**QI projects and AKI responses: Can stickers ever be as effective as electronic recording of interventions? A review of an AKI care bundle intervention programme.**

**Introduction**

Acute Kidney Injury (AKI) is associated with an increase in mortality and morbidity in hospital patients, with incidence increasing due to the prevalence of risk factors. The 2009 NCEPOD report into AKI deaths identified deficiencies in the management of many patients. In 2014 a National Patient Safety Alert was issued to all acute NHS Trusts requiring implementation of an algorithm to identify AKI and promptly notify practitioners. There is evidence that early identification and intervention using a care bundle may improve patient outcomes. Following QI methodology, a simple AKI care bundle was introduced in our surgical admission unit (SAU) for use in response to an AKI warning flag. We aimed to review the management of AKI in response to this care bundle.

**Method**

Following education to medical and nursing staff, an AKI care bundle sticker was introduced for a two-month period on the SAU. Implementation of the care bundle was assisted by placing an action checklist sticker in the notes in response to the ‘Warning Stage Test Result’ from Pathology indicating AKI as per KDIGO definition. A retrospective analysis of notes was undertaken - 21 in the month prior to the bundle implementation and 19 in the month following the introduction. Compliance with key interventions included in the care bundle was reviewed.

**Results**

Results are shown in Table 1.

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| **TABLE 1** | Before | After |
| AKI cases reviewed (Number) | 21 | 19 |
| Sticker used (%) | N/A | 36 |
| ‘AKI’ diagnosis written in notes (%) | 47 | 73 |
| ABCDE assessment (%) | 47 | 73 |
| EWS documented (%) | 76 | 94 |
| Sepsis considered and documented (%) | 38 | 63 |
| Bladder examination (%) | 47 | 84 |
| Fluid challenge? (%) | 42 | 63 |
| Medication review documented (%)   * Overall dose adjustments (%) | 23  19 | 52  36 |
| Urine OP documented in medical notes (%) | 38 | 63 |

Documentation of AKI and clinical assessment of patients showed improvement after implementation of the care bundle. However, a third of patients did not have their urine output documented and only half had a medication review. Although a small test population, such results were achieved despite planning, engagement with medical and nursing teams a committed senior clinician working with junior medical staff and weekly teaching sessions.

**Conclusion**

Our QI-based intervention improved identification and management of AKI. However, results were not as optimum as hoped this lead us to question whether sticker-based interventions for complex case management are effective. Human factors and workloads frequently lead to opportunities being missed. Optimal clinical decision aids based on electronic EPR solutions may be the only way to ensure timely responses are taken in such situations, despite the associated cost (to be weighed against costs of adverse patient outcomes).