The Association for Clinical Biochemistry & Laboratory Medicine

Better Science, Better Testing, Better Care

Summary of NICE Guidelines

Title	Acute kidney injury: prevention, detection and management
NICE Reference	CG169
Date of Review:	July 2017
Date of Publication	August 2013
Summary of Guidance (Max 250 words)	Detection and assessment of children and adults with AKI is primarily carried out by measuring creatinine and comparing with baseline measurements. This should be done in adults and children with: CKD, sepsis, liver disease, diabetes and oligouria. AKI can be identified using (p)RIFLE, AKIN or KDIGO definitions. Systems should be in place to recognise early signs of AKI e.g. oligouria. Electronic clinical decision support systems can be used to support clinical-decision and prescribing while a paediatric scoring system can be implemented to help identify children with AKI. A urine dipstick should always be performed if AKI is suspected. When children are at risk measure urine output, electrolytes and creatinine and weigh twice daily. Where there is no clear cause, an ultrasound of the urinary tract should be performed within 24 hours. Most patients can be managed by correcting volume depletion and avoiding further renal insults. Referral to nephrology can be made if there are other complications e.g. inadequate response to treatment, CKD 4/5 or there is no clear cause. The risk of AKI should always be assessed before administering iodinated contract agents and before surgery. Renal replacement therapy should be considered when there is: hyperkalaemia, metabolic acidosis, symptoms of uraemia or oedema. Patient education on identifying signs and symptoms of AKI should be offered to high risk groups: see KTT17 NICE guidance summary for information regarding at risk patients.
Impact on Lab (See below)	☐ Moderate
Lab professionals to be made aware	✓ Laboratory Manager ✓ Chemical Pathologist ✓ Clinical Scientist
Please detail the impact of this guideline (Max 150 words)	• The main aims of this guidance are to impact detection and management within secondary care to help reduce associated morbidity and mortality, and to alleviate the burden on resources. • This guidance tells us what criteria to use to detect AKI rapidly in the adult and paediatric population for non-specialist clinicians. • Laboratory staff should be aware of the impact of rising creatinine measurement and how this is used determine staging using one of three AKI definitions. • AKI bundles have now been put in place across larger hospitals in

	the UK to trial the effect of AKI e-alerts which alert clinicians to changes in renal function. This may increase calls to the biochemistry department or increase the workload of nephrologists/renal teams. The affect of these e-alerts will need audited before the clinical utility is known.

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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