**Supplemental Digital Content 8. Table: Risk factors for disease severity in pediatric COVID-19 and MIS-C: multivariate logistic regression analysis**

| Characteristic | Severe Disease / Count (%) | OR | 95% CI | p-value |
|---|---|---|---|---|
| **COVID-19** | | | | |
| Age (stratified) | | | | |
| < 5 years | 81 / 281 (29%) | Ref | Ref | |
| 5-12 years | 15 / 31 (48%) | 1.17 | 0.48, 2.79 | 0.86 |
| > 12 years | 33 / 54 (61%) | 3.08 | 1.58, 6.11 | 0.0054 |
| Positive medical history | | | | |
| No | 54 / 206 (26%) | Ref | Ref | |
| Yes | 74 / 160 (47%) | 0.96 | 0.54, 1.67 | 0.92 |
| Abnormal neurocognitive development | | | | |
| No | 90 / 292 (31%) | Ref | Ref | |
| Yes | 39 / 74 (53%) | 1.82 | 0.98, 3.35 | 0.12 |
| History of pulmonary condition | | | | |
| No | 92 / 319 (29%) | Ref | Ref | |
| Yes | 37 / 47 (79%) | 7.73 | 3.47, 18.6 | <0.0001 |
| **MIS-C** | | | | |
| Age (stratified) | | | | |
| 5-12 years | 50 / 116 (43%) | Ref | Ref | |
| < 5 years | 4 / 26 (15%) | 0.26 | 0.07, 0.75 | 0.064 |
| > 12 years | 27 / 47 (57%) | 2.01 | 0.98, 4.24 | 0.13 |
| SARS-CoV-2 variant phase | | | | |
| Wild-type | 37 / 76 (49%) | Ref | Ref | |
| Alpha | 12 / 26 (46%) | 0.92 | 0.36, 2.34 | 0.92 |
| Delta | 28 / 67 (42%) | 1.00 | 0.49, 1.74 | 1.00 |
| Omicron | 4 / 20 (20%) | 0.28 | 0.07, 0.89 | 0.097 |

All variables from Figure 2 from the manuscript that were strongly and moderately associated with disease severity or protective from severe disease with a p-value < 0.1 were re-analysed using a multivariate logistic regression model. The COVID-19 and MIS-C cohort were analysed separately. Abbreviations: OR: Odds ratio, CI: Confidence interval.