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Performing otolaryngological outpatient consultation during the Covid-19 pandemic

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ABSTRACT

Background: The Covid-19 pandemic has had a profound impact on the Otolaryngology outpatient clinical practice, which is at high risk of respiratory viral transmission due to the close contact between the examiner and the patient’s airway secretions [1]. Moreover, most otolaryngological procedures, including oropharyngoscopy, generate droplets or aerosols from high viral shedding areas [1]. Thus, only non-deferrable consultations were performed in the outbreak’s acute phase. Along with the re-opening of elective clinical services and the impending second wave of the outbreak, a reorganization is necessary to minimize the risk of nosocomial transmission [1].

Methods: This video (Video 1) shows how to safely conduct an outpatient Otorhinolaryngological consultation, focusing on complete ear, nose and throat examination, according to evidences from the published literature and Otolaryngological societies guidelines [2,3].

Results: After telephonic screening, patients reporting Covid-19 symptoms or close contact with a Covid-19 case within the last 14 days are referred to telehealth services [1–3]. To avoid crowding, the patient is admitted alone, after body temperature control, except for underage or disabled people [1]. The waiting room assessment must guarantee a social distance of 6 ft [1–3]. The consultation room is reorganized into two separate areas (Fig. 1): 1) a clean desk area, where an assistant wearing a surgical mask and gloves, handles the patient’s documentation and writes the medical report, keeping proper distance from the patient, and 2) a separate consultation area, where the examiner, equipped with proper personal protective equipment (Fig. 2) [3,4], carries out the medical interview and physical examination. Endoscopic-assisted ear, nose and throat inspection using a dedicated monitor allows the examiner to maintain an adequate distance from the patient throughout the procedure while providing an optimal view (Figs. 3–6) [3]. Recent evidence shows that nasal endoscopy does not increase droplet production compared to traditional otolaryngological examination [5]. When necessary, nasal topic decongestion and anesthesia must be performed using cottonoids rather than sprays [3]. The patient keeps the nose and mouth covered throughout the consultation, lowering the surgical mask on the mouth for nasal endoscopy and removing it only for oropharyngoscopy. After the consultation, the doffing procedure must be carried out carefully to avoid contamination [4]. All the equipment and surfaces must undergo high-level disinfection with 70% alcohol or 0.1% bleach solutions [3]. Proper room ventilation must precede the next consultation [3].

Conclusions: The hints provided in this video are useful to ensure both patient and examiner safety during Otolaryngological outpatient consultations and to reduce SARS-CoV-2 transmission.

Abbreviations: ENT, ear, nose, and throat; FFP2, filtering facepiece; Mln, millions; PPE, personal protective equipment.

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1. Voice-over

Since December 2019, Covid-19 rapidly became pandemic. The outbreak imposed drastic changes in daily clinical practice. If in the first phase of the epidemic a suspension of all deferrable consultations was inevitable, with a decrease in consultations as high as 60%, the time has come for a gradual resumption of daily activities, which are to be performed avoiding nosocomial viral transmission and preserving healthcare providers from infection. Considering this, this video (Video 1) aims to provide a simple and concise example of outpatient ENT clinic management and focus on how to perform a complete endoscopic ear, nose, and throat examination.

Prior to the visit, a telephonic triage is undertaken in order to rule out the potential carriers of SARS-Co-V-2 infection by screening for signs and/or symptoms of Covid-19, such as fever, cough, rhinoconjunctivitis, difficulty in breathing, loss of sense of smell or taste, and for close contacts with a confirmed Covid-19 case within the last 14 days.

At the entrance of the healthcare facilities, patients are controlled in body temperature. Only the patient is admitted into the visiting room, while attendants have to wait outside, except for children and dependents.

The visiting room is organized into two separate areas: the visiting area and a separate clean desk area where the assistant writes the report and handles patient’s personal documentation.

Upon entering the room, the patient sits down directly on the visiting chair, where the medical interview takes place before the clinical examination is conducted.

Required instrumentation to perform the consultation is prepared in advance to avoid looking for required tools later on, risking unnecessary surface contamination.

Required PPE are prepared in advance as well, and the examiner is already dressed up with level II protection standards as required for endoscopic examination.

Otolaryngology consultations are considered at particular high risk due to close contact with patients’ secretions. Endoscopic examination performed with a dedicated monitor avoiding using the eye-piece allows the examiner to maintain an adequate distance from the patient during the whole consultation.

The patient is comfortably seated, with the surgical mask covering the nose and the mouth, and slightly turns the head to ease ear inspection. Only in case more accurate ear conduct inspection or operative maneuvers are needed otoscopy is performed using the microscope.

The patient is asked to lower the protective mask on the mouth. If needed, nasal topical decongestion and anesthesia are to be performed using cottonoids rather than spray local anesthetics.

While standing at the right side of the patient, nasal endoscopy is performed, which allows a thorough inspection of the nasal fossa and the nasopharynx, to evaluate the conformation and the presence of nasal masses or pathological secretions.

Evaluation of the hypopharynx and larynx can be performed by inserting a 70° angled scope into the oropharynx during tongue protrusion. In this phase, asking the patient to concentrate on breathing can be helpful in inhibiting gag reflex.

Alternatively, laryngeal examination can be performed with a flexible scope. In doing so, the examiner still stands in the same position at the right side of the patient. The monitor is located in front of the examiner, at a distance of 1.5 m.

The patient is then asked to remove the protective mask. Hard palate, cheeks, tongue, and vestibule are inspected, along with the palatine tonsils and the oropharynx. Soft palate and tongue motility is assessed as well.

Evaluation of the hypopharynx and larynx can be performed by inserting a 70° angled scope into the oropharynx during tongue protrusion. In this phase, asking the patient to concentrate on breathing can be helpful in inhibiting gag reflex.

Alternatively, laryngeal examination can be performed with a flexible scope. In doing so, the examiner still stands in the same position at the right side of the patient.

After completing the physical examination, the patient puts on the protective mask covering both the nose and the mouth. The examiner communicates the clinical findings, answers patient’s questions and concludes the consultation. The second member of the medical staff writes the medical report and hands it to the patient, avoiding direct interpersonal contact.
(04.39) After the consultation is over, the examiner removes all the PPE and washes his hands. High-level disinfection is performed for the equipment used during the examination, and all the other surfaces in the room are wiped with a disposable cloth dampened in alcohol- or sodium hypochlorite-based solution [3,4].

(05.00) It is currently unknown how long it will take to restore pre-epidemic practice. Education about how to safely conduct ENT consultation might contribute to reduce the nosocomial transmission of SARS-Cov-2 and other viral respiratory infections.

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