

Assessing the performance of a single-use flexible rhinolaryngoscope

The Ambu® aScope™ 4 RhinoLaryngo Slim was successfully used for more than 97% of flexible ENT endoscopy procedures

Introduction

Single-use endoscopes ensure that the endoscopist always has a clean and functioning scope at hand when needed. Single-use bronchoscopes have proven to be equivalent in performance to traditional bronchoscopes, and a single-use endoscope was recently developed for ENT procedures (Ambu® aScope™ 4 RhinoLaryngo Slim [Ambu A/S, Ballerup, Denmark] with an outer diameter of 3.0 mm).

The aim of the current study was to systematically assess the maneuverability and image quality of the single-use endoscope to ensure that it fulfils the requirements of otolaryngologists.

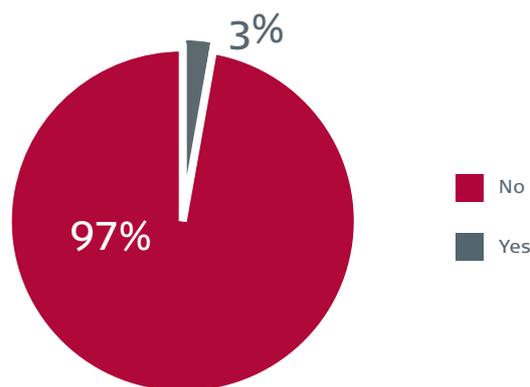
Method

International otorhinolaryngologists were invited to use the single-use scope on patients already scheduled for endoscopic ENT procedures, including nasal endoscopy, laryngoscopy and pharyngoscopy. Immediately following the procedure, the participants filled out a form regarding the performance and usability of the single-use scope. All forms were collected centrally, and all data was entered into a statistics program (©IBM SPSS Statistics, ver. 22.0). Three, four, and five-point scales were normalized into 0 to 100 scores to allow for addition and direct comparison. Descriptive statistics were used to report the findings.

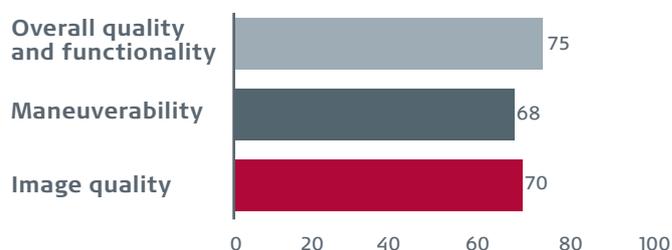
Results

A total of 262 procedures (>97%) were performed satisfactorily with the single-use scope, and in 8 procedures (<3%), the doctor needed to revert to their usual reusable scope.

■ Did you need to change to your usual reusable scope?

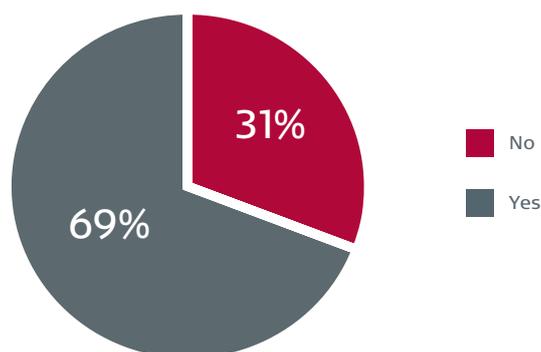


Maneuverability, image quality, and overall quality and functionality were positively rated at 68, 70 and 75, respectively.



The doctors found that the single-use scope could replace the reusable scope for the majority of the procedures performed – 172 out of the 248 procedures (69.4%) where this question was assessed.

■ **Could Ambu aScope 4 RhinoLaryngo replace your current reusable scope?**



Discussion

Developers should continue to strive to supply doctors with the best possible scopes. "The ideal scope" must be able to navigate to the desired locations and to deliver images that enable the performing specialists to make the right diagnostic decisions.

In addition, "the ideal scope" should be available 24/7, be guaranteed clean and safe, and allow the procedure to be performed at a reasonable price.

Risk of cross-contamination

Endoscopes come into contact with non-intact skin, mucous membranes, saliva, and potentially with blood, and they can therefore be a source for transmissible infections. In fact, cross-contamination from reusable flexible endoscopes has been a "Top 10 Health Technology Hazard" for the last 13 years according to an annual report published by the ECRI Institute.

Furthermore, cleaning guidelines can be challenging to adhere to in a busy outpatient clinic with a high endoscope turnover. As a result, access to properly cleaned scopes can be a problem, especially in acute, out-of-hours situations.

Conclusion

International otorhinolaryngologists were generally positive towards different properties of a single-use video-endoscope specifically developed to target their needs. More than 97% of endoscopic ENT procedures could be performed using the scope, which could eliminate potential problems regarding availability, the need for post processing, and the risk of cross-contamination.

Download the full white paper and access other valuable ENT information at www.ambu.com/EntFactsandNumbers



Single-use endoscope
Ambu® aScope™ 4
RhinoLaryngo Slim
and aView™ monitor.