

# STOP-Catheter Associated Urinary Tract Infection (CAUTI) in a Sub-acute Ward at a Community Hospital

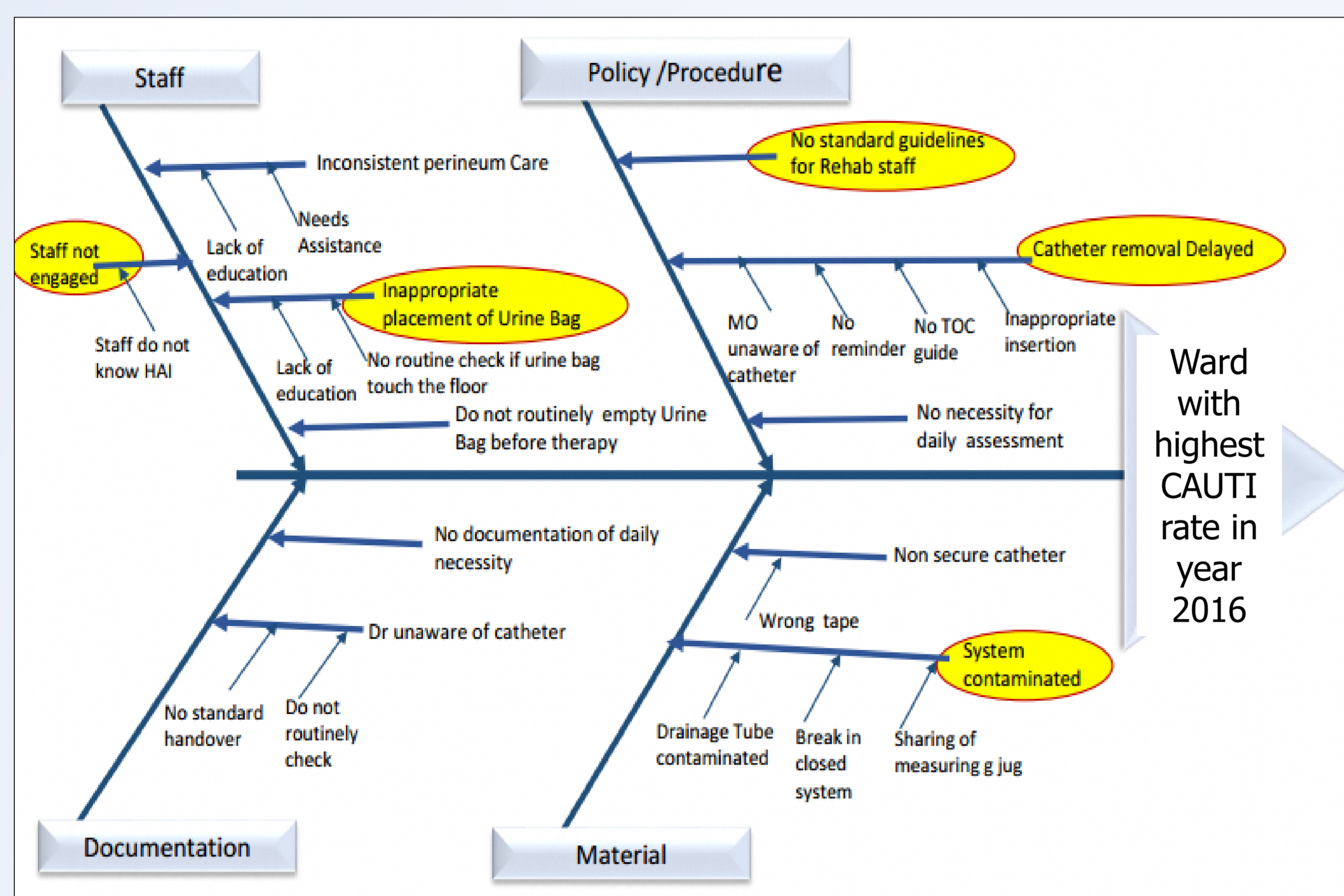
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## Background & Aim

In 2016, the hospital wide average CAUTI incidence rate in Yishun Community Hospital (YCH) was **3.5** per thousand catheter days which was high in comparison with other Intermediate-Long term care (ILTC) facilities. A sub-acute ward with the highest average CAUTI rate of **5.4** per thousand catheter days in 2016 was therefore selected as the pilot site. **The aim was to achieve CAUTI rate reduction in the pilot sub-acute ward by 30% within 12 months.**

## Cause and Effect Diagram

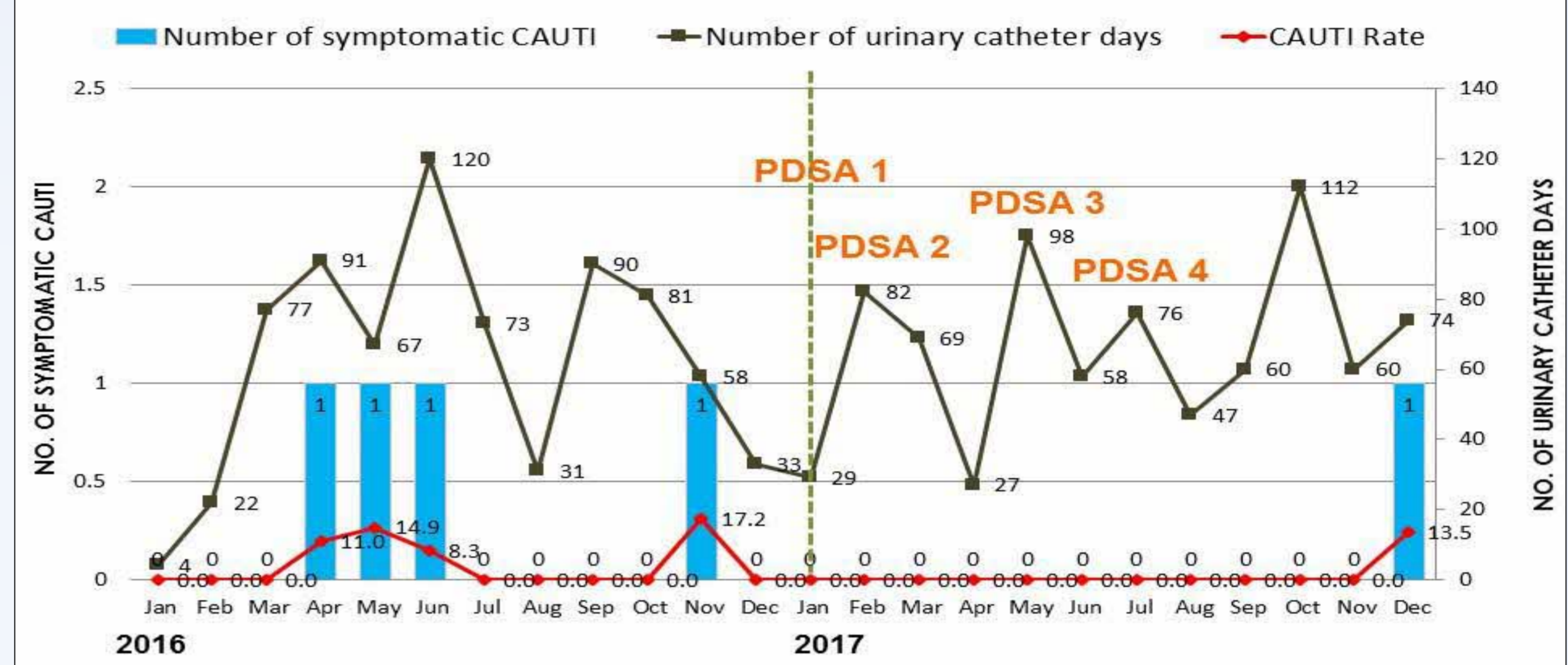


### The following gaps for improvement were:

- Knowledge deficit with the CAUTI prevention bundle among therapists, nurses and healthcare assistants (HCAs).
- No standard guidelines for rehab staff in handling the urine bag correctly before, during and after patient activity.
- Inconsistent compliance by ward staff with the correct standard procedure in draining urine bag.
- Physicians did not review daily necessity of urinary catheter.

## Results

### YCH – Sub acute ward CAUTI Rate 2016-2017



**The Sub-Acute Pilot Ward has achieved 75.9% CAUTI reduction from 5.4 to 1.3 per thousand catheter days within 12 months.**

|                                  | Year 2016 | Year 2017 |
|----------------------------------|-----------|-----------|
| No. of CAUTI                     | 4         | 1         |
| No. of urine catheter days       | 747       | 792       |
| CAUTI / 1000 urine catheter days | 5.4       | 1.3       |

## Cost Savings

**Preventing CAUTI will reduce the cost for our patients from extended length of stay, antibiotics usage and laboratory tests. Estimated cost avoidance savings for the Pilot Sub-acute ward only is \$4,605 per year.**

## Strategies to Sustain

- Train all the infection control link nurses from each ward to check compliance to the CAUTI prevention bundle monthly.
- Continuous measurement of process and outcome. Share these data timely to engage staff at multi-disciplinary level and hospital senior management for their support.

## Implementation

A team of stakeholders from multi discipline was formed and using the continuous plan-do-study-act (PDSA) methodology, interventions were tested and measured for its effectiveness.

- The infection control nurse conducted teaching sessions on CAUTI prevention bundle to all nurses, doctors and therapists – **PDSA 1**.
- The pilot ward nurses created a designated trolley for emptying urine bag with a standard work process chart attached to the trolley – **PDSA 2**.
- The CAUTI prevention bundle guide was created and placed in the gyms for the rehab staff – **PDSA 3**.
- For all patients with a urinary catheter, a bookmark will be placed in the patient case notes to remind doctor to review the need to continue catheter and to remove promptly when no longer needed – **PDSA 4**.

### Improvement Journey...STOP CAUTI

