

Healthcare-associated infections

RELATED WITH MEDICAL DEVICE REPROCESSING Prof. Jon Otter PhD FRCPath

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THIS IS THE SECOND OF FIVE WEBINARS DEDICATED TO MEDICAL DEVICE REPROCESSING PRESENTED BY ASP MEDICAL EDUCATION.

Overview of the risk of HAI associated with medical device reprocessing

From a risk of infection point of view, there are three groupings of medical devices: non-critical devices, which only come into contact with intact skin; semi-critical devices, which make contact with broken skin and mucous membranes; and critical devices, which come into contact with usually sterile sites. Non-critical medical devices include stethoscopes and blood pressure cuffs; semi-critical medical devices include endoscopes and various probes; critical devices include surgical instruments. The risk of transmission depends on the intended procedure, the patients involved, the decontamination method and several other factors.

When decontamination goes wrong

A range of outbreaks have been traced to inadequately decontaminated medical devices. Whilst the risk of infection transmission seems great with critical devices, there is very little documented evidence of outbreaks linked to inadequately decontaminated critical devices. There is a large body evidence showing that transmission can occur between patients in non-critical or semicritical devices which are not decontaminated adequately.



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Medical devices carry with them a large or small risk of transmitting infection...

⁶⁶ Inadequately decontaminated medical devices have been shown to spread infection.

Towards safer medical device decontamination

A number of different steps can be taken to make medical device decontamination safer. For non-critical devices, defining responsibilities for cleaning, optimising the selection of cleaning/disinfection products, and implement effective point-of-use decontamination methods (such as wipes) where possible have been shown to reduce infection risk. For semi-critical devices, selection of appropriate high-level disinfection methods based on the intended use of the item, and identifying high-risk devices that need special decontamination measures (e.g. duodenoscopes) have been shown to reduce infection risk. For critical devices, establishing the correct process that can be audited will have to reduce infection risk from these devices.



Several different strategies can be used to reduce risk associated with medical devices...

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As medical devices become more complicated, the risks of inadequate decontamination are likely to grow; we need to embrace the latest systems to ensure the safest possible decontamination...

RESUME:

Future perspectives

As healthcare becomes increasing complex, we will continue to rely on a range of medical devices to support the delivery of high-quality patient care. It seems like that there will be a greater standardization of the approach to medical device decontamination. Also, a future trend is likely to be a more towards more centralization of decontamination services, which should bring efficiency savings. Finally, the various regulators are likely to take an increasingly stringent view of how infection risk associated with mdecial devices is manager.

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Take Home Messages

- OVERVIEW OF MEDICAL DEVICE DECONTAMINATION IN THE CONTEXT OF HAI: MEDICAL DEVICES CARRY WITH THEM A LARGE OR SMALL RISK OF TRANSMITTING INFECTION.
- SUMMARY OF HAI ASSOCIATED WITH MEDICAL DEVICE REPROCESSING: INADEQUATELY DECONTAMINATED MEDICAL DEVICES HAS BEEN SHOWN TO SPREAD INFECTION.
- LEARNING FROM PAST FAILURES IN MEDICAL DEVICE DECONTAMINATION TO PREVENT HAI: SEVERAL DIFFERENT STRA-TEGIES CAN BE USED TO REDUCE THE RISK ASSOCIATED WITH MEDICAL DEVICES.
- 4. A LOOK AT MEDICAL DEVICE DECONTAMINATION OF THE FUTURE: AS MEDICAL DEVICES BECOME MORE COMPLICATED, THE RISKS OF INADEQUATE DECONTAMINATION ARE LIKELY TO GROW; WE NEED TO EMBRACE THE LATEST SYSTEMS TO ENSURE THE SAFEST POSSIBLE DECONTAMINATION.





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