The NHS campaign to improve the care of people at risk of, or with, acute kidney injury
www.thinkkidneys.nhs.uk

Development of 'timeliness in response' appropriateness ratings in relation to AKI Warning Stage Results to primary care

A RAND Appropriateness Method: Round 1 – Instruction Sheet

OVERVIEW:

The RAND Appropriateness Method seeks to ensure that Acute Kidney Injury (AKI) Warning Stage Results are considered in a clinical context. That is, AKI is a clinical syndrome, NOT a biochemical diagnosis. Specifically, recognising that an appropriate response to an AKI Warning Stage result requires an understanding of the clinical context, the RAND process intends to help identify necessary steps to be taken by both the Clinical Pathology Service and Primary Care.

The attached list of scenarios represents the first round of the RAND Appropriateness Method Procedure. 163 clinical cases are presented, with 4 responses 'next steps' requiring rating for each clinical case (i.e. 163 x 4 = 652 scenarios). Please read this instruction sheet carefully together with the accompanying `context document` (which outlines the definitions and rationale for the scenarios presented) and then score each scenario; basing your ratings on your understanding and interpretation of the evidence in combination with your own clinical experience. The scenarios have been written with a level of precision that reflects day-to-day clinical care and each scenario represents a separate indication. When scoring each scenario, assume that you have available all the clinical information presented.

RATINGS SYSTEM:

The scoring system is based on a nine-point scale with 1 indicating `extremely inappropriate next step` and 9 indicating `extremely appropriate next step` in relation to the choices of 1) the Clinical Pathology Service reporting of AKI Warning Stage Results (4 choices), and 2) primary care/general practitioner response to AKI Warning Stage Results (4 choices):

- **Scores 1 to 3**: Inappropriate next step (i.e. no benefit, possible harms).
- **Scores 4 to 6**: Uncertainty about next step (i.e. when harms and benefits are judged as approximately equal, or when the best available evidence does not support a judgement either way).
- **Scores 7 to 9**: Appropriate next step (i.e. benefits were judged to outweigh harms).

Round 1 seeks to gain clarity on 'necessary' processes of care under ideal conditions. At this time we would ask that **no consideration** is given to the costs to the health service in determining appropriateness.

Also please remember to provide a 1-9 rating for each one of the 652 scenarios. **Please do not leave any spaces blank.**

KEY CHARACTERISTICS OF CATEGORISATIONS:

The following apply to the categorisations in the attached list of scenarios (please refer to the 'context' document which provides greater detail about the definitions and rationale for the categorisations chosen):

AKI Warning Stage Result: - as defined by the use of the algorithm for detecting Acute Kidney Injury (AKI) based on serum creatinine changes with time. Please refer to the algorithm relating to the NHS England patient safety alert: NHS/PSA/D/2014/010.
http://www.england.nhs.uk/ourwork/patientsafety/akiprogramme/aki-algorithm/
The NHS England algorithm aims to standardise the definition of AKI and is based on the KDIGO (2012) classification of acute kidney injury:
http://www.kdigo.org/clinical_practice_guidelines/pdf/KDIGO%20AKI%20Guideline.pdf

- **AKI Warning Stage 1**
- **AKI Warning Stage 2**
- **AKI Warning Stage 3**

Clinical History:

- **Acute illness** - Evidence from history or examination that the patient is experiencing an episode of acute illness (as defined by Jones et al, 2010). (http://www.kingsfund.org.uk/sites/files/kf/field/field_document/managing-acute-illness-gp-inquiry-research-paper-mar11.pdf

- **Chronic Heart Failure –** Evidence indicating that the patient has a history of chronic heart failure as defined in NICE Guidance cg108 (2010). https://www.nice.org.uk/guidance/cg108/resources/guidance-chronic-heart-failure-pdf

- **Chronic Kidney Disease Stage 4 or 5, or history of renal transplant** - Evidence that the patient has a diagnosis of stage 4 or 5 chronic kidney disease (CKD) or a past

history of having had a renal transplant. Diagnosis of CKD defined by NICE CKD Guidelines cg182 (2014).
http://www.nice.org.uk/guidance/cg182

- **Change in dose of a diuretic and/or ACE Inhibitors/Angiotensin Receptor Blocker (ARB)** – Evidence that the patient has had a recent change in dose/introduction of a diuretic and/or an ACE Inhibitor/ARB, which may have contributed to a significant rise in serum creatinine.

Age of patient:

- **Adult**
- **Child or Young person**

NICE AKI CG169 guidelines considers the patient's age in the management of acute kidney injury. NICE use the term 'adults' is used to describe people who are aged 18 years or older, and 'children' those who are aged 11 years or younger (excluding neonates less than 1 month old). 'Young people' describes those who are aged 12 to 17 years.
https://www.nice.org.uk/guidance/cg169/resources/guidance-acute-kidney-injury-pdf

End of Life Care:

Clinical evidence that the patient is approaching end of life and is requiring end of life care.
https://www.nice.org.uk/guidance/QS13/chapter/List-of-statements

Other Features/ Complications:

- **Poor Fluid intake/urine output** – Evidence of poor fluid intake/urine output based on an evaluation of the history, and/or cumulative fluid balance, and/or clinical examination (including pulse, blood pressure (BP), jugular venous pressure, capillary refilling, weight and postural change in pulse and BP).
http://www.rcpe.ac.uk/sites/default/files/files/Final_statement_0.pdf

- **Mild Hyperkalaemia** – as defined by the Renal Association Guidelines for Hyperkalaemia 2014 as a potassium level between 5.5 and 5.9 mmol/l. http://www.renal.org/guidelines/joint-guidelines/treatment-of-acute-hyperkalaemia-in-adults#sthash.T3aoglXt.f4WXgntA.dpbs

- **Moderate Hyperkalaemia** – as defined by the Renal Association Guidelines for Hyperkalaemia 2014 as a potassium level between 6.0 and 6.4 mmol/l. http://www.renal.org/guidelines/joint-guidelines/treatment-of-acute-hyperkalaemia-in-adults#sthash.T3aoglXt.f4WXgntA.dpbs

- **Risk of urinary tract obstruction or Intrinsic renal disease**
  - Evidence based on history or examination that the patient may have urinary tract obstruction with possible underlying pathology including renal stones, pyonephrosis, blocked catheter, pelvic mass, enlarged prostate, carcinoma, retroperitoneal fibrosis, and neurogenic bladder.

    Or
  - Evidence that the patient may have intrinsic renal disease based on history or examination including evidence of proteinuria and haematuria on urinalysis without evidence of urinary tract infection and/or systemic symptoms: arthralgia, arthritis, mononeuritis multiplex, rash, uveitis, epistaxis or haemoptysis.

Next Steps:

1) Based on the presenting AKI Warning Stage, it is suggested that the Clinical Pathology Service/laboratory staff will need to make one of four decisions:

- **Send an AKI Warning Stage Result via the data transfer service without comment (non-interruptive communication)**
- **Send an AKI Warning Stage Result via the data transfer service with comment (non-interruptive communication)**
- **Send an AKI Warning Stage Result to an NHS email address that is known to be monitored regularly during working hours (non-interruptive communication)**
- **Send an AKI Warning Stage Result by telephone call to GP/practice/out of hours service provider (interruptive communication)**

2) Based on the presenting AKI Warning Stage, clinical history including complications, it is suggested that general practitioners (responsible primary care team) will need to make one of four decisions:

    - **Seek immediate admission**
    - **Respond to the AKI Warning Stage Result <6 hours**
    - **Respond to the AKI Warning Stage Result <24 hours**
    - **Respond to the AKI Warning Stage Result <72 hours**

FEEDBACK

If you feel that any of the scenarios should be reformulated or if others should be added, please could you comment in the notes section of the table (the final column).

DEADLINE

PLEASE COULD YOU RETURN THE SCORED LIST OF SCEANRIOS BY E-MAIL AND BY 9AM ON **FRIDAY 31st of JULY 2015** TO **BOTH**:

Tom.blakeman@manchester.ac.uk and

Julie.slevin@renalregistry.nhs.uk

Thank you very much for your help with this