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M-094-23 SENTINEL HOSPITAL SURVEILLANCE FOR ROTAVIRUS IN SÃO PAULO STATE, BRAZIL, AFTER INTRODUCTION OF VACCINE ROTARIX®

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Resumo

Rotavirus (RV) infections are recognized as a major cause of severe gastroenteritis in infants and young children worldwide. Approximately 90% of all RV diseases have been shown to be caused by G1P[8], G2P[4], G3P[8], G4P[8], and G9P[8] genotypes. In March 2006, Brazil introduced a monovalent G1P[8] human RV vaccine (Rotarix®) into its national Expanded Program for Immunization. The aim of this study was to assess the impact of immunization on the incidence of severe RV acute gastroenteritis and to determine the genotypes after introduction of vaccine. Sentinel hospital-based surveillance was conducted involving 799 children < 5 years of age who were admitted for treatment of diarrhea at 3 sentinel hospitals in the cities of São Paulo and São José Rio Preto, from September 2009 to June 2012. RV was detected in 167 (21.0%) of the fecal specimens by a commercial ELISA assay. Of all episodes of RV diarrhea, 91.6% occurred during the first 2 years of life. RV isolates were characterized by RT-PCR to determine G and P genotypes. G2 (39.1%) was the most prevalent serotype followed by G9 (35.3%), G1 (7.7%), G3 (7.7%) and G12 (7.2%). P[8] was the most common genotype of RV. The most common G-P association identified in this study was G2P[4] (35.3%) and G9P[8] (30.5%). In 2011, G9P[8] was the most prevalent type RV strains. Preliminary data obtained from hospitals in São Paulo State and information concerning the program of Acute Diarrheic Diseases Monitoring show that hospitalization for diarrhea in children under 5 years had a significant reduction after the introduction of RV vaccine. Sentinel hospital-based surveillance is essential to monitor changes in the epidemiology of RV disease and the impact of vaccination after introduction, considering change in frequency, severity of disease, and circulating RV types.