'Sick day guidance' for preventing Acute Kidney Injury in primary care: implementation and evaluation

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Background

Acute kidney injury (AKI) is potentially avoidable, yet common and causes serious harm. With a large number of AKI cases arising prior to hospital admission, the ability to improve outcomes, by focusing attention on interventions in the community, offers potential. Most guidance aimed at patients to prevent AKI in the community refers to educating patients about the temporary cessation of certain medicines during acute episodes of illness. 'Sick day rules or guidance' interventions are well-established in diabetes care. One such intervention, the 'Highland card' was implemented in community pharmacy general practice and hospital settings in Scotland. However, although recommended in NICE guidance, temporary medicines cessation to prevent AKI through use of sick day guidance is not currently routine practice, and knowledge surrounding its implementation and effectiveness is scarce, therefore, this project contributes to the evidence base.

The project

The NIHR Collaboration for Leadership in Applied Health Research and Care (CLAHRC) Greater Manchester partnered with NHS Salford CCG and Salford Royal NHS Foundation Trust, to undertake a project focussed on the prevention of AKI, in primary care settings. The project ran from 2015-2016 and involved the partners working together to implement and evaluate the use of 'sick day guidance' cards. The project had two strands: **implementation**, consisting of preventative interventions, supported by educational events, and a mixed methods **evaluation**, using quantitative and qualitative research.

Implementation

The implementation consisted of (i) general practices and community pharmacies issuing a 'sick day guidance' card to patients prescribed certain medications, which directed them to temporarily stop taking these medicines during periods of acute illness, and (ii) medicines management pharmacists working with general practices, delivering targeted interventions to patients at increased risk of AKI.

Mixed methods evaluation

- The aims of the **quantitative** research study were to ascertain activity levels and describe patient characteristics, using the Salford Integrated Record (SIR).
- The **qualitative** evaluation explored the processes involved in implementing the intervention and the experiences of health professionals and patients.

Findings

Educational sessions were designed and delivered by the project Steering Group and were attended by over 60 GPs, practice nurses and community pharmacists. The intervention was rolled out to 60 community pharmacies and 47 general practices from March 2015, ongoing facilitation support was provided to participating practices and pharmacies.

Analysis undertaken on data from five general practices (combined list size = 52,214) showed that amongst patients receiving a card (n=1,464), ACE inhibitors were the most commonly prescribed drug, 83.8% patients had hypertension; 35.2% had Type 2 Diabetes and around 20% were Read coded with a CKD stage between three and five. Based on application of NHS England's national AKI algorithm, data suggested one quarter of patients may have had a past episode of AKI. Coding of use of the card was variable, but in the top 5 coding practices virtually all (except two) 1,452 eligible patients were coded as receiving a card.

Twenty nine participants took part in interviews. The interviews were audio recorded, fully transcribed and the data subjected to thematic analysis. Implementation of sick day guidance cards to prevent AKI entailed a new set of working practises across primary care. The temporary cessation of medicines during episodes of acute illness was not necessarily a straightforward concept to understand or communicate.

Health professionals struggled to resolve a tension of aiming to provide high quality interpersonal care in terms of effective risk communication with patients and, at the same time, ensuring reach to all patients being prescribed the relevant medicines specified on the sick day guidance card. There was evidence that this tension drove the implementation of sick day guidance, with participants describing a range of approaches. In the main, participants tended to prioritise the need for face-to-face communication, though across accounts there was evidence of roll out through other strategies.

Implications for future practice and research

Sick day guidance cards that focus solely on medicines management may be of limited benefit without adequate resourcing, or if delivered as a standalone intervention. Greater consideration should be given to integrating practice-based pharmacists into existing primary care teams. Development and evaluation of primary care interventions is urgently warranted to tackle the harm associated with AKI.

We would like to acknowledge the significant contribution of project Steering Group members in both the design and delivery of the intervention http://clahrc-gm.nihr.ac.uk/our-work/kidney-health/salford-sick-day-guidance/.