

## *The Alarming Rise in Chronic Kidney Disease in Europe: How to deal with this costly problem*

More than 10% of the population suffers from chronic kidney disease (CKD), which results in impaired kidney function – i.e. the reduced ability of the kidney to remove waste products from the body. CKD is a disease with greatly increased incidence in the aging population (<50 pmp [per million population] in age 20-44 yr, ±50pmp in age 45-64 yr, ±350 pmp in age 65-74 yr, and > ±500 pmp in age>75yr).

CKD is easily detected by screening for the presence of albumin in the urine. If CKD progresses, the end result is total kidney failure, and thus the need for kidney replacement therapy – dialysis or transplantation. Dialysis reimbursement costs generally 40,000 to 80,000 €/year per individual, depending on the country and the strategy, while kidney transplantation costs roughly the same as dialysis in the first year, but then less than 40% of that amount the years thereafter. Medically the prognosis is better after kidney transplantation than dialysis. In most countries, however, transplantation is no longer considered for a patient older than 75years of age. For these individuals dialysis is the only option.

We are presently in most European countries facing the challenges of an aging population, and we should realise that the absolute number of individuals of 65-74 yrs and greater than 75 year will increase about 1.5 fold in 2025 as compared to 2010, and to even more than two-fold in those greater than 75years in 2030-40. The implication is that soon our dialysis units will be unable to dialyse the growing number of patients >75years of age.

*There are options to overcome this problem. It requires coordinated action by politicians, health care workers, and patients.*

1. Most people with CKD do not yet know they have a problem, as CKD, in its early stages, is silent. Complications only manifest in the late stages when the disease has advanced and the patient is not far away from the need for kidney replacement therapy. Therefore early detection of CKD is essential. Screening is straightforward and requires only a simple urine sample and/or a tube of blood for a central lab facility to measure its albumin content. Such screening procedures have been found effective in various European countries.

➤ *Screening programmes for CKD should be implemented.*

2. Subjects detected to have CKD should be followed and given conservative care with special attention to lowering blood pressure, prevention of overweight, and treatment of diabetes, if present. These are measures that could be implemented by general practitioners or assistant supported health centres, with the aid of simple ITC programs. These measures thus far have only been implemented in nephrology practices. In the Netherlands it is stimulating to see how this resulted since 2008 in a 10% drop in new cases for kidney replacement programmes (Data of Renine: registration of renal replacement therapy in the Netherlands).

➤ *Programmes to prevent progression of CKD should be implemented in general practice.*

3. Policy-makers should put more emphasis on healthy eating, diet and reduced salt intake. For example bakeries should be urged to gradually lower the high salt content of freshly baked bread. The availability of high caloric drinks at schools should be restricted, and replaced with healthier alternatives.

➤ *The availability of high salt products and high caloric drinks should be limited.*

4. Efforts should be undertaken to inform the individual with CKD, what he or she can do to prevent disease progression. Specific patient education and motivation programmes are required to address this topic.

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*Public awareness programmes should be encouraged.*

5. If these preventive efforts fail to halt the progression of CKD, and the patient ultimately reaches the need for kidney replacement therapy, we should encourage kidney transplantation as much as possible for those younger than 75 years. This can be performed either by offering a post mortem kidney or by offering a living donor kidney. Clinical practices in this respect vary highly between European countries. The best programmes provide a combination of both deceased and living (either related or unrelated) kidney donation. It is important to evaluate the differences in these programmes around Europe and to benefit more from the successes which in individual countries are achieved with various options.

➤ *Transplantation programmes should be stimulated, realising that dialysis in those younger than 65 years should be limited to people with contraindications for transplantation*

6. Patient and graft survivals are better after living donation than after deceased donation. Living donation moreover, offers the opportunity to perform pre-emptive transplantation (transplantation done before the patient has entered a dialysis programme). It has also been shown that the prognosis of a patient after transplantation is even better when it is done pre-emptively.

➤ *Both deceased and living donation programmes should be promoted*

➤ *Pre-emptive transplantation should be promoted*

7. As it will never be possible to offer transplantation to all patients, dialysis will still be needed as a second option for renal replacement therapy for a substantial proportion of patients with advanced kidney disease. Since labour becomes more and more expensive, dialysis strategies which necessitate less personnel - such as peritoneal dialysis, self-care hemodialysis and home hemodialysis - become increasingly attractive.

➤ *Incentives should be taken to promote alternative, less expensive and less labour intensive dialysis strategies*

➤ *Dialysis reimbursement should be harmonized throughout Europe*

➤ *Simple dialysis strategies appropriate for the application outside the hospital should be stimulated*

The **European Kidney Health Alliance (EKHA)** is an Alliance of not-for-profit organisations who represent the key stakeholders in kidney health issues in Europe. For more information please see [www.ekha.eu](http://www.ekha.eu)

