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The Royal Wolverhampton NHS Trust

Post Acute Kidney Injury (AKI) enhanced follow up care – assessment of feasibility at secondary care level and impact on short term patient outcomes

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Introduction

Post AKI episode patients experience adverse outcomes of cardiovascular deaths and risk of progression to CKD.

To mitigate this risk, key aspects of post AKI care should include optimising medicines management and co-ordinating monitoring of kidney function, particularly for patients with unresolved AKI to identify risk of progression to CKD.

Aim

Our aim was to assess whether it was feasible to provide safe and enhanced post AKI follow up (FU) care considering the resource implications in primary and secondary care.

Methods

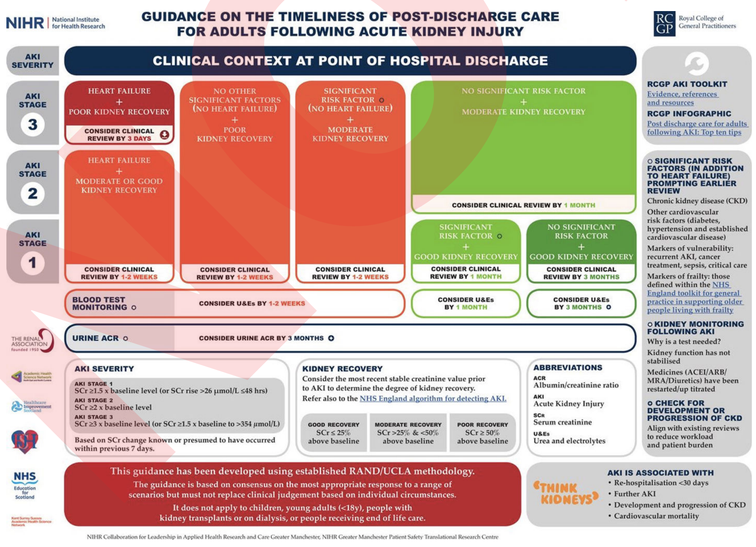
Retrospective data collection of all unresolved AKI stage 2 and 3 from July 2022 to December 2022 and assessing key aspects of enhanced post AKI care.

We looked at whether patients were reviewed in a timely manner as per recommendations by the Royal College of General Practitioners (RCGP) post-AKI care toolkit.

Further patient outcome measures of recurrent AKI episodes, identification of new CKD, rehospitalisation within 30 days of an AKI and mortality at 90 days were also analysed.

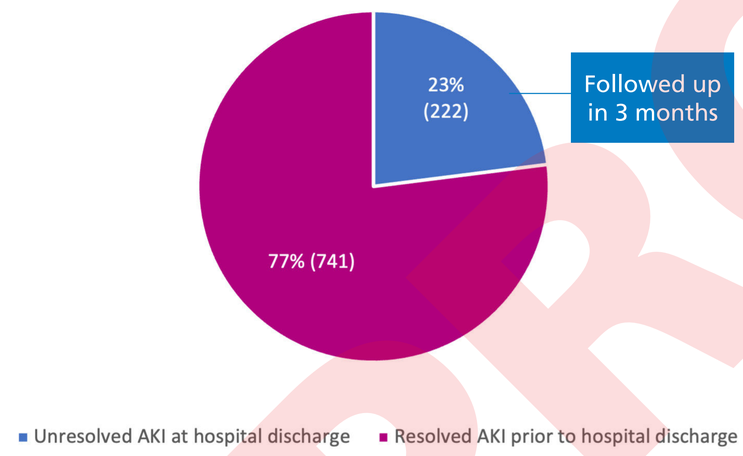
Local Information

- Large DGH – 960 beds
- Nurse-led AKI FU by the AKI CNS team
- Majority of this was done virtually (telephone consultation) rather than face-to-face, which allows for larger capture of AKI patients.
- AKI CNS team does not follow up 'good kidney recovery with no significant risk factor' as per RCGP AKI toolkit, due to resource constraints.

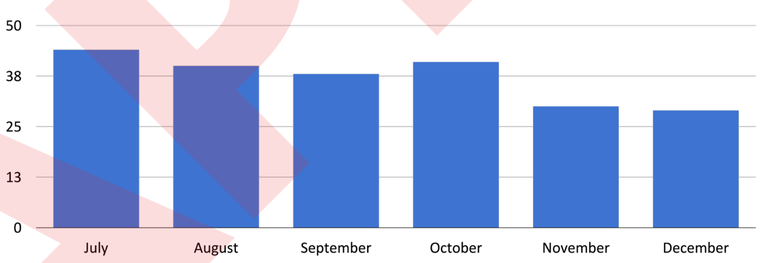


Results

- 963 patients with AKI stage 2 and 3 were reviewed by our AKI team during July 2022-December 2022.
- Majority of patients (77%) recovered from AKI before hospital discharge and we identified 222 (23%) patients with unresolved AKI at time of hospital discharge and followed up for a period of 3 months.



Total number of patients (222) with unresolved AKI at hospital discharge who were followed up for 3 months



Average eGFR of these patients at 3 months was 38 ml/min

Of the 222 patients who were followed up for 3 months:

64 patients (28.8%) had full recovery from AKI.

65 patients (29.2%) required follow up in renal clinic for further decline in renal function or due to pre-existing CKD.

47 patients (21.1%) with unresolved AKI at 3 months were discharged with clear communication plan to primary care.

13 patients (5.8%) continue to remain dialysis dependent at 3 months.

35 patients (15.7%) were found deceased at 90 days since first AKI alert.

25 (11.2%) patients had good renal recovery

34 (15.3%) of them had moderate recovery

135 (60.8%) patients had poor renal recovery

Kidney Recovery

This considers the most recent stable creatinine value prior to AKI to determine the degree of kidney recovery.
Refer also to the NHS England algorithm for detecting AKI.

Good Recovery	Moderate Recovery	Poor Recovery
SCr ≤25% above baseline	SCr >25% & 50% above baseline	SCr ≥50% above baseline

With our enhanced AKI follow up

Only 19 patients (8.5 %) with unresolved AKI were re-admitted within 30 days after discharge which is better than national average ~20-25%

Only 46 patients (20.7 %) had further episodes of AKI after 30 days of 1st AKI alert during the 3 months follow up.

83 patients (37.3%) required medication optimisation post AKI episode through involvement of patients, primary care and community heart failure teams.

As our follow up care was individualised according to patients care needs ,we were able to review only 68 patients (30.6%) in a timely manner as per RCGP post AKI care toolkit guidance particularly for patients with poor renal recovery.

Discussion

- Our study shows by embedding enhanced post AKI follow up care we were able to identify significant proportion of patients (29.2%) needing follow up in renal clinics which has possibly reduced hospital readmissions due to closer monitoring.
- Having an AKI follow up service takes some of the burden off already pressurised primary care services
- Through our multidisciplinary approach we co-ordinated medicine optimisation for high risk patients with AKI.
- Timely review of patients with poor renal recovery as per RCGP AKI follow up toolkit was not feasible due to the stringent follow up criteria and not individualised according to patient needs.

Recommendation

Future initiatives will look at finding ways to bridge the primary – secondary care interface by fostering closer relationships and providing education and training on AKI to our primary care colleagues, based on an Advice and Guidance Model.

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