SIGVAS

Sistema Integral de Gestión de la Violencia en el Ámbito Sanitario

### Individual, Collective and Healthcare Personnel

# Biosafety Protocol

*The World Health Organization (WHO) defines Biological Safety (or Biosafety) as those principles, techniques and practices applied in order to prevent unintentional exposure to Pathogens and Toxins.*

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## BIOLOGICAL PROTECTION EQUIPMENT (Individual Kit)

Biological protection elements are those that prevent microorganisms from entering the human body. In most cases, a microorganism (bacteria, virus, etc.) cannot get through the skin, but it can get through small wounds or through the mucous membranes: the nose, mouth and lungs.
The purpose of the protection is to avoid, as far as possible, microorganism contact with the human respiratory system, and to do this we have created a series of protective barriers:

### 1 Cleanliness and personal hygiene (hands and surfaces)

Cleaning with different products destroys the biology of many microorganisms. One of the most effective products is alcohol gel, although for surfaces there are other cleaning agents, such as bleach or soap. Hands should be washed routinely with soap and alcohol gels in situations where contact with contaminated surfaces, or people, is foreseen.

### 2 Impermeable gloves

A fundamental aspect of biological protection is the use of impermeable (or waterproof) gloves. For a person who does not carry out a hazardous job, it is sufficient to wear waterproof plastic gloves, made of vinyl, nitrile or other hypoallergenic material. What should be taken into account is that although the user´s gloves are the barrier which is in contact with the environment, this does not mean that the hands should not be washed (or even gloved hands) with alcohol gel when there has been contact with many surfaces, for example after shopping.
Gloves should also be correctly fitted and removed in such a way that prevents the skin of the hands from coming into contact with the outside surface of the glove.

### 3 Protective filtering masks

Technically known as *filtering facepiece respirators* (FFR), and commonly referred to as disposable masks, these are subject to different regulatory standards that specify the required physical properties and the characteristics of their performance in terms of the level of protection.

Masks are a protective element for the respiratory tract; acting as a filter, they allow air to pass through, but not infectious disease agents.

The key to a mask's protection is its porosity. If it is made of cloth, the pores in the fabric are large and pathogens can pass through.

If we reduce the porosity of the mask, for example a 3 ply mask, this may be sufficient for the wearer not to transfer microorganisms from their respiratory system into the environment, but it does not prevent smaller bacteria and viruses from penetrating the mask and entering the airway. This is due to the diameter of the virus which allows it to pass through this type of material. Therefore, masks and protective suits must be sealed to shut off the flow of air and particles (including viruses).

The most important thing is the capacity of the filter and the efficiency level of the mask, regardless of whether it is disposable or reusable. That is to say the filtering face piece (FFP). Depending on the filtering efficiency the masks are classified as FFP1, FFP2 or FFP3.

The FFP1 level is for large particles, but when it comes to microorganisms, the protection levels should be FFP2 and FFP3. In the general population an FFP2 filter is sufficient, while in a high exposure workplace an FFP3 is necessary.

### 4 Single-use impermeable aprons/gowns

When handling items received from the outside, such as shopping deliveries, packages, etc. it is advisable to use a plastic apron to avoid the possible contamination of clothes.

In the case of those working in an at-risk environment then it is necessary to have a change of clothes and a gown or waterproof coverall, depending on the type of activity.

### 5 Footwear coverings

In situations of biological risk, at the entrance of the home it is important to set aside an intermediate area to store protective equipment for exterior use, where exterior footwear and the outermost layers of clothing can be left, and where masks and gloves can be disposed of in a small container. Alcohol gel should also be available in this intermediate area to clean hands before entering the house.

If it is not possible to have shoe storage at the entrance, then it is recommended to use impermeable footwear coverings to reach the place where the footwear removal takes place.

***Protect yourself and help to protect those around you!***

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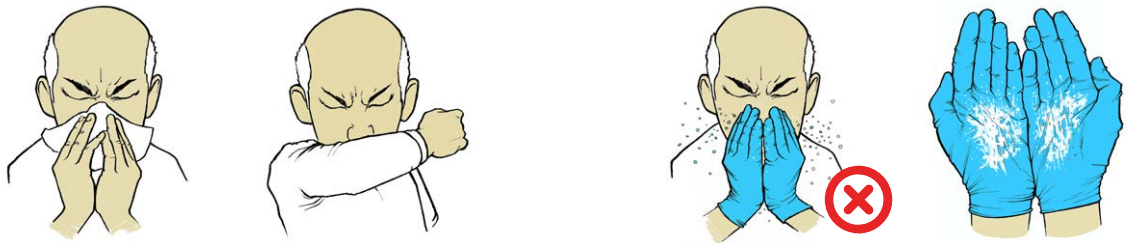

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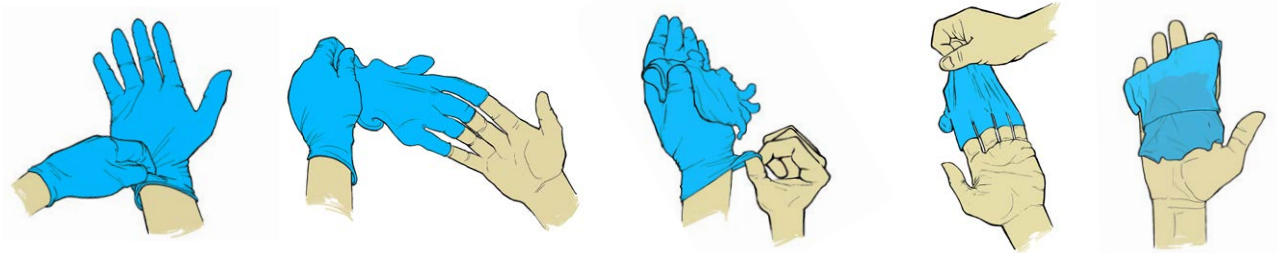

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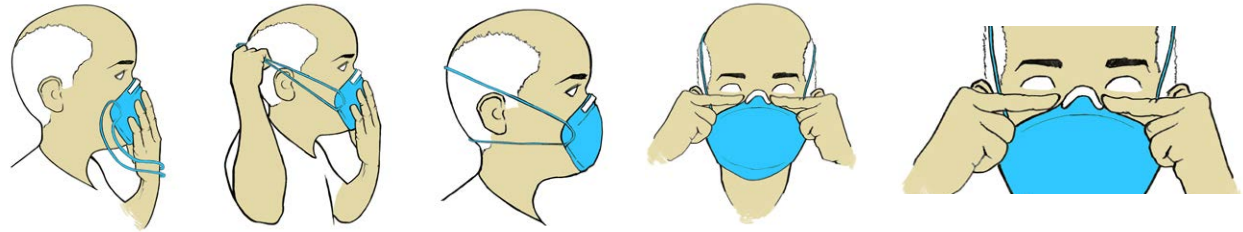

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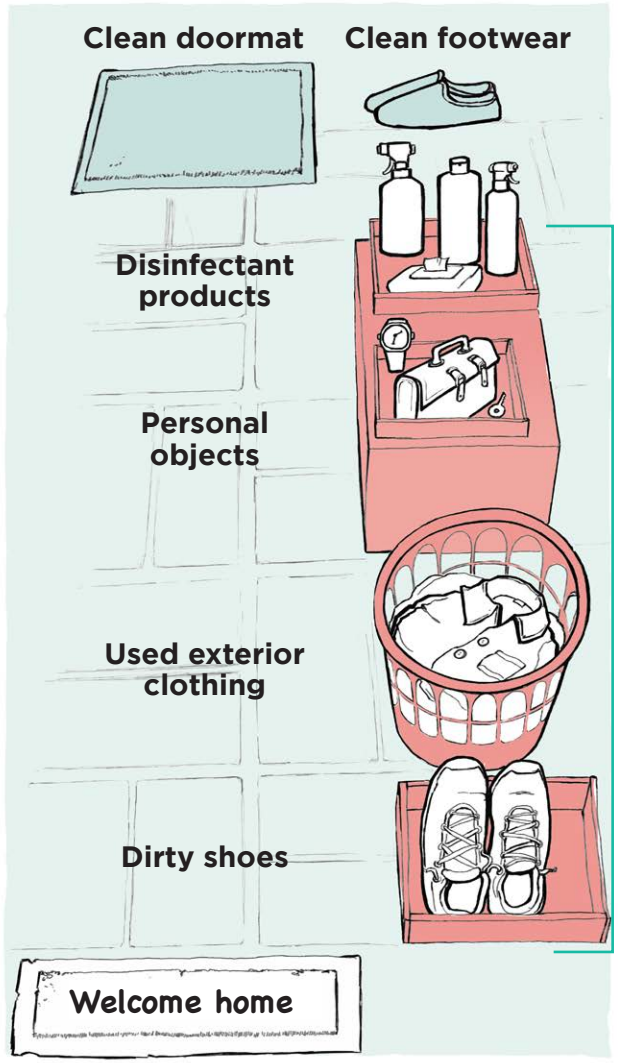
## SAFETY RECOMMENDATIONS

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