TRICORE REFERENCE LABORATORIES

ESTIMATED GLOMERULAR FILTRATION RATE (eGFR) CALCULATIONS

On December 4, 2017, TriCore instituted a change to the eGFR calculation for all adult outpatients by implementing the Chronic Kidney Disease Epidemiology Collaboration (CKD-EPI Creatinine 2009)[1] Equation. The CKD-EPI Equation replaced the Modification of Diet in Renal Disease (MDRD) Study Group Calculation previously used. The CKD-EPI Equation is the preferred method of estimating GFR and recommended by the National Kidney Foundation.[2,3,4] Estimated GFR values previously reported as >60ml/min/1.73m^2 will now be reported with an estimated value in ml/min/1.73m.^{2}

The CKD-EPI Equation:

- provides more accurate results for eGFR values between 60 and 120ml/min/1.73m^2
- provides similar results compared to the MDRD equation for patients <60ml/min/1.73m^2
- can detect CKD among those patients with risk factors despite a serum creatinine concentration that appears to fall within the normal reference range
- uses an isotope dilution mass spectrometry (IDMS) traceable creatinine-based equation reducing variation
- includes variables for age, gender, and race

The link below provides additional information about the CKD-EPI Equation calculation and the reasons this is the preferred method:

https://www.niddk.nih.gov/health-information/communication-programs/nkdep/laboratory-evaluation/glomerular-filtration-rate/estimating

An easy to use calculator for estimating GRF in adult patients who are stable is available at:

https://www.kidney.org/professionals/KDOQI/gfr_calculator

References

[1] Levey AS, Stevens LA, Schmid CH, et al. A new equation to estimate glomerular filtration rate. Ann Intern Med. 2009; 150(9):604-612

[2] Levey AS, Stevens LA. Estimating GFR using the CKD Epidemiology Collaboration (CKD-EPI) creatinine equation: more accurate GFR estimates, lower CKD prevalence estimates, and better risk predictions. Am J Kidney Dis. 2010;55(4):622-627

[3] kidney.org/sites/default/files/docs/mdrd-study-and-ckd-epi-gfr-estimating-equations-summary-ta.pdf

[4] kidney.org/content/ckd-epi-creatinine-equation-2009