

The author reported no conflicts of interest.

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REPLY: THE TOOLS OF OUR TRADE

Reply to the Editor:



In a recent large retrospective cohort observational study in the *Journal*, Cho and associates¹ identified preoperative malnutrition as assessed by objective nutritional scores to correlate with 1-year mortality after valvular heart surgery. In a letter to the editor based on this investigation, Dr Carosella² eloquently discusses some inherent limitations associated with risk calculators and empathically urges individualized clinical risk assessment. Risk calculators (ie, European System for Cardiac Operative Risk Evaluation [EuroSCORE], EuroSCORE II, Society of Thoracic Surgeons adult cardiac database) have always moved through stages of growth and implementation into clinical care. Consideration of heterogeneity in case mix between institutions, error rate based on data analysis, and greater applicability to various cardiac procedures have all played into the continual evolution of cardiac risk assessment tools. However, no singular tool

encompasses the complexity of our patients. As Dr Carosella states, “mobility, cognitive status, and activities of daily living” would further improve prediction of adverse events. There is truth to this. In reality, a single assessment modality rarely provides a comprehensive understanding of predicted outcomes. However, I don’t believe that to be the purpose of risk algorithms, nor should it be the expectation. Rather, in combination with clinical assessment, they can be used for patient counseling, identifying modifiable risk factors, and determining the optimal role and timing of surgery. Clinical acumen matters. Furthermore, risk algorithms are valuable for clinical research and creation of quality metrics and databases. The study by Cho and associates¹ highlights the significance of nutritional status and will likely usher in a new era of growth in this field. Meanwhile, Dr Carosella’s correspondence² stresses the importance of expanding the parameters of assessment to improve the “risk–benefit equation.”

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<https://doi.org/10.1016/j.xjon.2021.09.035>