

Potential transmission of multi resistant bacteria and duodenoscopes.

Recent reports in the media have highlighted the potential for transmission of infection associated with duodenoscopes. A recent peer reviewed publication (Endoscopy (2015) **47** 493-502) described an outbreak of VIM-2 producing *Pseudomonas aeruginosa* and identified an issue with the design and reprocessing of a recently introduced duodenoscope with a specific modified design. This may be similar to the outbreaks in the US (Gastrointestinal Endoscopy (2015) **82(3)**: 477-83).

The BSG would like to highlight the following points to staff carrying out the decontamination of flexible endoscopes, in particular duodenoscopes.

- Adherence to manufacturers' instructions at all times is essential.
- The pre clean procedure should take place at the patient bedside, as described in the instructions from the UK suppliers and BSG guidance.
- The cover on the raiser bridge mechanism at the distal tip should be removed prior to brushing all areas of the distal tip and cleaning with detergent and replaced on completion of the decontamination process. The brush must be used on all surface areas of the distal tip ensure that all debris is removed.
- The elevator wire channel should be flushed with detergent during the manual cleaning ensuring the correct size syringe is used. If automated flushing systems are used for this stage of the process, staff should ensure that this channel is included.
- Staff should ensure that the endoscope washer disinfector has the capability of flushing the elevator wire channel with detergent, disinfectant and rinse water.
- If stored in a drying cabinet, the elevator wire channel should be flushed with HEPA filtered air along with all the other channels. If this channel is not flushed with air, the endoscope should be used within 3 hours or the endoscope reprocessed before patient use. Not all cabinets have this facility. An EN standard, EN 16442, has now been published for endoscope storage drying cabinets.
- Routine microbiological surveillance of processed endoscopes is not recommended. However, this may be carried out on advice from the infection prevention and control team if an outbreak is known or suspected.
- Staff should receive comprehensive training, and a record retained, on all aspects of the decontamination of endoscopes, in particular, duodenoscopes.

The Top Ten Tips issued by the MHRA in 2013 provides useful tips in relation to endoscope disinfection, in particular to report any problems relating to endoscope decontamination equipment or associated chemicals to the MHRA (https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/372220/Endoscope_decontamination.pdf)

The Toolkit issued by Public Health England in 2014 provides practical advice to Trusts to identify manage and control CRE within their environments. (<https://www.gov.uk/government/publications/carbapenemase-producing-enterobacteriaceae-early-detection-management-and-control-toolkit-for-acute-trusts>)

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References

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EN 16442 (March 2015) Controlled environment storage cabinet for processed thermolabile endoscopes.

Endoscopy. (June 2015) 47(6): 493-502. Withdrawal of a novel-design duodenoscope ends outbreak of a VIM-2-producing *Pseudomonas aeruginosa*.

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