Bronchoscopy Assessment:

Score: 0	1	2
Right side Right upper lobe Middle lobe Right lower lobe False identification	Uncertain but correct identification	Secure and correct identification
Left Side Left upper lobe – apical Lingula Left lower lobe False identification	Uncertain but correct identification	Secure and correct identification

Score: 0	1	2
Scope movement Collisions Repeated scope collisions Red-out Unacceptable length of time in 'red-out' Centering Frequent pointing away from lumen	Few collisions Minimal time in 'red-out' Scope centered most of the time	No unnecessary scope collisions No time in 'red-out' Scope always centered

Figure S1 Rating tool done by expert raters based on the bronchoscopy recording. Explanation of scores, inspection of lobes: 2 points were awarded when the operator visualized the lobe in the correct, structured order modified from secure and correct identification. 1 point was awarded if the lobe is visualized, but not in a correct, structured order, modified from uncertain but correct identification. 0 point was awarded if the lobe was not visualized, modified from false identification.

Appendix 1 Instruction of expert-rating to raters

Guidelines to Expert Bronchoscopy Rating

The following examples are when the right lung is examined first. If the left lung is examined first, two points should be awarded if segments 1+2 and 3 (left upper lobe, apical) are examined directly after carina and two points are awarded for the right upper lobe if it is examined directly after the left lower lobe.

Right upper lobe (RUL):

- 2 points: Navigates directly from the Carina and clearly visualizes all three segments (1, 2 and 3).
- 1 point: RUL is visualized, but not in the correct structured order as described for 2 points.
- 0 point: RB1, 2 and 3 are not visualized.

Right middle lobe (RML):

- 2 points: Navigates directly from RUL to RML
- 1 point: RML is visualized, but not directly after RML.
- 0 point: RB4 and 5 are not visualized

Right lower lobe (RLL):

- 2 points: Navigates directly from RML to segment 6, and then visualizes the remaining of RLL (R7-10).
- 1 point: RLL is visualized, but not directly after RML.
- 0 point: RB6-10 are not visualized.

Left lower lobe (LUL), apical (segment 1+2 fused together and segment 3):

- 2 points: Navigating directly from carina after inspection of RLL.
- 1 point: LUL apical is visualized, but not directly after RLL.
- 0 point: LB1+2 and 3 are not visualized.

Lingula:

- 2 points: Navigating directly from LUL apical to lingula
- 1 point: Lingula is visualized, but not directly after LUL apical.
- 0 point: LB4-5 are not visualized.

Left lower lobe (LLL):

- 2 points: Navigated directly to segment 6 from Lingula, and then visualized the remaining segments (L8-10).
- 1 point: All segments are visualized (L6 and L8-10), but not directly and structured after Lingula.
- 0 point: LB6, 8, 9 and 10 are not visualized.

Visualizing *vs.* visit: Visualizing indicated that the segment has been seen. Visit means that the tip of the scope has entered the segment. Visualizing is used for this rating, and therefore the rating examines rather the segments have been visualized rather than visited/entered.

Simplification:

2 points: The lobe has been visualized in the correct, structured order.

1 point: The lobe has been visualized but not in the correct, structured order.

0 point: The lobe has not been Visualized.

3 examples:

Example 1: The participant starts the procedure and navigates from the carina to RUL and visualizes all three segments (2 points). The participant then navigates back to carina and then to RML (1 point). The participant then navigates to R6 and then to the rest of RLL (2 points).

Example 2: The participant starts the procedure and navigates from the carina to RUL and visualizes all three segments (2 points). The participant then navigates to R6, then to RML (1 points) and then visualizes the rest of RLL (1 point).

Example 3: The participant starts the procedure and navigates from the carina to RUL and visualizes all three segments (2 points). The participant then navigates to RML (2 points), skips R6 and then visualizes the rest of the RLL (0 point).