

### **Supplemental Figure 1.**

An expanded review is available to the reviewers. This display shows the patient values and normal ranges for the MAG3 clearance, residual urine volume, percent relative uptake and the T<sub>max</sub>, 20 min/max, T<sub>1/2</sub> and postvoid/max ratio for whole-kidney and cortical ROIs. The expanded review page also shows an enlarged parenchymal image obtained at 2–3 min, an enlarged display of the 19- to 20-min image, and quality control images showing the pre- and post-injection syringe counts and time of the bolus arrival in the kidneys.

### **Supplemental Figure 2.**

This panel displays the 2-min sequential images following furosemide administration. The curves are generated from whole-kidney and renal pelvic ROIs. The tracer retention in the left renal pelvis and a prolonged T<sub>1/2</sub> greater than 50 min is suspicious for obstruction. The relatively flat right kidney washout curve and whole and pelvic T<sub>1/2</sub> values of 32 and 27 min, respectively, may also lead to the interpretation that the right kidney is obstructed.