Chronic kidney disease: Need for a national action plan

Chronic kidney disease (CKD) is a devastating disease with clinical, economic and ethical dimensions and is emerging as a major public health problem globally. The renal replacement therapy (RRT), the mainstay of the management of CKD is beyond the reach of a large number of CKD patients in many developing countries, including India. With incidence of end stage renal disease (ESRD) showing an alarming 8 per cent annual growth rate\(^1\), concerted efforts are needed for the prevention, early diagnosis, and feasible and affordable management of CKD.

The World Health Organization (2002) estimates that the diseases of the kidney and urinary tract contribute to over 850,000 deaths and over 15 million disability-adjusted life years\(^2\). Even this is considered an underestimate, due to problems of CKD classification\(^3\) and limited data on CKD from small observational studies from many developing countries including India\(^4\) or from personal experience of nephrologists\(^5-7\). Much less is known about earlier stages of CKD when symptoms may be mild or neglected by patients or their caring physicians. Poor standardization of definition of CKD compounds the problem. With an estimated ESRD of 100 per million people there could well be about 100,000 patients per year in India\(^8\).

Over 1.6 million patients undergo RRT, mostly haemodialysis, globally, with the developed world reporting 90 per cent\(^9,10\). In India, most CKD patients reporting to tertiary care centres are in the end stage and the RRT is the only option at that stage. ESRD is accorded a low priority in the public health system due to financial constraints. The concept of health insurance is virtually non-existent and so less than 10 per cent of all patients receive any kind of RRT\(^11\). Most of ESRD patients availing treatment are started on haemodialysis with only a small proportion (<0.5%) started on continuous ambulatory peritoneal dialysis (CAPD). About 60 per cent are lost to follow up within three months, primarily due to economic reasons\(^8\). Our experience at the Nizam’s Institute of Medical Sciences (NIMS), Hyderabad indicates that nearly half (51.8%) of the patients on RRT were self-supporting, 40 per cent on haemodialysis drop out, 84.2 per cent in the first three months itself. The situation is more or less the same at other centres also. Although renal transplantation is a cheaper option due to reduced maintenance costs over time, only about 5-10 per cent of patients with ESRD have a transplant\(^11\).

There is a need for a clear strategy. As a starter, a Government-supported programme should be initiated for the large expanding ESRD population. Simultaneously efforts should be made to plan and initiate a prevention/control program for CKD. To pick up CKD at an early stage, steps should be initiated to promote methodology for standardization and estimation of glomerular filtration rate (GFR) rather than serum creatinine in clinical laboratories. Such data would prompt and enable physicians to pick up CKD at an earlier stage, improve the opportunity for early referral of CKD patients to nephrologists to minimize progression of CKD.
There is also a dire need to bridge the wide gap between the availability of facilities for dialysis for the estimated 100,000 new patients of ESRD per annum. These include nephrologists, trained nursing staff, and dialysis centres. There are just about 400 Dialysis centres with 1200 dialysis stations in the country which are quite inadequate. The development of peritoneal dialysis as a serious viable option could be explored. Given the geographic expanse, limited health infrastructure and supportive facilities, less need for elaborate facilities, etc., peritoneal dialysis programme appears to be a viable option. Similarly, the entire transplant programme in India needs a re-look as we have just about 130 government recognized centres, limited number of donors and inadequate transplantation facilities.

The spectrum of CKD in India indicates chronic glomerulo nephritis (CGN) as the most common cause followed by diabetes. Recent data including our own however, suggests diabetes as the most common cause for CKD which is not surprising as diabetes and hypertension are rising significantly, both in developed and developing countries. This calls for an integrated control of CKD with other non-communicable diseases, a strategy already being implemented elsewhere.

But any serious attempts to seriously launch such a major programme need basic data on CKD like prevalence, incidence, common causes, time for progression to end stage, etc., which are as yet unavailable. As a first step, renal registries to collect data on a standardized form can be started at all major tertiary care centres on the lines of the hospital-based National Cancer Registry Programme of the ICMR. Though the Indian Society of Nephrology has initiated steps in that direction, the involvement and support of the government cannot be overemphasized.

Screening of populations at the primary care setting, as done in the developed West, can be very beneficial. One beneficial approach is the screening of population for renal disease. As early as 1994, it was noticed that there is just and therefore screening was considered an uphill task. The situation continues to be same today, one nephrologist per four million people. Yet, today we have about 700 nephrologists in India, mostly located in the urban areas - very much below the expected nephrologist-population ratio. As screening the entire population is neither feasible nor desirable, focusing on high-risk individuals like the elderly, diabetics, hypertensive, autoimmune diseases known to affect the kidney and relatives of patients with CKD would be more fruitful. Bolivian experience underscores the usefulness of such screening and could be a model.

The criteria for diagnosing and staging the kidney disease is important. The recommendations of the United States National Kidney Foundation’s (NKF) Kidney Disease Outcome Quality Initiative (K/DOQI) for the identification and management of people with low GFR, along with changes suggested subsequently could be adapted. To facilitate the adoption of a common nomenclature worldwide, the Indian Society of Nephrology has also come out with guidelines which could be adopted.

There is also a need to impart more knowledge on renal disease at both the UG and PG levels, provide training to physicians and general practitioners to improve the early diagnosis and referrals and enhance awareness of the general public about kidney diseases.

Research on CKD should include studies on the prevalence, risk factors assessment, etc., at the community level. Other areas include study of renal parameters, GFR profiles both in normal individuals and diseased populations and related physiological studies, validate the various existing mathematical formulae and nomograms to estimate GFR, estimate the profile of CKD at various stages, with special reference to pre-ESRD in the community.

To conclude, the overall scenario on CKD burden in India looks grim. Thus, the need for a national
action plan cannot be overemphasized. Such a plan should include a government supported ESRD programme, encourage clinical laboratories to report estimated GFR, enhance facilities, infrastructure and personnel for dialysis and transplantation, establishment of renal registries, develop the speciality of renal epidemiology, reduce the costs of renoprotective care and finally including renal disease as part of the national integrated NCD control programme.

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References


