

LETTERS TO THE EDITOR

Response to the KDOQI US Commentary on the 2018 KDIGO Hepatitis C Guideline



To the Editor:

In 2018, KDIGO issued a clinical practice guideline for the prevention, diagnosis, evaluation, and treatment of hepatitis C virus (HCV) infection in patients with chronic kidney disease.¹ Recently, KDOQI published a commentary on the KDIGO guideline in which members of the appointed group disagreed with Recommendation 4.2.2 to direct HCV nucleic acid test (NAT)-positive kidneys to HCV NAT-positive recipients.² They commented that recent studies demonstrated viral eradication with direct-acting antivirals (DAAs) in HCV NAT-negative patients who received HCV NAT-positive kidneys, thus providing evidence that such kidneys could be allocated to any recipients regardless of their HCV status.² This is an important issue that deserves clarification.

The 2018 KDIGO guideline did not recommend that HCV NAT-positive kidney allografts should be preferentially given to NAT-positive recipients over NAT-negative patients. Instead, we recommended that NAT-positive kidneys be allocated to NAT-positive recipients rather than be discarded. The discard rate of such kidneys in several countries, including the United States, has been high.³ This recommendation was based on contemporaneous literature that reported excellent long-term patient and graft survival in HCV-positive recipients of HCV-positive kidneys.⁴

As acknowledged by the KDOQI work group, at the time of the KDIGO guideline there was evidence from only 20 NAT-negative patients who received NAT-positive kidney allografts. Nearly all articles reporting the use of NAT-positive kidneys in NAT-negative recipients appeared after publication of the 2018 KDIGO guideline. We have thus conducted a preliminary review of the recent evidence, identifying 7 relevant studies (with at least 10 patients each) that included a total of 240 NAT-negative patients who received NAT-positive kidneys. Sustained virologic response at 12 weeks and graft survival at 6 to 12 months were excellent (99% each), but no long-term graft survival and limited safety data are available. About one-quarter of patients had delayed graft function and 4% had acute rejection. The excellent short-term graft survival needs to be confirmed for longer periods.

As a global guideline, KDIGO aims to address transplant practice worldwide. Transplanting NAT-positive kidneys into NAT-negative recipients is not yet embraced in many countries. This strategy requires that DAAs are readily available and that patients undergo stringent NAT monitoring after transplantation. Furthermore, the timing for initiating DAAs and the treatment duration remain highly variable, as reported in the literature. Thus, what KDOQI recommends for transplantation of NAT-positive kidneys in the United States may not be appropriate globally.

Nevertheless, based on recent studies, we endorse the allocation of NAT-positive kidneys to HCV NAT-negative recipients provided that patients have access to DAA therapy and comprehensive HCV monitoring, national/local regulations permitting. There remains uncertainty of the long-term adverse effects of such practice (eg, fibrosing cholestatic hepatitis, DAA failure, and de novo glomerular disease) and as such, extended follow-up of patient and graft survival of these recipients is still warranted.

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References

1. Kidney Disease: Improving Global Outcomes Hepatitis C Work Group. KDIGO 2018 clinical practice guideline for the prevention, diagnosis, evaluation, and treatment of hepatitis C in chronic kidney disease. *Kidney Int Suppl.* 2018;8:91-165.
2. Roth D, Bloom RD, Molnar MZ, et al. KDOQI US commentary on the 2018 KDIGO clinical practice guideline for the prevention, diagnosis, evaluation, and treatment of hepatitis C. *Am J Kidney Dis.* 2020;75:665-683.
3. Kucirka LM, Singer AL, Ros RL, Montgomery RA, Dagher NN, Segev DL. Underutilization of hepatitis C-positive kidneys for hepatitis C-positive recipients. *Am J Transplant.* 2010;10:1238-1246.
4. Morales JM, Campistol JM, Dominguez-Gil B, et al. Long-term experience with kidney transplantation from hepatitis C-positive donors into hepatitis C-positive recipients. *Am J Transplant.* 2010;10:2453-2462.

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The authors of the 2018 KDIGO hepatitis C guideline¹ have provided a valuable service in clarifying their position on the allocation of HCV NAT-positive