HCA Healthcare UK Laboratories
5th Floor, Shropshire House,
2-10 Capper Street,
London, WC1E 6JA

30th July 2026

Dear Colleague,

Notification of change: new enzymatic creatinine method

From Tuesday 4th August 2026, HCA Laboratories will be moving to an improved enzymatic method for creatinine analysis. This is in line with NICE and GIRFT recommendations for creatinine testing. The enzymatic creatinine method will replace the Jaffe creatinine method, which has poor precision and is more prone to interference from common endogenous substances and medications including glucose, ketones, bilirubin, ascorbate, paracetamol and cephalosporins. Consistency and accuracy of creatinine results is essential for diagnosis and monitoring of both chronic kidney disease (CKD) and acute kidney injury (AKI) and the move to enzymatic creatinine will support this. Jaffe creatinine will no longer be available and all serum and urine creatinine requests will be analysed using the enzymatic method.

WHAT WILL CHANGE?

- There will be some minor changes to reference ranges for adult serum creatinine and 24 h urine creatinine excretion. Age-related paediatric serum creatinine reference ranges remain unchanged.

		Creatinine reference range	
		Previous Jaffe method	**New enzymatic method**
Serum (µmol/L)	Adult female	44 - 80	45 - 84
	Adult male	62 - 106	59 - 104
	Paediatric	No change	
24 h urine creatinine excretion (mmol/24h)	Female	7.0 - 14.0	6.0 - 13.0
	Male	9.0 - 21.0	9.0 - 19.0

- Due to issues with precision and interference in the Jaffe method, patient sample comparison studies demonstrated greater variability in results at lower concentrations due to the improved performance of the enzymatic creatinine method.
    - For serum samples less than ~70 µmol/L some enzymatic serum creatinine results were higher and others lower than the Jaffe method by up to 20%. Above ~ 70 µmol/L no significant differences were observed between Jaffe and enzymatic methods.
    - For urine samples less than ~4.0 mmol/L, results varied by ±15% compared to the Jaffe method. Above ~ 4.0 mmol/L no significant differences were observed between Jaffe and enzymatic methods.

- Significant changes in eGFR and CKD staging are not expected, although there may be some changes with lower creatinine concentrations due to the improvements in the creatinine method. Such changes may not indicate a real change in renal function for individual patients, however clinical correlation is advised where clinically significant changes are seen.

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WHAT WON'T CHANGE?

- No change to required sample types
- No change to turnaround times

We are sorry for the extremely short notice informing you of this change, this is due to restrictions around IT changes ahead of an upgrade to our hospitals' EPR system.

Please do not hesitate to contact us if you have any questions regarding this change, or any aspect of the laboratory service.

Kind regards,

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