EPA United States Environmental Protection Agency

# Evaluating the Quality of Individual Studies

| Chemical X – Anogenital Distance Studies (Draft) | | | | | | | |
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| **Reference** | **Exposure Meaure and Range** | **Outcome classification** | **Participant Selection and Comparability** | **Consideration of Likely Confounding** | **Completeness of results** | **Adequate Sample Size** | **Additional Comments - Limitations in Confidence in Results** |
| Author A et al., 2011 | Maternal urine (9 – 40 weeks; mean 29 weeks), 75th percentile = 32 ng/mL | Anogenital distance , measured at birth (1-3 days); blinded to exposure | Birth cohort; 120 of 344 enrollees excluded because did not delivery at study hospital. Internal comparison group. | Gestational age, birth order, maternal age, maternal smoking and environmental tobacco smoke exposure (stepwise regression); Used SG-corrected urine concentrations | Described as not associated (details not reported) | n = 111 male infants | Relatively low, narrow exposure range. Unclear if approach to dilution adjustment is optimal |
| Author B 2008; Author B et al., 2005 | Maternal urine (3rd trimester), 75th percentile = 437 ng/mL | Anogenital distance, measured at ages 0 - 36 months; assessors blinded to exposure but no information on agreement between sites / raters | Birth cohort; 21 of 172 enrollees excluded because exam not considered reliable (child too active); 2 declined interview); other exclusions based on lack of urine sample. Internal Comparison group | Adjusted for weight percentile and age | Percent change per interquartile increase in metabolite and p-value; also presented as metabolite distribution by 3 categories of anogenital distance | n =106 boys | Is age-size adjustment adequate (considering potential temporal changes in exposure)? No adjustment for urine dilution in model |