



Service Priorities and Programmes Electronic Presentations

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Comparison of Nasopharyngeal Flocked Swabs vs. Aspirates for Diagnosis of Respiratory Viruses for use in Immunofluorescence Testing

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Introduction

Influenza epidemics increase makes the access block worse as the limited number of isolation beds cannot cope with the crisis. An effective screening tool to rapidly diagnosis those cases is a necessity.

Objectives

To compare the effectiveness of NPFS versus Nasopharyngeal Aspiration (NPA) for diagnosis of respiratory viruses using Immunofluorescence (IF) and multiplex polymerase chain reaction (PCR).

Methodology

It was designed as a prospective and comparative study. We collected both NPFS and NPA swabs from 116 adult patients with Influenza-like-illness when they visited the emergency department in Hong Kong. Specimens were then tested using IF and PCR for common respiratory viruses.

Result

Results:NPFS (70%) showed slightly more sensitive than NPA (68%) for Influenza A, while both were equally sensitive (100%) for Parainfluenza virus type 2 and type 3. Using IF, NPA (70%) was slightly more sensitive than NPFS (61%) in detecting influenza A. Both NPA and NPFS demonstrated 100% specificity for common respiratory viruses using either IF and PCR. Conclusion:The study showed no significant difference between NPFS and the current gold standard NPA using IF and PCR except for Influenza B. This, however may be due to small sample size. Considering NPFS is less invasive and in combination with IF offers quicker and reliable results, it is recommended for adoption in emergency setting.