ACUTE KIDNEY INJURY ADMISSIONS TO THE JOHN WALLS RENAL UNIT

University Hospitals of Leicester NHS
NHS Trust

RRCV CMG
Renal and Transplant Service

1. Introduction

Patients with AKI will be admitted to the unit where they need access to specialist nephrology management (e.g. intensive fluid or circulatory management, renal support) or investigations (e.g. renal biopsy). Patients with quickly reversible AKI due to volume depletion, drug toxicity or sepsis do not necessarily require transfer but this will require individual assessment and judgment and discussion with the supervising medical team

Once admitted to the renal unit AKI patients will have a rapid medical review by either a renal registrar or consultant. As part of this review process, the need for level 2 care (on 15A) will be assessed.

The critical care referral process should be followed for patients deemed suitable for escalation to level 3 care. The critical care team should be involved in a timely manner dependent on the patient's clinical condition to facilitate discussions and further management planning.

2. Scope

This guideline is designed to assist medical and nursing staff in the nephrology department to transfer safely and quickly patients with AKI from other wards or hospital sites to the nephrology wards.

3. Recommendations, Standards and Procedural Statements

3.1 Minimum dataset needed for all transfers to renal unit

For all referrals to the Nephrology SpR, the following are the minimum data required:-

- Name / dob of patient
- Referring doctor/consultant/contact details
- Resuscitation status and escalation plan
- Presenting complaint
- Co-morbid history
- HR, BP, RR , O2 saturations, total EWS score, conscious level (GCS or AVPU)
- AKI grade and pre-morbid serum creatinine concentration
- U&E and acid-base assessment (venous bicarbonate or ABGs +/- lactate where appropriate)
- Urine dipstick analysis
- Renal US or other imaging results if obtained
- MRSA status and other infection status if applicable

- Whether diarrhoea in last 48 hrs

These should be completed and the referral discussed and accepted by the nephrology consultant on-call prior to transfer.

3.2 AKI transfer safety criteria

Patients referred for transfer to the renal unit should have been assessed by an experienced doctor defined as an ST4 or above. The responsibility for ensuring the patient is safe to transfer rests with the referring team.

All patients transferring to the renal unit (regardless of where they are transferring from) should meet the following safety criteria (adapted from London AKI Network Manual 2015) :-

3.2.1 Hyperkalaemia

- No ECG changes
- K < 6.5 *
- If K lowered to <6.5 after presentation this must be potentially sustained (e.g. bicarbonate therapy or dialysis/CVVH not transient therapy (insulin and dextrose)

*If K+ > 6.5mmol/L and transfer to renal unit still deemed the most appropriate action, this must be discussed and agreed with the nephrology consultant on-call prior to any transfer

3.2.2 Renal Acidosis

- pH >7.2
- Bic >12mmol/L
- Lactate < 4mmol/L
- Respiratory rate < 24/min

(N.B Renal acidosis does not have the same prognostic implications as acidosis due to hypoperfusion

3.2.3 Circulatory

- HR <120/min
- BP >100mmHg systolic
- MAP >65mmHg
- Lactate <4mmol/L

(lower BP values may be accepted if it has been established clearly these are 'normal' pre-morbid)

3.2.4 Respiratory

- Respiratory rate < 24/min
- Oxygen saturation >94% and not more than 35% oxygen
- If patient has required <u>acute</u> CPAP, must have been independent of this treatment for 24 hours

3.2.5 Neurological

- GCS >12 or alert on AVPU scale

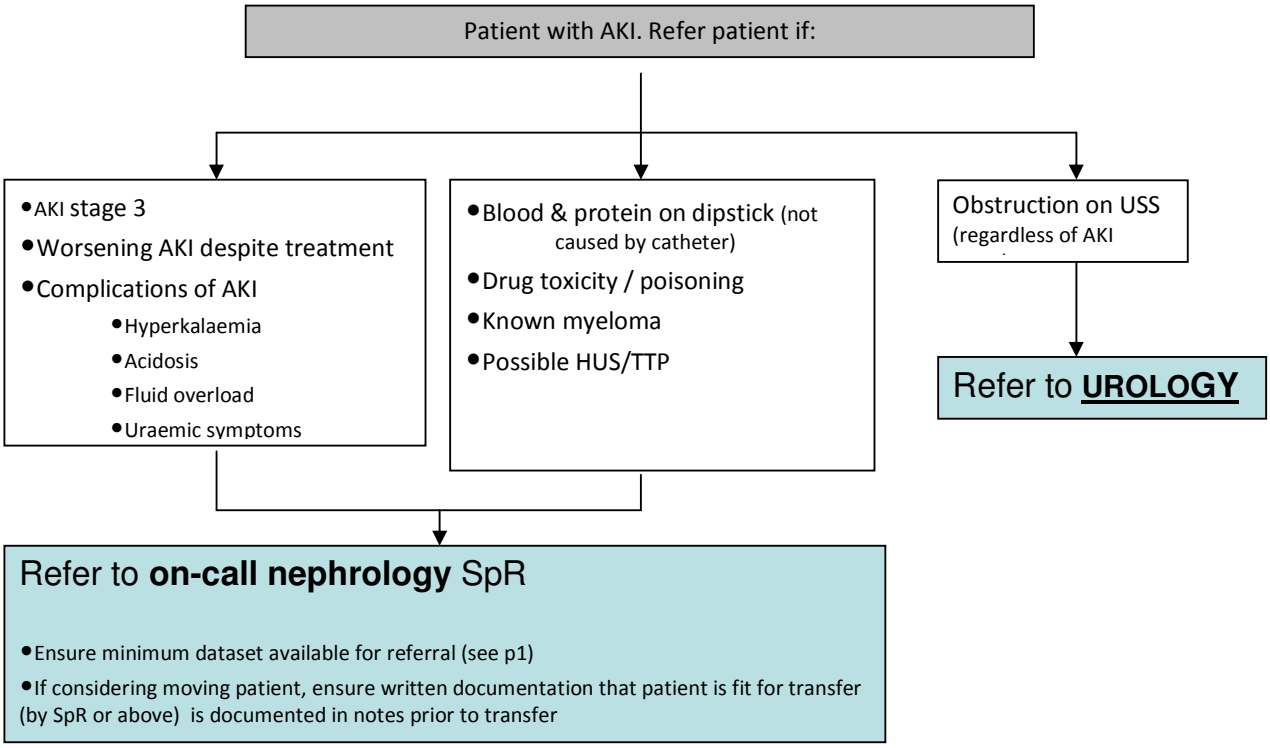
3.3 Patients not fulfilling criteria for safe transfer

Patients who do not fulfil criteria for safe transfer should be referred to local ICU for assessment, admission or stabilisation.

Once stabilised, follow ICU to renal unit transfer policy.

3.3 Algorithms for transfer from different locations/hospital sites

3.3.1 AKI referral from UHL wards



3.3.2 AKI transfer policy from UHL ICU to renal unit

- Patient on ICU deemed fit for transfer by ICU consultant
- Phone renal SpR reviewing patient on ICU (LGH only) or renal SpR on-call to arrange transfer to renal wards; generally this will be to renal HDU
- Below is consensus guideline for safe transfer from ICU to renal wards(taken from North London guidelines):-

Metabolic

K < 6.0, ionised Ca > 1
pH normal
Bicarbonate > 16
Lactate normal

Respiratory

Respiratory rate < 24
Saturations > 94% on not more than 35% oxygen
If patient required acute CPAP patient must have been independent of this treatment for 24 hours
If ventilated < 1 week patient should have been independent of respiratory support for 48 hours
If longer term invasive ventilation patient should have been independent of all respiratory support for
1 day for each week ventilated and for a period not less than 48 hours.

Circulatory

HR < 120
BP > 100mmHg systolic
MAP > 65MMHg
Lactate < 4

Aim to transfer within 24 hours of being deemed fit to step down from ITU

3.3.3 AKI transfer policy from DGH or other hospital to renal unit

Refer to Renal SpR, including all details of minimum dataset (see 3.1)

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All patients to be discussed with renal consultant on-call prior to transfer to renal bed

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If patient is coming from an ICU outside UHL or is repatriating from area and has spent time on ICU, the patient must also be discussed with the LGH ICU consultant

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Prior to transfer, all patients must have been reviewed by consultant in referring hospital with written documentation that they:-

• are a suitable candidate for transfer

• are medically fit to transfer and meet transfer safety criteria (this must be documented in notes). See 3.1

• transfer discussed with patient (if applicable) and carers/family

4. Education and Training

These guidelines will be available on the Insite documents to help staff make decisions about transfer of patients with AKI.

5. Monitoring and Audit Criteria

Key Performance Indicator	Method of Assessment	Frequency	Lead
Incidents related to unsafe or delayed transfers of patients with AKI	Datix incidents	Ad hoc	Head of Service

6. Legal Liability Guideline Statement

See section 6.4 of the UHL Policy for Policies for details of the Trust Legal Liability statement for Guidance documents

7. Supporting Documents and Key References

London AKI Network Manual 2015. http://www.londonaki.net/downloads/LondonAKINetwork-Manual.pdf

8. Key Words

Acute kidney injury, patient transfer

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DEVELOPMENT AND APPROVAL RECORD FOR THIS DOCUMENT		
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REVIEW RECORD			
Date	**Issue Number**	**Reviewed By**	**Description Of Changes (If Any)**
21Mar2017	2	Graham Warwick	Potassium for transfer raised to <6.5, emphasising responsibility of referring team for safe transfer, minor other changes, reference to London AKI Network manual, update to new template

DISTRIBUTION RECORD:			
Date	**Name**	**Dept**	**Received**