

Examination of clinical surrogates for long-term graft survival using receiver operator characteristic: acute rejection or eGFR?

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Summary: We studied American adult transplant recipients between 1995 and 2002. We used area under the ROC curves (AUC) to assess the predictive value of surrogates for graft survival (GS) and death with function (DWF): acute rejection, one-year eGFR, and one-year eGFR plus the slope of eGFR.

Acute rejection (AR) was the least predictive of both outcomes, while the combination of one-year eGFR plus the slope of eGFR had the highest predictive value. The predictive value of all surrogates for graft survival ranged from no better than a coin toss (AR for the outcome of DWF = 0.51) to 0.79 (eGFR plus eGFR slope for GS).

We conclude that the surrogates tested had limited predictive value. eGFR, and eGFR plus eGFR slope were better predictors of short term outcomes compared to AR.