

# Evaluation of the Ambu aScope 3-slim for the placement of DLT

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## Aim:

The aim was to evaluate the functionality and ease of use of the aScope™ 3 system, during Doublet Lumen Tube (DLT) placements.

## Method:

All Doublet Lumen Tube (DLT) procedures were performed in 10 elective patients, by 2 experienced thoracic anaesthetists. Indication for Doublet Lumen Tube (DLT) placement was one lung ventilation during thoracoscopy and thoracotomy and aScope 3 slim was successful in the placement of 10 left-sided Mallinckrodt DLT's (6 x 37 Fr. and 4 x 35 Fr.) With some lubricant it was possible to go through tube 35 Fr without difficulty and even possible to enter the right upper lobe bronchus and subbronchus rather easy due to the flexibility of the scope.

A 5-point Likert scale was used (1 fully disagree, 3 neutral, 5 fully agree) to evaluate functionality and ease of use of the system. Overall functionality and performance was rated as satisfactory in all procedures and the system was felt to be able to replace the existing non-disposable system in all of the 10 procedures.

## Results:

|  | Mean | Trimmed 95% CI |
|--|------|----------------|
| - I found the ergonomics of the device (design of the handle) satisfactory                                 | 4.9  | 4.0 – 5.0      |
| - I found it easy to confirm correct placement of the DLT using aScope                                     | 4.8  | 3.0 – 5.0      |
| - I found the overall image quality adequate   | 4.5  | 4.0 – 5.0      |
| - When secretion and blood are encountered , I found it easy to clean the lens                             | 4.5  | 4.0 – 5.0      |
| - I found the suction capability of the device adequate  | 4.5  | 3.0 – 5.0      |
| - I found the overall functionality and performance of the aScope 3 system satisfactory for this procedure | 4.5  | 4.0 – 5.0      |

Mean Likert Scores for functionality and ease of use.

## Discussion:

The evaluation by 2 independent, experienced clinicians has demonstrated that the Ambu® aScope™ 3 system performs well when used for elective placement of DLT's.

Confirmation of DLT placement was easily performed in 9 cases and with some difficulty in one case. Image quality in most cases was very good.

The suction worked well enough to facilitate placement of the DLT when suction was required.

The immediate availability and portability of the system were perceived as advantages.