

# CO-CIN update January 2022

ISARIC4C collaborative

06/01/2022

## Question

Is there evidence of a change in admission characteristics or management of those age < 18 years in hospital with SARS-CoV-2 diagnosis in recent weeks?

## Data

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## Preliminary findings

These are early data which are not yet complete. There are proportionally more infants (<1 year) in data from the most recent 3 weeks (14th December 2021 to 6th January 2022) compared with prior epochs (n = 94 (37.8%) vs 30.8% previously;  $\chi^2 = 5.09, p = 0.024$ ). No other strong signal of a change in patient characteristics or management is seen.

## Patient characteristics by epoch

n (%)

Dependent: epoch		Jan - Aug 2020	Sept 20 - April 21	May - 13 Dec 21	14 Dec 21 - 6 Jan 22	Total
Total N (%)		1121 (18.2)	2316 (37.6)	2478 (40.2)	249 (4.0)	6164
Age (years)	<1 y	369 (32.9)	705 (30.4)	747 (30.1)	94 (37.8)	1915 (31.1)
	1 - 4 y	240 (21.4)	392 (16.9)	368 (14.9)	49 (19.7)	1049 (17.0)
	5 - 11 y	239 (21.3)	494 (21.3)	531 (21.4)	53 (21.3)	1317 (21.4)
	12 - 17 y	273 (24.4)	725 (31.3)	832 (33.6)	53 (21.3)	1883 (30.5)
Sex at Birth	Male	638 (56.9)	1218 (52.6)	1243 (50.2)	137 (55.0)	3236 (52.5)
	Female	483 (43.1)	1098 (47.4)	1235 (49.8)	112 (45.0)	2928 (47.5)
Index multiple deprivation	1 - most deprived	327 (31.2)	778 (36.4)	822 (35.6)	95 (45.2)	2022 (35.4)
	2	244 (23.3)	451 (21.1)	436 (18.9)	41 (19.5)	1172 (20.5)
	3	166 (15.8)	349 (16.3)	386 (16.7)	17 (8.1)	918 (16.1)

Dependent: epoch		Jan - Aug 2020	Sept 20 - April 21	May - 13 Dec 21	14 Dec 21 - 6 Jan 22	Total
Ethnicity	4	156 (14.9)	289 (13.5)	332 (14.4)	28 (13.3)	805 (14.1)
	5 - least deprived	156 (14.9)	270 (12.6)	333 (14.4)	29 (13.8)	788 (13.8)
	White	588 (59.1)	1132 (57.5)	1409 (69.1)	126 (62.4)	3255 (62.5)
	South Asian	140 (14.1)	378 (19.2)	254 (12.5)	32 (15.8)	804 (15.4)
	East Asian	18 (1.8)	17 (0.9)	6 (0.3)	0 (0.0)	41 (0.8)
	Black	88 (8.8)	142 (7.2)	110 (5.4)	20 (9.9)	360 (6.9)
	Other Ethnic Minority	161 (16.2)	298 (15.1)	261 (12.8)	24 (11.9)	744 (14.3)

### Outcome by epoch

n (%)

Dependent: epoch		Jan - Aug 2020	Sept 20 - April 21	May - 13 Dec 21	14 Dec 21 - 6 Jan 22	Total
Total N (%)		1121 (18.2)	2316 (37.6)	2478 (40.2)	249 (4.0)	6164
Oxygen use	Yes	305 (28.1)	471 (21.3)	500 (21.7)	27 (13.1)	1303 (22.4)
ICU/HDU admission	Yes	217 (19.7)	429 (19.1)	326 (13.9)	44 (20.6)	1016 (17.2)
Invasive ventilation	Yes	86 (7.9)	116 (5.3)	89 (3.9)	6 (2.9)	297 (5.1)
Noninvasive ventillation	Yes	80 (7.4)	104 (4.7)	102 (4.5)	2 (1.0)	288 (5.0)
Length of stay (days)	Mean (SD)	8.1 (24.6)	5.5 (16.9)	3.6 (6.3)	1.9 (1.8)	5.1 (15.7)

### Oxygen use by age and epoch

n (%)

Dependent: Oxygen use		Jan - Aug 2020	Sept 20 - April 21	May - 13 Dec 21	14 Dec 21 - 6 Jan 22
Age (years)	<1 y	81 (22.5)	113 (16.9)	145 (20.6)	10 (12.7)
	1 - 4 y	66 (29.1)	81 (21.5)	89 (25.3)	5 (13.5)
	5 - 11 y	75 (32.5)	123 (25.9)	101 (21.0)	6 (14.3)
	12 - 17 y	83 (31.0)	154 (22.2)	165 (21.6)	6 (12.5)

### ICU/HDU admission by age and epoch

n (%)

Dependent: ICU/HDU admission		Jan - Aug 2020	Sept 20 - April 21	May - 13 Dec 21	14 Dec 21 - 6 Jan 22
Age (years)	<1 y	51 (14.0)	86 (12.7)	89 (12.6)	13 (16.0)
	1 - 4 y	39 (16.7)	74 (19.4)	41 (11.6)	4 (10.5)
	5 - 11 y	61 (26.2)	131 (27.2)	80 (16.2)	11 (23.9)
	12 - 17 y	66 (24.4)	138 (19.5)	116 (14.8)	16 (32.7)

### Invasive mechanical ventilation by by age and epoch

n (%)

Dependent: Invasive ventilation		Jan - Aug 2020	Sept 20 - April 21	May - 13 Dec 21	14 Dec 21 - 6 Jan 22
Age (years)	<1 y	21 (5.8)	31 (4.7)	22 (3.2)	3 (3.9)
	1 - 4 y	13 (5.7)	20 (5.3)	14 (4.0)	0 (0.0)
	5 - 11 y	29 (12.6)	33 (7.0)	21 (4.4)	3 (6.8)
	12 - 17 y	23 (8.6)	32 (4.6)	32 (4.2)	0 (0.0)

### Noninvasive mechanical ventilation by by age and epoch

n (%)

Dependent: Noninvasive ventillation		Jan - Aug 2020	Sept 20 - April 21	May - 13 Dec 21	14 Dec 21 - 6 Jan 22
Age (years)	<1 y	26 (7.2)	40 (6.0)	34 (4.9)	1 (1.3)
	1 - 4 y	9 (3.9)	10 (2.7)	10 (2.9)	0 (0.0)
	5 - 11 y	19 (8.3)	27 (5.7)	23 (4.8)	0 (0.0)
	12 - 17 y	26 (9.7)	27 (3.9)	35 (4.6)	1 (2.1)

### Mortality by age and epoch

n (%)

Dependent: status		Jan - Aug 2020	Sept 20 - April 21	May - 13 Dec 21	14 Dec 21 - 6 Jan 22
Age (years)	<1 y	7 (1.9)	8 (1.2)	6 (0.8)	0 (0.0)
	1 - 4 y	3 (1.3)	0 (0.0)	4 (1.1)	0 (0.0)
	5 - 11 y	0 (0.0)	1 (0.2)	1 (0.2)	1 (2.0)
	12 - 17 y	3 (1.1)	2 (0.3)	3 (0.4)	0 (0.0)

### Length of stay by age and epoch

mean (sd)

Dependent: Length of stay (days)		Jan - Aug 2020	Sept 20 - April 21	May - 13 Dec 21	14 Dec 21 - 6 Jan 22
Age (years)	<1 y	6.6 (15.8)	4.4 (17.1)	3.1 (6.0)	1.9 (1.7)
	1 - 4 y	6.6 (18.3)	3.2 (17.9)	3.2 (6.0)	1.5 (1.3)
	5 - 11 y	7.9 (26.6)	5.2 (7.3)	3.8 (5.4)	2.3 (2.6)

Dependent: Length of stay (days)	Jan - Aug 2020	Sept 20 - April 21	May - 13 Dec 21	14 Dec 21 - 6 Jan 22
12 - 17 y	11.5 (35.3)	8.1 (20.4)	4.1 (7.2)	1.9 (1.6)