

Viral shedding in patients infected with pandemic influenza A (H1N1) virus in Kenya, 2009

Abstract:

BACKGROUND: Understanding shedding patterns of 2009 pandemic influenza A (H1N1) (pH1N1) can inform recommendations about infection control measures. We evaluated the duration of pH1N1 virus shedding in patients in Nairobi, Kenya. **METHODS:** Nasopharyngeal (NP) and oropharyngeal (OP) specimens were collected from consenting laboratory-confirmed pH1N1 cases every 2 days during October 14-November 25, 2009, and tested at the Centers for Diseases Control and Prevention-Kenya by real time reverse transcriptase polymerase chain reaction (rRT-PCR). A subset of rRT-PCR-positive samples was cultured. **RESULTS:** Of 285 NP/OP specimens from patients with acute respiratory illness, 140 (49%) tested positive for pH1N1 by rRT-PCR; 106 (76%) patients consented and were enrolled. The median age was 6 years (Range: 4 months-41 years); only two patients, both asthmatic, received oseltamivir. The median duration of pH1N1 detection after illness onset was 8 days (95% CI: 7-10 days) for rRT-PCR and 3 days (Range: 0-13 days) for viral isolation. Viable pH1N1 virus was isolated from 132/162 (81%) of rRT-PCR-positive specimens, which included 118/125 (94%) rRT-PCR-positive specimens collected on day 0-7 after symptoms onset. Viral RNA was detectable in 18 (17%) and virus isolated in 7/18 (39%) of specimens collected from patients after all their symptoms had resolved. **CONCLUSIONS:** In this cohort, pH1N1 was detected by rRT-PCR for a median of 8 days. There was a strong correlation between rRT-PCR results and virus isolation in the first week of illness. In some patients, pH1N1 virus was detectable after all their symptoms had resolved.