

Analysis of Viral Etiologies in Adults with Symptomatic Upper Respiratory Infections in an Outpatient Setting

Abstract

Background: Community-acquired upper respiratory infections represent a significant source of morbidity and mortality, and viruses are the primary etiologic agent. The purpose of this study was to determine the frequency and type of viruses causing severe symptomatic upper respiratory infections in adults presenting to an academic ENT office.

Methods: Retrospective chart review of 37 patients who had a total of 40 respiratory nasopharyngeal samples for viral PCR analysis collected between October 2013 and October 2014.

Results: Viruses were detected in 47.5% (19/40) of samples from 37 patients. The most common viruses isolated as single infections were coronavirus, influenza (A and B) and rhinovirus which were each found in 5 (12.5%) samples. Overall, both coronavirus and influenza were found in 7 (17.5%) studies each vs. 6 (15%) for rhinovirus. Co-infections were detected in 3 (7.5%) cases, either as coronavirus and influenza B (2/3) or parainfluenza and rhinovirus (1/3). Most positive tests occurred in February and March with 5 (12.5%) tests each.

Conclusions: The most frequently detected viruses in adults with severe URI symptoms were coronavirus and influenza, followed closely by rhinovirus. Infections were most commonly detected in the wintertime. Viral PCR testing can be an important tool to guide treatment