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Editorial

KDIGO Hepatitis C Guideline: Implications for regional guideline development and implementation

The Kidney Disease: Improving Global Outcomes (KDIGO) organization recently published its 'Clinical Practice Guidelines for the Prevention, Diagnosis, Evaluation and Treatment of Hepatitis C in Chronic Kidney Disease' in a supplement to Kidney International[1] (accessible via http://www.kdigo.org). This first-published clinical practice guideline from KDIGO has implications not only for local clinical practice in the area of Hepatitis C, but also for guideline development in Australia, New Zealand and the wider Asia–Pacific region, which deserve consideration.

KDIGO is an independently incorporated, not-for-profit foundation that seeks to 'improve the care and outcomes of kidney disease patients worldwide through promoting coordination, collaboration and integration of initiatives to develop and implement clinical practice guidelines'. This mission statement clearly articulates KDIGO's desire to rationalize guideline development processes worldwide, on a background of numerous guideline groups producing different recommendations from the same evidence base. Its governance is a large board of directors from across the globe, including many eminent names in nephrology, and it has largely eschewed formal organizational representation from the various guidelines groups (including Caring for Australasians with Renal Impairment, CARI) in favour of consultation at various forums in the guideline development process.

The Hepatitis C Guideline from KDIGO is timely as it addresses an important viral infection risk to dialysis and transplant populations that has not been covered by local nephrology guidelines. Although the prevalence of hepatitis C in ANZ is low (<1%) it is much more common in dialysis populations[2] and other countries in the region (Cambodia 4%), with poor data from parts of the Pacific region.[3] In addition, because of its blood-borne transmission there is the need for continued vigilance as nosocomial spread and outbreaks within dialysis units are well documented.[2,4] Beyond the dialysis setting, hepatitis C is an aetiological agent of renal disease, albeit not common in developed countries, but may contribute significantly to the burden of kidney disease in very high-prevalence countries.

The importance of hepatitis C in the Asia–Pacific has been recently recognized in the development of the 'Asian Pacific Association for the Study of the Liver consensus statements on the diagnosis, management and treatment of hepatitis C virus infection'.[3] This document deals primarily with the general population and hepatology issues that arise from the disease, but does include a short series of consensus statements relating to hepatitis C in end-stage kidney disease. These statements are broadly in line with comparable sections of the KDIGO document, most notably around screening the dialysis population, but are understandably less detailed. This fact and the greater developmental rigour of the KDIGO guideline make the latter a welcome addition.

The guideline is an extensive document, broken down into the three major areas of detection, treatment and prevention of hepatitis C, the usual questions of most relevance to clinicians. The working group has broad representation from the relevant professional groups, although the role of patients or consumers in the guideline appears to be limited to the public consultation process. Among the other strengths of the guideline is its clarity regarding editorial independence and potential conflicts of interest among the authors. In addition the Work Group have used the evidence derived from systematic search methods, linked the recommendations with the evidence and described both the benefits and the risks of treatment options.

The tools for assisting in the application of the guidelines into clinical practice (i.e. 'implementation'), such as discussion of the structural barriers and costs associated with recommendations, are scant. Some elements of the evidence aggregation are different to the CARI processes, most notably the ability of Work Group members to consider data other than that which met the systemic review eligibility criteria, including opinion pieces. The sequence of the guideline processes also appears different from CARI in that draft guideline statements and rationale statements were developed *before* the systematic reviews of evidence were performed, on the basis of 'expected pertinent evidence'. The lack of an explicit method for resolving differences in interpretation of the evidence among working group members is a weakness shared with the CARI processes at present. The guideline does include recommendations for future research in each chapter, but a formal summary of the highest research priorities would be a useful addition to the Executive Summary.

Implementing guidelines is the more difficult task, and there are some features of this guideline that will present some challenges for clinicians. The size of the document (99 pages), the absence of clear criteria for audit and consideration of potential costs will not make the process easier, neither will the number of non-specific and ambiguous recommendations. Comment upon the guidelines most applicable to high-prevalence countries (often with limited

resources), which are likely to be quite different from those best applied in low-prevalence countries, would have been useful. The use of formal summary estimates of effect size in the stronger recommendations would also help the work of those implementing the guideline.

ANZSN and CARI welcome the development of this and planned future KDIGO guidelines, but the role of such guidelines and their application in our region is a work in progress. There are novel guideline adaptation tools (e.g. ADAPTE[5]), but there is no experience of their use within CARI and their use does involve challenges and costs. The Australian National Health and Medical Research Council's recent investment in developing an Australian guideline for venous thromboembolism prevention (using these guideline adaptation tools), when local and international guidelines already exist, suggests that, at least at a government level, there is a need for *national* guidelines. Within CARI and ANZSN we have made a commitment to strengthen our relationship with KDIGO and understand that the workload of guideline development and updating within nephrology is such that a single body is unlikely to be able to do this work alone. Inevitably the changing guideline landscape will present challenges and mandates that regional guidelines group such as CARI evolve. Rather than signalling the end of such groups, this evolution is likely to require a broader ongoing contribution from CARI, adding skills in adapting the guidelines of others to the existing roles of guideline development, updating and implementation.

Hepatitis C represents a varying disease burden in our region, with a number of challenges in patients with kidney disease, especially within dialysis units. The KDIGO Hepatitis C Guideline is the premier document to guide practice in kidney disease populations and is a welcome and challenging addition to the guideline spectrum in our region.

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