**Abstract for British Renal Society Conference**

**Title:** A quality improvement project to improve the recognition and basic management of Acute Kidney Injury (AKI)

**Aim:** to improve the diagnosis of AKI during the acute medical take and to improve the multidisciplinary approach to the basic management of AKI.

**Background:** Acute kidney injury (AKI) is associated with an increased patient morbidity and mortality. The NCEPOD study also showed that AKI was both inadequately investigated and managed. Currently, it costs the NHS £690 million a year to treat AKI which represents 1% of the NHS budget. It is thought that improving the current standards of care could save the NHS £150 million a year.

**Methodology:** A basic audit was carried out at the beginning of the project to determine how well AKI is recognised and whether basic management processes suggested by NICE guidance(1) are carried out. This highlighted areas which require improvement. A driver diagram was created to emphasise the areas of development. For example, initially 56% of AKIs were recognised. In order to improve this PDSA cycles were created, which included teaching from a renal physician and development of a poster for education. Every time a PDSA cycle was created, a re- audit took place- through which 10 days worth of acute take patients were reviewed prospectively. The audit data included: demographics, diagnosis, staging of AKI, urine dipstick, IV fluid prescription, fluid balance, recognition and withholding nephrotoxics and re- assessing renal function in 48hours.

**Results:** We have conducted 3 PDSA cycles so far and have 3 sets of data available. Please see table below:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| PDSA Cycle | Recognition of AKI | Urine Dip | IV Fluids prescription | Fluid Balance | Nephrotoxics Stopped | 48hour review |
| Preliminary audit | 56% | 35% | 45% | 30% | 33% | 55% |
| Cycle 2 | 94% | 67% | 100% | 50% | 0% | 100% |
| Cycle3 | 86% | 50% | 93% | 64% | 50% | 82% |

**Recommendations:** In conclusion, there is a lot more work that needs to conducted in order to meet targets. We have managed to improve recognition and fluid balance; through education. However, we are still failing to conduct and document a urine dipstick in half the patients. Also, nephrotoxics are not being held. In order to enhance improvements, we have developed an AKI proforma sticker. This will be a checklist, which needs to be completed and placed in the patients’ notes once the AKI is recognised. The role of the proforma is very similar to the sepsis proforma; whereby it acts as a form of communication and gives each team member a role. We have also developed a list of nephrotoxic medications and will display it on the nurses’ drug trolley once it is approved by the renal team and pharmacist. This will give the nurses more confidence to question certain prescriptions. We also aim to provide catheter teaching to all the senior nursing staff, which will allow incontinent patients to have urine dipsticks conducted. Teamwork and enthusiasm will help us improve the recognition and management of AKI.

Reference: 1. NICE GUIDELINES: https://www.nice.org.uk/guidance/cg169/chapter/1-Recommendations