Reporting the eGFR and Its Implication for CKD Diagnosis

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The process of diagnosing chronic kidney disease using the estimated GFR involves several pitfalls. The estimated GFR laboratory report should be requested only by practitioners who are familiar with how to interpret the result. Until a more reliable method is available to estimate the GFR, the current chronic kidney disease classification should be revised by reducing the central role of the GFR cutoff levels.


We read the debate regarding estimated GFR (eGFR) with interest and make the following comments (1,2). Drs. Glassock and Winearls are essentially correct that eGFR reporting is actually mandatory. The Kidney Disease Outcomes Quality Initiative Clinical Practice Guidelines for Chronic Kidney Disease (K/DOQI-CKD) stated in guideline 4, “Clinical laboratories should report an estimate of GFR using a prediction equation, in addition to reporting the serum creatinine measurement” (3), where “should” expresses obligation or duty and leaves little option for voluntary participation despite the severe limitations of this practice.

The good news was clinicians were reminded that there could be up to 50% GFR loss before the serum creatinine (SCr) becomes “abnormal,” for which the K/DOQI-CKD panel should be commended. The bad news was that the National Kidney Disease Education Program subsequently recommended that GFR >60 ml/min per 1.73 m² should not be reported by the laboratories because the Modification of Diet in Renal Disease (MDRD) formula is not reliable above this level (4). For example, an eGFR of 64 ml/min per 1.73 m² in a 25-yr-old white woman (corresponding to a SCr of 1.1 mg/dl) or an eGFR drop from 109 to 77 ml/min per 1.73 m² in a 45-yr-old white man (corresponding to a SCr rise from 0.8 to 1.1 mg/dl), both with “normal” SCr but significant clinical implications, will not be evident in the laboratory report (i.e., back to square 1, when SCr was solely used to assess the renal function); therefore, a normal GFR range according to age and gender should be included in the laboratory eGFR report. This will also help to resolve the particular concern, expressed by both publications in the debate, for the large number of elderly with GFR <60 ml/min per 1.73 m² and no other markers of CKD. After all, it is worth remembering that K/DOQI-CKD stated that “the ‘cutoff levels’ between stages are inherently arbitrary.”

Drs. Melamed, Bauer, and Hostetter argued that “reporting the eGFR and Its Implication for CKD Diagnosis

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Finally, Drs. Melamed, Bauer, and Hostetter stated that “using the staging system, the kidney disease may be overstated”; “however, in practice, the renal insufficiency is still underdiagnosed.” We hope that this is not an attempt to imply that the benefit of reporting eGFR, by increasing the awareness for CKD, is justifying some misdiagnosing.

In summary, we believe that a laboratory report for SCr should not include automatically the eGFR. A more reliable method is needed to estimate the GFR in its entire spectrum (i.e., in health and disease). Until then, the current K/DOQI-CKD classification should be revised by reducing the central role of the GFR cutoff levels. In our daily practice, we all should adhere to the first rule of practice of medicine: Primum non nocere.

Disclosures
None.

References