ESTIMATING GLOMERULAR FILTRATION RATE IN PALLIATIVE CARE PATIENTS: COMPARISON OF THE COCKROFT- GAULT AND ABBREVIATED MODIFICATION OF DIET IN RENAL DISEASE FORMULAS-IS IT RELEVANT TO CLINICAL PRACTICE?

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Background The National Kidney Foundation, Kidney Disease Outcomes Quality Initiative recommends the Cockcroft Gault (CG) or abbreviated modified diet in renal disease (aMDRD) formulas for estimating Glomerular Filtration Rate (GFR). Clinical laboratories routinely use the aMDRD equation, which is not recommended for patients with extremes in muscle mass or diet, common in palliative care populations whose risk of renal impairment increases with older age, polypharmacy and nephrotoxic drug exposure.

Aim To compare the aMDRD and CG formulas for estimating GFR in palliative care patients, and determine the prevalence of renal impairment and impact on clinical practice.

Audit Method Retrospective case note review of 69 patients referred to a hospital specialist palliative care team. Patients with Chronic Kidney Disease (CKD) identified on aMDRD and CG eGFR. Standardised proforma used for data collection.

Results 37/69 patients identified with CKD (eGFR <90).

24/37 had a difference between aMDRD and CG estimation of GFR resulting in a change in CKD staging category.

CG eGFR improved staging category in 4, 3/4 weighed ³90 kg. CG eGFR worsened staging category in 20.

17/20 deteriorated a single staging category. 11/17 weighed 50–69 kg.

3/20 deteriorated >1 staging category. All weighed less than 44 kg, with a serum creatinine <110 micromol/L.

10/37 required renal drug dose adjustments for eGFR. In 3 patients the method used to estimate GFR would change dose of medication prescribed.

Conclusion CKD is prevalent in palliative care patients, and affects prescribing.

The aMDRD formula could overestimate GFR in underweight patients and underestimate GFR in overweight patients relative to CG. The CG formula may be a better method of assessment of eGFR in palliative care patients.

Ultimately comparison of CG and aMDRD formulas to renal inulin clearance (the gold standard assessment method for GFR) is required to determine the best method for estimating GFR in a palliative care population.