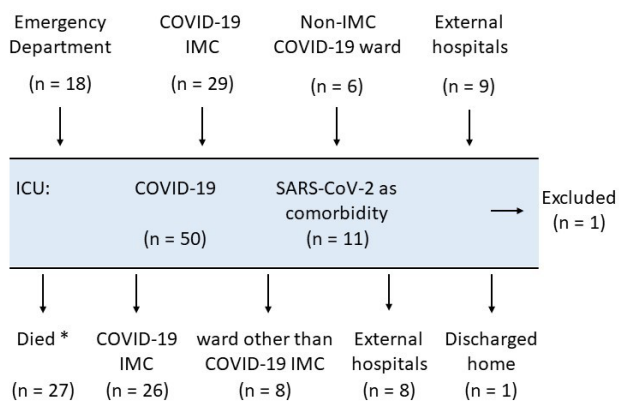


Supplementary



*: including n = 6 who died on ECMO in external hospital and n = 3 who died on ward after discharge from ICU

Figure S1 Admission and discharge of patients to and from ICU. One patient was excluded because the patient was transferred for weaning after survived COVID-19 infection. COVID-19, coronavirus disease 2019; ECMO, extracorporeal membrane oxygenation; ICU, intensive care unit; IMC, intermediate care unit.

Table S1 Tabulation for converting oxygen insufflation to FiO₂ in patients on NIV using the “3% formula”: FiO₂ (%) = 21% + flow (L/min) × 3%. pO₂ was measured to calculate pO₂/FiO₂ (Coudroy *et al.* 2020; Frat *et al.* 2015)

Non-invasive ventilation (NIV)	
O ₂ flow (L/min)	Estimated FiO ₂ (%)
1	24
2	27
3	30
4	33
5	36
6	39
7	42
8	45
9	48
10	51
11	54
12	57
13	60
14	63
15	66

FiO₂, inspiratory oxygen fraction; pO₂, partial pressure of oxygen.

Table S2 Tabulation for converting oxygen insufflation to FiO₂ in patients on nasal cannula (Marx R *et al.* 2013; DSG: <https://www.sepsis-gesellschaft.de/sepsisdefinition-und-kodierung/>)

Nasal cannula	
O ₂ flow (L/min)	Estimated FiO ₂ (%)
1	24
2	28
3	32
4	36
5	40
6	44

DSG, Deutsche Sepsis Gesellschaft; FiO₂, inspiratory oxygen fraction.

Table S3 Tabulation to estimate pO₂ from O₂ saturation (SO₂) (Marx R *et al.* 2013; DSG: <https://www.sepsis-gesellschaft.de/sepsisdefinition-und-kodierung/>)

SO ₂ (%)	Estimated pO ₂ (mmHg)
80	44
81	45
82	46
83	47
84	49
85	50
86	52
87	53
88	55
89	57
90	60
91	62
92	65
93	69
94	73
95	79
96	86
97	96
98	112
99	145

DSG, Deutsche Sepsis Gesellschaft.

Table S4 List of diagnoses established prior to ICU admission in COVID-19 (n=50)

Diagnoses	Percentage
Atrial fibrillation	26%
Obstructive sleep apnea syndrome (OSAS)	18%
Psychiatric and/or neurological diseases	18%
Malignancies/tumor	6%
Liver steatosis and/or cirrhosis	4%
Deep vein thrombosis (DVT) and/or pulmonary embolus	4%
Peptic ulcer	4%
Pituitary insufficiency	2%
Systemic lupus erythematosus	2%

COVID-19, coronavirus disease 2019; ICU, intensive care unit.