SPRINT SARI 2023 Annual report

Methods

Ethics and consent

Human Research Ethics Committee (HREC) approval for data collection, with a waiver of informed consent, was granted via the National Mutual Acceptance (NMA) scheme, through the Alfred (HREC/16/Alfred/59), or by separate applications to individual sites. Research Governance approval was granted by the Chief Health Officer (CHO) in South Australia and Victoria, and supported by the CHO in Queensland, under legislated public health powers. Individual site Research Governance approvals were granted at all sites where it was required.

Participating centres

Participating sites across Australia were identified following an expression of interest to ANZICS-CTG affiliated sites, or through previous affiliation with the SPRINT SARI AUS team. The ANZICS-CTG is a well-established research network with highly experienced research coordinators familiar with conducting high quality research studies. The initial case report form (CRF) had extensive development by local and international clinical experts, and includes standardized data fields that align with our international SPRINT-SARI collaborators.

Data collection

Data in this report was entered by the research coordinator at the participating site. To support the rapid institution of data collection and reporting, SPRINT-SARI AUS hosts a data platform that includes an electronic data capture system, a secure repository and an analytic framework. Study data were collected and managed using REDCap electronic data capture tools hosted at Monash University[2]. REDCap (Research Electronic Data Capture) is a secure, web-based software platform designed to support data capture for research studies, providing 1) an intuitive interface for validated data capture; 2) audit trails for tracking data manipulation and export procedures; 3) automated export procedures for seamless data downloads to common statistical packages; and 4) procedures for data integration and interoperability with external sources.

Dataset analysed

Data in this report was extracted on 2024-05-22 at 10:18h and pertains to ICU admissions in Australia reported to the SPRINT-SARI AUS ICU COVID-19 database until 2023-12-31.

Statistical analysis

Descriptive statistics have been reported as mean and standard deviation (SD) or median and interquartile range (IQR) and frequencies and percentages for categorical variables. Differences between groups were assessed using the chi-square test for categorical variables and the Wilcoxon rank sum test for continuous variables. Kaplan Meier survival estimates were used to describe the 30-day in-hospital mortality according to relevant groups of interest. All analyses were performed using R version 4.4.0 (R Core Team, 2023)[3] with pakages, “dplyr”[4], “ggplot2”[5], “ggpubr”[6], “forcats”[4], “gtsummary”[7], “gt”[8], “survival”[9]

Disclaimer

This report is also descriptive and we urge caution in any inference particularly around causation.

The utmost effort has been made to ensure the highest quality data is being reported. However please note the following caveats:

- The population in this report reflect the sickest patients with SARI patients being managed in contributing ICUs, and do not reflect the overall population of SARI patients.
- Information is not complete for all patients.
- Whenever possible, transfers were aggregated into one record.

Results

Overall cohort

Figure 1. Annual number of SARI cases

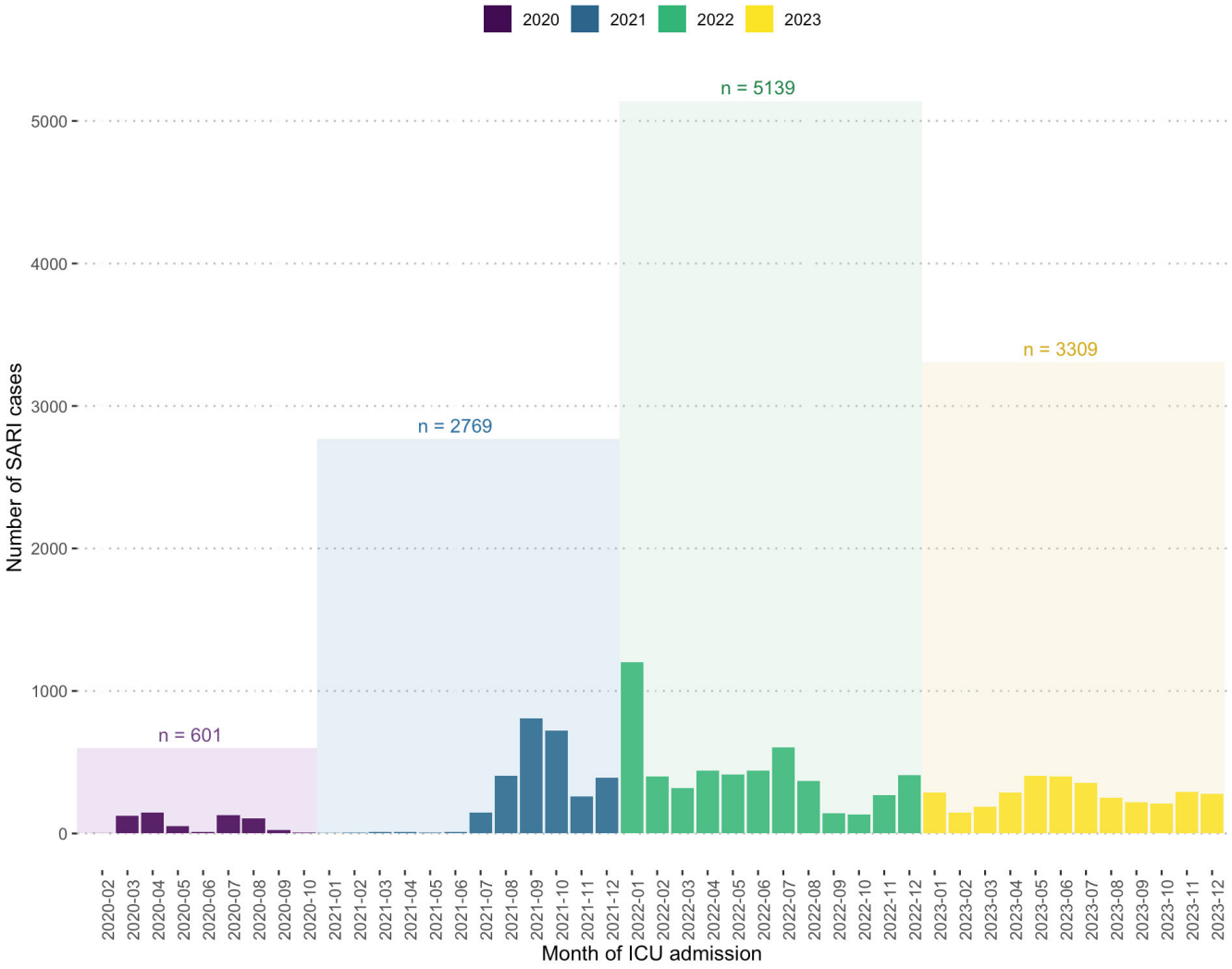


Figure 2. Pathogen proportion

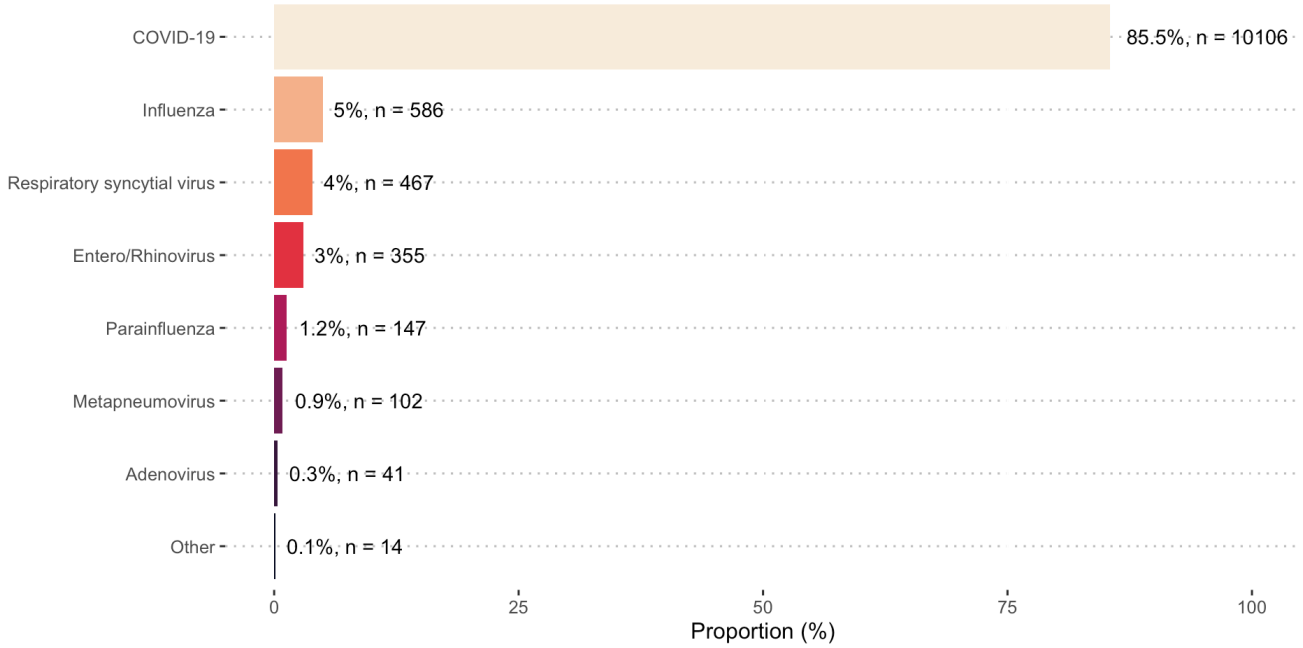


Figure 3. Pathogen proportion by year

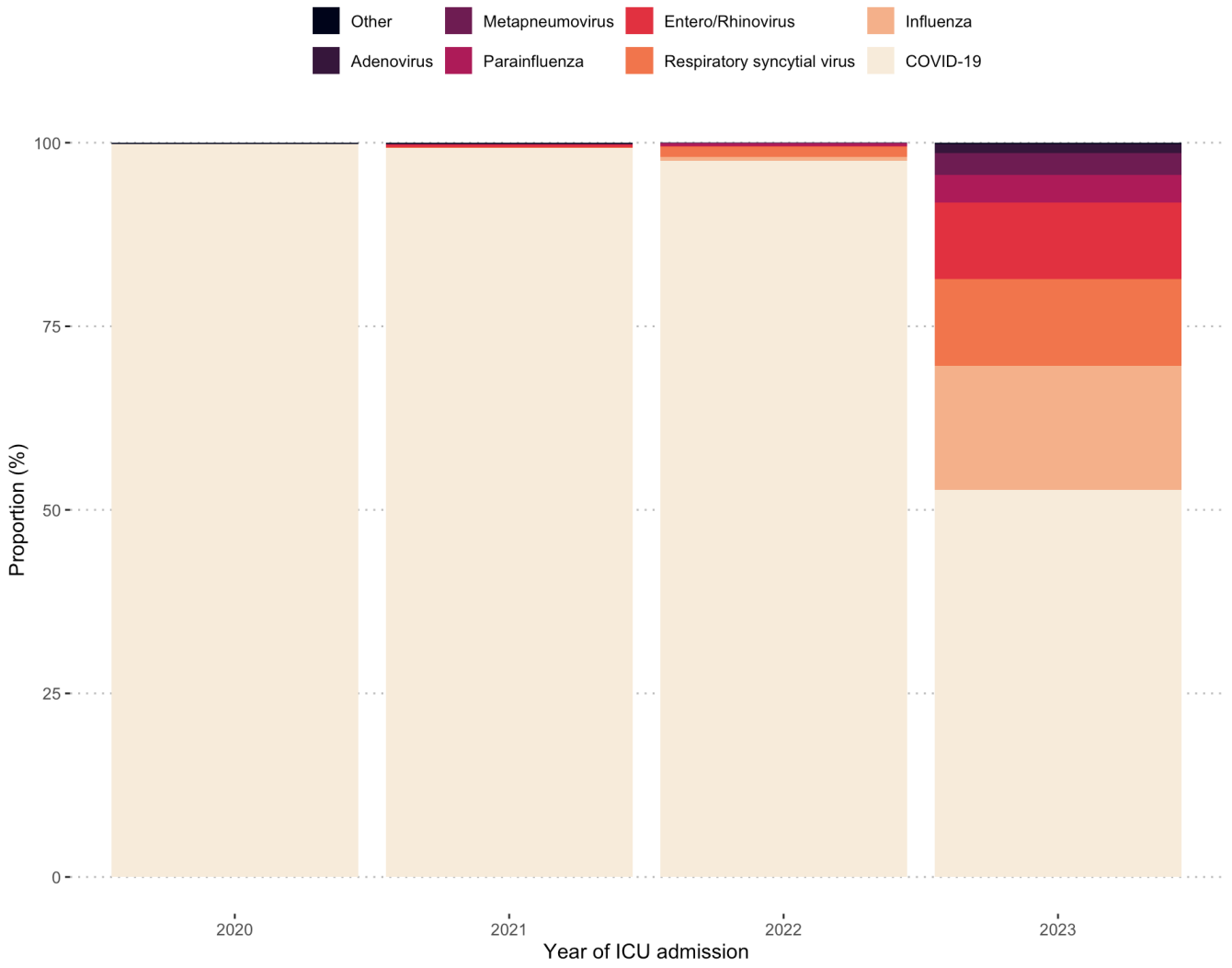


Table 1. Pathogen proportion by year

Variables	Overall (N = 11818)	2020 (N = 601)	2021 (N = 2769)	2022 (N = 5139)	2023 (N = 3309)
Pathogen, n (%)					
COVID-19	10,106 (86)	600 (100)	2,749 (99)	5,011 (98)	1,746 (53)
Influenza	586 (5.0)	0 (0)	0 (0)	28 (0.5)	558 (17)
Respiratory syncytial virus	467 (4.0)	0 (0)	4 (0.1)	72 (1.4)	391 (12)
Entero/Rhinovirus	355 (3.0)	0 (0)	9 (0.3)	3 (<0.1)	343 (10)
Parainfluenza	147 (1.2)	0 (0)	1 (<0.1)	20 (0.4)	126 (3.8)
Metapneumovirus	102 (0.9)	0 (0)	1 (<0.1)	3 (<0.1)	98 (3.0)
Adenovirus	41 (0.3)	0 (0)	1 (<0.1)	0 (0)	40 (1.2)
Other	14 (0.1)	1 (0.2)	4 (0.1)	2 (<0.1)	7 (0.2)

Table 2. Baseline characteristics and treatments

Variables*	N	Overall (N = 11818)†	2020-2022 (N = 8493)†	2023 (N = 3325)†
Demographic				
Age, years	11,815	59 (38 – 72)	60 (45 – 72)	50 (9 – 71)
Sex female	11,810	4,727/11,810 (40)	3,302/8,486 (39)	1,425/3,324 (43)
Body mass index, kg/m2	7,353	28 (24 – 34)	29 (25 – 35)	26 (21 – 31)
Obesity	9,950	1,951/9,950 (20)	1,619/6,718 (24)	332/3,232 (10)
Pregnancy	3,617	155/3,617 (4.3)	139/2,732 (5.1)	16/885 (1.8)
Infection type and prognostic score				
APACHE II score	4,474	14 (10 – 19)	14 (10 – 19)	NA (NA – NA)
Infection type	11,818			
COVID-19		10,098/11,818 (85)	8,345/8,493 (98)	1,753/3,325 (53)
Non-COVID-19		1,720/11,818 (15)	148/8,493 (1.7)	1,572/3,325 (47)
Comborbidities				
Chronic cardiac disease	10,047	2,150/10,047 (21)	1,455/6,802 (21)	695/3,245 (21)
Chronic pulmonary disease	10,037	1,425/10,037 (14)	881/6,789 (13)	544/3,248 (17)
Diabetes	9,991	1,845/9,991 (18)	1,458/6,749 (22)	387/3,242 (12)
Diabetes with complications	9,994	858/9,994 (8.6)	615/6,750 (9.1)	243/3,244 (7.5)
Asthma	10,021	1,128/10,021 (11)	766/6,771 (11)	362/3,250 (11)
End stage kidney disease	10,039	1,121/10,039 (11)	794/6,792 (12)	327/3,247 (10)
Rheumatological disease	10,030	558/10,030 (5.6)	394/6,785 (5.8)	164/3,245 (5.1)
Mild/Moderate liver disease	10,052	444/10,052 (4.4)	317/6,794 (4.7)	127/3,258 (3.9)
Dementia	10,018	102/10,018 (1.0)	67/6,759 (1.0)	35/3,259 (1.1)
Malnutrition	10,019	212/10,019 (2.1)	113/6,775 (1.7)	99/3,244 (3.1)
Chronic neurological disease	10,042	754/10,042 (7.5)	429/6,791 (6.3)	325/3,251 (10.0)
Malignant neoplasm	10,037	660/10,037 (6.6)	400/6,791 (5.9)	260/3,246 (8.0)
Chronic haematological disease	10,039	548/10,039 (5.5)	371/6,794 (5.5)	177/3,245 (5.5)
HIV/AIDS	9,975	44/9,975 (0.4)	34/6,726 (0.5)	10/3,249 (0.3)
Chronic immunosuppression	9,988	1,177/9,988 (12)	838/6,745 (12)	339/3,243 (10)
Treatement in ICU				
Invasive mechanical ventilation	11,194	3,998/11,194 (36)	2,930/7,877 (37)	1,068/3,317 (32)
Duration of invasive mechanical ventilation, days	3,838	5 (2 – 11)	6 (2 – 12)	4 (1 – 7)
ECMO	11,178	220/11,178 (2.0)	161/7,861 (2.0)	59/3,317 (1.8)
Prone positioning	6,760	776/6,760 (11)	548/3,464 (16)	228/3,296 (6.9)
Vasopressor or inotrope	8,493	2,088/8,493 (25)	2,088/8,493 (25)	0/0 (NA)
Renal replacement therapy	6,771	574/6,771 (8.5)	321/3,453 (9.3)	253/3,318 (7.6)

* Abbreviations: AIDS, Acquired Immunodeficiency Syndrome, APACHE II, Acute Physiology and Chronic Health Evaluation II; ECMO, Extra-Corporeal Membrane Oxygenation; HIV, Human Immunodeficiency Virus.

† Continous variables are presented as median (IQR). Categorical variables are presented as n/N (%).

Table 3. Outcomes

Variables	N	Overall (N = 11818)*	2020-2022 (N = 8493)*	2023 (N = 3325)*	p-value†
ICU length of stay, days	11,772	4 (2 – 8)	4 (2 – 9)	3 (2 – 6)	<0.001

* Continous variables are presented as median (IQR). Categorical variables are presented as n/N (%).

† Wilcoxon rank sum test; Pearson's Chi-squared test

Variables	N	Overall (N = 11818)*	2020-2022 (N = 8493)*	2023 (N = 3325)*	p-value†
Hospital length of stay, days	11,708	11 (6 – 21)	12 (7 – 22)	8 (4 – 17)	<0.001
ICU outcome	11,759				<0.001
Death		1,456/11,759 (12)	1,177/8,446 (14)	279/3,313 (8.4)	
Home		497/11,759 (4.2)	296/8,446 (3.5)	201/3,313 (6.1)	
Other hospital		387/11,759 (3.3)	268/8,446 (3.2)	119/3,313 (3.6)	
Other rehab		32/11,759 (0.3)	24/8,446 (0.3)	8/3,313 (0.2)	
Wards		9,387/11,759 (80)	6,681/8,446 (79)	2,706/3,313 (82)	
Hospital outcome	11,708				<0.001
Death		1,878/11,708 (16)	1,491/8,405 (18)	387/3,303 (12)	
Discharged home		7,872/11,708 (67)	5,547/8,405 (66)	2,325/3,303 (70)	
Palliative discharge		52/11,708 (0.4)	28/8,405 (0.3)	24/3,303 (0.7)	
Transfer to another facility (rehab)		986/11,708 (8.4)	768/8,405 (9.1)	218/3,303 (6.6)	
Transfer to other facility (acute hospital)		902/11,708 (7.7)	558/8,405 (6.6)	344/3,303 (10)	
Unknown		18/11,708 (0.2)	13/8,405 (0.2)	5/3,303 (0.2)	
Cause of death	1,824				
Arrhythmia		17/1,824 (0.9)	12/1,448 (0.8)	5/376 (1.3)	
Brain death		40/1,824 (2.2)	30/1,448 (2.1)	10/376 (2.7)	
Brain injury		52/1,824 (2.9)	41/1,448 (2.8)	11/376 (2.9)	
Cardiogenic shock		62/1,824 (3.4)	46/1,448 (3.2)	16/376 (4.3)	
Distributive (Septic) shock		111/1,824 (6.1)	84/1,448 (5.8)	27/376 (7.2)	
Hypovolaemic shock		9/1,824 (0.5)	4/1,448 (0.3)	5/376 (1.3)	
Hypoxic respiratory failure		380/1,824 (21)	325/1,448 (22)	55/376 (15)	
Metabolic		7/1,824 (0.4)	7/1,448 (0.5)	0/376 (0)	
Other		246/1,824 (13)	193/1,448 (13)	53/376 (14)	
Treatment withdrawn, prognosis poor		900/1,824 (49)	706/1,448 (49)	194/376 (52)	

* Continous variables are presented as median (IQR). Categorical variables are presented as n/N (%).

† Wilcoxon rank sum test; Pearson's Chi-squared test

Figure 4. Kaplan Meier survival curves for 30-day in-hospital mortality according to the study period

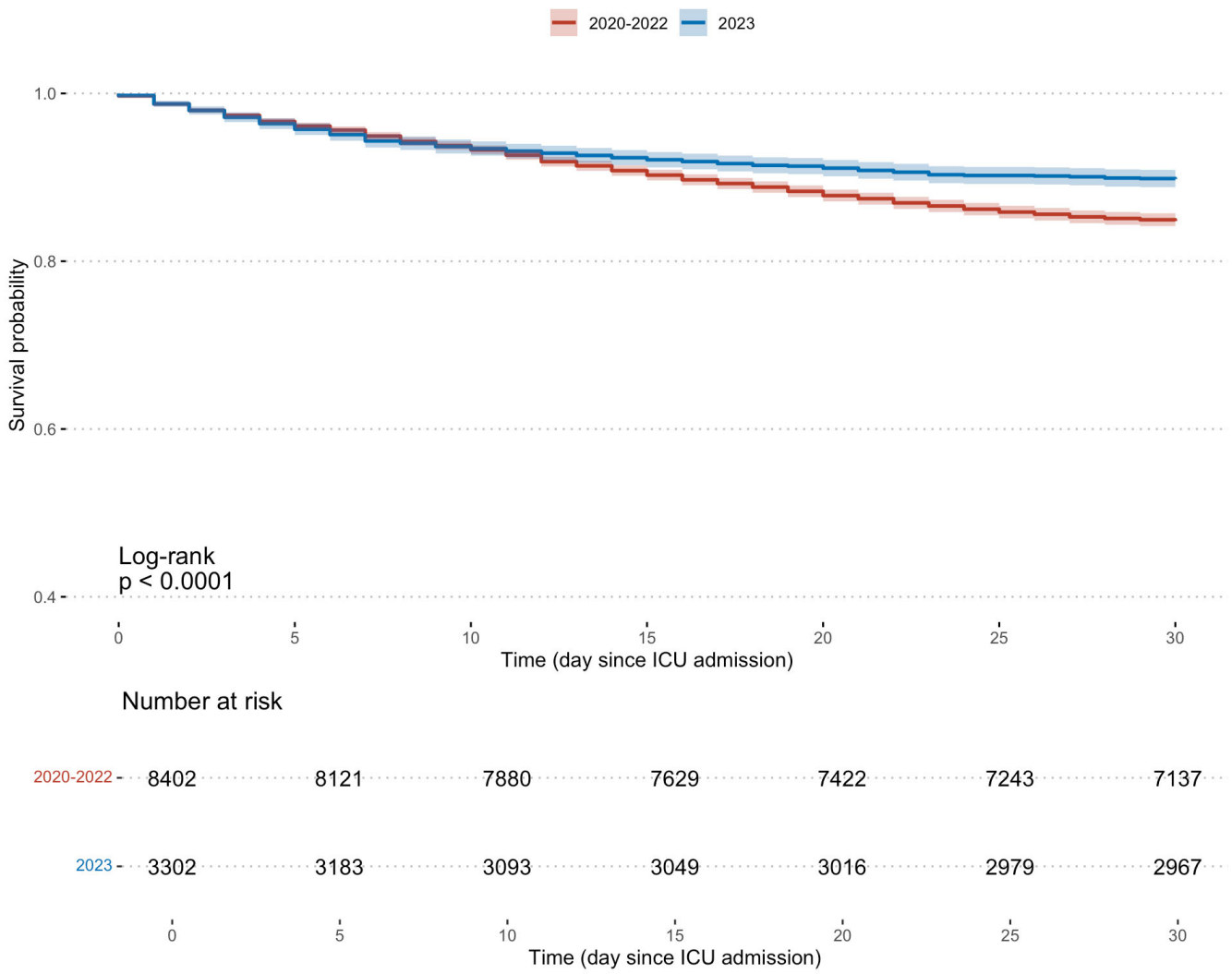
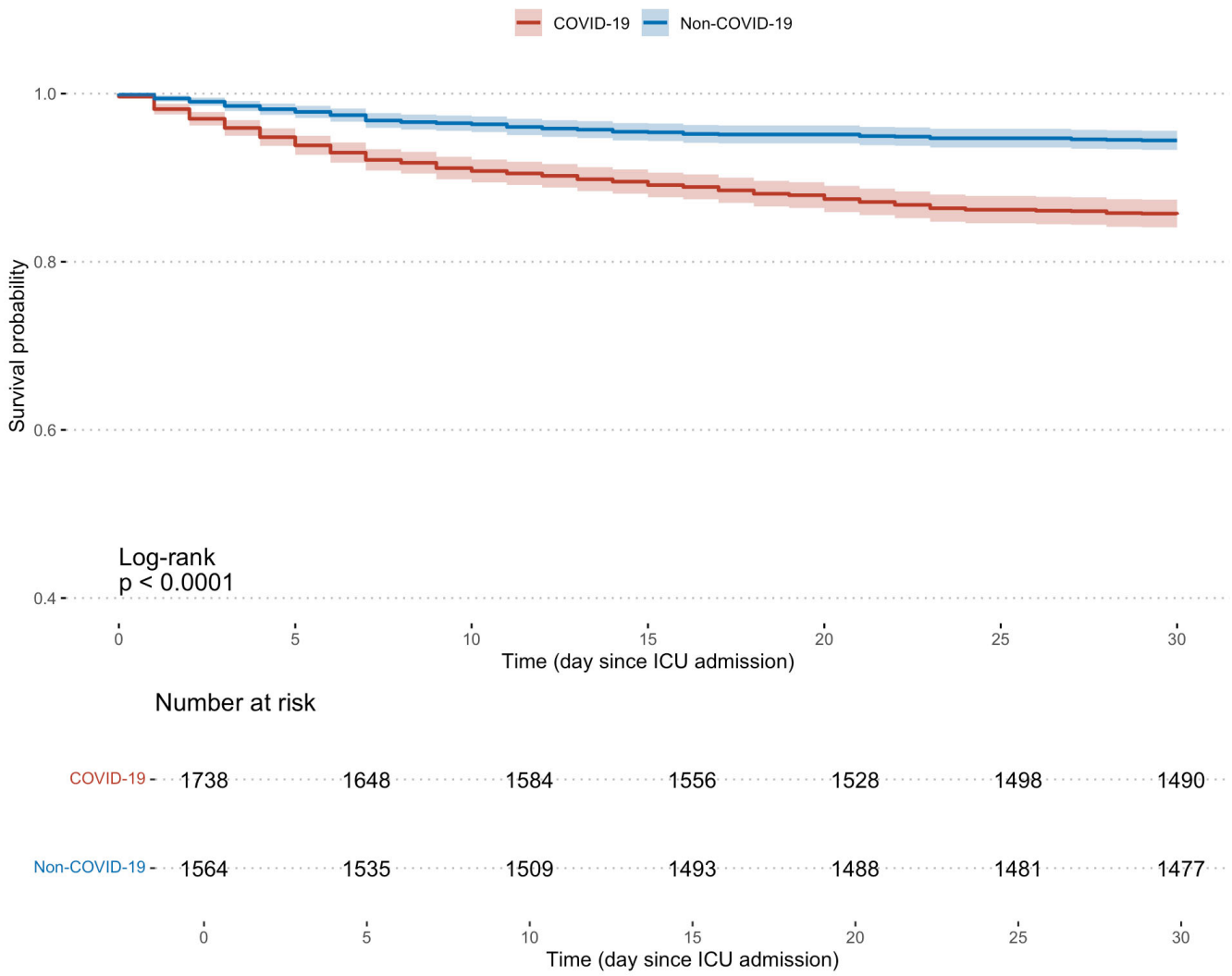


Figure 5. Kaplan Meier survival curves for 30-day in-hospital mortality in 2023 according to the infection type



Adults

Figure 6. Annual number of SARI cases

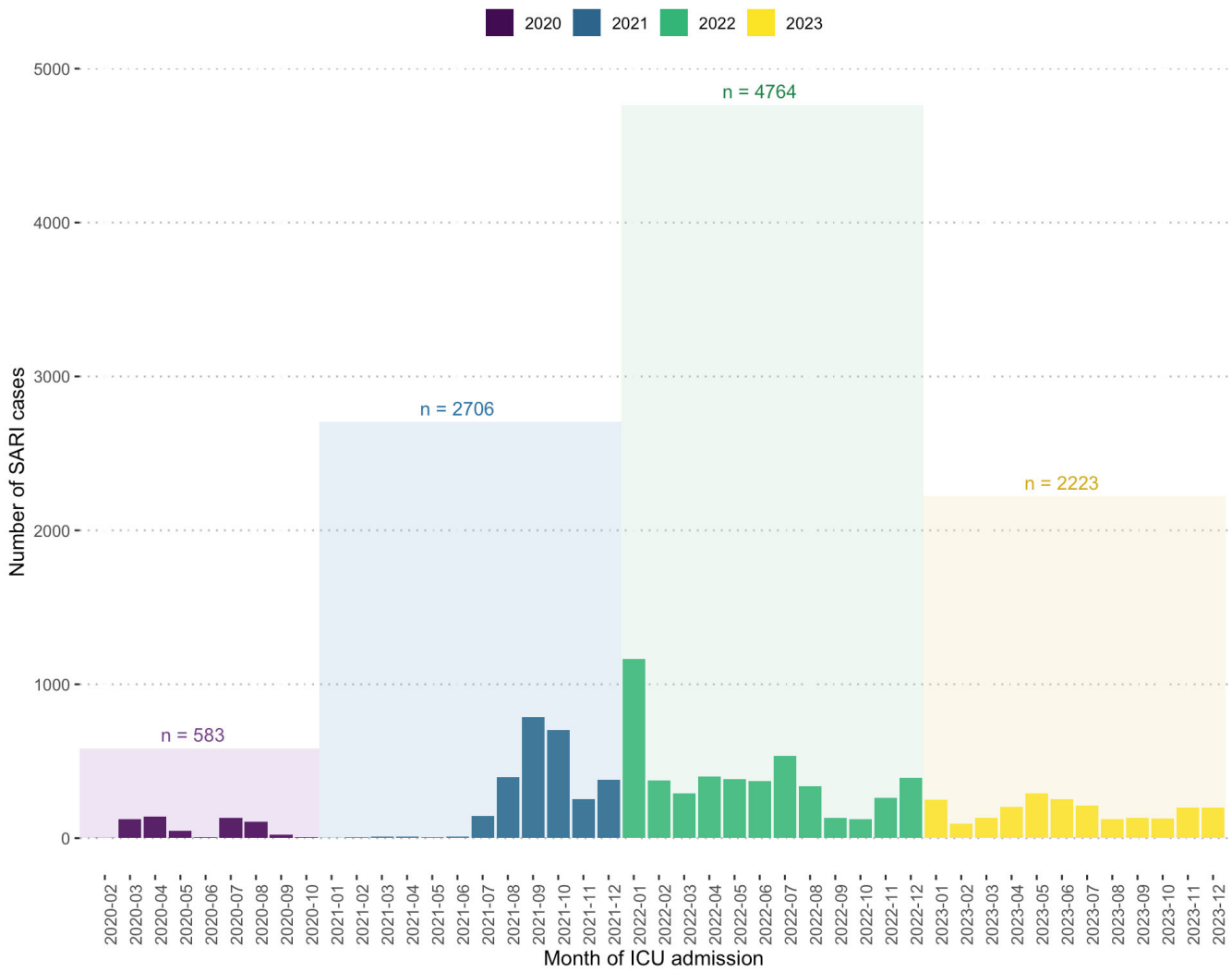


Figure 7. Pathogen proportion

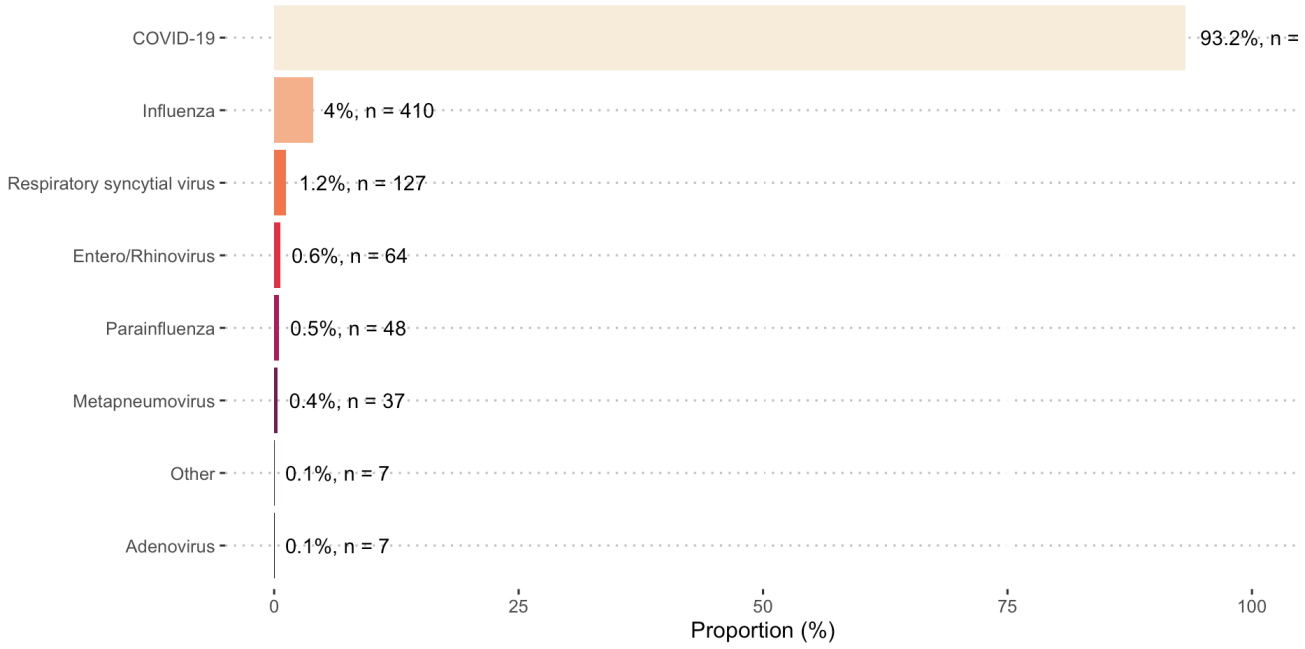


Figure 8. Pathogen proportion by year

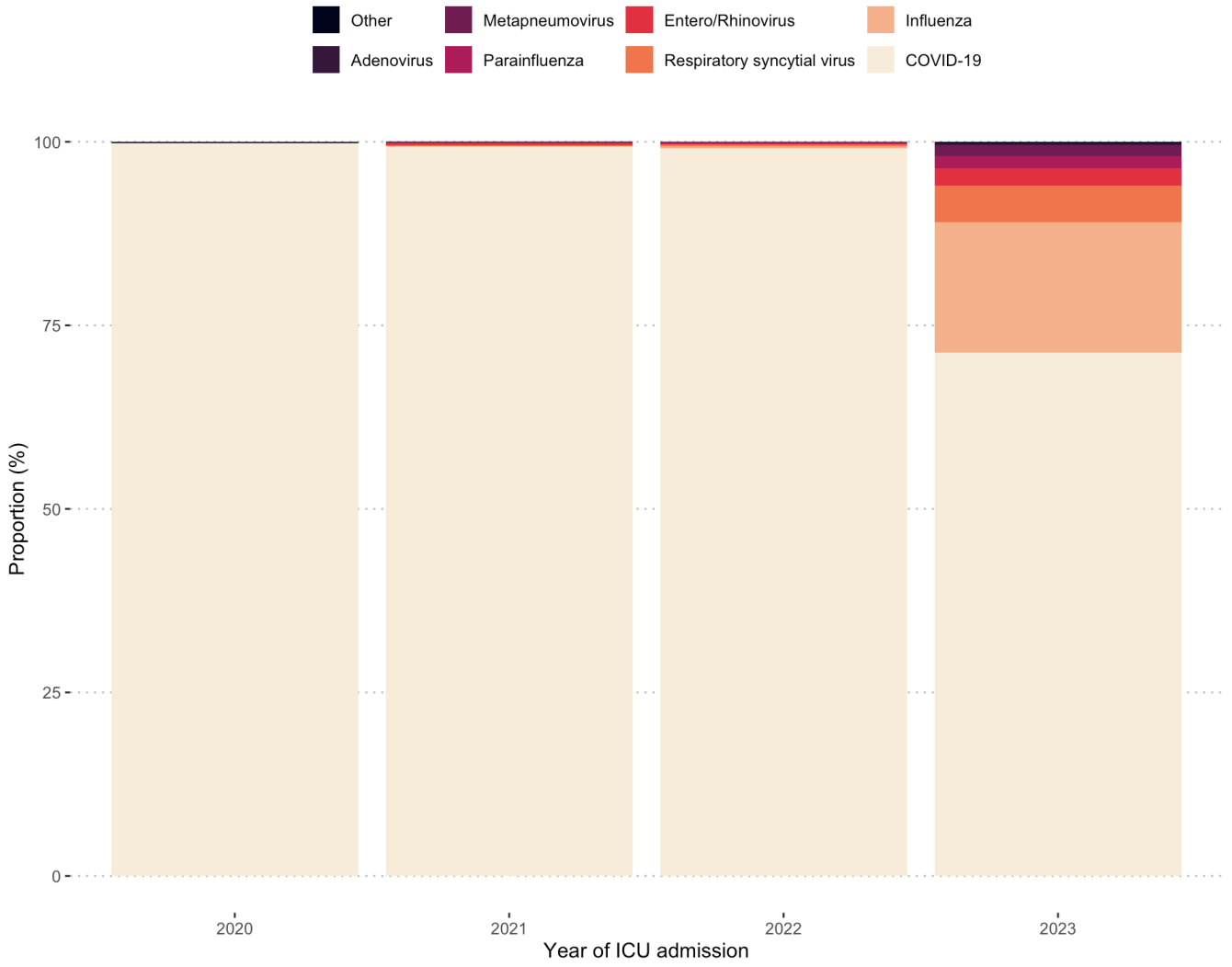


Table 4. Pathogen proportion by year

Variables	Overall (N = 10276)	2020 (N = 583)	2021 (N = 2706)	2022 (N = 4764)	2023 (N = 2223)
Pathogen, n (%)					
COVID-19	9,576 (93)	582 (100)	2,689 (99)	4,721 (99)	1,584 (71)
Influenza	410 (4.0)	0 (0)	0 (0)	15 (0.3)	395 (18)
Respiratory syncytial virus	127 (1.2)	0 (0)	4 (0.1)	11 (0.2)	112 (5.0)
Entero/Rhinovirus	64 (0.6)	0 (0)	9 (0.3)	3 (<0.1)	52 (2.3)
Parainfluenza	48 (0.5)	0 (0)	1 (<0.1)	10 (0.2)	37 (1.7)
Metapneumovirus	37 (0.4)	0 (0)	1 (<0.1)	3 (<0.1)	33 (1.5)
Adenovirus	7 (<0.1)	0 (0)	1 (<0.1)	0 (0)	6 (0.3)
Other	7 (<0.1)	1 (0.2)	1 (<0.1)	1 (<0.1)	4 (0.2)

Table 5. Baseline characteristics and treatments

Variables*	N	Overall (N = 10276)†	2020-2022 (N = 8039)†	2023 (N = 2237)†
Demographic				
Age, years	10,276	62 (48 – 73)	62 (48 – 72)	65 (50 – 76)
Sex female	10,270	4,093/10,270 (40)	3,111/8,034 (39)	982/2,236 (44)
Body mass index, kg/m2	6,988	29 (25 – 34)	29 (25 – 35)	28 (23 – 32)
Obesity	8,585	1,922/8,585 (22)	1,599/6,397 (25)	323/2,188 (15)
Pregnancy	3,436	153/3,436 (4.5)	137/2,632 (5.2)	16/804 (2.0)
Infection type and prognostic score				
APACHE II score	4,444	14 (10 – 19)	14 (10 – 19)	NA (NA – NA)
Infection type	10,276			
COVID-19		9,574/10,276 (93)	7,979/8,039 (99)	1,595/2,237 (71)
Non-COVID-19		702/10,276 (6.8)	60/8,039 (0.7)	642/2,237 (29)
Comborbidities				
Chronic cardiac disease	8,672	2,044/8,672 (24)	1,435/6,475 (22)	609/2,197 (28)
Chronic pulmonary disease	8,657	1,271/8,657 (15)	855/6,459 (13)	416/2,198 (19)
Diabetes	8,612	1,832/8,612 (21)	1,452/6,421 (23)	380/2,191 (17)
Diabetes with complications	8,617	842/8,617 (9.8)	609/6,422 (9.5)	233/2,195 (11)
Asthma	8,653	1,013/8,653 (12)	737/6,454 (11)	276/2,199 (13)
End stage kidney disease	8,661	1,097/8,661 (13)	787/6,465 (12)	310/2,196 (14)
Rheumatological disease	8,655	552/8,655 (6.4)	393/6,458 (6.1)	159/2,197 (7.2)
Mild/Moderate liver disease	8,669	436/8,669 (5.0)	316/6,464 (4.9)	120/2,205 (5.4)
Dementia	8,660	102/8,660 (1.2)	67/6,463 (1.0)	35/2,197 (1.6)
Malnutrition	8,642	188/8,642 (2.2)	107/6,446 (1.7)	81/2,196 (3.7)
Chronic neurological disease	8,662	549/8,662 (6.3)	390/6,463 (6.0)	159/2,199 (7.2)
Malignant neoplasm	8,654	637/8,654 (7.4)	395/6,461 (6.1)	242/2,193 (11)
Chronic haematological disease	8,662	533/8,662 (6.2)	366/6,467 (5.7)	167/2,195 (7.6)
HIV/AIDS	8,577	44/8,577 (0.5)	34/6,398 (0.5)	10/2,179 (0.5)
Chronic immunosuppression	8,612	1,147/8,612 (13)	827/6,418 (13)	320/2,194 (15)
Treatement in ICU				
Invasive mechanical ventilation	9,669	3,592/9,669 (37)	2,824/7,438 (38)	768/2,231 (34)
Duration of invasive mechanical ventilation, days	3,433	6 (2 – 12)	6 (2 – 13)	4 (1 – 8)
ECMO	9,652	198/9,652 (2.1)	160/7,422 (2.2)	38/2,230 (1.7)
Prone positioning	5,425	683/5,425 (13)	534/3,194 (17)	149/2,231 (6.7)
Vasopressor or inotrope	8,039	2,049/8,039 (25)	2,049/8,039 (25)	0/0 (NA)
Renal replacement therapy	5,413	536/5,413 (9.9)	316/3,182 (9.9)	220/2,231 (9.9)

* Abbreviations: AIDS, Acquired Immunodeficiency Syndrome, APACHE II, Acute Physiology and Chronic Health Evaluation II; ECMO, Extra-Corporeal Membrane Oxygenation; HIV, Human Immunodeficiency Virus.

† Continous variables are presented as median (IQR). Categorical variables are presented as n/N (%).

Table 6. Outcomes

Variables	N	Overall (N = 10276)*	2020-2022 (N = 8039)*	2023 (N = 2237)*	p-value†
ICU length of stay, days	10,235	4 (2 – 9)	4 (2 – 10)	3 (2 – 7)	<0.001
Hospital length of stay, days	10,173	12 (7 – 22)	12 (7 – 22)	10 (6 – 19)	<0.001
ICU outcome	10,223				<0.001
Death		1,419/10,223 (14)	1,164/7,994 (15)	255/2,229 (11)	
Home		363/10,223 (3.6)	249/7,994 (3.1)	114/2,229 (5.1)	
Other hospital		328/10,223 (3.2)	248/7,994 (3.1)	80/2,229 (3.6)	
Other rehab		28/10,223 (0.3)	21/7,994 (0.3)	7/2,229 (0.3)	
Wards		8,085/10,223 (79)	6,312/7,994 (79)	1,773/2,229 (80)	
Hospital outcome	10,173				
Death		1,840/10,173 (18)	1,479/7,953 (19)	361/2,220 (16)	
Discharged home		6,554/10,173 (64)	5,135/7,953 (65)	1,419/2,220 (64)	
Palliative discharge		45/10,173 (0.4)	28/7,953 (0.4)	17/2,220 (0.8)	
Transfer to another facility (rehab)		975/10,173 (9.6)	768/7,953 (9.7)	207/2,220 (9.3)	
Transfer to other facility (acute hospital)		741/10,173 (7.3)	530/7,953 (6.7)	211/2,220 (9.5)	
Unknown		18/10,173 (0.2)	13/7,953 (0.2)	5/2,220 (0.2)	
Cause of death	1,786				
Arrhythmia		17/1,786 (1.0)	12/1,436 (0.8)	5/350 (1.4)	
Brain death		32/1,786 (1.8)	26/1,436 (1.8)	6/350 (1.7)	
Brain injury		52/1,786 (2.9)	41/1,436 (2.9)	11/350 (3.1)	
Cardiogenic shock		62/1,786 (3.5)	46/1,436 (3.2)	16/350 (4.6)	
Distributive (Septic) shock		110/1,786 (6.2)	84/1,436 (5.8)	26/350 (7.4)	
Hypovolaemic shock		9/1,786 (0.5)	4/1,436 (0.3)	5/350 (1.4)	
Hypoxic respiratory failure		379/1,786 (21)	325/1,436 (23)	54/350 (15)	
Metabolic		7/1,786 (0.4)	7/1,436 (0.5)	0/350 (0)	
Other		232/1,786 (13)	189/1,436 (13)	43/350 (12)	
Treatment withdrawn, prognosis poor		886/1,786 (50)	702/1,436 (49)	184/350 (53)	

* Continous variables are presented as median (IQR). Categorical variables are presented as n/N (%).

† Wilcoxon rank sum test; Pearson's Chi-squared test

Figure 9. Kaplan Meier survival curves for 30-day in-hospital mortality according to the study period

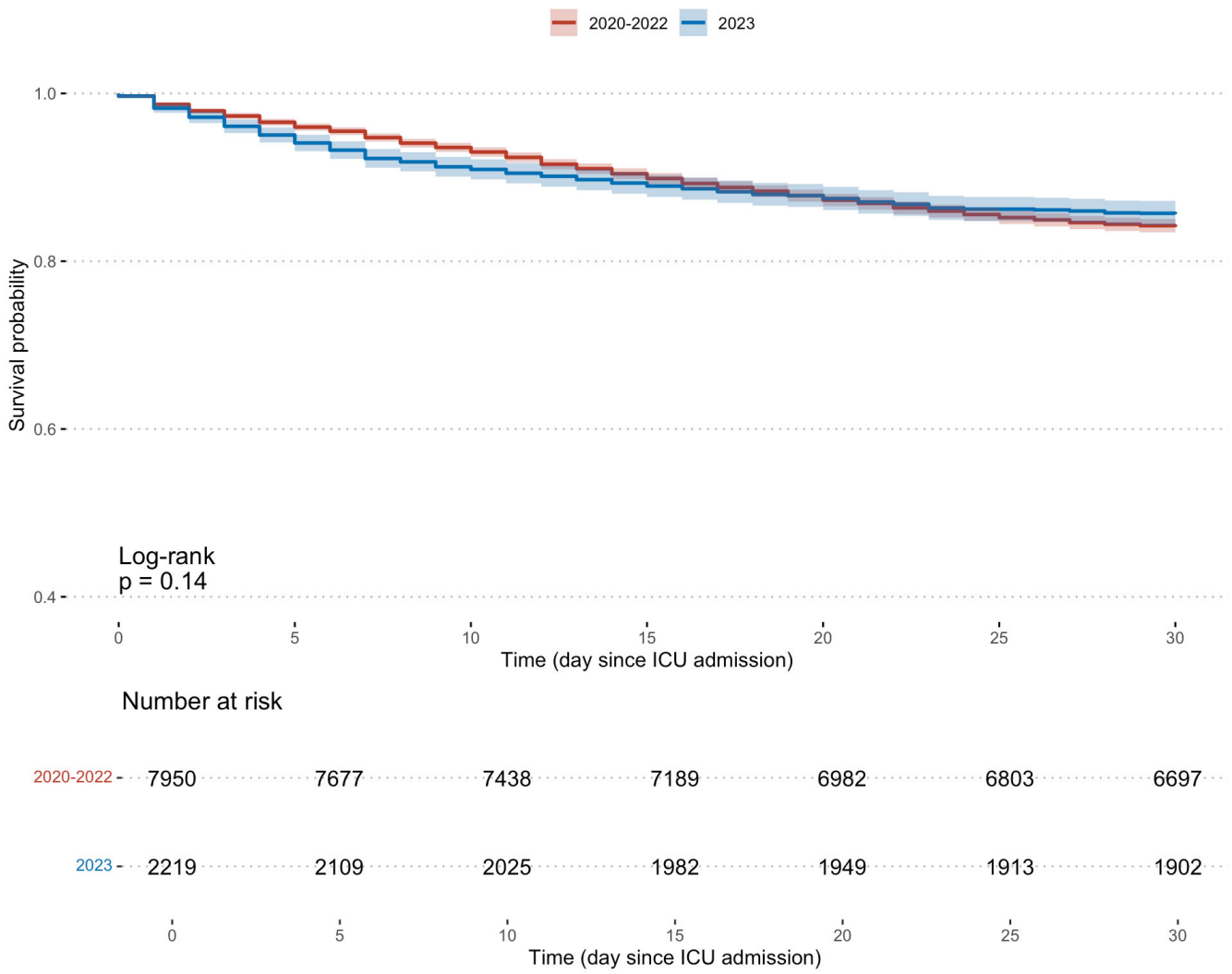
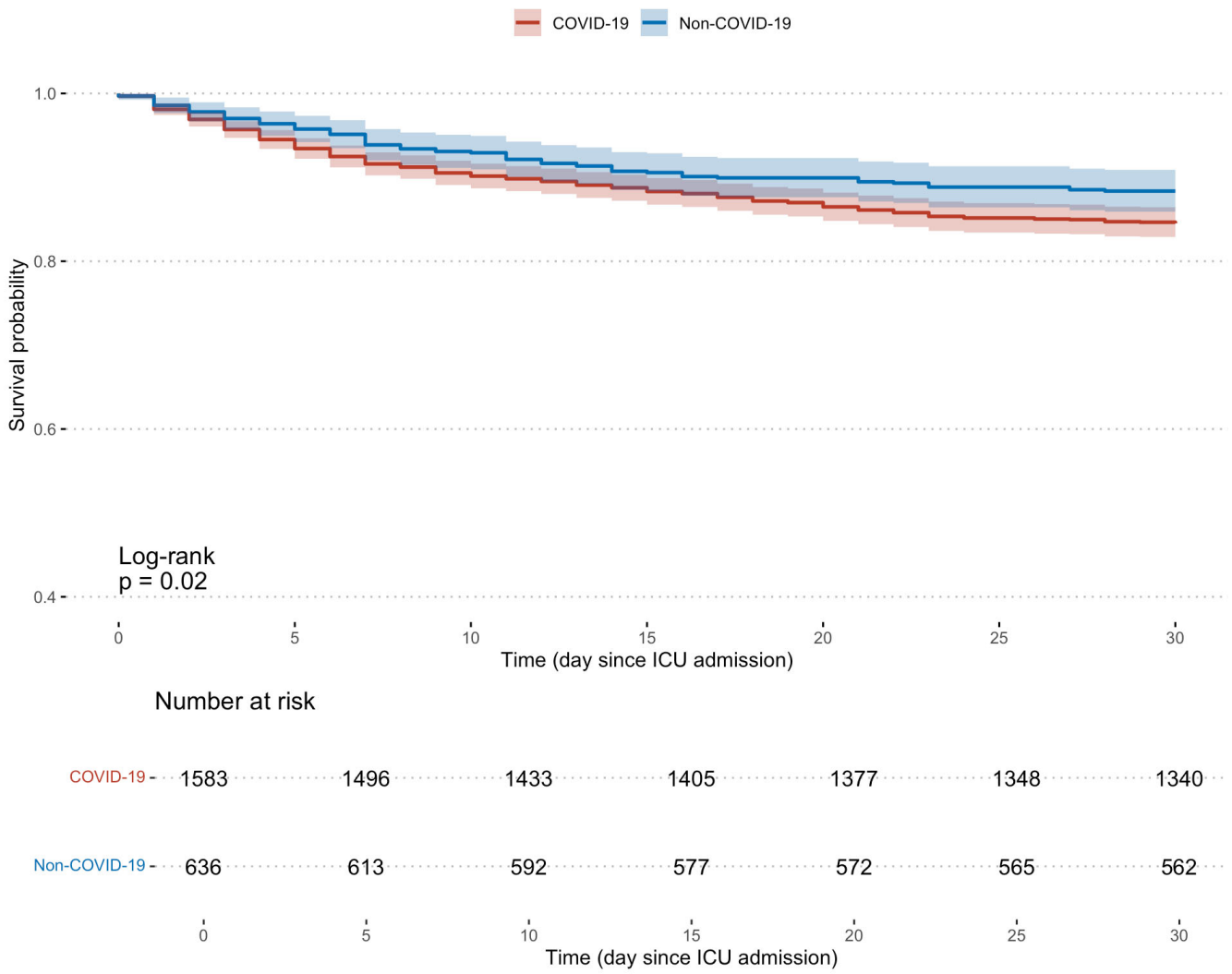


Figure 10. Kaplan Meier survival curves for 30-day in-hospital mortality in 2023 according to the infection type



Pediatric

Figure 11. Annual number of SARI cases

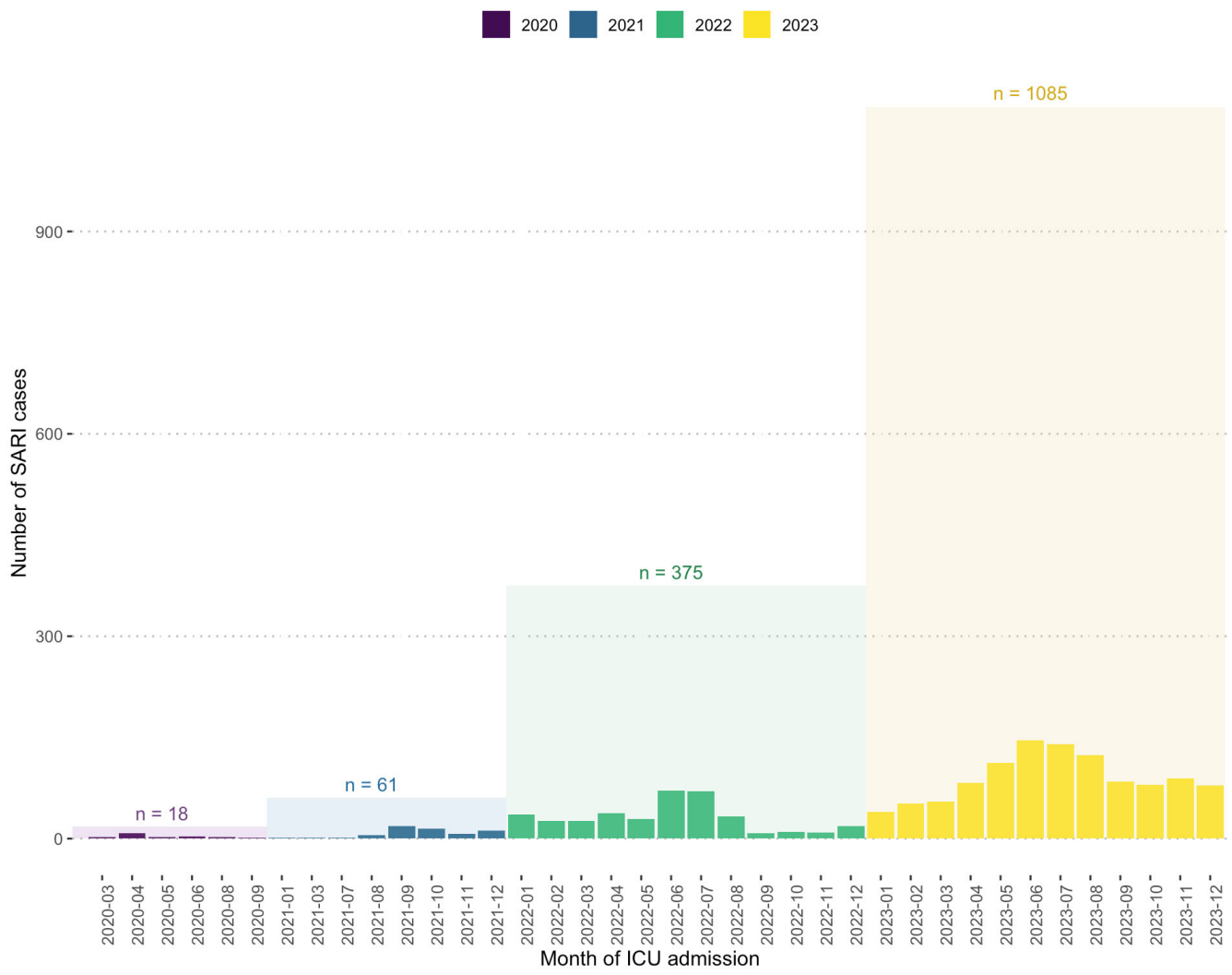


Figure 12. Pathogen proportion

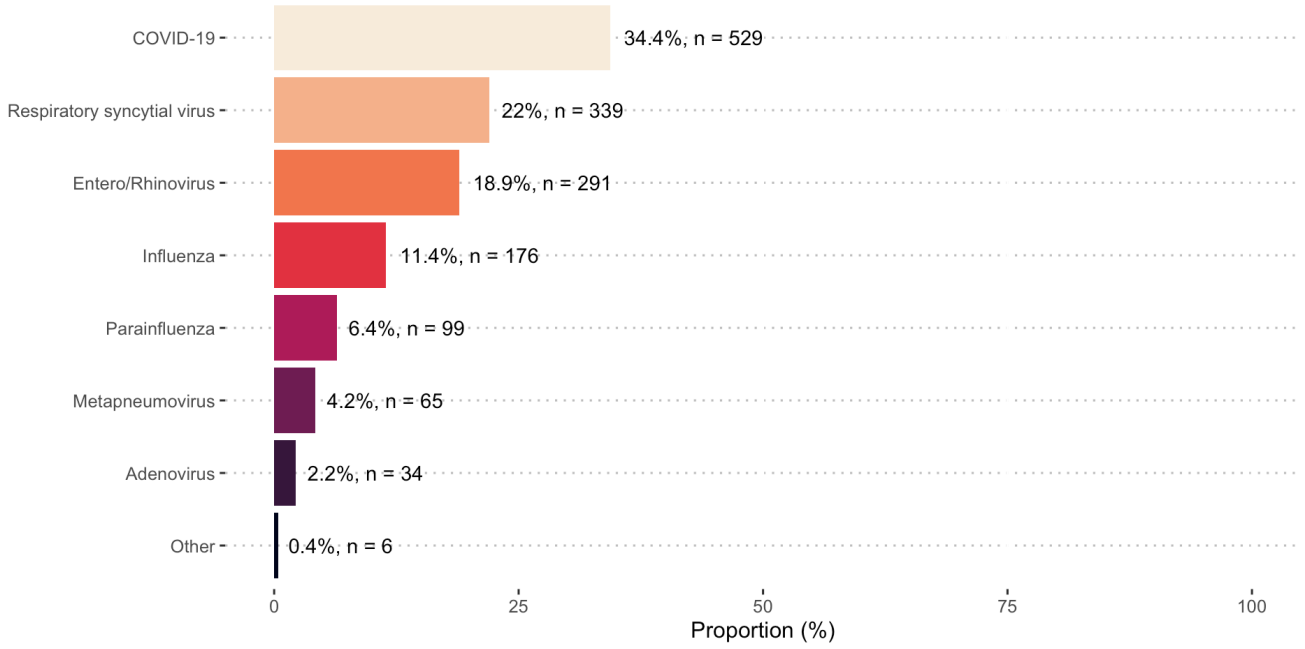


Figure 13. Pathogen proportion by year

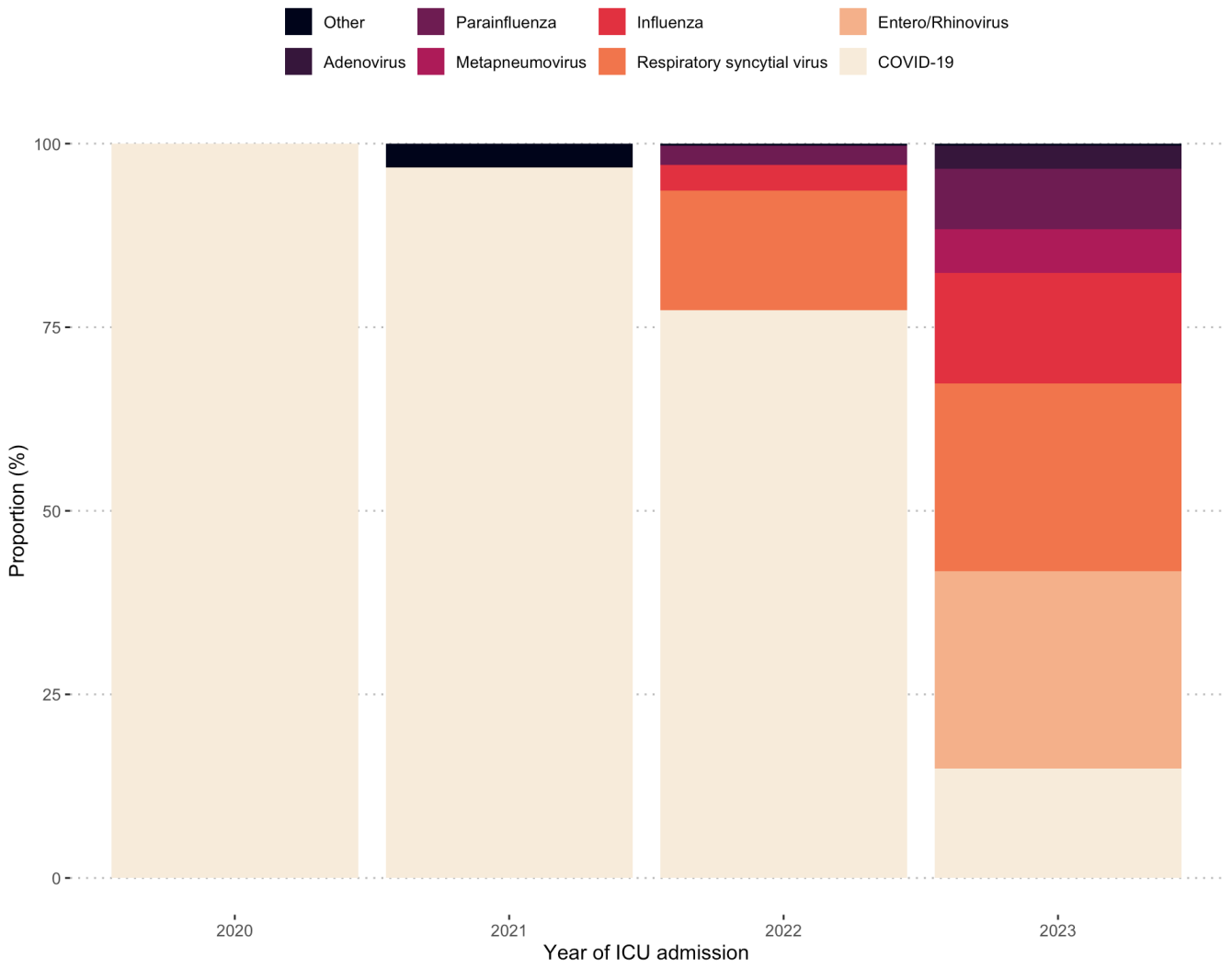


Table 7. Pathogen proportion by year

Variables	Overall (N = 1539)	2020 (N = 18)	2021 (N = 61)	2022 (N = 375)	2023 (N = 1085)
Pathogen, n (%)					
COVID-19	529 (34)	18 (100)	59 (97)	290 (77)	162 (15)
Respiratory syncytial virus	339 (22)	0 (0)	0 (0)	61 (16)	278 (26)
Entero/Rhinovirus	291 (19)	0 (0)	0 (0)	0 (0)	291 (27)
Influenza	176 (11)	0 (0)	0 (0)	13 (3.5)	163 (15)
Parainfluenza	99 (6.4)	0 (0)	0 (0)	10 (2.7)	89 (8.2)
Metapneumovirus	65 (4.2)	0 (0)	0 (0)	0 (0)	65 (6.0)
Adenovirus	34 (2.2)	0 (0)	0 (0)	0 (0)	34 (3.1)
Other	6 (0.4)	0 (0)	2 (3.3)	1 (0.3)	3 (0.3)

Table 8. Baseline characteristics and treatments

Variables*	N	Overall (N = 1539)†	2020-2022 (N = 452)†	2023 (N = 1087)†
Demographic				
Age, years	1,539	5.0 (2.0 – 10.0)	7.0 (3.0 – 12.0)	5.0 (2.0 – 9.0)
Sex female	1,538	632/1,538 (41)	190/451 (42)	442/1,087 (41)
Body mass index, kg/m2	365	16.0 (14.0 – 20.0)	19.5 (16.0 – 25.0)	16.0 (14.0 – 18.0)
Obesity	1,364	29/1,364 (2.1)	20/321 (6.2)	9/1,043 (0.9)
Pregnancy	181	2/181 (1.1)	2/100 (2.0)	0/81 (0)
Infection type and prognostic score				
APACHE II score	29	8 (1 – 14)	8 (1 – 14)	NA (NA – NA)
Infection type	1,539			
COVID-19		523/1,539 (34)	365/452 (81)	158/1,087 (15)
Non-COVID-19		1,016/1,539 (66)	87/452 (19)	929/1,087 (85)
Comborbidities				
Chronic cardiac disease	1,374	106/1,374 (7.7)	20/327 (6.1)	86/1,047 (8.2)
Chronic pulmonary disease	1,379	154/1,379 (11)	26/330 (7.9)	128/1,049 (12)
Diabetes	1,378	13/1,378 (0.9)	6/328 (1.8)	7/1,050 (0.7)
Diabetes with complications	1,376	16/1,376 (1.2)	6/328 (1.8)	10/1,048 (1.0)
Asthma	1,367	115/1,367 (8.4)	29/317 (9.1)	86/1,050 (8.2)
End stage kidney disease	1,377	24/1,377 (1.7)	7/327 (2.1)	17/1,050 (1.6)
Rheumatological disease	1,374	6/1,374 (0.4)	1/327 (0.3)	5/1,047 (0.5)
Mild/Moderate liver disease	1,382	8/1,382 (0.6)	1/330 (0.3)	7/1,052 (0.7)
Dementia	1,357	0/1,357 (0)	0/296 (0)	0/1,061 (0)
Malnutrition	1,376	24/1,376 (1.7)	6/329 (1.8)	18/1,047 (1.7)
Chronic neurological disease	1,379	205/1,379 (15)	39/328 (12)	166/1,051 (16)
Malignant neoplasm	1,382	23/1,382 (1.7)	5/330 (1.5)	18/1,052 (1.7)
Chronic haematological disease	1,376	15/1,376 (1.1)	5/327 (1.5)	10/1,049 (1.0)
HIV/AIDS	1,397	0/1,397 (0)	0/328 (0)	0/1,069 (0)
Chronic immunosuppression	1,375	30/1,375 (2.2)	11/327 (3.4)	19/1,048 (1.8)
Treatement in ICU				
Invasive mechanical ventilation	1,522	405/1,522 (27)	105/437 (24)	300/1,085 (28)
Duration of invasive mechanical ventilation, days	404	2.6 (0.9 – 5.7)	2.4 (1.0 – 4.8)	2.9 (0.9 – 5.9)
ECMO	1,523	22/1,523 (1.4)	1/437 (0.2)	21/1,086 (1.9)
Prone positioning	1,334	93/1,334 (7.0)	14/270 (5.2)	79/1,064 (7.4)
Vasopressor or inotrope	452	39/452 (8.6)	39/452 (8.6)	0/0 (NA)
Renal replacement therapy	1,357	38/1,357 (2.8)	5/271 (1.8)	33/1,086 (3.0)

* Abbreviations: AIDS, Acquired Immunodeficiency Syndrome, APACHE II, Acute Physiology and Chronic Health Evaluation II; ECMO, Extra-Corporeal Membrane Oxygenation; HIV, Human Immunodeficiency Virus.

† Continous variables are presented as median (IQR). Categorical variables are presented as n/N (%).

Table 9. Outcomes

Variables	N	Overall (N = 1539)*	2020-2022 (N = 452)*	2023 (N = 1087)*	p-value†
ICU length of stay, days	1,534	2.0 (1.0 – 4.0)	2.0 (1.0 – 4.0)	2.0 (1.0 – 4.0)	0.36
Hospital length of stay, days	1,532	5 (3 – 10)	5 (3 – 9)	5 (3 – 11)	0.30
ICU outcome	1,533				0.10
Death		37/1,533 (2.4)	13/450 (2.9)	24/1,083 (2.2)	
Home		134/1,533 (8.7)	47/450 (10)	87/1,083 (8.0)	
Other hospital		58/1,533 (3.8)	19/450 (4.2)	39/1,083 (3.6)	
Other rehab		4/1,533 (0.3)	3/450 (0.7)	1/1,083 (<0.1)	
Wards		1,300/1,533 (85)	368/450 (82)	932/1,083 (86)	
Hospital outcome	1,532				<0.001
Death		38/1,532 (2.5)	12/450 (2.7)	26/1,082 (2.4)	
Discharged home		1,315/1,532 (86)	410/450 (91)	905/1,082 (84)	
Palliative discharge		7/1,532 (0.5)	0/450 (0)	7/1,082 (0.6)	
Transfer to another facility (rehab)		11/1,532 (0.7)	0/450 (0)	11/1,082 (1.0)	
Transfer to other facility (acute hospital)		161/1,532 (11)	28/450 (6.2)	133/1,082 (12)	
Cause of death	38				0.81
Brain death		8/38 (21)	4/12 (33)	4/26 (15)	
Distributive (Septic) shock		1/38 (2.6)	0/12 (0)	1/26 (3.8)	
Hypoxic respiratory failure		1/38 (2.6)	0/12 (0)	1/26 (3.8)	
Other		14/38 (37)	4/12 (33)	10/26 (38)	
Treatment withdrawn, prognosis poor		14/38 (37)	4/12 (33)	10/26 (38)	

* Continous variables are presented as median (IQR). Categorical variables are presented as n/N (%).

† Wilcoxon rank sum test; Fisher's exact test

Figure 14. Kaplan Meier survival curves for 30-day in-hospital mortality according to the study period

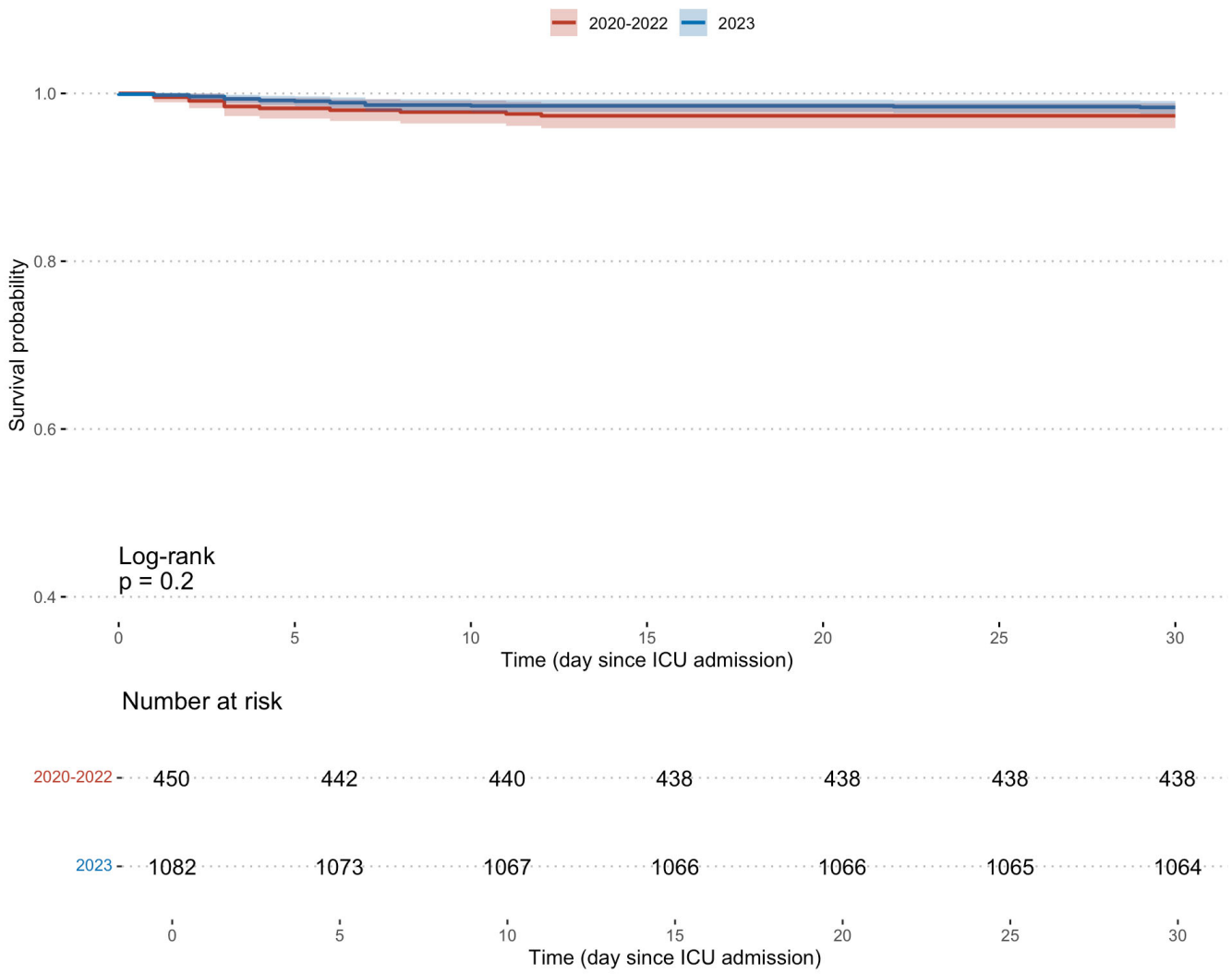
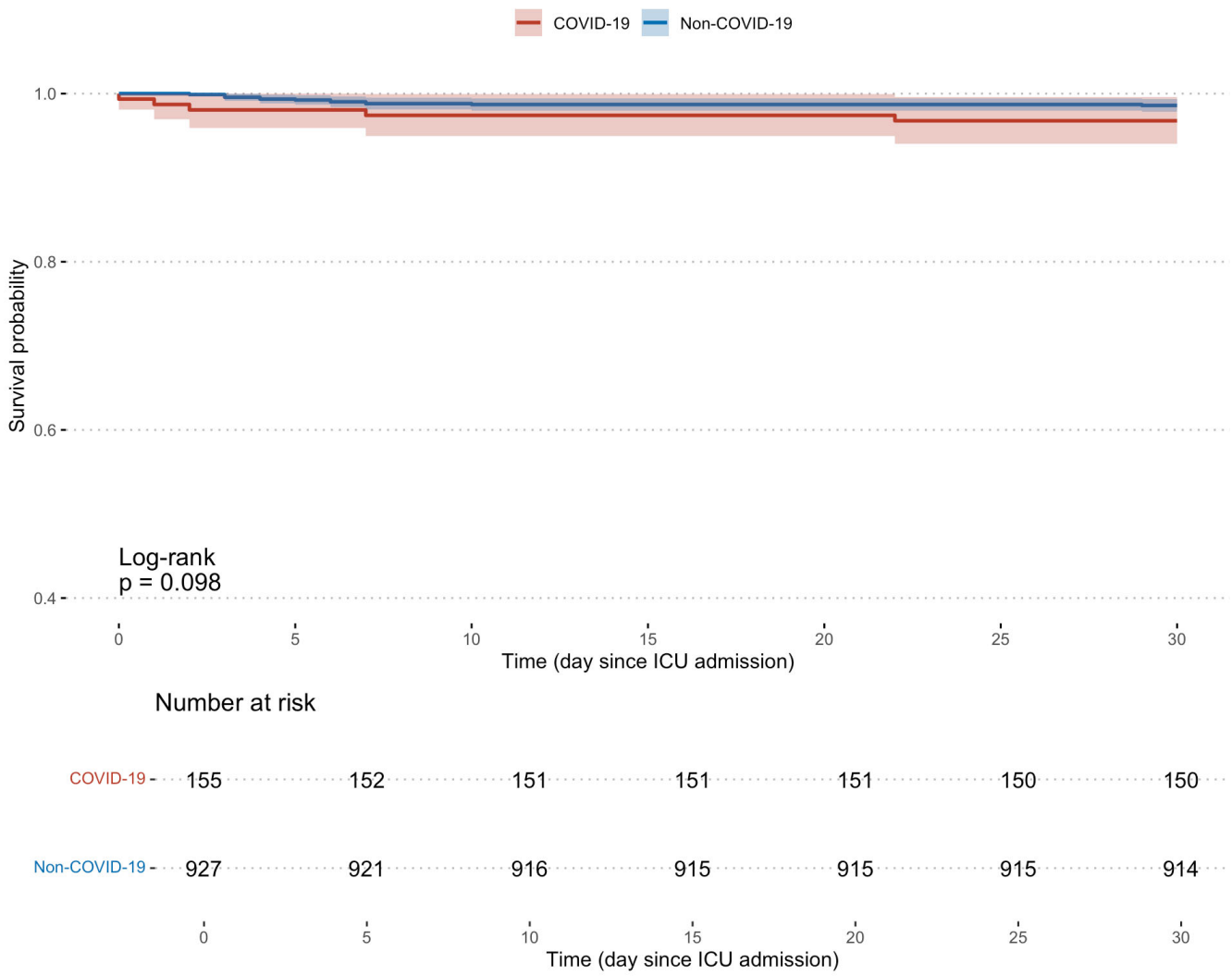


Figure 15. Kaplan Meier survival curves for 30-day in-hospital mortality in 2023 according to the infection type



Acknowledgements

Participating sites

State	Centre
ACT	Canberra Hospital
NSW	Bankstown-Lidcombe Hospital
NSW	Calvary Mater Newcastle
NSW	Campbelltown Hospital
NSW	Children's Hospital at Westmead
NSW	Concord Hospital
NSW	John Hunter Hospital
NSW	Lismore Base Hospital

State	Centre
NSW	Liverpool Hospital
NSW	Nepean Hospital
NSW	Prince of Wales Hospital
NSW	Royal North Shore Hospital
NSW	Royal Prince Alfred Hospital
NSW	St George Hospital
NSW	St Vincent’s Hospital Sydney
NSW	Sydney Children’s Hospital, Randwick
NSW	Westmead Hospital
NSW	Wollongong Hospital
NT	Royal Darwin Hospital
NT	Alice Springs Hospital
QLD	Bundaberg Hospital
QLD	Caboolture Hospital
QLD	Cairns Hospital
QLD	Gold Coast University Hospital
QLD	Hervey Bay Hospital
QLD	Ipswich Hospital
QLD	Logan Hospital
QLD	Mater Misericordiae Limited
QLD	Princess Alexandra Hospital
QLD	Queensland Children’s Hospital
QLD	Redcliffe Hospital
QLD	Royal Brisbane and Women’s Hospital
QLD	Sunshine Coast University Hospital (ICU and PCCU)

State	Centre
QLD	The Prince Charles Hospital
QLD	Toowoomba Hospital
SA	The Queen Elizabeth Hospital
SA	Flinders Medical Centre
SA	Royal Adelaide Hospital
SA	Lyell McEwin
SA	Adelaide Women's and Children's Hospital
TAS	Launceston Hospital
TAS	Royal Hobart Hospital
VIC	Angliss Hospital
VIC	Austin Hospital
VIC	Barwon Health
VIC	Bendigo Hospital
VIC	Box Hill Hospital
VIC	Cabrini Hospital
VIC	Casey Hospital
VIC	Dandenong Hospital
VIC	Epworth Richmond
VIC	Footscray Hospital (Western Health)
VIC	Frankston Hospital
VIC	Grampians Health (Prev Ballarat Base Hospital)
VIC	Maroondah Hospital
VIC	Mildura Base Hospital
VIC	Monash Children's Hospital
VIC	Monash Medical Centre

State	Centre
VIC	Northeast Health Wangaratta
VIC	Royal Children's Hospital
VIC	Royal Melbourne Hospital
VIC	St Vincent's Hospital Melbourne
VIC	Sunshine Hospital (Western Health)
VIC	The Alfred Hospital
VIC	The Northern Hospital
VIC	Warrnambool Base Hospital
VIC	Werribee Mercy Hospital
WA	Bunbury Hospital
WA	Fiona Stanley Hospital
WA	Joondalup Health Campus
WA	Perth Children's Hospital
WA	Royal Perth Hospital
WA	Rockingham General Hospital
WA	Sir Charles Gairdner Hospital
WA	St John of God Midland
WA	St John of God Murdoch

Management Committee

Team
Andrew Udy
Aidan Burrell
Allen Cheng
Patricia Alliegro

Team
Tessa Broadley
Lewis Campbell
Winston Cheung
Jamie Cooper
Simon Erickson
Craig French
Ed Litton
Rick McAllister
Annamaria Palermo
Mark Plummer
Mahesh Ramanan
Ben Reddi
Claire Reynolds
Hannah Rotherham
Shweta Priyadarshini
Husna Begum
Tony Trapani
Vicki Papanikolaou
Aaliya Ibrahim
Peinan Zhao
Jodi Dumbrell
Nicole Ng

Statistical analysis and reporting team

Team
Anis Chaba
Ary Serpa Neto
Peinan Zhao
Aidan Burrell
Andrew Udy
Tony Trapani
Patricia V. Alliegro
Vicki Papanikolaou
Jodi Dumbrell
Nicole Ng

Download

Download docx file

(https://github.com/anischaba/anzics_sprint_sari/blob/main/reports/2023/report_annual_2023.docx)

References

1. Harris PA, Taylor R, Thielke R, Payne J, Gonzalez N, Conde JG. Research electronic data capture (REDCap)a metadata-driven methodology and workflow process for providing translational research informatics support. Journal of Biomedical Informatics [Internet] 2009;42(2):377–81. Available from: https://www.sciencedirect.com/science/article/pii/S1532046408001226 (https://www.sciencedirect.com/science/article/pii/S1532046408001226)

2. Harris PA, Taylor R, Minor BL, et al. The REDCap consortium: Building an international community of software platform partners. Journal of Biomedical Informatics [Internet] 2019;95:103208. Available from: https://www.sciencedirect.com/science/article/pii/S1532046419301261 (https://www.sciencedirect.com/science/article/pii/S1532046419301261)
3. R Core Team. R: A language and environment for statistical computing [Internet]. Vienna, Austria: R Foundation for Statistical Computing; 2023. Available from: https://www.R-project.org/ (https://www.R-project.org/)
4. Wickham H. Forcats: Tools for working with categorical variables (factors) [Internet]. 2023. Available from: https://CRAN.R-project.org/package=forcats (https://CRAN.R-project.org/package=forcats)
5. Wickham H. ggplot2: Elegant graphics for data analysis [Internet]. Springer-Verlag New York; 2016. Available from: https://ggplot2.tidyverse.org (https://ggplot2.tidyverse.org)
6. Kassambara A. Ggpubr: 'ggplot2' based publication ready plots [Internet]. 2023. Available from: https://CRAN.R-project.org/package=ggpubr (https://CRAN.R-project.org/package=ggpubr)
7. Sjoberg DD, Whiting K, Curry M, Lavery JA, Larmarange J. Reproducible summary tables with the gtsummary package. The R Journal [Internet] 2021;13(1):570–80. Available from: https://doi.org/10.32614/RJ-2021-053 (https://doi.org/10.32614/RJ-2021-053)
8. Iannone R, Cheng J, Schloerke B, Hughes E, Lauer A, Seo J. Gt: Easily create presentation-ready display tables [Internet]. 2024. Available from: https://CRAN.R-project.org/package=gt (https://CRAN.R-project.org/package=gt)
9. Therneau TM. A package for survival analysis in r [Internet]. 2024. Available from: https://CRAN.R-project.org/package=survival (https://CRAN.R-project.org/package=survival)