Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Kinetics and seroprevalence of SARS-CoV-2 antibodies in children

To the best of our knowledge, no longitudinal study has reported the kinetics of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) antibody responses in children. Here we report the results of the second round of antibody testing in children from a prospective multicentre cohort study in the UK. The protocol and initial results are available elsewhere.[1,2] Recruitment took place between April 16, and July 3, 2020, at five UK sites (Belfast, Cardiff, Glasgow, London, and Manchester) and included healthy children aged 2–15 years. Follow-up visits at all five UK sites took place between June 26, and Aug 15, 2020.

Of the 992 participants in the first round, 849 (86%) returned. Seroprevalence was measured with the Elecsys Anti-SARS-CoV-2 Total Antibody assay (Roche, Basel, Switzerland) and the LIAISON SARS-CoV-2 S1/S2 IgG assay (DiaSorin, Saluggia, Italy). The median time between initial and follow-up visits was 62 days (IQR 52–70; range 43–81). 65 (7·66%, 95% CI 6·05–9·64) of 849 tests were reactive based on the manufacturers' suggested cutoffs. This proportion was not substantially different to the seroprevalence (6·9% 95% CI 5·4 to 8·6; 68 of 992) reported during recruitment. The median age of participants with reactive antibody tests during the second round was 10 years (IQR 7–14; range 3–16). As with the baseline results, there was variation in seroprevalence between sites (appendix p 3).

45 participants with reactive antibody tests in the first round who attended the follow-up visit had reactive antibody tests in the second round. In these individuals, we observed increases in antibody titres from the first round to the second round with both assays: with Roche's Elecsys assay, mean antibody titres increased from 84·7 cutoff index (COI) to 115·8 COI (difference 31·08, 95% CI 13·82–48·34, p=0·0007), and with DiaSorin's LIAISON assay, mean antibody titres increased from 67·5 AU/mL to 81·4 AU/mL (13·89, 0·31–27·46; p=0·0452).

These results indicate that antibody titres in children exposed to SARS-CoV-2 remain at a detectable level for at least 62 days, and that in this cohort mean antibody titres increased over time. This finding is consistent with available data on antibody titres in adults.[3,4]

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*Cathal Roarty, Claire Tonry, Lisa McFetridge, Hannah Mitchell, Chris Watson, *Thomas Waterfield, on behalf of the Covid Warriors research team†*

t.waterfield@qub.ac.uk

†Members are listed in the appendix (p 5)

Wellcome Wolfson Institute for Experimental Medicine (CR, CT, CW, TW) and Mathematical Sciences Research Centre (LM, HM), Queen's University Belfast, Belfast BT97BL, UK; and Children's Health Ireland at Temple Street, Dublin, Ireland (TW)

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See **Online** for appendix