

Core Clinical Services Directorate

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Our Ref: BS/CB/QM/COMU/126

20th September 2016

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Dear Colleague

Implementation of the CKD-EPI equation to estimate glomerular filtration rate in Winpath (from 2nd October 2016)

The NICE CKD 2014 guidelines recommend the use of the CKD Epidemiology Collaboration creatinine (CKD-EPI) equation to estimate the glomerular filtration rate (GFR). Until now we have used the Modification of Diet in Renal Disease (MDRD) formula. Several studies have shown that the MDRD equation systematically underestimates the GFR, particularly in low-risk patients with a high-normal serum creatinine level. This results in the labelling of some people with CKD who do not have significant kidney disease, particularly in the earlier stages of CKD.

As a result of this change, please be aware of the following points:

- The new equation will more accurately assess eGFR reducing the over-diagnosis of CKD in low risk patients and improving diagnostic performance in patients aged over 75 years.
- You will need to update your correction factor to eGFR values for people of African-Caribbean or African family origin. For CKD-EPI eGFR, results should be multiplied by 1.159 (this factor will be stated on reports).
- Be aware when assessing trends over time that results may not be directly comparable in patients with previous eGFR estimates calculated using the MDRD formula.
- Serum creatinine results are not affected by this change and will continue to be comparable over time. You may notice a change to the creatinine reference range; this has been updated in order to harmonise reporting across Bristol and is not due to any change in the method.

If you have any questions or queries relating to this change, please contact the Duty Biochemist (0117 414 8437) to discuss.



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Consultant Clinical Biochemist