Global nephrology guidelines: a first small step in the right direction

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Guidelines for the care and cure of illnesses have been an integral component of medicine from its origins. Extant records of ancient medicine document precise recommendations of then available therapeutic options, which lend themselves to analysis as algorithms of diagnosis and treatment [1]. The 5000-year-old Babylonian Code of Hammurabi clearly states the compensation for a cure and the punishment for a poor outcome. As the priestly medicine of Mesopotamia and Egypt led to the emergence of Greek rational medicine, therein began the foundations of a scientific basis to guidelines, albeit based on individual case observations and accrued clinical experience. The beginnings of epidemiologic studies and probability mathematics during the Enlightenment added a new dimension and terminology to guidelines. The consequent complexity that resulted is perhaps best exemplified in the publication of an explanatory test titled ‘Medical Arithmetic, As a Guide and Compass Through the Labyrinth of Therapeutics’ by William Black (1749–1829). This time-honoured thread began in ancient medicine, entered an entirely novel phase in the period after the Second World War, when the expanding number of new therapeutic agents being discovered coupled with that of quantification and statistical analysis came to provide increasing measurable precision to certainty in therapeutics, and changed what started as the conjectural art of medicine into a disciplined science of clinical investigation [2]. The stage was now set for what has come to be known as evidence-based medicine, a term whose use has increased exponentially since the mid-1990s [3]. The subsequent iconic image vested in evidence-based medicine led to a parallel increase in the development of new clinical practice guidelines [4]. Thus, whereas evidence had long guided the practice of medicine, the philosophical beginnings of quantifiable evidence-based medicine in the 18th century now fuelled the generation of an overwhelming number of clinical practice guidelines in medicine [2–4].

The first clinical practice guidelines in nephrology were published in 1993. Over the ensuing closing years of the past millennium, the number of guidelines in nephrology and the organizations developing them has proliferated. Most of these have been of variable methodological rigor, and several of them were mere translation or adaptation of existing guidelines. Collectively, they represented considerable overlap and duplication of guidelines on a limited number of topics centred on end-stage renal disease. The number of new guidelines was further magnified with the publication of guidelines on the staging of chronic kidney disease (CKD) in 2002, as treatment guidelines were now extended into earlier stages of CKD [5].

Expressed concerns for the need of a more coordinated and uniform approach to the process of guideline development in nephrology led to the establishment of the Kidney Disease: Improving Global Outcomes (KDIGO) initiative in 2003. The commitment of KDIGO is to improve the care and outcomes of kidney disease patients worldwide, its process being that of coordination, collaboration and integration in developing the tool necessary for its commitment: clinical practice guidelines [5]. This promise became a reality with the publication of the Hepatitis C Guideline in April of 2008 [6], which by any criteria is a milestone in the evolutionary process of global guidelines in nephrology. The measure of success of KDIGO reflected in its initial reception by the worldwide nephrology community is now substantiated by the reaction of various guideline development groups to the publication of the Hepatitis C Guideline [7,8], and specifically the article by Covic et al. in this issue of Nephrology, Dialysis, Transplantation [9].

From the outset of KDIGO, the leadership of the European Renal Association–European Dialysis and Transplantation Association (ERA-EDTA) has been one of the staunchest supporters of the KDIGO mission [10]. In fact, the introductory comments of the ERA-EDTA position statement on the KDIGO Hepatitis C Guideline published in this issue summarize what is a most constructive step towards the development of global nephrology guidelines. The European Renal Best Practice (ERBP) position statement is a positive first step in this direction. However, no guidelines are worth the paper or virtual space they are published on unless they are adopted and translated into clinical practice.

It is only when the guideline recommendations are actually implemented at the regional level and their impact...
measured that any guidelines can achieve their purpose. This is a difficult task that entails the local adoption and application of the recommended interventions, their subsequent verification by clinical performance measures, and their ultimate validation by measuring and documenting changes in outcome after they have been implemented. This is a demanding task that will take time, consume resources and require concerted effort. Actually this was a major rai-son d’être of KDIGO; essentially reduce the cost of generating the evidence tables in developing guidelines in order to free local resources to the implementation and validation of the adopted recommendations [5,11]. Ensuring that this promise is fulfilled is now the challenge facing the ERBP.

**Guidelines: problems and potential solutions**

The KDIGO guidelines come at a time when guideline development is facing increasing scrutiny and a series of challenges [12,13]. First is the complexity of the methodology of generating evidence tables. KDIGO has adopted the Grades of Recommendation, Assessment, Development, and Evaluation (GRADE) approach for the grading of evidence. Another challenge in developing guidelines is that of the strength of the recommendations made that ultimately depend on the available evidence. Unfortunately, nephrology is hampered in this regard because of the limited number of randomized clinical trials compared to that of other disciplines. The GRADE approach provides what is likely the best solution now available to this dilemma [13,14].

Then there is the problem of conflict of interest. Suggestions have been made in the press and medical journals that vested interests can lead to unwarranted and potentially harmful interventions [12]. KDIGO requires full disclosure of conflicts from its guideline development workgroup members from the moment of their recruitment. These are kept on record and published in the final guidelines. Additionally, KDIGO guidelines go through a vigorous multi-tiered review process, beginning by that of its Board of Directors, representatives of major guideline developing organizations and ultimately an open organizational and public review. After each step all comments are reviewed, assessed and appropriately integrated into the final document [8]. Whereas no measure alone, independent of how strict, can resolve any misuse due to conflict of interest, the KDIGO approach does represent an honest and vigilant effort at transparency coupled with built in checks and balances in the review process.

Yet another concern is that guidelines standardize the approach to medical care and as such may do more harm than good. This is a serious concern, which the KDIGO guidelines address in their introductory Disclaimer Statement that the guidelines are based on the best information available at the time of their publication; are designed to provide information and assist decision making; are not intended to define a standard of care; and should not be interpreted as prescribing an exclusive course of management [8]. The latter is a specific and singular decision that every practitioner must individualize to the need of every patient. Where the guidelines are helpful is in providing the options, hence, the utility of guidelines, which not only analyse the available evidence systematically but also identify the gaps in knowledge. Now more than ever, this is essential because of the information overload faced by the practitioner. The proliferation of effective treatments and increased outcomes research make it difficult, if not impossible, for any one individual to digest and analyse the literature [8,15].

**Conclusion**

It is with full knowledge, careful consideration and extensive analysis of the above problems and challenges that KDIGO has undertaken its mission. The Hepatitis C Guideline is but a first small step in developing global guidelines. There are now two other completed guidelines to be published in 2009, one on CKD-related mineral and bone disorders and the other on the care of the kidney transplant recipient. Two others now under development with anticipated publication in 2010 are one on acute kidney injury and another on glomerulonephritis. Given the reception of the Hepatitis C Guideline, the future of global nephrology guidelines is promising [11].

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**References**


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