

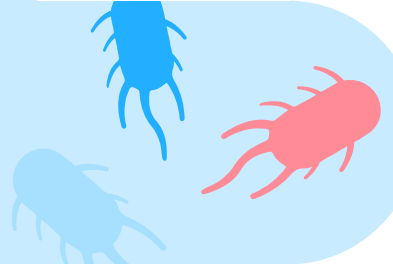


Contamination
and Infection
Control

SCIENTIFIC EVIDENCE RELATED TO SINGLE-USE BRONCHOSCOPES

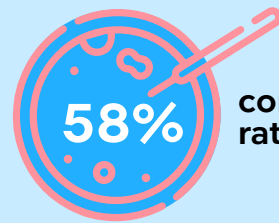
[Mehta & Muscarella \(2019\)](#)

Bronchoscopes may pose an underrecognized potential risk for transmission of Carbapenem-resistant Enterobacteriaceae (CRE) and related Multi-drug resistant organisms. Cases suggest that high-level disinfection of bronchoscopes performed in accordance with guidelines may not be effective in eliminating the risk of CRE transmission from one patient to another. Damaged bronchoscopes increase the risk.



[Ofstead et al. \(2018\)](#)

Microbial growth was found in 14/24 fully reprocessed bronchoscopes (58%). After manual cleaning, 100% of bronchoscopes had residual contamination. Microbial growth was found in 14/24 fully reprocessed bronchoscopes (58%), including mold, *Stenotrophomonas maltophilia*, and *Escherichia coli*/*Shigella* species.



contamination
rate

[Gavaldà et al. \(2015\)](#)

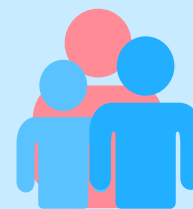
A total of 620 samples were obtained, 56 samples (9%) tested positive for at least one specimen. Of the 56 positive samples, 37 (6.0%) corresponded to alert level 1, 10 (1.6%) corresponded to alert level 2 and 9 (1.4%) corresponded to alert level 3.



contamination
rate

[Kovaleva et al. \(2013\)](#)

Out of 482 patients, 90 patients showed symptoms of infection (18.7%) following bronchoscopy. Most of the infections were linked directly to a bronchoscope which in most cases caused pneumonia.



20.21%
of contaminated
patients show
symptoms of
infection

[Mouritsen et al. \(2019\)](#)

Reusable flexible bronchoscopes (RFBs) entail a risk of patient contamination of 15.3% and results in additional per procedure costs. aScope Broncho costs €332 less per procedure than RFBs. Taking the patient contamination risk into consideration, aScope™ 4 Broncho is cost-effective compared to RFBs.

Reusable
procedure
cost

= £511

Infection
risk

=2.8%