Global Action. Local Change.

KDIGO Controversies Conference on Prognosis and Optimal Management of Patients with Advanced CKD

- Breakout Group Questions -

Group #1: Risk-Based Management of Patients with CKD G4+

This breakout group will discuss the identification/assessment, prioritization, and management of patients with CKD G4+ in order to prevent and/or mitigate CKD-associated risks. Questions for further discussion will include:

1. How should the prognosis of patients with CKD G4+ be determined, for key outcomes, including kidney-specific, cardiovascular, and non-cardiovascular outcomes?
2. How should variation in kidney function be distinguished from progression?
3. Does age modify outcomes and how should this be accounted for in risk-based care?
4. What are important racial, geographic, and social determinants of risk and how can these determinants be addressed?
5. How can we weigh the risk/benefit strategies of common medical and surgical interventions in people with CKD G4+ (e.g., stringencies of controlling blood pressure, glycemic control, major surgery, and other medical procedures or exposures?)
6. How should competing risks of non-kidney outcomes, patient preferences, and quality of life be incorporated into risk-based management?
7. What is the best model of care for patients with CKD 4+ and how can this be implemented? What are the implications of multi-morbidities in CKD G4+ and how should different guidelines for managing comorbidities be addressed in people with CKD and how can diverse care providers be alerted to risks of complications?

8. What are the remaining uncertainties about medical therapeutic targets to reduce risk in CKD – e.g., treatment of asymptomatic hyperuricemia, acidosis, use of aspirin, and other cardiovascular prevention strategies?

9. How should patients who develop advanced CKD following AKI be identified and managed? How can the risk of AKI in people with CKD4+ be best mitigated against (e.g., tablet holidays with inter-current illness, temporary cessation of RAAS blockade, etc.)?

10. What is the role of biomarkers to improve prognostication in CKD G4+, above and beyond eGFR and albuminuria?

11. Are there subclinical events (e.g., tubulointerstitial injury, inflammation, fibrosis, unrecognized episodes of AKI, short lived prescription and non-prescription medication exposures, etc.) associated with progression and can these be identified and targeted to reduce risk of adverse outcomes?

12. How can risk prediction strategies be incorporated to time key elements of care delivery for advanced CKD care (i.e., intensity of follow-up, timing of psychosocial and educational interventions for RRT modality selection, or end-of-life care)?

Group #2: Heart Failure in CKD G4+

Epidemiology and natural history of heart failure in CKD G4+

1. What is the relative distribution of HFPEF and HFREF as patients transition from CKD G4+ to G5?
2. What is the progression in LVH burden from CKD G4 4+ to G5?
3. What is the contribution of ischemic heart disease to heart failure in CKD G4+? And does it change in the progression/transition to CKD G5 (i.e., is the risk actually higher in CKD G4+ with survival bias/less IHD in CKD G5)?
4. What are the short- and long-term outcomes associated with heart failure in patients progressing to CKD G5?

Screening and diagnosis of heart failure in CKD G4+

5. Does screening for heart failure in CKD G4+ have any evidence-based benefit in patients progressing to CKD G5? If yes, what are the best methods to screen?

Pathophysiology and risk factors for heart failure in CKD G4+

6. Are there CKD-specific risk factors that contribute to the development of heart failure in patients progressing from CKD G4+ to G5?

Strategies for primary and secondary treatment of heart failure in CKD G4+

7. How do we manage a patient with CKD G4+ and heart failure (HFREF and HFPEF as categories) i.e., "conventional" therapy such as ACEi/ARB/MRA? Do we use potassium binders as part of the therapeutic strategy?

8. How do we prepare a CKD G4+/ G5 ND patient with HF for the initiation of renal replacement therapy?

9. Do arteriovenous fistula adversely affect patients with HF? Should patients with HF receive AVF?

10. What modality of renal replacement therapy is best for patients with CKD G4+/G5 with HF (e.g., in-center HD, home HD, PD, preemptive kidney transplant)?

Group #3: Informed Decision-Making for Renal Failure Therapy

1. What tools can be used to assess patient prognosis in CKD G4+ and/or incident ESRD? Are the available tools accurate? Generalizable?
2. Is it possible to identify patients for whom dialysis or transplant might be considered "futile"? How should prognostic estimates be used and communicated to patients in decision-making?
3. At what level of kidney function and/or what level of ESRD risk should patients receive counseling about treatment modalities for kidney failure? What are the costs, risks and benefits of early vs. late or liberal vs. more targeted counseling?

4. What considerations do patients consider most important in making treatment modality decisions (i.e., dialysis vs. transplant, dialysis vs. conservative care). How important is life expectancy relative to other considerations?
5. What considerations do clinicians consider most important in making treatment modality decisions (i.e., dialysis vs. transplant, dialysis vs. conservative care). How important is life expectancy relative to other considerations?
6. What are the characteristics of patient education interventions that promote informed decision-making about treatment of kidney failure (e.g., decision aids, group classes, others)? How do studies measure the effectiveness of these interventions?
7. What is the appropriate timing and quantity of nephrologist care to promote informed decision-making for treatment of kidney failure? What is the role of nephrologist care for patients who have expressed a preference for conservative care, and/or patients considered to have a poor prognosis on dialysis?
8. How can informed decision making be promoted among patients with limited health literacy, cognitive impairment, language and/or cultural barriers, etc.?

Group #4: Needs, Opportunities and Challenges for Clinical Trials in Patients with Advanced CKD

How can we increase the number of completed trials in CKD G4+?

1. What are the elements of the "business case" that would encourage industry to support trials in this population?
2. How can patients be engaged to lead and support clinical trials in this population (CKD G4+)?
3. What alternative trial designs or platforms can be used in this population and which should be prioritized?
4. How can we build capacity for trial design and conduct, especially in LMIC?

How to increase the likelihood that trials will demonstrate benefit of the experimental treatment?

5. What are the optimal (non-renal) endpoints (e.g., CV, vascular access, MBD, others) for patients with CKD G4+?
6. How can the most appropriate participants be selected for inclusion?
7. What lessons can be learned from prior trials of advanced CKD?

How can the findings of trials be made more relevant to patients and their families?

8. What interventions and outcomes are most patient-relevant for CKD G4+?
9. What structures/processes are required to ensure ongoing input from patients and families in priority setting for future trials?
10. What is the optimal method for involving patients in increasing the uptake of findings from completed trials?