

Comparison of the Lung Flute® versus the Acapella®

Methodology

Fourteen participants in the high-risk group of clinical trial NCT00894127 had previously used the Lung Flute® in order to produce a sputum sample. Only two subjects were not able to produce a sample. However, none of the samples produced by the Lung Flute® were deemed to have come from deep inside the lung, based on the PAP stain analysis. These participants were asked to produce another sample using the Acapella® device.

Results

As can be seen from **Table 1**, the volumes of the sputum samples produced with the two devices are not significantly different: 5.2 (\pm 4.0) ml for the Lung Flute® and 6.6 (\pm 6.7) ml for the Acapella®. However, only two of the 14 samples produced with the Acapella® were inadequate, as opposed to all 14 with the Lung Flute®.

Table 1. Comparative analysis of sputum samples obtained by Lung Flute and Acapella

Part. ID #	Lung Flute®		Acapella®	
	Volume (ml)	Adequate*	Volume (ml)	Adequate*
15	< 5	No	1	Yes
16	0	N/A	5	Yes
19	0	N/A	0.5	No
47	< 5	No	1	Yes
61	1.5	No	3	Yes
89	10	No	2	Yes
107	8	No	5	Yes
110	10	No	20	Yes
111	< 0.5	No	4	Yes
112	4	No	20	Yes
117	8	No	10	Yes
118	8	No	1	Yes
119	10	No	10	No

* One PAP-stained slide of each sample was evaluated for the presence of macrophages; when five or more macrophages were present, the sample was deemed adequate (i.e., from deep inside the lung).