



NEPHROLOGY NEEDS IN LMICS

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Disclosure of Interests

NO Conflicts of interest related to the topical content

KDIGO



Nephrology needs - topics

Chronic Kidney Disease is:

- Complex – 2.5 M people on RRT (2010)-Lancet2015
- Long Lasting – *chronic program + comorbidities*
- Frequently unrecognized problem
- Constantly presenting new challenges
- Full of serious co-morbidities and risks

CKD comorbidities and risks

- AKI as a risk for CKD (13 M people - 85% in LMIC)
- Hepatitis, HIV, toxicity (various herbs, drugs)
- Cardiovascular Disease
- Anemia
- Mineral and Bone Disorders
- Diabetes
- Hypertension
- Obesity
- Unhealthy ageing





Figure 1: International Society for Nephrology’s 0by25 initiative: key elements for a sustainable infrastructure to support AKI care based on the 5 Rs

This framework will be adapted for different regions of the world to account for differences in available resources and infrastructure. AKI—acute kidney injury.



Nephrology needs - topics

Chronic Kidney Disease - LMIC perspective

- 80% developed world – *12% of the population*
- RRT - 93% developed world
- LMIC: <25% of eligible pts able to access RRT
- **2-3 M deaths annually – no access to RRT**
- PD – import of the dialysate fluid – expensive th.
- Tx - costs of operation and hospital stay,
(maintenance immunosuppression, ambulatory care, treatment of intercurrent illness and re-hospitalization are barriers for implementing Tx in developing countries)



CKD burden - estimates

CKD - LMIC perspective

- WHO estimation – CKD were responsible for more than 60% (35 million) of all deaths in 2005
- more than 80% of these deaths occurring in LMIC
- Lost economic productivity estimated to billions U.S. \$



CKD - A call to action for CKD

- Capacity-building of trained staff and infrastructure
- Development of multidisc. research centres & clinical care
- Endorsement and support by national government and world health bodies like World Health Organization
- Support from pharmaceutical and corporate sectors and availability of low-cost therapy
- Regular Internet access for education and data collection
- Establishment of regional surveillance & intervention studies
- Education of primary care physicians & allied health profess.
- Intensive collaboration of medical specialty societies



Poverty and disease burden - LMIC

Healthy behaviour

Lack of information on preventive behaviours

Lack of knowledge on how best to respond to an episode of illness

Health beliefs and unhealthy behaviours

Lack of access to health care

Greater distances from health-care providers

Lack of out-of-pocket resources

Biological factors

Low birth weight

Genetic predisposition

Cumulative biological risk profiles

Inadequate nutrition

Environmental factors

Increased exposure to pollutants

Increased exposure to communicable diseases

Lack of clean water and sanitation



Nephrology Needs in LMICs

Implement effective population-based prevention strategies:

- Preventive programs
 - BP control – treatment
 - Diabetes
 - Low birth weight
 - Obesity
 - Smoking

Nephrology Needs in LMICs

General prevention strategies:

➤ CKD

- Early identification
- Monitoring and slowing progression
- Best available treatment at all stages of disease
- Dealing with kidney failure

Nephrology Needs in LMICs

Low cost treatment strategies:

- *Renal Replacement Therapy*
 - Selection of the best available modality
 - Access to dialysis
 - Initiation of dialysis
 - Providing maintenance dialysis
 - Evaluation for transplantation
 - Access to transplantation and donor kidneys
 - On-going management of co-morbidities and risks



Action against the diseases that lead to ESRD

WKD 2015 - global call

- Improving access to better education
- Improving economic opportunities
- Access to preventive medicine for those at highest risk, could end the unacceptable relationship between CKD and disadvantage in these communities



Nephrology Needs in LMICs

- **Additional Needs in LMICs**
 - **Funding for establishing dialysis and transplant facilities plus securing and training personnel**
 - **Funding for dialysis treatment**
 - **Funding for appropriate medications**
 - **Family support**
 - **Supportive care when appropriate or necessary**
 - **Sufficient numbers of care givers, especially MDs**
 - **Recognition by the government of CKD's importance and the benefits and savings coming from early care**



KDIGO Can Help Meeting These Needs

- KDIGO has published guidelines and conference recommendations on many of these topics
 - **KDIGO recommendations can be relied on as the best global science and can be adapted as necessary**
 - **They address common treatments, diagnoses, management decisions and interventions**
 - **They provide a framework for knowing what the recommended global standards of care are so that we can evaluate gaps and alternatives in our countries**
 - **They form the scientific foundation for the fact that better care leads to better outcomes for all stakeholders, especially patients**



This KDIGO Conference Can Help

- We should focus, not on what we can't do, but on what we can do
 - We can compare our usual care with global best practice, assessing gaps
 - We should discuss what we can do even with minimal resources
 - Lack of economic resources doesn't mean do nothing, there are options:
 - Generics, bio-similars, nutrition, avoiding toxins, exercise, smoking cessation, basic blood pressure and glycemic control



Rational For This LMIC Conference

- KDIGO has and will continue to expand on recommendations based on science that can be adapted to guide decisions even in areas of high demand and few resources
- Early identification, intervention and the best care possible in any country will:
 - **Improve outcomes**
 - **Slow progression**
 - **Avoid premature death**
 - **Lessen the burden of CKD**
 - **Ultimately lower costs for governments**



KDIGO recommendations & implementation

The use of CPGs has impact at four levels:

- Patient level,
- The health provider level,
- The organizational level and
- The political level.

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THANK YOU!

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