Department of Pathology & Laboratory Medicine

UNIVERSITY of ROCHESTER MEDICAL CENTER

MEDICINE of THE HIGHEST ORDER

To: Clients of URMC Labs

From: Tai C. Kwong, PhD
Director, URMC Automated Laboratories
Phone: (585) 275-5654
E-mail: Tai_Kwong@URMC.Rochester.edu

Julietta Fiscella, MD, CPE, FCAP
Director, Dept. of Pathology, Cytopathology & Laboratory Medicine
Clinical Associate Professor, Pathology & Laboratory Medicine
Chair, Quality and Compliance Department, URMC Laboratory
Strong Health Highland Hospital
Phone: (585) 341-8075
E-mail: Julietta_Fiscella@URMC.Rochester.edu

James Corsetti, MD, PhD
Director, URMC Labs @ Ridgeland
Phone: (585) 275-4907
E-mail: James_Corsetti@URMC.Rochester.edu

Re: **New Formula for Calculating Estimated GFR (eGFR)**

Date: 2/5/2013

With the concurrence of the SMH and HH Nephrology Units, URMC Clinical Labs on February 18, 2013 at 12:01am will begin to use a new formula for calculating estimated GFR (eGFR). The new formula, CKD-EPI (Chronic Kidney Disease-Epidemiology Collaboration) will replace the current MDRD (Modification of Diet in Renal Disease Study) formula. The CKD-EPI formula is a modified version of the MDRD formula and uses the same four variables: serum creatinine concentration, age, gender, and race.

The CKD-EPI equation has been shown to be a better estimate of GFR than the MDRD Study formula at higher levels (eGFR >60 mL/min per 1.73 m^2), thus allowing for reporting across the full range of eGFR (including those >60 mL/min per 1.73 m^2). It more accurately classifies patients having kidney disease and provides better identifications of CKD-1 and CKD-2 patients. The Clinical Lab computer will, as before, calculate eGFR whenever a serum creatinine is done. Those who prefer to use the MDRD formula can do so manually by following this link to a web calculator: http://www.kidney.org/professionals/kdoqi/gfr_calculator.cfm

The original paper on the CKD-EPI formula and a recent paper showing that the formula can give better renal disease classification and risk prediction are listed below.

Levey AS, Stevens LA, et al. A New Equation to Estimate Glomerular Filtration Rate.
http://www.ncbi.nlm.nih.gov/pubmed?db=pubmed&term=19414839
Matsushita K, Mahmoodi BK, Woodward M, et al; for the Chronic Kidney Disease Prognosis Consortium. Comparison of risk prediction using the CKD-EPI equation and the MDRD Study equation for estimated glomerular filtration rate.
http://jama.jamanetwork.com/article.aspx?articleid=1151529#qundefined