



## Editorials: Should Rapid Diagnostic Methods for the Detection of Viruses in Acute Respiratory Diseases Be Employed by General Practitioners?

Allan Hornsleth

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18–24 hours, letting the culture result determine the following morning whether or not to prescribe a full course of antibiotics.

The potential benefit of the ADT method for diagnosis of GAS tonsillitis in primary care has not, as yet, been adequately determined, one of the reasons being that conflicting results have been found as regards the sensitivity of this method when used outside specialized microbiological laboratories (Hjortdahl et al., 4–8). Further studies, including assessments of the need for staff training (8), are warranted, and then, to quote Mäkelä: "... these methods need to be evaluated according to their impact on treatment decisions ...".

Steen Hoffmann

*The Streptococcus Department  
Statens Seruminstitut  
Copenhagen, Denmark*

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## Should Rapid Diagnostic Methods for the Detection of Viruses in Acute Respiratory Diseases Be Employed by General Practitioners?

In diagnostic virology, results of so-called rapid diagnostic tests should be available to the clinician within 24 hours after the test samples have been obtained from the patients. Among the following rapid diagnostic tests: electron microscopy (EM), fluorescent antibody (FA)-staining, immunoenzymatic methods (ELISA) and radioimmunoassay (RIA), FA- as well as ELISA- and RIA-methods have been employed for the detection of respiratory viruses.

Rapid diagnostic methods for the detection of viral antigens directly in samples of respiratory secretions have been developed with respect to the following respiratory viruses: influenza, parainfluenza,

adeno and respiratory syncytial (RS). No rapid diagnostic method has yet been developed with respect to the main etiological agents for the common cold syndrome, i.e. the rhino- and coronaviruses.

Over the last decade FA-technique has been established as the main rapid diagnostic routine method for the detection of the respiratory viruses mentioned above, while RIA- and ELISA-techniques have only been employed in a few major diagnostic laboratories.

During the last eight years this FA-technique has been employed at our department with the following results:

*RS-virus* was found to be the main etiological agent when nearly two thousand samples of nasopharyngeal secretion (NPS) from *children hospitalized with acute respiratory disease* were investigated. Influenza, mainly type A-virus, was detected in a few circumscribed outbreaks, and parainfluenza-virus and adenovirus only appeared with low incidences in this material.

*Influenza*, both type A and type B, were the main etiological agents when nearly two hundred samples of NPS were obtained from *patients (all ages) treated for acute respiratory disease in general practice*. RS-virus was detected in a small number of cases concurrently with influenza outbreaks. Parainfluenzavirus and adenovirus were detected with low incidences also in this material.

Conclusively, rapid diagnostic tests (FA- or ELISA-technique) for the detection of influenza-virus and RS-virus should be available on request

for selected groups of patients treated in general practice. These tests should preferably be available during the period from December to March, when these two viruses most frequently appear as epidemics in Scandinavian countries.

Influenzavirus, especially type A, as well as RS-virus may produce life-threatening infections in certain risk groups of patients (e.g. chronic cardiopulmonary disease, immunosuppressed patients, immunodeficiencies and other congenital disorders). Chemotherapeutic intervention with amantadine (for influenzavirus type-A infections) and ribavirin (for RS-virus infections) is now possible.

Allan Hornsleth  
Department of Clinical Virology,  
Institute of Medical Microbiology,  
University of Copenhagen.

## Epidemiological Recording System for the Danish Child Dental Services

The Danish Act on Child Dental Health came into force in August 1972. It imposes on the municipalities the responsibility of providing free preventive and therapeutic care for all children 0-16 years of age. In pursuance of the Act, the National Health Service developed a recording system for the Child Dental Services. This system has been established in order to provide dental data essential for the evaluation and planning on both a regional and a national basis. In brief, the system is based on registrations of all children receiving public dental care. The clinical findings made at the systematic dental examinations are recorded on special forms in duplicate. All dentists have received detailed instructions concerning the criteria for registrations and the procedure for recording the observations. It is convenient for the examining dentist to dictate the findings to an assistant who has been trained in writing the symbols used. The original record form serves as a direct computer input for optical scanning and statistical analysis. Computer processing utilizes Optical Character Recognition (OCR) which permits handwritten characters to be read. The duplicate form provides a supplement to the patient's records to assist in planning of dental care for the individual child. Data on 1) dental caries

status, 2) dental plaque and gingivitis, 3) oral mucosal diseases, etc., 4) malocclusions, and 5) identification data are collected.

The recording system is based upon a relatively simple methodology and standardized criteria for registration. The costs of the system have been estimated to less than one per cent of the mean annual costs of the dental care per child. Annually, summary statistics for the whole country are published by the National Health Service, with the children categorized according to school grade and possibly age. Furthermore, the statistics derived from the individual dental services are made available to the municipalities. Thus, the annual documentations which provide information on the prevalence of dental caries, dental plaque and gingivitis, and malocclusion frequencies form a valuable basis for evaluation and planning of the Child Dental Services. Of importance to the general health service and the primary health care system is that this recording system has been widely accepted by the professionals as well as health planners. This is due to the facts that collection of epidemiological data has been integrated with the patient record system, the use of the patient record form is rational and relevant in planning of individual dental care, the