

Supplementary Table 1 Summary of further diagnosis, treatment and examination results of 23 patients with respiratory complications.

Number	Auxiliary examination items	Examination results				Treatment	
		WBC count × 10 ⁹ /L	CRP (mg/L)	PCT (ng/mL)	Chest CT		
1	Blood count, CRP, PCT, chest CT	15.2	47	1.28	Left lung inflammation	Antibiotics, glucocorticoids, antipyretics, expectorants, acid suppression	
2	Blood count, CRP, PCT, chest CT	11.5	21	0.34	No significant abnormality	Antibiotics, expectorants	
3	Blood count, CRP, PCT, chest CT	13.4	33	0.56	No significant abnormality	Antibiotics, antipyretics, expectorants	
4	Blood count, CRP, PCT, chest CT	10.8	40	0.52	No significant abnormality	Expectorants	
5	Blood count, CRP, PCT	12.3	39	0.91	-	Antibiotics, antipyretics, expectorants	
6	Blood count, CRP, PCT	12.2	24	0.42	-	Antibiotics, expectorants	
7	Blood count, CRP, PCT	10.4	20	0.12	-	Antibiotics	
8	Blood count, CRP, PCT	7.3	18	0.08	-	Antibiotics	

9	Blood count, CRP, PCT	11.2	29	0.15	-	Antibiotics
10	Blood count, CRP, PCT	12.8	35	0.12	-	Antibiotics, antipyretics, expectorants
11	Blood count, CRP, PCT	13.3	34	0.68	-	Antibiotics, antipyretics, expectorants
12	Blood count, CRP, PCT	9.7	23	0.1	-	Antibiotics
13	Blood count, CRP, PCT	9.8	31	0.41	-	Antibiotics
14	Blood count, CRP, PCT	10.1	35	0.23	-	Expectorants
15	Blood count, CRP, PCT	8.2	32	0.08	-	Expectorants
16	Blood count, CRP, PCT	11.8	27	0.69	-	Antibiotics, expectorants
17	Blood count, CRP, PCT	12.5	40	0.73	-	Antibiotics, expectorants
18	Blood count, CRP, PCT	12.1	38	0.55	-	Antibiotics, expectorants
19	Blood count, CRP	8.8	20	-	-	Expectorants
20	Blood count, CRP	7.3	14	-	-	Expectorants
21	Blood count, CRP	10.2	23	-	-	Antibiotics
22	Blood count	10.8	19	-	-	Antibiotics

	CRP					
23	Blood count, 9.3	12	-	-		Expectorants
	CRP					

"-" indicates no data; CRP: C-reactive protein; PCT: Procalcitonin; WBC: White blood cell; CT: Computed tomography.

Supplementary Table 2 Baseline characteristics of the study population before matching weighting, *n* (%)/mean $\pm$ SD

Variables	Total (<i>n</i> = 7230)	MAC		<i>P</i> value	SMD
		MS (1531)	DS/GA (5699)		
Age (years)	52.1 $\pm$ 12.7	53.1 $\pm$ 13.1	51.9 $\pm$ 12.6	< 0.001	0.095
Sex				0.002	
Male	3579 (49.5)	812 (53.0)	2767 (48.6)		0.090
Female	3651 (50.5)	719 (47.0)	2932 (51.4)		0.090
BMI (kg/m ²)	24.7 $\pm$ 3.4	25.4 $\pm$ 4.4	24.5 $\pm$ 3.1	< 0.001	0.243
ASA classification				< 0.001	
I	3012 (41.7)	452 (29.5)	2560 (44.9)		0.323
II	3605 (49.9)	802 (52.4)	2803 (49.2)		0.064
$\geq$ III	613 (8.5)	277 (18.1)	336 (5.9)		0.370
Smoker	271 (3.7)	76 (5.0)	195 (3.4)	0.005	0.077
Alcohol drinker	311 (4.3)	70 (4.6)	241 (4.2)	0.557	0.017
Underlying pulmonary disease					
Asthma	82 (1.1)	43 (2.8)	39 (0.7)	< 0.001	0.163
COPD	93 (1.3)	33 (2.2)	60 (1.1)	< 0.001	0.088
Cardiovascular disease					
Hypertension	1604 (22.2)	382 (25.0)	1222 (21.4)	0.003	0.083
Heart disease	602 (8.3)	258 (16.9)	344 (6.0)	< 0.001	0.054

Neurological diseases					
Cerebrovascular	104 (1.4)	60 (3.9)	44 (0.8)	< 0.001	0.209
Depression	39 (0.5)	0 (0.0)	39 (0.7)	0.001	0.117
Diabetes mellitus	683 (9.4)	164 (10.7)	519 (9.1)	0.057	0.054
Gastrointestinal disorders					
GERD	541 (7.5)	355 (23.2)	186 (3.3)	< 0.001	0.615
Hiatus hernia	84 (1.2)	46 (3.0)	38 (0.7)	< 0.001	0.175
Gastrointestinal ulcer	343 (4.7)	107 (7.0)	236 (4.1)	< 0.001	0.124
Surgical history					
Upper gastrointestinal surgery	176 (2.4)	130 (8.5)	46 (0.8)	< 0.001	0.371
Colorectal surgery	324 (4.5)	80 (5.2)	244 (4.3)	0.113	0.044
Pulmonary surgery	153 (2.1)	37 (2.4)	116 (2.0)	0.357	0.026
Oral-pharyngeal surgery	40 (0.6)	32 (2.1)	8 (0.1)	< 0.001	0.186
Intraoperative respiratory adverse events					
Severe cough	51 (0.7)	9 (0.6)	42 (0.7)	0.536	0.018
Regurgitation and aspiration	12 (0.2)	0 (0.0)	12 (0.2)	0.083	0.079
Hypoxemia	215 (3.0)	39 (2.5)	176 (3.1)	0.269	0.034
Procedure type				0.063	
Combined	5465 (75.6)	1123 (73.4)	4342 (76.2)		0.065
EGD	1059 (14.6)	249 (16.3)	810 (14.2)		0.057
Colonoscopy	706 (9.8)	159 (10.4)	547 (9.6)		0.026
Procedure time				0.102	
< 10 minutes	1425 (19.7)	326 (21.3)	1099 (19.3)		0.050
10-30 minutes	5159 (71.4)	1059 (69.2)	4100 (71.9)		0.061

> 30 minutes	646 (8.9)	146 (9.5)	500 (8.8)	0.025
--------------	-----------	-----------	-----------	-------

ASA: American Society of Anesthesiologists; BMI: Body mass index; COPD: Chronic obstructive pulmonary disease; EGD: Esophagogastroduodenoscopy; GERD: Gastroesophageal reflux disease; MAC: Monitored anesthesia care; SMD: Standardized mean difference; MS: Moderate sedation; DS: Deep sedation; GA: General anesthesia.

Supplementary Table 3 Baseline characteristics of the study population after matching weighting, *n* (%)/mean $\pm$ SD

Variables	Weighted Total (<i>n</i> = 2491.9)	MAC		<i>P</i> value	Weighted SMD
		MS (weighted, <i>n</i> = 1245.8)	DS/GA (weighted, <i>n</i> = 1246.1)		
Age (years)	52.7 $\pm$ 12.8	52.6 $\pm$ 13.1	52.9 $\pm$ 12.9	0.593	0.018
Sex				0.991	
Male	1292.1 (51.9)	646.1 (51.9)	646.0 (51.8)		0.000
Female	1199.7 (48.1)	599.7 (48.1)	600.1 (48.2)		0.000
BMI (kg/m ²)	25.2 $\pm$ 3.9	25.3 $\pm$ 4.5	25.2 $\pm$ 3.2	0.433	0.028
ASA classification				0.992	
I	834.4 (33.5)	418.1 (33.6)	416.4 (33.4)		0.003
II	1319.3 (52.9)	659.5 (52.9)	659.9 (53.0)		0.000
$\geq$ III	338.1 (13.6)	168.3 (13.5)	169.9 (13.6)		0.004
Smoker	111.9 (4.5)	56.0 (4.5)	55.9 (4.5)	0.994	0.000
Alcohol drinker	114.1 (4.6)	57.3 (4.6)	56.9 (4.6)	0.958	0.002
Underlying pulmonary disease					
Asthma	44.8 (1.8)	21.4 (1.7)	23.4 (1.9)	0.737	0.012
COPD	51.6 (2.1)	25.6 (2.1)	26.0 (2.1)	0.953	0.002
Cardiovascular disease					
Hypertension	604.4 (24.3)	302.7 (24.3)	301.7 (24.2)	0.954	0.002

Heart disease	363.1 (14.6)	179.4 (14.4)	183.7 (14.7)	0.778	0.010
Neurological diseases					
Cerebrovascular	56.8 (2.3)	29.0 (2.3)	27.9 (2.2)	0.864	0.006
Depression	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	< 0.001	0.000
Diabetes mellitus	267.4 (10.7)	132.7 (10.7)	134.7 (10.8)	0.880	0.005
Gastrointestinal disorders					
GERD	357.5 (14.3)	177.5 (14.3)	179.9 (14.4)	0.880	0.005
Hiatus hernia	42.8 (1.7)	22.5 (1.8)	20.3 (1.6)	0.678	0.014
Gastrointestinal ulcer	154.5 (6.2)	77.8 (6.2)	76.7 (6.2)	0.910	0.004
Surgical history					
Upper gastrointestinal surgery	91.0 (3.7)	45.3 (3.6)	45.7 (3.7)	0.962	0.002
Colorectal surgery	118.4 (4.8)	60.7 (4.9)	57.7 (4.6)	0.728	0.011
Pulmonary surgery	62.0 (2.5)	30.7 (2.5)	31.4 (2.5)	0.913	0.004
Oral-pharyngeal surgery	40 (0.6)	32 (2.1)	8.0 (0.1)	< 0.001	0.001
Intraoperative respiratory adverse events					
Severe cough	17.2 (0.7)	6.9 (0.6)	10.3 (0.8)	0.624	0.001
Regurgitation and aspiration	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	< 0.001	0.000
Hypoxemia	74.4 (3.4)	35.0 (3.3)	37.5 (3.5)	0.723	0.008
Procedure type				0.999	
Combined	1845.0 (74.0)	922.1 (74.0)	922.9 (74.1)		0.001
EGD	375.9 (15.1)	187.9 (15.1)	188.0 (15.1)		0.000
Colonoscopy	271.0 (10.9)	135.8 (10.9)	135.2 (10.8)		0.002
Procedure time				0.997	
< 10 minutes	510.6 (20.5)	256.7 (20.6)	254.0 (20.4)		0.006

10-30 minutes	1740.4 (69.8)	868.2 (69.7)	872.2 (70.0)	0.007
> 30 minutes	240.6 (9.5)	120.4 (9.5)	119.7 (9.4)	0.003

ASA: American Society of Anesthesiologists; BMI: Body mass index; COPD: Chronic obstructive pulmonary disease; EGD: Esophagogastroduodenoscopy; GERD: Gastroesophageal reflux disease; MAC: Monitored anesthesia care; SMD: Standardized mean difference; MS: Moderate sedation; DS: Deep sedation; GA: General anesthesia.