

Variable	% answered	Total number expected	Total number completed	Number missing
Age	100	1605	1605	0
Gender	100	1605	1604	1
COVID status	100	1605	1599	6
Method of tracheostomy	100	1605	1598	7
Mortality	100	1605	1601	4
Wean from ventilator	100	1326	1320	6
CRP before tracheostomy	99	1605	1583	22
Location of tracheostomy	99	1605	1594	11
Surgical specialty performing operation	99	1605	1588	17
Intraoperative complications	99	1605	1581	24
Discharge from hospital within 28 days	99	1326	1315	11
Intubation to tracheostomy (days)	98	1605	1565	40
Inotropic support	98	1605	1565	40
Indication for tracheostomy	98	1605	1569	36
Neck factors affecting tracheostomy	98	1605	1567	38
Use of PPE - mask use	98	1605	1578	27
FiO2 on day of tracheostomy	97	1605	1549	56
Cause of death	97	299	291	8
COVID-19 amongst operators	97	1605	1558	47
PEEP on day of tracheostomy	96	1605	1533	72
Guidance method for perc tracheostomy	96	771	736	35
Co-morbidities	95	1605	1521	84
Admission to intubation (days)	95	1605	1518	87
Use of NIV	95	1605	1525	80
Postoperative complications before wean	95	1605	1530	75
Total length of critical care in non-survivors	95	279	264	15
Type of tracheostomy tube	94	1605	1509	96
Temperature before tracheostomy	92	1605	1481	124
P02 on day of tracheostomy	92	1605	1480	125
Outcome of last test	91	1605	1455	150
BMI	90	1605	1437	168
Number of tests	90	1605	1441	164
Time from test to tracheostomy (days)	90	1605	1451	154
Tracheostomy decannulation	90	1326	1195	131
Time from tracheostomy to wean	88	1326	1164	162
Postoperative complications after wean	86	1326	1142	184
Total length of critical care in survivors	85	1326	1121	205

**Supplementary Table 1.** Data completeness for each variable examined with total number of missing answers.

	Survived (n=1319)	Died (n=286)
Age		
<30	22 (88.0%)	3 (12.0%)
30-49	293 (89.6%)	34 (10.4%)
50-69	854 (82.9%)	176 (17.1%)
70+	150 (67.3%)	73 (32.7%)
Sex		
Male	909 (81.0%)	213 (19.0%)
Female	409 (84.9%)	73 (15.1%)
Missing	1	0
Body Mass Index		
<18.5	12 (92.3%)	1 (7.7%)
18.5-25	286 (80.6%)	69 (19.4%)
25-30	395 (82.6%)	83 (17.4%)
30-40	391 (83.5%)	77 (16.5%)
40+	109 (89.3%)	13 (10.7%)
Missing	126	43
Number of Comorbidities		
None	390 (82.3%)	84 (17.7%)
One	458 (81.3%)	105 (18.7%)
Two or more	471 (82.9%)	97 (17.1%)
CRP	112.0 (84.6)	151.4 (98.4)
Missing	19	3
Downward CRP		
No	388 (77.4%)	113 (22.6%)
Yes	904 (84.5%)	166 (15.5%)
Missing	27	7
Anticoagulant		
No	700 (84.7%)	126 (15.3%)
Yes	546 (78.2%)	152 (21.8%)
Missing	73	8
Inotropic support		
No	833 (86.9%)	126 (13.1%)
Yes	456 (75.2%)	150 (24.8%)
Missing	30	10
Use of NIV		
No	721 (82.5%)	153 (17.5%)
Yes	535 (82.2%)	116 (17.8%)
Missing	63	17
Days of ventilation before tracheostomy		
<= 7	99 (63.1%)	58 (36.9%)
8 to 12	293 (80.1%)	73 (19.9%)
> 12	895 (86.0%)	146 (14.0%)
Missing	32	9
FiO2 requirement	38.5 (11.1)	46.7 (13.7)
Missing	47	9
PO2 requirement	10.9 (7.1)	11.2 (10.6)
Missing	112	13
PEEP setting	7.9 (2.4)	8.9 (2.1)
Missing	59	13
Method of tracheostomy		
Open	681 (85.6%)	115 (14.4%)
Percutaneous	614 (79.6%)	157 (20.4%)
Missing / Hybrid	24	14

**Supplementary Table 2.** Baseline and demographic characteristics by mortality. Values are either N (%) or mean (SD)

Varibale	N	Days (n=1165)	P
Age			<0.001
<30	18	8.5 (7 to 12)	
30-49	260	10 (6 to 15)	
50-69	753	12 (7 to 18)	
70+	134	13 (8 to 23)	
Sex			<0.001
Male	798	12 (7 to 19)	
Female	366	9.5 (6 to 16)	
Missing	1		
Body Mass Index			0.023
<18.5	12	11 (6 to 22)	
18.5-25	260	13 (7 to 22)	
25-30	356	11 (7 to 17.5)	
30-40	349	11 (7 to 17)	
40+	97	10 (7 to 15)	
Missing	91		
Number of Comorbidities			0.521
None	351	11 (6 to 18)	
One	394	12 (7 to 18)	
Two or more	420	11 (7 to 17)	
CRP	1152	0.11	<0.001
Missing	13		
Downward CRP			0.574
No	338	12 (7 to 19)	
Yes	807	11 (7 to 18)	
Missing	20		
Anticoagulant			<0.001
No	628	10 (6 to 16)	
Yes	492	12 (8 to 21)	
Missing	45		
Inotropic support			0.002
No	757	11 (6 to 18)	
Yes	389	12 (8 to 19)	
Missing	19		
Use of NIV			<0.001
No	644	10 (6 to 17)	
Yes	486	12 (8 to 20)	
Missing	35		
Days of ventilation before tracheostomy			0.107
<= 7	83	12 (7 to 17)	
08-Dec	265	11 (7 to 18)	
> 12	810	11 (7 to 18)	
Missing	7		
FiO2 requirement	1145	0.21	<0.001
Missing	20		
PO2 requirement	1096	-0.07	0.022
Missing	69		
PEEP setting	1136	0.17	<0.001
Missing	29		
Method of tracheostomy			0.096
Open	586	11 (6 to 18)	
Percutaneous	557	12 (7 to 18)	
Missing / Hybrid	22		

**Supplementary Table 3.** Days to Wean Success. Values are Spearman correlation coefficient or median (inter-quartile range). P-values are from either spearman correlation or Kruskal-Wallis test.