

Methods of reprocessing flexible cystoscopes and the concern of cross-contamination among urologists in the United Kingdom, Germany and France

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Keywords: single-use; cross-contamination; cystoscope; infection

Introduction and aim of the study

Urinary tract infections are the most common adverse events following cystoscopy procedures. Controversies exist regarding the origin of these post procedural infections and whether they can be attributed to contaminated cystoscopes. Limited evidence exists within this area even though more than 70% of all Manufacture and User Facility Device (MAUDE) reports to the US Food and Drug Administration state issues concerning device microbiological contamination and patient infection following a cystoscopy. We aimed to investigate the use of different reprocessing methods at cystoscopy facilities in the three largest markets in Europe and the concern for contaminated cystoscopes and cystoscope-related patient infections.

Materials and methods

Between February 24, 2020 and March 23, 2020 a total number of 105 urologists performing cystoscopies in both hospitals and clinics answered an electronic survey about reprocessing setup and concerns in regards to contaminated cystoscopes and cystoscope-related infection. The survey was conducted amongst 35 urologists in Germany, France and UK, respectively. Data were collected using the online survey tool, QuestionPro and analysed in Microsoft Excel.

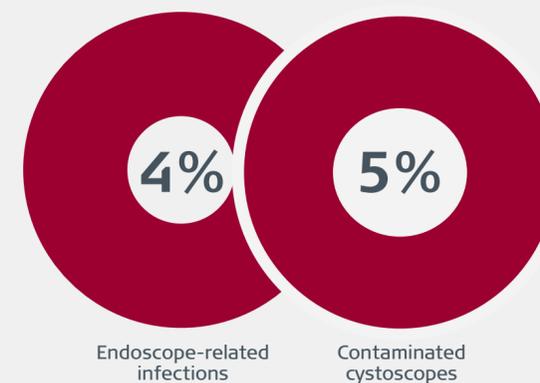
References

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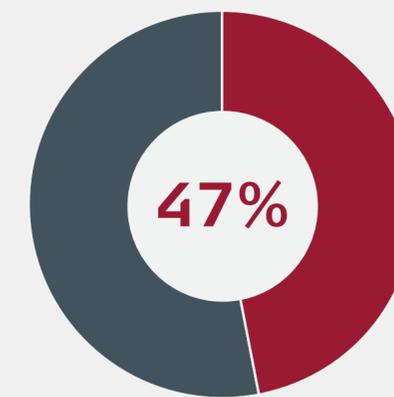
Results

Among the 105 respondents 12 (11.4 %) were female and 93 (88.6 %) were male urologists. 75 (71.4 %) reportedly had more than 10 years of experience performing cystoscopies and 30 (28.6 %) had less than 10 years of experience. 23 (65.7 %) urologists operated in hospital settings and 22 (62.9%) used single-use ureteroscopes at the time they answered the survey. The urologists were asked to inform which cleaning process were in use in their urology department. 29 (27.6 %) used high level disinfection (HLD), 28 (26.7 %) used chemical baths, 23 (21.9 %) used sterilization, 2 (1.9 %) used trisal wipes, 7 (6.7 %) did not know which cleaning process were in use and 16 (15.2 %) used another reprocessing method than the ones mentioned here. To estimate the concern for contamination and infection the urologists were asked to anticipate the rate of contamination of their cystoscopes and endoscope-related infections at their department.

Concern for contamination and infection



On average, the urologists anticipated the rate of contaminated cystoscopes and endoscope-related infections to be 5 % and 4 %, respectively. Additionally, findings showed that French urologists were significantly more likely to anticipate a higher contamination rate compared to urologist from Germany and the United Kingdom ($p < 0.004$).



Finally, 49 (47 %) stated that they were concerned about cystoscopy-related infections as a result of contaminated cystoscopes. There were no statistically significant differences between countries and the likelihood of being concerned about cystoscopy-related infections as a result of contaminated cystoscopes.

Interpretation of results

The results show an even distribution in the use of cleaning methods such as sterilization, HLD and chemical baths. Furthermore, 6.7 % of the urologists were not aware of the cleaning method used in their urology department. The results show that almost half (47 %) of the urologists were concerned about cystoscopy-related infections as a result of contaminated cystoscopes. This study highlights the importance of adequate reprocessing of cystoscopes in order to eliminate any concern or possibility of cystoscopy-related infections as a result of contaminated cystoscopes.

Conclusions

According to the results, urologists in the three largest markets in Europe most often use sterilization, HLD or chemical bath as reprocessing method of reusable cystoscopes. The urologist anticipated the rate of contaminated cystoscopes and endoscope-related infections to be 4-5 %. French urologists are significantly more likely to anticipate a higher contamination rate compared to urologist from the United Kingdom and Germany. Finally, almost half of all the respondents expressed concern about cystoscopy-related infections as a result of contaminated cystoscopes.