

Dynamic CO-CIN report to SAGE and NERVTAG (All cases)

Dynamic content updated: 2020-09-29 04:26:05.

Executive summary

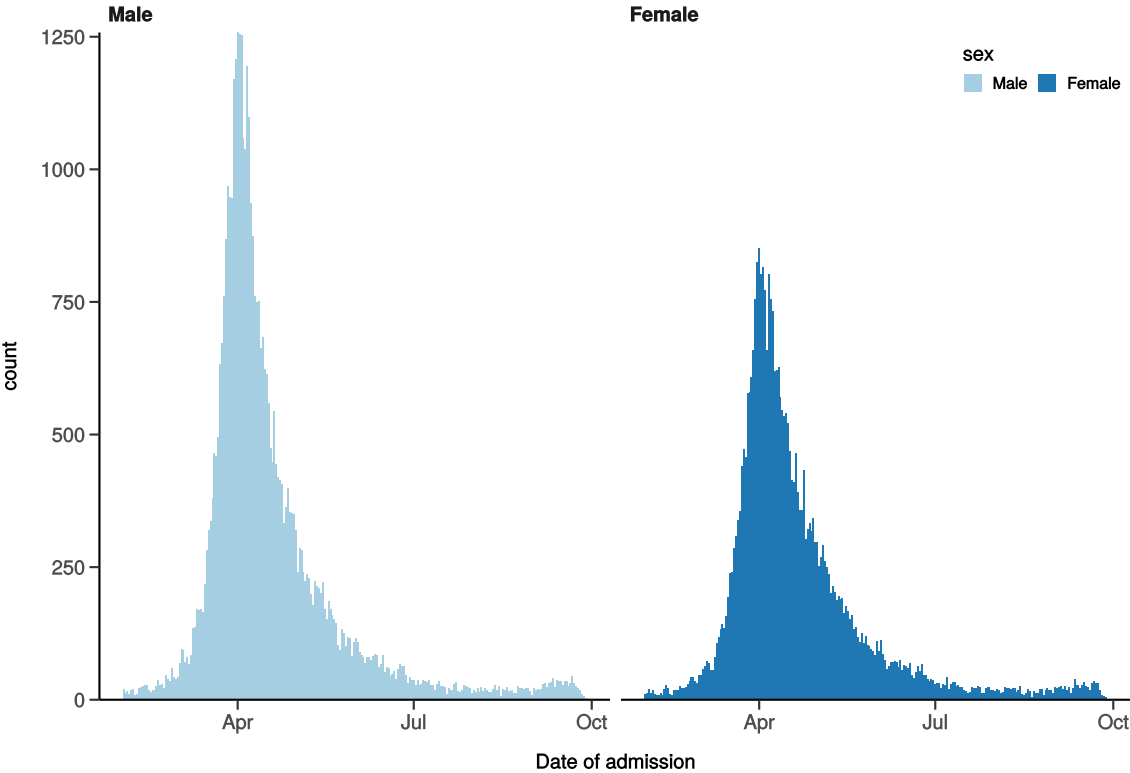
Includes all patients

There are 82419 patients included in CO-CIN. Of these, 23846 patient(s) have died and 10852 required ICU. 46846 have been discharged home.

Admission

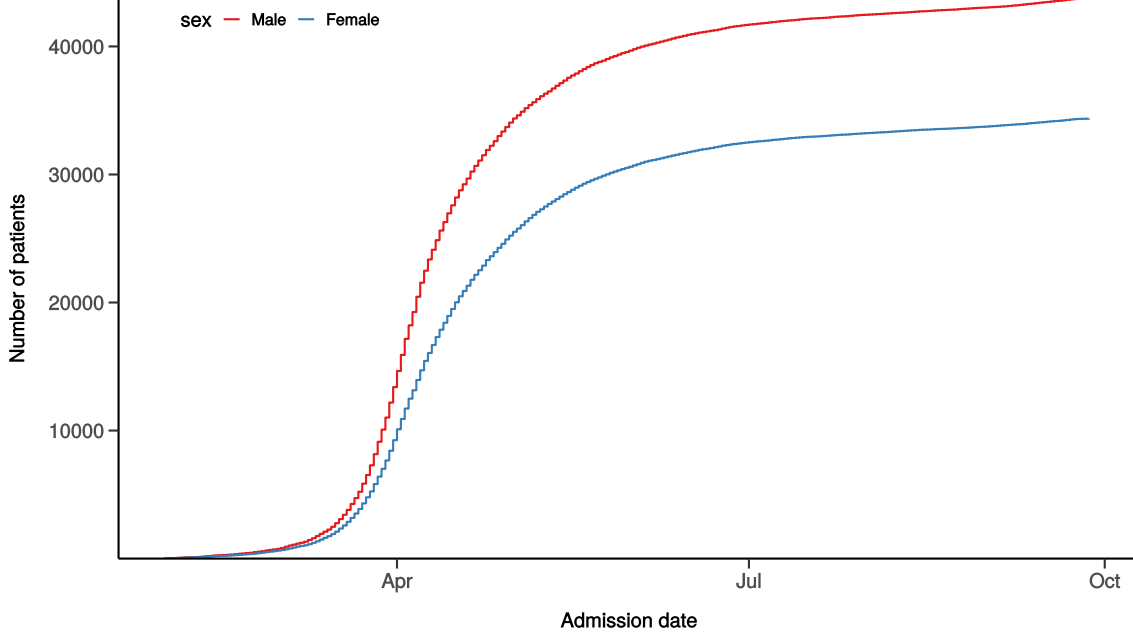
Figure 1

Hospital admission with COVID-19 by sex
Figure 1A



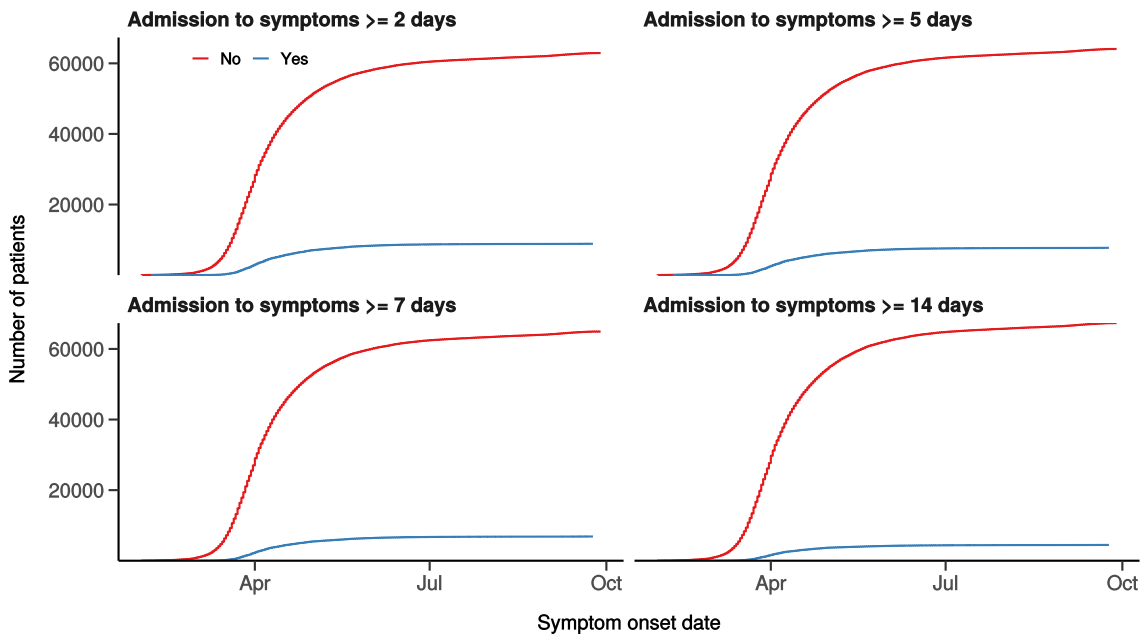
Hospital admission with COVID-19 by sex

Figure 1B



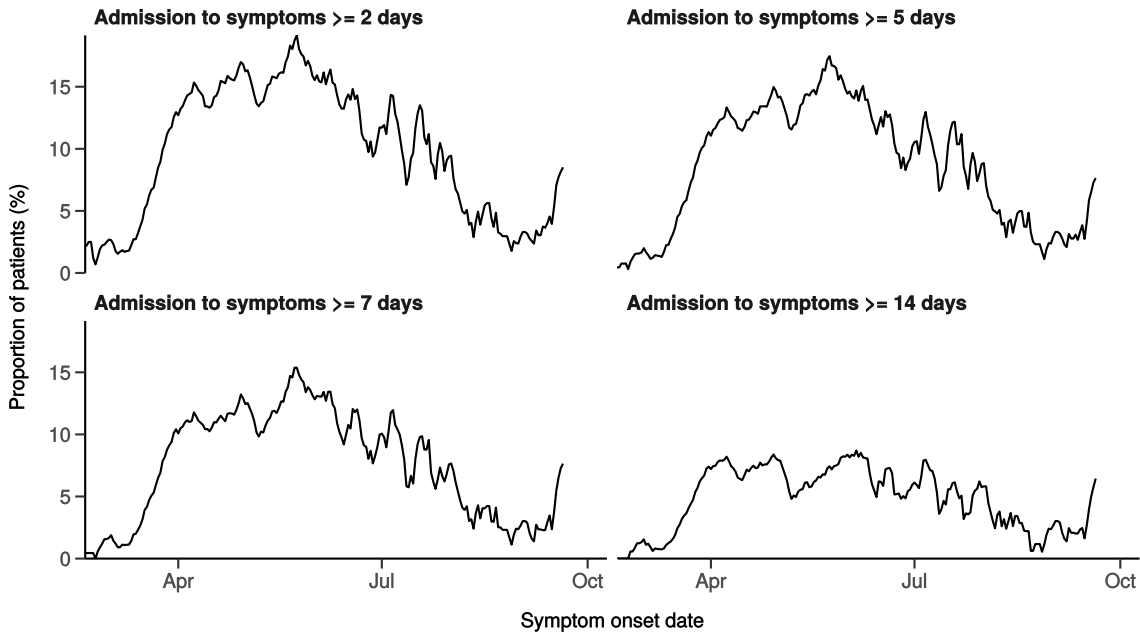
Number with symptom onset occurring after admission to hospital

Figure 1C



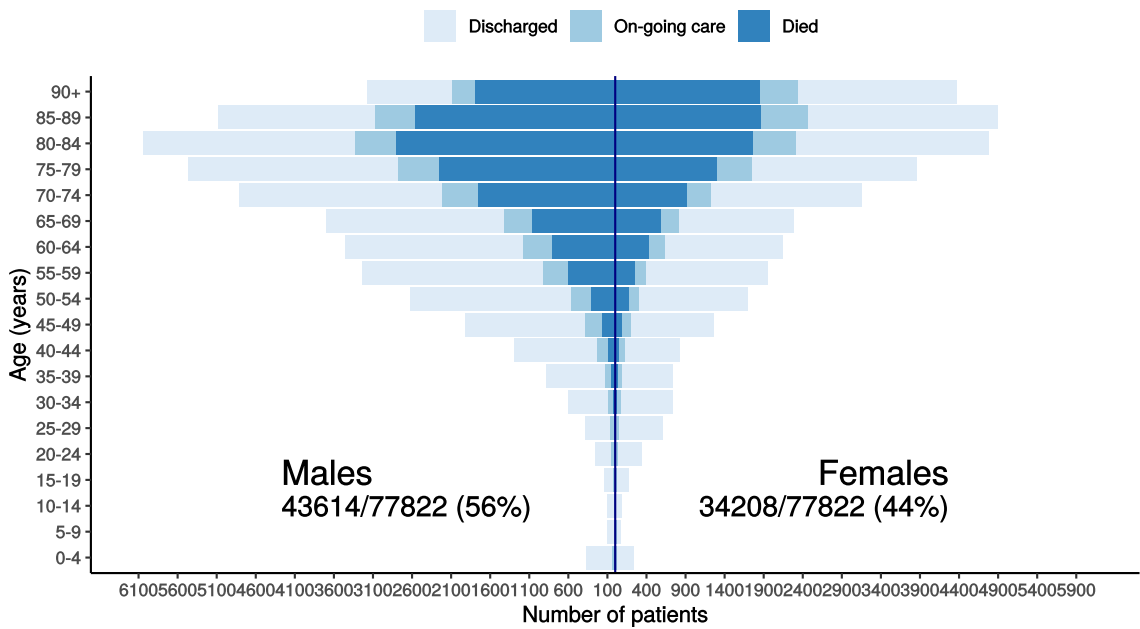
Proportion with symptom onset occurring after hospital admission

Figure 1D - 7-day rolling percentage. n = 71798

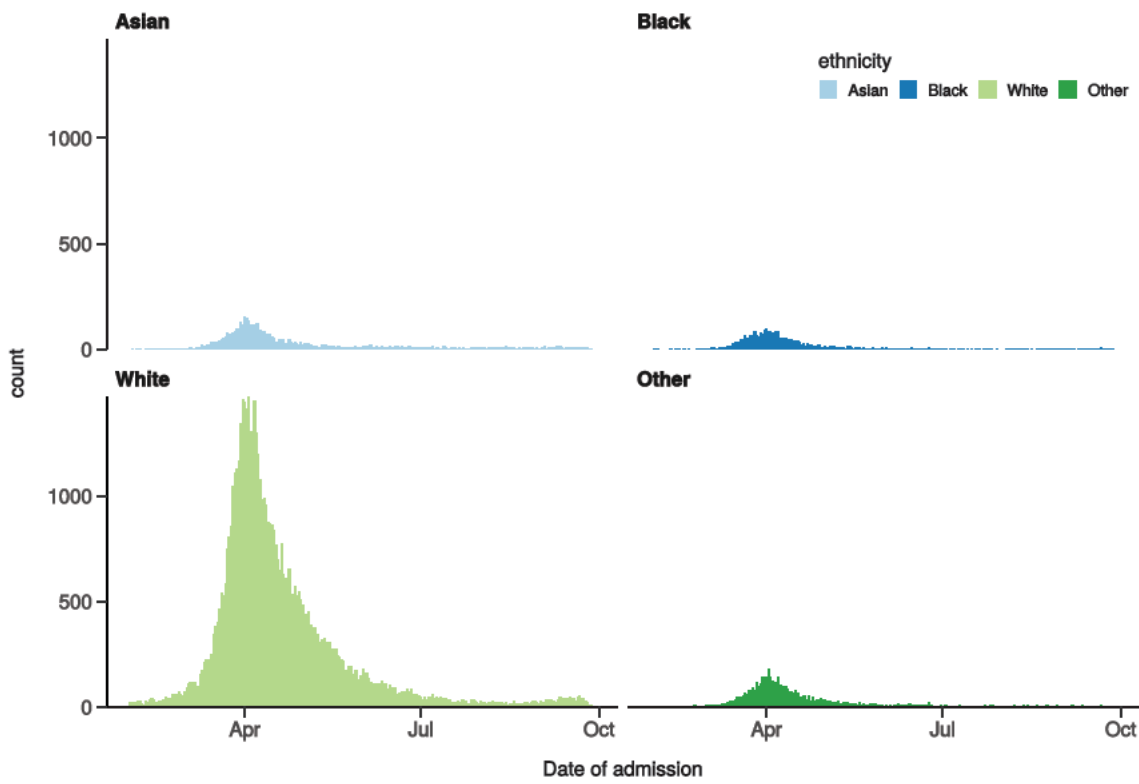


Patients with outcome stratified by age, and sex

Figure 1E



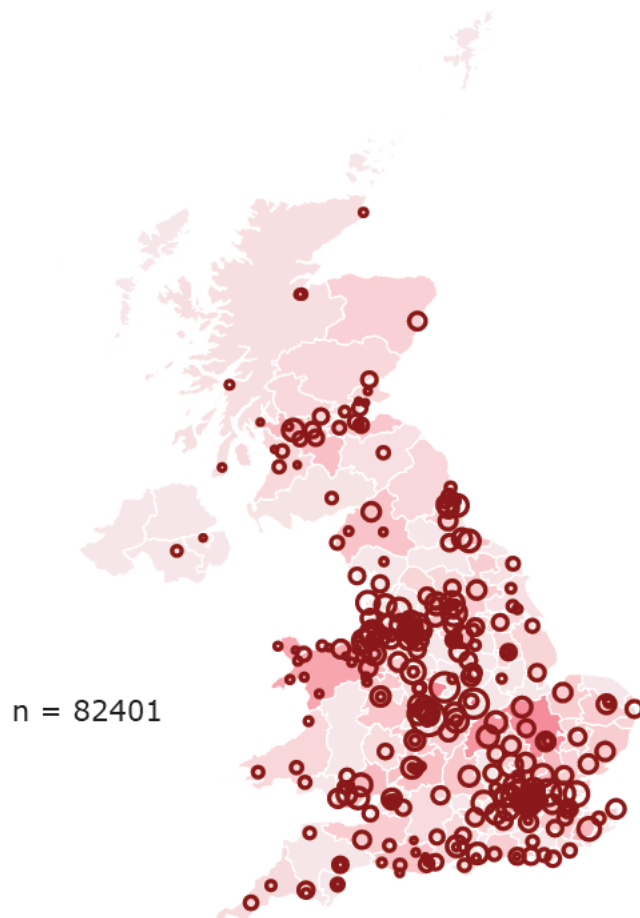
Hospital admission with COVID-19 by ethnicity
Figure 1F



Location by CCG / Healthboard

Figure 2

Click and drag on map to zoom into area. Reset via toolbar at top of map.



Symptoms and comorbidity

Figure 3A

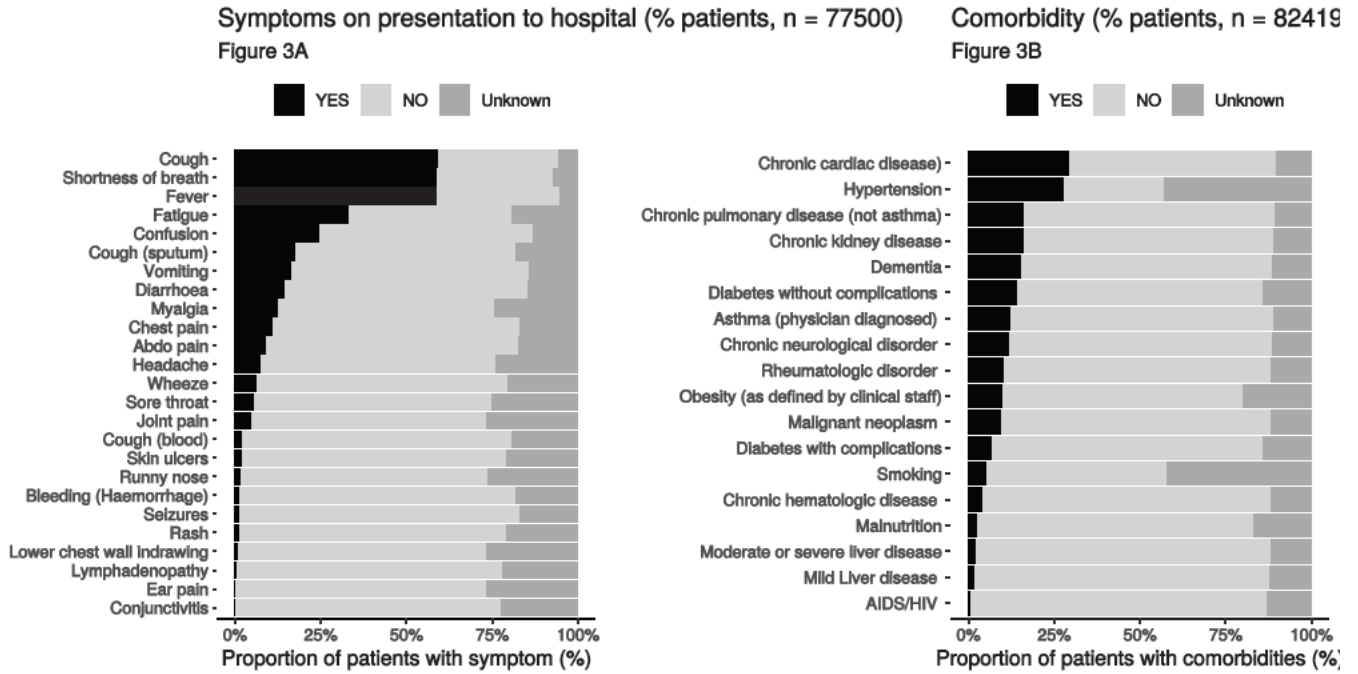
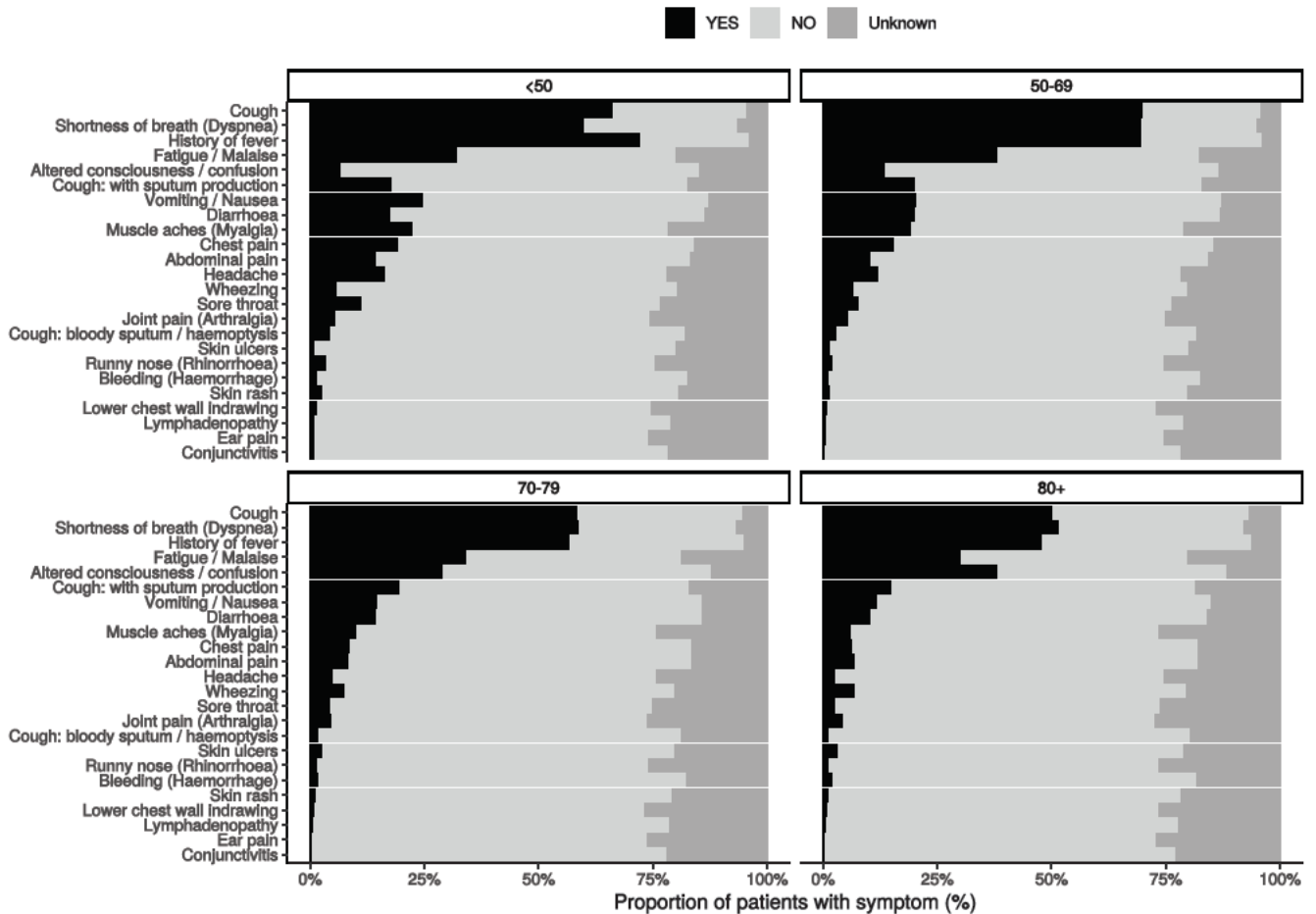


Figure 3B - Symptoms by Age

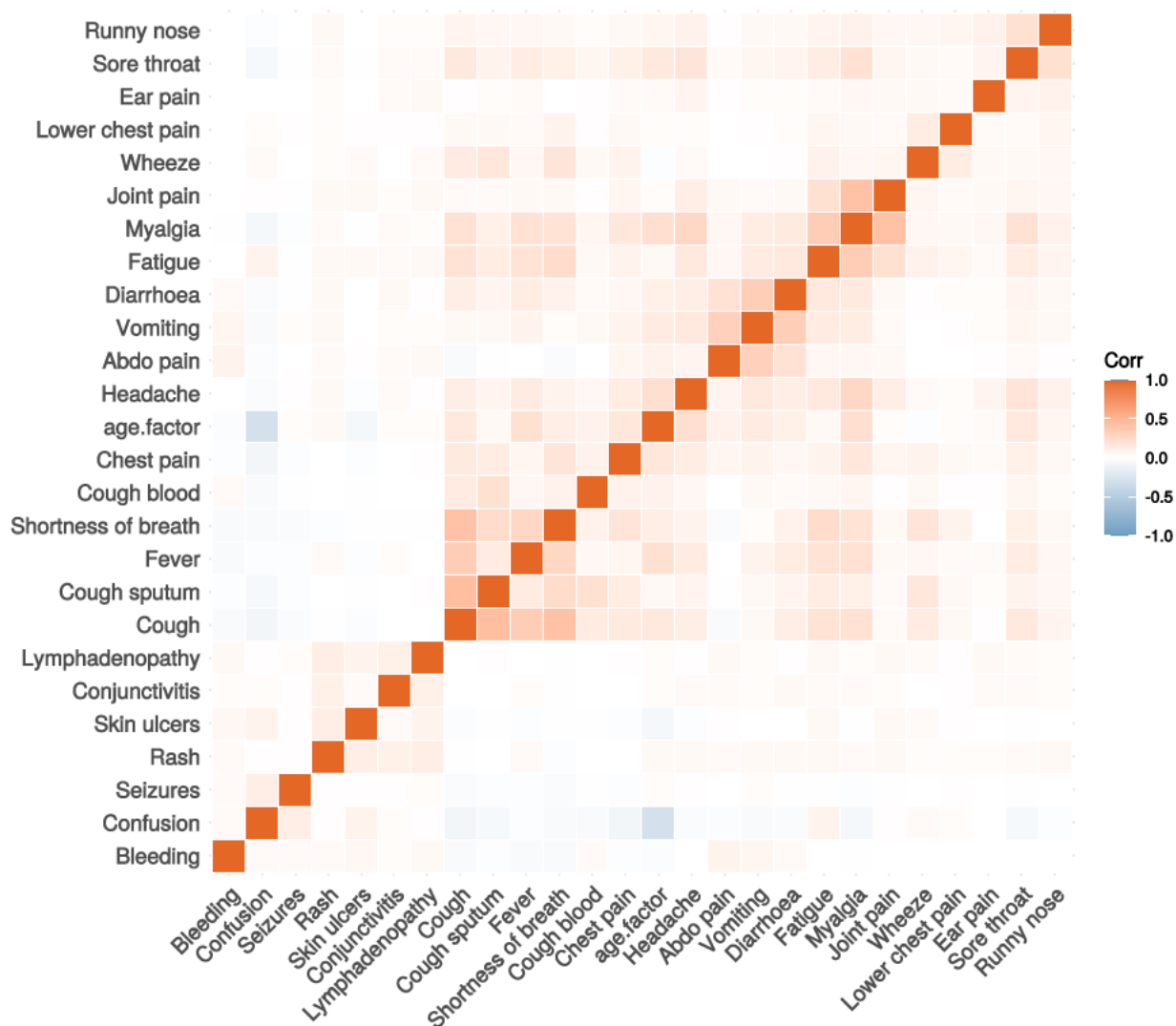


Age Group	Number of Patients included in Symptoms Plot
<50	11035

Age Group	Number of Patients included in Symptoms Plot
50-69	21062
70-79	17264
80+	28202

Figure 3C

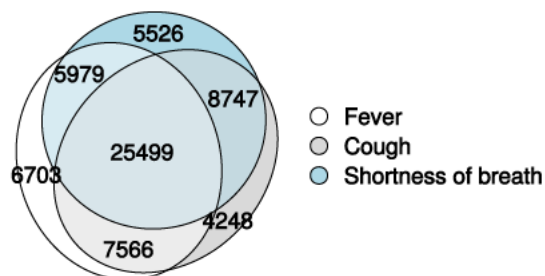
Correlation of symptoms in all pages. Note clusters, top right to bottom left, flu-like, coryzal, abdominal, respiratory, neurocutaneous.



Symptoms (diagnostic criteria)

Figure 4A

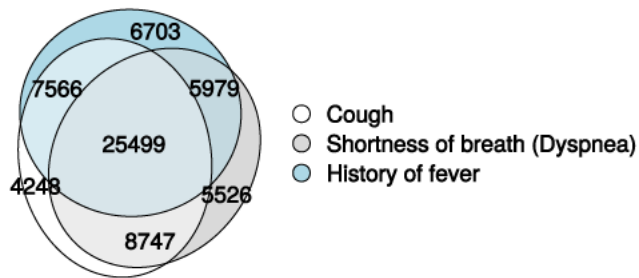
n = 77500



Symptoms (most common)

Figure 4B

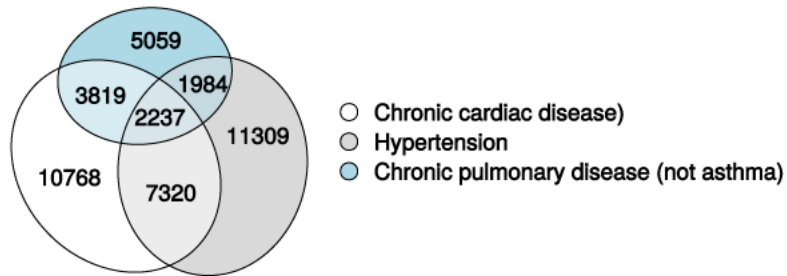
n = 77500



Comorbidity (most common)

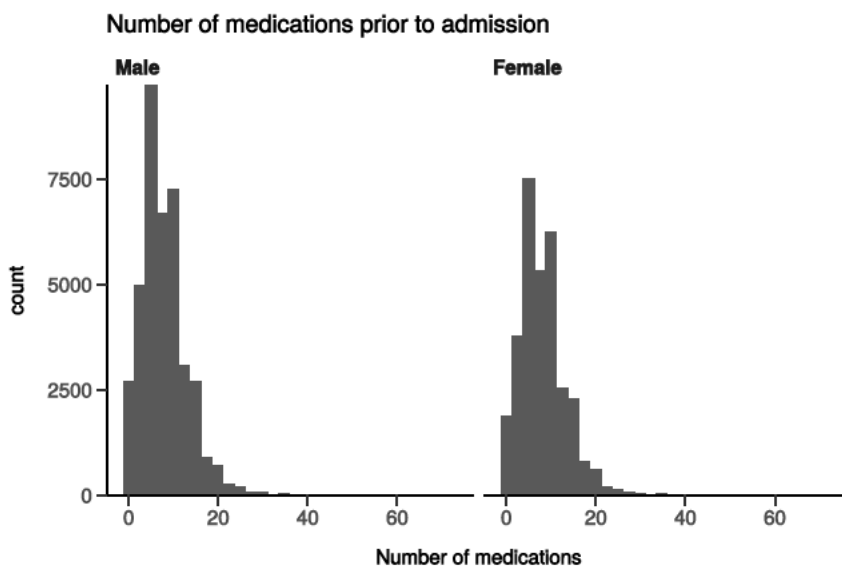
Figure 4C

n = 82419



Medication prior to illness

Figure 5

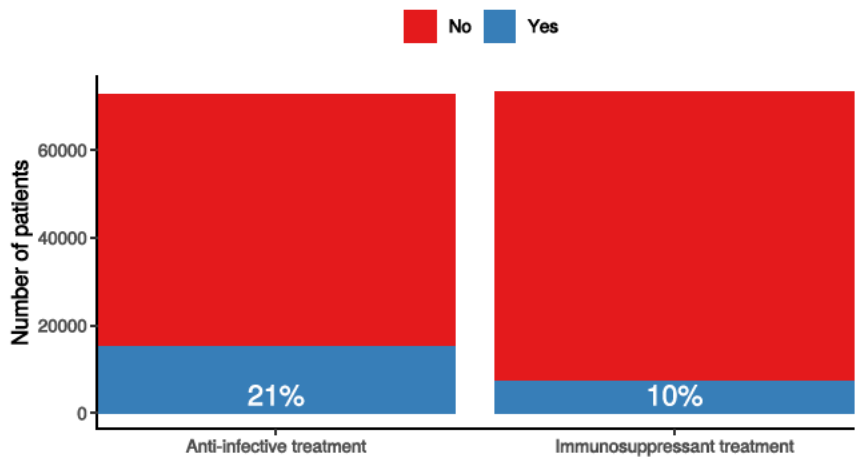


Preadmission treatment

Figure 6

Pre-admission treatment

Anti-infectives for illness episode (left) immunosuppressants including oral (not



Patient flow

Figure 7A - All patients

N = 79219

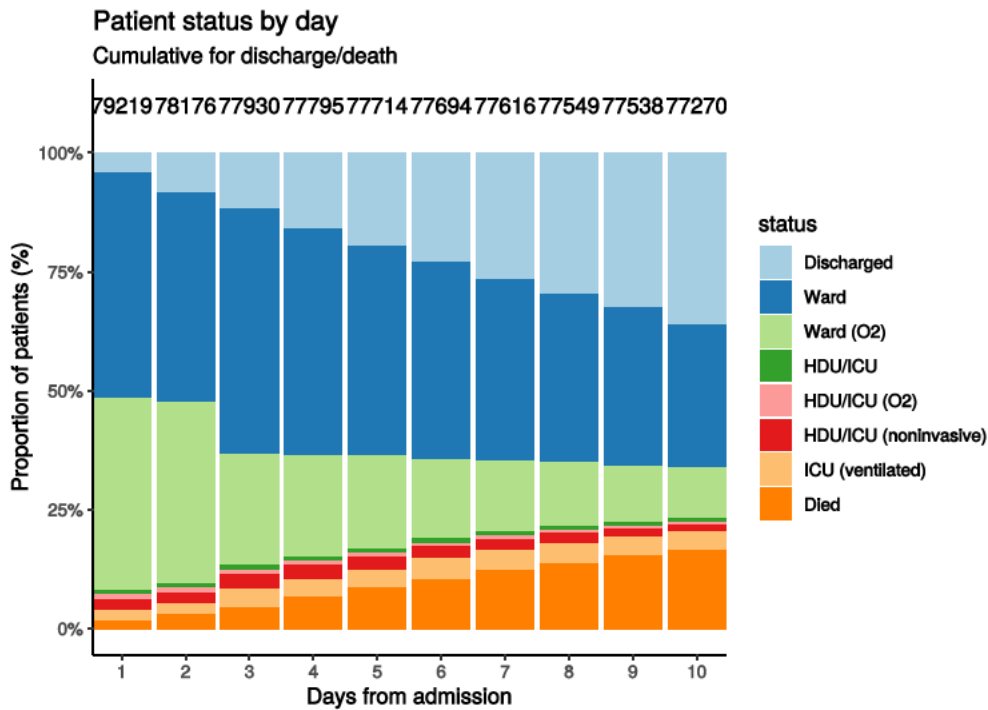
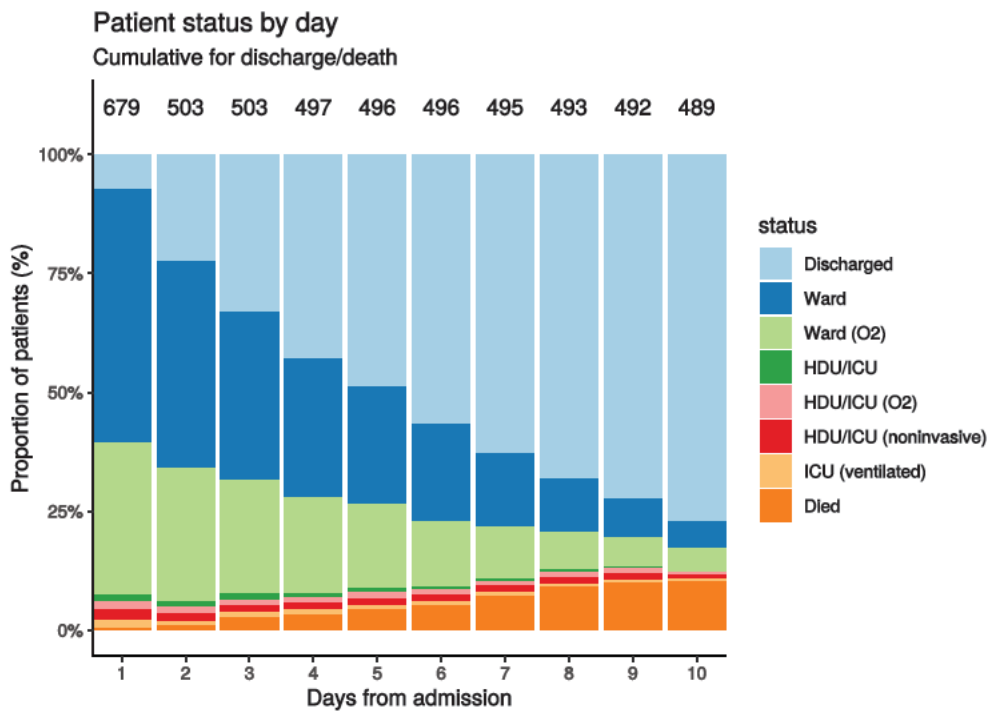


Figure 7B - Patients admitted ≥ 14 days and ≤ 28 days ago

N = 679



Oxygen requirement

Figure 8A - All patients

N = 74998

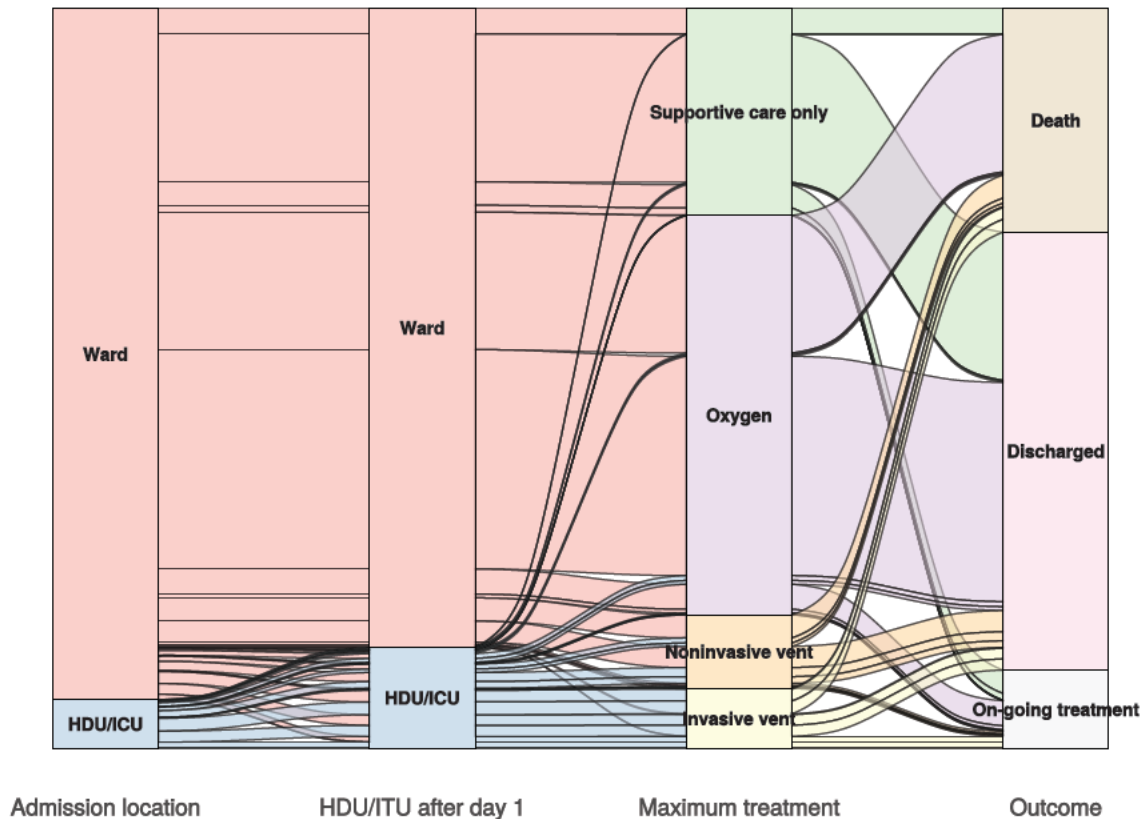


Figure 8B - Patients admitted ≥ 14 days and ≤ 28 days ago

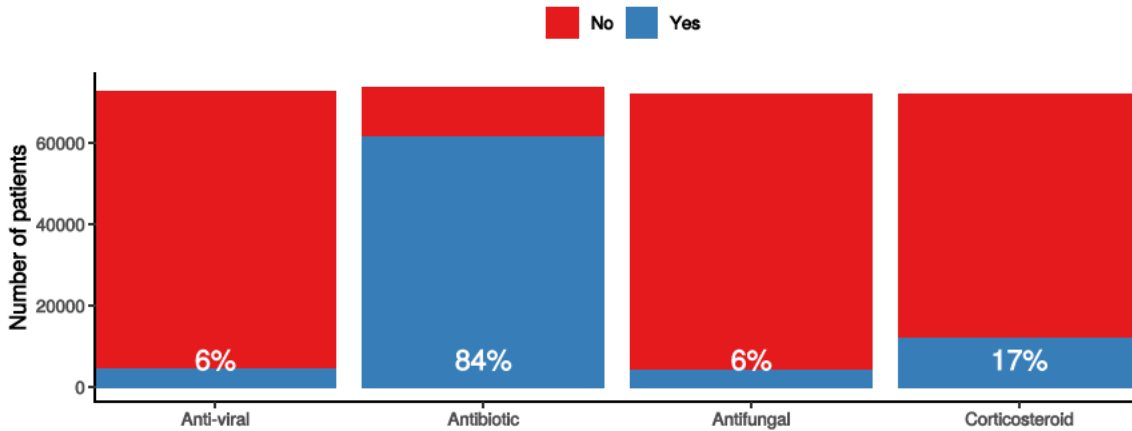
N = 649

In-hospital medical treatment

Figure 9

In-hospital treatment

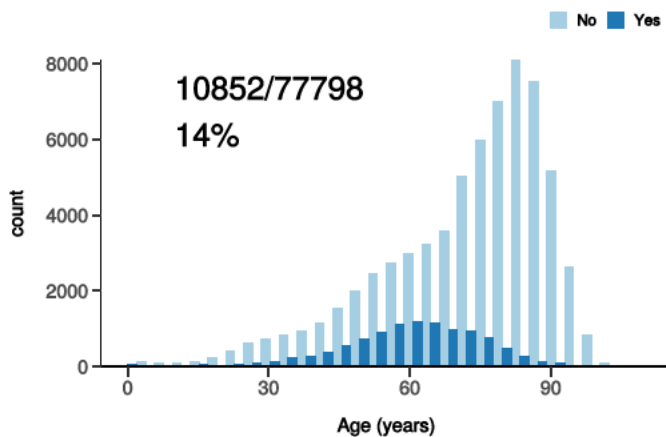
Anti-virals, antibiotics, corticosteroids, and anti-fungals for patients who have completed journey.



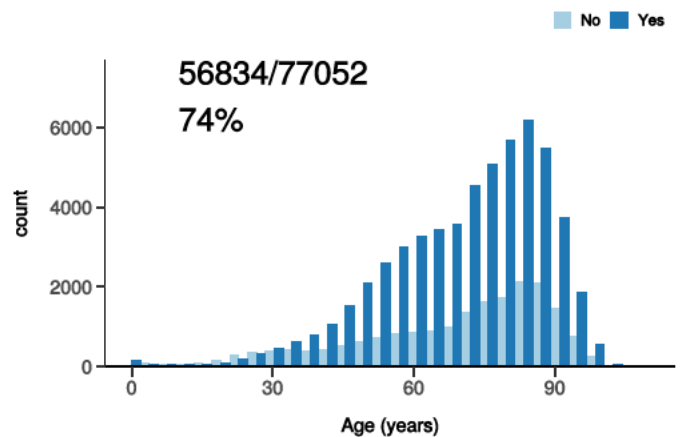
Treatment

Figure 10

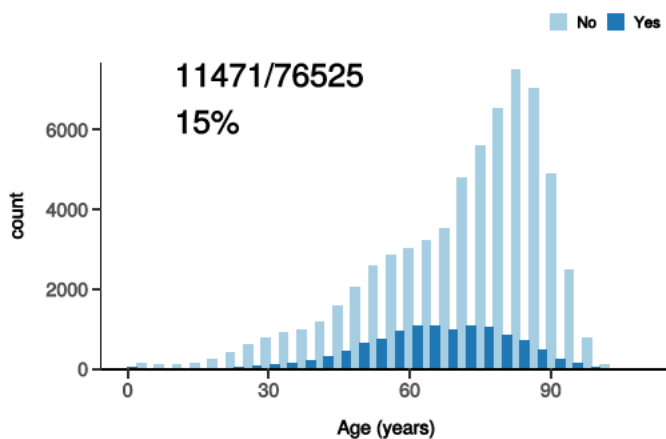
ICU/HDU admission
Figure 10A



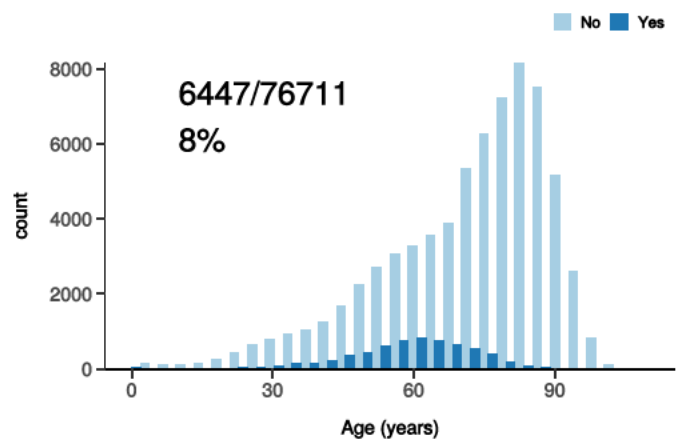
High flow oxygen
Figure 10B



Noninvasive ventilation
Figure 10C



Invasive ventilation
Figure 10D

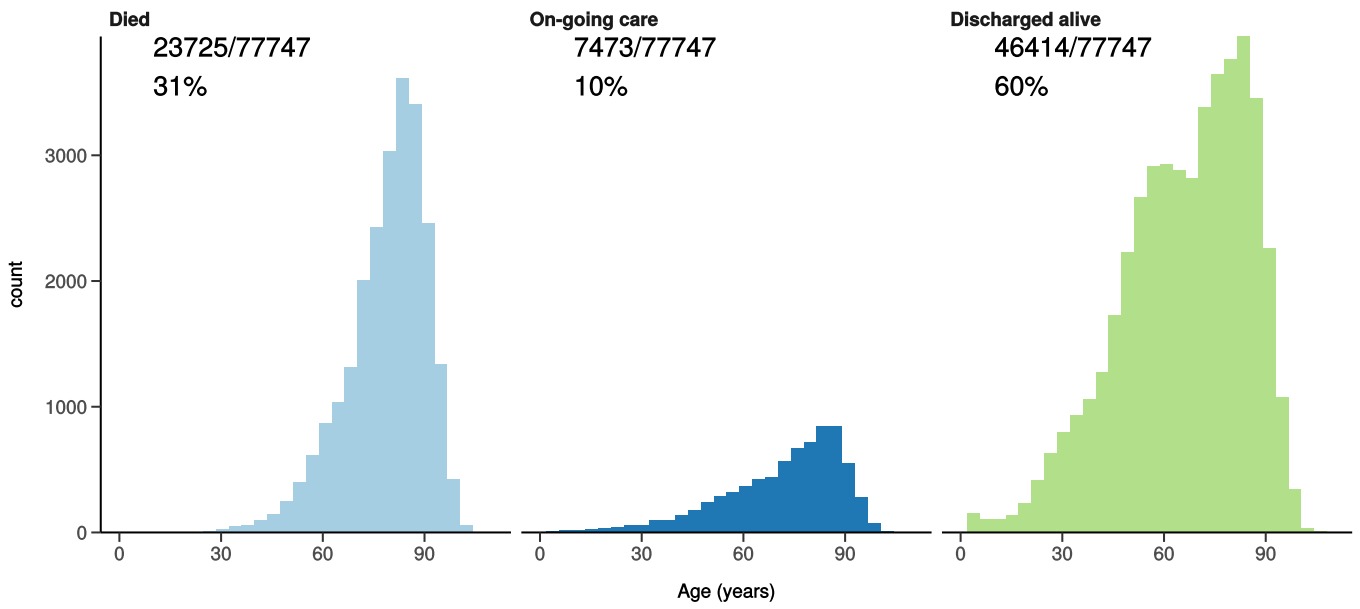


Status in patients admitted ≥ 14 days from today

Figure 11

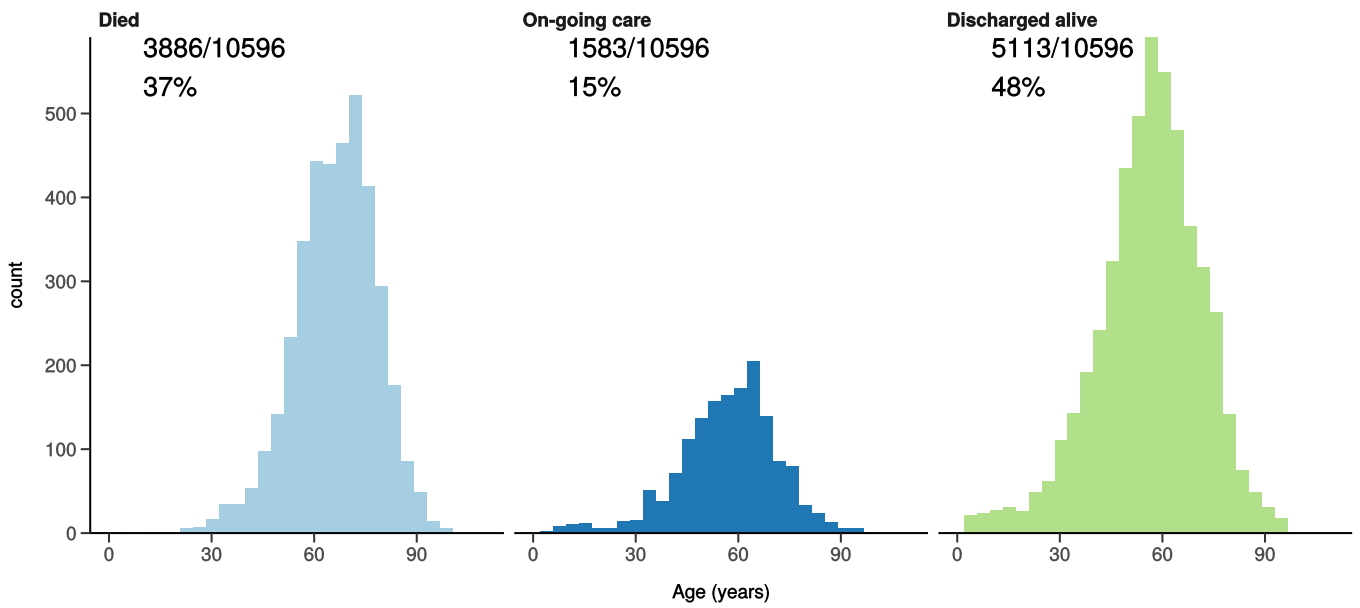
All: status in patients admitted ≥ 14 days ago

Figure 11A



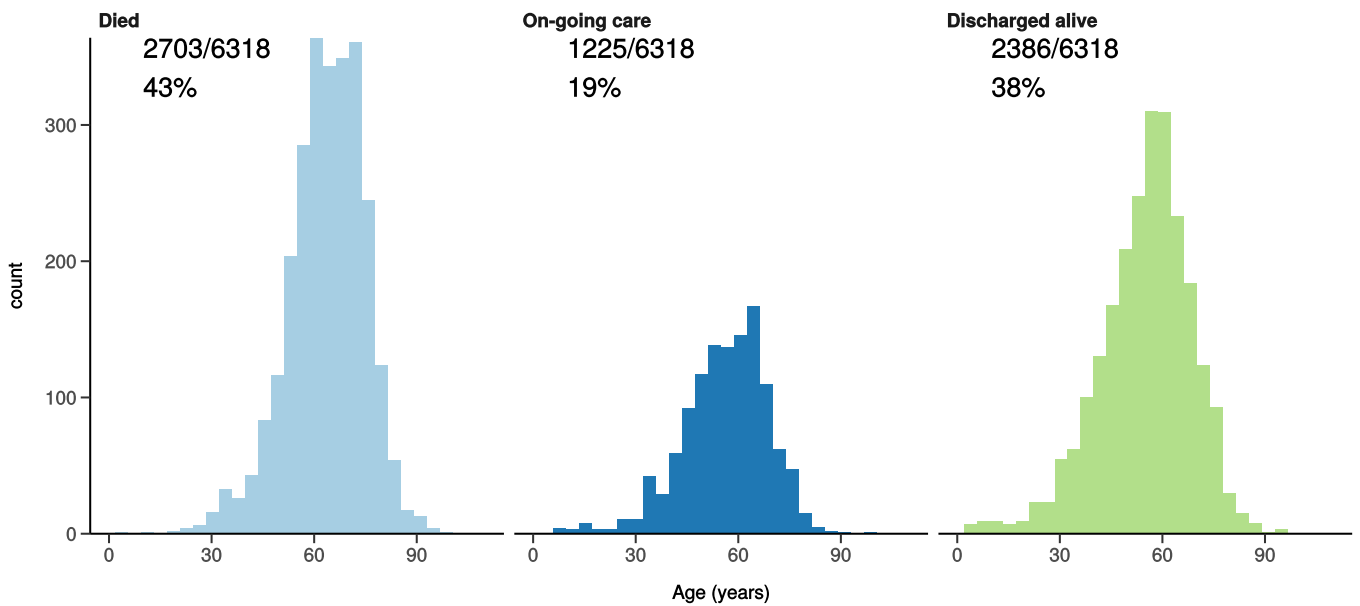
ICU/HDU admissions: status in patients admitted ≥ 14 days ago

Figure 11B



Invasive ventilation: status in patients admitted ≥ 14 days ago

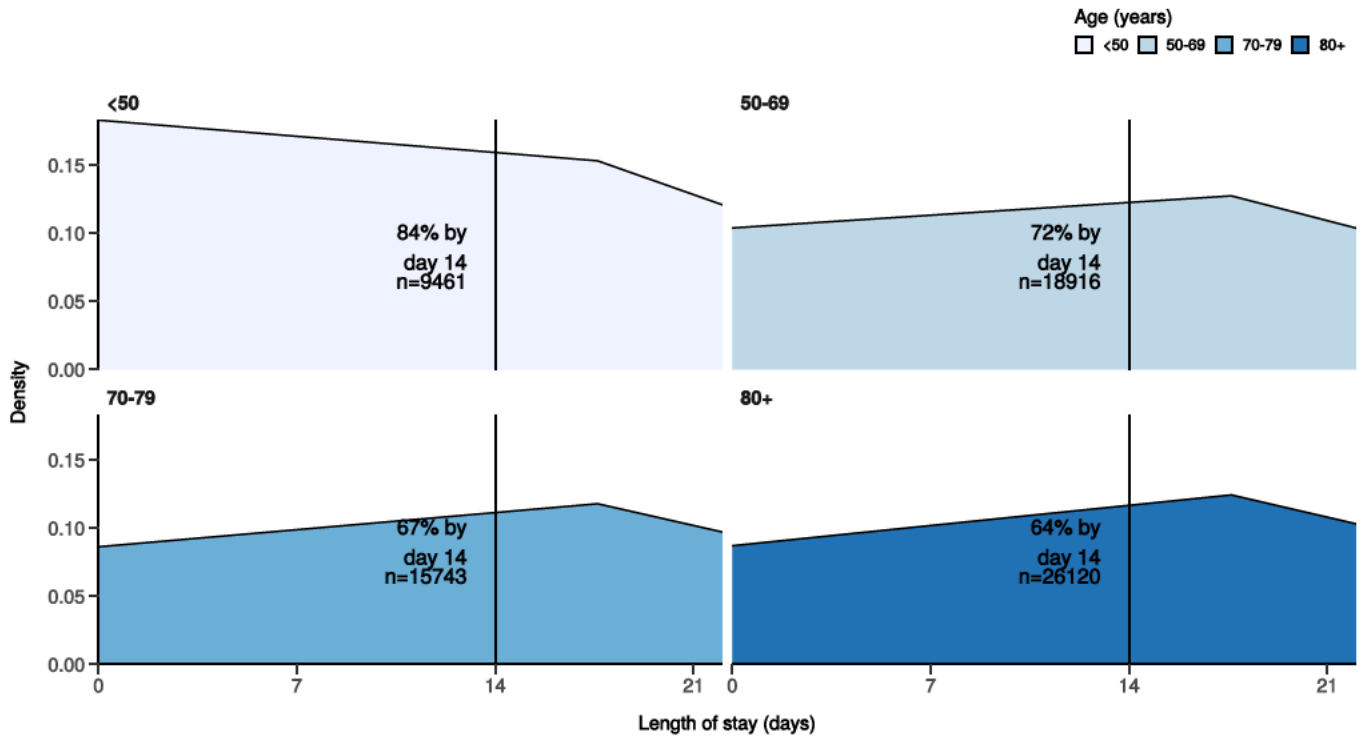
Figure 11c



Length of stay stratified by age

Figure 12

Length of stay stratified by age
Proportion who reach outcome by day 14 shown



Predictors of death: logistic regression multivariable model

Logistic regression model only includes patients admitted >14 days ago from today.

Dependent: death		No	Yes	OR (univariable)	OR (multivariable)
Age on admission (years)	<50	10302 (94.8)	569 (5.2)	•	•
	50-69	16555 (79.6)	4235 (20.4)	4.63 (4.23-5.08, p<0.001)	4.36 (3.94-4.83, p<0.001)
	70-79	10873 (63.6)	6213 (36.4)	10.35 (9.46-11.33, p<0.001)	8.75 (7.90-9.72, p<0.001)
	80+	15457 (55.1)	12612 (44.9)	14.77 (13.55-16.14, p<0.001)	12.45 (11.25-13.82, p<0.001)
Sex at Birth	Male	28787 (66.8)	14305 (33.2)	•	•
	Female	24442 (72.3)	9343 (27.7)	0.77 (0.75-0.79, p<0.001)	0.70 (0.68-0.73, p<0.001)
	Not specified	0 (NaN)	0 (NaN)	•	•
Chronic cardiac disease)	NO	35913 (74.1)	12553 (25.9)	•	•
	YES	13948 (59.2)	9631 (40.8)	1.98 (1.91-2.04, p<0.001)	1.15 (1.10-1.20, p<0.001)
Chronic pulmonary disease (not asthma)	NO	42130 (71.4)	16870 (28.6)	•	•
	YES	7617 (59.7)	5141 (40.3)	1.69 (1.62-1.75, p<0.001)	1.25 (1.19-1.31, p<0.001)

Dependent: death		No	Yes	OR (univariable)	OR (multivariable)
Chronic neurological disorder	NO	43623 (70.4)	18331 (29.6)	•	•
	YES	5787 (62.4)	3482 (37.6)	1.43 (1.37-1.50, p<0.001)	1.16 (1.10-1.22, p<0.001)
Chronic hematologic disease	NO	47336 (69.8)	20499 (30.2)	•	•
	YES	1920 (61.4)	1207 (38.6)	1.45 (1.35-1.56, p<0.001)	1.15 (1.05-1.25, p=0.002)
Chronic kidney disease	NO	42358 (71.9)	16531 (28.1)	•	•
	YES	7247 (57.2)	5421 (42.8)	1.92 (1.84-1.99, p<0.001)	1.28 (1.22-1.34, p<0.001)
Dementia	NO	42933 (72.5)	16325 (27.5)	•	•
	YES	6523 (53.9)	5572 (46.1)	2.25 (2.16-2.34, p<0.001)	1.37 (1.30-1.43, p<0.001)
Obesity (as defined by clinical staff)	NO	39279 (69.5)	17278 (30.5)	•	•
	YES	5593 (73.0)	2064 (27.0)	0.84 (0.80-0.88, p<0.001)	1.28 (1.21-1.36, p<0.001)
Malignant neoplasm	NO	45147 (70.9)	18534 (29.1)	•	•
	YES	4143 (56.4)	3209 (43.6)	1.89 (1.80-1.98, p<0.001)	1.45 (1.37-1.54, p<0.001)

Number in dataframe = 78569, Number in model = 61029, Missing = 17540, AIC = 66515.9, C-statistic = 0.713, H&L = Chi-sq(8) 126.67 (p<0.001)

Figure 13 - Adjusted odds ratio plot

Death

Age on admission (years)	<50	-
	50-69	4.36 (3.94-4.83, p<0.001)
	70-79	8.75 (7.90-9.72, p<0.001)
	80+	12.45 (11.25-13.82, p<0.001)
Sex at Birth	Male	-
	Female	0.70 (0.68-0.73, p<0.001)
	Not specified	-
Chronic cardiac disease)	YES	1.15 (1.10-1.20, p<0.001)
Chronic pulmonary disease (not asthma)	YES	1.25 (1.19-1.31, p<0.001)
Chronic neurological disorder	YES	1.16 (1.10-1.22, p<0.001)
Chronic hematologic disease	YES	1.15 (1.05-1.25, p=0.002)
Chronic kidney disease	YES	1.28 (1.22-1.34, p<0.001)
Dementia	YES	1.37 (1.30-1.43, p<0.001)
Obesity (as defined by clinical staff)	YES	1.28 (1.21-1.36, p<0.001)
Malignant neoplasm	YES	1.45 (1.37-1.54, p<0.001)

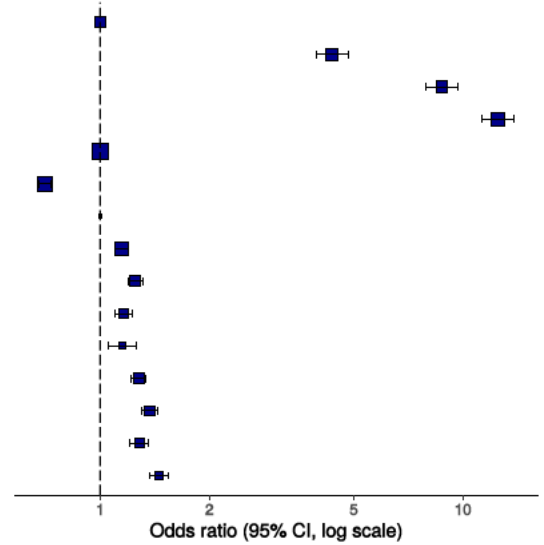
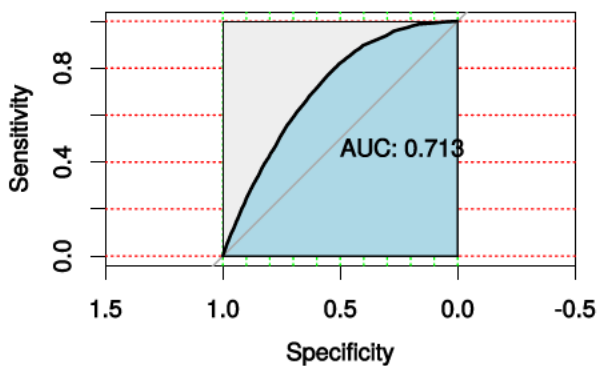


Figure 14 - ROC

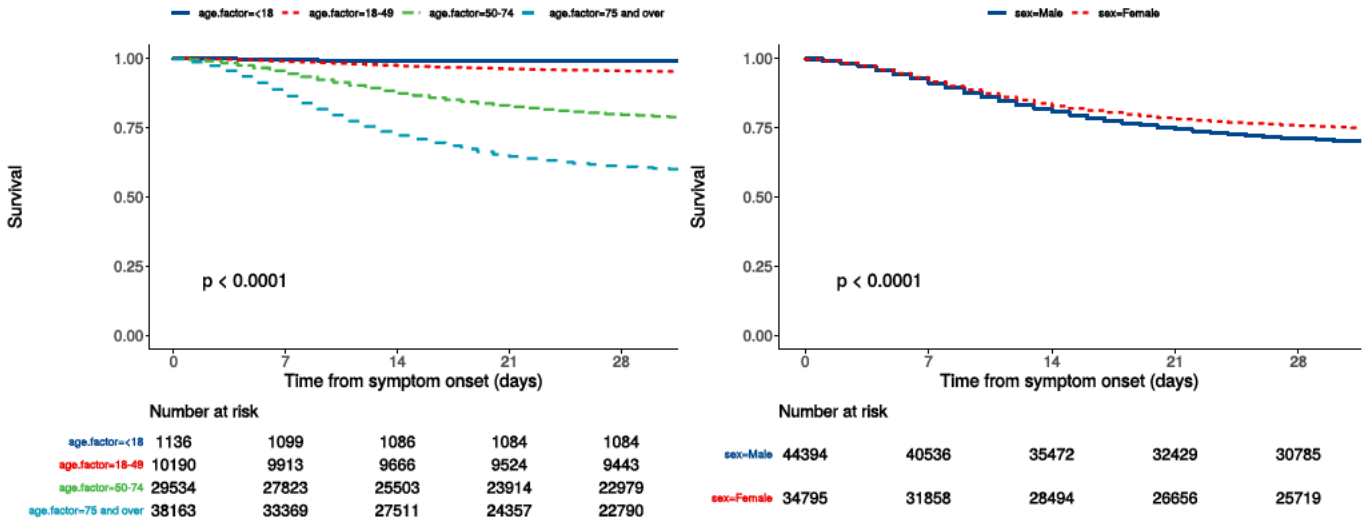


Survival models

Kaplan-Meier plots for survival from symptom onset stratified by age (left) and sex (right)

Figure 15

P-value is log-rank test.



Cox proportional hazards model

The methodology for this is now up and running, but models are still being explored. **What is presented here is not a final model, but to demonstrate methodology.** The results are correct, but important variables have not yet been included.

Time from symptom onset.

Dependent: Surv(time, status)		all		HR (univariable)	HR (multivariable)
Age on admission (years)	<50	11326 (14.3)	•		•
	50-69	21440 (27.1)		4.23 (3.87-4.62, p<0.001)	4.14 (3.72-4.62, p<0.001)
	70-79	17559 (22.2)		8.51 (7.81-9.28, p<0.001)	8.09 (7.27-9.00, p<0.001)
	80+	28703 (36.3)		11.42 (10.50-12.43, p<0.001)	10.58 (9.52-11.77, p<0.001)
Sex at Birth	Male	44394 (56.1)	•		•
	Female	34795 (43.9)		0.81 (0.79-0.83, p<0.001)	0.79 (0.76-0.82, p<0.001)
qSOFA score on admission	0	28964 (42.8)	•		•
	1	30340 (44.8)		1.60 (1.55-1.65, p<0.001)	1.71 (1.65-1.77, p<0.001)
	2	7562 (11.2)		3.05 (2.93-3.17, p<0.001)	2.86 (2.73-2.99, p<0.001)
	3	840 (1.2)		4.91 (4.50-5.36, p<0.001)	4.46 (4.04-4.92, p<0.001)
Symptomatic at presentation	No symptoms	3953 (5.1)	•		•
	Symptoms	73414 (94.9)		1.56 (1.45-1.67, p<0.001)	•
Chronic cardiac disease)	NO	49586 (67.3)	•		•
	YES	24053 (32.7)		1.77 (1.72-1.81, p<0.001)	1.13 (1.09-1.17, p<0.001)
Chronic kidney disease	NO	60221 (82.3)	•		•
	YES	12911 (17.7)		1.72 (1.66-1.77, p<0.001)	1.22 (1.17-1.26, p<0.001)

Dependent: Surv(time, status)		all	HR (univariable)	HR (multivariable)
Moderate or severe liver disease	NO	70989 (98.0)	•	•
	YES	1436 (2.0)	1.27 (1.17-1.39, p<0.001)	1.41 (1.27-1.57, p<0.001)
Chronic neurological disorder	NO	63363 (87.1)	•	•
	YES	9417 (12.9)	1.37 (1.32-1.42, p<0.001)	•
Malignant neoplasm	NO	65115 (89.7)	•	•
	YES	7475 (10.3)	1.65 (1.59-1.71, p<0.001)	1.33 (1.27-1.39, p<0.001)
Chronic hematologic disease	NO	69341 (95.6)	•	•
	YES	3176 (4.4)	1.34 (1.27-1.42, p<0.001)	•
Obesity (as defined by clinical staff)	NO	57815 (88.1)	•	•
	YES	7816 (11.9)	0.86 (0.82-0.90, p<0.001)	1.17 (1.11-1.23, p<0.001)
Diabetes without complications	NO	59010 (83.6)	•	•
	YES	11586 (16.4)	1.25 (1.21-1.29, p<0.001)	•
Rheumatologic disorder	NO	63993 (88.5)	•	•
	YES	8347 (11.5)	1.19 (1.14-1.24, p<0.001)	•
Dementia	NO	60641 (83.2)	•	•
	YES	12277 (16.8)	1.99 (1.93-2.05, p<0.001)	1.17 (1.12-1.21, p<0.001)
Malnutrition	NO	66338 (97.2)	•	•
	YES	1909 (2.8)	1.45 (1.34-1.56, p<0.001)	•
smoking_mhyn_2levels	NO	43107 (57.7)	•	•
	YES	4171 (5.6)	0.87 (0.81-0.92, p<0.001)	•
	N/K	27425 (36.7)	1.24 (1.20-1.27, p<0.001)	•

Number in dataframe = 79540, Number in model = 55372, Missing = 24168, Number of events = 16233, Concordance = 0.717 (SE = 0.002), R-squared = 0.159 (Max possible = 0.998), Likelihood ratio test = 9585.573 (df = 13, p = 0.000)

Figure 16a - Multivariable Cox proportional hazards model

Survival: HR (95% CI, p-value)

Age on admission (years)	<50	-
	50-69	4.14 (3.72-4.62, p<0.001)
	70-79	8.09 (7.27-9.00, p<0.001)
	80+	10.58 (9.52-11.77, p<0.001)
Sex at Birth	Female	0.79 (0.76-0.82, p<0.001)
qSOFA score on admission	0	-
	1	1.71 (1.65-1.77, p<0.001)
	2	2.86 (2.73-2.99, p<0.001)
	3	4.46 (4.04-4.92, p<0.001)
Chronic cardiac disease)	YES	1.13 (1.09-1.17, p<0.001)
Chronic kidney disease	YES	1.22 (1.17-1.26, p<0.001)
Moderate or severe liver disease	YES	1.41 (1.27-1.57, p<0.001)
Malignant neoplasm	YES	1.33 (1.27-1.39, p<0.001)
Obesity (as defined by clinical staff)	YES	1.17 (1.11-1.23, p<0.001)
Dementia	YES	1.17 (1.12-1.21, p<0.001)

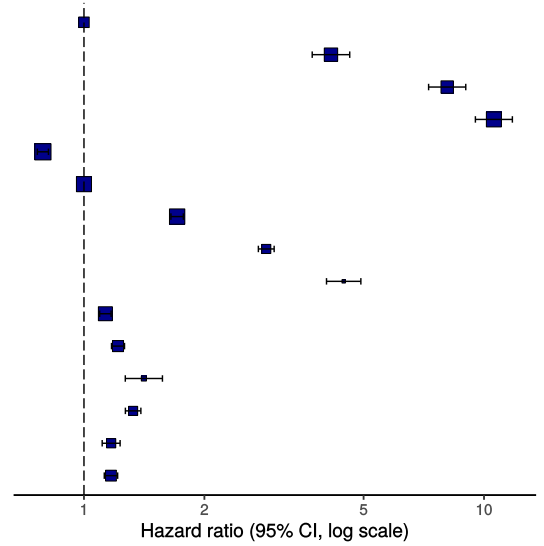
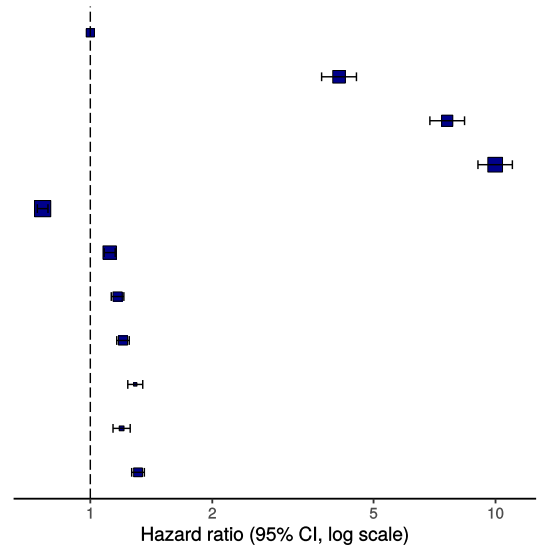


Figure 16b - Multivariable Cox proportional hazards model (age, sex, comorbidities only)

Survival: HR (95% CI, p-value)

Age on admission (years)	<50	-
	50-69	4.11 (3.72-4.54, p<0.001)
	70-79	7.60 (6.89-8.39, p<0.001)
	80+	9.98 (9.05-11.00, p<0.001)
Sex at Birth	Female	0.76 (0.74-0.79, p<0.001)
Chronic cardiac disease)	YES	1.12 (1.08-1.15, p<0.001)
Chronic pulmonary disease (not asthma)	YES	1.17 (1.13-1.21, p<0.001)
Chronic kidney disease	YES	1.20 (1.16-1.25, p<0.001)
Malignant neoplasm	YES	1.29 (1.24-1.35, p<0.001)
Obesity (as defined by clinical staff)	YES	1.19 (1.14-1.25, p<0.001)
Dementia	YES	1.31 (1.26-1.36, p<0.001)



ROC = 0.716586

Figure 17 - Predictions calibration plot

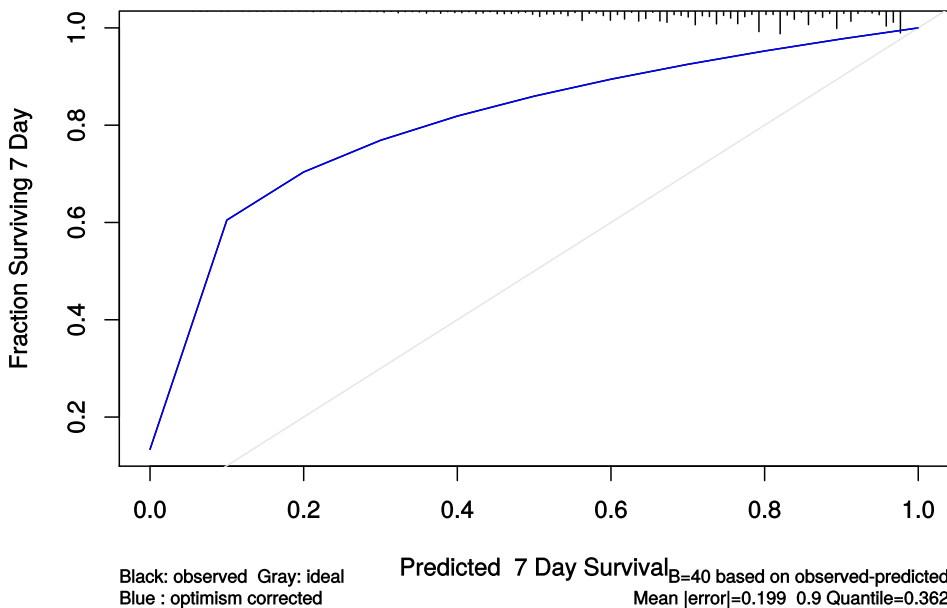


Figure 18 - Prognostic model predictions

Again, for demonstration of methods.

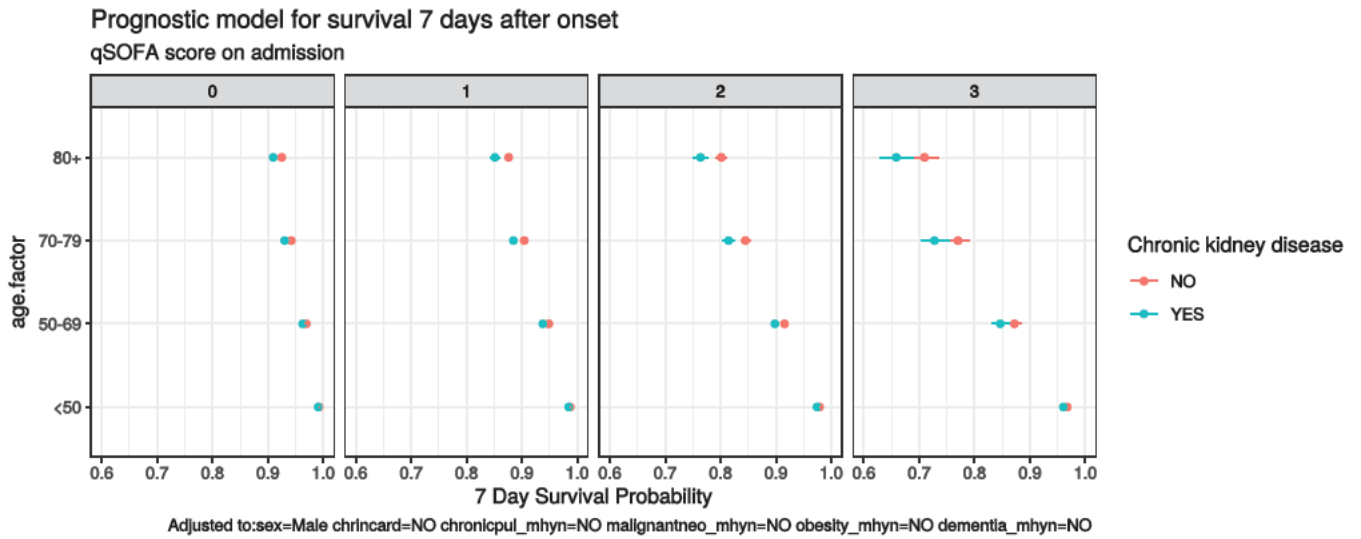


Figure 19 - Death by severity (NEWS) on admission

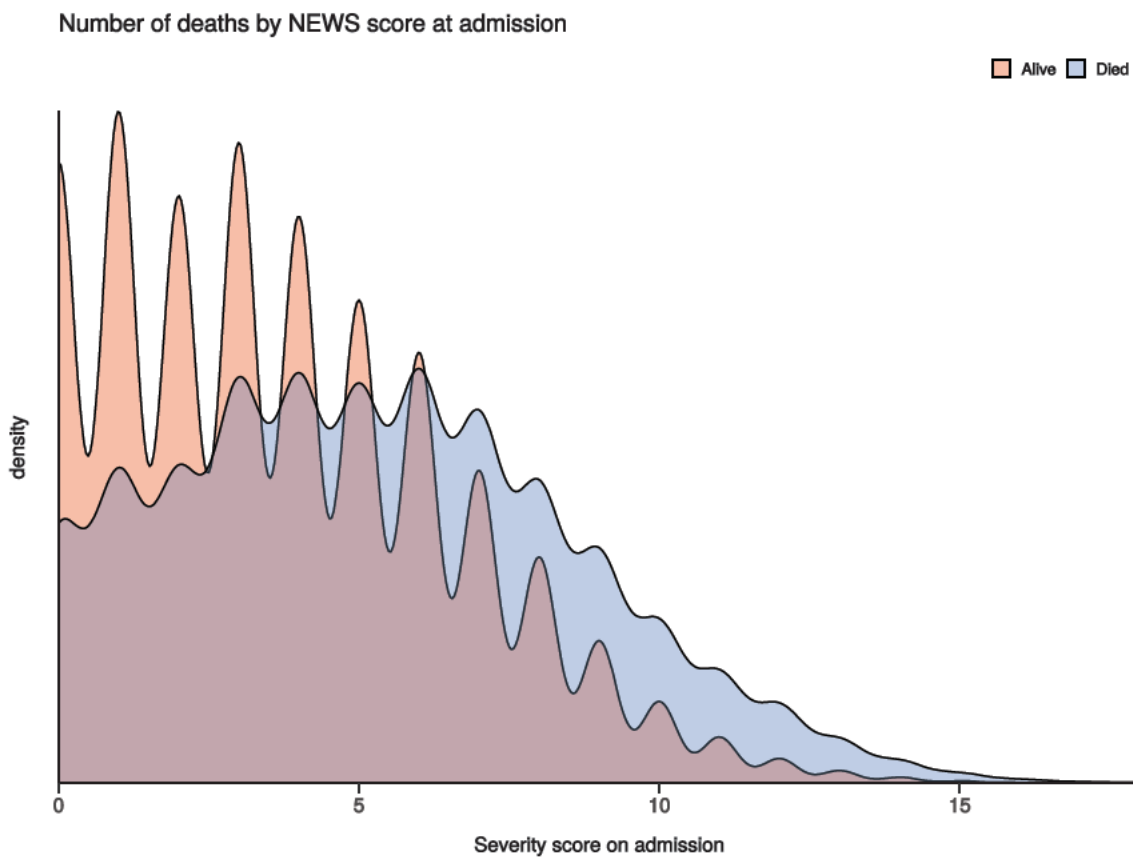


Figure 20 - Death by severity (NEWS) on admission stratified by age

Number of deaths by NEWS score at admission
Stratified by age

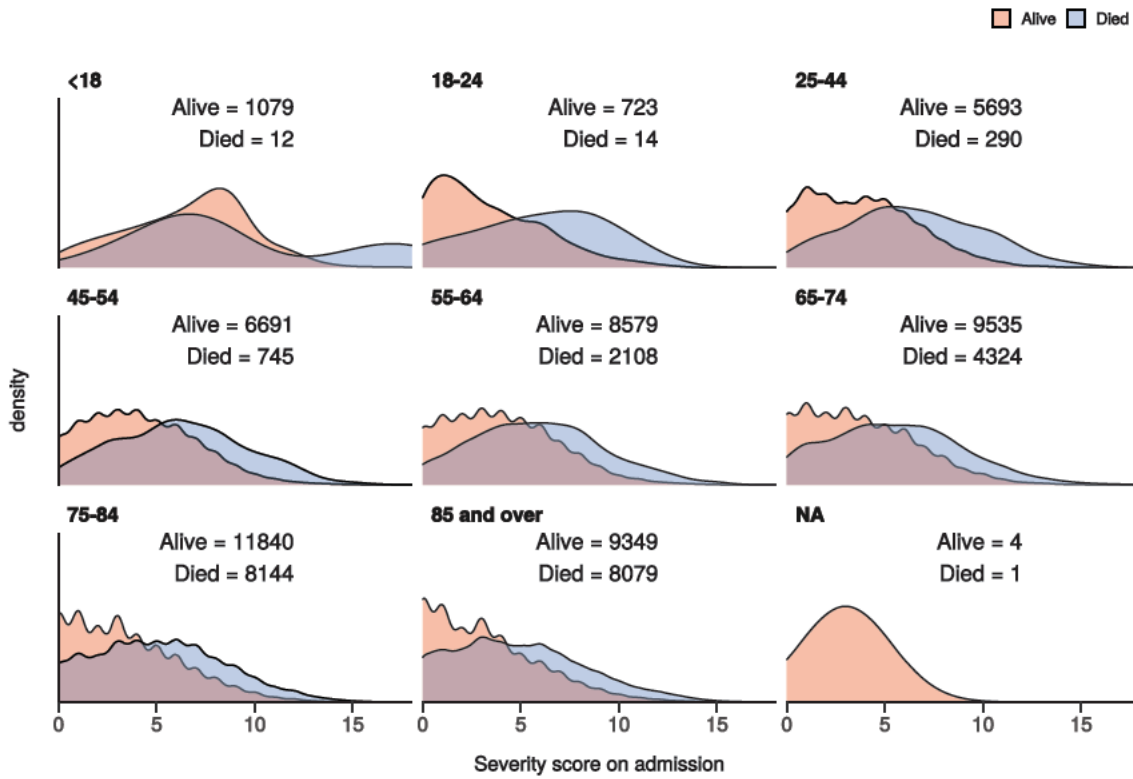
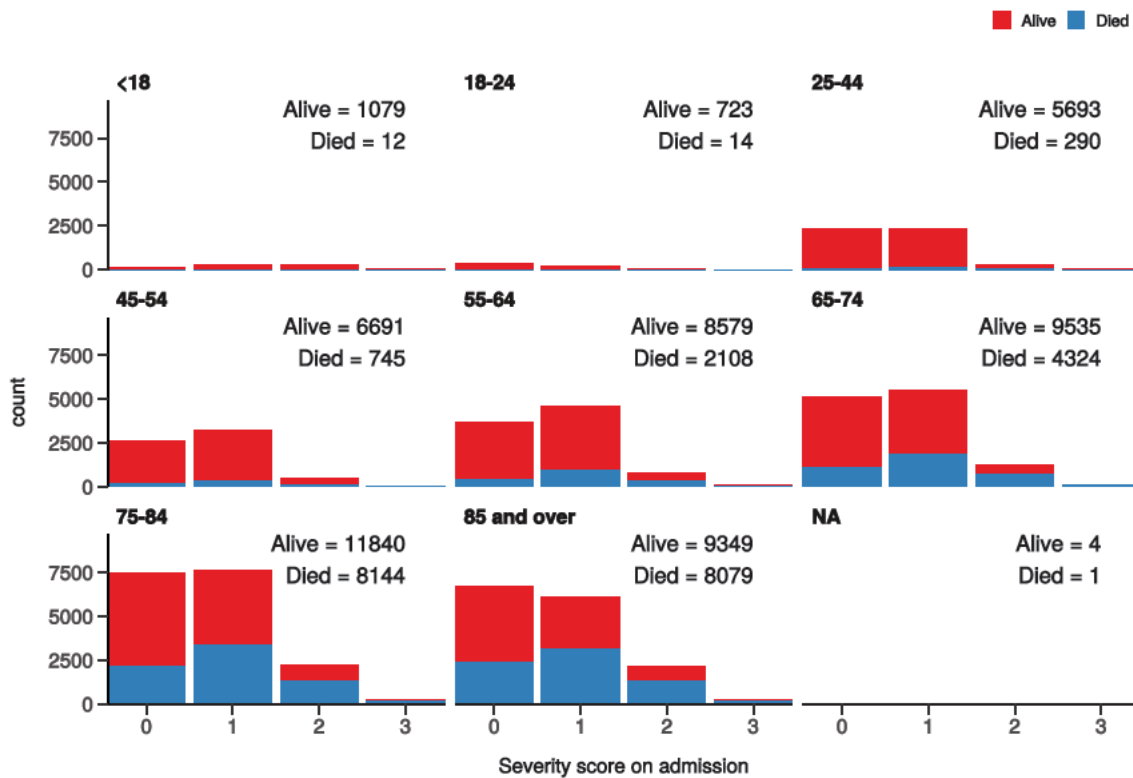


Figure 21 - Death by severity (qSOFA) on admission stratified by age

Number of deaths by qSOFA score at admission
Stratified by age



Healthcare workers

Employed as a healthcare worker?	NO	YES	p
Total N (%)	68818 (95.2)	3497 (4.8)	
NEWS score on admission	Median (IQR)	4.0 (4.0)	4.0 (4.0)
			0.001

Employed as a healthcare worker?		NO	YES	p
Death	No	44718 (67.4)	3164 (92.6)	<0.001
	Yes	21638 (32.6)	253 (7.4)	

Admission (detail)

Table 1

label	levels	all
Total N (%)		82419 (100.0)
Age on admission (years)	Mean (SD)	70.0 (20.2)
Sex at Birth	Male	45576 (55.3)
	Female	35753 (43.4)
	Not specified	147 (0.2)
	(Missing)	943 (1.1)
Employed as a healthcare worker?	YES	3497 (4.2)
	NO	68818 (83.5)
	N/A	7918 (9.6)
	(Missing)	2186 (2.7)
Employed in a microbiology laboratory?	YES	90 (0.1)
	NO	26203 (31.8)
	N/A	3119 (3.8)
	(Missing)	53007 (64.3)
Onset to admission (days)	Mean (SD)	5.3 (1411.2)
Transfer from other facility?	Yes-other facility is a study site	2150 (2.6)
	Yes-other facility is not a study site	3915 (4.8)
	No	68193 (82.7)
	N/A	3392 (4.1)
	(Missing)	4769 (5.8)
Travel in the 14 days prior to first symptom onset?	Yes	832 (1.0)
	No	22946 (27.8)
	N/A	4542 (5.5)
	(Missing)	54099 (65.6)
If YES, state location: Country	Afghanistan	0 (0.0)
	Albania	0 (0.0)
	Algeria	0 (0.0)
	Andorra	1 (0.0)
	Angola	0 (0.0)
	Antigua and Barbuda	4 (0.0)

label	levels	all
	Argentina	1 (0.0)
	Armenia	0 (0.0)
	Aruba	0 (0.0)
	Australia	3 (0.0)
	Austria	21 (0.0)
	Azerbaijan	2 (0.0)
	Bahamas (The)	6 (0.0)
	Bahrain	0 (0.0)
	Bangladesh	1 (0.0)
	Barbados	18 (0.0)
	Belarus	0 (0.0)
	Belgium	4 (0.0)
	Belize	0 (0.0)
	Benin	0 (0.0)
	Bhutan	0 (0.0)
	Bolivia	0 (0.0)
	Bosnia and Herzegovina	0 (0.0)
	Botswana	0 (0.0)
	Brazil	3 (0.0)
	Brunei	0 (0.0)
	Bulgaria	3 (0.0)
	Burkina Faso	0 (0.0)
	Burma	0 (0.0)
	Burundi	0 (0.0)
	Cambodia	1 (0.0)
	Cameroon	1 (0.0)
	Canada	2 (0.0)
	Cabo Verde	1 (0.0)
	Central African Republic	1 (0.0)
	Chad	0 (0.0)
	Chile	1 (0.0)
	China	3 (0.0)
	Colombia	0 (0.0)
	Comoros	0 (0.0)
	Congo (Republic of the)	0 (0.0)
	Costa Rica	0 (0.0)

label	levels	all
	Cote d'Ivoire	0 (0.0)
	Croatia	0 (0.0)
	Cuba	1 (0.0)
	Curacao	0 (0.0)
	Cyprus	27 (0.0)
	Czechia	2 (0.0)
	Denmark	1 (0.0)
	Djibouti	0 (0.0)
	Dominica	0 (0.0)
	Dominican Republic	3 (0.0)
	Ecuador	0 (0.0)
	Egypt	8 (0.0)
	El Salvador	0 (0.0)
	Equatorial Guinea	0 (0.0)
	Eritrea	0 (0.0)
	Estonia	0 (0.0)
	Ethiopia	0 (0.0)
	Fiji	0 (0.0)
	Finland	0 (0.0)
	France	36 (0.0)
	Gabon	0 (0.0)
	Gambia (The)	0 (0.0)
	Georgia	0 (0.0)
	Germany	8 (0.0)
	Ghana	2 (0.0)
	Greece	2 (0.0)
	Grenada	0 (0.0)
	Guatemala	0 (0.0)
	Guinea	0 (0.0)
	Guinea-Bissau	0 (0.0)
	Guyana	0 (0.0)
	Haiti	0 (0.0)
	Holy See	0 (0.0)
	Honduras	0 (0.0)
	Hong Kong	1 (0.0)
	Hungary	4 (0.0)

label	levels	all
	Iceland	1 (0.0)
	India	12 (0.0)
	Indonesia	1 (0.0)
	Iran	7 (0.0)
	Iraq	0 (0.0)
	Ireland	8 (0.0)
	Israel	0 (0.0)
	Italy	90 (0.1)
	Jamaica	3 (0.0)
	Japan	6 (0.0)
	Jordan	1 (0.0)
	Kazakhstan	0 (0.0)
	Kenya	1 (0.0)
	Kiribati	0 (0.0)
	Korea (South)	0 (0.0)
	Kosovo	0 (0.0)
	Kuwait	1 (0.0)
	Kyrgyzstan	0 (0.0)
	Laos	0 (0.0)
	Latvia	0 (0.0)
	Lebanon	0 (0.0)
	Lesotho	0 (0.0)
	Liberia	0 (0.0)
	Libya	0 (0.0)
	Liechtenstein	0 (0.0)
	Lithuania	0 (0.0)
	Luxembourg	0 (0.0)
	Macau	0 (0.0)
	Macedonia	0 (0.0)
	Madagascar	1 (0.0)
	Malawi	0 (0.0)
	Malaysia	4 (0.0)
	Maldives	1 (0.0)
	Mali	0 (0.0)
	Malta	2 (0.0)
	Marshall Islands	0 (0.0)

label	levels	all
	Mauritania	0 (0.0)
	Mauritius	1 (0.0)
	Mexico	4 (0.0)
	Micronesia	0 (0.0)
	Moldova	0 (0.0)
	Monaco	0 (0.0)
	Mongolia	0 (0.0)
	Montenegro	0 (0.0)
	Morocco	4 (0.0)
	Mozambique	0 (0.0)
	Namibia	0 (0.0)
	Nauru	0 (0.0)
	Nepal	3 (0.0)
	Netherlands	9 (0.0)
	New Zealand	3 (0.0)
	Nicaragua	0 (0.0)
	Niger	0 (0.0)
	Nigeria	2 (0.0)
	North Korea	0 (0.0)
	Norway	2 (0.0)
	Oman	0 (0.0)
	Pakistan	10 (0.0)
	Palau	0 (0.0)
	Palestinian Territories	0 (0.0)
	Panama	1 (0.0)
	Papua New Guinea	0 (0.0)
	Paraguay	0 (0.0)
	Peru	0 (0.0)
	Philippines	5 (0.0)
	Poland	3 (0.0)
	Portugal	22 (0.0)
	Qatar	1 (0.0)
	Romania	6 (0.0)
	Russia	0 (0.0)
	Rwanda	0 (0.0)
	Saint Kitts and Nevis	0 (0.0)

label	levels	all
	Saint Lucia	0 (0.0)
	Saint Vincent and the Grenadines	0 (0.0)
	Samoa	0 (0.0)
	San Marino	0 (0.0)
	Sao Tome and Principe	0 (0.0)
	Saudi Arabia	2 (0.0)
	Senegal	0 (0.0)
	Serbia	0 (0.0)
	Seychelles	0 (0.0)
	Sierra Leone	1 (0.0)
	Singapore	4 (0.0)
	Sint Maarten	0 (0.0)
	Slovakia	1 (0.0)
	Slovenia	1 (0.0)
	Solomon Islands	0 (0.0)
	Somalia	2 (0.0)
	South Africa	10 (0.0)
	South Korea	1 (0.0)
	South Sudan	0 (0.0)
	Spain	205 (0.2)
	Sri Lanka	0 (0.0)
	Sudan	0 (0.0)
	Suriname	0 (0.0)
	Swaziland	1 (0.0)
	Sweden	0 (0.0)
	Switzerland	8 (0.0)
	Syria	0 (0.0)
	Taiwan	1 (0.0)
	Tajikistan	0 (0.0)
	Tanzania	0 (0.0)
	Thailand	8 (0.0)
	Timor-Leste	0 (0.0)
	Togo	0 (0.0)
	Tonga	0 (0.0)
	Trinidad and Tobago	0 (0.0)
	Tunisia	0 (0.0)

label	levels	all
	Turkey	8 (0.0)
	Turkmenistan	0 (0.0)
	Tuvalu	0 (0.0)
	Uganda	0 (0.0)
	Ukraine	0 (0.0)
	United Arab Emirates	11 (0.0)
	United Kingdom	117 (0.1)
	United States	33 (0.0)
	Uruguay	0 (0.0)
	Uzbekistan	0 (0.0)
	Vanuatu	0 (0.0)
	Venezuela	0 (0.0)
	Vietnam	0 (0.0)
	Yemen	1 (0.0)
	Zambia	0 (0.0)
	Zimbabwe	1 (0.0)
	(Missing)	81616 (99.0)
	Afghanistan	0 (0.0)
	Albania	0 (0.0)
	Algeria	1 (0.0)
	Andorra	0 (0.0)
	Angola	0 (0.0)
	Antigua and Barbuda	1 (0.0)
	Argentina	0 (0.0)
	Armenia	0 (0.0)
	Aruba	1 (0.0)
	Australia	3 (0.0)
	Austria	4 (0.0)
	Azerbaijan	0 (0.0)
	Bahamas (The)	0 (0.0)
	Bahrain	0 (0.0)
	Bangladesh	0 (0.0)
	Barbados	2 (0.0)
	Belarus	0 (0.0)
	Belgium	1 (0.0)
	Belize	0 (0.0)

label	levels	all
	Benin	0 (0.0)
	Bhutan	0 (0.0)
	Bolivia	0 (0.0)
	Bosnia and Herzegovina	0 (0.0)
	Botswana	0 (0.0)
	Brazil	0 (0.0)
	Brunei	0 (0.0)
	Bulgaria	2 (0.0)
	Burkina Faso	0 (0.0)
	Burma	0 (0.0)
	Burundi	0 (0.0)
	Cambodia	0 (0.0)
	Cameroon	0 (0.0)
	Canada	2 (0.0)
	Cabo Verde	0 (0.0)
	Central African Republic	0 (0.0)
	Chad	0 (0.0)
	Chile	0 (0.0)
	China	0 (0.0)
	Colombia	0 (0.0)
	Comoros	0 (0.0)
	Congo (Republic of the)	0 (0.0)
	Costa Rica	0 (0.0)
	Cote d'Ivoire	0 (0.0)
	Croatia	0 (0.0)
	Cuba	0 (0.0)
	Curacao	0 (0.0)
	Cyprus	3 (0.0)
	Czechia	1 (0.0)
	Denmark	0 (0.0)
	Djibouti	0 (0.0)
	Dominica	0 (0.0)
	Dominican Republic	0 (0.0)
	Ecuador	0 (0.0)
	Egypt	2 (0.0)
	El Salvador	0 (0.0)

label	levels	all
	Equatorial Guinea	0 (0.0)
	Eritrea	0 (0.0)
	Estonia	0 (0.0)
	Ethiopia	0 (0.0)
	Fiji	0 (0.0)
	Finland	0 (0.0)
	France	9 (0.0)
	Gabon	0 (0.0)
	Gambia (The)	0 (0.0)
	Georgia	0 (0.0)
	Germany	3 (0.0)
	Ghana	0 (0.0)
	Greece	0 (0.0)
	Grenada	0 (0.0)
	Guatemala	0 (0.0)
	Guinea	0 (0.0)
	Guinea-Bissau	0 (0.0)
	Guyana	0 (0.0)
	Haiti	0 (0.0)
	Holy See	0 (0.0)
	Honduras	0 (0.0)
	Hong Kong	0 (0.0)
	Hungary	0 (0.0)
	Iceland	0 (0.0)
	India	5 (0.0)
	Indonesia	1 (0.0)
	Iran	0 (0.0)
	Iraq	0 (0.0)
	Ireland	1 (0.0)
	Israel	1 (0.0)
	Italy	16 (0.0)
	Jamaica	1 (0.0)
	Japan	0 (0.0)
	Jordan	0 (0.0)
	Kazakhstan	0 (0.0)
	Kenya	0 (0.0)

label	levels	all
	Kiribati	0 (0.0)
	Korea (South)	0 (0.0)
	Kosovo	0 (0.0)
	Kuwait	0 (0.0)
	Kyrgyzstan	0 (0.0)
	Laos	0 (0.0)
	Latvia	0 (0.0)
	Lebanon	0 (0.0)
	Lesotho	0 (0.0)
	Liberia	0 (0.0)
	Libya	0 (0.0)
	Liechtenstein	0 (0.0)
	Lithuania	0 (0.0)
	Luxembourg	0 (0.0)
	Macau	0 (0.0)
	Macedonia	0 (0.0)
	Madagascar	0 (0.0)
	Malawi	0 (0.0)
	Malaysia	0 (0.0)
	Maldives	0 (0.0)
	Mali	0 (0.0)
	Malta	0 (0.0)
	Marshall Islands	0 (0.0)
	Mauritania	0 (0.0)
	Mauritius	0 (0.0)
	Mexico	0 (0.0)
	Micronesia	0 (0.0)
	Moldova	0 (0.0)
	Monaco	0 (0.0)
	Mongolia	0 (0.0)
	Montenegro	0 (0.0)
	Morocco	1 (0.0)
	Mozambique	0 (0.0)
	Namibia	0 (0.0)
	Nauru	0 (0.0)
	Nepal	0 (0.0)

label	levels	all
	Netherlands	2 (0.0)
	New Zealand	0 (0.0)
	Nicaragua	0 (0.0)
	Niger	0 (0.0)
	Nigeria	0 (0.0)
	North Korea	0 (0.0)
	Norway	0 (0.0)
	Oman	0 (0.0)
	Pakistan	1 (0.0)
	Palau	0 (0.0)
	Palestinian Territories	0 (0.0)
	Panama	0 (0.0)
	Papua New Guinea	0 (0.0)
	Paraguay	0 (0.0)
	Peru	0 (0.0)
	Philippines	0 (0.0)
	Poland	0 (0.0)
	Portugal	2 (0.0)
	Qatar	1 (0.0)
	Romania	0 (0.0)
	Russia	0 (0.0)
	Rwanda	0 (0.0)
	Saint Kitts and Nevis	0 (0.0)
	Saint Lucia	0 (0.0)
	Saint Vincent and the Grenadines	0 (0.0)
	Samoa	0 (0.0)
	San Marino	0 (0.0)
	Sao Tome and Principe	0 (0.0)
	Saudi Arabia	0 (0.0)
	Senegal	0 (0.0)
	Serbia	0 (0.0)
	Seychelles	0 (0.0)
	Sierra Leone	0 (0.0)
	Singapore	0 (0.0)
	Sint Maarten	0 (0.0)
	Slovakia	0 (0.0)

label	levels	all
	Slovenia	0 (0.0)
	Solomon Islands	0 (0.0)
	Somalia	0 (0.0)
	South Africa	1 (0.0)
	South Korea	0 (0.0)
	South Sudan	0 (0.0)
	Spain	21 (0.0)
	Sri Lanka	0 (0.0)
	Sudan	0 (0.0)
	Suriname	0 (0.0)
	Swaziland	0 (0.0)
	Sweden	0 (0.0)
	Switzerland	1 (0.0)
	Syria	0 (0.0)
	Taiwan	0 (0.0)
	Tajikistan	0 (0.0)
	Tanzania	0 (0.0)
	Thailand	1 (0.0)
	Timor-Leste	0 (0.0)
	Togo	0 (0.0)
	Tonga	0 (0.0)
	Trinidad and Tobago	0 (0.0)
	Tunisia	0 (0.0)
	Turkey	4 (0.0)
	Turkmenistan	0 (0.0)
	Tuvalu	0 (0.0)
	Uganda	0 (0.0)
	Ukraine	0 (0.0)
	United Arab Emirates	0 (0.0)
	United Kingdom	1 (0.0)
	United States	4 (0.0)
	Uruguay	0 (0.0)
	Uzbekistan	0 (0.0)
	Vanuatu	0 (0.0)
	Venezuela	0 (0.0)
	Vietnam	1 (0.0)

label	levels	all
	Yemen	0 (0.0)
	Zambia	0 (0.0)
	Zimbabwe	0 (0.0)
	(Missing)	82318 (99.9)
Contact with animals, raw meat or insect bi...symptom onset?	Yes	108 (0.1)
	No	11146 (13.5)
	Unknown	15309 (18.6)
	N/A	1852 (2.2)
	(Missing)	54004 (65.5)
If YES, specify the animal/insect	2 Budgerigars and 26 Cats at home	1 (0.9)
	2 dogs	1 (0.9)
	Bee Sting	1 (0.9)
	Bird (pet)	1 (0.9)
	Birds at home	1 (0.9)
	Budgie	1 (0.9)
	budgies	1 (0.9)
	cat	3 (2.8)
	Cat	1 (0.9)
	CAT	1 (0.9)
	Cat (pet)	1 (0.9)
	Cat / Dog	1 (0.9)
	Cat, Dog (pets)	1 (0.9)
	cats	3 (2.8)
	Cats	1 (0.9)
	chicken & beef	1 (0.9)
	Chickens	2 (1.9)
	COWS	1 (0.9)
	Cows, Rabbits, Pigs, Goats	1 (0.9)
	DAILY CONTACT WITH DOMESTIC PET CAT	1 (0.9)
	dog	6 (5.7)
	Dog	12 (11.3)
	DOG	2 (1.9)
	DOG FAMILY PET	1 (0.9)
	Dog, domestic animla living in their home.	1 (0.9)
	Dogs	1 (0.9)
	dogs and cats	1 (0.9)

label	levels	all
	Dogs at home	1 (0.9)
	domestic	1 (0.9)
	Domestic pet dog	1 (0.9)
	DOMESTIC ANIMAL	2 (1.9)
	Domestic animal and faeces/nest	1 (0.9)
	domestic animal living in his home	1 (0.9)
	domestic animals	1 (0.9)
	Domestic animals living in his/her home	1 (0.9)
	Domestic Animals living in his/her home	1 (0.9)
	Domestic animals living in home	1 (0.9)
	Domestic cats	1 (0.9)
	domestic dog	1 (0.9)
	domestic Dog	1 (0.9)
	Domestic Per (dog)	1 (0.9)
	Domestic pest (cats)	1 (0.9)
	Domestic Pet	5 (4.7)
	Domestic Pet (Dog)	6 (5.7)
	Domestic pet cat	1 (0.9)
	Domestic pet Dog	1 (0.9)
	Domestic pet, dog	1 (0.9)
	Domestic pets	1 (0.9)
	Domestic Pets	2 (1.9)
	Domestic pets (dog)	1 (0.9)
	Domestic Pets Cat and Dog	1 (0.9)
	FARM ANIMALS - LAMBS	1 (0.9)
	Farm animals, cattle	1 (0.9)
	Guinea Pig	1 (0.9)
	HORSES	1 (0.9)
	Livestock including pigs	1 (0.9)
	pet dog	2 (1.9)
	Pet dog	2 (1.9)
	Pet dog -ongoing daily contact	1 (0.9)
	pet dog at home	1 (0.9)
	Pet dog ongoing daily contact	1 (0.9)
	Prepared raw chicken	1 (0.9)
	Rabbits	1 (0.9)

label	levels	all
	raw chicken	1 (0.9)
	Raw Chicken	1 (0.9)
	Rodent	1 (0.9)
	she has a cat	1 (0.9)
	SHEEP	1 (0.9)
	Sheep & Cattle	1 (0.9)
	Two cats	1 (0.9)
	unknown	1 (0.9)

Symptoms (detail)

Table 2

Stratified: all		all
Total N (%)		82419 (100.0)
History of fever	YES	45747 (55.5)
	NO	27696 (33.6)
	Unknown	4057 (4.9)
	(Missing)	4919 (6.0)
Cough	YES	46060 (55.9)
	NO	27032 (32.8)
	Unknown	4418 (5.4)
	(Missing)	4909 (6.0)
Cough: with sputum production	YES	13697 (16.6)
	NO	49884 (60.5)
	Unknown	13839 (16.8)
	(Missing)	4999 (6.1)
Cough: bloody sputum / haemoptysis	YES	1645 (2.0)
	NO	60968 (74.0)
	Unknown	14793 (17.9)
	(Missing)	5013 (6.1)
Sore throat	YES	4271 (5.2)
	NO	53693 (65.1)
	Unknown	19462 (23.6)
	(Missing)	4993 (6.1)
Runny nose (Rhinorrhoea)	YES	1309 (1.6)
	NO	55861 (67.8)
	Unknown	20242 (24.6)

Stratified: all		all
	(Missing)	5007 (6.1)
Ear pain	YES	264 (0.3)
	NO	56605 (68.7)
	Unknown	20537 (24.9)
	(Missing)	5013 (6.1)
Wheezing	YES	5137 (6.2)
	NO	56416 (68.5)
	Unknown	15857 (19.2)
	(Missing)	5009 (6.1)
Chest pain	YES	8577 (10.4)
	NO	55909 (67.8)
	Unknown	12957 (15.7)
	(Missing)	4976 (6.0)
Muscle aches (Myalgia)	YES	9911 (12.0)
	NO	48785 (59.2)
	Unknown	18723 (22.7)
	(Missing)	5000 (6.1)
Joint pain (Arthralgia)	YES	3709 (4.5)
	NO	53222 (64.6)
	Unknown	20463 (24.8)
	(Missing)	5025 (6.1)
Fatigue / Malaise	YES	25801 (31.3)
	NO	36607 (44.4)
	Unknown	15011 (18.2)
	(Missing)	5000 (6.1)
Shortness of breath (Dyspnea)	YES	45751 (55.5)
	NO	26343 (32.0)
	Unknown	5429 (6.6)
	(Missing)	4896 (5.9)
Lower chest wall indrawing	YES	692 (0.8)
	NO	55953 (67.9)
	Unknown	20744 (25.2)
	(Missing)	5030 (6.1)
Headache	YES	5840 (7.1)
	NO	53081 (64.4)
	Unknown	18485 (22.4)

Stratified: all**all**

	(Missing)	5013 (6.1)
Altered consciousness / confusion	YES	19182 (23.3)
	NO	48216 (58.5)
	Unknown	10035 (12.2)
	(Missing)	4986 (6.0)
Seizures	YES	1084 (1.3)
	NO	63212 (76.7)
	Unknown	13103 (15.9)
	(Missing)	5020 (6.1)
Abdominal pain	YES	7039 (8.5)
	NO	57108 (69.3)
	Unknown	13267 (16.1)
	(Missing)	5005 (6.1)
Vomiting / Nausea	YES	12754 (15.5)
	NO	53727 (65.2)
	Unknown	10965 (13.3)
	(Missing)	4973 (6.0)
Diarrhoea	YES	11424 (13.9)
	NO	54673 (66.3)
	Unknown	11337 (13.8)
	(Missing)	4985 (6.0)
Conjunctivitis	YES	249 (0.3)
	NO	59788 (72.5)
	Unknown	17360 (21.1)
	(Missing)	5022 (6.1)
Skin rash	YES	980 (1.2)
	NO	60214 (73.1)
	Unknown	16207 (19.7)
	(Missing)	5018 (6.1)
Skin ulcers	YES	1630 (2.0)
	NO	59775 (72.5)
	Unknown	15990 (19.4)
	(Missing)	5024 (6.1)
Lymphadenopathy	YES	449 (0.5)
	NO	60063 (72.9)
	Unknown	16875 (20.5)

Stratified: all		all
	(Missing)	5032 (6.1)
Bleeding (Haemorrhage)	YES	1236 (1.5)
	NO	62197 (75.5)
	Unknown	13952 (16.9)
	(Missing)	5034 (6.1)
If Bleeding (others)	YES	531 (0.6)
	NO	21869 (26.5)
	Unknown	5791 (7.0)
	(Missing)	54228 (65.8)

Comorbidity (detail)

Table 3

Stratified: all		all
Total N (%)		82419 (100.0)
Chronic cardiac disease)	ES	24144 (29.3)
	NO	49744 (60.4)
	Unknown	3749 (4.5)
	(Missing)	4782 (5.8)
Chronic pulmonary disease (not asthma)	YES	13099 (15.9)
	NO	60481 (73.4)
	Unknown	4059 (4.9)
	(Missing)	4780 (5.8)
Asthma (physician diagnosed)	YES	9999 (12.1)
	NO	63365 (76.9)
	Unknown	4241 (5.1)
	(Missing)	4814 (5.8)
Chronic kidney disease	YES	12967 (15.7)
	NO	60408 (73.3)
	Unknown	4258 (5.2)
	(Missing)	4786 (5.8)
Moderate or severe liver disease	YES	1438 (1.7)
	NO	71224 (86.4)
	Unknown	4954 (6.0)
	(Missing)	4803 (5.8)
Mild Liver disease	YES	1146 (1.4)
	NO	71337 (86.6)

Stratified: all		all
	Unknown	5128 (6.2)
	(Missing)	4808 (5.8)
Chronic neurological disorder	YES	9459 (11.5)
	NO	63556 (77.1)
	Unknown	4596 (5.6)
	(Missing)	4808 (5.8)
Malignant neoplasm	YES	7518 (9.1)
	NO	65312 (79.2)
	Unknown	4784 (5.8)
	(Missing)	4805 (5.8)
Chronic hematologic disease	YES	3190 (3.9)
	NO	69562 (84.4)
	Unknown	4846 (5.9)
	(Missing)	4821 (5.8)
AIDS/HIV	YES	278 (0.3)
	NO	71491 (86.7)
	Unknown	5837 (7.1)
	(Missing)	4813 (5.8)
Obesity (as defined by clinical staff)	YES	7837 (9.5)
	NO	58006 (70.4)
	Unknown	11715 (14.2)
	(Missing)	4861 (5.9)
Diabetes with complications	YES	5387 (6.5)
	NO	65320 (79.3)
	Unknown	6840 (8.3)
	(Missing)	4872 (5.9)
Diabetes without complications	YES	11627 (14.1)
	NO	59206 (71.8)
	Unknown	6714 (8.1)
	(Missing)	4872 (5.9)
Rheumatologic disorder	YES	8374 (10.2)
	NO	64202 (77.9)
	Unknown	5014 (6.1)
	(Missing)	4829 (5.9)
Dementia	YES	12321 (14.9)
	NO	60835 (73.8)

Stratified: all

all

	Unknown	4473 (5.4)
	(Missing)	4790 (5.8)
Malnutrition	YES	1921 (2.3)
	NO	66540 (80.7)
	Unknown	9115 (11.1)
	(Missing)	4843 (5.9)
Smoking	YES	4183 (5.1)
	NO	43240 (52.5)
	N/K	27529 (33.4)
	(Missing)	7467 (9.1)