DIAGNOSTIC LABORATORY SERVICES, INC.

Estimated Glomerular Filtration Rate - by Wesley J. Kim, MD

Chronic kidney disease (CKD) is a significant cause of morbidity and mortality worldwide. Unfortunately, CKD remains under-diagnosed and under-treated. As such, in 2002, the National Kidney Foundation (NFK) published their "Clinical Practice Guidelines for Chronic Kidney Disease: Evaluation, Classification, and Stratification" to define CKD, and to classify stages in the progression of CKD" (American Journal of Kidney Diseases. 2002. 39(2 Suppl 2): S1 - 246.) Within the guidelines are recommendations in regards to laboratory testing. Specifically, the National Kidney Disease Education Program, the National Institute of Diabetes and Diseases of the Kidney, the NFK, and the American Society of Nephrology recommend estimation of Glomerular filtration rate (GFR) with the MDRD Study equation. This equation uses serum creatinine in combination with age, sex, and race (African American or not), to calculate an estimated GFR.

Following lengthy discussions with the National Kidney Foundation of Hawaii and nephrologists in the community, Diagnostic Laboratory Services will begin reporting a calculated GFR estimate, based on the MDRD Study equation, starting February 7, 2005. The result will be automatically calculated and reported when a creatinine is ordered, but will be restricted to outpatient lab testing only as hospitalized patients often have other co-morbidities that could lead to inaccurate results and classification. In addition, the formula is not validated in children, therefore calculation and reporting of estimated GFR will not be performed in patients less than 18 years of age. Because estimated GFR values greater than 60 ml/min/1.73 m^2 are less accurate, all such values will be simply reported as "> 60 ml/min/1.73 m^2".

Attached to this brief notice is a list of common questions and answers in regards to CKD, GFR, and interpretation/limitation of GFR estimates that we hope will answer some if not most of your concerns. References have also been provided. Additional information may be obtained at www.kidney.org.

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