

The impact of obesity on recovery from acute kidney injury (AKI): the Ob-AKI feasibility study

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Introduction

- Acute kidney injury (AKI) occurs in over 5% of hospital admissions in the UK, and may lead to an irreversible, and often progressive decline in kidney function.
- The effect of obesity on recovery of kidney function after AKI, and the combined risk of obesity and AKI on subsequent development of chronic kidney disease (CKD) is not known.

Aim

- to determine the feasibility of recruitment, retention and data collection procedures for the planned Ob-AKI cohort study





Methods

- Prospective cohort study with target recruitment of 100 patients
- Potential participants with AKI were identified during their hospital admission, and recruited and consented whilst an inpatient or after discharge.
- Follow up visits were at 3,6, and 12 months to monitor creatinine and proteinuria
- Feasibility outcomes:
 - recruitment uptake of 15% of eligible patients recruited
 - retention at 6 and 12 months (at least 80%)
 - completeness of data collection

Inclusion Criteria	Exclusion Criteria
aged 18-85 years	Inability/refusal to provide informed consent
KDIGO defined AKI during hospital admission	Death during hospital admission or palliative care
Previous creatinine available last 12 months	Pre AKI eGFR <20ml/min

Results

Average Monthly Recruitment

Number screened	
Potentially eligible	
Meet full inclusion criteria	
Consented	

Baseline Patient Characteristics

Sex	67 Male; 34 Female
Age	63.5 (±12.6) years
Mean BMI	29.9 kg/m ²
BMI <25	31
BMI 25-29.9	28
BMI 30+	40
AKI stage 1	28.3%
AKI stage 2	21.2%
AKI stage 3	50.5%
Data completeness	100% for ht, wt, BP, blood 96% urine, 90% waist circ

41% of eligible patients consented to participate in the study, far exceeding the feasibility target of 15%

At 6 months, 85% (86/101) of patients remained in the study (7 withdrew, 4 died, 1 too unwell, 2 commenced HD),
At 12 months 80% (81/101) of patients remained in the study (7 withdrew, 10 died, 3 commenced HD) meeting the feasibility target for retention.

Conclusions

With 41% of eligible patients agreeing to participate in the study, and 80% retained in the study at completion, feasibility for recruitment and retention to a study addressing outcomes jointly associated with BMI and AKI has been demonstrated.

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