A Quality Improvement Approach to Reduce Catheter Associated Urinary Tract Infections (CAUTI) in NHS Greater Glasgow and Clyde


**AIM:**
- 95% of acute adult inpatients in NHS Greater Glasgow and Clyde (GGC) are free from CAUTI by December 2015.

In order to develop a fundamental change and reduce CAUTI within NHS GGC, the following methods were utilised.

**OUTCOME:**
The CAUTI process and outcome measures are detailed within the Acute Adult Safety Programme (2013). All acute adult inpatient wards that have completed the rollout process are collecting data. A summary of the measures are detailed below. At present this data is being collected on an excel spreadsheet and returned to the HAI-QIF. In the future, CAUTI data will be included within LanQip.

**Process Measures**
- Percent compliance with urinary catheter Insertion bundle – process reliability at 95% or greater.
- Percent compliance with urinary catheter Maintenance bundle – process reliability at 95% or greater.

**Outcome Measures**
- CAUTI count – This measure is a count of the number of new CAUTI developed in the last month.
- CAUTI rate – 30% reduction by December 2015.
- CAUTI days between, either 0 CAUTI or a minimal of 300 days between. This measure is a count of the number of days that have gone by with no CAUTI being reported. Every time a CAUTI occurs the count in started over again.

**PROCESS:**
- Testing Change - Tools to improve and standardise urethral urinary catheter care across NHS GGC were developed in conjunction with an evidence base and the clinical teams at the pilot site. By carrying out small tests of change using the PDSA ramp (Figure 1) these tools were then modified until improvement was achieved and final version of each tool had been agreed.
- Implementing Change – this is being achieved in phases as the change has multiple components. In addition to creating support structures such as CAUTI education, ongoing measurement and random compliance audits are being carried out to ensure improvement is achieved and maintained.
- Spreading Improvement – Spreading the CAUTI improvement work across NHS GGC is being undertaken one acute site at a time. Within each site, roll out is progressed directorate by directorate and can taken several weeks or months depending on human factors and rate of spread.

**CONCLUSIONS:**
Early process and outcome measures being submitted from acute adult inpatient wards is showing, in some clinical areas, an overall improvement in clinical care;
- compliance with the ‘NHS GGC Adult Urethral Urinary Catheter Insertion and Maintenance Care Plan’ (Figure 2)
- reduction in urethral urinary catheter prevalence (Figure 3)
- for the first time in NHS GGC, a CAUTI rate is being produced (Figure 4)

As data collection is in the early stages, data is being interpreted with caution and as the months progress, more meaningful data will be made able available.

**REFERENCES:**
- Health Protection Scotland Evidence Based Care Bundles (2013) – Bundle for preventing infection when inserting and maintaining a urinary catheter (acute settings)
- Scottish Antimicrobial Prescribing Group (SAPG) (2013) Decision aid for diagnosis and management of suspected urinary tract infection (UTI) in people with indwelling catheters