Medication Optimisation in Acute Kidney Injury
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Introduction

Acute kidney injury (AKI) is common, costly and associated with significant mortality. Medication optimisation is an important aspect of managing AKI which is often poorly understood, resulting in suboptimal patient outcomes.

Aim: To develop a quick reference table to facilitate medication optimisation in patients with AKI that is suitable for use in a variety of clinical settings.

Objectives:
- Critically evaluate medication optimisation tools/guidelines already in existence and use to inform table development
- Engage key stakeholders to ensure guidance is balanced and clinically accurate e.g. renal, heart failure and microbiology specialists
- Embed table into local/regional AKI management pathways

Methods

Literature review: A senior pharmacist reviewed the literature and produced a draft guideline for consultation. This was adapted from a national guideline.

Consultation group: A consultation group was established, consisting of pharmacists and consultants of various specialties. This ensured guidance provided was balanced and captured ‘difficult’ to manage patient groups. Failure to review medication following an episode of AKI was identified as an area of concern. In recognition of this, a section on suggested actions following recovery of AKI was included in the table.

Feedback and dissemination: The table was circulated for feedback to a representative group of health care professionals from the intended target audience e.g. pharmacists, doctors and nurse practitioners. Feedback indicated that the table was an excellent aid to clinical decision making and user-friendly. Subsequently, it was approved by the Drugs and Formulary committee and embedded into regional/local AKI pathways.

Fig 1. Extract of Medicines Optimisation table

The listed antidiabetic medications were compiled in collaboration with a specialist diabetes pharmacist. Factors that influenced this selection were prevalence of use, potential for harm and unfamiliarity with newer agents.

Heart failure: Patients with heart failure who develop AKI represent a particularly challenging group of patients. Specific guidance, developed in conjunction with the heart failure team, has been included to address this.

Outcomes:
- Successfully developed a table that is clinically useful and applicable in a variety of health care settings.
- Integration into local AKI clinical pathways has ensured widespread accessibility and utility

Lessons learned: A collaborative approach across multiple disciplines plays a crucial role in distilling and refining a clinical tool of this nature. Overall this table offers balanced guidance, accepting that clinical decisions are rarely unilateral.

Conclusion: This user-friendly table will be used in a variety of health care settings to facilitate medication optimisation in AKI.

Table adapted from Medicines Optimisation in Patients with Acute Kidney Injury in Secondary Care – Think Kidneys by C. Ashley, M.Ostermann and S. Shaw, 2015.

Acknowledgments: With thanks to Dr Kirsten Armstrong, Dr Peter Gowburn, Dr Mary-Anne Abe, Jasmine Sagoo, Philip Newland-Jones, James Allen and Mike Vickers.

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November 2013