

01.01 - Clinical problems

32395

Nasal swab sampling for antigen test identifies COVID-19 well in all ages

Covid-19, Diagnosis, Airway management

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Testing is essential for detecting COVID-19 and differentiating it from other respiratory infections with similar symptoms. We investigated the sampling depth to optimize the COVID-19 diagnostics in a real world decentralized setting.

Subjects: 160 randomly selected subjects were included, all visiting medical center either exposed to COVID-19 or as symptomatic. Mean age was 17 years (range 1-79), and 57 subjects were ≤ 6 years of age.

Methods: Nasopharyngeal (NP) and anterior nasal (NS) specimen were collected from all and a subgroup of PCR- or mid-turbinate (≥ 18 years) samples were included. All COVID-19 positive findings (NP or NS) were assumed to be true positives based on the high specificity of the used automated mariPOC® (ArcDia Ltd, Finland) SARS-CoV-2 antigen test ($>99.8\%$). Symptoms, COVID-19 vaccinations and other background information were obtained.

Results: Detection of 11 possible different respiratory pathogens resulted in 41 NP-positive (26%) and 33 NS-positive (21%) results, of which positive for COVID-19 were 26 NP and 21 NS samples, respectively.

The best detection rate for COVID-19 was among subjects ≤ 6 years of age, 100% for NS compared with 88% for NP. The negative percent agreement was high among all subjects regardless of symptoms (91-99%), whereas detection rate diminished by the length of sick days of ≥ 4 .

Conclusions: Anterior nasal specimen from the nostrils shows high potential in detecting COVID-19 in small children with a rapid antigen test. Nasal sampling may decrease the need of COVID-19 testing resources compared to NP swab, thus enabling allocation of resources for more effective infection control.

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Groups / Keywords / Presentation Type

Group Choice

01.01 - Clinical problems Respiratory clinical care and physiology

Major Respiratory Diseases (please select)

Respiratory infections

Methods Research Clinical Practice (please select)

General respiratory patient care

Professional Groups (please select)

Adult pulmonologists/Clinicians

Clinical researchers

General practitioners

Paediatricians

Physicians

Physiologists

Respiratory critical care

Scientists (basic, translational)

Keyword 1

Covid-19

Keyword 2

Diagnosis

Keyword 3

Airway management

I would prefer to present my abstract, if accepted, as a poster.

Grants / Sponsorship

Grants / Sponsorships

Yes, I apply for an ELF grant for patient-centered research (Sponsored by the European Lung Foundation).

Questions : The aim of our study is to investigate and implement a more convenient sample collection for cov

with a positive nasal swap covid-19 antigen test vs a negative nasopharyngeal covid-19 test sample. There are respiratory viruses. Lack of trained laboratory personel for sampling collection played a crucial role in the asse patient, also more samples with less effort can be performed with a wider range of HCPs. We believe nasal sw handling the covid-19 local transmission pathways as well as global pandemia.

Yes, I apply for a ELF Healthy Lungs for Life Best Abstract Grant (Sponsored by the European Lung Foundat

Yes, I apply for a Congress Sponsorship (Sponsored by ERS)*

Salary : 500€ - 1000€

Motivation : Better diagnosis is the beginning for better individualized treatments and cost-effective decisions

Yes, I apply for an ERS Abstract Grant (Sponsored by Industry)

Conflict of Interest

The presenting author has no, real or perceived, conflict(s) of interest that relate to this abstract

Type disclosure information (if applicable) in the area below :

-

Abstract Content

Title

Nasal swab sampling for antigen test identifies COVID-19 well in all ages

Is your abstract related to COVID-19 ?

Yes

Is your abstract a Randomized Controlled Trial (RCT)?

Trial registration number -

Content

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