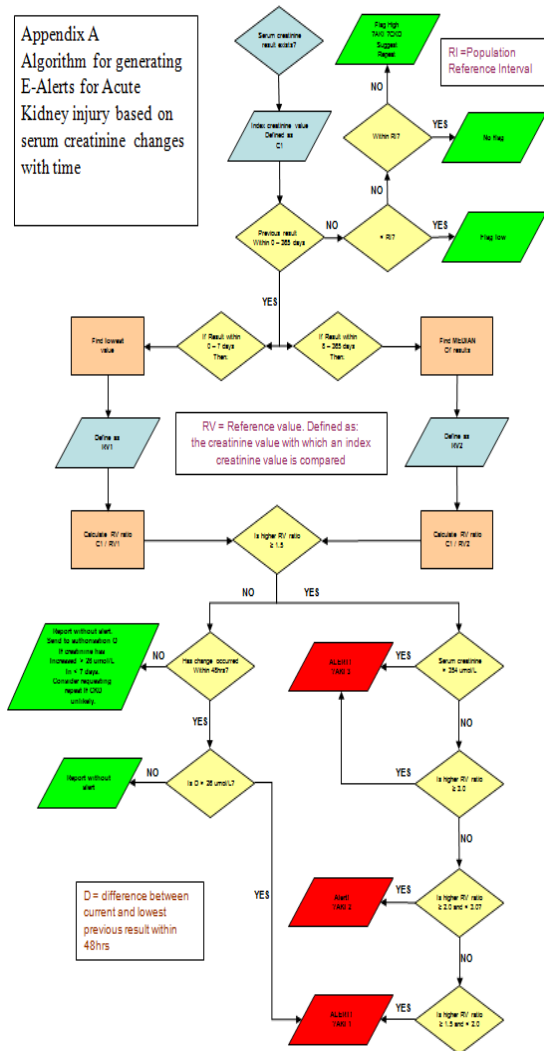

Think Kidneys AKI Programme

The Importance of Data

National algorithm and mandate to report

Appendix A
Algorithm for generating
E-Alerts for Acute
Kidney injury based on
serum creatinine changes
with time



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 drug 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 in the laboratory information system and then sent to the patient safety system. NHS England Preventive priority 4 the test & implement program the man providing Further a system a The AKI www.en

Patie
www
Publication

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



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

Patient Safety Alert

The NHS England patient safety alert requires that a report of the data is produced and transmitted electronically to the UKRR for patients with an AKI Warning Stage Result.

The following slides outline why this information is important and what the intended outcomes are.

Why Measure?

Why measure?

- To truly identify the scale of the problem - most papers are based on smaller studies
- To identify variation between areas to help plan services and encourage improvement
- To identify "at risk" groups to enable targeted approaches
- To identify best practice and outliers
- To identify the impact of interventions either quality improvement or clinical
- To study the development of the problem
- Because what you measure is paid attention to and this is a major patient safety issue like healthcare acquired infection
- To inform the research agenda

What is the scale of harm from AKI on a national basis?

- It is **estimated** that one in five emergency admissions into hospital are linked with AKI (Wang et al, 2012).
- **Up to** 100,000 deaths in hospitals are linked with AKI
- **Approximate** cost per AHSN region estimated at £68,000,000 based on NHS Kidney Care research
- **13-18%** of all people admitted to hospital diagnosed with AKI, with older adults being particularly affected
- **One-quarter to one-third** have the potential to be prevented (National Confidential Enquiry into Patient Outcome and Death (NCEPOD) Adding Insult to Injury 2009)

What are the key areas where we could improve the safety of patients?

- Ensuring that tools and interventions are developed and used to support the prevention, early detection, treatment and enhanced recovery of patients with AKI.
- Ensuring that patients who develop AKI are appropriately managed and supported to reduce further deterioration, long term disability and death.
- Ensuring that education and training programmes are developed, shared and available for all healthcare staff based on best practice.
- Ensuring that healthcare staff are aware of the importance and risks of AKI and appropriate local strategies to reduce the burden of AKI are developed.
- Developing a system to identify all patients suffering with AKI in order to improve the standards of care they receive and enable better planning of services
- Involving and supporting patients and their families and the public in understanding the risk of AKI and preventative measures through education and appropriate access to personal information.
- Supporting the development of local healthcare services that provide quality care to people with AKI.
- Identifying the research priorities for AKI (including basic science, clinical care and service delivery).

Collecting data

- UKRR has permission from HRA (The Health Research Authority) to hold personal identifiable data without individual patient consent for the longitudinal follow up of cases and linkage to other healthcare databases

Linkage

- We are working with HSCIC for future linkage to obtain other core data items
- We also plan to link UKRR AKI dataset of RRT requirement in UK to obtain data regarding need for RRT and non-recovery of AKI
- Linkage with National Diabetes and CKD audit will be performed in 2016

More information

Think Kidneys Website

<https://www.thinkkidneys.nhs.uk/>