

## Supplementary Online Content

**eTable 1. Voice Prostheses Examined by Category**

<b>Voice Prosthesis Type</b>	<b>Voice Prosthesis Category</b>
Bivona Duckbill	Non-Indwelling
Bivona Ultra Low	Non-Indwelling
Blom-Singer Duckbill	Non-Indwelling
Blom-Singer Low Pressure	Non-Indwelling
Provox® NiD	Non-Indwelling
Blom-Singer Indwelling	Indwelling
Blom-Singer Indwelling – Increased Resistance	Indwelling (Specialty)
Blom-Singer Standard Enlarged Flange	Indwelling (Specialty)
Blom-Singer® Advantage®	Indwelling (Specialty)
Provox® Vega	Indwelling
Provox®2	Indwelling
Provox® ActiValve®	Indwelling (Specialty)

**eTable 2. VP Sizes**

<b>Variable</b>	<b>n = 3,648</b>	
	<b>No.</b>	<b>%</b>
VP Diameter		
16 Fr	358	9.8
17 Fr	135	3.7
20 Fr	2,005	55.0
22.5 Fr	1,150	31.5
VP Length		
4 mm	23	0.6
4.5 mm	52	1.4
5 mm	39	1.1
6 mm	567	15.5
7 mm	23	0.6
8 mm	1,202	33.0
9 mm	20	0.6
10 mm	972	26.6
11 mm	18	0.5
12 mm	254	7.0
12.5 mm	131	3.6
13 mm	1	0.0
14 mm	144	4.0
15 mm	38	1.0
16 mm	20	0.6
18 mm	111	3.0
22 mm	23	0.6
25 mm	7	0.2
28 mm	3	0.1

**eTable 3. Device Life Stratified by VP Type**

<b>Variable</b>	<b>Median (range)</b>	<b>Mean (SD)</b>
<b>VP Type</b>		
Smiths Medical		
Bivona Duckbill	7 (1-175)	33 (58)
Bivona Ultra Low	20 (5-119)	31 (29)
InHealth Technologies		
Blom-Singer Duckbill	18 (2-34)	18 (16)
Blom-Singer Low Pressure	33 (1-522)	60 (75)
Blom-Singer Indwelling	59 (1-816)	86 (87)
Blom-Singer Indwelling Standard Enlarged Flange	42 (1-469)	71 (83)
Blom-Singer® Advantage®	67 (1-760)	97 (112)
Atos Medical		
Provox® NiD	47 (1-362)	63 (58)
Provox® Vega	45 (3-138)	53 (32)
Provox®2	77 (1-764)	100 (84)
Provox® ActiValve®	161 (7-567)	192 (166)
<b>VP Category</b>		
Non-Indwelling	38 (1-522)	59 (64)
Indwelling	70 (1-816)	94 (86)
Specialty Indwelling	61 (1-760)	92 (98)
Custom	44 (1-740)	70 (84)
<b>Reason for removal</b>		
Complication	28 (1-816)	57 (78)
Leakage	64 (1-672)	89 (82)
Other	61 (1-764)	92 (103)
<b>Surgery</b>		
Total laryngectomy	62 (1-816)	86 (85)
Total laryngectomy with partial pharyngectomy	57 (1-672)	84 (88)
Total laryngopharyngectomy	56 (1-533)	96 (102)
<b>Reconstruction</b>		
Circumferential	56 (1-533)	96 (102)
Patch	53 (1-572)	74 (75)
None	63 (1-816)	89 (88)
<b>Radiation</b>		
Pre-operative	61 (1-764)	89 (86)
Post-operative	57 (1-672)	80 (80)
Both	49 (1-223)	71 (57)
None	66 (1-816)	96 (105)

Abbreviations: SD, standard deviation; VP, voice prosthesis.

**eFigure. Device life stratified by reason for prosthesis removal (n=3648 voice prostheses)**

