Introduction and Usage Assessment of a First Generation AKI Checklist Bundle

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Introduction and Objectives

- Up to 20% of all patients admitted to hospital will have Acute Kidney Injury (AKI) to some degree (Wang et al, 2012), with a cost of over £400,000,000 to the National Health Service (NICE, 2014).
- NCEPOD estimated that up to a third of inpatient deaths contributed to by AKI have the potential to be prevented; the report summarised failings in the recognition, management and referral of AKIs (NCEPOD, 2009).
- The AKI Prevention Programme, an NHS England UK Renal Registry collaboration, recommend an AKI Checklist Bundle to aid the initial investigation and treatment of AKI and elicit timely nephrology referral.
- The objective was to implement and assess the usage of an AKI checklist bundle.

Method

- An automated, real-time electronic AKI checklist was programmed by Daniel Holdsworth.
- The London AKI Care Bundle was used as a template.
- Data was collected via the Trust electronic patient record and analysed to assess checklist completion rates for each stage of AKI.

Results

This study included a total of 490 AKI Checklists over a period of 2 months.

Checklists initiated per AKI stage:

AKI 1 n = 341

AKI 2 n = 94

AKI 3 n = 55

Checklists completed per AKI stage

AKI 1 40%

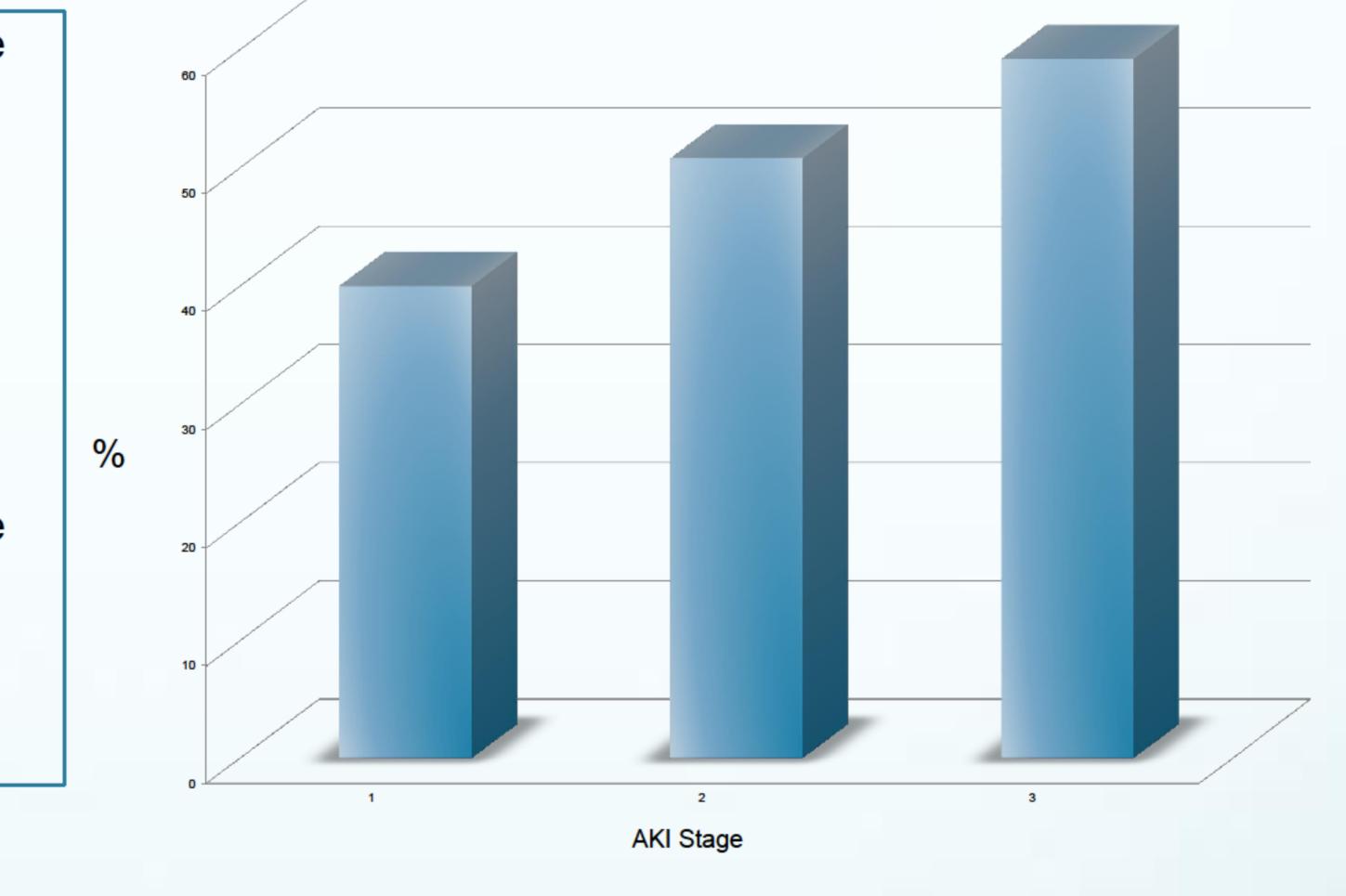
AKI 2 50.8%

AKI 3 59.2%

Percentage of Checklists Completed per AKI Stage

Conclusions

- Despite the 'pop-up' function and necessity to actively decline checklist launch, completion rate remains sub-optimal across all 3 stages; suggesting the likelihood of checklist fatigue.
- Checklist fatigue is a phenomenon of immediate importance given the increasing number of electronic checklists being ingrained in patient care.
- Analysis of this fatigue highlighted the preservation of professional autonomy and dynamic development to increase efficiency (Grigg, 2015) and thus feedback was sought and a second generation checklist developed, as outlined below.



Continued Development

- Following the initial assessment of usage, feedback from both users and Nephrologists concluded the Checklist to be too complicated, with too high a number of separate components.
- A second generation AKI Checklist is now in use and has been reduced in size to cover three main areas:
- Pre-renal assessment (Observations, volume resuscitation and treatment of sepsis)
- Investigations to exclude obstruction
- The removal and avoidance of nephrotoxic medication
- This current checklist programme also provides information and hyperlinks to essential protocols, including: Hyperkalaemia management, contrast nephropathy prophylaxis and referral procedures.
- We will assess the usage of this Checklist and collate feedback from users in the coming months.

References

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