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Supplemental Material

Urinary Bisphenol A Levels during Pregnancy and Risk of Preterm Birth

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Table S1. Odds ratios (95% confidence intervals) of overall preterm birth in association with quartiles of random BPA slopes and intercepts generated by linear mixed effect models.

| Overall Preterm | Model 1 | | | Model 2 ^a | | | Model 3 ^b | | |
|---|------------------------|-------------------|------|------------------------|-------------------|------|------------------------|-------------------|------|
| | N (cases, controls) | OR (95% CI) | p | N (cases, controls) | OR (95% CI) | p | N (cases, controls) | OR (95% CI) | p |
| Random Intercept | 130, 352 | 1.64 (0.73, 3.65) | 0.23 | 127, 334 | 1.56 (0.61, 4.01) | 0.36 | 127, 334 | 1.43 (0.55, 3.70) | 0.46 |
| Quartiled slopes of BPA exposure across pregnancy | | | | | | | | | |
| Quartile 1 < -0.000199 | | REF | | | REF | | | REF | |
| Quartile 2 -0.000199 to -0.0000164 | | 0.60 (0.33, 1.07) | 0.09 | | 0.55 (0.29, 1.05) | 0.07 | | 0.54 (0.28, 1.03) | 0.06 |
| Quartile 3 -0.0000165 to 0.000174 | | 1.01 (0.59, 1.75) | 0.97 | | 0.94 (0.52, 1.72) | 0.84 | | 0.88 (0.48, 1.63) | 0.68 |
| Quartile 4 \geq 0.000175 | | 0.78 (0.45, 1.37) | 0.39 | | 0.81 (0.43, 1.53) | 0.51 | | 0.76 (0.40, 1.45) | 0.41 |

^aModel adjusted for specific gravity, maternal age, race, maternal educational level attained, medical insurance, parity, prior history of PTB, and BMI.

^bAdditional adjustment for geometric average sum of DEHP metabolites.

Table S2. Odds ratios (95% confidence intervals) of combined preterm sub-categories in association with ln-unit increase in BPA concentration (ng/mL).

| Spontaneous/Placental PTB | Model 1 ^a | | | Model 2 ^b | | | Model 3 ^c | | |
|---|------------------------|-------------------|------|------------------------|-------------------|-------|------------------------|-------------------|------|
| | N (cases, controls) | OR (95% CI) | p | N (cases, controls) | OR (95% CI) | p | N (cases, controls) | OR (95% CI) | p |
| GM Average (Visit 1-3) | 91, 352 | 1.52 (1.02, 2.27) | 0.04 | 89, 338 | 1.45 (0.89, 2.37) | 0.13 | 89, 338 | 1.33 (0.81, 2.18) | 0.27 |
| Visit 1 | 91, 351 | 1.27 (0.96, 1.67) | 0.09 | 89, 337 | 1.10 (0.81, 1.51) | 0.54 | 89, 337 | 1.05 (0.76, 1.45) | 0.75 |
| Visit 2 | 83, 304 | 1.28 (0.95, 1.74) | 0.11 | 81, 295 | 1.35 (0.95, 1.90) | 0.09 | 81, 295 | 1.34 (0.94, 1.91) | 0.10 |
| Visit 3 | 79, 301 | 0.95 (0.70, 1.27) | 0.70 | 77, 291 | 0.91 (0.65, 1.28) | 0.59 | 77, 291 | 0.81 (0.56, 1.18) | 0.27 |
| Visit 4 | 40, 314 | 1.51 (1.02, 2.22) | 0.04 | 38, 302 | 1.96 (1.23, 3.12) | 0.004 | 38, 302 | 1.80 (1.11, 2.92) | 0.02 |
| Combined Model (Visit 1-3) ^d | 73, 263 | | | 71, 256 | | | 71, 256 | | |
| Visit1 | | 1.18 (0.83, 1.68) | 0.36 | | 1.06 (0.72, 1.58) | 0.76 | | 1.05 (0.70, 1.56) | 0.82 |
| Visit2 | | 1.30 (0.92, 1.83) | 0.14 | | 1.43 (0.97, 2.11) | 0.07 | | 1.39 (0.93, 2.06) | 0.11 |
| Visit3 | | 0.89 (0.65, 1.23) | 0.48 | | 0.84 (0.59, 1.20) | 0.33 | | 0.79 (0.55, 1.14) | 0.21 |

^aAdjusted for specific gravity. ^bModel adjusted for specific gravity, maternal age, race, maternal educational level attained, medical insurance, parity, prior history of PTB, and BMI. ^cAdditional adjustment for geometric average sum of DEHP metabolites. ^dCombined model adjusted for all three study visits simultaneously.