





Summary of NICE Guidelines

Title	Acute kidney injury (AKI): prevention, detection and management
NICE Reference	NG148
Previous NICE Reference	CG169
Date of Publication	18/12/2019 (last updated 28/9/2023)
Date of Review/Update by NICE	N/A
Date of Summary by Trainee	06/03/2024
Summary of Guidance	<p>Risk Assessment Overview of assessing for AKI in patients with/without acute illness. Advises for the measurement of serum creatinine and comparison against baseline of those at risk of developing AKI. Common risk factors include: CKD, heart failure, liver disease and diabetes.</p> <p>Prevention Discusses ongoing assessment of people in hospital, preventing AKI in adults having iodine-based contrast media and monitoring/preventing deterioration in people with or at high risk of AKI. Suggests:</p> <ul style="list-style-type: none"> • Systems to recognise and respond to oliguria • Paediatric early warning scores • Oral hydration when using intravenous iodine-based contrast media <p>Detection In line with the (p)RIFLE, AKIN or KDIGO definitions:</p> <ul style="list-style-type: none"> • A rise in serum creatinine ≥ 26 micromol/litre within 48 hours • 50% or greater rise in serum creatinine known or presumed to have occurred within the past 7 days • Fall in urine output < 0.5 ml/kg/hour for > 6 hours in adults and > 8 hours in children • $25\% \geq$ fall in eGFR in children and young people within the past 7 days <p>Identification</p> <ul style="list-style-type: none"> • Urine dipstick testing when AKI is suspected/ detected • Consideration of acute nephritis patient when no obvious cause of AKI has urine dipstick results showing haematuria and proteinuria • Offering of ultrasound for AKI patients with suspected pyonephrosis or urinary tract obstruction <p>Management</p> <ul style="list-style-type: none"> • Relieving urological obstruction • Pharmacological management • Renal replacement therapy referral

	<ul style="list-style-type: none"> • Nephrology referral <p>Information and support</p> <p>Discuss the risk of developing AKI and drugs that can cause or exacerbate kidney injury with those at risk, particularly those with CKD (eGFR < 60) or those with neurological impairment.</p>
Impact on Lab	<p> Moderate: This NICE guideline has information that is of relevance to our pathology service and may require review of our current service provision.</p>
Lab professionals to be made aware	<p>Laboratory Manager Chemical Pathologist Clinical Scientist Biomedical Scientist</p>
Please detail the impact of this guideline	<p>Up to 100,000 deaths in secondary care are associated to AKI per annum, 1/4 to 1/3 of these are potentially preventable (NCEPOD).</p> <p>NG148 details the prevention, detection and management of AKI in adults, children and young people. It aims to improve AKI assessment and detection by non-specialists, and gives a framework for referral to specialist services. This in turn should improve the prognosis of patients with impaired kidney function via early recognition and treatment, and reduce the risk of complications in people with AKI.</p> <p>In terms of service provision, laboratory professionals should be aware that the diagnosis and follow-up of patients with acute kidney injury will include the measurement of various biochemical analytes/sample types. These include creatinine and urea, as well as any associated investigations required during the assessment of other conditions related to AKI. The guidance also states how clinical prescribing systems should interact with laboratory systems to facilitate this.</p>

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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Reviewed by: Dr Rachel Henderson FRCPath

Date: 06/03/2024