Legacy Lab Alert
An Important Update from Legacy Laboratory Services

October 2023

UPDATE: New Equation for Estimating GFR
Recommended by NKF/ASN Task Force

Effective October 25, 2023, Legacy Laboratory Services (LLS) will transition to the newest Chronic Kidney Disease Epidemiology Collaboration (CKD-EPI) equation recommended by the National Kidney Foundation (NKF) and the American Society of Nephrology (ASN) Task Force to calculate the estimated Glomerular Filtration Rate (eGFR).1,5 The new CKD-EPI equation is a refit of the CKD-EPI 2009 equation* created in response to the national call to re-evaluate the requirement of race to calculate the eGFR.5 The new equation does not include race in the eGFR calculation.

For all patients, the eGFR results will increase 3 mL/min/1.73m², on average, based on Legacy Health’s patient population (N = 122,316 eGFR results). However, the actual difference is based on the individual and can increase up to 5 mL/min/1.73m². No other changes to eGFR reporting will occur. Table 1 compares the two equations to illustrate the subtle differences.

It’s important to note that the equation change does not include the eGFR reported using the Nova Point of Care (POC) instrument (Mnemonic: POC CR), which will continue to use the original MDRD equation (non-traceable to IDMS).6 This project is currently in progress.

For additional information, please contact your account representative, client services or consult our website: Legacy Laboratory Client Services: 503-413-1234, 877-270-5566, www.legacyhealth.org/labservices

TABLE 1: COMPARING CKD-EPI EQUATIONS*

<table>
<thead>
<tr>
<th>Sex**</th>
<th>Creatinine (mg/dL)</th>
<th>CKD-EPI 20094 LLS used 6/30/21 – 10/24/23.</th>
<th>CKD-EPI 20211 LLS starts using 10/25/23. (Differences are in red font.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>0.0-0.90</td>
<td>GFR = 141 X (CR/0.7)⁰⁴¹¹ X 0.993⁰⁴²⁰</td>
<td>GFR = 142 X (CR/0.7)⁰³⁰² X 0.993⁰⁴³⁰</td>
</tr>
<tr>
<td></td>
<td>&gt;0.90</td>
<td>GFR = 141 X (CR/0.7)⁻¹²⁰⁹ X 0.993⁰⁴³⁰</td>
<td>GFR = 142 X (CR/0.7)⁻¹²⁰⁹ X 0.993⁰⁴³⁰</td>
</tr>
<tr>
<td>Female</td>
<td>0.0-0.70</td>
<td>GFR = 144 X (CR/0.9)⁻⁰³²⁹ X 0.993⁰⁴³⁰</td>
<td>GFR = 144 X (CR/0.9)⁻⁰³²⁹ X 0.993⁰⁴³⁰</td>
</tr>
<tr>
<td></td>
<td>&gt;0.70</td>
<td>GFR = 144 X (CR/0.9)⁻¹²⁰⁹ X 0.993⁰⁴³⁰</td>
<td>GFR = 144 X (CR/0.9)⁻¹²⁰⁹ X 0.993⁰⁴³⁰</td>
</tr>
</tbody>
</table>

* CRs = serum creatinine result (mg/dL); Age = years
** If the sex is unknown, then the equation for males will be applied.

References:
3. National Kidney Foundation; Estimate Glomerular Filtration Rate (eGFR); reviewed 10/13/23; Estimated Glomerular Filtration Rate (eGFR) | National Kidney Foundation