Global Action. Local Change.

KDIGO Controversies Conference
CKD-MBD: Back to the Future
October 25-27, 2013
Madrid, Spain

- Conference Scope of Work -

CONFERENCE OVERVIEW

It has been almost 8 years since the KDIGO Controversies Conference on Definition, Diagnosis, and Classification of Renal Osteodystrophy was held in Madrid, Spain. That conference was regarded as a breakthrough event concerning the understanding of and approach towards mineral and bone disturbances in the context of renal disease. The term "chronic kidney disease – mineral and bone disorder" (CKD-MBD) was coined at that conference and began to replace the bone-centric concept of "renal osteodystrophy" (ROD) worldwide with publication of the conference report.[1] CKD-MBD was defined as a trinity of bone abnormalities, laboratory abnormalities and vascular calcification, linked to hard outcomes such as fractures, cardiovascular morbidity and mortality. As a result of that conference, the initiative to create a new global guideline on the diagnosis and therapy of CKD-MBD was set in motion.

The publication of the KDIGO CKD-MBD guideline in 2009 raised public awareness, fostered discussion and created controversy. The KDIGO guideline work group had to contend with the reality that high-quality evidence was surprisingly sparse regarding most issues related to CKD-MBD-associated outcomes. Target levels for laboratory parameters including calcium, phosphate and PTH, as proposed in 2003 by the KDOQI Clinical Practice Guidelines for Bone Metabolism and Disease in Chronic Kidney Disease,[2] were no longer recommended because such levels were not grounded in solid evidence. Rather, therapeutic recommendations were based on trends in laboratory markers as therapeutic goals. A key criticism of this guideline was the vagueness of recommendations, which were considered impractical and potentially leading to

diagnostic and therapeutic nihilism. Position papers and commentaries were written by peer groups, such as the leaderships of KDOQI and the European Renal Best Practice (ERBP).[3,4] Nevertheless, the KDIGO CKD-MBD guideline was translated in many languages and endorsed by many nephrology societies.[5-15]

Now in 2013, the question has been raised whether this guideline requires revision. During the last 4 years, a significant body of new evidence has accumulated, with potential impact for CKD-MBD-relevant diagnostic and therapeutic decision-making. The purpose of this upcoming KDIGO Controversies Conference on CKD-MBD in October 2013 will be to determine if it is time for a comprehensive revision of the CKD-MBD guideline and if so, what the scope of these revisions should be.

REMITS

The conference will begin with a series of plenary sessions from key opinion leaders summarizing the latest research and findings related to CKD-MBD. The remaining time will be devoted to two breakout sessions whose participants will be tasked with the following remits:

***Session A**:* Led by the breakout group leaders, Breakout Session A is designed to discuss the broader context on each of following 4 topic areas: vascular calcification; bone quality; calcium and phosphate; vitamin D and PTH. Key literature will be provided and assigned in advance of the meeting, and the information presented by the plenary lectures will add to the evidence basis for these rounds. Questions for discussion should include the following:

I. A. What new evidence is there since 2009?
   B. Are any of the guideline statements now potentially better substantiated?
   C. Are any of the guideline statements clearly wrong?

II. A. Should any of the guideline statements be modified because of recent data?
   B. Should any of the guideline statements be modified because of new techniques, technology (such as access to cardiac MRI) or assays (such as improved bone turnover markers, fetuin / calciprotein particles / FGF-23 assays, etc.)?

III. A. Which CKD-MBD guideline statements for care have been impossible to implement (e.g., the need for bone biopsy to diagnose ROD) and should they therefore be modified?
   B. How can we assess or audit the implementation / usefulness of the guideline statements?

IV. A. Which laboratory and imaging outcomes are appropriate surrogate endpoints for

CKD-MBD?

B. What are the desirable patient-level outcomes in CKD-MBD?

C. What questions have to be answered to achieve those outcomes?

V. A. What new areas should be covered, such as guidelines for management of calcific uremic arteriolopathy?

The goal of this session is to move towards determining if existing guideline needs modifying and how. Another objective is to assess how useful clinical outcomes can be more easily identified. This part of the session should refer back to the research questions included at the end of each 2009 CKD-MBD guideline chapter.

Session B: This breakout session is intended to follow-up on topic discussions from Session A but should now strictly be reviewed in the context of the relevant guideline sections:

Topics	**2009 KDIGO guideline section**
Breakout Group 1: Vascular Calcification	3.3.1, 3.3.2
Breakout Group 2: Bone Quality	3.2.1 – 3.2.5, 4.3.1-4.3.5, 5.5, 5.7
Breakout Group 3: Calcium and Phosphate	4.1.1 –4.1.8, 5.1, 5.2, 5.7
Breakout Group 4: Vitamin D and PTH	4.2.1-4.2.5, 5.3-5.4, 5.6

The end goal is to critically evaluate the applicability of the 2009 KDIGO guideline[1] in light of the evidence base emerged in the last five years. Methodological considerations governing guideline updates as proffered by authoritative bodies such as USPSTF and NICE will also be addressed. Relevant background reading[16] will be provided in advance, with a scheduled presentation providing a state-of-the-art update on this issue.

It is acknowledged that there will be inherent difficulties in the evidence review given the natural overlap of topics among each group. For example, the question whether phosphate binders should be started at earlier stages of CKD will touch on at least breakout groups 1 and 3, and the results from the ADVANCE and EVOLVE studies will likely be discussed in all 4 groups. As such sufficient time has been allotted to each plenary breakout group report so that there will be an even exchange of viewpoints and opinions. In this vein, there may be an additional option for group members to cross between sessions A and B. At the conclusion of this conference, it is expected that each breakout group will summarily review the acceptability of the relevant guideline statements at hand and conclude whether there is necessity to update any

recommendations either in part or in whole. In keeping with previous Controversies Conferences, a final report outlining the deliberations and research recommendations from the proceedings will be published in a peer-reviewed journal.

References

1. Moe S, Drüeke T, Cunningham J, et al. Definition, evaluation, and classification of renal osteodystrophy: a position statement from Kidney Disease: Improving Global Outcomes (KDIGO). *Kidney Int* 2006; 69: 1945-53.

2. National Kidney Foundation. K/DOQI clinical practice guidelines for bone metabolism and disease in chronic kidney disease. *Am J Kidney Dis* 2003; 42: S1-S201.

3. Uhlig K, Berns JS, Kestenbaum B, et al. KDOQI US commentary on the 2009 KDIGO clinical practice guideline for the diagnosis, evaluation, and treatment of CKD-Mineral and Bone Disorder (CKD-MBD). *Am J Kidney Dis* 2010; 55: 773-799.

4. Goldsmith DJ, Covic A, Fouque D, et al. Endorsement of the Kidney Disease Improving Global Outcomes (KDIGO) Chronic Kidney Disease-Mineral and Bone Disorder (CKD-MBD) Guidelines: a European Renal Best Practice (ERBP) commentary statement. *Nephrol Dial Transplant*. 2010; 25: 3823-31.

5. Ketteler M, Eckardt, KU. KDIGO-Leitlinien zu den Störungen des Mineral- und Knochenhaushalts bei chronischer Nierenerkrankung 2009. *Der Nephrologe* 2009; 4: 437-440

6. Jean G, Chazot C. The French clinician's guide to the Kidney disease: Improving global outcomes (KDIGO) for chronic kidney disease-mineral and bone disorders (CKD-MBD). *Nephrol Ther* 2010; 6:151-7.

7. Steddon S, Sharples E. How do the KDIGO Clinical Practice Guidelines on CKD-MBD apply to the UK? The Renal Association. http://www.renal.org/clinical/guidelinessection/CKD-MBD.aspx

8. Manns BJ, Hodsman A, Zimmerman DL, et al. Canadian Society of Nephrology commentary on the 2009 KDIGO Clinical Practice Guideline for the Diagnosis, Evaluation, and Treatment of CKD-Mineral and Bone Disorder (CKD-MBD). *Am J*

Kidney Dis. 2010;55:800-12.

9. Tsukamoto Y KDIGO CKD-MBD Clinical Practice Guideline. *Clin Calcium*. 2010; 20:1021-7.

10. Limardo M, Pontoriero G, Locatelli F. KDIGO guidelines for the diagnosis and treatment of chronic kidney disease mineral and bone disorder: what's new? *G Ital Nefrol* 2010; 27:211-4.

11. Moysés RM, Cancela AL, Gueiros JE, et al. KDIGO CKD-MBD Discussion forum: the Brazilian perspective. *J Bras Nefrol*. 2010; 32:229-36.

12. Matuszkiewicz-Rowińska J. KDIGO clinical practice guidelines for the diagnosis, evaluation, prevention, and treatment of mineral and bone disorders in chronic kidney disease. *Pol Arch Med Wewn*. 2010; 120:300-6.

13. Jha V, Kher V, Pisharody R, et al. Indian commentary on the 2009 KDIGO clinical practice guideline for the diagnosis, evaluation, and treatment of chronic kidney disease-mineral and bone disorders. *Indian J Nephrol*. 2011 Jul;21(3):143-51.

14. Bellorin-Font E, Ambrosoni P, Carlini RG, et al; Sociedad Latino Americana de Nefrología e Hipertensión (SLANH). Clinical practice guidelines for the prevention, diagnosis, evaluation and treatment of mineral and bone disorders in chronic kidney disease (CKD-MBD) in adults. *Nefrologia*. 2013; 33 Suppl 1:1-28.

15. http://kdigo.org/home/mineral-bone-disorder/

16. Consideration of an early topic update: http://www.uspreventiveservicestaskforce.org/uspstf08/methods/procmanual2.htm