

SIGNIFICANCE STATEMENT

Antibody-mediated rejection (ABMR) has been identified as a main reason for the failure of kidney allografts. Improvement of outcomes in patients with ABMR is limited by the lack of a tool that reliably predicts the long-term response to treatment. This study develops and externally validates a dynamic composite prognostic score that shows high accuracy in predicting allograft loss in patients with ABMR receiving the current standard of care on the basis of plasma exchange, intravenous Ig, and rituximab. It is on the basis of six prognostic factors, including GFR, histology, and anti-HLA antibody level, and integrates ABMR characteristics at diagnosis and the response to treatment. This tool may be useful to inform therapeutic decisions in clinical practice and for the design of clinical trials in patients with ABMR.