Because long-term prognosis for dialysis-dependent patients is poor, we prefer TAVR as our initial strategy for most of these patients.

Because in-hospital mortality is high and prognosis is so poor for dialysis patients undergoing surgical or transcatheter valve replacement, choosing a valve and approach to achieve short- and midterm success may be more important than basing the decision on long-term durability in these patients. For patients who do survive long term, we have successfully performed more than 250 TMVR and TAVR valve-in-valve procedures implanting transcatheter valves into failed surgical bioprostheses.

In conclusion, we commend the authors for this contribution and recommend transcatheter or surgical bioprostheses over mechanical valves for dialysis-dependent patients requiring MVR or AVR.

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Commentary: Choice of valve prosthesis in dialysis-dependent patients: Should being on dialysis influence our recommendation?

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Dialysis-dependent patients undergoing surgical valve replacement have posed a dilemma with regard to choice of valve prosthesis given their constant exposure to interventions and limited life expectancy. This has often swayed

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CENTRAL MESSAGE

The choice or recommendation of surgical valve prosthesis in dialysis-dependent patients should follow traditional guidelines without being influenced by the patient's need for dialysis.

surgeons to consider bioprosthetic valves even in younger patients. Chi and colleagues¹ shed further light on this important clinical question as it relates to the management of this

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challenging patient population. The study is a well-designed and well-executed meta-analysis examining the primary outcomes of 30-day all-cause mortality and mid- to long-term survival along with the secondary outcomes of valve-related complications in dialysis-dependent patients undergoing valve replacement using either a mechanical or bio-prosthetic valve. The authors conclude that the use of mechanical valves in isolated aortic valve replacement resulted in better mid- to long-term survival, whereas patients undergoing mitral valve replacement had no difference in survival between valve replacement types. Additionally, bleeding events were greater in patients with an international normalized ratio (INR) >2.5 who received a mechanical valve, whereas those patients with an INR <2.5 had no difference in bleeding events between valve types.¹

The finding that patients with mechanical valves in the aortic position had better mid- to long-term survival along with no difference in outcome based on valve type in the mitral position is of substantial interest and should cause clinicians to pause and give greater consideration to placing a mechanical valve based on the usual principles of age and/or tolerance of anticoagulation therapy.² Additionally, the finding that patients with INR <2.5 had no difference in bleeding events is further reason for us to consider the use of mechanical valves rather than being dissuaded based on the patient's need for dialysis.

An aspect of the study that is lacking and would have offered valuable insight, is a subgroup analysis based on

patient age. Specifically, a focus on patients younger than age 70 years, given that these patients will likely have a more meaningful distribution of mechanical versus bio-prosthetic valves compared with patients older than age 70 years. The population younger than age 70 years is more likely to be making a choice of prosthesis type and this would give clinicians a more real-world understanding of the outcomes related to valve type in these patients. Unfortunately, there were insufficient data available to the authors to perform this depth of analysis.

In the end, I want to commend the authors on their efforts and the valuable contribution their results will make toward our consideration of valve prosthesis type in dialysis-dependent patients. With evidence to support the safe and beneficial use of mechanical valves in this patient population, we can rely more on traditional criteria for choosing valve prosthesis type than the need for dialysis.

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