



# UPDATED GUIDANCE ON EGFR CALCULATIONS IN CKD DIAGNOSIS

Estimated Glomerular Filtration Rate (EGFR) is the current gold standard measurement for diagnosis of chronic kidney disease (CKD) and a vital tool in its diagnosis.<sup>1</sup>

*It is important to note that currently there are multiple calculations in use, and many laboratories use race as a factor when it is a social construct and not a straightforward genetic component.*<sup>2,3,4</sup>

In 2020 The American Society of Nephrology alongside the National Kidney Foundation developed a task force to assess the use of race as a factor in the calculation of EGFR.

## WHAT WAS FOUND:

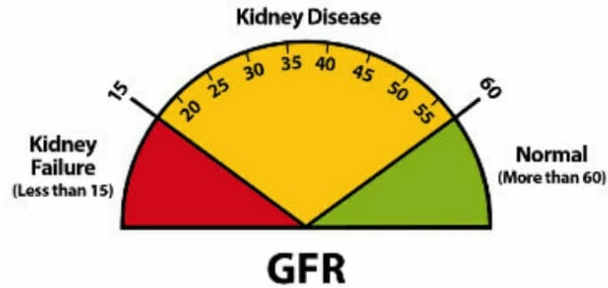
- Using a race modifier imprecisely elevated EGFR levels in African American patients.<sup>2</sup>
- The previous calculations developed (such as MDRD in 1999) were not based on a large enough sample size to analyze a relevant proportion of patients to evaluate the general population.
- Many people self-identify as mixed race, a social construct not a genetic guarantee.
- Other minority groups were not taken into consideration with these calculations.
- There is need to standardize calculations across laboratories with guideline criteria to ensure accurate representation for all.

## WHY THIS IS IMPORTANT:

- Using race as a modifier has the potential to further deepen health disparities in minority groups by elevating the values which are used as criteria for treatment of disease.<sup>2,3</sup>
- Higher EGFR levels disproportionately decrease the number of minority and mixed-race patients eligible for transplant.<sup>2,3,4</sup>
- African Americans not only develop kidney disease at an earlier age, but it progresses faster than the Non-Hispanic White population.<sup>3,5</sup>

## WHAT WE CAN DO:

- The task force is working on creating a standardized calculation and guideline for recommendations on the diagnosis of CKD to be released in 2022.
- In the interim, it is strongly recommended to use a laboratory which uses race-free calculations in its reporting for analysis.
- Or if self-calculating using laboratory reports use a calculator which is race-free for your patients.
  - A **race-free** online EGFR calculator can be found at:  
[https://www.kidney.org/professionals/kdoqi/gfr\\_calculator](https://www.kidney.org/professionals/kdoqi/gfr_calculator)
- Continue screening patients as early diagnosis can change the course of direction in kidney disease preventing the progression to End-Stage Renal Disease (ESRD).



For more information, please refer to the following organizations:

**The Centers for Disease Control and Prevention:**

<https://www.cdc.gov/kidneydisease/publications-resources/educational-resources.html>

**The Kidney Foundation of Western NY** - <https://www.kfwny.org/>

**National Institute of Diabetic and Digestive and Kidney Diseases** -

<https://www.niddk.nih.gov/>

**The National Kidney Foundation** - <https://www.kidney.org>

**UNOS** - <https://unos.org/news/committees-request-patient-feedback-race-in-egfr/>



1. Elise Boele-Schutte, Ron T. Gansevoort, Measured GFR: not a gold, but a gold-plated standard, *Nephrology Dialysis Transplantation*, Volume 32, Issue suppl\_2, April 2017, Pages ii180–ii184, <https://doi.org/10.1093/ndt/gfw441>
2. Cynthia Delgado, Mukta Baweja, Nilka Ríos Burrows, Deidra C. Crews, Nwamaka D. Eneanya, Crystal A. Gadegbeku, Lesley A. Inker, Mallika L. Mendu, W. Greg Miller, Marva M. Moxey-Mims, Glenda V. Roberts, Wendy L. St. Peter, Curtis Warfield, Neil R. Powe *JASN* Jun 2021, 32 (6) 1305-1317; DOI: 10.1681/ASN.2021010039
3. Chu CD, Powe NR, McCulloch CE, et al. Trends in Chronic Kidney Disease Care in the US by Race and Ethnicity, 2012-2019. *JAMA Netw Open*. 2021;4(9):e2127014. doi:10.1001/jamanetworkopen.2021.27014
4. Marzinke MA, Greene DN, Bossuyt PM, et al. Limited Evidence for Use of a Black Race Modifier in eGFR Calculations: A Systematic Review [published online ahead of print, 2021 Dec 20]. *Clin Chem*. 2021;hvac279. doi:10.1093/clinchem/hvac279
5. Diamantidis CJ, Zepel L, Wang V, et al. Disparities in Chronic Kidney Disease Progression by Medicare Advantage Enrollees. *Am J Nephrol*. 2021;52(12):949-957. doi:10.1159/000519758