

## THE CORRELATION OF ESTIMATED AND ISOTOPE GFR IN PATIENTS WITH BOWEL IN THE URINARY TRACT

### Hypothesis / aims of study

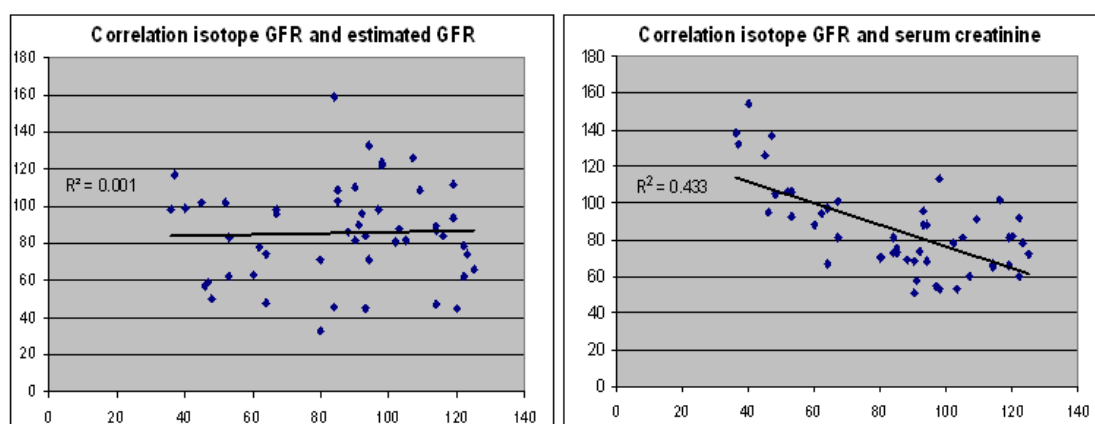
Surveillance for patients with urinary tract reconstruction/diversion includes assessment of renal function with chromium EDTA Glomerular Filtration Rate (Cr-EDTA GFR). Estimated GFR (eGFR) is derived from serum creatinine, by formulae validated in normal, renal failure and transplant patients, with correlation coefficients of 70%; but have not been validated in patients with bowel interposition. We compared eGFR (derived from the MDRD) with Cr-EDTA GFR in patients with urinary tract reconstruction/diversion.

### Study design, materials and methods

A retrospective review of 50 patients with urinary tract reconstruction/diversion and Cr-EDTA GFR, serum creatinine and eGFR. Patient demographics, type of bowel reconstruction/diversion and time since surgery were noted.

### Results

Data was obtained on 28 women and 22 men who had ileal conduit(3), ileal pouch or neobladder(7), ileocystoplasty(30) and colocystoplasty(10) performed a median of 12years previously (range 1-35). Serum creatinine ranged from 51-154  $\mu\text{mol/l}$ , eGFR from 33-159  $\mu\text{mol/l}/1.73\text{m}^2$  and Cr-EDTA GFR from 36-125  $\mu\text{mol/l}/1.73\text{m}^2$ . Correlation between Cr-EDTA GFR and eGFR was poor ( $R^2=0.001$ ) and much worse than the correlation between serum creatinine and Cr-EDTA GFR ( $R^2=0.433$ ).



### Interpretation of results

There is poor correlation between eGFR and Cr-EDTA GFR in patients with urinary tract reconstruction/diversion.

### Concluding message

eGFR should not be used as a surrogate marker for GFR in patients with urinary tract reconstruction/diversion.

<b>Specify source of funding or grant</b>	None
<b>Is this a clinical trial?</b>	No
<b>What were the subjects in the study?</b>	HUMAN
<b>Was this study approved by an ethics committee?</b>	No
<b>This study did not require ethics committee approval because</b>	None needed
<b>Was the Declaration of Helsinki followed?</b>	No
<b>This study did not follow the Declaration of Helsinki in the sense that</b>	None needed
<b>Was informed consent obtained from the patients?</b>	No