

SIGNIFICANCE STATEMENT

Measurement of GFR (mGFR) in the clinical setting remains a highly useful but specialized parameter in the management of patients. Thus, physicians rely primarily on eGFR derived from formulas using endogenous biomarkers. Despite their significant contributions to clinical practice and research, these surrogate values have many limitations. This article describes a novel two-marker dextran based injectate known as visible fluorescent injectate, used to measure simultaneously plasma volume and GFR. The technique proved to be safe, rapid, accurate and reproducible at measuring GFR across a wide range of kidney function. In the future, visible fluorescent injectate will allow mGFR determination at the bedside and in outpatient clinical settings.