Background. Antibiotic exposure around the time of rotavirus (RV) immunization has been suggested to diminish immune responses, but data are sparse.

Methods. We retrospectively analyzed data from a randomized RV vaccine study (NCT01266850) outlined in the Table. Concomitant antibiotic use, defined as receipt of an antibiotic 14 days before or 7 days after RV immunization, was recorded. The primary outcome was RV-specific IgA seroresponses (IgA ≥0.5 μL/mL) by ELISA obtained 1 month after the last dose of RV vaccine and geometric mean titer (GMT) to strain WC3 (RV5 backbone) or strain 89–12 (RV1 backbone). Only subjects who received all scheduled vaccine doses and phlebotomy were included. Data were assessed for homogeneity across vaccine schedule groups, stratified by antibiotic exposure. We examined differences in seroresponses adjusting for treatment group, gender, race, ethnicity, and antibiotic exposure (P-value < 0.05). Nearly 10% (n = 114) of participants were antibiotic exposed; group 4 had the least antibiotic exposure (P = 0.05).

Results. We found no significant differences in IgA seroresponses in antibody exposure groups 2 and 3 relative to group 1 (P > 0.05). Group 4 had significantly lower IgA seroresponses than group 3 (P = 0.03) and group 1 (P = 0.004). In the multivariable logistic regression model, there were no significant differences for gender, race, ethnicity, or antibiotic exposure (P > 0.1).

Conclusion. Antibiotic administration around the time of RV vaccine did not diminish RV-specific IgA seroresponses observed 1 month after the last RV vaccine dose.

Disclosures. All authors: No reported disclosures.

Table: Treatment Allocation and Effect of Antibiotic Exposure on Seroresponses

| Groups | 1 | 2 | 3 | 4 |
| --- | --- | --- | --- | --- |
| Immunization | Rotarix® (RV5) | RV5 | RV1 | RV1 | RV1 | Rotarix® (RV1) | RV1 | RV5 | RV5 | RV1 |
| Schedule | doses | doses | doses | doses | doses | doses | doses | doses | doses | doses |
| N | 206 | 206 | 206 | 206 | 206 | 206 | 206 | 206 | 206 | 206 |
| Seroresponse: IgA ≥0.5 μL/mL | 21/25 (84%) | 20/20 (100%) | 18/22 (82%) | 13/15 (87%) | 32/32 (100%) |
| Antibiotic Exposed | 167/181 (92%) | 168/187 (90%) | 158/172 (92%) | 209/272 (77%) | 238/248 (96%) |
| Antibiotic Not Exposed | 224. Miscellaneous Vaccines | Saturday, October 6, 2018: 12:30 PM | Background. Antibiotic use during the time of rotavirus (RV) immunization has been suggested to diminish immune responses, but data are sparse.

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Conclusion. Antibiotic administration around the time of RV vaccine did not diminish RV-specific IgA seroresponses observed 1 month after the last RV vaccine dose.

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| Groups | 1 | 2 | 3 | 4 |
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| Immunization | Rotarix® (RV5) | RV5 | RV1 | RV1 | Rotarix® (RV1) | RV1 | RV5 | RV5 | RV1 |
| Schedule | doses | doses | doses | doses | doses | doses | doses | doses | doses |
| N | 206 | 206 | 206 | 206 | 206 | 206 | 206 | 206 | 206 |
| Seroresponse: IgA ≥0.5 μL/mL | 21/25 (84%) | 20/20 (100%) | 18/22 (82%) | 13/15 (87%) | 32/32 (100%) |
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Conclusion. Antibiotic administration around the time of RV vaccine did not diminish RV-specific IgA seroresponses observed 1 month after the last RV vaccine dose.

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| Groups | 1 | 2 | 3 | 4 |
| --- | --- | --- | --- | --- |
| Immunization | Rotarix® (RV5) | RV5 | RV1 | RV1 | RV1 | Rotarix® (RV1) | RV1 | RV5 | RV5 | RV1 |
| Schedule | doses | doses | doses | doses | doses | doses | doses | doses | doses | doses |
| N | 206 | 206 | 206 | 206 | 206 | 206 | 206 | 206 | 206 | 206 |
| Seroresponse: IgA ≥0.5 μL/mL | 21/25 (84%) | 20/20 (100%) | 18/22 (82%) | 13/15 (87%) | 32/32 (100%) |
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