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P074 -The Effect of Different definition of CKD progression on epidemiology of post AKI patients in a Large Prospective Parallel case control study of AKI

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Introduction
CKD onset or progression following an episode of AKI is now a well-recognised phenomenon. However, the optimal definition of CKD progression in this setting is not well established. We therefore examined the effect of different definitions on the incidence of CKD progression in a prospective cohort with three years of follow up.
Methods
Hospitalised patients who sustained AKI were matched 1:1 with controls (hospitalised patients without AKI). Clinical and biochemical parameters were collected at baseline, 3 months, 1 year and 3 years. CKD progression was defined using: the KDIGO CKD guideline of a 25% decline in eGFR from baseline in combination with an increase in CKD stage; CKD consortium recommendations of a 30% and 40% decline in eGFR from baseline; new onset CKD stage 4/5 and a combined renal end point (doubling of serum creatinine, eGFR<15, or Initiation of Renal replacement therapy). We studied these definitions alone, and in combination with presence of persistent albuminuria (ACR >3.0mg/mg at all follow up time points).
Results
866 participants were studied (433 each in AKI and control groups). Groups were similar with regards to baseline characteristics, eGFR and diabetic status. At 3 years, eGFR was 61±20ml/min in AKI group versus 70±20ml/min in controls (p<0.001). The incidence of CKD progression using eGFR definitions are shown in table 1. If persistent albuminuria was added the eGFR-based definitions, proportions of participants defined as having CKD progression increased across all groups.
Conclusions: Different definitions of CKD progression have significant impact on the rates of CKD progression following AKI. Albuminuria, a well-recognised risk factor for subsequent decline in renal function, is rarely incorporated into assessment of CKD in the post AKI setting, but may have an important effect on classification of patients at risk. Current surrogate endpoints are derived from studies in CKD populations, and further study is required to establish the optimal definitions in a post-AKI setting.