

# Reassess Race in eGFR Calculation

## Request for Feedback

*OPTN Minority Affairs and Kidney Transplantation Committees*  
Name of Presenter

# Project Background

- The Minority Affairs Committee, Kidney Transplantation Committee, and subject matter experts formed the Reassess Race in eGFR Calculation Workgroup
- The Sponsoring Committees issue the request to:
  - Evaluate the use of the Black race coefficient in the eGFR calculation as it relates to wait time criteria in kidney allocation
  - Use OPTN community feedback to help determine what future policy should be developed

# Project Timeline



# Background: eGFR

- The estimated glomerular filtration rate (eGFR) is commonly used as a surrogate to measure kidney function
- To attain the eGFR, various formulas are utilized, some utilizing race as one of the coefficients
  - Black race coefficient was developed with considerable limitations and is currently used in some eGFR formulas
- Recent research suggests that use of the Black race coefficient disadvantages Black patients being treated for Chronic Kidney Disease

# Current OPTN Policy

## 8.4.A Waiting Time for Candidates Registered at Age 18 Years or Older

If a kidney candidate is 18 years or older on the date the candidate is registered for a kidney, then the candidate's waiting time is based on the earliest of the following:

1. The candidate's registration date with a measured or calculated creatinine clearance or glomerular filtration rate (GFR) less than or equal to 20 mL/min.
2. The date after registration that a candidate's measured or calculated creatinine clearance or GFR becomes less than or equal to 20 mL/min.
3. The date that the candidate began regularly administered dialysis as an End Stage Renal Disease (ESRD) patient in a hospital based, independent non-hospital based, or home setting.

- OPTN policy is not prescriptive of what, if any, eGFR formula transplant program must use
- Formulas that include and exclude race are permitted to qualify for initiation of waiting time accrual

# Rationale for Reassessing Race in eGFR Calculation

## Potential Consequences of using the Black race coefficient:

- Studies have shown that the Black race variable in the CKD- EPI formula increases Black patients' eGFR by as much as 16%, despite having all other variables in the formula remain equal
- Delayed referral for transplant
- Delayed initiation for qualified waiting time for non-dialysis patients
- Impede timely CKD management and contribute to worst outcomes
- Exacerbate existing disparities in transplantation

# Rationale for Reassessing Race in eGFR Calculation

- Due to the Black race coefficient, these two patients with identical variables other than race will have different eGFRs
- The White patient will qualify to begin accruing waiting time, while the Black patient will not

## Glomerular Filtration Rate (GFR) Estimate by MDRD 4-Variable Equation

Share

Sex:

Female  Male

Age (years):

60

Black Race:

No  Yes

Serum Creatinine (mg/dL):

3.3

GFR: 19.2 mL/min/1.73m<sup>2</sup>

## Glomerular Filtration Rate (GFR) Estimate by MDRD 4-Variable Equation

Share

Sex:

Female  Male

Age (years):

60

Black Race:

No  Yes

Serum Creatinine (mg/dL):

3.3

GFR: 23.3 mL/min/1.73m<sup>2</sup>

# Rationale for Reassessing Race in eGFR Calculation

## Binary Distinction on Race:

- Race is a social construct and an unreliable proxy for genetic differences
- eGFR calculators only offer Black/Not Black as response options
- No distinction for mixed race or multi-racial individuals
- Does not account for the existing genetic diversity within the Black population

# Rationale for Reassessing Race in eGFR Calculation

Recent studies suggest removing the Black race coefficient could result in:

- 16% increase in the total number of Black patients classified as having CKD in this study's registry
- 3.1% or 64 Black participants reclassified to an eGFR equal or less than 20mL/min
- 35% higher occurrence of having GFR eligible for transplant referral
- Black patients reaching the transplant referral threshold 1.9 years earlier

# Community Efforts

- In July 2020, the National Kidney Foundation (NKF) and the American Society of Nephrology (ASN) collaborated to form a task force to reassess the inclusion of race in diagnosing kidney diseases
- In March 2021, the task force released a statement asserting that:
  - “Race modifiers should not be included in equations to estimate kidney function and current race-based equations should be replaced by a suitable approach that is accurate, inclusive, and standardized in every laboratory in the United States. Any such approach must not differentially introduce bias, inaccuracy, or inequalities”

# Potential policy changes

- Workgroup currently discussing potential change to OPTN policy regarding:
  - Potential positive impacts including timely assessment, referral, and initiation of qualified waiting time for Black patients with CKD
  - Eliminating the binary nature of the current use of race in some eGFR formulas
- The impact of any policy change on Members
  - Considerations for how transplant programs will transition to a race neutral eGFR calculation

# What do you think?

- Which method of estimating or measuring GFR is your transplant program currently using? Why?
- How would the use of a race neutral eGFR impact your program?
- What implementation challenges could use of a race- neutral eGFR formula present for your transplant program?
- What resources could assist in facilitating a smooth transition for your program?
- Do patients support the use of a race neutral formula? Why or why not?
- What potential consequences should be considered during this proposal's development?