

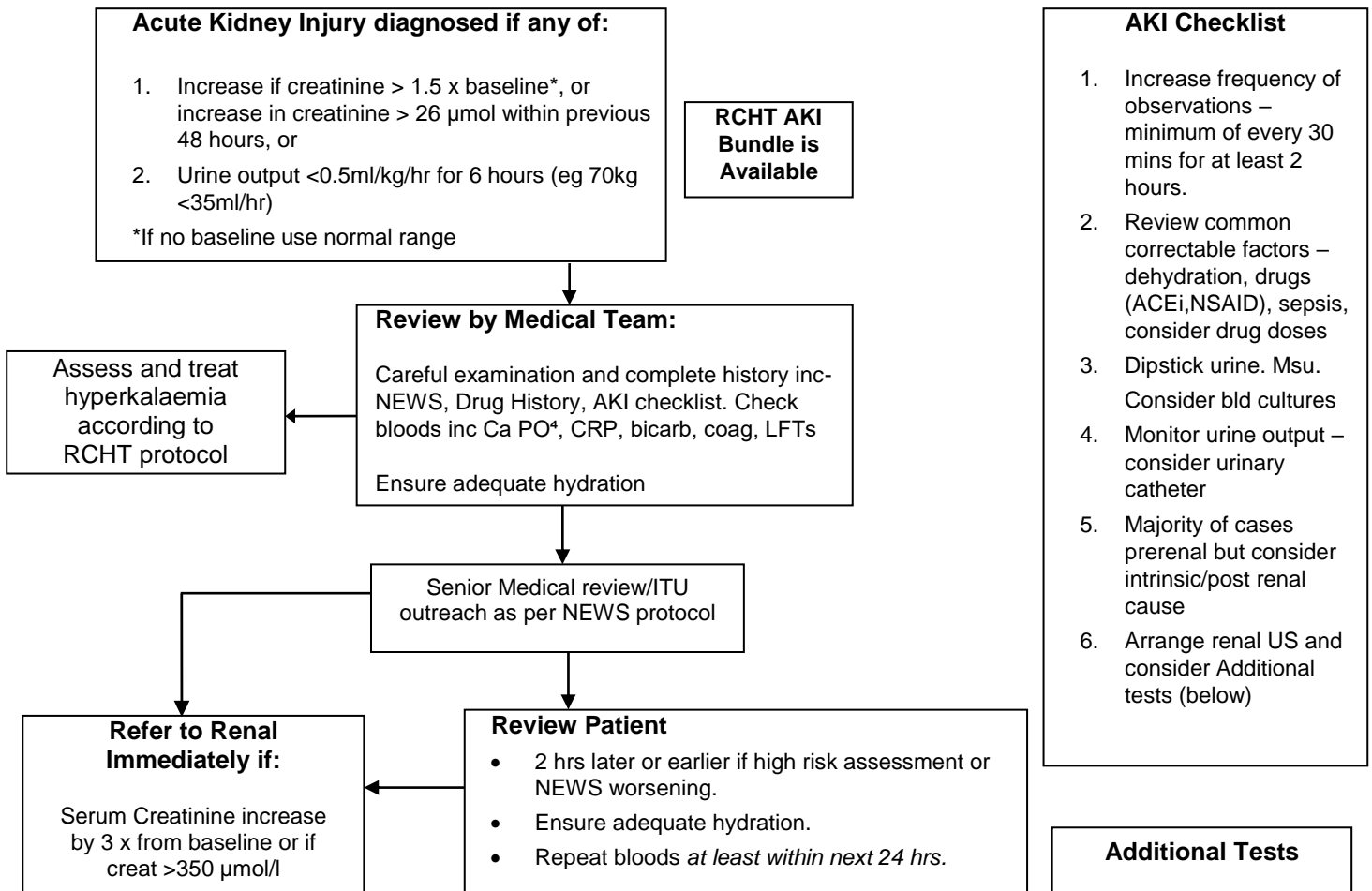
Acute Kidney Injury (AKI) Clinical Guideline

V3.0

March 2020

Summary

Acute Kidney Injury (AKI) Guideline



- AKI Checklist**
- Increase frequency of observations – minimum of every 30 mins for at least 2 hours.
 - Review common correctable factors – dehydration, drugs (ACEi, NSAID), sepsis, consider drug doses
 - Dipstick urine. Msu. Consider bld cultures
 - Monitor urine output – consider urinary catheter
 - Majority of cases prerenal but consider intrinsic/post renal cause
 - Arrange renal US and consider Additional tests (below)

- Additional Tests**
- Immunology – ANCA, ANA, complement, anti GBM. Immunoglobulins. Blood Film, LDH. Creatinine kinase.

AKI STAGE	SERUM CREATININE CRITERIA	URINE OUTPUT CRITERIA
1	SCr ≥ 150-200% (1.5-2 fold) from baseline, or SCr ≥ 26 µmol/l in previous 48 hours	< 0.5ml/kg/hr for >6 hr
2	SCr ≥ 200-300% (>2-3 fold) from baseline	< 0.5ml / kg / hr for >12 hr
3	SCr > 300% (>3 fold) from baseline or SCr ≥ 354 µmol/l with an acute rise of ≥ 44 µmol/l in ≤ 24hr or Initiated on RRY	< 0.3ml / kg / hr for >24 hr or Anuria for 12 hr

This is a basic guideline only!

If ongoing concerns re-diagnosis or management please refer Renal-Registrar (9-5) or Consultant via switchboard.

Acute Kidney Injury Network classification

Definition assumes adequate rehydration.

RRT = replacement Therapy

1. Aim/Purpose of this Guideline

1.1. This guideline is intended to assist decision making in all clinical areas admitting or caring for patients. It is likely to be used mainly on Medical Admissions Unit (MAU) and in the Emergency Department (ED), although all clinical areas will need to have access to it.

1.2. This version supersedes any previous versions of this document.

1.3. Data Protection Act 2018 (General Data Protection Regulation – GDPR) Legislation

The Trust has a duty under the DPA18 to ensure that there is a valid legal basis to process personal and sensitive data. The legal basis for processing must be identified and documented before the processing begins. In many cases we may need consent; this must be explicit, informed and documented. We can't rely on Opt out, it must be Opt in.

DPA18 is applicable to all staff; this includes those working as contractors and providers of services.

For more information about your obligations under the DPA18 please see the 'information use framework policy', or contact the Information Governance Team rch-tr.infogov@nhs.net

2. The Guidance

2.1. See the flowchart above for the guidance.

2.2. The AKI Bundle (referred to in the above guidance) is attached below for information.

AKI IS A MEDICAL EMERGENCY	
	Date, Time and Sign
Common causes Pre-renal (e.g. sepsis, hypotension) Post-renal (e.g. bladder outflow obstruction) Treat the cause promptly	
Medication Consider stopping ACE inhibitor, metformin, NSAIDS, diuretics, opiates Make necessary dose adjustments for AKI	
Fluids Assess volume status When did the patient last pass urine? Fluids: resuscitation, replacement, or maintenance	
Review When and where will the next U&Es be taken? Has treatment improved the patient's NEWS score and their condition? Handover Consider Renal referral for suspected intrinsic renal causes and AKI Stage 3	
RCHT intranet guidelines are available to help further guide the management of AKI, hyperkalaemia, and avoiding contrast induced nephrotoxicity.	

3. Monitoring compliance and effectiveness

Element to be monitored	Numbers of patients with AKI stages 1, 2 and 3.
Lead	Dr Steve Dickinson, RCHT AKI Clinical Lead
Tool	Audit-numbers of patients with AKI collected from the biochemistry department feed and inputted onto an excel template.
Frequency	Annually
Reporting arrangements	The results of this audit will be shared at the Renal Audit meeting.
Acting on recommendations and Lead(s)	The Renal Audit meeting, and the Renal Lead and Renal Audit Lead will act on recommendations that arise from the audit.
Change in practice and lessons to be shared	Any required changes in practice that are identified will lead to an amendment of the guideline. Any lessons to be shared will be shared in the appropriate arena e.g. presenting at the Grand Round.

4. Equality and Diversity

4.1. This document complies with the Royal Cornwall Hospitals NHS Trust service Equality and Diversity statement which can be found in the ['Equality, Inclusion & Human Rights Policy'](#) or the [Equality and Diversity website](#).

4.2. **Equality Impact Assessment**

The Initial Equality Impact Assessment Screening Form is at Appendix 2.

Appendix 1. Governance Information

Document Title	Acute Kidney Injury (AKI) Clinical Guideline V3.0		
Date Issued/Approved:	3 rd February 2020		
Date Valid From:	March 2020		
Date Valid To:	March 2023		
Directorate / Department responsible (author/owner):	Dr Steve Dickinson, Renal Consultant		
Contact details:	01872 253241		
Brief summary of contents	A guideline and flowchart for acute kidney injury (AKI) to raise awareness and improve management of patients with AKI.		
Suggested Keywords:	Kidney Injury, kidney failure, kidney damage,		
Target Audience	RCHT	CFT	KCCG
	✓		
Executive Director responsible for Policy:	Medical Director		
Date revised:	3 rd February 2020		
This document replaces (exact title of previous version):	Clinical Guideline for Acute Kidney Injury (AKI) V2.0		
Approval route (names of committees)/consultation:	Renal Governance Group Meeting		
Care Group General Manager confirming approval processes	Sidwell Lawler		
Name and Post Title of additional signatories	Not Required		
Name and Signature of Care Group/Directorate Governance Lead confirming approval by specialty and care group management meetings	{Original Copy Signed}		
	Name: Dr Steve Creely		
Signature of Executive Director giving approval	{Original Copy Signed}		
Publication Location (refer to Policy on Policies – Approvals and Ratification):	Internet & Intranet	✓	Intranet Only
Document Library Folder/Sub Folder	Clinical / Renal		
Links to key external standards	None required		

Related Documents:	None
Training Need Identified?	No

Version Control Table

Date	Version No	Summary of Changes	Changes Made by (Name and Job Title)
21 Sep 2012	V14.8.9	Guideline reissued. Previous changes not known.	Dr R. Parry Consultant Physician, Renal Unit
18 Mar 2014	V14.8.9	Summary guidance appendix published.	A. Rogers, Corporate Records Manager
21 Feb 2017	V2.0	Minor changes to update the definition of AKI Stage 1. AKI Bundle also added for information.	Dr Steve Dickinson, Renal Consultant, Renal Unit
03 Feb 2020	V3.0	No Changes. Full Review. Transferred onto new Trust template.	Dr Steve Dickinson, Renal Consultant, Renal Unit

All or part of this document can be released under the Freedom of Information Act 2000

This document is to be retained for 10 years from the date of expiry.
This document is only valid on the day of printing

Controlled Document

This document has been created following the Royal Cornwall Hospitals NHS Trust Policy for the Development and Management of Knowledge, Procedural and Web Documents (The Policy on Policies). It should not be altered in any way without the express permission of the author or their Line Manager.

Appendix 2. Initial Equality Impact Assessment Form

Name of the strategy / policy / proposal / service function to be assessed Acute Kidney Injury (AKI) Clinical Guideline V3.0						
Directorate and service area: Renal			New or existing document: Existing			
Name of individual completing assessment: Dr Steve Dickinson			Telephone: 01872 253241			
1. <i>Policy Aim*</i> <i>Who is the strategy / policy / proposal / service function aimed at?</i>		To raise awareness and improve management of patients with AKI				
2. <i>Policy Objectives*</i>		As above				
3. <i>Policy – intended Outcomes*</i>		As above				
4. *How will you measure the outcome?		Audit-numbers of patients with AKI collected from the biochemistry department feed.				
5. Who is intended to benefit from the <i>policy</i> ?		Patients				
6a Who did you consult with b). Please identify the groups who have been consulted about this procedure.		Workforce	Patients	Local groups	External organisations	Other
		✓				
		The 4 substantial renal consultants and locum renal consultant at RCHT.				
What was the outcome of the consultation?		Agreed				

7. The Impact Please complete the following table. If you are unsure/don't know if there is a negative impact you need to repeat the consultation step.				
Are there concerns that the policy could have differential impact on:				
Equality Strands:	Yes	No	Unsure	Rationale for Assessment / Existing Evidence
Age		✓		

Sex (male, female, trans-gender / gender reassignment)		✓					
Race / Ethnic communities /groups		✓					
Disability - Learning disability, physical impairment, sensory impairment, mental health conditions and some long term health conditions.		✓		If patient has a learning disability or autism the Learning Disability/Autism Acute Liaison Team can be connected for advice/support. Similarly, the Mental Health and Wellbeing Nurse can be accessed for advice/support if the patient has a mental health condition, if necessary.			
Religion / other beliefs		✓		No obvious affects relating to Religion or Belief.			
Marriage and Civil partnership		✓					
Pregnancy and maternity		✓					
Sexual Orientation, Bisexual, Gay, heterosexual, Lesbian		✓					
<p>You will need to continue to a full Equality Impact Assessment if the following have been highlighted:</p> <ul style="list-style-type: none"> You have ticked “Yes” in any column above and No consultation or evidence of there being consultation- this <u>excludes</u> any <i>policies</i> which have been identified as not requiring consultation. or Major this relates to service redesign or development 							
8. Please indicate if a full equality analysis is recommended.				Yes		No	✓
9. If you are not recommending a Full Impact assessment please explain why.							
A full impact assessment is not required.							
Date of completion and submission	03 February 2020		Members approving screening assessment		Policy Review Group (PRG) APPROVED.		

This EIA will not be uploaded to the Trust website without the approval of the Policy Review Group.

A summary of the results will be published on the Trust’s web site.