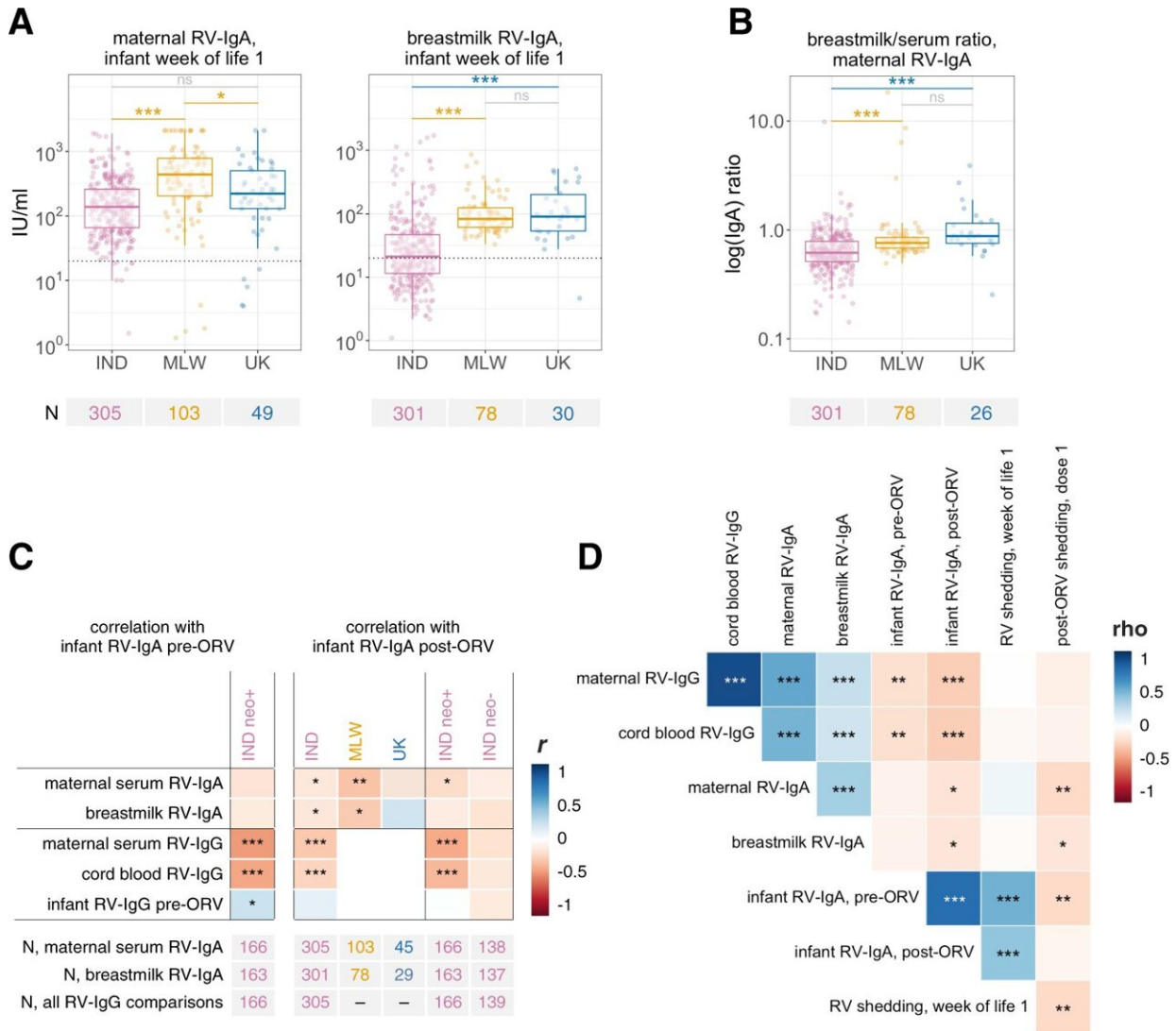


# Earlier vaccinations could help tackle rotavirus in poorer countries

January 20 2022



Association between maternal antibodies and oral rotavirus vaccine response. A Geographic differences in maternal antibody concentrations. Groups were

compared by ANOVA with post-hoc Tukey tests. The dotted lines at 20 IU/ml indicate the standard cut-off for RV-IgA seropositivity. B Geographic differences in maternal breastmilk/serum RV-IgA ratios. Groups were compared by Dunn's test. Ratios were calculated using log-transformed antibody concentrations. See Fig. 1 legend for box plot parameters. C Association between maternal antibodies and infant RV-IgA formation. Log-transformed concentrations were compared using Pearson's correlation coefficient ( $r$ ) with two-sided hypothesis testing. Infant samples for RV-IgA measurement were collected at the time of dose 1 (week of life 6 in India/Malawi; week of life 8 in the UK) and 4 weeks after dose 2 (week of life 14 in India/Malawi; week of life 16 in the UK). D Correlation between rotavirus-specific antibody concentrations and rotavirus shedding in Indian infants with complete data ( $n = 298$ ). For shedding variables,  $1/Ct$  was used such that higher values correspond to higher rotavirus quantities. Shedding after week of life 1 was determined based on the group A rotavirus VP6 gene assay ( $Ct$  range 23.5–35.0) while shedding after dose 1 was based on the Rotarix-specific NSP2 gene assay ( $Ct$  range 20.7–40.0). Variables were compared using Spearman's rank correlation coefficient ( $\rho$ ) with two-sided hypothesis testing. neo+, infected with rotavirus neonatally (defined by detection of rotavirus shedding in week of life 1 or baseline seropositivity); neo–, uninfected with rotavirus neonatally; ns, not significant; ORV, oral rotavirus vaccine; RV, rotavirus; \*p

Citation: Earlier vaccinations could help tackle rotavirus in poorer countries (2022, January 20) retrieved 7 January 2025 from <https://medicalxpress.com/news/2022-01-earlier-vaccinations-tackle-rotavirus-poorer.html>

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