

### **Project Title**

To Achieve 100% Compliance in the Daily Status Check of Instruments Sets and Loose Instruments in General Surgery Operating Theatres

### **Project Lead and Members**

- Justine Heng
- Noraisah M J
- Noorharzaintee Ab R
- Jocelyn Ang
- Maria R A
- Lim M F
- Lau S C
- Hu Yi
- Samuel Kwan Y M
- Narinder Kaur
- Tong Shiya
- Sangeetha D/O K

### **Organisation(s) Involved**

Singapore General Hospital

### **Healthcare Family Group Involved in this Project**

Nursing

### **Project Period**

Start date: Oct 2019

Completed date: Feb 2021

## **Aims**

- To improve compliance from 78% to 100% in daily instrument status check for General Surgery discipline operating theatres within 6 months
- To enhance patient safety and mitigate risks related to instruments/instrument sets undergoing sterilization processes and deemed to be safe for patient use perioperatively

## **Background**

See poster appended / below

## **Methods**

See poster appended / below

## **Results**

See poster appended / below

## **Lessons Learnt**

See poster appended / below

## **Conclusion**

See poster appended / below

## **Additional Information**

Singapore Healthcare Management (SHM) Conference 2021 – Shortlisted Project (Risk Management Category)

## **Project Category**

Care & Process Redesign, Quality Improvement, Workflow Redesign, Value Based Care, Safe Care, Risk Management, Adverse Outcome Reduction, Technology

**Keywords**

Instrument Status Check, Cable Connection, Scanners, Integrated Health Information System

**Name and Email of Project Contact Person(s)**

Name: Justine Heng

Email: [singaporehealthcaremanagement@singhealth.com.sg](mailto:singaporehealthcaremanagement@singhealth.com.sg)



# To Achieve 100% Compliance in the Daily Status Check of Instrument Sets and Loose Instruments in General Surgery Operating Theatres

Justine Heng, Noraisah M J, Noorharzaintee Ab R, Jocelyn Ang, Maria R A, Lim M F, Lau S C, Hu Yi, Samuel Kwan Y M, Narinder Kaur, Tong Shiya, Sangeetha D/O K



## Introduction

**Instrument Status Check** is a crucial step to verify if the instrument sets or loose instruments have gone through sterilisation process and deemed to be safe for patient use during surgery.

This is done using a Tdoc program uploaded onto designated laptops in all Operating Rooms (ORs). Additionally, visual checking is also done to ensure packaging integrity is maintained, free of holes, tear or wetness.

## Background

Since the implementation of Instrument Status Check, there was only 78% compliance rate of operating theatre (OT) nurses performing Instrument Status Check.

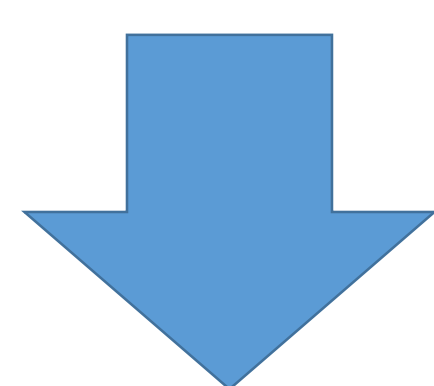
## Objectives

- To improve compliance from 78% to 100% in daily Instrument Status Check for General Surgery discipline OTs within 6 months
- To enhance patient safety and mitigate risks related to instruments/ instrument sets undergoing sterilisation processes and deemed to be safe for patient use perioperatively

## Methodology

A cause and effect diagram was used to determine root causes. Final root causes were:

- Knowledge deficit
- OT nurses overlook and did not scan
- Wrong cable connection
- End of life (for scanner)



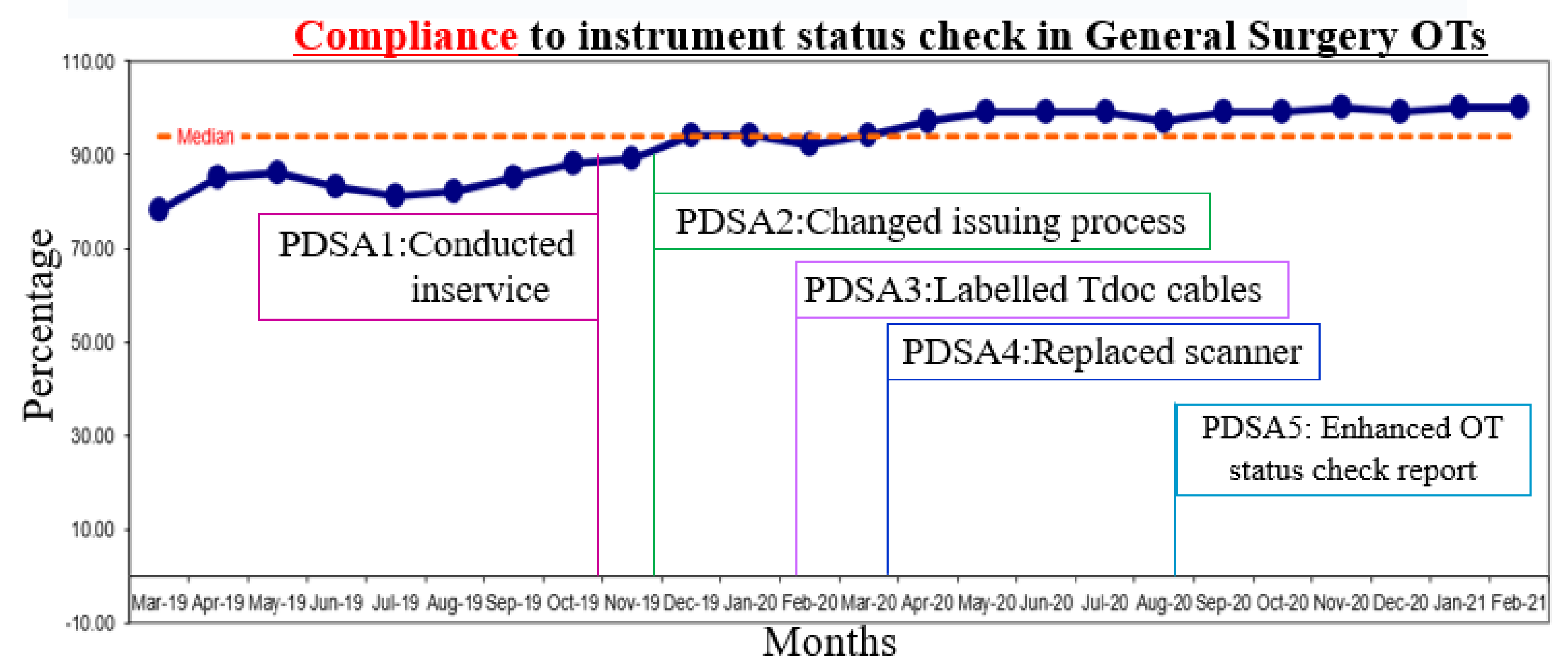
Brainstormed for solutions and the following were implemented

- PDSA 1: Conducted in-services to improve and enhance knowledge
- PDSA 2: Changed process of issuing shortfall instrument sets
- PDSA 3: Labelled Tdoc cables on laptops in all ORs
- PDSA 4: Replaced scanners



## Results

Percentage of compliance to Instrument Status Check improved to 97% in April 2020



Based on feedback, team worked with Integrated Health Information System (IHIS) to review the Instrument Status Check report and implemented

- PDSA 5: Enhanced OT Instrument Status Check report

Dispatch, Status Check and Patient Registration Compliance For OTs (Based on Dispatch Date)  
Units Dispatched Date From: 2021-05-03 Until: 2021-05-04

Unit	Packed on	Product No.	Serial No.	Name	Status	Dispatched Date from SSU@SGH	Status Check at Store by Staff	Dispatched from Store by Staff	Status Check at OT by Staff AIC	Patient Reg. at	Returned at SSU@SGH
MOT-L3	2021-01-24	23001141	23001141-012	GES Tracheostomy	Returned (Used on Patient)	Done (2021-05-05 15:28:09)	Done (2021-05-06 10:13:18)	Done (2021-05-06 10:13:54)	Done (2021-05-07 02:18:31)	Done	Done

Final results in January and February 2021, Compliance to Instrument Status Check in General Surgery OTs increased to 99.68%

## Conclusion

- We will continue to collect feedback and have implemented above initiatives to all other surgical disciplines.
- The enhanced link to Instrument Status Check report is on all computers for easy access.
- This work process has been incorporated into the orientation of new nurses, who will be closely supervised by the Champions/ Senior nurses when they start working in the clinical area.
- This project promotes good working relationship and cooperation between OT nurses and SSU staffs, there is better understanding of each department function, which helps improve camaraderie, great teamwork and boost morale for all staffs.