

ORAL ABSTRACTS

130. A Prospective Cohort Study Evaluating the Impact of the Multiplex Respiratory Virus Panel (MRVP) PCR Test on the Clinical Management of Suspected Respiratory Viral Infections in Adult Patients at the McGill University Health Centre (MUHC)

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Background. Rapid diagnostic tests for respiratory viral infections could lead to proper patient management and reduce unnecessary antibiotic use. The objective of this study was to evaluate the impact of the MRVP PCR test on the clinical

management of patients with suspected respiratory viral infections.

Methods. In a prospective cohort study, data was collected from 176 adult patients from January to February 2014 from the MUHC. Patients with a positive MRVP test were identified by MUHC Infection Prevention and Control. Patients with a negative MRVP test were selected from the same medical floor or department within a one week time frame from a positive MRVP test result. Data was collected prospectively from patients medical charts and retrospectively from electronic medical records to assess the use of antibiotics and antivirals before and after test result.

Results. A total of 176 patients were included in the analysis, with 93 patients MRVP test positive and 83 patients MRVP test negative. The patients were allocated to three cohorts: influenza positive, non-influenza positive and test negative. Of the 40 influenza positive patients that received antiviral treatment, 36/40 patients (90%) completed a course of treatment after the test result. Meanwhile, all non-influenza positive patients and 16/20 (80%) test negative patients had empiric antiviral therapy stopped after the test result. Of the 106 patients that received empiric antibiotic treatment, 9/31 (29%) influenza positive patients, 8/18 (44%) non-influenza positive patients and 9/57 (16%) test negative patients had their antibiotic therapy stopped after the test result. Antibiotics were continued in 22/31 (71%), 10/18 (56%) and 47/57 (82%) patients in the influenza positive, non-influenza positive and test negative groups respectively due to culture-positive or radiologically confirmed bacterial infection.

Conclusion. Our study indicates that implementation of the MRVP PCR test for diagnosis of respiratory viral infections positively impacted the use of antiviral therapy and lead to antibiotic discontinuation in 25% of cases.

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