Finally, I summarize the World Kidney Day CKD screening experience of Sumaili et al. in the Democratic Republic of Congo.

Please do not hesitate to write to me and share your experience of screening for CKD in your community.

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The mini review by **Iseki** (2008;110:c268–c272) highlights issues relating to CKD in Japan. Over the last 25 years, Japan has led the way in CKD screening strategies with data emanating from Okinawa identifying a number of community-based risk factors. This editorial examines some of the known data and reviews new initiatives. It becomes apparent that, as elsewhere in the world, Japan may have a high prevalence of CKD; unfortunately, as with many reports, such a prevalence includes many with an eGFR between 50 and 59 ml/min/1.73m<sup>2</sup> who may jump in and out of CKD stage 3 based on serum creatinine estimation variability and/or may simply have age-related low GFR with little risk of progression. This is commented upon by the fact that progression seldom takes place in the absence of hypertension, diabetes or proteinuria. Iseki also introduces the reader to a number of Japanese and Asian CKD initiatives aimed at improving CKD awareness and planning strategies. It is encouraging to know that issues relating to CKD and its impact on global health-care are prompting a number of national and regional initiatives. These are welcomed in view of the paucity of solid data underlying a number of dogmatic statements relating to CKD, its prevalence and complications.

The article by **Emara et al.** (2008;110:c195–c206) from the Shoker group at the Saskatchewan Nephrology Unit in Canada explores issues relating to the comparative accuracy and precision of a number of estimated GFR equations based on serum cystatin C and creatinine measurements in patients with mild to moderate CKD (stages 2 and 3).

Cystatin C is a low-molecular-weight protein which has been proposed as a marker of renal function that could replace creatinine. The concentration of cystatin C is mainly determined by glomerular filtration and is particularly of interest in clinical settings where the relationship between creatinine production and muscle mass impairs the clinical performance of creatinine. Since the last decade, numerous studies have evaluated its potential use in measuring renal function in various populations (S. Seronie-Vivien et al., *Clin Chem Lab Med* 2008;46:Epub ahead of print).

Emara et al. suggest that equations based on cystatin C levels are not more sensitive or precise than those based on serum creatinine estimation in patients with mild to moderate CKD. They conclude that currently available equations are not sufficiently precise to fulfill the KDOQI guidelines and that more sensitive equations may need to be formulated to avoid missing individuals with mild to moderate CKD.

Of note, recent attempts have been made to generate GFR estimation equations combining serum creatinine and cystatin C values. An equation including serum cystatin C level in combination with serum creatinine level, age, sex, and race provides the most accurate estimates (Stevens et al., *Am J Kidney Dis* 2008;51:395–406).

**Sumaili et al.** (2008;110:c220–c228) from Kinshasa University undertook a cross-sectional survey of around 3000 individuals on World Kidney Day and noted that over 17% had proteinuria. The majority of those with proteinuria had associated chronic disease such as diabetes (~25%), metabolic syndrome (~20%) or hypertension (20%). Also, and as expected, more than 20% of those with proteinuria were older than 50 years. Diabetes, obesity and old age were independently associated with proteinuria. However, before proclaiming such high prevalence of proteinuria, caution should be exerted in view of the following: 1) the great majority of those with proteinuria (14.8% of the 17.1%) had 1+ on dipstick analysis, with very few with more substantial levels of proteinuria (++ and +++). False-positive results are quite common at this low level of proteinuria. 2) Cross-sectional analyses do not allow confirmation of chronicity, and repeated testing should be undertaken to confirm such abnormalities and to characterize CKD. Many studies have created the impression that CKD affects a significant percentage of the population; many studies have been based on single, cross-sectional estimations of albuminuria and proteinuria. More rigorous and repeated analyses are warranted to avoid overinflating the CKD healthcare problem in Africa and the emerging world.