**Background:** Many acute NHS trusts have introduced care bundles and electronic alerts for early identification and management of AKI. Some trusts have augmented this with clinician reviews, although this is resource intensive. Given how common AKI is and how limited resources are presently, additional interventions for AKI need to be cost effective.

Medicines optimisation is a key consideration when trying to prevent and reduce the harm caused by AKI. We sought to develop an electronic tool for medicines optimisation in AKI in line with the Think Kidneys toolkit, and to implement this without any substantially increased use of staff time or resources. Our aim was to ensure that patients with AKI stages 2 and 3 received a timely and effective medicines optimisation review from a trained pharmacist.

**Method:** Our electronic tool, like our AKI care bundle, is embedded within the Trust electronic patient record (Cerner Millennium). It is automatically triggered in adults in most clinical areas with AKI stages 2 and 3. A user guide and training package were developed on how to optimise medicines in AKI. Prior to the launch of the toolkit, education sessions for ward pharmacists were provided based upon the training package. Ward pharmacists were prompted to undertake the electronic review within 24 hours of an AKI stage 2 or 3 alert during weekdays (or up to 72 hours at weekends). The tool includes free text fields and radio buttons for ease and speed of completion. Sections within the tool document: 1) medications potentially causing the AKI; 2) reviewing/suspending medications; 3) recommending dose adjustments and substitutions; and 4) recommending therapeutic monitoring. We also record time taken to complete the review (for audit purposes) and a named clinician, if required actions are discussed with the medical team.

We then undertook a retrospective audit of the first 16 weeks’ output from the medicines optimisation tool (i.e. March to July 2017).

**Results:** 452 AKI pharmacy reviews were completed (mean 4.0 reviews per day). In 86 (19%) medication(s) was/were considered by the pharmacist as a potential cause of the AKI. In 278 (61%) the pharmacist made at least one recommendation. The pharmacist recommended to stop/suspend: ACEi/ARBs in 35/139 (25%); NSAIDs in 4/24 (16%); diuretics in 20/114 (18%); and metformin in 12/44 (27%) patients taking these medications. A recommendation was made in 25/55 (45%) patients receiving anticoagulation; in 17/55 (31%) this was to adjust the dose. Dose adjustments or medication substitutions were advised in 37/70 (53%) patients taking opiates. The review was recorded as having been discussed with a doctor in 115 (25%). Time taken recorded as: < 10mins in 329 (73%); 10-19mins in 91 (20%); and >19mins in 32 (7%).

In a subset (239 [53%]), the median time for completing a review was 19.1 (interquartile range 5.8 - 35.7) hrs. Individual pharmacists completed a median of 2 reviews per month (range: 0-6).

**Conclusion:** This novel approach to structuring an automated pharmacy AKI review has been well received within the pharmacy department and the Trust. The electronic toolkit provides systematic and timely medicines optimisation for high risk patients with AKI stages 2 and 3. It streamlines ward pharmacist workflow to ensure provision of best patient care within existing resources. Documented recommendations were provided in a greater proportion of reviews than were recorded as having been discussed with the medical team. Ongoing work focuses on changes in patient outcomes around the implementation of the electronic tool.