

1077. Adverse events following measles, mumps, and rubella (MMR) vaccine in adults reported to the Vaccine Adverse Event Reporting System, 2003-2013

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Background. The Centers for Disease Control and Prevention (CDC) recommends adults born in 1957 or later have documentation of at least one dose of MMR vaccine and high risk adults and healthcare workers have a second dose. Limited data exists on the safety of MMR vaccine in adults. We reviewed reports of adverse events (AEs) to the Vaccine Adverse Event Reporting System (VAERS) in order to assess safety in this previously under-studied group.

Methods. VAERS is the national spontaneous vaccine safety surveillance system co-administered by CDC and the FDA. We searched the VAERS database for US reports of adults 19 years of age and older who received MMR vaccine from January 1, 2003 to July 31, 2013. For serious reports, pregnancy reports, and reports with selected pre-specified outcomes (Guillain-Barré syndrome (GBS), anaphylaxis, arthritis or arthralgia, encephalitis, idiopathic thrombocytopenic purpura (ITP), myocarditis or

pericarditis, myocardial infarction, and vaccine virus shedding), we reviewed available medical records.

Results. During this period, VAERS received 3,175 US AE reports after MMR vaccine in adults. Of these, 161 (5%) were serious, including 9 reports of deaths. Median onset to outcome was 2 days (range 0 to 954). Median age of vaccine recipients was 37 years. Most reports, 2,448 (77%), were in females. The most common signs and symptoms for all reports were pyrexia (19%), rash (17%), pain (13%) and arthralgia (13%). The most common terms for serious reports were pyrexia (24%), headache (21%), hypoesthesia (19%), and asthenia (19%). There were a total of 19 GBS, 12 anaphylaxis, 15 arthritis/ arthralgia, 9 encephalitis, 5 ITP, 4 myocarditis reports, and 1 myocardial infarction report. We did not observe any new safety findings in empirical Bayesian data mining. In 131 reports, MMR vaccine was inadvertently given to pregnant women; the majority of vaccinations were in the first trimester. In 82 (63%) pregnancy reports, no AE was reported.

Conclusion. In our review of VAERS data, we did not detect any new or unexpected safety concerns for MMR vaccine in adults. We identified reports of pregnant women exposed to MMR in whom the vaccine is contraindicated, which demonstrates the need for provider education on vaccine recommendations and screening.

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