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Otorhinolaryngologists and the SARS-CoV-2 virus

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Most ear, nose and throat procedures cause aerosolisation of the SARS -CoV-2 virus. Otorhinolaryngologists need thorough knowledge of procedures that pose a risk, and of self-protection during the COVID-19 pandemic.

SARS-CoV-2 occurs in high concentration in the upper respiratory tract of infected patients. The virus may be transmitted between people through droplets (1). The virus is spread through the air in the form of droplets and aerosols through coughing, sneezing or ordinary speech. When these make contact with the mucosa of a recipient, that person may become infected. Aerosols can travel up to four metres (1, 2). The virus can quickly replicate in the mucosa of the upper respiratory tract (3), and high nosocomial infection rates have

been reported (4).

COVID-19 has an incubation period of up to 14 days (5, 6), and the degree of severity varies from absence of symptoms to acute respiratory distress syndrome and death (7). A possible explanation for the variation in the degree of severity is that a higher viral load is associated with serious clinical outcomes (8, 9).

Otorhinolaryngologists are particularly exposed

Otorhinolaryngologists are particularly exposed to SARS-CoV-2 because the majority of ear, nose and throat examinations are potentially aerosol-generating (10, 11). This is primarily due to transnasal and transoral examinations, of which some trigger a gag or cough reflex. SARS-CoV-2 can also reach the middle ear via the Eustachian tube (12). Drilling into the mastoid area during ear surgery releases viral particles and also constitutes a risk of infection (13). In view of this, otorhinolaryngologists must exercise particular caution and place strong emphasis on self-protection. We have drawn up a set of recommendations for otorhinolaryngologists, which are available in Oslo University Hospital's electronic manual (14).

General recommendations

Given the current situation, a symptom-oriented ear, nose and throat examination is recommended for all patients. Local anaesthetic spray may lead to increased viral mobility and higher risk of infection, and should be replaced with packing soaked with local anaesthetic. If an aerosol-generating procedure must be undertaken (for example flexible laryngoscopy or rhinoscopy with rigid optic), an airborne infection regimen is recommended. Thorough disinfection of endoscopes must also be endeavoured.

Otorhinolaryngologists must exercise particular caution and place strong emphasis on self-protection

Personal protective equipment reduces nosocomial infection, but otorhinolaryngologists can infect themselves and others when putting on and removing protective equipment (15). It is therefore essential that otorhinolaryngologists have access to suitable protective equipment, and that safe changing procedures are established to minimise the risk of transmitting infection.

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