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Sick day rules in kidney disease

Acute kidney injury is a clinical syndrome that is common, harmful and often avoidable. It encompasses a spectrum of injury from minor changes in kidney function to acute failure requiring renal replacement therapy.[1] It is more common in older patients, particularly those with chronic kidney disease or other comorbidity.[2] Acute kidney injury, irrespective of severity, increases the risk of chronic kidney disease and further episodes of acute injury. It is associated with greater use of healthcare resources, including an increase in frequency, intensity and duration of hospitalisation, at an estimated annual cost of over £1 billion in England.[3,4] Acute kidney injury often starts in the community when a vulnerable patient develops an intercurrent illness such as diarrhoea, vomiting or infection. Recent National Institute for Health and Care Excellence guidance on acute kidney injury focuses on improving the management of episodes of acute illness including the use of 'sick day rules' that recommend the temporary cessation of potentially nephrotoxic drugs including ACE inhibitors, angiotensin-II receptor antagonists, diuretics and NSAIDs.[5] A consensus conference recommended the use of electronic alerts (based on a rise of serum creatinine of more than 50% above baseline within 7 days or a rise of 26μmol/L within 48 hours) for early identification of acute kidney injury and adoption of such sick day rules.[6] NHS England has developed a national programme to standardise the definition and reporting of acute kidney injury within pathology departments, with roll out to primary care planned.[7]

Sick day rules are also being introduced by renal departments and safety collaboratives. However, little research has been conducted in primary care and there remains limited evidence on how to implement these sick day rules into routine clinical practice.

There is extensive clinical anecdote supported by detailed epidemiological studies implicating prescribed medicines in around 20% of cases of acute kidney injury. The Royal Pharmaceutical Society recently issued medicines optimisation guidance advising pharmacists to talk to patients and carers about the need to stop certain medicines when there is a risk of kidney injury.[8] However, there may be unintended consequences associated with sick day rules. Clinicians may be reluctant to restart or initiate medication after an episode of acute kidney injury, focusing on short-term change in kidney function at the expense of the drugs' long-term benefits. Such prescribing decisions require time, thought and the involvement of patients and other healthcare professionals. Self-management plans including the use of sick day rules may provide a valuable mechanism to improve short-term outcomes. Such rules are likely to be developed to include other drugs that are metabolised and excreted by the kidneys to reduce the risk of adverse effects. However, as with any intervention these plans should be subject to research, quality improvement, implementation strategies and evaluation, otherwise we may do some of our patients a disservice.

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