

International Clinical Laboratories

Test Review



Assessing Kidney Function

Estimated Glomerular Filtration Rate (eGFR)

Chronic kidney disease, which poses a public health threat of epidemic proportions, is largely under diagnosed and often inadequately treated. **Glomerular filtration rate (GFR)** is accepted as the best overall measure of kidney function and also used to facilitate the detection, evaluation, and management of chronic kidney disease (1) **An estimating equation (MDRD estimated GFR)** is derived with the use of regression techniques to model the observed relation between the serum level of the marker and the measured GFR in a population called estimated glomerular filtration rate (eGFR). Normal values, which are related to age, sex, and race, are approximately 130 ml per minute per 1.73 m² in young men and 120 ml per minute per 1.73 m² in young women. Mean values decline as person's age. An estimated GFR of less than 60 ml per minute per 1.73 m² is associated with a graded increase in the risk of each of the major adverse outcomes of Failure, and premature death caused by Cardiovascular disease. chronic kidney disease, which are impaired

Kidney function, progression to kidney failure, and premature death caused by cardiovascular disease.

eGFR can be determined, with no extra testing and cost, at the same time that a sample is sent for creatinine measurement. ICL, in a quest for quality service, starts reporting estimated GFR (eGFR).

Whenever the measurement of serum creatinine is ordered and the interpretation of eGFR accordingly.

1. Levey AS, Coresh J, Balk E, et al. National Kidney Foundation practice guidelines for chronic kidney disease: evaluation, classification, and stratification. *Ann Intern Med* 2003; 139:137-147.
2. National Kidney Foundation. K/DOQI clinical practice guidelines for chronic kidney disease: evaluation, classification, and stratification. *Am J Kidney Dis* 2002;39:Suppl 1:S1-S266.