

Patient Empowerment Program on Hand Hygiene in HA

Patient empowerment on hand hygiene (HH) has been recognized as an important component of a multimodal strategy to improve and sustain good HH practice in healthcare settings.

Taking overseas and local hospitals' experiences and recommendations as reference, a HA-wide implementation plan has been developed with a campaign theme "Mutual Reminding on HH" - healthcare workers (HCWs) and patients are encouraged to remind each other to clean their hands especially before patient contact. 提一提 冇問題 is a simple message to strengthen the safety culture and attitudes to HH behavior.

The campaign will be rolled out in HA hospitals from September 2019. To support the implementation, the campaign toolkit, e.g. A3 posters and patient information leaflets, were created to educate, empower and encourage both HCWs and patients to participate as partners to improve compliance to best practice hand hygiene.



A3 poster for HH promotion



Patient leaflet to educate patients on the importance of HH and the proper HH techniques.



Latest Update on Ebola Virus Disease (EVD)

The ongoing EVD outbreak in The Democratic Republic of Congo (DRC) affects 3 provinces. The outbreak originated in North Kivu and Ituri province, then spread to South Kivu in August 2019. As of 1 September 2019, a running total of 3,036 EVD cases were reported, of which 2,035 cases died. 5% of the total cases were health care workers. The crude fatality rate is stable, at 67%.

An imported EVD case was reported by Uganda government on 28 August 2019. The 9 year-old symptomatic girl travelled from DRC and was identified at Uganda border. She was confirmed with EVD on 29 August and passed away the next day. Epidemiological investigation and surveillance continue.

WHO assessed that the risk of EVD spreading in DRC and to neighboring countries is very high but remains low at global level.



Photo from WHO: Health screen of travellers at point of entry to identify suspected cases

Reference: <https://www.afro.who.int/publications/who-uganda-ebola-virus-preparedness-updates>

Advanced Technologies on Environmental Decontamination

Environmental hygiene plays an important role in preventing transmission of healthcare-associated pathogens. Traditional manual cleaning may often be suboptimal. Hydrogen peroxide vapor (HPV) and ultraviolet-light C (UVC) are the advanced technologies proven to be effective against nosocomial pathogens. The technologies are designed for terminal room decontamination after patient discharge. Nowadays, the mobile devices are widely used in many countries, including US, UK, Australia, Canada, Japan and Singapore.

In principle, surfaces should be physically decontaminated prior to HPV or UVC disinfection. So the “no touch” methods are used as an adjuvant to standard cleaning strategies. The benefits and limitations of these two advanced technologies are summarized in Table 1.

Table 1: Comparison of HPV and UVC for Environmental Decontamination

Items		HPV	UVC
Decontamination	Germicidal agents	Hydrogen peroxide vapor (35%) (generally effective ppm: 300-500)	UVC irradiation (254nm)
	Decontamination area	All surfaces and air	Surfaces directly exposed to UVC light
	Sporicidal efficacy	6 log reduction	4 log reduction in 10 min
	Cycle time required (room size)	~ 2 hours (~ 400 sq. feet)	5 – 10 min per surface (3 cycles, i.e. ~ 30 min, for ~ 800 sq. feet)
Requirement	Remove staff and patients	Yes	Yes
	Chemical indicator	Yes	Yes
	Seal off the room doors and vents	Yes	No
	Aeration	Yes	No
Staff training & competency		Yes	Yes
Safety concern		Aerosol exposure	Visual exposure

US FDA's Safety Communication on Duodenoscopes

Since 2012, outbreaks of carbapenem-resistant Enterobacteriaceae (CRE) transmission linked to contaminated duodenoscopes have been reported in the US and Europe. Conventional duodenoscopes used for endoscopic retrograde cholangiopancreatography (ERCP) have complex designs that include reusable hard-to-clean components, i.e. fixed endcap limits the accessibility to clean the crevices at the distal end. Failure to correctly reprocess a duodenoscope could be a potential cause of nosocomial spread of infection. The US CDC, FDA and reprocessing experts have been working together to address such problems. They have made alerts and recommendations to help improve the effectiveness of duodenoscope reprocessing.

On 29 August 2019, the FDA released a safety communication advising that endoscopy facilities should begin a transition plan to replace conventional duodenoscopes with fixed endcaps with newer and innovative models that facilitate or eliminate the need for reprocessing. And the FDA has cleared two duodenoscopes with disposable endcaps that facilitate reprocessing. Besides, the manufacturers are advised to increase the supply of disposable cap duodenoscopes and the development of other new and innovative device designs that will further minimize or eliminate the risk of nosocomial transmission.

The FDA also provided an update on the postmarket surveillance studies for duodenoscopes used in ERCP. The study was designed to evaluate the percentage of clinically used duodenoscopes which remain contaminated with viable microorganisms after reprocessing. The study was designed assuming less than a 0.4% contamination rate. The interim results as of March 2019 showed a higher-than-expected contamination rate after reprocessing, with up to 3.6% of properly collected samples tested positive. Root cause analyses are underway to better understand the higher than expected contamination rates. Some factors that may contribute to device contamination after reprocessing include device damage and errors in reprocessing.



Example of single-use distal endcap
Photo from Fujifilm

Reference: <https://www.fda.gov/medical-devices/safety-communications/fda-recommending-transition-duodenoscopes-innovative-designs-enhance-safety-fda-safety-communication>