Online-Only Abstract

**Virus shedding after human rhinovirus infection in children, adults and patients with hypogammaglobulinaemia**

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**Abstract**

The shedding of human rhinovirus (HRV) after an acute, naturally acquired infection has not been described in detail. We determined the duration of HRV shedding in immunocompetent children and adults, and in patients with primary hypogammaglobulinaemia. Subjects with symptoms of respiratory tract infection, and their household contacts, were screened for HRV by reverse transcription PCR. They were followed by serial, self-collected nasal swab specimens until negative for HRV or infected by another HRV type. We followed 62 HRV infections in 54 subjects. The mean (95% CI) duration of HRV shedding was 11.4 (8.2–14.7) days in children, 10.1 (7.4–12.9) days in adults, and 40.9 (26.4–55.4) days in patients with hypogammaglobulinaemia (p <0.001). The duration of respiratory tract symptoms correlated with the duration of virus shedding (p 0.002). A new infection by another HRV type soon after the first episode was common. We conclude that the shedding times of HRV are relatively short in otherwise healthy individuals. In contrast, prolonged shedding over 28 days is frequent in patients with hypogammaglobulinaemia despite immunoglobulin replacement therapy.