

## O1083 The successful endoscope reprocessing after the detection of contamination: a hospital experience

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**Objective:** The aim of this study is to describe the successful endoscope reprocessing procedure of our hospital after detection of contamination.

**Material and methods:** The endoscopes and endoscope reprocessing procedures of the

Ministry of Health Bakırköy Sadi Konuk Training and Research Hospital, İstanbul, Turkey were examined using microbiological cultures and ATP bioluminescence tool kits during year of 2014.

**Results:** We examined 42 flexible endoscopes after reprocessing. In both units, approximately 60 endoscopic interventions are performed in two units in a day. There are 10 Automated Endoscope Reprocessors for cleansing in two units. There are five water tanks, two endoscopy towers, and eight endoscope storage cabinets. The number of endoscopes that were found contaminated was 4 (9%). In microbiologic evaluation, *Stenotrophomonas maltophilia* (> 100,000 cfu/mL) was isolated from irrigation bottles. Extended-spectrum beta-lactamases and plasmid-mediated carbapenemase producing *K. pneumonia* and AmpC beta-lactamase producing *P. aeruginosa* (> 100,000 cfu/mL) were isolated from elevator behind. AmpC beta-lactamase producing *P. aeruginosa* (> 100,000 cfu/mL) was isolated from gastroscope outer surface. Diphtheroid bacilli and methicillin-sensitive *Staphylococcus aureus* were isolated from endoscope hanger. Infection control committee decided to use ATP-bioluminescence for microbiological monitoring of endoscopes. It yields a result in 30 seconds, and prevents out of use of endoscopes until cultures yield. Contact time of 0.55% ortho-phthalaldehyde (OPA) was increased to 10 minutes. Elevator in duodenoscopy channel can be a problem, as brushing is not possible. The washing, enzymatic cleaning, drying was performed by means of a syringe. After placing the disinfected connection hose into elevator channel with a suitable adapter, and then disinfection, rinsing, and drying were performed. After extension of disinfection time to 10 minutes and re-disinfection of all equipments before intervention in the morning, control cultures did not yield any microorganism.

**Conclusion:** The ATP-bioluminescence method is a cost-effective method to monitor and evaluate the endoscope reprocessing. Biofilm formation is very important to harbor resistant microorganisms in the endoscopes. Microbiological monitoring and cleaning procedures of endoscopes should be defined in the settings with the frequencies. In case of any outbreak related to endoscopes, each step in the procedure should be checked and revised.