**Demographics and Outcomes of Patients Receiving Intermittent Haemodialysis for AKI Outside of Intensive Care**

Acute Kidney Injury (AKI) is a common condition occurring in up to 18% of hospital admissions and is associated with worse outcomes and increased NHS costs. Severe AKI occurring in patients with multi-organ failure on the intensive care unit (ICU) requiring Renal Replacement Therapy (RRT) occurs in 30-50% of admissions and patient outcomes have been extensively reported in the literature. However, due to the lack of accurate hospital coding, there is a paucity of data on patients who receive intermittent haemodialysis (iHD) outside of ICU. Therefore there is an unmet clinical need in understanding this patient group and their outcomes to influence practice and aid discussions with patients.

A single-centre retrospective analysis was performed on patients who received iHD outside of ICU over a continuous period of 24 months. From the available data patients were divided into 2 broad groups, Group A (n=112) comprised of patients who only received iHD outside of ICU and Group B (n= 84) comprised of patients who received RRT on ICU and required iHD following discharge to the ward. Routine data collected from the electronic health care record was analysed as part of a service evaluation. Descriptive statistics were used to summarise the cohorts. Logistic regression was used to determine risk factors for patient mortality and for return to baseline eGFR.

Patients in Group B were younger, with fewer co-morbidities and better renal function than patients in Group A (Table 1). The commonest cause of AKI in both groups was sepsis. There was a higher proportion of patients with primary renal disease (e.g. vasculitis) in Group A. The commonest indication for iHD in Group A was volume overload and acidosis in Group B. The 90-day mortality was similar in both groups at 30%, which is higher than that of patients with AKI not requiring RRT (Figure 1). Patients from Group A were more likely to remain dialysis dependent (Figure 1). Increasing age was an independent risk factor for mortality in both groups, whilst diabetes was associated with increased survival and a higher proportion of patients returning to baseline eGFR in both groups.

In summary patients with AKI who receive iHD exclusively outside of ICU are an entirely different population of from those requiring iHD following RRT on the ICU. Larger scale data is required to allow a greater understanding of this population of patients.

 **Table 1 Figure 1**

*Baseline demographics and co-morbidities (Data are mean/proportions for continuous/categorical data)*

*Outcome of AKI, Group A blue, Group B orange (LC=Low Clearance clinic).*

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| --- | --- | --- |
| **Variable**  | **Group A** | **Group B** |
| Mean Age | 66 | 56 |
| Gender Male | 60% | 66% |
| eGFR pre-AKI | 40 | >90 |
| Diabetes | 29% | 23% |
| Ischaemic heart disease | 17% | 10% |
| Hypertension | 53% | 43% |
| Heart failure | 11% | 11% |