

Table S1: Description of SARS-CoV-2 rRT-PCR positive children <18 years in South Africa, 1 March 2020 -19 September 2020 (N= 45,609)

Characteristic	All children, N= 45,609
Age (median, IQR)	12.4 (7.5 -15.7)
<i>Age in years, n (%)</i>	
<1	2,232 (4.9)
1	1,500 (3.3)
2	1,200 (2.6)
3	1,186 (2.6)
4	1,358 (3.0)
5	1,497 (3.3)
6	1,620 (3.6)
7	1,802 (4.0)
8	1,969 (4.3)
9	2,073 (4.6)
10	2,347 (5.2)
11	2,683 (5.9)
12	3,453 (7.6)
13	3,484 (7.6)
14	3,398 (7.5)
15	3,644 (8.0)
16	4,120 (9.0)
17	6,043 (13.3)
<i>Sex</i>	
Female	24,308 (53.3)
Male	20,412 (44.8)
Missing	889 (2.0)
<i>Testing laboratory, n (%)*</i>	
Private	23,978 (52.6)
Public	21,631 (47.4)

rRT-PCR = real-time reverse transcriptase polymerase chain reaction; IQR= interquartile range; * refers to whether the laboratory where test was conducted was operated by the government or operated by a private entity

Table S2: Description of SARS-CoV-2 rRT-PCR positive hospital admissions among children <18 years in South Africa by province, 1 March 2020 -19 September 2020 (N= 2,007)

Variable	Eastern Cape (N=225)	Free State (N=137)	Gauteng (N=413)	KwaZulu-Natal (N=360)	Limpopo (N=58)	Mpumalanga (N=60)	North West (N=81)	Northern Cape (N=44)	Western Cape (N=629)	South Africa (N=2007)
Sex										
Male, n (%)	94 (41.8)	69 (50.4)	202 (49.2)	184 (51.1)	33 (56.9)	28 (46.7)	37 (45.7)	22 (50.0)	335 (53.3)	1006 (50.1)
Median Age										
Years, Median (IQR)	13.9 (4.0-17.0)	11.9 (2.8-15.8)	6.7 (1.2-13.7)	7.6 (1.2-14.2)	8.5 (1.1-15.4)	6.1 (1.1-15.5)	13.9 (4.3-16.8)	9.0 (2.9-13.5)	2.5 (0.5-10.4)	6.8 (1.1-14.3)
Age Group										
<1 year, n (%)	28 (12.4)	14 (10.2)	94 (22.8)	82 (22.8)	14(24.1)	13 (21.7)	9 (11.1)	5 (11.4)	210 (33.4)	469 (23.4)
1-4 years, n (%)	32 (14.2)	32 (23.4)	94 (22.8)	70 (19.4)	5 (8.6)	16 (26.7)	15 (18.5)	10 (22.7)	175 (27.8)	449 (22.4)
5-9 years, n (%)	24 (10.7)	15 (11.0)	63 (15.3)	50 (13.9)	12 (20.7)	6 (10.0)	8 (9.9)	8 (18.2)	81 (12.9)	267 (13.3)
10-14 years, n (%)	44 (19.6)	31 (22.6)	82 (19.9)	83 (23.1)	11 (19.0)	8 (13.3.)	15 (18.5)	14 (31.8)	78 (12.4)	366 (18.2)
15-17 years, n (%)	97 (43.1)	45 (32.9)	80 (19.4)	75 (20.8)	16 (27.6)	17 (28.3)	34 (42.0)	7 (15.9)	85 (13.5)	456 (22.7)
Hospital*										
Public, n (%)	181 (80.4)	66 (48.2)	28 (6.8)	89 (24.7)	30 (51.7)	5 (8.3)	24 (29.6)	2 (4.6)	465 (73.9)	890 (44.3)
Underlying conditions										
Data available (Yes), n (%)	196 (87.1)	134 (97.8)	346 (83.8)	278 (77.2)	57 (98.3)	51 (85.0)	74 (91.4)	31 (70.5)	259 (41.2)	1,426 (71.1)
Has ≥1 underlying conditions reported**, n (%)	16 (8.2)	14 (10.6)	25 (7.3)	27 (9.7)	2 (3.5)	4 (7.8)	4 (5.4)	2 (6.5)	137 (55.2)	231 (16.2)
Severity of disease										
LOS, days (median, IQR)	6 (3-11)	3 (1-7)	3 (1-6)	4 (2-7)	3.5 (2-5)	2 (1-5)	4 (2-7)	2 (1-3)	3 (1.6)	3 (2-7)
Ever admitted to high care , n (%)	5 (2.2)	5 (3.7)	36 (8.7)	17 (4.7)	1 (1.7)	8 (13.3)	2 (2.5)	3 (6.8)	7 (1.1)	84 (4.2)
Ever admitted ICU, n (%)	9 (4.0)	3 (2.2)	50 (12.1)	27 (7.5)	4 (6.9)	7 (11.7)	2 (2.5)	1 (2.3)	51 (8.1)	154 (7.7)
Ever ventilated, n (%)	8 (3.6)	3 (2.2)	19 (4.6)	13 (3.6)	4 (6.9)	2 (3.3)	1 (1.2)	1 (2.3)	6 (1.0)	57 (2.8)
Outcomes										
Discharged alive, n (%)	200 (88.9)	126 (92.0)	361 (87.0)	316 (87.8)	36 (62.1)	54 (90.0)	55 (67.9)	39 (88.6)	582 (92.5)	1,769 (87.9)
Transferred out, n (%)	3 (1.3)	0 (0.0)	1 (0.2)	9 (2.5)	0 (0.0)	0 (0.0)	2 (2.5)	0 (0.0)	1 (0.2)	16 (0.8)
Still admitted, n (%)	12 (5.3)	7 (5.1)	42 (10.2)	27 (7.5)	21 (36.2)	4 (6.7)	24 (29.6)	5 (11.4)	32 (5.1)	174 (8.7)
Died, n (%)	10 (4.4)	4 (2.9)	9 (2.2)	8 (2.2)	1 (1.7)	2 (3.3)	0 (0.0)	0 (0.0)	13 (2.1)**	47 (2.3)

ICU= intensive care unit; IQR= interquartile range, LOS= length of stay * refers to whether hospital was operated by the government or by a private entity; excludes one child who died from a cause deemed not SARS-CoV-2 related.

Table S3: Distribution of non-missing variables among children with complete follow up and included in multivariable model (N=1,817)

Variable	Non-missing (n, %)
Age	1,817 (100)
Birth sex	1,817 (100)
Province	1,817 (100)
Month of admission	1,814 (99.8)
Ethnicity (race)	1,358 (74.7)
TB	1,305 (71.8)
Malignancy	1,305 (71.8)
Diabetes	1,305 (71.8)
Hypertension	1,305 (71.8)
Asthma/ chronic pulmonary disease	1,305 (71.8)
HIV	1,220 (67.1)
Obesity	1,141 (61.0)

Table S4: Factors associated with in-hospital death among SARS-CoV-2 rRT-PCR positive admissions in children <18 years, South Africa, 1 March 2020 – 19 September 2020

Variable	n/N (%)	Univariate OR (95% CI) ^μ	Multivariate OR (95% CI) ^μ N=1305*
<i>Age in years</i>			
<1 years	16/425 (3.5)	4.22 (1.18- 15.18)	4.15 (1.01 – 17.07)
1-4years	3/412 (0.7)	1.00	1.00
5-9 years	5/242 (2.1)	2.85 (0.66- 12.25)	1.12 (0.20- 6.32)
10- 14 years	13/327 (3.4)	4.92 (1.33- 18.14)	3.82 (0.95- 15.32)
≥15 years	15/411 (3.7)	5.65 (1.58- 20.28)	3.40 (0.83- 13.88)
<i>Male</i>			
No	17/894 (2.1)	1.00	1.00
Yes	34/925 (3.7)	1.70 (0.92- 3.15)	1.78 (0.81- 3.91)
<i>Ethnicity</i>			
White	1/55 (1.8)	1.00	--
Black African	35/1144 (3.1)	1.77 (0.22- 13.90)	--
Mixed race	3/120 (2.5)	1.51 (0.14- 16.07)	--
Asian	1/36 (2.8)	1.64 (0.09- 29.41)	--
<i>Admission at public hospital</i>			
No	12/1,044 (1.2)	1.00	1.00
Yes	41/779 (5.3)	5.46 (2.37 -12.56)	8.79 (3.12- 24.75)
<i>Province**</i>			
Eastern Cape	10/212 (4.7)	1.00	--
Free State	4/130 (3.1)	0.69 (0.17- 2.78)	--
Gauteng	13/375 (3.5)	0.45 (0.15- 1.35)	--
KwaZulu Natal	10/324 (3.1)	0.46 (0.15- 1.45)	--
Western Cape	13/595 (2.2)	0.35 (0.11- 1.10)	--
Other (Limpopo , Mpumalanga , North West , Northern Cape)	3/187 (1.6)	0.32 (0.05- 1.36)	--
<i>Month</i>			
March- May 2020	5/249 (2.0)	1.00	--
June- July 2020	30/1,052 (2.9)	1.46 (0.54- 3.93)	--
August- September 2020	12/513 (2.3)	1.16 (0.39- 3.45)	--
<i>≥1 underlying condition***</i>			
No	9/685 (1.3)	1.00	1.00
Yes	27/620 (4.4)	4.13 (1.73- 9.85)	4.27 (1.78- 10.26)

<i>HIV</i>			
No	25/191 (2.1)	1.00	--
Yes	2/29 (6.9)	3.11 (0.61- 15.89)	--
<i>Previous TB</i>			
No	35/1227 (2.7)	1.00	--
Yes	1/28 (3.6)	1.04 (0.11- 10.00)	--

[†]- models run on un-imputed data. Multivariable model included age, birth sex, admission at public hospital and having one or more underlying conditions; CI= confidence interval; OR = odds ratio; *individuals with complete outcome information; *** included heart disease, diabetes, malignancy, renal disease and obesity.