



# A video of best practice recommendations for making botulinum toxin therapy safe during the COVID-19 pandemic

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## Abstract

The physician and patient come into close contact during botulinum toxin treatments, increasing the chances of COVID-19 infection. Therefore, it is essential to use an effective injection method that can prevent infection with SARS-CoV-2 virus. In order to minimize the risk of SARS-CoV-2 transmission during botulinum toxin treatment in the COVID-19 era, the Italian Botulinum Toxin Network study group of the Italian Society of Neurology has prepared a video of best practice recommendations on how to organize the work of a clinic performing botulinum toxin treatments.

**Keywords** Safe botulinum toxin injection · COVID-19 pandemic · SARS-CoV-2 infection · Italian Botulinum Toxin Network recommendations

The following text summarizes information provided in the video:

## Overview

In order to minimize the risk of SARS-CoV-2 transmission during botulinum toxin treatment in the COVID-19 era, the Italian Botulinum Toxin Network has prepared a video of best practice recommendations to make botulinum toxin therapy safe in patients with dystonia, spasticity, chronic migraine, primary hyperhidrosis and sialorrhea [1].

## Recommendations to prevent SARS-CoV-2 infection during botulinum toxin treatment

*Structural recommendations* [2]:

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Daily sanitization of environments to be used for botulinum toxin infiltration;

Control of the patient’s body temperature at the entrance to the facility;

Arrangement of suitable interpersonal distancing measures in the waiting room;

Availability and provision of personal protective equipment (PPE) such as surgical masks or FFP2, footwear, headgear, disposable gown, gloves and visors/glasses and sanitizing agents for healthcare personnel [3];

Disposable material, hand disinfectant and surgical masks for the patient.

*Patients are instructed as follows:*

Come to the outpatient clinic with a protective surgical mask and nitrile gloves (also for accompanying persons);

The accompanying person must wear the protective surgical mask and, after accompanying the patient, must wait outside the clinic or hospital during treatment with botulinum toxin.

*Botulinum toxin injection procedure:*

The patient must treat the hands with hydroalcoholic or chlorine gel before entering the clinic. It is mandatory for the patient to wear non-sterile gloves and a surgical mask;

Doctor and staff remove all jewellery and personal items. Wash hands for at least 20 s with soap and water or alcohol solution. Wear the first pair of gloves. Wear footwear and headgear, then over the uniform the disposable gown, then

mask FFP2; wear goggles or visor and wear the second pair of gloves [4];

When changing each patient, follow the sequence indicated, remove the second pair of gloves together with the disposable gown, remove the goggles or visor and sanitize them. Practice hand hygiene with soap and water or alcohol solution. In addition, if the botulinum toxin infiltration procedure involves treatment in the craniocervical districts or near the oral cavity [5], it is mandatory that healthcare professionals change the FFP2 mask after each infiltration [6], unless a protective visor is used;

Clean all surfaces with which the patient has come into contact (bed, chair) when changing patients with hydroalcoholic disinfectants (ethyl alcohol at 70°) or chlorinated disinfectants (0.1% sodium hypochlorite solutions). The most exposed surfaces should be protected with disposable barriers which, at the end of the session, should be replaced by special waste. Frequently change the air between patients in the clinic [7].

## Conclusions

When these instructions are properly followed, they make the botulinum toxin injection procedure safe for the patient and the medical staff. New knowledge about SARS-CoV-2 infection may lead to changes in the suggested rules of good practice.

**Supplementary Information** The online version contains supplementary material available at <https://doi.org/10.1007/s10072-021-05375-z>.

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**Data availability** The data that support the findings of this study are available on request from the corresponding author.

**Code availability** Not applicable.

## Declarations

**Conflict of interest** The authors declare no competing interests.

**Ethical approval** Institutional Review Board approval was obtained for this study.

**Consent to participate** Not applicable.

**Consent for publication** Not applicable.

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