ENDOSCOPE TRACEABILITY SERVICES EXPANSION AT CUH, BANTRY & MALLOW GENERAL HOSPITAL

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BACKGROUND

More and more healthcare technologies are now being integrated with clinical information systems in order to ensure all patient data is captured throughout their journey in our hospitals.
How does our Medical Staff ensure patient care and simultaneously monitor and capture all this data?
The real challenge is to ensure the benefits of recording this information are understood and implemented thus ensuring traceability is maintained.
This particular challenge involved tracking the journey of endoscope from its use on a patient to decontamination in the HSSD/Endoscopy unit.
There are a number of steps in this endoscope journey;

- Removal of contaminated scope from treatment room
- Manual wash in sink
- Washing/Disinfection in automated washer/disinfector
- Drying and storage of endoscope in a drying cabinet /SureStore/Plasma Typhoon cabinet

OBJECTIVE

Across CUH, BGH & MGH there are four endoscope decontamination departments. The objective was to introduce a central endoscope database i.e., Wassenburg Process Manager & FingerPrint ScopeTrack across the three Hospitals to enable any of the locations to be utilised for decontamination purposes.

Hence with the possibility of movement of scopes to different locations it was very important that a standard approach to traceability was developed to keep an accurate track of the approximate 200 scopes in use between the three hospitals.

METHOD – CHANGE PROCESS!

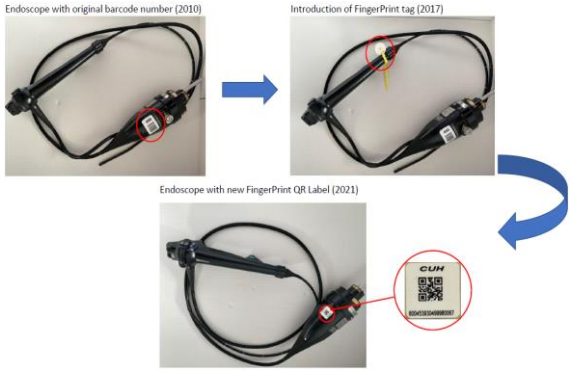
To facilitate staff engagement and service efficiency, I discussed with the CNM and staff their workflows and methods to help reduce the workload of the staff.

This was achieved by harmonising the User & Endoscope IDs between Wassenburg PM & FingerPrint along with the introduction of barcode scanners to the Wassenburg washer/disinfectors.

1. Harmonisation of User ID: HSE Staff ID is now the primary user identification. The staff ID card has a unique HSE number with barcode that was uploaded onto both the Wassenburg PM and FingerPrint systems. This removed the practise of using different ID numbers for different tracking systems.

2. Harmonisation of Endoscope ID: The FingerPrint ID no. is the only ID that will be recognised by Wassenburg PM and FingerPrint ScopeTrack for all our endoscopes. I developed a new QR label incorporating the FingerPrint No. that was now affixed onto the endoscope.
See Figure 1 Evolution of Endoscope Identifiers

Figure 1. Evolution of Endoscope identifiers in CUH, BGH & MGH



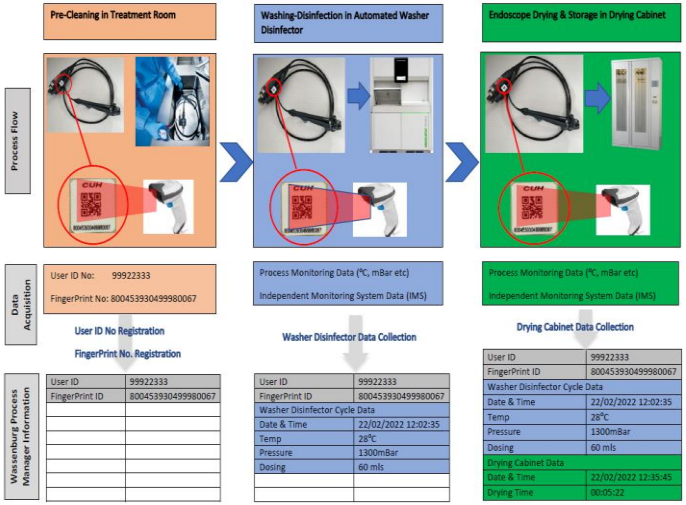
3. Introduction of barcode scanners:
Barcode scanners are now used to scan ID cards and endoscope FingerPrint QR codes thus eliminating any human error caused by manually inputting data.

This new workflow greatly improved efficiencies in the endoscopy unit with a significant reduction in cancelled cycles, resulting in a faster turnaround time of endoscopes during a busy list.
See Figure 2 Wassenburg Process Manager Traceability Flow

RESULT & CONCLUSION

The management of medical device equipment is an essential requirement of the Biomedical Engineering Dept in CUH. With the successful implementation of Wassenburg PM & FingerPrint ScopeTrack across CUH, Bantry & Mallow General Hospital, we now have a centralised on-line manager of all our endoscopes.

Figure 2. Wassenburg Process Manager Traceability Flow



The improvements and changes introduced in CUH, i.e., introduction of barcode scanners, harmonisation of user and scope IDs between Wassenburg equipment and FingerPrint ScopeTrack was implemented across the 4 locations. This was all completed in March 2022.

Another advantage of the unique identifier on our endoscopes, is that it has now reduced the amount of Biomedical engineer's time and paperwork involved in receiving endoscopes back from repair.

The end goal was to not only expand the endoscope traceability services area, but also to modernise and improve workflow practices. The introduction of Wassenburg PM along with FingerPrint ScopeTrack and the use of the appropriate Barcode readers and staff IDs was designed to incorporate new improved workflow practices and to give the staff working in these departments an optimised working environment.

ACKNOWLEDGEMENTS

I would like to thank the CNMs and staff across the three hospitals who engaged and who were cooperative thus allowing me to introduce these changes. I would also like to thank Wassenburg Technical Support and my colleagues in Biomedical Engineering and IT for their help in ensuring a successful outcome.