

New interventions for managing Acute Kidney Injury in primary care: implementation and evaluation

Rebecca Elvey^{1,2}, Delphine Corgié^{2,3}, Tom Blakeman^{1,2}, Susan Howard^{2,3}, Anne-Marie Martindale^{1,2}, Sarka Grayson^{2,3}, Laura Anselmi^{1,2}, Fin McCaul⁴, Jeanette Tilstone⁴

¹ The University of Manchester; ² NIHR Collaboration for Leadership in Applied Health Research and Care (CLAHRC) Greater Manchester; ³ Salford Royal NHS Foundation Trust ⁴NHS Bury Clinical Commissioning Group

Background

The NIHR Collaboration for Leadership in Applied Health Research and Care (CLAHRC) Greater Manchester has partnered with NHS Bury CCG, The Pennine Acute Hospitals NHS Trust (PAHT) and In Practice Systems Limited (INPS) to undertake a project focussed on the management of patients with acute kidney injury (AKI), in primary care settings. AKI is treatable and potentially avoidable, yet it often goes undetected and causes serious harm. Interest in the detection and management of AKI has increased in recent years and is a current health priority. Knowledge about the implementation of AKI interventions in primary care is currently limited; therefore, this project will contribute to the evidence base.

Aims

The project is running from 2016-2018 and has two strands: **implementation**, consisting of audit reports plus feedback and educational events and a mixed methods **evaluation**, using quantitative and qualitative research. The aims of the implementation project are:

- To put into practice novel interventions to manage patients who have had an episode of care complicated by AKI.
- To support general practices to develop action plans to sustain their clinical practice around AKI.

Implementation

The project is aligned to fit with local priorities; to help secure engagement with GP practices, the workstream has been included in the local Quality in Primary Care contract. A manual 'pre-audit' has provided information about patients in PAHT, with an episode of acute care complicated by AKI, between April 2015 and March 2016. The records of all general practices (n=31) in the NHS Bury CCG area were audited, the results showed that (of patients who were still alive) only 17% (n=73) of cases had been recorded in practices. The project team are now working with all practices, to support them to read code all remaining patients. Educational events are running during November, providing support on the audit, clinical management and coding and developing action plans. Quarterly audits will be run, using a tool developed by INPS, for practice systems over the next 18 months.

Mixed methods evaluation

The aims of the **quantitative research** study are to investigate the effect of the audit and feedback on **processes of care, service delivery and costs**.

- The audit data will be used to ascertain the processes of care (including coding and communicating about AKI with patients) before and after the intervention in primary care

- Hospital data from Secondary Uses Service (SUS), will be used to assess the impact on acute care use (volumes of admissions, readmissions and length of stay for patients with AKI or AKI related diagnosis); a difference-in-difference analysis will be carried out comparing changes before and after in Bury GP practices with changes in other GP practices whose patients are also served from PAHT.
- Health outcomes (mortality) will also be assessed using hospital data.
- Changes in costs to the CCG and any impact on GP practice budgets will also be assessed.

The **qualitative evaluation** will explore the **processes** of managing patients with AKI in primary care.

- Qualitative interviews will be undertaken with commissioners, GPs, practice nurses, practice managers and medicines management technicians.
- The interviews will explore: the wider context; experiences of managing the risk of AKI; views about the audit; what works well and what does not work well.