COVID-19 in Dutch Intensive Care Units;

Patient characteristics and outcomes

compared with pneumonia patients in the ICU from 2017-2019

Version 2021-12-07

This report has been made possible by the effort of all Dutch ICUs from:

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Introduction

Despite the increased workload in patient care, all hospitals have put great effort in registering the data concerning COVID-19 patients. By using the online data entry system of the National Intensive Care Evaluation (NICE) foundation a limited amount of data (e.g. admission and discharge date and the age of the patient) on all COVID-19 patients has been recorded. By linking this data to more extensive clinical data, which are being collected regular by the NICE registration, it becomes possible to provide more clarity about the important characteristics and outcomes of COVID-19 patients. Because these extensive clinical data are subsequently supplied in batches from the electronic health record (EHR), these are not yet available for every COVID-19 patient. This means, when reading this report, make sure the results concern an overview of all COVID-19 patients or of COVID-19 patients who are linked to the extensive clinical data.

From February 25, 2021, all individual episodes of patients who have had multiple proven COVID-19 episodes will be included. An episode is defined as a consecutive hospital admission period (in one or more hospitals) in which a patient has tested positive at any time. Once a patient is discharged from hospital and after more than three days is re-admitted to hospital with proven COVID-19, this new hospitalization will be considered as a new COVID-19 episode. This allows one patient to have multiple COVID-19 episodes. This report uses data from all recorded episodes.

This report will be updated frequently in order to include more COVID-19 patients and more clinical data in the analyses. When only a limited amount of episodes can be linked this could lead to bias: a distortion of the results can occur if the linked episodes differ from the non-linked episodes, for instance because the patients of linked episodes have been discharged relatively quickly, or because they died. If more data are available, there will be more certainty about the shown differences between time periods and the associations between patient characteristics and their outcomes.

The data included in this report has been processed by the compilers with the utmost care. The compiler cannot be held liable in any way for information that is nevertheless incomplete or incorrect.

In the table below the total number of admitted COVID-19 episodes, the COVID-19 episodes linked to the clinical data, and SARI patients are shown.

	Number of patients	**Number of hospitals**
All COVID-19 episodes	15685	72
Linked COVID-19 episodes	13622	72
SARI patients in 2017-2019	19849	80

Comparison COVID-19 with SARI

In this report, the data of the COVID-19 episodes will be compared with a group of patients who was admitted to a Dutch ICU with severe pneumonia between the period of 1 January 2017 till 31 December 2019. This group is being called Severe Acute Respiratory Infection (SARI). In this report, SARIs will be defined based on the following (APACHE IV) reasons of admission: Pulmonary sepsis; Viral pneumonia; Aspiration pneumonia; Bacterial pneumonia; Fungal pneumonia; Parasitic pneumonia (i.e. Pneumocystis pneumonia); Other pneumonia.

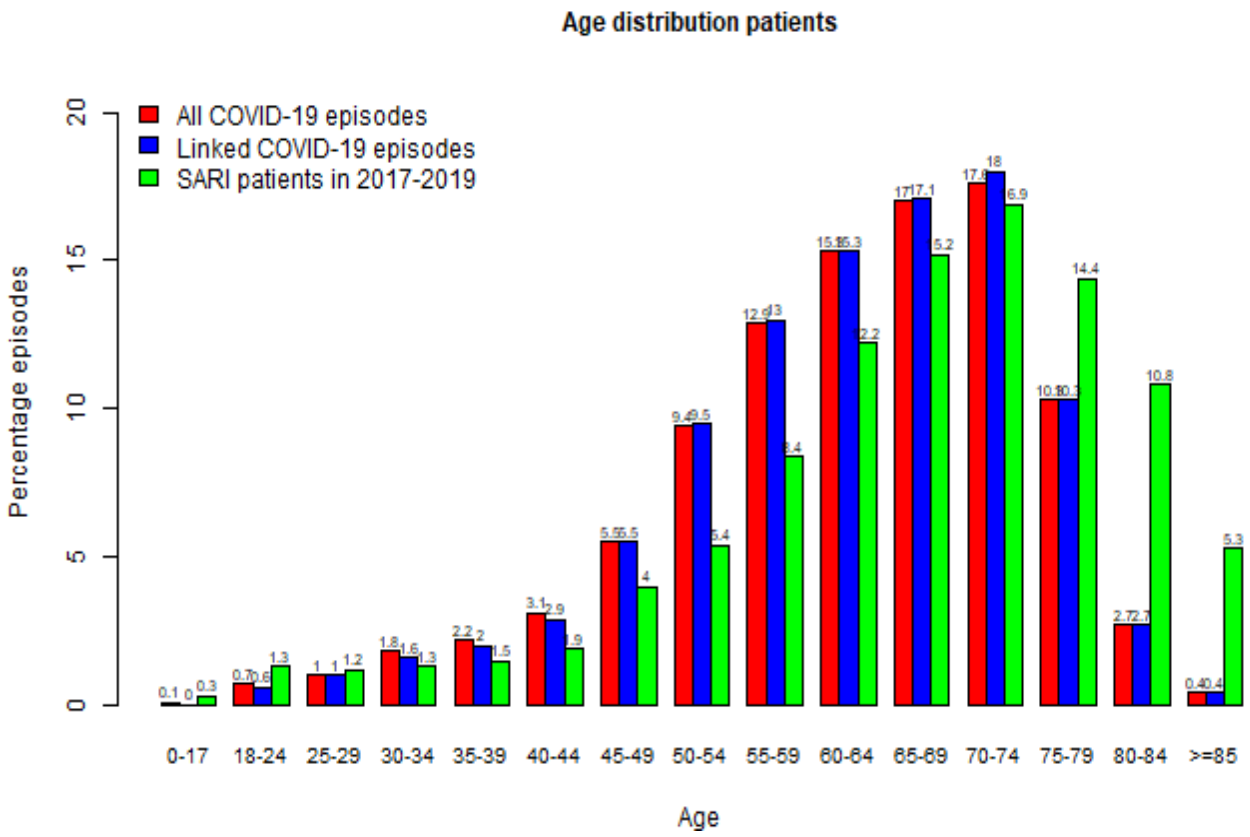
ICU length of stay

The table below shows the mean ICU length of stay of all COVID-19 episodes and admitted SARI patients, of the COVID-19 episodes of which the patients are still in the ICU, and of COVID-19 episodes and SARI patients who have been discharged recently split up into different discharge destinations. If a COVID-19 patient has been transferred to another ICU during the episode, all ICU length of stays will be added up together. The length of stay is calculated in days ((discharge date - admission date)+1).

	Number of COVID-19 episodes	**Mean length of stay (SD)**	**Number of SARI patients**	**Mean length of stay (SD)**
Patients who are currently being treated in the ICU *	610	16.3 (33.3)	0	-
Discharged to nursing ward in same or different hospital	10839	16.2 (17.9)	14109	5.9 (9.6)
Other discharge destination	507	18.7 (24.6)	2296	7.2 (11.2)
Died in the ICU	3728	18 (16.8)	3444	7.1 (10.5)
TOTAL	15685	16.7 (18.8)	19849	6.3 (10)

**N.B. For the COVID-19 episodes of which the patient is currently admitted, it concerns the ICU length of stay up till the moment that this report was generated and not the final total length of stay.*

The figure and table below show the age distribution of all COVID-19 episodes, the linked COVID-19 episodes and the SARI patients.

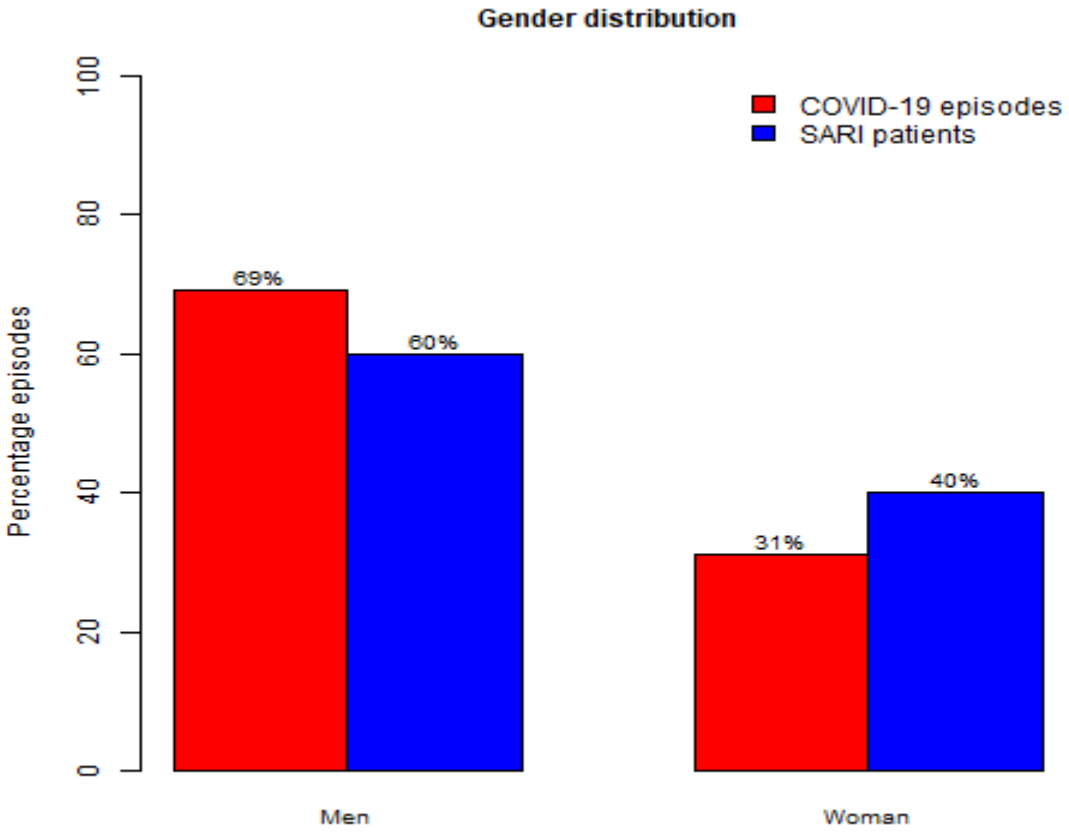


	Mean age (SD)
All COVID-19 episodes	62.1 (12.2)
Linked COVID-19 episodes	62.3 (12.0)
SARI patients in 2017-2019	66.3 (14.2)

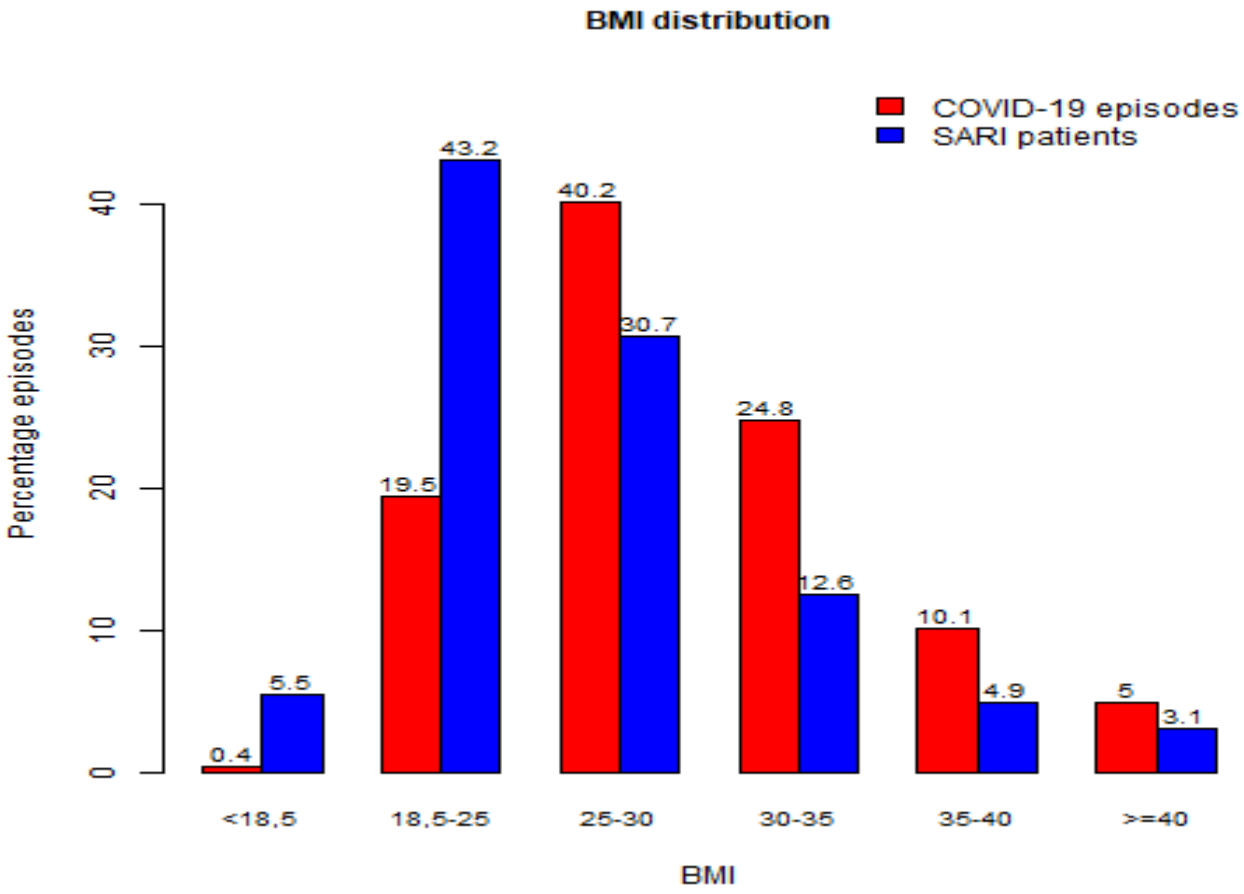
Patient characteristics

In the remainder of this report, the extensive data from the NICE registration will be used. Therefore, from here on, only the linked COVID-19 episodes will be included. This group will continuously be compared with the SARI patients who have been admitted to the ICU in the previous three years (2017-2019).

In the figure below the distribution of men and women in the linked COVID-19 episodes and the SARI patients is shown.



In the graph below, the BMI-distribution of the linked COVID-19 episodes and the SARI patients is shown.

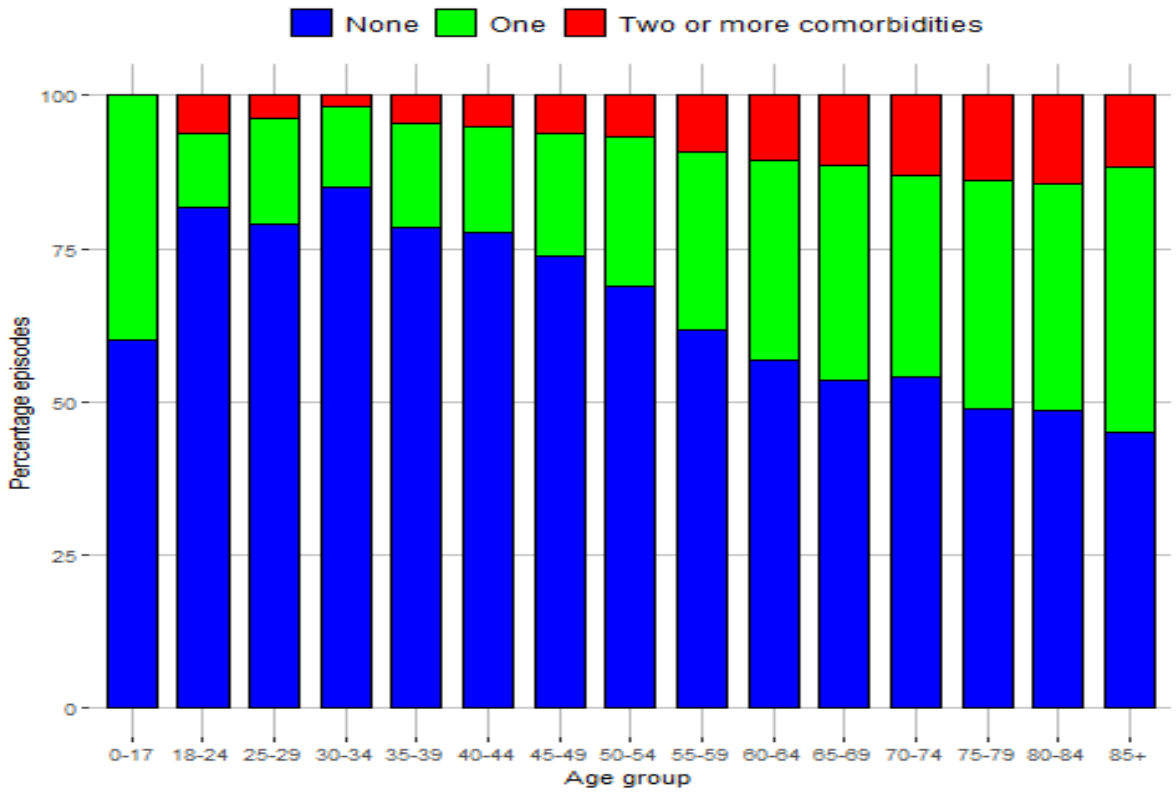


	Mean BMI (SD)
Linked COVID-19 episodes	29.6 (5.6)
SARI patients in 2017-2019	26.2 (6.0)

The table below shows for several different comorbidities (secondary diagnoses) the number and percentage of episodes of which the patient had the concerning comorbidity. Additionally, this table shows the number and percentage of episodes of which the patient were mechanically ventilated at ICU admission, and that were mechanically ventilated within the first 24 hours of ICU admission.

	COVID-19 episodes N(%)	**SARI patients N(%)**
COPD/Respiratory insufficiency	1699 (12.5)	7553 (38.1)
Renal failure	566 (4.2)	1725 (8.7)
Cirrhosis	57 (0.4)	238 (1.2)
Cardiovascular insufficiency	210 (1.5)	764 (3.8)
Malignancy/Haematological insufficiency	350 (2.6)	1962 (9.9)
Immunological insufficiency	1264 (9.3)	3815 (19.2)
Diabetes	3080 (22.6)	4009 (20.2)
Mechanically ventilated at ICU admission	4042 (29.7)	7952 (40.1)
Mechanically ventilated within the 1st 24 hours	8467 (62.2)	11163 (56.2)

In the graph below, the percentage of COVID-19 episodes of which the patient had no, one or more than one comorbidities are given for different age groups.



**Note since the report of 2020-12-10 diabetes is also counted as a comorbidity, as a result of this the percentage of episodes of which patient had one or more comorbidities may have increased compared to previous reports.*

Patient outcomes and determinants

In the table below important characteristics belonging to COVID-19 episodes of which the patient died are compared with COVID-19 episodes of which the patient survived.
N.B. This analysis excludes the episodes of which the patient is still admitted at the Intensive Care. However, the number of these episodes are being shown in the last column of the table.
The listed percentages should be read horizontally.

Per patient characteristic, the number and percentage of episodes of which the patient deceased and survived has been displayed. The column containing the P-value shows whether the differences between the episodes of deceased and survived patients are statistically significant. A P-value smaller than 0.05 shows that the presented differences are statistically significant (cannot be explained based on coincidence). A P-value of 0.05 or bigger means that the discovered differences are probably a coincidence.

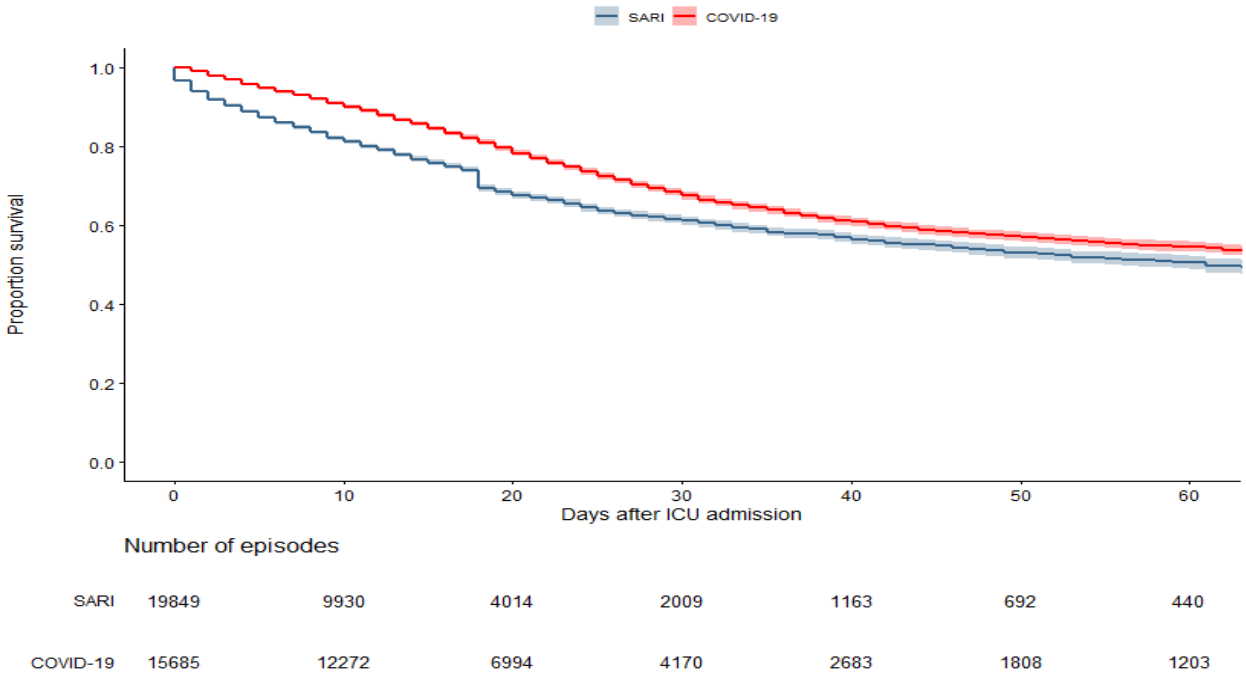
Finally, the association between the patient characteristic and mortality is shown with Odds Ratio's (OR). An OR shows approximately how much the risk of dying is increased in relation to the comparison category, also known as the reference population. Regarding age: due to the small numbers, the seven youngest age categories have been combined into one reference population. Therefore, in the remaining age categories the OR indicate how much more the risk of dying is increased in comparison to this reference population. The 95%-confidence interval (CI) of the OR is displayed in the second last column and indicates whether the association found between the patient characteristics and mortality is statistically significant (confidence interval does NOT include 1) or not significant (confidence interval DOES include1).

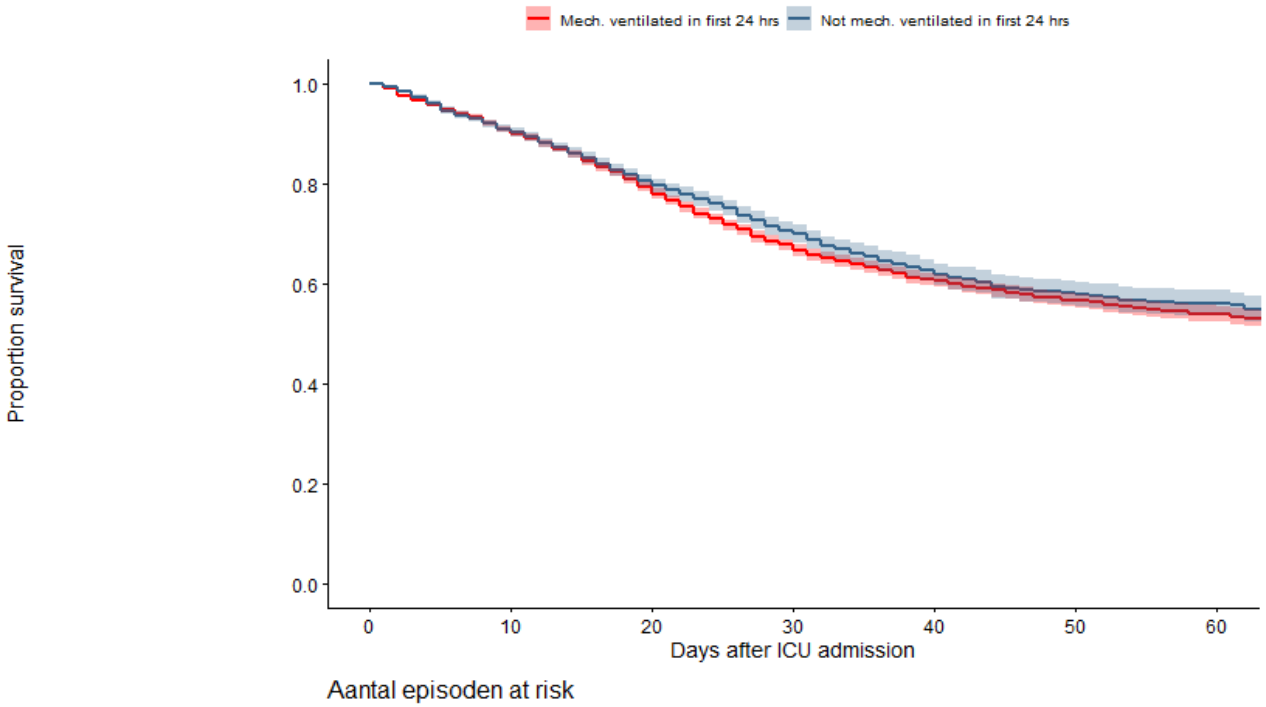
	COVID-19 survivors N (%)	**COVID-19 deceased N (%)**	**P-value**	**Odds ratio (95% CI)**	**COVID-19 still in hospital N**
All episodes	9414 (71.5)	3757 (28.5)			451
Age groups			<0.001		
0-17	3 (75)	1 (25)		reference	1
18-24	77 (98.7)	1 (1.3)		reference	4
25-29	121 (93.8)	8 (6.2)		reference	9
30-34	208 (96.7)	7 (3.3)		reference	7
35-39	253 (94.1)	16 (5.9)		reference	9
40-45	352 (91.7)	32 (8.3)		reference	14
45-50	659 (91)	65 (9)		reference	19
50-55	1089 (87.7)	153 (12.3)		1.82 (1.42-2.32)	54
55-60	1450 (84.6)	264 (15.4)		2.35 (1.89-2.94)	55
60-65	1539 (76.3)	477 (23.7)		4.01 (3.26-4.92)	64
65-70	1505 (67.1)	738 (32.9)		6.34 (5.2-7.74)	64
70-75	1348 (56.6)	1032 (43.4)		9.9 (8.14-12.04)	89
75-80	647 (47.7)	709 (52.3)		14.17 (11.51-17.44)	89
80-85	139 (38.7)	220 (61.3)		20.47 (15.51-27.01)	89
>85	16 (32)	34 (68)		27.48 (14.78-51.1)	89
Gender			<0.001		
Men	6334 (69.7)	2754 (30.3)		reference	306
Woman	3080 (75.4)	1003 (24.6)		0.75 (0.69-0.81)	145

	COVID-19 survivors N (%)	COVID-19 deceased N (%)	P-value	Odds ratio (95% CI)	COVID-19 still in hospital N
BMI groups			<0.001		
<18.5	35 (63.6)	20 (36.4)		1.12 (0.64-1.96)	2
18.5-25	1659 (66.5)	836 (33.5)		reference	101
25-30	3681 (70.9)	1514 (29.1)		0.81 (0.73-0.89)	157
30-35	2363 (74.3)	817 (25.7)		0.68 (0.61-0.76)	116
35-40	977 (75.3)	320 (24.7)		0.64 (0.56-0.75)	44
>40	502 (78)	142 (22)		0.56 (0.45-0.68)	19
Comorbidities					
COPD & respiratory insufficiency No	8415 (73)	3116 (27)	<0.001	reference	392
COPD & respiratory insufficiency Yes	999 (60.9)	641 (39.1)		1.73 (1.56-1.93)	59
Renal failure No	9182 (72.7)	3450 (27.3)	<0.001	reference	424
Renal failure Yes	232 (43)	307 (57)		3.52 (2.96-4.2)	27
Cardiovascular insufficiency No	9320 (71.8)	3653 (28.2)	<0.001	reference	439
Cardiovascular insufficiency Yes	94 (47.5)	104 (52.5)		2.82 (2.13-3.74)	12
Malignancy No	9260 (72.2)	3573 (27.8)	<0.001	reference	439
Malignancy Yes	154 (45.6)	184 (54.4)		3.1 (2.49-3.85)	12
Immunological insufficiency No	8736 (73)	3223 (27)	<0.001	reference	399
Immunological insufficiency Yes	678 (55.9)	534 (44.1)		2.13 (1.89-2.41)	52
Number of comorbidities			<0.001		
None	6057 (77.4)	1764 (22.6)		reference	255
1	2702 (67.4)	1306 (32.6)		1.64 (1.51-1.79)	135
>1	655 (48.8)	687 (51.2)		3.51 (3.12-3.96)	61
Diagnoses at ICU-admission					
Cardiopulmonary resuscitation No	9365 (72)	3646 (28)	<0.001	reference	446
Cardiopulmonary resuscitation Yes	49 (30.6)	111 (69.4)		5.82 (4.15-8.16)	5
Mechanical ventilation at admission No	6865 (74.2)	2386 (25.8)	<0.001	reference	329
Mechanical ventilation at admission Yes	2549 (65)	1371 (35)		1.55 (1.43-1.68)	122
Gastrointestinal bleeding No	9396 (71.5)	3745 (28.5)	0.226	reference	449
Gastrointestinal bleeding Yes	18 (60)	12 (40)		1.67 (0.8-3.48)	2
Diabetes No	7485 (73.4)	2707 (26.6)	<0.001	reference	350
Diabetes Yes	1929 (64.8)	1050 (35.2)		1.51 (1.38-1.64)	101
Diagnoses in 1st 24 hours of ICU-admission					
Acute renal failure No	9013 (73.5)	3257 (26.5)	<0.001	reference	417
Acute renal failure Yes	401 (44.5)	500 (55.5)		3.45 (3.01-3.96)	34
Mechanical ventilation within the 1st 24 hours No	3867 (77.9)	1095 (22.1)	<0.001	reference	193
Mechanical ventilation within the 1st 24 hours Yes	5547 (67.6)	2662 (32.4)		1.69 (1.56-1.84)	258
Confirmed infection No	1875 (71.7)	739 (28.3)	0.766	reference	113
Confirmed infection Yes	7539 (71.4)	3018 (28.6)		1.02 (0.92-1.12)	338
Vasoactive medication No	5024 (77.3)	1476 (22.7)	<0.001	reference	232
Vasoactive medication Yes	4390 (65.8)	2281 (34.2)		1.77 (1.64-1.91)	219

Kaplan Meier survival curve

In the figure below, one can see a first estimate of the percentage of COVID-19 episodes (the vertical axis) of which patients survived the hospitalisation, including a period in ICU, since the day of ICU admission until a certain moment in time (the horizontal axis). In the first figure a distinction has been made between all COVID-19 episodes (black line), the linked COVID-19 episodes (the red line) and the SARI patients from the years 2017-2019 (blue line). The second figure shows the linked COVID-19 episodes of which the patient has (dotted) or has not (solid) been mechanically ventilated at the first day of admission.
These estimations have to be interpreted with care, because the episodes of which the patient is currently being treated have been included in these analyses too and consequently their outcome is not yet known. Therefore, based on this figure we cannot conclude that COVID-19 patients have a better prognosis compared to the SARIs. The current group of COVID-19 episodes and the previous SARI patients possibly differ regarding important clinical characteristics such as age and secondary diseases such as diabetes or COPD. Further research could prove whether the survival chance differs between the COVID-19 and SARI population.





Aantal episoden at risk

Mech. ventilated in first 24 hrs	8467	7348	4738	2929	1895	1251	808
Not mech. ventilated in first 24 hrs	5155	3592	1714	991	654	470	335

Variations over time

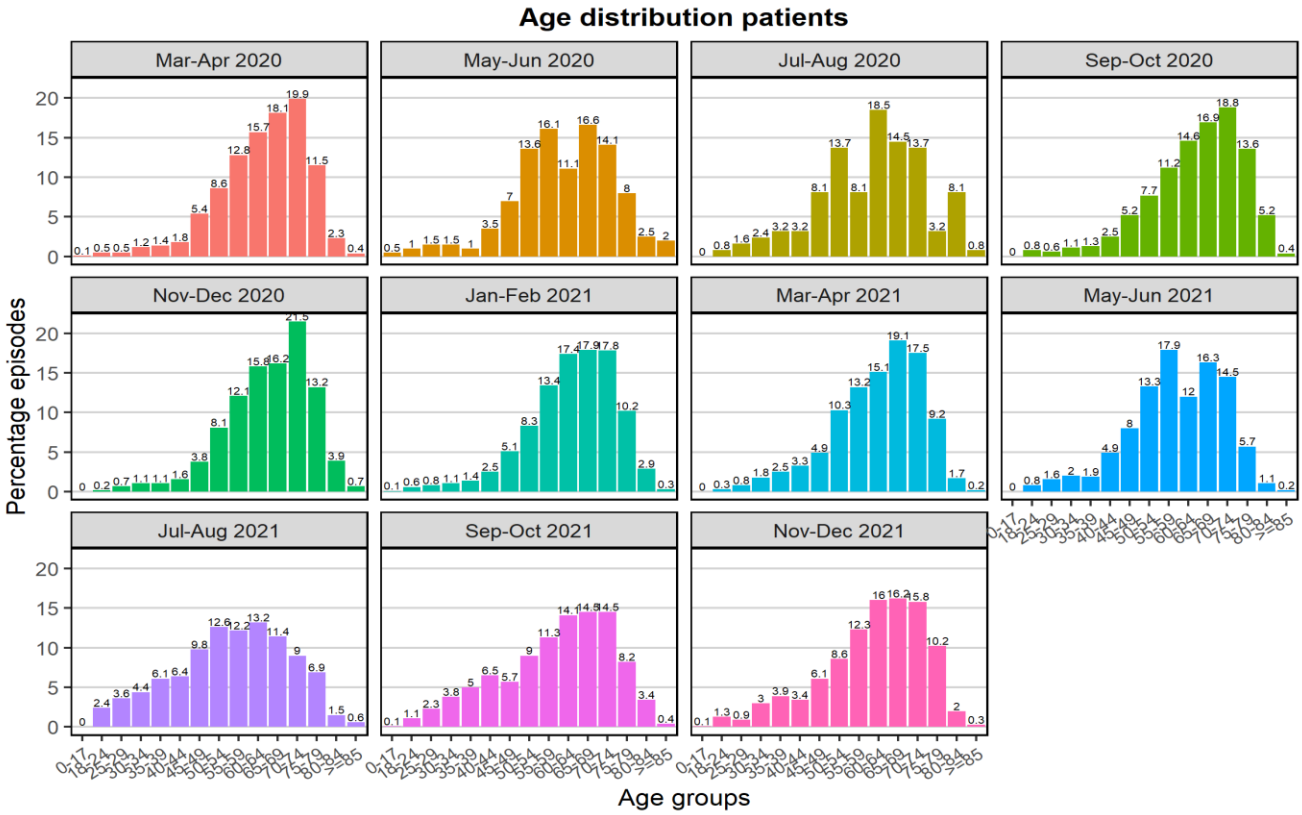
COVID-19 is a new clinical condition for which new knowledge is continuously being obtained, new treatment methods are used and as a result the prognoses / outcomes of the patients may change. To provide insight into these changes, the section below of the report will break down some important patient characteristics and outcomes into two-month periods of the COVID-19 epidemic.

The table below shows the number of COVID-19 episodes per two months.

	Number of episodes	**Number of episodes of which the patient is deceased (%) ***	**Number of episodes linked to clinical data (%)**
March-April 2020	2670	820 (30.7)	2604 (97.5)
May-June 2020	199	37 (18.6)	191 (96.0)
July-August 2020	124	30 (24.2)	119 (96.0)
Sept-Oct 2020	1423	469 (33.0)	1377 (96.8)
Nov-Dec 2020	2203	719 (32.6)	2101 (95.4)
Jan-Feb 2021	2021	564 (27.9)	1973 (97.6)
March-April 2021	2983	751 (25.2)	2909 (97.5)
May-June 2021	1113	226 (20.3)	1067 (95.9)
July-August 2021	722	142 (19.7)	623 (86.3)
Sept-Oct 2021	734	198 (27.0)	473 (64.4)
Nov-Dec 2021	1480	238 (16.1)	177 (12.0)

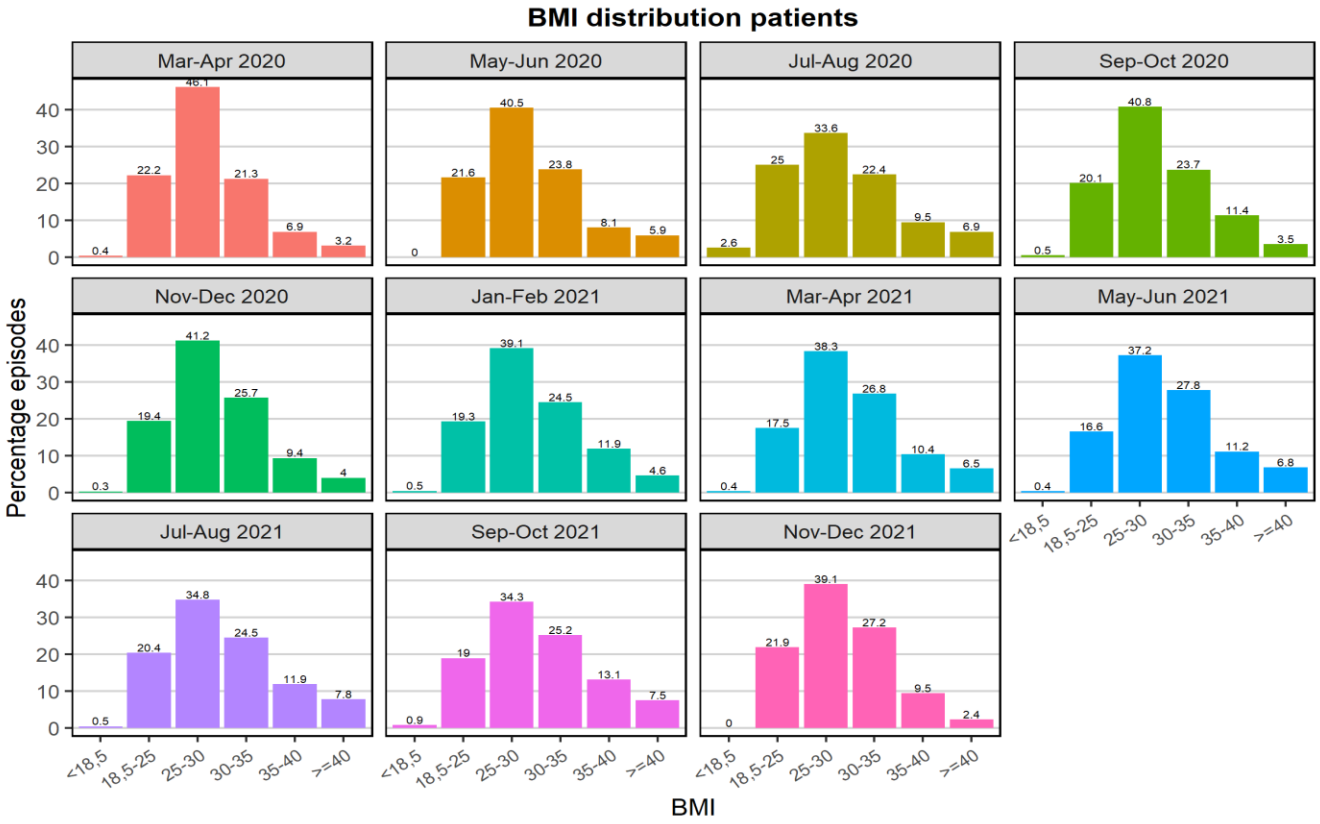
** Note a large proportion of patients of the episodes from the more recent periods are still hospitalized of which a part may still die, so the numbers can still rise (considerably).*

The figure and table below shows the age distribution of the patients from all COVID-19 episodes over different time periods.



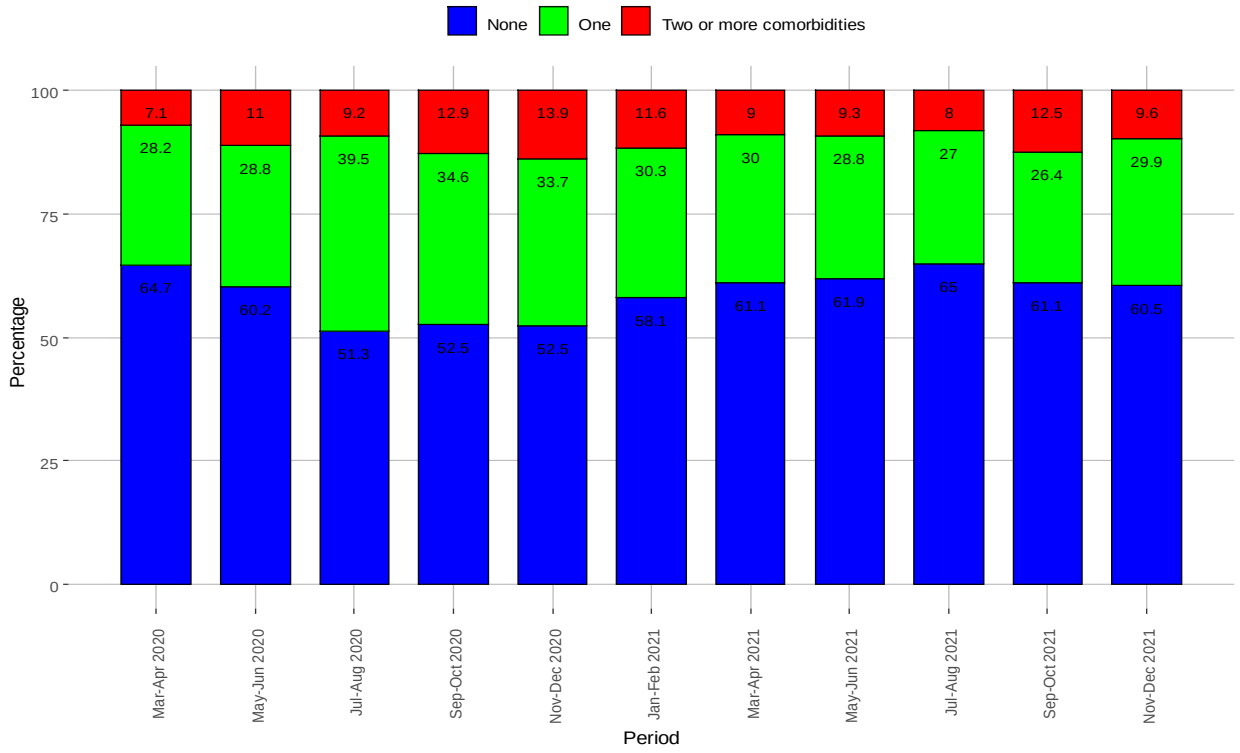
	Mean age (SD)	Median Age (IQR)
March-April 2020	63.4 (11.2)	65 (57-72)
May-June 2020	60.8 (13.1)	61 (53-70)
July-August 2020	60.3 (13.3)	64 (51-70)
Sept-Oct 2020	64.2 (11.9)	66 (57-73)
Nov-Dec 2020	64.7 (11.1)	66 (58-73)
Jan-Feb 2021	62.8 (11.5)	64 (57-71)
March-April 2021	61.9 (11.7)	64 (55-71)
May-June 2021	59.1 (12.0)	59 (52-69)
July-August 2021	55.1 (14.6)	56 (46-66)
Sept-Oct 2021	58.9 (14.5)	61 (50-70)
Nov-Dec 2021	60.6 (13.2)	63 (53-71)

The figure and table below shows the BMI distribution of the patients of all COVID-19 episodes over different time periods.



	Mean BMI (SD)	Median BMI (IQR)
March-April 2020	28.7 (4.9)	27.8 (25.3-31.1)
May-June 2020	29.5 (5.7)	28.4 (25.5-32.2)
July-August 2020	29.3 (6.6)	27.9 (24.7-32.8)
Sept-Oct 2020	29.3 (5.3)	28.7 (25.6-32.0)
Nov-Dec 2020	29.4 (5.3)	28.4 (25.7-32.3)
Jan-Feb 2021	29.7 (5.6)	28.7 (25.8-32.8)
March-April 2021	30.1 (5.9)	29.2 (26.0-32.9)
May-June 2021	30.3 (6.0)	29.4 (26.1-33.5)
July-August 2021	30.2 (6.3)	29.2 (25.8-33.7)
Sept-Oct 2021	30.3 (6.6)	29.4 (26.0-33.8)
Nov-Dec 2021	29.0 (4.9)	28.1 (25.6-31.5)

In the graph below, the percentage episodes of which the patients had no, one or more than one comorbidities are given for different periods.



**Note since the report of 2020-12-10 diabetes is also counted as a comorbidity, as a result of this the percentage episodes of which patients had no, one or more than one comorbidities may have increased compared to previous reports.*

The table below shows per two months period the mean ICU length of stay of all COVID-19 episodes, of the COVID-19 episodes of which the patient is still in the ICU, and of COVID-19 episodes of which the patient has been discharged recently split up into different discharge destinations. If a patient has been transferred to another ICU during an episode, all ICU length of stays will be added up together. The length of stay is calculated in days ((discharge date - admission date)+1). Note that the most recent period still yields many uncertain results because a large part of this population is still included, so the averages shown will most likely increase.

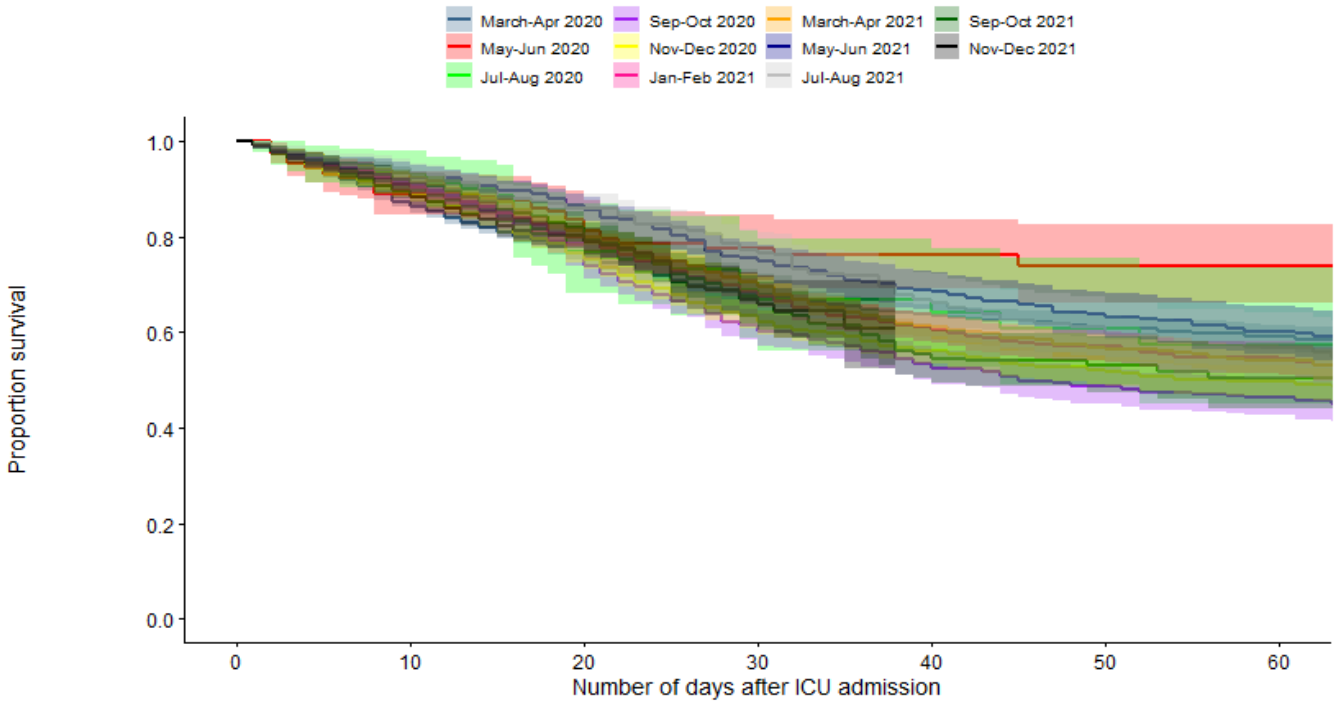
	Number of episodes	**Mean length of ICU stay (SD)**
Period March-April 2020		
Patients who are currently being treated in the ICU *	1	602 (-)
Discharged to nursing ward in same or different hospital	1817	22 (17.4)
Other discharge destination	103	26.4 (33)
Died in the ICU	749	15.9 (18.4)
TOTAL	**2670**	**20.7 (21.9)**

	Number of episodes	Mean length of ICU stay (SD)
Period May-June 2020		
Patients who are currently being treated in the ICU *	0	-
Discharged to nursing ward in same or different hospital	159	15.7 (14.9)
Other discharge destination	10	19.8 (32.4)
Died in the ICU	30	13.4 (10.4)
TOTAL	**199**	**15.5 (15.5)**
Period July-August 2020		
Patients who are currently being treated in the ICU *	0	-
Discharged to nursing ward in same or different hospital	95	13.5 (15.8)
Other discharge destination	7	22.7 (21.9)
Died in the ICU	22	16.8 (16.6)
TOTAL	**124**	**14.6 (16.3)**
Period Sept-Oct 2020		
Patients who are currently being treated in the ICU *	1	422 (-)
Discharged to nursing ward in same or different hospital	982	15.7 (17.6)
Other discharge destination	34	16.3 (19)
Died in the ICU	406	19.6 (14)
TOTAL	**1423**	**17.1 (19.9)**
Period Nov-Dec 2020		
Patients who are currently being treated in the ICU *	0	-
Discharged to nursing ward in same or different hospital	1514	16.7 (18.1)
Other discharge destination	63	16.4 (17.7)
Died in the ICU	626	18.1 (14.4)
TOTAL	**2203**	**17.1 (17.1)**
Period Jan-Feb 2021		
Patients who are currently being treated in the ICU *	1	291 (-)
Discharged to nursing ward in same or different hospital	1483	15.9 (16.6)
Other discharge destination	39	18 (21)
Died in the ICU	498	18.6 (15.2)
TOTAL	**2021**	**16.7 (17.5)**
Period March-April 2021		
Patients who are currently being treated in the ICU *	0	-
Discharged to nursing ward in same or different hospital	2216	15.1 (16.1)
Other discharge destination	97	19.5 (27.3)
Died in the ICU	670	19.6 (14.2)
TOTAL	**2983**	**16.2 (16.3)**
Period May-June 2021		
Patients who are currently being treated in the ICU *	0	-
Discharged to nursing ward in same or different hospital	870	15 (17.2)
Other discharge destination	43	23.7 (26.7)
Died in the ICU	200	19.5 (14.7)
TOTAL	**1113**	**16.1 (17.4)**
Period July-August 2021		

	Number of episodes	Mean length of ICU stay (SD)
Patients who are currently being treated in the ICU *	3	116.3 (17)
Discharged to nursing ward in same or different hospital	555	13.7 (14.7)
Other discharge destination	35	18.5 (18.2)
Died in the ICU	129	20.4 (14.5)
TOTAL	**722**	**15.6 (16.4)**
Period Sept-Oct 2021		
Patients who are currently being treated in the ICU *	22	44.7 (5.3)
Discharged to nursing ward in same or different hospital	514	12.5 (11.2)
Other discharge destination	26	10.3 (12)
Died in the ICU	172	18.9 (11.9)
TOTAL	**734**	**14.9 (12.7)**
Period Nov-Dec 2021		
Patients who are currently being treated in the ICU *	582	12.5 (7.8)
Discharged to nursing ward in same or different hospital	625	7.8 (5.7)
Other discharge destination	49	5.6 (4.7)
Died in the ICU	223	9.8 (7.4)
TOTAL	**1480**	**9.9 (17.1)**

**N.B. For the COVID-19 episodes of which the patient is currently admitted, it concerns the ICU length of stay up till the moment that this report was generated and not the final total length of stay.*

The figure below shows an initial estimate per period of the percentage of COVID-19 episodes (the vertical axis) of which the patient survived hospitalization, including admission to the ICU, until a certain moment (the horizontal axis) after the start of the ICU admission.
These estimates must be interpreted with caution, because the patients who are currently being treated have also been included and the outcome of them is therefore not yet known.



Number of episodes at risk

March-Apr 2020	2670	2186	1496	960	629	397	241
May-Jun 2020	199	147	100	66	41	28	19
Jul-Aug 2020	124	95	44	33	24	18	13
Sep-Oct 2020	1423	1162	650	366	251	180	122
Nov-Dec 2020	2203	1738	1026	614	422	294	200
Jan-Feb 2021	2021	1607	941	568	380	256	179
March-Apr 2021	2983	2402	1317	794	507	341	229
May-Jun 2021	1113	890	494	310	198	148	105
Jul-Aug 2021	722	562	298	185	114	81	55
Sep-Oct 2021	734	587	342	198	106	54	29
Nov-Dec 2021	1480	883	273	63	0	0	0

The table below shows the (univariate) Odds Ratio (OR) of the two monthly periods. An OR shows approximately how much the risk of dying is increased in relation to the reference group, i.e. the months March and April. The 95% confidence interval of the OR indicates whether the relationship found between the period and mortality is significant (confidence interval includes 1 NOT) or not significant (confidence interval includes 1 DO). Note this is a univariate analysis meaning that no adjustment has been made for differences in patient characteristics over time. It is also important to realize that a large proportion of patients from the episodes of the more recent periods are still hospitalized. These are included in the calculations as survivors, while a part may still die, so that the odds ratio can still rise (considerably).

	Odds ratio (CI)
Period March-April 2020	Reference
Period May-June 2020	0.52 (0.36-0.74)
Period July-August 2020	0.72 (0.47-1.09)
Period Sept-Oct 2020	1.11 (0.97-1.27)
Period Nov-Dec 2020	1.09 (0.97-1.23)
Period Jan-Feb 2021	0.87 (0.77-0.99)
Period March-April 2021	0.76 (0.68-0.85)
Period May-June 2021	0.57 (0.49-0.68)
July-August 2021	0.55 (0.45-0.68)
Period Sept-Oct 2021	0.83 (0.69-1.00)
Period Nov-Dec 2021	0.43 (0.37-0.51)

COVID-19 and SOFA

For this report, the data of the COVID-19 episodes are also linked to the information about organ failure that is supplied to NICE in the Sequential Organ Failure Assessment (SOFA) registration module. About half of the ICUs in the Netherlands register this SOFA data. In the table below, in addition to the number of COVID-19 episodes that could be linked to the clinical information, the number of COVID-19 episodes that could be linked to the SOFA data is shown.

	Number of COVID-19 episodes
Linked to clinical (MDS) data	13622
Linked to organ failure (SOFA) data	7161

The table below shows in how many COVID-19 episodes and how many SARI patients received treatment with different types of organ support. For the patients receiving the particular organ support it is also shown how many calendar days they received this support on average during the ICU admission. Finally, the average number of calendar days on which the measured platelet was <50 is shown.

	COVID-19 episodes N (%)	**Mean number of days (SE)**	**SARI patients N (%)**	**Mean number of days (SE)**
Basic respiratory support	5270 (73.6)	10.6 (11.9)	5125 (59.1)	6.5 (8.5)
Advanced respiratory support	38 (0.5)	3.9 (8.2)	169 (1.9)	3.7 (6.7)
Artificial liver support	1 (0)	1 (-)	0 (0)	-
Cardiac support using cardiac assist device	28 (0.4)	8 (15.1)	57 (0.7)	10.4 (14.3)
Renal support using renal replacement therapy	575 (8)	10.6 (10.7)	565 (6.5)	8.1 (9.4)
Measured platelets value <50	296 (4.1)	2.7 (4)	512 (5.9)	4.8 (5.6)