

Cleaner and Safer Laryngoscope

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Aim

- To improve the standard for storing of laryngoscope blade to enhance patient safety and compliance with infection control guidelines.
- To standardize the sterilization method of the laryngoscope in SOC in an effective costing manner.

Background

- Laryngoscope blade is a mandatory equipment stored in E-trolley for medical emergency preparedness in SOC.
- Medical emergency cases rarely happened in SOC, but the laryngoscope blades are still required to be sent for high-level disinfection regularly and after each use for patients for a good infection control standard.
- Resource and costs that used for maintaining high level disinfection are not cost-effective, as the laryngoscope blades are rarely used in SOC.

Team Members

Name	Designation	Department
Meng Qiusha	Nurse Manager	Dental Clinic
Sharon Fun	Assistant Director of Nursing	Nursing Administration
Carol Ng	Senior Nurse Manager	SOC
Chin Quey Fong	Senior Nurse Manger	Nursing Quality
Foo Meow Ling	Senior Nurse Clinician	Infection Control
Joyce Lee Pooi Wan	Nurse Clinician	CVC

Interventions / Implementation

- Various discussion with quality team and infection control nurse were done before the implementation.
- Laryngoscope blade should be sent for high level disinfection regularly if not in use and after each use on patient.
- Cost involved in HLD by CSSU is not cost effective as the usage of laryngoscope is rare and yet high-level disinfection needs to be done regularly.
- Alternate method of using disposable laryngoscope which is with 5-year expiry is an obvious choice.



previous storage of laryngoscope



current storage of laryngoscope in E trolley



Onward 2026

Operational Resilience

- This project demonstrated well for improving financial sustainability by saving cost in a long run.
- It also ensures SOC preparedness and readiness for medical emergency and improve patients' outcome by reducing the infection risk during resuscitation.

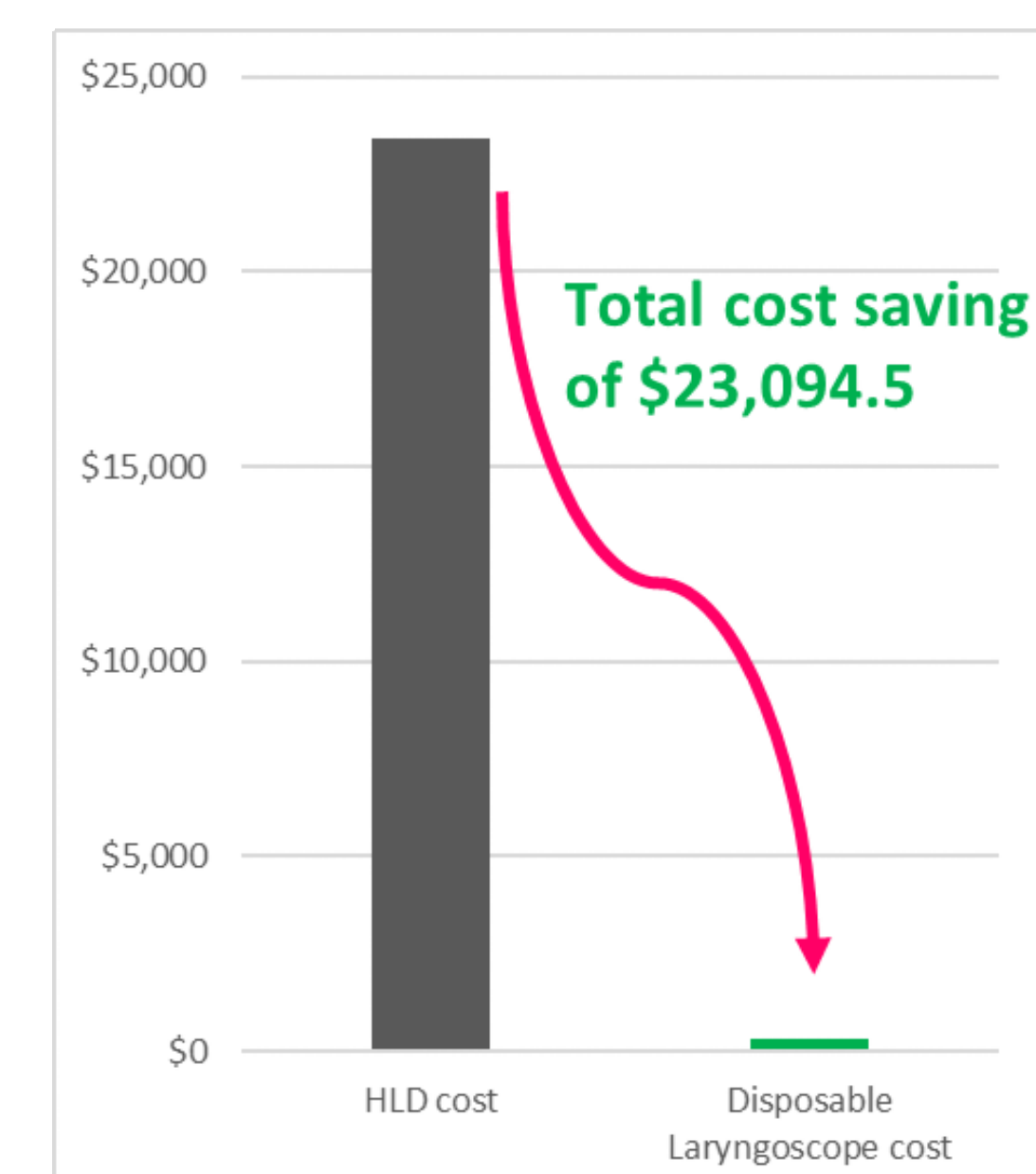
Quality and Patient Safety

- Improve patient safety as the sterile laryngoscope blade is used for the patient during resuscitation.
- Cost saving for 5 years is \$23094.5 by using the disposable laryngoscope.

Results & Outcomes

- Laryngoscopes is sent for high-level disinfection (HLD) after each patient use or monthly sterilization if not used.
- The costs associated with HLD by the Central Sterile Supply Unit (CSSU) is high and it is not cost-effective, given the infrequent use of laryngoscopes in SOC.
- Before:** Per year all clinics need to spend \$4,680 for Laryngoscope high-level-disinfection alone;
5 years is \$23,400
(\$30 for 3 laryngoscope blades x12 months x13(E-trolley) x 5 years = **\$23,400**)
- After:** Use disposal laryngoscope blade Total cost for 5 years for all clinics is \$23.5 x 13 clinics = **\$305.5**

Cost Saving



Time Saving

5 mins (checking and sending to CSSU) x 12 (months) x 13 (clinics) x 5 (years) = 3900 minutes = **65 hours**

Conclusion

By using the disposable laryngoscope, SOC could save the significant amount of sterilization cost. Most importantly, improve patient safety by minimising the infection risk during resuscitation.