



MEMORANDUM #150

TO: UNCHCS Attending Physicians and Faculty Practice Physicians, Housestaff, Clinical Nurse Coordinators, Department Heads and Supervisors

FROM: *SC* Steven Cotten, PhD, Co-Director, Clinical Chemistry Laboratory

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SUBJECT: **Method Changing for Calculating eGFR**

DATE: June 7, 2019

Effective June 25th 2019, UNC HealthCare will be moving from the MDRD equation to the CKD-EPI equation for estimating of eGFR. The change will impact calculation of GFR whenever creatinine is measured both in the laboratory and point of care settings. The CKD-EPI equation was developed in 2009 and provides improved accuracy compared to the MDRD equation. This improved accuracy allows reporting eGFR estimations above 60 mL/min/1.73 m². The National Kidney Foundation and KDIGO (Kidney Disease: Improved Global Outcomes) both recommend CKD-EPI for estimation of eGFR.

Comparison of MDRD and CKD-EPI		
	MDRD	CKD-EPI
Components	Age, Sex, Race, Creatinine	Age, Sex, Race, Creatinine
Reporting Limit	Up to 60 mL/min/1.73m ²	Up to 90 mL/min/1.73m ²
Appropriate Populations	Developed from patients with CKD	Developed from healthy, CKD, diabetes, transplant, and geriatric individuals
Performance	Underestimation of GFR <60 mL/min/1.73m ² compared to measured GFR.	Less bias and greater precision than MDRD More accurate estimate of CKD stage 3a (GFR 45-59)

More information about the equation can be found at <https://www.kidney.org/content/ckd-epi-creatinine-equation-2009>.

If you have question please contact Dr. Steve Cotten (984-974-1489) Steven.Cotten@unhealth.unc.edu or Dr. Nichole Korpi-Steiner (984-974-1498) Nichole.Korpi-Steiner@unhealth.unc.edu.