

## Communication with primary care following hospital admission with acute kidney injury

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### Introduction:

Acute kidney injury (AKI) is common among hospital admissions and it is associated with an increased mortality(1). Following hospital admissions, readmissions are common, and a quarter of unplanned readmission are with pulmonary oedema(2). Communication between medical professionals is crucial to help minimise complications following discharge(3).

### Aim:

To assess whether general practitioners are being informed of hospital admissions with AKI.

### Method:

This study was carried out in a single UK hospital between April and July 2017. A sample of adult inpatients with AKI identified by electronic alerts had their discharge summaries reviewed for a reference to AKI, changes in medications and recommendations of plans to restart or withhold medications. The sample was taken by reviewing every inpatient alert on the 3rd, 11th, 19th and 27th of the four months. Patients receiving chronic dialysis were excluded using a review of the renal database. Patients who were transferred to other hospitals prior to discharge were excluded from the discharge summary analysis.

### Results:

There were 304 alerts, 36 of these were false positives (14.1%) as they were in dialysis patients, following nephrectomies or adjudged not to have AKI (figure). After removing these patients, and those who were not admitted or those transferred to other hospitals there were 162 patients. The mortality was 25.6% and 44% during the admission and at 1 year respectively. 46.7% of the patients with a peak AKI stage of 3 that survived to discharge died within a year but only 33% of them had a discharge summary mentioning AKI.

92% of the patients alive at discharge had a medications discharge summary, and 71% had a clinical summary. In those patients with a clinical summary, 24.3% had a mention of AKI, this was 17.3% of all the patients alive at discharge. 44% of the patients were on an angiotensin-converting enzyme inhibitor or angiotensin receptor blocker before the hospital admission, of these 35.2% had the medication stopped. When stopped, advice regarding the cessation was given in 40% of the cases, with 52% of the summaries referencing AKI.

23.5% of the patients were readmitted within 30 days (10% of the cohort were unknown as they were from another region), 42.1% of the readmitted patients with discharge summaries for their subsequent admission had evidence suggestive of fluid overload or further AKI during their second admission. All of these readmitted patients had stage 2 or 3 AKI with only 50% having AKI mentioned in their original discharge summary and they had a 75% 1 year mortality rate.

### Conclusion:

Patients with AKI in this cohort have a significant mortality particularly those with severe AKI, despite this, these AKI episodes are infrequently being communicated to the patient's primary care team. These patients are at high risk of readmission and medical professionals reviewing these patients need to be informed of recent AKI episodes. There is a strong argument that all appropriate patients with AKI stage 3 should be

reviewed by a suitable clinician within a month of discharge and that mentioning AKI on discharge summaries should be mandatory.