

Thinking Kidneys – improving AKI prevention

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equip
Education Experience Excellence



Background

- I've encountered several patients during GP training who have had severe Acute kidney injury. This includes my current practice.
- An audit I carried out at a previous surgery showed that all patients in that practice with a coded diagnosis of AKI in the preceding two years, were taking at least one nephrotoxic drug during a period of acute illness.
- The National Confidential Enquiry into Patient Outcome and Death (2009) published a report into deaths due to AKI.
- Concluded that only 50% of patients had received "good care" prior to their death.
- They identified factors which, if improved upon, could reduce patient mortality as a result of AKI, including better **prevention**.
- UK inpatient mortality from AKI is thought to be around 25-30% (NICE, 2013). Given the prevalence and significant mortality risk, it has been suggested that better prevention and management could greatly reduce the number of deaths and morbidity associated with this condition (Harty, 2014).



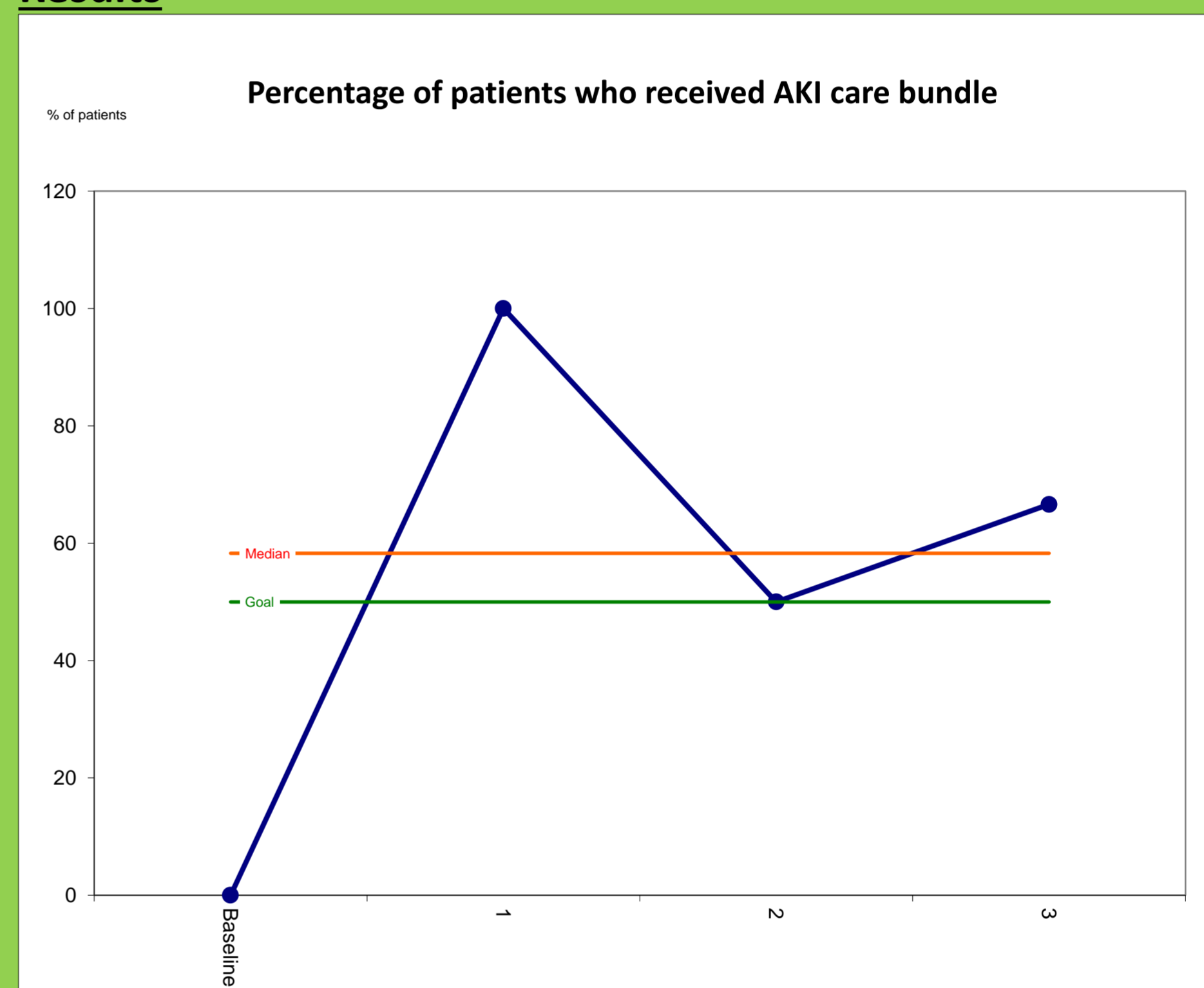
Outcome Measure

Percentage of patients who have received the AKI prevention care bundle

Process Measures

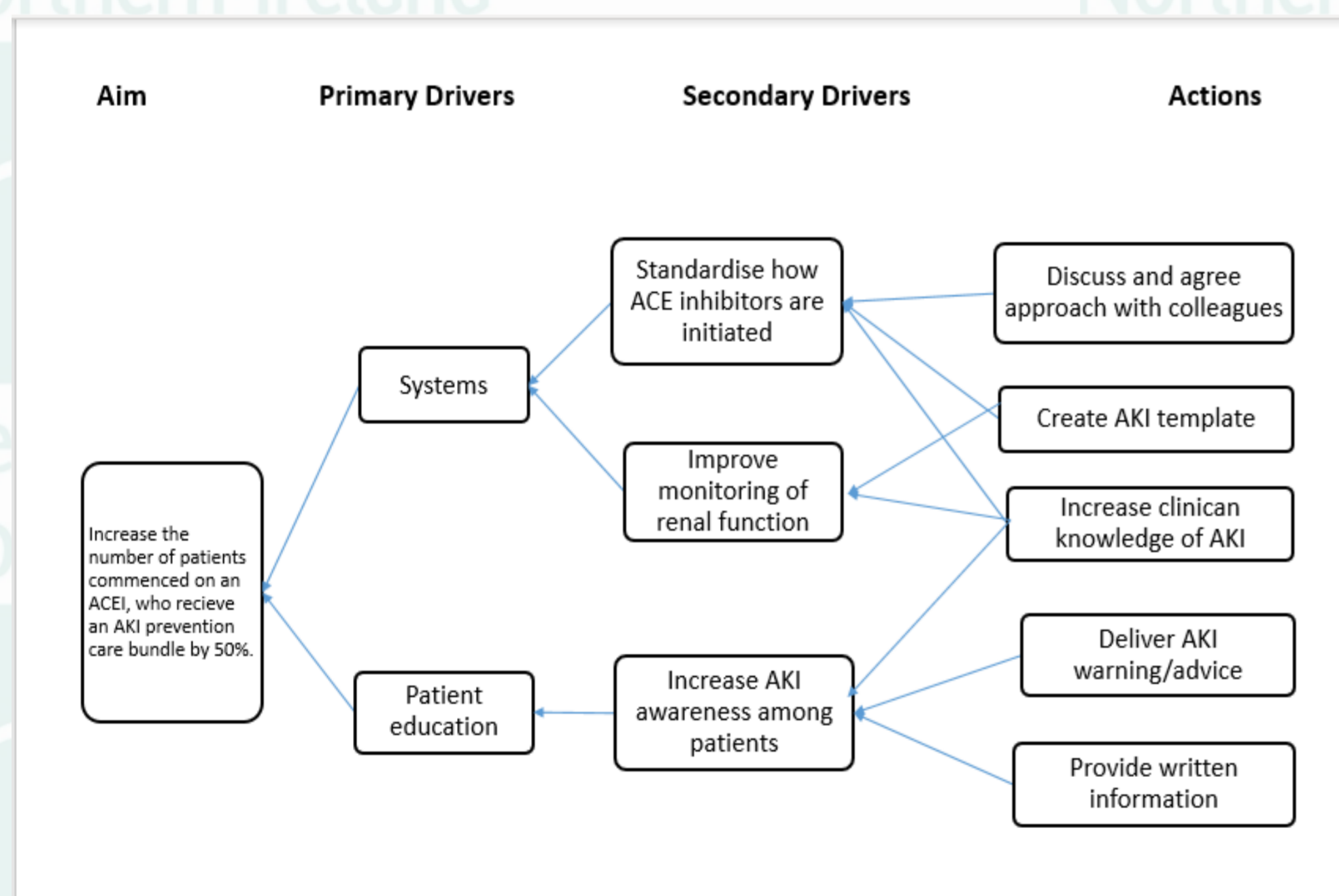
- Baseline U+E
- Counselled about risk of AKI/Written information provided
- Recall date for repeat U+E

Results



Aim

Increase the number of patients commenced on an ACE inhibitor, who receive an AKI prevention care bundle by 50%, by June 2019.



Outcome

- The above graph illustrates the fact that the proposed target of a 50% increase in use of the AKI prevention care bundle was achieved.
- This was true across all points of data collection.
- This could reflect the fact that our initial target was perhaps not ambitious enough.
- I sought informal feedback from colleagues on the template. This was generally positive, with clinicians finding it straightforward and convenient to use.
- Issues emerged however with remembering to use the template.
- An unforeseen issue arose because patients are often commenced on these medications in secondary care – impairing ability to deliver the care bundle.

Improvement Methodology

- A PDSA approach was adopted to carryout this project.
- The initial cycle involved collection of baseline data, followed by the introduction of a new template to EMIS web.
- Focused on ACE inhibitors instead of all nephrotoxic drugs
- Focused on patients at "high risk" of AKI – defined as those over age of 60.
- Searched for patients >60 and commenced on ACE inhibitor in last 6 months.
- Patient records reviewed – baseline U+E; received warning/info and had repeat U+E.
- N = 15 - received some components but not all – poor documentation.
- Template constructed which was presented at partner's meeting.



Next Steps

- I would have ideally liked to complete a further PDSA cycle based upon colleague feedback.
- Changes to implement would include:
 - An automatic prompt to use the template when commencing an ACE inhibitor.
 - Using the template when starting medication initiated in secondary care – attaching information to patient prescriptions.
- Thereafter, an appropriate step would be to try and implement the AKI prevention care bundle for all at risk patients being commenced on a nephrotoxic medication.
- This could be rolled out one class of medications at a time. The class could be added to the template – Diuretics, ARBs, Metformin and NSAIDS.