

Safety of MenACWY-CRM vaccine exposure during pregnancy



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Purpose: Although the meningococcal conjugate MenACWY-CRM vaccine is not approved for use in pregnant women, unintentional exposure during pregnancy can occur, especially during early pregnancy among women of child-bearing age. This study provides safety information about inadvertent MenACWY-CRM vaccination during pregnancy.

Methods: The evaluated population consisted of pregnant female members of Kaiser Permanente Southern California who received MenACWY-CRM at 11–21 years of age during September 30, 2011 – June 30, 2013 within 28 days prior to conception or during pregnancy. Chart abstraction was conducted to identify pregnancy and birth outcomes, including spontaneous and induced abortions, preterm births, low weight births, and birth defects.

Results: There were 92 women who received MenACWY-CRM during the pregnancy exposure period, mainly during the first trimester (76.1%). Hispanics represented the largest race/ethnicity category (68.5%). Among the known pregnancy outcomes ($n=66$; excluding induced abortions and unknown pregnancy outcomes), the prevalence of spontaneous abortions was 18.2% ($n=12$). Among live born infants ($n=55$), 14.5% ($n=8$) were born preterm (<37 weeks gestation) and 9.1% ($n=5$) had a low birthweight ($<2,500$ grams). Three pregnancy outcomes with major congenital malformations (MCMs) were reported, one terminated by induced abortion, one diagnosis of ankyloglossia and one of pyelectasis. The prevalence rate of MCMs among live born infants ($n=55$) was 3.6% ($n=2$).

Conclusions: This study provides baseline prevalence estimates of spontaneous abortions, preterm births, low weight births, and MCMs among women inadvertently exposed to MenACWY-CRM during the

pregnancy period. These estimates appear to be comparable with U.S. background prevalence estimates.

Private domestic well water as a possible source of lead exposure in three rural illinois counties: a pilot study



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Purpose: The Flint Water Crisis has increased attention on water corrosivity and lead levels in community water systems. Previous studies have linked these exposures to elevated blood lead in children, which is associated with IQ decrements and neurobehavioral disorders. There has been less focus on corrosion and water lead levels in private wells, which are not regulated by federal law. Therefore, we evaluated corrosivity and housing age as predictors of lead levels in homes supplied by private wells.

Methods: In a cross-sectional study, we partnered with local Illinois health departments (Jackson, Kane, and Peoria counties) to analyze stagnant and flushed water samples for lead and corrosivity. Logistic regression analyses were used to characterize relationships between corrosivity indices, housing age, and lead detection.

Results: Preliminary analyses indicated about 47% ($n=97$) of stagnant samples had detectable (>0.76 ppb) water lead levels. Over 3% of samples exceeded EPA's regulatory limit for lead (15 ppb); in these samples, levels exceeded 30 ppb and were composed almost entirely of particulate lead. Logistic regression analyses revealed that among homes built pre-1986, corrosive water significantly increased odds of water lead detection (OR 4.13, 95% CI 1.02, 16.68). The trend was similar in post-1986 homes, but not significant (OR 2.22, 95% CI 0.30, 16.56).

Conclusion: Preliminary results of our pilot study suggest that older homes with more corrosive well water have elevated risk for lead contamination. Even low-level lead exposure can increase children's blood lead levels, so homeowners may benefit from private well testing and lead remediation.