

The ever-changing landscape of rotavirus serotypes

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Rotavirus is a double-stranded RNA virus that is characterized by substantial genetic diversity. The various serotypes of rotavirus have been determined by the presence of neutralizing epitopes on the outer capsid of the protein shell. At present, 5 rotavirus serotypes (G1, G2, G3, G4, G9) are the predominant circulating strains, accounting for approximately 95% of strains worldwide, although there is considerable geographic variability. Incidence rates for various serotypes also vary temporally with seasonal and year-to-year fluctuations. Unusual serotypes are generally uncommon, but new serotypes can emerge. In particular, G9[P8], a reassortment virus, was first identified in 1983 and in the last 10 to 15 years has become widely distributed worldwide. Indeed, G9[P8] has become highly prevalent in many countries in Europe and Australia, with somewhat lower incidence rates in South America, Africa, and Asia. The heterogeneity and ever-changing epidemiology of rotavirus underscores the