

RATIONAL USE OF PERSONAL PROTECTION ELEMENTS CONCERNING COVID-19	GLOBAL PUBLIC HEALTH COMMISSION
DEPARTMENT OF INFECTIOUS DISEASES	V0– 24 March 2020

OBJECTIVE

This guide seeks to give guidelines on the use of Personal Protective Elements (PPE) and its optimal and rational use in order to achieve the prevention and control of infections.

OPTIMIZING AND STREAMLINING THE USE OF PERSONAL PROTECTION ELEMENTS

According to available evidence, the COVID-19 virus is transmitted among people through close contact and droplets, but not by aerosols. The most effective preventive measures include:

The measures in the community:

- Perform frequent hand hygiene with alcohol-based gel if you do not see dirty hands or wash with soap and water if your hands look dirty;
- Avoid touching your eyes, nose and mouth;
- Practice respiratory hygiene by coughing or sneezing into a bent elbow or tissue and then immediately discarding the tissue;
- Wear a conventional mask if you have respiratory symptoms and perform hand hygiene after getting rid of the mask;
- Maintain the social distance (a minimum of 1 m) of individuals with respiratory symptoms.

Precautions by health workers caring for COVID 19 patients include the proper use of PPE, as well as a set of administrative measures such as adequately and permanently supplementing PPE and on the environment.

In the current situation of pandemic due to COVID 19, it is necessary to optimize the availability of PPE, through the following strategies:

- Minimize the need for PPE: This includes promoting telemedicine, using physical barriers to decrease exposure to COVID 19 such as glass or plastic windows, and restricting the entry of health workers to rooms for patients with COVID 19.
- Coordinate the management mechanisms of PPE supply chains
- Encouraging the rational and appropriate use of PPE
- Coordinate the management mechanisms of the EPP supply chains
- Promote the rational and appropriate use of PPE

<p style="text-align: center;">USE OF PERSONAL PROTECTION ELEMENTS CONCERNING COVID-19</p>	<p style="text-align: center;">GLOBAL PUBLIC HEALTH COMMISSION</p>
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MEASURES TO ENSURE THAT THE USE OF PPE IS RATIONALISED AND APPROPRIATE

PPE should be used based on the risk of exposure (e.g., type of activity) and the transmission dynamics of the pathogen (e.g., contact, gout, or aerosol). Excessive use of PPE can have an impact on the supply and therefore generate a shortage, so rational use is required.

- The type of PPE used when caring for patients with COVID-19 will vary depending on the environment and the type of staff and activity (see Table).
- Health workers involved in the direct care of patients should wear the following PPE: gowns, gloves, conventional mask and eye protection (glasses or mask).
 - Health workers involved in the direct care of patients should wear the following PPE: gowns, gloves, conventional mask and eye protection (glasses or mask). Specifically, for aerosol generation procedures (e.g. tracheal intubation, noninvasive ventilation, tracheostomy, cardiopulmonary resuscitation, manual ventilation before intubation, bronchoscopy, transesophageal echocardiogram) healthcare workers should wear high-efficiency masks, eye protection, gloves, and gowns; also, aprons if the gowns are not fluid resistant.
- High-efficiency masks (e.g. N95, FFP2 or equivalent standard) have been used for extended time when PPE shortages occurred. This involves using the same respirator (without taking it off) while taking care of multiple patients who have the same diagnosis, and evidence indicates that respirators maintain their protection when they are used for extended periods. However, using a respirator for more than 4 hours can cause discomfort.
- For asymptomatic people, masks are not recommended. Wearing masks when not indicated can cause unnecessary costs and create a false sense of security that can lead to negligence of other preventive measure.

RECOMMENDATIONS FOR THE USE OF PERSONAL PROTECTION ELEMENTS (PPE) IN THE CONTEXT OF COVID-19 ACCORDING TO SCENARIO, TARGET STAFF OR PATIENTS AND ACTIVITY

HEALTH CARE SERVICES

EMERGENCY, HOSPITALIZATION AND SURGERY SERVICE

Stage	Target staff or patients	Activity	Type of PPE
Emergency, Hospitalization, Intensive Care Units, Surgery Rooms	Health workers	Direct contact with COVID-19 patients in procedures that do not generate aerosols.	Conventional mask
			Visor, face shield or mono-goggles
			Ant-fluid long-sleeved gown
			Non-sterile gloves
			Surgical gown under the gown, removed at end of shift
			Optional: hat
		Direct contact with COVID-19 patients in aerosol-generating procedures.	N95 breather or mask high efficiency
			Visor, face shield or mono-goggles
			Ant-fluid long sleeve
			Non-sterile gloves
			Surgical gown under the gown, removed at end of shift
			Optional: hat
Surgical procedure in COVID-19 patients.	N95 breather or mask high efficiency		
	Visor, face shield or mono-goggles		

			Ant-fluid long-sleeved gown	
			Non-sterile gloves	
			Surgical gown under the gown, removed at end of shift	
			Hat	
			Leggings	
	Cleaning staff	Enter the COVID-19 patient observation room		Conventional mask
				Ant-fluid long-sleeved gown
				Rubber gloves for heavy tasks
				Personal protection mono- glasses for organic or chemical material
				Work boots or shoes Closed
	Permanent companion	Enter the COVID-19 patient observation room		Conventional mask
				Long sleeved gown
Gloves				
Patient with COVID-19	Anyone		Conventional mask (a unless it is not tolerated)	
Other patient transit areas (e.g. services, corridors)	All staff, including health workers	Any activity that does not involve contact within 2m with COVID- 19 patients	No PPE required	
Triage	Health workers	Preliminary examination that does not involve direct contact	Keeping a distance from al minus 1 meter	
			No EPP required	
	Patients with respiratory symptoms	Anyone	Keeping a distance from al minus 1 meter	
			Deliver conventional mask the patient	
Patients with respiratory symptoms	Anyone	No PPE required		
Laboratory	Laboratory staff	Handling respiratory samples	Conventional mask	
			Gown with ant-fluid long sleeves	

			Non-sterile gloves
			Eye protection (if there is a risk of splashing)
Administrative areas	All staff, including health workers	Administrative tasks that risk of contact to less than 2m with patients suspected of COVID-19	Conventional mask
			If possible, separation with a glass window or similar
		Administrative tasks that do not involve contact with patients COVID-19	No PPE required

* The use of N95 face masks is only recommended for health personnel participating in **procedures with aerosol production**: Orotracheal intubation, fibrobroncoscopy, respiratory sample, respiratory therapy, tracheostomy, airway hygienization, aspiration of secretions, nebulization therapy / micronebulization, surgical procedure, chronic resuscitation, cardiac massage, open suction, use of oxygen at high flow, manual ventilation, non-invasive ventilation with positive pressure [CPAP, BiPAP], expulsion period from labor, dental procedures, ERA rooms, radiology requiring general anesthesia, autopsy..

OUTPATIENT SERVICES			
Stage	Staff or target patient	Activity	Type of PPE
Doctor's office	Health workers	Physical examination of patients with respiratory symptoms	Conventional mask
			Long-sleeved gown
			Gloves
			Eye protection
	Health workers	Physical examination of patients without respiratory symptoms	PPE according to standard precautions and risk assessment
	Patients with respiratory symptoms	Any	Delivering conventional mask to the patient

	Patients without respiratory symptoms	Any	No PPE required
	Cleaning staff	After and between visits by patients with respiratory symptoms	Conventional mask
			Long-sleeved gown
			Heavy duty gloves
			Eye protection (if there is a risk of splashing organic material or chemicals)
			Closed boots or work shoes
Waiting room	Patients with respiratory symptoms	Any	Deliver conventional mask the patient Immediately take the patient to an isolation room or a separate area from the other patients; if this is not possible, ensure a distance from the minus 1 m of other patients
	Patients without respiratory symptoms	Any	No PPE required
	Administrative areas	The whole team including health workers	Administrative tasks that risk of contact to less than 2m with patients suspected of COVID-19
Administrative tasks that risk of contact to less than 2m with patients suspected of COVID-19			No PPE required

COMMUNITY

Stage	Staff or target patient	Activity	Type of PPE
Home	Patients with respiratory symptoms	Any	Keeping a distance from at minus 1 meter
			Deliver conventional mask to the patient. Wearing the mask except while sleeping
	Caregiver	Admission to the patient's room but WITHOUT providing care or direct assistance	Conventional mask
	Caregiver	Provides direct care or manipulation of secretions, urine or feces of COVID-19 patients at home	Gloves
			Conventional mask
			Apron (if there is a risk of splash)
	Health workers	Provides direct care or assistance to COVID-19 patients at home	Conventional mask
			Long-sleeved gown
Gloves			
Eye protection			
Public areas (educational institutions, shopping malls, public transport)	Patients without respiratory symptoms	Any	No PPE required

AT THE ENTRY POINTS

Stage	Staff or target patient	Activity	Type of PPE
Administrative areas	All staff	Any	No PPE required

Screening area	staff who do screening	First screening: taking the temperature without direct contact	Keeping a distance from at least 1 meter	
			No PPE required	
		Second screening: interviews febrile patients looking for symptoms suggestive of COVID-19 and their history of Travel	Conventional mask	
			Gloves	
	Cleaning staff	Cleaning the area where febrile patients are screened		Conventional mask
				Long-sleeved gown
			Heavy duty gloves	
			Eye protection (if there is a risk of splashing organic material or chemicals)	
			Work boots or closed shoes	
Transitional isolation area	Isolation person	Enters the isolation area, but does not provide direct assistance	Keeping a distance from at least 1 meter	
			Conventional mask	
			Gloves	
	Health workers	Assists passengers being transported to health facilities	Conventional mask	
			Long-sleeved gown	
			Gloves	
			Eye protection	
	Cleaning staff	Cleaning the insulation area	Conventional mask	
			Long-sleeved gown	
			Heavy duty gloves	
Eye protection (if there is a risk of splashing organic material or chemicals)				
Work boots or closed shoes				
	Health workers	Patient transport with suspicion of COVID-	Conventional mask	

Ambulance or transport vehicle		19 to a reference health institution	Long-sleeved gown
			Gloves
			Eye protection
	Driver	It only drives and the compartment is separated from that of the COVID-19 patients	Keep a distance from at least 1 meter
			No PPE required
		Assists in the rise and decline of patients with suspected COVID - 19	Conventional mask
			Long-sleeved gown
	Gloves		
		No direct contact with the patient with suspected COVID-19, but no separation between the coVID-19 compartment patient and driver	Eye protection
	Patient with suspicion of COVID-19	Transportation to a reference health institution	Conventional mask
Cleaning staff	Cleaning after and between transfers of patients with suspected COVID- 19	Conventional mask	
		Long-sleeved gown	
		Heavy duty gloves	
		Eye protection (if there is a risk of splashing organic material or chemicals)	
		Closed boots or work shoes	

MEMBERS OF RAPID RESPONSE TEAMS WHO HELP PUBLIC HEALTH RESEARCH			
Stage	Staff or target patient	Activity	Type of PPE
Any	Team of rapid response researchers who help public health research	Interview with suspected or confirmed PATIENTS of COVID-19 and their contacts	No PPE is required if it is done remotely (telephone or video) which is the method Preferred
		Interview with suspected or confirmed COVID patients- 19, without direct contact	Keep a distance of at least 1 meter
			Conventional mask
			The interview should be conducted outside the home or outdoors and confirmed or suspected COVID-19 patients must wearing a medical mask
		Personal interview with asymptomatic contacts of COVID-19 patients	Keep a distance from at least 1 meter
			No PPE required
The interview should be conducted outside the home or outdoors. If you need to enter the home environment, use a thermal imaging camera to confirm that the person does not have a fever. Maintain a spatial distance of at least 1 M and do not touch nothing in the home environment			



Adapted from: WORLD HEALTH ORGANIZATION. Rational use of personal protective equipment for coronavirus disease (COVID-19): interim guidance, 27 February 2020. - REPUBLIC OF COLOMBIA, MINISTRY OF HEALTH AND SOCIAL PROTECTION. PPE recommendations health personnel according to COVID-19 area of care. Consenso IETS-Acin. Viewed on network in March 2020.

BIBLIOGRAPHY

This information is derived from interim recommendations from the World Health Organization. The full document can be found at: [World Health Organization. Rational use of personal protective equipment for coronavirus](#)

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disease 2019 (COVID-19): Interim guidance, 27 February 2020. Networked in March 2020,
in: https://apps.who.int/iris/bitstream/handle/10665/331215/WHO-2019-nCov-IPCPPE_use-2020.1-eng.pdf

PPE recommendations for health personnel according to the area of care for COVID-19.
IETS- ACIN Consensus

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