

Summary of NICE Guidelines

Title	Chronic kidney disease (partial update): Early identification and management of chronic kidney disease in adults in primary and secondary care.
NICE Reference	CG182
Date of Review:	N/A
Date of Publication	July 2014
Summary of Guidance (Max 250 words)	<p>Chronic kidney disease (CKD) to be classified on glomerular filtration rate (GFR) and albumin:creatinine ratio (ACR) as these correlate with risk of adverse outcomes. Monitoring frequency and management are determined by classification and clinical presentation. CKD monitoring and renal ultrasound also depends on other risk factors.</p> <p>Laboratory recommendations:</p> <ul style="list-style-type: none"> • Creatinine measurement to be “specific” (e.g. enzymatic) and zero biased to isotope dilution mass spectrometry method. • eGFRcreatinine to be calculated using CKD-EPI equation. • Delayed centrifugation has no effect on enzymatic methods for creatinine unlike the kinetic Jaffe reaction. • Consider Cystatin C measurement for patients with eGFRcreatinine 45-59ml/min/1.73m² for 90days without other markers of CKD. <p>Patients should be referred for specialist assessment based on a number of factors including: CKD stage 4/5; ACR >30mg/mmol and haematuria; ACR >70mg/mmol or accelerated progression of CKD.</p> <p>Monitoring and medication:</p> <ul style="list-style-type: none"> • CKD is not usually progressive but kidney function should be monitored. • Accelerated progression of CKD suggested as: >25% decrease in eGFR/change in CKD stage or patients with a sustained decrease of 15ml/min/1.73m² over 12 months. • Patients with acute kidney injury should be monitored for progression to CKD for at least 2-3yrs, even if creatinine has normalised. • Aim for systolic and diastolic blood pressure below 140mmHg and 90mmHg. • Anti-coagulant therapy. • Measure calcium, phosphate and parathyroid hormone if eGFR <30ml/min/1.73m². Colecalciferol/ergocalciferol can be used to treat CKD patients with vitamin D deficiency. • Measure Haemoglobin to identify anaemia (<110g/L). • Oral bicarbonate considered if stage 4/5 and HCO₃⁻ <20mmol/L.
Impact on Lab (See below)	■ Important

Lab professionals to be made aware	<input type="checkbox"/> Laboratory Manager <input type="checkbox"/> Chemical Pathologist <input type="checkbox"/> Clinical Scientist <input type="checkbox"/> Biomedical Scientist
Please detail the impact of this guideline (Max 150 words)	<ul style="list-style-type: none"> • Healthcare workers should be aware of the changes to classification of CKD to include ACR measurement. • There may be an increase in ACR requests to classify and monitor CKD. • There is a need to investigate specific creatinine methods, zero-biased to IDMS, and enroll in an external quality assurance scheme. • Laboratories may need to investigate a method or referral laboratory for the measurement of Cystatin C. • Laboratories will need to report eGFR using the CKD-EPI equations for creatinine or Cystatin C. • Alteration to the reporting of eGFR >60ml/min/1.73m². • Healthcare workers should also be aware of the importance of the laboratory in diagnosis and monitoring CKD patients.

Impact on Lab

- **None:** This NICE guideline has no impact on the provision of laboratory services
- **Moderate:** This NICE guideline has information that is of relevance to our pathology service and may require review of our current service provision.
- **Important:** This NICE guideline is of direct relevance to our pathology service and will have a direct impact on one or more of the services that we currently offer.

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