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FO051 **THE IMPACT OF GFR EVALUATION TECHNIQUE ON LIVING KIDNEY DONATION ELIGIBILITY**

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INTRODUCTION AND AIMS: Living kidney donation requires evaluation of renal function. Recent KDIGO guidelines for living kidney donors suggest using the "best locally available" technique to evaluate GFR. That could result in using estimated GFR for some donors and measured GFR for others. However, there is a significant discrepancy between those techniques that could impact the decision to donate.

METHODS: To evaluate the impact of GFR evaluation method on eligibility to donation we compared measured GFR with exogenous tracer to estimated GFR with 4 equations (CKD-EPI, MDRD, Full Age Spectrum, and Lund-Malmö). We conducted a multicentric study on 1743 French living kidney donors with enzymatic creatinine dosage and measured GFR.

RESULTS: The CKD-EPI equation has the best overall performance (highest percentage of values within 10% or 30% of measured GFR, 48.8% and 94.4% respectively, lowest rmse, 16.2mL/min/1.73m^2). However, decision to donate is frequently based on a GFR threshold: 256 donors had an $eGFR_{CKD\text{-}EPI}$ higher than 90mL/min/1.73m^2 but an mGFR lower. Similarly 103 donors had an $eGFR_{CKD\text{-}EPI}$ higher than 80mL/min/1.73m^2 but an mGFR lower. The CKDEPI equation misclassified 14.7% and 6% of donors respectively. Alternatively, if decision to donate is based on an age-dependent threshold, we evaluated the ability of the CKDEPI equation to detect donors with an mGFR below the 2.5th percentile of mGFR for age. Only 2% of the donors with an mGFR below the 2.5th percentile of mGFR for age also had an $eGFR_{CKD\text{-}EPI}$ below the 2.5th percentile for age.

CONCLUSIONS: Even with the best overall performance of the CKDEPI equation, GFR estimation is not adapted to living kidney donors screening. Regardless on the acceptance criteria (fixed or age-dependent GFR threshold) measured GFR and estimated GFR give significantly different information that could change the decision to donate.