



# Patient Safety Alert

## Stage Three: Directive Standardising the early identification of Acute Kidney Injury

9 June 2014

Alert reference number: NHS/PSA/D/2014/010

Alert stage: Three - Directive

National patient safety data tells us that patients are dying and suffering severe harm due to a delay in detecting Acute Kidney Injury (AKI). AKI often occurs without causing any symptoms or signs and its presence frequently goes unrecognised by patients and doctors alike.

*"A patient with a complex physical and mental health background became unwell over a weekend. Despite persistent hypotension there was no record of fluid balance. Bloods were delayed until late Sunday night, indicating acute kidney injury. Acute kidney injury not recognised or commented on until mid way through the following day. Medications given to the patient over the weekend included drugs contraindicated in renal failure. The patient was admitted to ICU and on admission was unconscious/shocked. There were multiple systematic failures in the management of this patient including a life threatening delay in critical care of >12 hours and systems failure in the recognition of deteriorating patients."*

Acute Kidney Injury (AKI) is a sudden reduction in kidney function. Complex long term medical conditions, medication and intercurrent illness are often complicated by AKI. It is estimated that 1 in 5 emergency admissions into hospital are associated with AKI, prolonging inpatient care and contributing to 100,000 deaths in secondary care. National Confidential Enquiry into Patient Outcome and Death (NCEPOD) estimated that one quarter to one third of cases have the potential to be prevented.

A national algorithm, standardising the definition of AKI has now been agreed. This provides the ability to ensure that a timely and consistent approach to the detection and diagnosis of patients with AKI is taken across the NHS.

This algorithm has been endorsed by NHS England and it is recommended that the algorithm is implemented across the NHS. When integrated into a Laboratory Information Management System (LIMS) the algorithm will identify potential cases of AKI from laboratory data in real time and produce a test result. The laboratory system will then send the test result, using existing IT connections to patient management systems.

NHS England in partnership with the UK Renal Registry has launched a National AKI Prevention Programme which will include the development of tools and interventions. A priority for the Programme is the development and adoption of e-alert systems, based on the test result, which will proactively notify clinicians when a patient has AKI, supporting implementation of [AKI NICE guidance \(CG169\)](#).

Although primary care is an important focus for detection and prevention of AKI, it is anticipated that AKI results will be sent to primary care in a second phase of the programme. Meanwhile Trusts are expected to discuss with primary care representatives the management of AKI test results, particularly at times when deputizing services are providing medical cover.






Further support will be provided by the National Programme as exemplar e-alerting system are developed: [www.england.nhs.uk/AKIProgramme](http://www.england.nhs.uk/AKIProgramme)

The AKI detection algorithm can be found at the following link:  
[www.england.nhs.uk/aki-algorithm](http://www.england.nhs.uk/aki-algorithm)

## Actions

**Who:** NHS acute trusts and foundation trusts providing pathology services

**When:** By 9 March 2015

-  1 Bring this alert to the Director of Pathology/IT with responsibility for the upgrading of LIMS systems
-  2 Work with local LIMS supplier to integrate AKI algorithm into LIMS system
-  3 Work with local LIMS supplier to ensure the test result goes to local Patient management systems and into a data message sent to a central point for national monitoring purposes
-  4 Communicate with appropriate primary care providers to ensure they seek advice if test results are received
-  5 Regularly access NHS England AKI website where additional resources and information will be provided as developed

## Supporting information

For further information to support the implementation of this alert go to [www.england.nhs.uk/aki-algorithm](http://www.england.nhs.uk/aki-algorithm)