



Environmental Services Specialist - A new approach to cleaning Operating Theatres, Endoscopy and Interventional Areas

Singapore Healthcare Management 2017

Wong Mei Yun,
Rozita Khamis,
Precy Medina



Singapore General Hospital

Introduction

What is Environmental Services Specialist (ESS)?

- ESS specializes in the cleaning of Operating Theatres (OTs), Endoscopy Suites, Interventional Radiology and Nephrology Suites, Emergency Resuscitation Bays and Procedure Rooms.

- ESS is accredited by the Institute of Technical Education (ITE) since February 2017.

Why the need for ESS?

- To maintain a high standard of cleanliness in the Operating Theatres, Endoscopy Suites, Interventional Radiology and Nephrology Suites, Emergency Resuscitation Bays and Procedure Rooms.

- To enable nurses, Healthcare Attendants (HCAs) and OT Technicians and Assistants (OTT/ OTAs) to focus on patient-related tasks.

Methodology

DMAIC – 5 phases of Lean Six Sigma

Define

- Inconsistent cleaning methods.
- Manual activation process when cleaning is required.
- Time taken away from nurses, HCAs and OTT/OTAs when cleaning is required.

Measure

Baseline: Time saved by nurses, HCAs and OTT/ OTAs

Analyze

Eliminate:

- Inconsistent cleaning methods.
- Manual activation process for cleaning.
- Unnecessary wait time incurred during cleaning activation.

Improve

- Form teams of ESS trained and dedicated for the cleaning of OTs, Endoscopy Suites and Interventional Areas.
- Incorporate system known as eHIMS Lite for digitizing the cleaning activation process.

Control

- ESS will be trained on the standard procedure for the cleaning of OTs, Endoscopy Suites and Interventional Areas as well as the use of smartphone application known as eHIMS Lite to respond to requests for cleaning.
- Auditing the cleaning process.
- Gathering feedback from customers.

Results

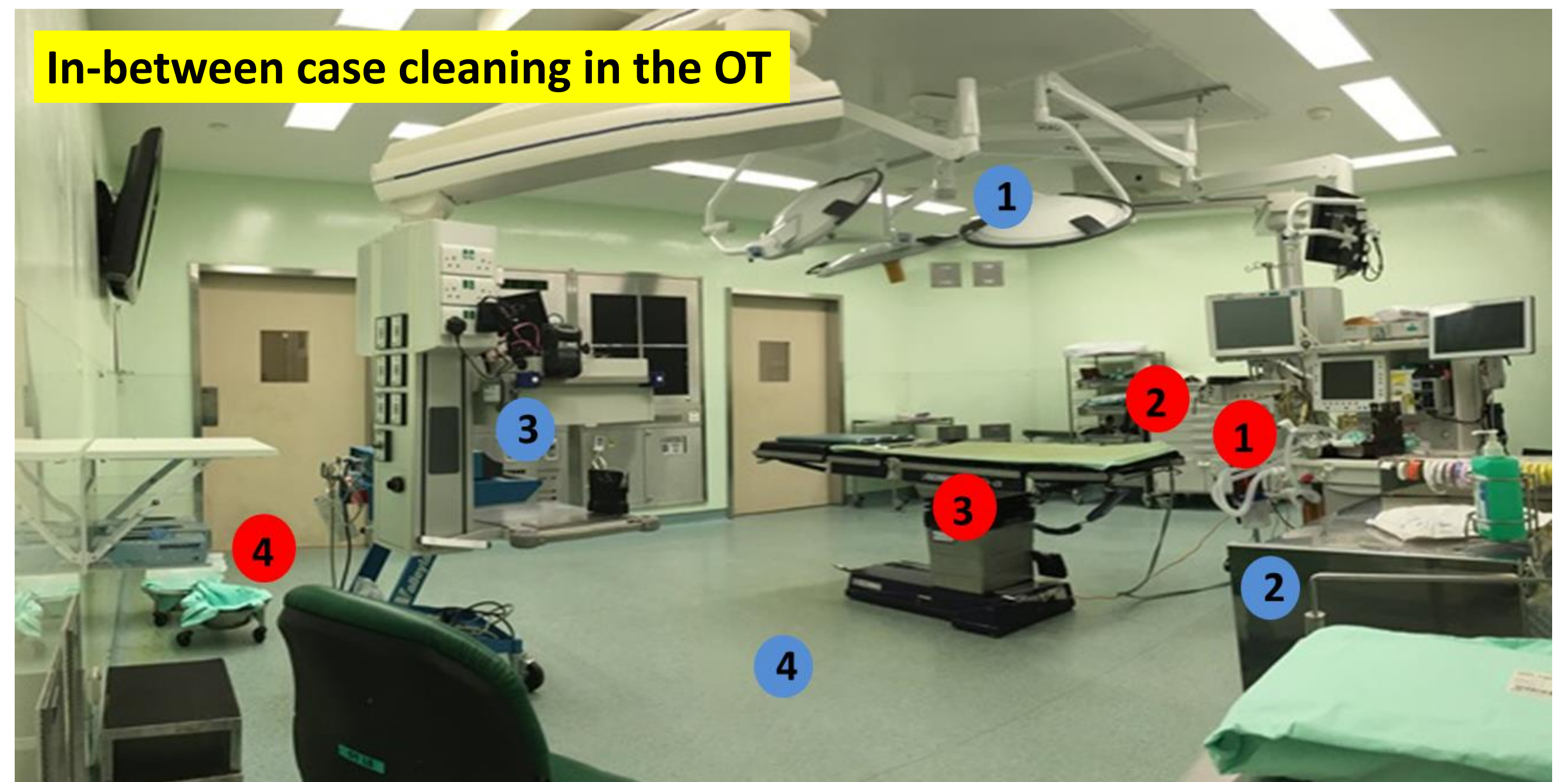
1) Time saved of **6,411 hours** monthly by nurses, HCAs and OTT/OTAs which allow them to focus on patient-related tasks instead (based on number of cases done/month)

Estimated Average Monthly Cleaning Time Needed

SN	Departments	Cleaning Time (Hours)					Total Hours
		Pre-Cleaning	In-between Cases Cleaning	Terminal Cleaning	Post Cleaning	Thorough Cleaning	
1	Interventional Radiology Centre (IRC)	-	93.5	26.5	77	42	239
2	Interventional Nephrology Suite (INS)	-	20	17.5	33	18	88.5
3	Endoscopy Centre (EC)	8.5	37.5	12.5	82.5	21	162
4	Ambulatory Endoscopy Centre (AEC)	21.5	141.5	20	132	40	355
5	Major OT (MOT)	96	216.5	83	750	216	1361.5
6	Urology OT (UOT)	11	26.5	4	82.5	24	148
7	Ambulatory Surgery Centre (ASC)	22	83.5	20	165	48	338.5
8	Department of Emergency Medicine (DEM)	-	116.5	2.5	900	2700	3719
Total Hours of Saved		159	735.5	186	2222	3109	6411.5

2) Structured cleaning procedures established to ensure consistency and high standards of cleaning.

In any type of cleaning, be it in-between cases cleaning or terminal cleaning, there will always be a 2-member team to perform concurrent cleaning. Each ESS member of the team will have a standard list of items to clean.



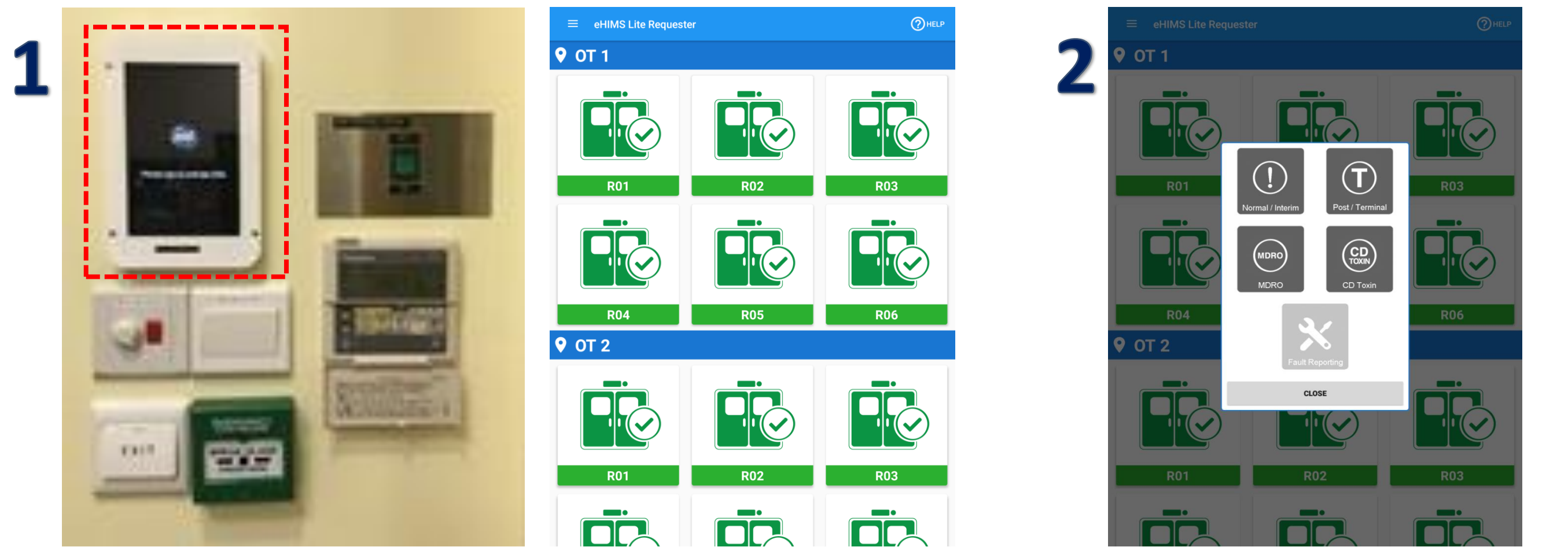
ESS 1 Cleaning Task List:

- Cables (BP Cuff, ECG Probes, Pulse Oximeter)
- Bair Hugger / Tourniquet
- OT Table / Bed
- Clear waste

ESS 2 Cleaning Task List:

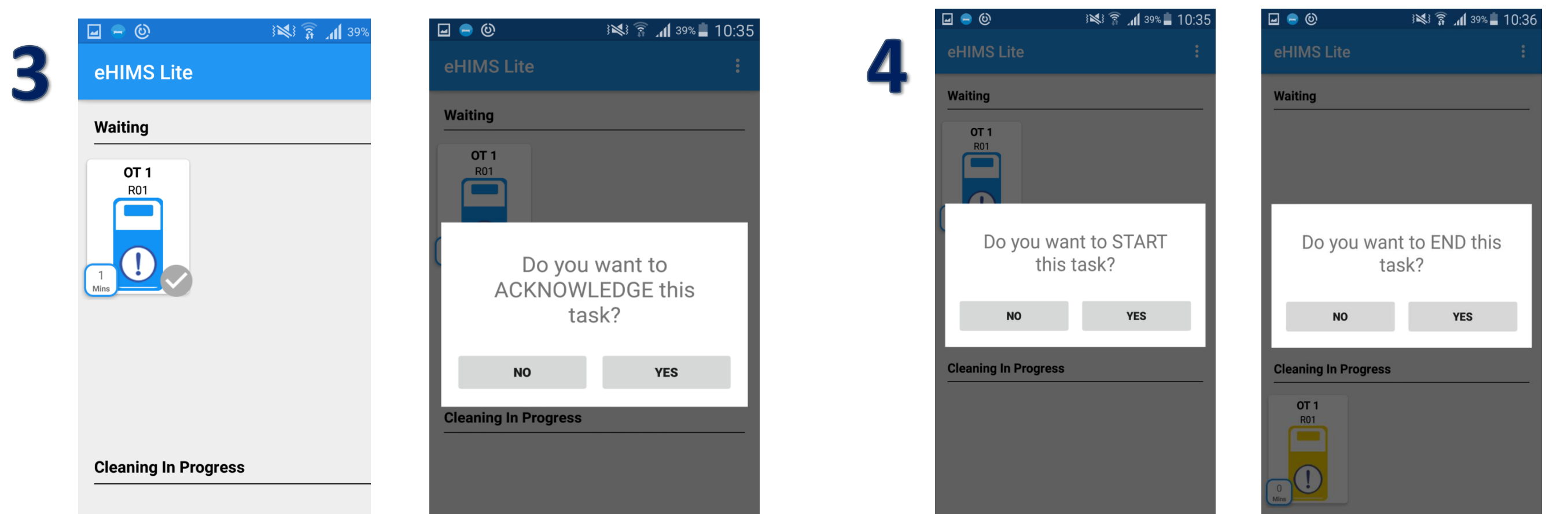
- OT Lights
- Trolleys
- Equipment Handles
- Mop floor

3) Seamless cleaning activation process using eHIMS Lite



Requestor activate ESS via the tablet located at the exit lobbies / control rooms.

Requestor select the type of cleaning required for the room



ESS receive the job request via their duty phone and acknowledge the task

ESS start the task and proceed with the cleaning. Once cleaning is completed, ESS update the system by ending the task

Conclusion

With the introduction of ESS, nurses, HCAs and OTT/ OTAs have been relieved of cleaning duties and instead are better able to focus on patient-related tasks. A structured protocol for cleaning was developed and coupled with eHIMS Lite, ESS have been cleaning the OTs, Endoscopy Suites and Interventional Areas more effectively and efficiently.

"Overall, the ESS had done a good job. I must say, they uphold their job well and are proud in the way they go about their undertakings. Good job done and will work with them to uphold the cleanliness of the area for patients' safety and ultimate 'Best Outcome'. Thank you ESS."

Feedback from the Nurse Manager at IRC

