choices of operative procedures for patients moving forward.

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Commentary: The root of the matter

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In this edition of the *Journal*, Yerokun and colleagues¹ use the power of linking Medicare claims data with the Society of Thoracic Surgeons database to provide insight into long-term outcomes of aortic root replacement (ARR) in Medicare beneficiaries. From 2004 to 2014, notable trends included more than a doubling in the use of stented bioprosthetic Bentall with decreasing use of mechanical Bentall, stentless Bentall, and valve-sparing root replacement (VSRR). These trends likely have been driven by the potential of valve-in-valve (ViV) transcatheter aortic valve replacement (TAVR) as a treatment for valve degeneration. As the authors discuss, modes of failure vary among the ARR options, and although a bioprosthetic Bentall has perhaps the most certainty for degeneration, it also poses the least technical difficulties for transcatheter therapy.

Another potential contributing factor is our field's continuous commitment to improving long-term outcomes. Here perhaps the impact of previous studies on practice patterns may be seen in the findings and recommendations in the

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CENTRAL MESSAGE

The findings of a study on aortic root operation outcomes may reflect the influence of previous literature on practice patterns; application should consider the age of the patient and implications for future interventions.

previous literature, which are echoed by the findings of Yerokun and colleagues: a higher reoperation rate with VSRR and worse survival and stroke with mechanical Bentall.^{2,3}

Some aspects of these decision pathways remain speculative, however. The mean follow-up of this study was only 5.0 years. Just as modes of failure vary, so too does the timing. Should we also consider the durability reoperation in our calculus? Within the midterm range, the higher reoperation rate of VSRR may prompt reticence to use this approach, but the jury is still out on how ViV TAVR compares to redo root operation for VSRR or stentless Bentall. Technical insights into bioprosthetic valve fracture have

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been delineated only recently,⁴ and long-term data are lacking. Thus, we should keep in mind that Yerokun and colleagues' study findings should apply to the older population, where the prospect of a redo operation may be less palatable among septuagenarians and octogenarians. Nevertheless, this is important work for aortic root surgeons. The decision on how to manage the valve in aortic root operations deserves its own evidence base, rather than data translated from the literature on isolated aortic valve replacement. This article also exposes the value of longer-term follow-up of our procedures. We have historically focused on early outcomes, and this study uses an available administrative database to evaluate outcomes to 5 years. Studies done in large institutions with long institutional databases have been helpful, but these represent a limited population and are not always predictive of long-term outcomes in the general population. A much more valuable comparison will be linkage to a long-term clinical database to better understand the results of our

care and help to define best practice. This is increasingly important as we evolve multiple treatment options for specific conditions and need to choose the optimal plan for individual patients.

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