

**Table S1** Participant background information

| Characteristics                                         | Percent      |
|---------------------------------------------------------|--------------|
| Participant source                                      |              |
| Meeting of interventional pulmonologists                | 22.6% (n=7)  |
| Hospital – Midwestern United States                     | 38.7% (n=12) |
| Hospital – Southern United States                       | 38.7% (n=12) |
| Where do you perform a majority of your bronchoscopies? |              |
| Endoscopy/bronchoscopy suite                            | 64.5% (n=20) |
| Operating room                                          | 74.2% (n=23) |
| ICU/bedside                                             | 6.5% (n=2)   |
| Title                                                   |              |
| Certified interventional pulmonologist                  | 22.6% (n=7)  |
| Critical care fellow                                    | 45.2% (n=14) |
| Pulmonary/critical care attending/faculty/physician     | 25.8% (n=8)  |
| Other                                                   | 6.5% (n=2)   |
| Years of experience                                     |              |
| 0 to 1                                                  | 25.8% (n=8)  |
| 1 to 5                                                  | 38.7% (n=12) |
| 5 to 10                                                 | 25.8% (n=8)  |
| 10+                                                     | 9.7% (n=3)   |

**Table S2** Experience with each single-use flexible bronchoscopes prior to study

| Number of procedures/<br>experience     | Ambu® aScope™<br>5 Broncho HD | Ambu® aScope™<br>4 Broncho | Boston® Scientific<br>Exalt™ Model B | Olympus®<br>H-SteriScope™ | Verathon®<br>B-Flex™ | Verathon®<br>B-Flex™ 2 |
|-----------------------------------------|-------------------------------|----------------------------|--------------------------------------|---------------------------|----------------------|------------------------|
| Never encountered                       | 48.4% (n=15)                  | 22.6% (n=7)                | 38.7% (n=12)                         | 80.6% (n=25)              | 48.4% (n=15)         | 71.0% (n=22)           |
| Seen, held, played with<br>0 procedures | 9.7% (n=3)                    | 9.7% (n=3)                 | 3.2% (n=1)                           | 16.1% (n=5)               | 6.5% (n=2)           | 6.5% (n=2)             |
| 1                                       | 6.5% (n=2)                    | 3.2% (n=1)                 | 3.2% (n=1)                           | 0.0% (n=0)                | 3.2% (n=1)           | 3.2% (n=1)             |
| 2–5                                     | 16.1% (n=5)                   | 19.4% (n=6)                | 6.5% (n=2)                           | 3.2% (n=1)                | 12.9% (n=4)          | 9.7% (n=3)             |
| 6–10                                    | 0.0% (n=0)                    | 16.1% (n=5)                | 19.4% (n=6)                          | 0.0% (n=0)                | 9.7% (n=3)           | 3.2% (n=1)             |
| 11–49                                   | 12.9% (n=4)                   | 19.4% (n=6)                | 19.4% (n=6)                          | 0.0% (n=0)                | 16.1% (n=5)          | 6.5% (n=2)             |
| 50+                                     | 6.5% (n=2)                    | 9.7% (n=3)                 | 9.7% (n=3)                           | 0.0% (n=0)                | 3.2% (n=1)           | 0.0% (n=0)             |

**Table S3** Average performance metrics by years of experience

| Years of experience | aScope™<br>5 Broncho HD | aScope™<br>4 Broncho | Exalt™<br>Model B | H-SteriScope™ | B-Flex™ | B-Flex™ 2 |
|---------------------|-------------------------|----------------------|-------------------|---------------|---------|-----------|
| 0–1 (n=8)           | 4.50                    | 3.93                 | 4.07              | 4.13          | 3.29    | 3.57      |
| P value             | –                       | 0.04                 | 0.09              | 0.16          | <0.001  | 0.02      |
| 1–5 (n=12)          | 4.36                    | 3.93                 | 4.15              | 4.17          | 3.43    | 3.78      |
| P value             | –                       | 0.02                 | 0.12              | 0.23          | <0.001  | 0.01      |
| 5+ (n=11)           | 4.58                    | 3.81                 | 4.09              | 3.60          | 3.07    | 3.08      |
| P value             | –                       | 0.01                 | 0.03              | <0.001        | <0.001  | 0.01      |

**Table S4** Overall sampling regression variables

| Variable              | Value  | Standard error | t value | P value | Odds ratio             |
|-----------------------|--------|----------------|---------|---------|------------------------|
| Years of experience   |        |                |         |         |                        |
| 1 to 5                | –0.78  | 0.92           | –0.85   | 0.40    | 0.459                  |
| 6+                    | –2.45  | 1.30           | –1.89   | 0.06    | 0.086                  |
| Meeting of physicians |        |                |         |         |                        |
| Midwest hospital      | –26.17 | 0.47           | –55.77  | 0.00    | 1.25×10 <sup>–12</sup> |
| Southern hospital     | –25.11 | 0.57           | –44.38  | 0.00    | 3.47×10 <sup>–11</sup> |

AIC: 57.02828. Hosmer-Lemeshow:  $\chi^2=2.3022$ , df =8, P value =0.9703.

**Table S5** Overall sampling assessment comparison: subgroup analysis by location

| Metric                                                                                | aScope™ 5<br>Broncho HD (n=31) | aScope™ 4<br>Broncho (n=31) | Exalt™ Model<br>B (n=31) | H-SteriScope™<br>(n=31) | B-Flex™<br>(n=31) | B-Flex™ 2<br>(n=24) |
|---------------------------------------------------------------------------------------|--------------------------------|-----------------------------|--------------------------|-------------------------|-------------------|---------------------|
| Overall population                                                                    |                                |                             |                          |                         |                   |                     |
| Overall sampling assessment/score                                                     | 4.45                           | 4.10                        | 3.94                     | 3.90                    | 2.81              | 3.38                |
| P value                                                                               | –                              | 0.03                        | 0.005                    | 0.001                   | <0.001            | <0.001              |
| Overall population without participants from meeting of interventional pulmonologists |                                |                             |                          |                         |                   |                     |
| Overall sampling assessment/score                                                     | 4.29                           | 4.00                        | 4.00                     | 4.17                    | 2.83              | 3.38                |
| P value                                                                               | –                              | 0.10                        | 0.10                     | 0.09                    | <0.001            | <0.001              |