

Supplementary Table 2. The predicted internal diameter and depth of the endotracheal tubes using the gradient-boosted regression tree models based on the representative demographic values.

Age (years)	Sex	Weight (kg)	Height (cm)	Cuffed ETT		Uncuffed ETT	
				Predicted ID (mm)	Predicted depth (cm)	Predicted ID (mm)	Predicted depth (cm)
1	M	8.1	71.8	3.5	11.8	4	11.9
1	M	8.6	73.3	3.5	11.8	4	12.0
1	M	9	74.1	3.5	11.8	4	12.0
1	M	9.6	75.7	3.5	12.0	4	12.1
1	M	10.4	77.4	4	12.2	4	12.3
1	M	10.8	78.2	4	12.2	4.5	12.5
1	M	11.5	79.7	4	12.3	4.5	12.5
2	M	10.1	82.1	4	13.1	4.5	13.0
2	M	10.8	83.9	4	13.1	4.5	13.1
2	M	11.3	85.1	4	13.2	4.5	13.1
2	M	12.2	87.1	4	13.3	4.5	13.3
2	M	13.1	89.2	4	13.3	4.5	13.6
2	M	13.7	90.3	4	13.3	4.5	13.6
2	M	14.7	92.1	4	13.4	4.5	13.8
3	M	12.6	90.5	4.5	13.9	5	13.9
3	M	13.3	92.6	4.5	14.1	5	14.0
3	M	13.8	93.9	4.5	14.2	5	14.1
3	M	14.7	96.5	4.5	14.2	5	14.2
3	M	15.7	99.2	4.5	14.4	5	14.4
3	M	16.3	100.7	4.5	14.4	5	14.5
3	M	17.3	103.4	4.5	14.5	5	14.7
4	M	14.2	96.5	4.5	14.2	5	14.4
4	M	15.1	98.9	4.5	14.4	5	14.6
4	M	15.6	100.3	4.5	14.4	5	14.7
4	M	16.8	103.1	4.5	14.5	5	14.8
4	M	18.1	105.9	4.5	14.7	5.5	15.0
4	M	18.9	107.5	4.5	14.8	5.5	15.0
4	M	20.4	110.1	5	15.1	5.5	15.4
5	M	15.8	102.5	5	15.0	5.5	14.9
5	M	16.8	105.1	5	15.2	5.5	15.1
5	M	17.5	106.7	5	15.3	5.5	15.1
5	M	19	109.6	5	15.6	5.5	15.4
5	M	20.6	112.6	5	15.8	5.5	15.7

5	M	21.6	114.2	5	15.8	5.5	15.8
5	M	23.5	116.9	5.5	16.0	5.5	15.9
6	M	17.5	108.4	5	15.5	5.5	15.4
6	M	18.8	111.2	5	15.7	5.5	15.7
6	M	19.6	112.8	5	15.9	6	15.8
6	M	21.3	115.9	5	16.0	6	16.1
6	M	23.4	119.1	5.5	16.1	6	16.2
6	M	24.7	120.8	5.5	16.2	6	16.3
6	M	27.2	123.8	5.5	16.6	6	16.4
7	M	19.5	114.2	5.5	16.0	6	16.0
7	M	21	117	5.5	16.1	6	16.2
7	M	22	118.8	5.5	16.1	6	16.2
7	M	24.2	122.1	5.5	16.5	6	16.5
7	M	26.9	125.4	5.5	16.7	6	16.7
7	M	28.5	127.3	5.5	16.8	6	16.8
7	M	31.7	130.5	5.5	17.2	6	17.1
8	M	21.6	119.6	5.5	16.6	6	16.5
8	M	23.5	122.6	5.5	17.0	6	16.7
8	M	24.8	124.4	6	17.0	6	16.7
8	M	27.5	127.9	6	17.2	6	17.1
8	M	30.8	131.4	6	17.5	6.5	17.2
8	M	32.9	133.3	6	17.6	6.5	17.4
8	M	36.9	136.6	6	17.5	6.5	17.4
9	M	23.8	124.8	6	17.3	6.5	16.9
9	M	26.3	127.9	6	17.5	6.5	17.2
9	M	27.9	129.8	6	17.5	6.5	17.3
9	M	31.3	133.4	6	17.7	6.5	17.7
9	M	35.4	137.1	6	17.9	6.5	17.7
9	M	37.9	139.1	6	18.1	6.5	17.7
9	M	42.6	142.5	6	18.4	6.5	17.9
10	M	26.3	129.7	6	17.6	6.5	17.5
10	M	29.3	133	6	17.9	6.5	18.0
10	M	31.3	135	6	17.9	6.5	18.0
10	M	35.5	138.8	6	18.2	6.5	18.0
10	M	40.4	142.8	6	18.4	6.5	18.1
10	M	43.3	145	6	18.5	6.5	18.5
10	M	48.8	148.7	6	18.8	6.5	18.5
11	M	29.1	134.6	6	17.8	6	18.0
11	M	32.8	138.3	6	18.2	6	18.0

11	M	35.2	140.5	6	18.2	6	18.1
11	M	40.2	144.7	6	18.5	6	18.1
11	M	45.9	149	6.5	18.9	6	18.7
11	M	49.3	151.4	6.5	19.0	6	18.7
11	M	55.5	155.5	6.5	19.1	6.5	19.5
12	M	32.4	139.9	6	18.5	6	18.1
12	M	36.8	144.1	6	18.6	6	18.1
12	M	39.6	146.7	6	19.0	6	18.2
12	M	45.4	151.4	6.5	19.1	6	18.6
12	M	51.9	156.2	6.5	19.4	6.5	18.7
12	M	55.7	158.7	6.5	19.7	6.5	18.7
12	M	62.6	163	6.5	19.9	6.5	20.0
1	F	7.3	69.8	3.5	11.5	4	11.5
1	F	7.9	71.3	3.5	11.7	4	11.7
1	F	8.2	72.3	3.5	11.8	4	11.7
1	F	8.9	74	3.5	11.8	4	11.9
1	F	9.7	75.8	3.5	12.0	4	12.1
1	F	10.2	76.7	4	12.1	4	12.2
1	F	11	78.3	4	12.3	4.5	12.3
2	F	9.4	80.4	4	12.9	4.5	12.7
2	F	10.1	82.4	4	13.1	4.5	12.8
2	F	10.6	83.5	4	13.1	4.5	12.8
2	F	11.5	85.7	4	13.2	4.5	13.0
2	F	12.5	87.9	4	13.3	4.5	13.2
2	F	13.1	89.1	4	13.3	4.5	13.4
2	F	14.2	91	4	13.4	4.5	13.5
3	F	12	89	4.5	13.9	5	13.5
3	F	12.8	91.4	4.5	13.9	5	13.7
3	F	13.3	92.8	4.5	14.1	5	13.8
3	F	14.2	95.4	4.5	14.2	5	14.0
3	F	15.2	98.1	4.5	14.3	5	14.2
3	F	15.7	99.5	4.5	14.4	5	14.2
3	F	16.6	102	4.5	14.4	5	14.4
4	F	13.6	95.4	4.5	14.2	5	14.1
4	F	14.5	97.7	4.5	14.2	5	14.3
4	F	15.1	99.2	4.5	14.4	5	14.4
4	F	16.3	101.9	4.5	14.4	5	14.5
4	F	17.6	104.7	4.5	14.6	5.5	14.7
4	F	18.3	106.2	4.5	14.7	5.5	14.8

4	F	19.7	108.8	5	15.1	5.5	14.9
5	F	15.3	101.7	5	15.0	5.5	14.6
5	F	16.3	104.1	5	15.1	5.5	14.8
5	F	17	105.6	5	15.2	5.5	14.8
5	F	18.4	108.4	5	15.4	5.5	15.0
5	F	20	111.3	5	15.7	5.5	15.4
5	F	21	112.9	5	15.8	5.5	15.5
5	F	22.9	115.6	5.5	16.0	5.5	15.7
6	F	16.9	107.6	5	15.4	5.5	15.0
6	F	18.1	110.2	5	15.5	5.5	15.3
6	F	18.9	111.8	5	15.7	5.5	15.5
6	F	20.7	114.7	5	15.9	6	15.8
6	F	22.7	117.8	5.5	16.1	6	15.8
6	F	24	119.4	5.5	16.1	6	16.0
6	F	26.5	122.2	5.5	16.6	6	16.1
7	F	18.7	113.2	5.5	15.8	6	15.6
7	F	20.2	116	5.5	16.0	6	15.9
7	F	21.2	117.6	5.5	16.1	6	16.0
7	F	23.4	120.8	5.5	16.3	6	16.2
7	F	26	124.1	5.5	16.6	6	16.3
7	F	27.6	125.9	5.5	16.8	6	16.5
7	F	30.9	128.9	5.5	16.8	6	16.8
8	F	20.7	118.6	5.5	16.4	6	16.2
8	F	22.6	121.5	5.5	16.8	6	16.4
8	F	23.9	123.2	5.5	17.0	6	16.5
8	F	26.6	126.7	6	17.2	6	16.8
8	F	29.8	130.2	6	17.5	6.5	17.1
8	F	31.8	132.2	6	17.5	6.5	17.2
8	F	35.8	135.7	6	17.6	6.5	17.3
9	F	23.1	124	6	17.3	6	16.8
9	F	25.4	127.1	6	17.4	6.5	17.1
9	F	26.9	129	6	17.5	6.5	17.2
9	F	30.2	132.6	6	17.7	6.5	17.5
9	F	34.1	136.5	6	17.9	6.5	17.7
9	F	36.6	138.7	6	18.1	6.5	17.7
9	F	41.4	142.5	6	18.3	6.5	17.6
10	F	25.8	129.5	6	17.4	6.5	17.4
10	F	28.6	133	6	17.8	6.5	17.8
10	F	30.4	135.1	6	17.9	6.5	18.0

10	F	34.4	139.1	6	18.2	6.5	18.0
10	F	39.1	143.3	6	18.4	6.5	18.1
10	F	42	145.6	6	18.4	6.5	18.2
10	F	47.5	149.6	6	18.7	6.5	18.7
11	F	28.9	135.3	6	17.9	6	17.8
11	F	32.2	139.2	6	18.2	6	18.0
11	F	34.5	141.5	6	18.2	6	18.1
11	F	39.1	145.8	6	18.7	6	18.2
11	F	44.4	150	6.5	18.9	6	18.7
11	F	47.7	152.3	6.5	18.9	6.5	18.7
11	F	53.7	156.1	6.5	19.1	6.5	19.0
12	F	32.5	141.1	6	18.5	6	18.1
12	F	36.2	145.1	6	18.7	6	18.2
12	F	38.7	147.5	6	18.9	6	18.2
12	F	43.7	151.7	6.5	19.1	5.5	18.6
12	F	49.5	155.7	6.5	19.4	6	18.6
12	F	52.8	157.8	6.5	19.7	6.5	18.1
12	F	59.1	161.3	6.5	19.9	6.5	19.6

ETT, endotracheal tube; ID, internal diameter.