

## LETTER TO THE EDITOR

# Five-tier utility: A start on the path to better reporting, in response to Schold and Buccini

## To the Editor:

The Scientific Registry of Transplant Recipients (SRTR) welcomes comments, suggestions, and debate, and we appreciate the letter from Schold et al.<sup>1</sup> SRTR is required to publicly report pretransplant and posttransplant outcomes in a way that patients and families can understand. We embarked on five-tier reporting of posttransplant outcomes in the belief that (a) it is better than the system it replaced, (b) it can likely be improved with better data collection, and (c) it should be accompanied by pretransplant measures of outcomes after listing and clearly inform candidates as to which metrics may be most important to their survival.<sup>2</sup>

Because the relationships between program metrics and posttransplant outcomes differ by organ,<sup>3</sup> broad criticism of posttransplant evaluations is misleading. For example, posttransplant evaluations of lung programs were associated with subsequent posttransplant outcomes<sup>4</sup> and with candidate mortality after listing.<sup>3</sup> Neither the transplant rate nor the waitlist mortality rate was associated with candidate mortality after listing in lung transplantation.<sup>3</sup> Thus, the five-tier system for posttransplant outcomes is clearly relevant to lung candidates, whereas the situation may be different for other organs, such as kidneys, for which pretransplant measures may be more relevant. Regardless, the fact that kidney candidates may linger for years on the waiting list, and that five-tier ratings may change in the meantime, does not invalidate the potential value of publicly reporting pretransplant and posttransplant metrics.

Regarding the accuracy of risk-adjustment models, the claim that a modest C-statistic in isolation suggests a “strong likelihood of confounding”<sup>1</sup> is not justified in any situation. The C-statistic depends on the underlying characteristics of a given data set, and a model can correctly identify every relevant risk factor and still have a low or high C-statistic. Thus, the C-statistic provides no information on the accuracy of posttransplant program evaluations or the presence of unmeasured confounding.<sup>5</sup> For these reasons, and in contrast to the assertion by Schold et al.,<sup>1</sup> a modest C-statistic is not a reason to doubt that better posttransplant evaluations at listing in liver and lung transplantation were associated with better subsequent posttransplant outcomes.<sup>4</sup>

An appropriate, organ-specific focus on pretransplant metrics such as transplant rate and waitlist mortality<sup>1</sup> aligns with the SRTR mandate and with recent evidence that established the association of transplant rate with candidate mortality after listing in kidney, liver, and lung transplantation.<sup>3</sup> For these reasons, and in response

to calls to incorporate new measures, SRTR aims to report pretransplant metrics using a five-tier system and to emphasize the metrics most important to candidate survival after listing, such as transplant rate in kidney transplantation.<sup>2</sup> We believe the path forward includes better data collection, additional empirically validated metrics, and continued input from caregivers, patients, and their families.

## DISCLOSURE

The authors of this manuscript have no conflicts of interest to disclose as described by the *American Journal of Transplantation*.

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editorial/personal viewpoint, organ transplantation in general, Scientific Registry for Transplant Recipients (SRTR), statistics

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