

## **aProject Title**

A Multidisciplinary Team Approach to Reduce Catheter Associated Urinary Tract Infection (CAUTI) Rate in JCH

## **Project Lead and Members**

Project lead: Muruganandam Devi

Project members: Dr Lee Chunxi, Shen Yuanying, Poh Lishi, Chua Hwee Jean, Elizabeth

## **Organisation(s) Involved**

Jurong Community Hospital

## **Healthcare Family Group(s) Involved in this Project**

Medical, Nursing, Allied Health

## **Applicable Specialty or Discipline**

Occupational Therapy, Physiotherapy, Infectious Diseases, Urology

## **Project Period**

Start date: Jan 2020

Completed date: Jul 2023

## **Aims**

The aim is to reduce inpatient CAUTI rate in JCH wards from 3.5 per 1,000 catheter days to 2.7 per 1,000 catheter days by August 2022.

## **Background**

See poster appended/ below

## **Methods**

See poster appended/ below

## **Results**

See poster appended/ below

## **Lessons Learnt**

Multidisciplinary team (MDT) approach enlightened the team about each and everyone's input is valued that driven the patient centered care.

MDT approach is required to reduce the CAUTI rate to implement measures across to reduce unnecessary catheter use, maintain catheter care and prompt removal of catheters.

## **Conclusion**

See poster appended/ below

## **Project Category**

Care & Process Redesign

Risk Management, Adverse Outcome Reduction,

Workforce Transformation

Job Redesign, Multi-disciplinary

## **Keywords**

Catheter Associated Urinary Tract Infection (CAUTI), Community Hospital, Multi-Disciplinary

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A MULTIDISCIPLINARY TEAM APPROACH TO REDUCE CATHETER ASSOCIATED URINARY TRACT INFECTION (CAUTI) RATE IN JCH WARDS

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Define Problem, Set Aim

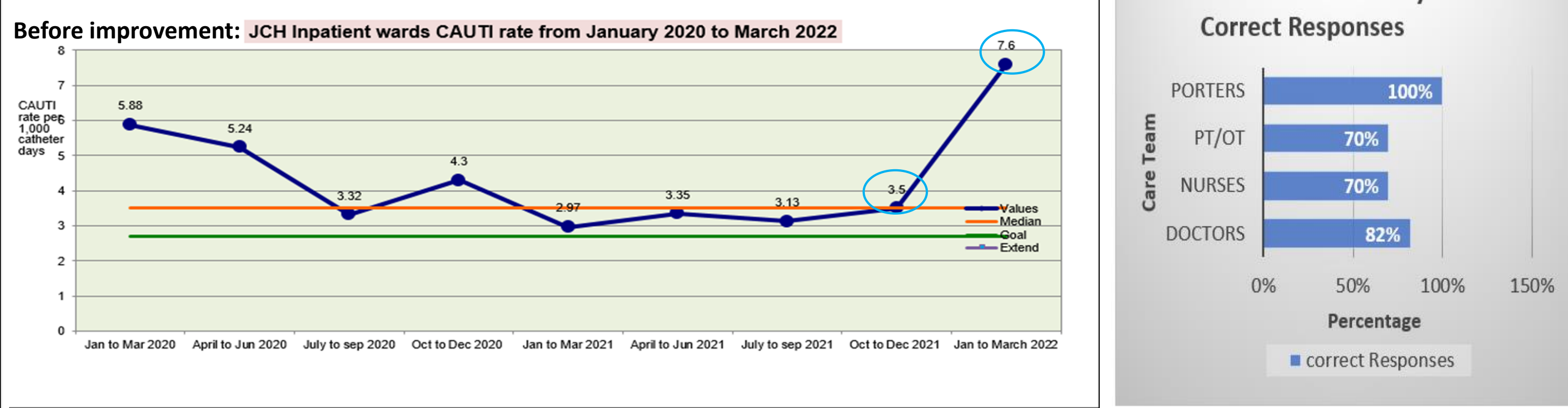
Problem/Opportunity for Improvement

- JCH CAUTI rate per 1,000 patient days has achieved 3.5 in year 2021 from 5.86 in year 2020 through Quality improvement initiatives.
The result 3.5 per 1,000 catheter days is still above the target of JCH key performance indicator (KPI) of 2.7 per 1,000 catheter days and concern of sudden surge of seven CAUTI cases in January 2022.
This increase in CAUTI rate affects the reputation of organizational performance when benchmarked with nation average. It also impact on patients' well being and potential extension of hospital stay that ultimately increase the hospital cost and patients' dissatisfaction.
Nursing team realized that the CAUTI prevention is not only a nursing domain issue rather is should be a multidisciplinary team approach.
Hence, A nurse led multidisciplinary team (Registered Nurses, Doctors, Infection control nurse, Physiotherapists and Occupational therapists) was formed in Feb 2022 to identify misperceptions, highlight best practices and eliminate barriers in prevention of CAUTI.

Aim
The aim is to reduce inpatient CAUTI rate in JCH wards from 3.5 per 1,000 catheter days to 2.7 per 1,000 catheter days by August 2022.
\*Include all JCH inpatients with indwelling catheters (IDC)

Establish Measures

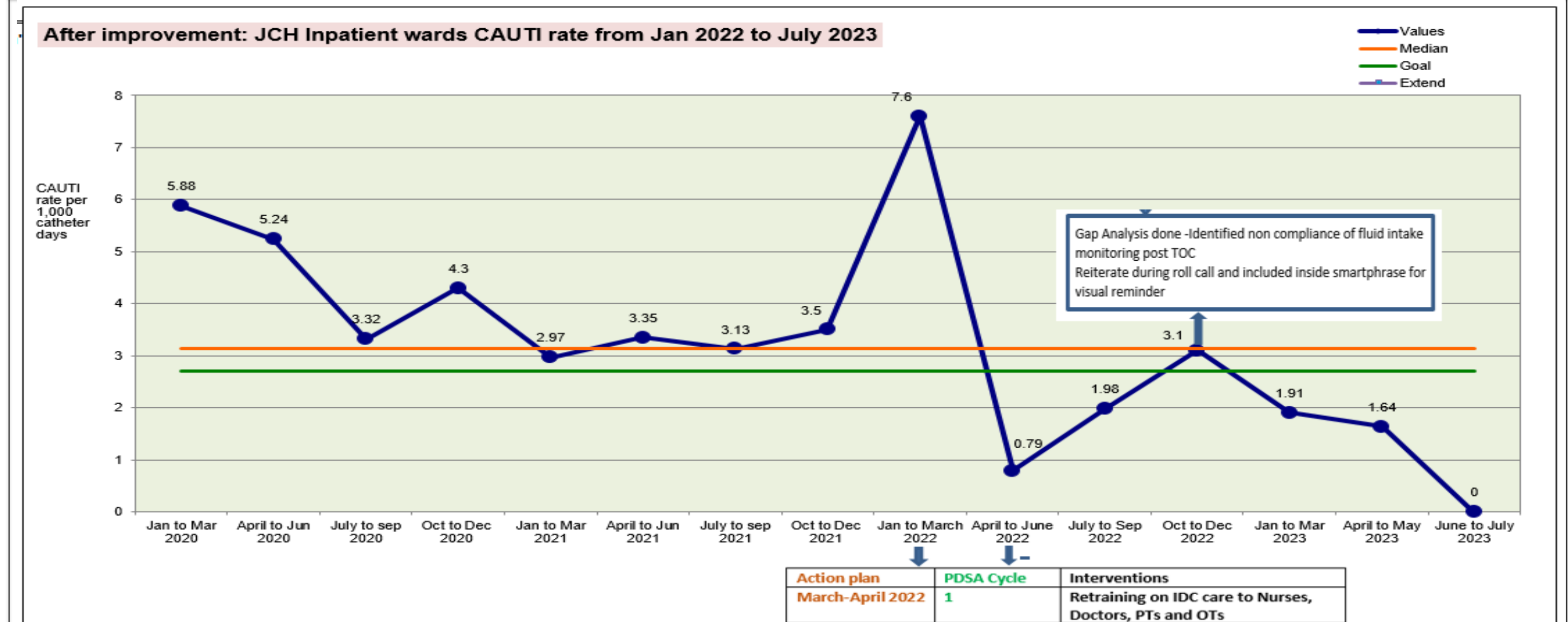
- Key Measurements:
1.Outcome: CAUTI Rate in JCH wards (Quarterly submission of CAUTI rate as community hospital indicators by JCH Quality team. Team would like to measure also quarterly CAUTI rate in JCH Wards
2.As this is the continuation of previous project, Team did "Ask 5 and Take 5" survey in February 2022 to check the compliance practices.
3.Process: Monthly Compliance rate of Timely review of catheters in JCH inpatients with IDC



Select Changes

Target Causes and Solutions table, JCH Bladder Protocol Workflow diagram, and Nurse Led TOC care and Document using smart phrase in EPIC text.

Test & Implement Changes



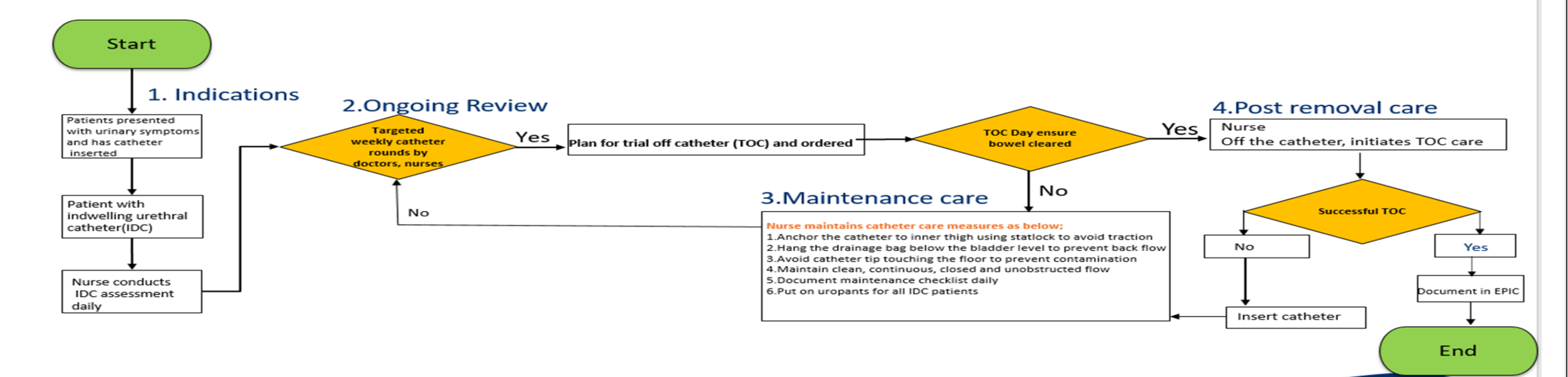
JCH inpatient CAUTI rate was reduced from 3.5 to 1.95 per 1,000 catheter days by Dec 2022 compared to goal setting of 2.7 per 1,000 catheter days and maintained as 1.18 per 1,000 catheter days in Year 2023 (Till now).

100% compliance rate achieved in timely review of catheters that reduced the unnecessary catheter use and reduction of number of CAUTI cases in JCH wards.

Analyse Problem

Process Mapping before improvement flowchart, Pareto Chart, and Problem Analysis diagram.

Process Mapping after improvement



Spread Changes, Learning Points

- Multidisciplinary team(MDT) approach enlightened the team about each and everyone's input is valued that driven the patient centered care.
MDT approach is required to reduce the CAUTI rate to implement measures across to reduce unnecessary catheter use, maintain catheter care and prompt removal of catheters.
Future improvement: Action in progress
Targeted catheter rounds will be included under the multi disciplinary meeting(MDM) process to review the catheter on time. Developing MDM template in EPIC to simplify the process rather an additional task to be done using the form.

Acknowledgement: Thank you to JCH Nursing CAUTI Workgroup champions for their commitment and advocate for the patient safety in the wards.