IN THE HIGH COURT OF GUJARAT AT AHMEDBAD
DISTRICT:- DAHOD

WRIT PETITION NO. OF 2020 (P.I.L.)

Dr. Prabha Kishore Taviad — Petitioner

Versus

Union of India & Ors. — Respondents

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List Of Events

- That the petitioner is a citizen of India and is entitled to all the fundamental rights ensured under Article 14 and Part III of the Constitution of India. The present PIL is being filed in interest of all the healthcare workers who are likely to face serious consequences due to shortage of personal protective equipment (PPE).
- That Coronavirus disease 2019 (COVID-19), is caused by the COVID-19 virus, which was first detected in Wuhan, China, in December 2019. It is submitted that on 30 January 2020, the World Health Organization Director-General declared that the current outbreak constituted a public health emergency of international concern.
- The petitioner herein states that COVID-19 is a novel virus which is creating havoc all over the world infecting lakhs of people in a short duration. It is stated that COVID-19 is the highly contagious disease and it

requires stringent preventive measures as there is no cure for this disease. It is further stated that COVID-19 started in China and had spread all over the world by means of human to human transmission. The disease is called novel because it was not found in human beings till date. It is stated that since there is no data of this disease, the whole world is learning through various scientific data from the countries which are currently suffering from it. It is stated that the whole world has applaused for the work done by health care workers who are in direct contact with the patients. There health care workers are doing this service without any expectations of financial benefits or in lieu of any reward. It is stated that though the Government of India had taken various steps to prevent the spread of COVID-19 disease however, the instructions of the Government would indicate that there is an apparent shortage of PPE i.e. Personal Protection Equipment which is necessary to prevent thousands of health care worker being infected who will be the frontline in stopping this disease.

- The petitioner states that the WHO is a nodal body for gathering all data from the world and furnishing it to the

other parts in form of guidelines which is followed by all the countries as gold standard without any deviation. It is stated that the WHO guidelines strictly state that the health care workers are required to be protected by providing PPE. These guidelines are in place to prevent transmission of disease to the health care workers who will be at the forefront of this pandemic. It is stated that from the data collected by the petitioner it would be apparent that at least 10% of the health care workers are directly infected while treating the patients. This high number of infections in the health care workers is directly a result of overlooking of WHO guidelines. It is stated that the petitioner at the behest of all the health worker is anxious to see that the health care workers are protected during the treatment of this disease.

- That on 31st of January, 2020, i.e one day after India reported its first COVID-19 case, the directorate general of foreign trade issued a notification prohibiting the export of all personal protective equipment (hereinafter referred as “PPE”).
- That on 8 February, 2020, the directorate general of foreign trade amended that order, permitting the export of surgical masks and all gloves.

- That on 25 February, 2020, the directorate general of foreign trade further relaxed the restrictions, allowing eight new items for export.
- That on 27 February, 2020, the World Health Organization had issued the guidelines, noting that the current global stockpile of PPE is insufficient, particularly for medical masks and respirators; the supply of gowns and goggles is soon expected to be insufficient too. Further it was observed that Surging global demand − driven not only by the number of COVID-19 cases but also by misinformation, panic buying and stockpiling − will result in further shortages of PPE globally. As described in the World Health Organization guidelines, PPE includes gloves, medical masks, gowns or coveralls, and respirators, such as N95 masks. Despite the aforesaid fact, the respondent departments waited till 19 March to issue a notification prohibiting the export of domestically manufactured PPEs and the raw material for the same.
- That pursuant to said guidelines issued by the world health organization, the Ministry of Health and Family welfare by notification dated 8-3-2020 directed all the Central ministries/ Departments of Government of India

to do specific task mentioned in the list annexed to the said notification. That due to aforesaid decision of the respondent authorities, there is likely to be acute shortage of PPE's which ultimately is likely to result in shortage of PPE's thereby threatening the very lives of health workers who will be in the frontline against this pandemic.

- That the Government of Gujarat has announced various hospitals as COVID-19 hospitals. It is stated that the health care workers who will be posted at the hospital will be at the greatest risk especially if they are not provided with the PPE kit in numbers. It is stated that if the data from country such as China, Iran, Italy and United States are seen, it would be clear that it is only a matter of time before similar situation happens in India too. It is stated that since the medical resources of the developing countries is far less then developed countries, the petitioner apprehends that the infection rate of the health care workers and doctors in India will be far higher if no personal protection kits are provided. It is stated that looking to the overall population of the country and data matched from the various foreign countries, India would require at least 5 lakhs PPE daily

so as to ensure its health care workers are properly secured. That to the best of the knowledge of the petitioner, the Government as of today has not procured the required PPE. It is for these reasons; the petitioner herein is seeking appropriate direction to the respondent authority to start acquiring PPE for safety of all the health care workers. It is stated that, various reports showing that there is a huge shortage of PPE for health care workers has created sense of panic among all doctors and health care workers which is likely to jeopardize their morale to fight this disease.

- That to the best of the knowledge of the petitioner, the required PPE are much less than the actual requirement and therefore, the petitioners is approaching this Hon'ble Court for appropriate direction to the respondent authority directing them to initiate procurement of PPE for all the medical workers on war footing. It is stated that the health care workers and doctors who will treat the COVID-19 patient cannot go home after treating the patient for at least 14 days as doctors are required to quarantine themselves.
- That the Government of Gujarat had acquired resource and hotel for all the passengers who are coming from

foreign country. It is stated that the health care workers and doctors who are putting their life on line are required to be given similar facilities for quarantine themselves.

- Hence this petition.

IN THE HIGH COURT OF GUJARAT AT AHMEDABAD

DISTRICT:-DAHOD

EXTRAORDINARY ORIGINAL JURISDICTION

WRIT PETITION NO. OF 2020 (P.I.L.)

Ref: In action on the part of Government authorities by not providing COVID protective equipment for health workers despite clear WHO guidelines dated 27-2-2020

In the matter of Articles 14, 21, 300A and 226 of the constitution of India

AND

In the matter Epidemic Diseases Act, 1897,

AND

In the matter Gujarat Epidemic Diseases, COVID-19 Regulations 2020,

AND

In the matter between

1. Dr. Prabha KishoreTaviad
   Age:-65 years Sex:- Female
   Add: Usarvan, Po Tal DistDahod Petitioner

Versus

1. Union of India
   Through Ministry of Health and Family Welfare
   Nirman Bhawan, New Delhi – 110011

2. Ministry of Chemicals & Fertilizers,
   Department of Pharmaceuticals, Shastri Bhawan, New Delhi,
   Delhi 110001

3. Ministry of Textiles,
   Udyog Bhavan, New Delhi.

4. State of Gujarat
   Notice to be served through
   The heath and Family Welfare Department,
   School Health unit , 3 floor,
   Block no -5 ,Dr.Jivraj Mehta Bhavan,sector -10,
   Gandhinagar – 382010 Respondents

To,

The Hon'ble Chief Justice and

the companion Judges of the High Court of Gujarat.

The humble petition of the Petitioner(s) above named.

MOST RESPECTFULLY SHEWETH:

1. That the petitioner is an ex- MP of 15thLoksabha and practicing as a gynecologist practicing at Mission Hospital,Dahod.

2. That thepetitioner herein is filing this Public interest litigation in connection with inaction on part of respondent authority in not providing COVID-19 protective equipment for health workers despite there being clear guidelines of World health organization vide its notification dated 27-2-2020. That the litigation cost, including the advocate's fees and other expenses are to be borne by the petitioner and free services is offered by the advocate and therefore, except some costs, there will be no further expenses to be borne by the petitioner.

3. That the facts of the case in brief are as follows:

3.1 That the petitioner is a citizen of India and is entitled to all the fundamental rights ensured under Article 14 and Part III of the Constitution of India. The present PIL is being filed in interest of all the healthcare workers who are likely to face serious consequences due to shortage of personal protective equipment (PPE).

3.2 It is submitted that Coronavirus disease 2019 (COVID-19), is caused by the COVID-19 virus, which was first detected in Wuhan, China, in December 2019. It is submitted that on 30 January 2020, the World Health Organization Director-

General declared that the current outbreak constituted a public health emergency of international concern. The copy of WHO Director-General's statement is annexed herewith and marked as **annexure A**

3.3 The petitioner herein states that COVID-19 is a novel virus which is creating havoc all over the world infecting lakhs of people in a short duration. It is stated that COVID-19 is the highly contagious disease and it requiresstringent preventive measures as there is no cure for this disease. It is further stated that COVID-19 started in China and had spread all over the world by means of human to human transmission. The disease is called novel because it was not found in human beings till date. It is stated that since there is no data of this disease, the whole world is learning through various scientific data from the countries which are currently suffering from it. It is stated that the whole world has applaused for the work done by health care workers who are in direct contact with the patients. There health care workers are doing this service without any expectations of financial benefits or in lieu of any reward. It is stated that though the Government of India had taken various steps to prevent the spread of COVID-19 disease however, the instructions of the Government would indicate

that there is an apparent shortage of PPE i.e. Personal Protection Equipment which is necessary to prevent thousands of health care worker being infected who will be the frontline in stopping this disease.

3.4 The petitioner states that the WHO is a nodal body for gathering all data from the world and furnishing it to the other parts in form of guidelines which is followed by all the countries as gold standard without any deviation. It is stated that the WHO guidelines strictly state that the health care workers are required to be protected by providing PPE. These guidelines are in place to prevent transmission of disease to the health care workers who will be at the forefront of this pandemic. It is stated that from the data collected by the petitioner it would be apparent that at least 10% of the health care workers are directly infected while treating the patients. This high number of infections in the health care workers is directly a result of overlooking of WHO guidelines. It is stated that the petitioner at the behest of all the health worker is anxious to see that the health care workers are protected during the treatment of this disease.

3.5 It is submitted that on 31st of January, 2020, i.e one day after India reported its first COVID-19 case, the directorate

general of foreign trade issued a notification prohibiting the export of all personal protective equipment (hereinafter referred as “PPE”). The copy of notification is annexed herewith and marked as **annexure B**.

3.6 It is submitted that on 8 February, 2020, the directorate general of foreign trade amended that order, permitting the export of surgical masks and all gloves. The copy of amendment of notification is annexed herewith and marked as **annexure C**.

3.7 It is submitted that on 25 February, 2020, the directorate general of foreign trade further relaxed the restrictions, allowing eight new items for export. The copy of notification is annexed herewith and marked as **annexure D**.

3.8 It is submitted that on 27 February, 2020, the World Health Organization had issued the guidelines, noting that the current global stockpile of PPE is insufficient, particularly for medical masks and respirators; the supply of gowns and goggles is soon expected to be insufficient too. Further it was observed that Surging global demand − driven not only by the number of COVID-19 cases but also by misinformation, panic buying and stockpiling − will result in

further shortages of PPE globally. As described in the World Health Organization guidelines, PPE includes gloves, medical masks, gowns or coveralls, and respirators, such as N95 masks. Despite the aforesaid fact, the respondent departments waited till 19 March to issue a notification prohibiting the export of domestically manufactured PPEs and the raw material for the same. The copy of Guidelines dated 27-2-2020 is annexed herewith and marked as annexure E.

3.9 It is submitted that pursuant to said guidelines issued by the world health organization, the Ministry of Health and Family welfare by notification dated 8-3-2020 directed all the Central ministries/ Departments of Government of India to do specific task mentioned in the list annexed to the said notification. The copy notification dated 8-3-2020 is annexed herewith and marked as Annexure F. It is submitted that due to aforesaid decision of the respondent authorities, there is likely to be acute shortage of PPE's which ultimately is likely to result in shortage of PPE's thereby threatening the very lives of health workers who will be in the frontline against this pandemic.

3.10 It is stated that the Government of Gujarat has announced various hospitals as COVID-19 hospitals. It is stated that the health care workers who will be posted at the hospital will be at the greatest risk especially if they are not provided with the PPE kit in numbers. It is stated that if the data from country such as China, Iran, Italy and United States are seen, it would be clear that it is only a matter of time before similar situation happens in India too. It is stated that since the medical resources of the developing countries is far less then developed countries,the petitioner apprehends that the infection rate of the health care workers and doctors in India will be far higher if no personal protection kits are provided. It is stated that looking to the overall population of the country and data matched from the various foreign countries, India would require at least 5 lakhs PPE daily so as to ensure its health care workers are properly secured. That to the best of the knowledge of the petitioner, the Government as of today has not procured the required PPE. It is for these reasons; the petitioner herein is seeking appropriate direction to the respondent authority to start acquiring PPE for safety of all the health care workers. It is stated that, various reports showing that there is a huge shortage of PPE for health care workers has created sense

of panic among all doctors and health care workers which is likely to jeopardize their morale to fight this disease.

3.11 It is stated that to the best of the knowledge of the petitioner, the required PPE are much less than the actual requirement and therefore, the petitioners is approaching this Hon'ble Court for appropriate direction to the respondent authority directing them to initiate procurement of PPE for all the medical workers on war footing. It is stated that the health care workers and doctors who will treat the COVID-19 patient cannot go home after treating the patient for at least 14 days as doctors are required to quarantine themselves.

3.12 It is stated that the Government of Gujarat had acquired resource and hotel for all the passengers who are coming from foreign country. It is stated that the health care workers and doctors who are putting their life on line are required to be given similar facilities for quaranting themselves. It is stated that it is the duty and responsibility of the Government to see that all the doctors and health care workers working in these primary/community health centers (PHCs/CHCs) are provided adequate

personal protective equipment and proper facilities immediately.

3.13 It is submitted that the petitioner has also sent the representation by email to the concerned department in the state as well as central government. The copy of representation by email is annexed herewith and marked as annexure G.

4. The source of information of the facts pleaded is based on information provided by the respondents through their notifications, guidelines, and news available on website. The copy of articles, news articles on websites are annexed herewith and marked as annexure H Colly.

5. That to the best of knowledge of the petitioner, no public interest petition raising the same issue is filed before this Hon'ble Court or before any other Court.

6. That the present petition has been filed on the following amongst other grounds:

GROUNDS

A. It is submitted that the Indian government is required to make necessary attempts to forecast the demand for PPE kits, as recommended by the World Health Organization to ensuresafety of doctors and nurses in the country. It is submitted that the guidelines with regard to PPE are not being followed strictly and those persons who are mostly in need of those equipment to encounter the person affected with COVID-19, are not being provided with necessary equipment's.

B. It is submitted that the other affected countries took measures to not only ban export of PPE products but also raw materials. It is submitted that until the same was banned, the indian companies continued catering to foreign governments, which were stockpiling. It is also relevant to state that repeated request for creating stockpiles of protective gear were ignored.

C. It is submitted that doctors across the country feel abandoned by the government as they have to care for COVID patients without any safety equipment is unsettling. It is submitted that despite repeated guidelines being issued by the World Health Organization, the government has been slow in implementing the same and now the situation had arisen wherein doctors and other volunteers are pushed in to a dangerous situation wherein there are no safety equipments.

D. It is submitted that from 20 to 22 March, the number of confirmed COVID-19 cases reported by the Indian Council of Medical Research increased from 206 to 341. It is stated that such a move to increase the stockpile of PPE kits is required to boost the morale of healthcare workers who are anxious about the coming tsunami of cases

E. It is submitted that Infrastructure, healthcare personnel (doctors, nurses and supportive staff) and personal protective equipment (PPE) are the three pillars of management in the inpatient setting. It is stated Healthcare professionals and PPE are the holy grail of medical management. An intact healthcare community is imperative to tackling the crisis and without PPE this is an impossible task.

7. That the petitioner is seeking interim relief on the following grounds:-

   I. It is submitted that an adequate supply of PPE is the foundation for defeating the virus. That Radical measures include both ramping up PPE production and supply like never before, ensuring that it reaches hospitals and healthcare and not people's homes or illegal hoarding areas. Covid-19 centers due to the need for trained healthcare

personnel, PPE and high infectivity are more challenging than running even the best of hospitals. At the moment, we are witnessing fragmented and limited efforts in all areas.

8. The petitioner has not filed any other appeal or application either before this Court or Supreme Court of India or before any other Courts on the same subject matter of this petition.

9. The petitioner has no other alternative efficacious remedy but to approach this Hon'ble Court by way of this petition.

10. That the petitioner prays that this Hon’ble Court may be pleased to;

A. YOUR LORDSHIPS be pleased to Admit the present petition;

B. YOUR LORDSHIPS be pleased to issue a writ of mandamus and/or any other appropriate writ, order or direction in the nature of mandamus directing the respondents to ensure that enough stock for PPE be maintained for the health care workers across the State of Gujarat to ensure their health and decrease the number of infection;

C. YOUR LORDSHIPS be pleased to issue a writ of mandamus and/or any other appropriate writ, order or direction in the

nature of mandamus direct the respondent's authority to provide proper facilities for health care workers after completing their duties and during their quarantine period

D. YOUR LORDSHIPS be pleased to issue a writ of mandamus and/or any other appropriate writ, order or direction in the nature of mandamus directing the respondents to form an emergency PPE law enacted for production, distribution and utilization.

E. Or pass any such further order(s) in the favor of the Petitioner as it may deem fit.

AND FOR THIS ACT OF KINDNESS OF YOUR LORDSHIPS THE PETITIONER SHALL AS DUTYBOUND EVER PRAY.

DRAWN & FILED BY

Dhruvik K. Patel
Advocate for the petitioner

Place: Ahmedabad
Date : 25-3-2020

IN THE HIGH COURT OF GUJARAT AT AHMEDBAD
DISTRICT:-DAHOD

WRIT PETITION NO. OF 2020 (P.I.L.)

Dr. Prabha KishoreTaviad Petitioner

Versus

Union of India & Ors. Respondents

AFFIDAVIT

I, Dr. Prabha KishoreTaviad, Age:- 65 years Resident of Usarvan, Po. Tal. District Dahod, the petitioner herein, do hereby state on solemn affirmation as under:-

1. I say that I am the petitioner herein and original complainant and as such am fully conversant with the facts of the present petition and am competent to file this affidavit.
2. I say that that what is stated hereinabove in paragraph Nos. 1 to 9 is true to the best of my own knowledge, information and belief; and I believe the same to be true. Paragraph no. 10 is prayer clause
3. I have not concealed any material facts from this Hon 'ble Court. I further say that the copies of the documents annexed with the petition are the true Photostat copies of their respective originals and that the contents thereof are true and correct.

Solemnly affirmed at Dahod on this 25th day of March,2020

Deponent

World Health Organization

WHO Director-General's statement on IHR Emergency Committee on Novel Coronavirus (2019-nCoV)

30 January 2020

Good evening to everyone in the room, and to everyone online.

Over the past few weeks, we have witnessed the emergence of a previously unknown pathogen, which has escalated into an unprecedented outbreak, and which has been met by an unprecedented response.

As I have said repeatedly since my return from Beijing, the Chinese government is to be congratulated for the extraordinary measures it has taken to contain the outbreak, despite the severe social and economic impact those measures are having on the Chinese people.

We would have seen many more cases outside China by now – and probably deaths – if it were not for the government's efforts, and the progress they have made to protect their own people and the people of the world.

The speed with which China detected the outbreak, isolated the virus, sequenced the genome and shared it with WHO and the world are very impressive, and beyond words. So is China's commitment to transparency and to supporting other countries.

In many ways, China is actually setting a new standard for outbreak response. It's not an exaggeration.

I also offer my profound respect and thanks to the thousands of brave health professionals and all frontline responders, who in the midst of the Spring Festival, are working 24/7 to treat the sick, save lives and bring this outbreak under control.

Thanks to their efforts, the number of cases in the rest of the world so far has remained relatively small.

There are now 98 cases in 18 countries outside China, including 8 cases of human-to-human transmission in four countries: Germany, Japan, Viet Nam and the United States of America.

So far we have not seen any deaths outside China, for which we must all be grateful. Although these numbers are still relatively small compared to the

number of cases in China, we must all act together now to limit further spread.

The vast majority of cases outside China have a travel history to Wuhan, or contact with someone with a travel history to Wuhan.

We don't know what sort of damage this virus could do if it were to spread in a country with a weaker health system.

We must act now to help countries prepare for that possibility.

For all of these reasons, I am declaring a public health emergency of international concern over the global outbreak of novel coronavirus.

The main reason for this declaration is not because of what is happening in China, but because of what is happening in other countries.

Our greatest concern is the potential for the virus to spread to countries with weaker health systems, and which are ill-prepared to deal with it.

Let me be clear: this declaration is not a vote of no confidence in China. On the contrary, WHO continues to have confidence in China's capacity to control the outbreak.

As you know, I was in China just a few days ago, where I met with President Xi Jinping. I left in absolutely no doubt about China's commitment to transparency, and to protecting the world's people.

To the people of China and to all of those around the world who have been affected by this outbreak, we want you to know that the world stands with you. We

are working diligently with national and international public health partners to bring this outbreak under control as fast as possible.

In total, there are now 7834 confirmed cases, including 7736 in China, representing almost 99% of all reported cases worldwide. 170 people have lost their lives to this outbreak, all of them in China.

We must remember that these are people, not numbers.

More important than the declaration of a public health emergency are the committee's recommendations for preventing the spread of the virus and ensuring a measured and evidence-based response.

I would like to summarize those recommendations in seven key areas.

First, there is no reason for measures that unnecessarily interfere with international travel and trade. WHO doesn't recommend limiting trade and movement.

We call on all countries to implement decisions that are evidence-based and consistent. WHO stands ready to provide advice to any country that is considering which measures to take.

Second, we must support countries with weaker health systems.

Third, accelerate the development of vaccines, therapeutics and diagnostics.

Fourth, combat the spread of rumours and misinformation.

Fifth, review preparedness plans, identify gaps and evaluate the resources needed to identify, isolate and care for cases, and prevent transmission.

Sixth, share data, knowledge and experience with WHO and the world.

And seventh, the only way we will defeat this outbreak is for all countries to work together in a spirit of solidarity and cooperation. We are all in this together, and we can only stop it together.

This is the time for facts, not fear.

This is the time for science, not rumours.

This is the time for solidarity, not stigma.

Thank you.

(To be Published in the Gazette of India Extraordinary Part-II, Section - 3, Sub-Section (ii))

Government of India
Ministry of Commerce & Industry
Department of Commerce
Directorate General of Foreign Trade
Udyog Bhavan
New Delhi

Notification No. 44 /2015-2020
New Delhi, Dated: 31st January 2020

Subject:- Amendment in Export Policy of Personal Protection Equipment/Masks – reg

S.O. (E) In exercise of powers conferred by Section 3 of the Foreign Trade (Development & Regulation) Act, 1992 (No. 22 of 1992), as amended, read with Para 1.02 of the Foreign Trade Policy, 2015-20, the Central Government hereby makes following amendment with immediate effect in the Schedule 2 of the ITC (HS) Export Policy 2018. The following items are added:

Serial Number	ITC HS Codes	Description	Present Policy	**Revised/Amended Policy**
207 A	901850 901890 9020 392690 621790 630790	Personal Protection Equipment including Clothing and Masks [Coveralls(Class 2/3/4) and N95 masks]	Free	**Prohibited**

2. The provisions as under para 1.05 of the Foreign Trade Policy (FTP) 2015-20 regarding Transitional Arrangements are not available under this notification.

3. **Effect of this Notification:**

Export of all varieties of personal protection equipment including Clothing and Masks used to protect the wearer from air borne particles and/or any other respiratory masks or any other personal protective clothing [Including Coveralls(Class 2/3/4) and N95 masks] under the above mentioned ITC HS Codes is hereby 'Prohibited' with immediate effect till further orders.

31/1/2020

(Amit Yadav)
Director General of Foreign Trade
Ex-Officio Additional Secretary, Government of India
E-mail: dgft@nic.in

(Issued from File No. 01/91/180/21/AM20/EC)

(To be Published in the Gazette of India Extraordinary, Part-II, Section - 3, Sub-Section (ii))

22

Annexure - C

Government of India
Ministry of Commerce & Industry
Department of Commerce
Directorate General of Foreign Trade
Udyog Bhavan
New Delhi

Notification No. 47 /2015-2020
New Delhi, Dated: 8th February 2020

Subject: - Amendment in Export Policy of Personal Protection Equipment/Masks

S.O. (E) In exercise of powers conferred by Section 3 of the Foreign Trade (Development & Regulation) Act, 1992 (No. 22 of 1992), as amended, read with Para 1.02 of the Foreign Trade Policy, 2015-20, the Central Government hereby makes **following amendment in the Notification No. 44 dated 31.01.2020** related to export of Personal Protection Equipment and Masks:

Serial No.	ITCHS Codes	Description	Present Policy
207 A	901850 901890 9020 392690 621790 630790	All Personal Protection Equipments including Clothing and Masks[Coveralls (Class 2/3/4) and N-95 Masks] **except the following items:** **1. Surgical Masks/ Disposable Masks (2/3 Ply)** **2. All Gloves (except NBR Gloves)**	Prohibited

2. **Effect of this Notification:**

The Notification No. 44 dated 31.01.2020 is amended to the extent that the items such as Surgical Masks/Disposable Masks (2/3 Ply) and all Gloves except NBR Gloves are allowed freely for export. However, export of all other Personal Protection Equipment including N-95 and other Personal Protection Equipment accompanying Masks and Gloves not specified in the exceptions above shall remain Prohibited.

8/2/2020

(Amit Yadav)
Director General of Foreign Trade
Ex-Officio Additional Secretary, Government of India
E-mail: dgft@nic.in

(Issued from File No. 01/91/180/21/AM20/EC)

(To be Published in the Gazette of India Extraordinary Part-II, Section - 3, Sub-Section (ii))

Annexure - D

Government of India
Ministry of Commerce & Industry
Department of Commerce
Directorate General of Foreign Trade
Udyog Bhavan
New Delhi

Notification No. 48 /2015-2020
New Delhi, Dated: 25 February 2020

Subject:- Amendment in Export Policy of Personal Protection Equipment/Masks

S.O. (E) In exercise of powers conferred by Section 3 of the Foreign Trade (Development & Regulation) Act, 1992 (No. 22 of 1992), as amended, read with Para 1.02 of the Foreign Trade Policy, 2015-20, the Central Government hereby makes **following amendment in the Notification No. 47 dated 08.02.2020** related to export of Personal Protection Equipment and Masks:

S.No	ITC HS Codes	Description	Present Policy
207 A	901850 901890 9020 392690 621790 630790	All Personal Protection Equipment including Clothing and Masks[Coveralls (Class 2/3/4) and N-95 Masks]. **However, the following items are freely exportable:** 1. **Surgical Masks/Disposable Masks (2/3 Ply)** 2. **All Gloves except NBR Gloves.** 3. **All Ophthalmic instruments and appliances under ITCHS 901850 except Medical Goggles** 4. **Surgical Blades** 5. **Non-Woven Shoe covers (Disposable)** 6. **Breathing appliances used by Airmen, Divers, mountaineers or Firemen** 7. **Gas Masks with chemical absorbent for filtration against poisonous vapour, smoke, gases** 8. **HDPE Tarpaulin/Plastic Tarpaulin** 9. **PVC conveyor belt** 10. **Biopsy Punch**	**Prohibited**

3. **Effect of this Notification:**

The Notification No. 47 dated 08.02.2020 is amended to the extent that the items specified under Serial No. 1 to 10 above are allowed freely for export. However, export of all other Personal Protection Equipment including N-95 masks or other items not specified in the exceptions above, shall remain Prohibited.

25/2/2020

(Amit Yadav)
Director General of Foreign Trade
Ex-Officio Additional Secretary, Government of India
E-mail: dgft@nic.in

(Issued from File No. 01/91/180/21/AM20/EC)

Rational use of personal protective equipment for coronavirus disease 2019 (COVID-19)

Interim guidance
27 February 2020

World Health Organization

Coronavirus disease 2019 (COVID-19), caused by the COVID-19 virus, was first detected in Wuhan, China, in December 2019. On 30 January 2020, the WHO Director-General declared that the current outbreak constituted a public health emergency of international concern.

This document summarizes WHO's recommendations for the rational use of personal protective equipment (PPE) in healthcare and community settings, as well as during the handling of cargo; in this context, PPE includes gloves, medical masks, goggles or a face shield, and gowns, as well as for specific procedures, respirators (i.e., N95 or FFP2 standard or equivalent) and aprons. This document is intended for those who are involved in distributing and managing PPE, as well as public health authorities and individuals in healthcare and community settings, and it aims to provide information about when PPE use is most appropriate.

WHO will continue to update these recommendations as new information becomes available.

Preventive measures for COVID-19 disease

Based on the available evidence, the COVID-19 virus is transmitted between people through close contact and droplets, not by airborne transmission. The people most at risk of infection are those who are in close contact with a COVID-19 patient or who care for COVID-19 patients.

Preventive and mitigation measures are key in both healthcare and community settings. The most effective preventive measures in the community include:

- performing hand hygiene frequently with an alcohol-based hand rub if your hands are not visibly dirty or with soap and water if hands are dirty;
- avoiding touching your eyes, nose and mouth;
- practicing respiratory hygiene by coughing or sneezing into a bent elbow or tissue and then immediately disposing of the tissue;
- wearing a medical mask if you have respiratory symptoms and performing hand hygiene after disposing of the mask;
- maintaining social distance (a minimum of 1 m) from individuals with respiratory symptoms.

Additional precautions are required by healthcare workers to protect themselves and prevent transmission in the healthcare setting. Precautions to be implemented by healthcare workers caring for patients with COVID-19 disease include using PPE appropriately; this involves selecting the proper PPE and being trained in how to put on, remove and dispose of it.

PPE is only one effective measure within a package that comprises administrative and environmental and engineering controls, as described in WHO's *Infection prevention and control of epidemic- and pandemic-prone acute respiratory infections in health care* (*1*). These controls are summarized here.

- **Administrative controls** include ensuring the availability of resources for infection prevention and control measures, such as appropriate infrastructure, the development of clear infection prevention and control policies, facilitated access to laboratory testing, appropriate triage and placement of patients, adequate staff-to-patient ratios and training of staff.
- **Environmental and engineering controls** aim at reducing the spread of pathogens and reducing the contamination of surfaces and inanimate objects. They include providing adequate space to allow social distance of at least 1 m to be maintained between patients and between patients and healthcare workers and ensuring the availability of well-ventilated isolation rooms for patients with suspected or confirmed COVID-19 disease.

COVID-19 is a respiratory disease that is different from Ebola virus disease, which is transmitted through infected bodily fluids. Due to these differences in transmission, the PPE requirements for COVID-19 are different from those required for Ebola virus disease. Specifically, coveralls (sometimes called Ebola PPE) are not required when managing COVID-19 patients.

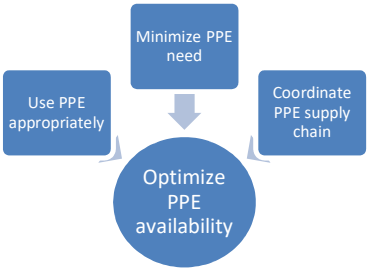
Disruptions in the global supply chain of PPE

The current global stockpile of PPE is insufficient, particularly for medical masks and respirators; the supply of gowns and goggles is soon expected to be insufficient also. Surging global demand − driven not only by the number of COVID-19 cases but also by misinformation, panic buying and stockpiling − will result in further shortages of PPE globally. The capacity to expand PPE production is limited, and the current demand for respirators and masks cannot be met, especially if the widespread, inappropriate use of PPE continues.

Recommendations for optimizing the availability of PPE.

In view of the global PPE shortage, the following strategies can facilitate optimal PPE availability (Fig. 1).

Fig. 1. Strategies to optimize the availability of personal protective equipment (PPE)



(1) Minimize the need for PPE

The following interventions can minimize the need for PPE while protecting healthcare workers and other individuals from exposure to the COVID-19 virus in healthcare settings.

- Consider using telemedicine to evaluate suspected cases of COVID-19 disease (*2*), thus minimizing the need for these individuals to go to healthcare facilities for evaluation.
- Use physical barriers to reduce exposure to the COVID-19 virus, such as glass or plastic windows. This approach can be implemented in areas of the healthcare setting where patients will first present, such as triage areas, the registration desk at the emergency department or at the pharmacy window where medication is collected.
- Restrict healthcare workers from entering the rooms of COVID-19 patients if they are not involved in direct care. Consider bundling activities to minimize the number of times a room is entered (e.g., check vital signs during medication administration or have food delivered by healthcare workers while they are performing other care) and plan which activities will be performed at the bedside.

Ideally, visitors will not be allowed but if this is not possible, restrict the number of visitors to areas where COVID-19 patients are being isolated; restrict the amount of time visitors are allowed to spend in the area; and provide clear instructions about how to put on and remove PPE and perform hand hygiene to ensure visitors avoid self-contamination (see https://www.who.int/csr/resources/publications/putontakeoffPPE/en/).

(2) Ensure PPE use is rationalized 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, droplet or aerosol). The overuse of PPE will have a further impact on supply shortages. Observing the following recommendations will ensure that the use of PPE rationalized.

- The type of PPE used when caring for COVID-19 patients will vary according to the setting and type of personnel and activity (Table 1).
- Healthcare workers involved in the direct care of patients should use the following PPE: gowns, gloves, medical mask and eye protection (goggles or face shield).
- Specifically, for aerosol-generating procedures (e.g., tracheal intubation, non-invasive ventilation, tracheostomy, cardiopulmonary resuscitation, manual ventilation before intubation, bronchoscopy) healthcare workers should use respirators, eye protection, gloves and gowns; aprons should also be used if gowns are not fluid resistant (*1*).
- Respirators (e.g., N95, FFP2 or equivalent standard) have been used for an extended time during previous public health emergencies involving acute respiratory illness when PPE was in short supply (*3*). This refers to wearing the same respirator while caring for multiple patients who have the same diagnosis without removing it, and evidence indicates that respirators maintain their protection when used for extended periods. However, using one respirator for longer than 4 hours can lead to discomfort and should be avoided (*4–6*).
- Among the general public, persons with respiratory symptoms or those caring for COVID-19 patients at home should receive medical masks. For additional information, see *Home care for patients with suspected novel coronavirus (COVID-19) infection presenting with mild symptoms, and management of their contacts* (7).
- For asymptomatic individuals, wearing a mask of any type is not recommended. Wearing medical masks when they are not indicated may cause unnecessary cost and a procurement burden and create a false sense of security that can lead to the neglect of other essential preventive measures. For additional information, see *Advice on the use of masks in the community, during home care and in healthcare settings in the context of the novel coronavirus (2019-nCoV) outbreak* (*8*).

(3) Coordinate PPE supply chain management mechanisms.

The management of PPE should be coordinated through essential national and international supply chain management mechanisms that include but are not restricted to:

- using PPE forecasts that are based on rational quantification models to ensure the rationalization of requested supplies;
- monitoring and controlling PPE requests from countries and large responders;
- promoting the use of a centralized request management approach to avoid duplication of stock and ensuring strict adherence to essential stock management rules to limit wastage, overstock and stock ruptures;
- monitoring the end-to-end distribution of PPE;
- monitoring and controlling the distribution of PPE from medical facilities stores.

Handling cargo from affected countries

The rationalized use and distribution of PPE when handling cargo from and to countries affected by the COVID-19 outbreak includes following these recommendations.

- Wearing a mask of any type is not recommended when handling cargo from an affected country.
- Gloves are not required unless they are used for protection against mechanical hazards, such as may occur when manipulating rough surfaces.
- Importantly, the use of gloves does not replace the need for appropriate hand hygiene, which should be performed frequently, as described above.
- When disinfecting supplies or pallets, no additional PPE is required beyond what is routinely recommended. To date, there is no epidemiological information to suggest that contact with goods or products shipped from countries affected by the COVID-19 outbreak have been the source of COVID-19 disease in humans. WHO will continue to closely monitor the evolution of the COVID-19 outbreak and will update recommendations as needed.

Table 1. Recommended type of personal protective equipment (PPE) to be used in the context of COVID-19 disease, according to the setting, personnel and type of activity[a]

Setting	Target personnel or patients	Activity	Type of PPE or procedure
Healthcare facilities			
Inpatient facilities			
Patient room	Healthcare workers	Providing direct care to COVID-19 patients.	Medical mask Gown Gloves Eye protection (goggles or face shield).
		Aerosol-generating procedures performed on COVID-19 patients.	Respirator N95 or FFP2 standard, or equivalent. Gown Gloves Eye protection Apron
	Cleaners	Entering the room of COVID-19 patients.	Medical mask Gown Heavy duty gloves Eye protection (if risk of splash from organic material or chemicals). Boots or closed work shoes
	Visitors[b]	Entering the room of a COVID-19 patient	Medical mask Gown Gloves
Other areas of patient transit (e.g., wards, corridors).	All staff, including healthcare workers.	Any activity that does not involve contact with COVID-19 patients.	No PPE required
Triage	Healthcare workers	Preliminary screening not involving direct contact[c].	Maintain spatial distance of at least 1 m. No PPE required
	Patients with respiratory symptoms.	Any	Maintain spatial distance of at least 1 m. Provide medical mask if tolerated by patient.
	Patients without respiratory symptoms.	Any	No PPE required
Laboratory	Lab technician	Manipulation of respiratory samples.	Medical mask Gown Gloves Eye protection (if risk of splash)
Administrative areas	All staff, including healthcare workers.	Administrative tasks that do not involve contact with COVID-19 patients.	No PPE required

Outpatient facilities			
Consultation room	Healthcare workers	Physical examination of patient with respiratory symptoms.	Medical mask Gown Gloves Eye protection
	Healthcare workers	Physical examination of patients without respiratory symptoms.	PPE according to standard precautions and risk assessment.
	Patients with respiratory symptoms.	Any	Provide medical mask if tolerated.
	Patients without respiratory symptoms.	Any	No PPE required
	Cleaners	After and between consultations with patients with respiratory symptoms.	Medical mask Gown Heavy duty gloves Eye protection (if risk of splash from organic material or chemicals). Boots or closed work shoes
Waiting room	Patients with respiratory symptoms.	Any	Provide medical mask if tolerated. Immediately move the patient to an isolation room or separate area away from others; if this is not feasible, ensure spatial distance of at least 1 m from other patients.
	Patients without respiratory symptoms.	Any	No PPE required
Administrative areas	All staff, including healthcare workers.	Administrative tasks	No PPE required
Triage	Healthcare workers	Preliminary screening not involving direct contact[c].	Maintain spatial distance of at least 1 m. No PPE required
	Patients with respiratory symptoms.	Any	Maintain spatial distance of at least 1 m. Provide medical mask if tolerated.
	Patients without respiratory symptoms.	Any	No PPE required
Community			
Home	Patients with respiratory symptoms.	Any	Maintain spatial distance of at least 1 m. Provide medical mask if tolerated, except when sleeping.
	Caregiver	Entering the patient's room, but not providing direct care or assistance.	Medical mask
	Caregiver	Providing direct care or when handling stool, urine or waste from COVID-19 patient being cared for at home.	Gloves Medical mask Apron (if risk of splash)
	Healthcare workers	Providing direct care or assistance to a COVID-19 patient at home	Medical mask Gown Gloves Eye protection
Public areas (e.g., schools, shopping malls, train stations).	Individuals without respiratory symptoms	Any	No PPE required

Points of entry			
Administrative areas	All staff	Any	No PPE required
Screening area	Staff	First screening (temperature measurement) not involving direct contact[c.]	Maintain spatial distance of at least 1 m. No PPE required
	Staff	Second screening (i.e., interviewing passengers with fever for clinical symptoms suggestive of COVID-19 disease and travel history).	Medical mask Gloves
	Cleaners	Cleaning the area where passengers with fever are being screened.	Medical mask Gown Heavy duty gloves Eye protection (if risk of splash from organic material or chemicals). Boots or closed work shoes
Temporary isolation area	Staff	Entering the isolation area, but not providing direct assistance.	Maintain spatial distance of at least 1 m. Medical mask Gloves
	Staff, healthcare workers	Assisting passenger being transported to a healthcare facility.	Medical mask Gown Gloves Eye protection
	Cleaners	Cleaning isolation area	Medical mask Gown Heavy duty gloves Eye protection (if risk of splash from organic material or chemicals). Boots or closed work shoes
Ambulance or transfer vehicle	Healthcare workers	Transporting suspected COVID-19 patients to the referral healthcare facility.	Medical mask Gowns Gloves Eye protection
	Driver	Involved only in driving the patient with suspected COVID-19 disease and the driver's compartment is separated from the COVID-19 patient.	Maintain spatial distance of at least 1 m. No PPE required
		Assisting with loading or unloading patient with suspected COVID-19 disease.	Medical mask Gowns Gloves Eye protection
		No direct contact with patient with suspected COVID-19, but no separation between driver's and patient's compartments.	Medical mask
	Patient with suspected COVID-19 disease.	Transport to the referral healthcare facility.	Medical mask if tolerated
	Cleaners	Cleaning after and between transport of patients with suspected COVID-19 disease to the referral healthcare facility.	Medical mask Gown Heavy duty gloves Eye protection (if risk of splash from organic material or chemicals). Boots or closed work shoes

Special considerations for rapid response teams assisting with public health investigations[d]			
Community			
Anywhere	Rapid response team investigators.	Interview suspected or confirmed COVID-19 patients or their contacts.	No PPE if done remotely (e.g., by telephone or video conference). Remote interview is the preferred method.
		In-person interview of suspected or confirmed COVID-19 patients without direct contact.	Medical mask Maintain spatial distance of at least 1 m. The interview should be conducted outside the house or outdoors, and confirmed or suspected COVID-19 patients should wear a medical mask if tolerated.
		In-person interview with asymptomatic contacts of COVID-19 patients.	Maintain spatial distance of at least 1 m. No PPE required The interview should be performed outside the house or outdoors. If it is necessary to enter the household environment, use a thermal imaging camera to confirm that the individual does not have a fever, maintain spatial distance of at least 1 m and do not touch anything in the household environment.

[a] In addition to using the appropriate PPE, frequent hand hygiene and respiratory hygiene should always be performed. PPE should be discarded in an appropriate waste container after use, and hand hygiene should be performed before putting on and after taking off PPE.

[b] The number of visitors should be restricted. If visitors must enter a COVID-19 patient's room, they should be provided with clear instructions about how to put on and remove PPE and about performing hand hygiene before putting on and after removing PPE; this should be supervised by a healthcare worker.

[c] This category includes the use of no-touch thermometers, thermal imaging cameras, and limited observation and questioning, all while maintaining a spatial distance of at least 1 m.

[d] All rapid response team members must be trained in performing hand hygiene and how to put on and remove PPE to avoid self-contamination.

For PPE specifications, refer to WHO's novel coronavirus (COVID-19) disease commodity packages at https://www.who.int/emergencies/what-we-do/prevention-readiness/disease-commodity-packages/dcp-ncov.pdf?ua=1.

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WHO reference number: WHO/2019-nCov/IPC PPE_use/2020.1

राजीव गौबा
Rajiv Gauba

सत्यमेव जयते

स्वच्छ भारत
एक कदम स्वच्छता की ओर

मंत्रिमंडल सचिव
भारत सरकार
CABINET SECRETARY
GOVERNMENT OF INDIA

D.No. 272/2/1/2020-Cab.III

8th March, 2020

Dear Secretary

As you may be aware, the Novel Coronavirus (COVID-19), cases have now been confirmed in more than 90 countries. M/o Health & Family Welfare has been coordinating the efforts of the Central Government in this regard and has also been working with State Governments in order to mitigate the impact of the outbreak in India.

2. A public health situation of this scale requires a concerted and whole of Government approach in order to prevent further importation of cases and to build up a comprehensive and robust response system. All Central Ministries/Departments are required to step up their efforts and fully mobilize their resources to support the efforts of the M/o Health & Family Welfare in preparedness, control and containment measures.

3. The specific tasks that need to be undertaken by Central Ministries/Departments, are listed in the Annexure to this letter. This is not an exhaustive list. The M/o Health & Family Welfare will be in regular touch with your Ministry/Department and seek your assistance in other areas as required.

4. You are requested to kindly take expeditious action and mobilize all necessary support in this regard. These guidelines may also be disseminated amongst the organizations/agencies etc under your administrative control.

With regards

Yours sincerely,

8/3/20
(Cabinet Secretary)

To,

Secretaries of all Ministries/Departments

Cabinet Secretariat, Rashtrapati Bhavan, New Delhi-110004
Tel: 011-23016696, 23011241 Fax: 011-23018638 E-mail : cabinetsy@nic.in

Annexure

(i) Ministry of Home Affairs (including NDMA, NDRF, CAPFs, Bureau of Immigration, Land Port Authority of India etc.)

a. Identification of facilities/buildings that can be used as quarantine centres or can be converted to temporary hospitals with isolation facilities;
b. Bureau of Immigration to provide regular and timely information (together with contact details) on international travellers arriving in India through airports, ports and land border crossings;
c. NDMA/NDRFmay ensure continuity of essential services, conduct training workshops, mock-drills and awareness generation exercises particularly at Points of Entry in coordination with CISF;
d. Bureau of Immigration to ensure prompt and strict implementation of Visa restrictions issued from time to time;
e. Maintenance of law and order and essential services.

(ii) Ministry of External Affairs

a. Convey situational update(s) from affected countries in terms of number of cases, their spatial and temporal distribution and trendsetc;
b. Provide information on travelers arriving from affected countries, especially Indians;
c. Issue of advisories to Indians in other countries;
d. Ensure prompt and proper implementation of Visa restrictions issued;
e. Advise on impact of trade and travel restrictions for India;
f. Monitor and take necessary action to ensure that unnecessary travel / trade restrictions are not imposed on India by other countries;
g. Maintaining contact with Indians citizens in foreign countries and ensuring provision of appropriate medical/treatment and other facilities to them.

(iii) Ministry of Defence

a. Identify facilities/buildings that can be used as quarantine centres or can be converted to temporary hospitals with isolation facilities;
b. Support in extending network of hospital and laboratory facilities by permitting use of facilities by civilians;
c. Contribute to the pool of public health experts by identifying experts/faculties within Armed Forces;
d. Train faculty of Armed Forces Medical colleges/Cantonment hospitals/Station Health Officers on COVID-19 preparedness and response
e. Disseminate public health messages to its organizations as well as general community on preventive public health measures like respiratory and hand hygiene and prompt identification and reporting of symptoms.

(iv) Ministry of Railways

a. Identify facilities/buildings that can be used as quarantine centers or can be converted to temporary hospitals with isolation facilities;
b. Support in extending network of hospital and laboratory facilities by permitting their use by general public;
c. Disseminate public health messages at railway stations and on trains;
d. Contribute to the pool of public health experts by identifying experts/faculties in their organizations;
e. Facilitate transportation of essential commodities including medical supplies;

(v) Ministry of Labour (ESIC)

a. Identify facilities/buildings that can be used as quarantine centers or can be converted to temporary hospitals with isolation facilities;
b. Support in extending network of hospital and laboratory facilities by permitting their use by general public;
c. Disseminate awareness on preventive measures at all subordinate offices, hospitals and clinics

(vi) Ministry of Civil Aviation

a. Ensure strict compliance with screening protocol for international travelers, as decided, andshare such information with relevant stakeholders;
b. Display prominently public health messages at all offices and airports.
c. Facilitate establishment and proper maintenance of earmarked aerobridges.
d. Ensure that all airlines are made aware of the precautionary measures to be undertaken, and are trained in management of onboard suspect cases, making appropriate in-flight announcements, and in filling up of self-declaration forms by all travelers and. Crew;
e. Facilitate transportation of essential commodities including medical supplies.

(vii) Ministry of Shipping

a. Ensure strict compliance with screening protocol for international travelers, as decided, at all ports and share such information with relevant stakeholders;
b. Display prominently public health messages at all offices and ports;
c. Ensure that shipping industry, particularly cruise ships are made aware of the precautionary measures to be undertaken, and are trained in management of on-board suspect cases, and filling up of self-declaration forms by all travelers and crew;
d. Facilitate transportation of essential commodities including medical supplies

(viii) Ministry of Consumer Affairs, Food and Public Distribution

a. Ensure sanitation measures and public display of health messages at all offices and community level outlets;
b. Maintain essential supplies

(ix) Ministry of Information and Broadcasting

a. Develop comprehensive media strategy / plan to disseminate information about the virus, which may include addressing rumours/myths particularly on social media;
b. Roll out appropriate communication materials for National and State campaign (including translation in local languages) and facilitate availability of slots for media communication in print / visual media.
c. Utilize the field publicity units for social mobilization.

(x) Department of Pharmaceuticals

a. Maintain situational awareness on supply and demand of essential APIs and act well in advance to avoid crisis situation
b. Regulate drugs required for COVID Pandemic.
c. Address production of such drugs as maybe recommended by MOHFW.

(xi) Directorate General Foreign Trade

a. Monitor the export of essential APIs/drugs/masks etc. and implement export restrictions as approved from time to time;
b. Facilitate import of essential APIs/drugs etc.in consultation with Ministry of Health and Family Welfare

(xii) Department of Science and Technology/ Biotechnology

a. Support in extending network of laboratory facilities;
b. Support research for diagnostics and vaccines;
c. Support their adequate availability in India

(xiii) Indian Council of Medical Research

a. Extend network of laboratory facilities to ensure timely testing even at remote locations
b. Support research for diagnostics and vaccines
c. Support their adequate availability in India

(xiv) Ministry of Panchayati Raj

a. Facilitate Gram Panchayats and Panchayat Samiti Meetings to spread awareness on COVID-19;
b. Facilitate environmental sanitation at village through Village Health and Sanitation Committee

(xv) Ministry of Housing & Urban Development Department

a. Identify facilities/buildings that can be used as quarantine centers or can be converted to temporary hospitals with isolation facilities
b. Ensure that all Urban Local Bodies maintain environmental sanitation;
c. Display hoardings/banners with related IEC content all prominent places and in places of congregation.

(xvi) Ministry of Women & Child Development

a. Facilitate utilization of Anganwadi workers and supervisors in surveillance and other community level activities by MoHFW
b. Facilitate mobilization of Self-Help Groups(SHGs) to create awareness
c. Proper sanitation at Anagnwadi centers and health education to children and their parents

(xvii) Ministry of Transport

a. Ensure sanitation of seats, handles & bars of all public transport vehicles;
b. Display of public health messages on public transport vehicles

(xviii) Ministry of Textiles

a. Ensure availability of medical textiles and equipment particularly PPEs
b. Develop and implement short and long term plans to ensure availability of PPEs in India particularly in terms of their manufacture, standardization and testing

(xix) Ministry of Minority Affairs

a. Identify facilities/buildings that can be used as quarantine centers or can be converted to temporary hospitals with isolation facilities;
b. Disseminate public health messages at all subordinate and field offices.

(xx) Ministry of Tourism

a. Identify facilities/buildings that can be used as quarantine centers or can be converted to temporary hospitals with isolation facilities;
b. Facilitate surveillance activities especially in respect of international travelers
c. Adhere to guidelines on environmental sanitation
d. Disseminate public health messages at all hotels
e. Maintain vigil particularly in major tourist spots and towns across the country.

Urgent Attention please : PPEs & other Protective equipments for Health workers.

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Dr.Prabha Kishor Taviad <dr.prabha@yahoo.com>
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Mar 24 at 9:14 PM

Annexure - G

From:- Dr. Prabha Kishore Taviad

Ex. MP(Loksabha), Dahod.
Add: Usarvan,
Po. Ta. Dist. Dahod
Guajart.
Date:- 24-3-2020
Mobile : 9426004703
dr.prabha@yahoo.com

To:-
1. Ministry of Health and Family Welfare
Nirman Bhawan, New Delhi – 110011

2. The Health and Family Welfare Department,
School Health unit , 3 floor,
Block no -5 ,Dr. Jivraj Mehta Bhavan, Sector -10,
Gandhinagar – 382010

Subject:- Implementation of World Health Organization guidelines dated 27-2-2020 for providing COVID protective equipment for health workers

Respected Sir/Mam,

I am an ex- MP of 15th Loksabha and practicing as a gynecologist at Dahod and my concern for writing to you is with regard to non-availability of COVID protective equipment for health workers.

The Coronavirus disease 2019 (COVID-19), is caused by the COVID-19 virus, which was first detected in Wuhan, China, in December 2019. It is known that on 30 January 2020, the World Health Organization Director-General declared that the current outbreak constituted a public health emergency of international concern.

The COVID-19 is a novel virus which is creating havoc all over the world infecting lakhs of people in a short duration. The COVID-19 is the highly contagious disease and it requires stringent preventive measures as there is no cure for this disease. The COVID-19 started in China and had spread all over the world by means of human to human transmission. The disease is called novel because it was not found in human beings till date. Since there is no data of this disease, the whole world is learning through various scientific data from the countries which are currently suffering from it. The whole world has applauded the work done by health care workers who are in direct contact with the patients. These health care workers are doing this service without any expectations of financial benefits or in lieu of any reward. That, though the Government of India had taken various steps to prevent the spread of COVID-19 disease, however, there are some media reports that indicate that there is an apparent shortage of PPE i.e. Personal Protection Equipment which is necessary to prevent thousands of health care worker, from being infected, who will be at the front line in stopping this disease.

The WHO is a nodal body for gathering all data from the world and furnishing it to the other parts in form of guidelines which is followed by all the countries as gold standard without any deviation. The WHO guidelines strictly state that the health care workers are required to be protected by providing PPE. These guidelines are in place to prevent transmission of disease to the health care workers who will be at the forefront of this pandemic. As per various reports, about 10% of the health care workers were directly infected while treating the patients. This high number of infections in the health care workers is directly as result of overlooking of WHO guidelines. I am, at the behest of all the health workers, is anxious to see that the health care workers are protected during the treatment of this disease.

On 27 February, 2020, the World Health Organization had issued the guidelines, noting that the current global stockpile of PPE is insufficient, particularly for medical masks and respirators; the supply of gowns and goggles is soon expected to be insufficient too. Further it was observed that Surging global demand − driven not only by the number of COVID-19 cases but also by misinformation, panic buying and stockpiling − will result in further shortages of PPE globally. As described in the World Health Organization guidelines, PPE includes gloves, medical masks, gowns or coveralls, and respirators, such as N95 masks. Despite the aforesaid fact, the departments waited till 19 March to issue a notification prohibiting the export of domestically manufactured PPEs and the raw material for the same.

The Government of Gujarat has announced various hospitals as COVID-19 hospitals. The health care workers, who will be posted at the hospital will be at the greatest risk, especially, if they are not provided with the PPE kits in adequate numbers. If the data from country such as China, Iran, Italy and United States are seen, it would be clear that it is only a matter of time before similar situation happens in India, too. Since, the medical resources of the developing countries is less then developed countries, the apprehensions, that the infection rate of the health care workers and doctors in India will be far higher, if no personal protection kits are provided. Also looking to the overall population of the country and data matched from the various foreign countries, India would require at least 5 lakhs PPEs daily so as to ensure its health care workers are properly secured. As per some reports, the Government as of today has not procured the required PPE. It is for these reasons; immediate steps are required to be taken by acquiring PPEs for safety of all the health care workers. The various reports showing that there is a huge shortage of PPEs for health care workers have created sense of panic among all doctors and health care workers which is likely to jeopardize their morale to fight this disease.

As per some reports, the acquired numbers of PPEs are much less than the actual requirement and therefore, it is humbly requested to initiate procurement of PPEs for all the medical workers on war footing. It is also relevant to point out that the health care workers and doctors who will treat the COVID-19 patient cannot go home after treating the patient for at least 14 days as doctors are required to quarantine themselves too. Whereas, the Government of Gujarat had acquired resources and hotels for all the passengers who are coming from foreign country however, the health care workers and doctors who are putting their life on line are required to be given similar facilities for quarantining themselves, as and when required.

Any person having the symptoms will first go to Primary Health Center (PHC) and Community Health Center (CHC) and it is subsequently they are transferred to designated Covid 19 hospitals. Therefore it is the duty and responsibility of the Government to see that all the doctors and health care workers working in these primary/community health centers (PHCs/CHCs) are provided adequate personal protective equipment and proper facilities immediately.

In the interest of public at large as well as each and every health care workers and doctors, kindly take the necessary steps.

Yours Sincerely

- Sd
Dr. Prabha Kishore Taviad

Covid-19 outbreak: Protective health gear in short supply

BY TEENA THACKER, ET BUREAU | MAR 23, 2020, 06.38 AM IST

NEW DELHI: There is a shortage of vital equipment needed to protect healthcare staff from catching infections as the number of Covid-19 cases continue to rise in the country, according to the minutes of a meeting held by the textiles ministry on March 18 to assess the availability of protective wears for health professionals in the country.

There is a shortage of body coveralls and N-95 masks, say minutes of a textiles ministry meeting.

"There is a shortage of body coveralls and N-95 masks," stated the minutes of the meeting, which ET has seen. "There is a shortage of material and the rate of supply is not able to meet the rising demand."

Order was placed for 1 million 3-ply masks with a vendor. So far, the supplier has provided only 200,000 masks and has also sought a 266% revision of prices, according to the minutes.

In the meeting, a senior textiles ministry official recommended that supply of coveralls, N-95 masks should be 'controlled through the Ministry of Health and Family Welfare,' for 'better synchronisation'.

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HLL Lifecare as nodal agency

The central government through HLL Lifecare — the government's nodal agency for procuring Personal Protective Equipment (PPE) — has floated a tender for 725,000 body cover, 1.5 million N-95 masks and 1 million 3-ply masks.

But Rajiv Nath, forum coordinator, Association of Indian Medical Device Industry (Aimed), said the industry became aware of this tender only on March 21.

The All India Drug Action Network (AIDAN), a non-government organisation, has now written to the Prime Minister asking for the removal of HLL as a nodal agency for centralised procurement. "It is our demand that HLL be immediately removed as the nodal agency for centralised procurement of PPE. Healthcare institutions should be permitted to procure PPE independently without delay... the health

ministry should put out public guidance on minimum PPE specifications which can be followed by public and private healthcare institutions. It should be coupled with a centralised monitoring mechanism housed within the ministry," the letter said.

Vendors such as US multinational 3M have informed the government that they have stocks that can be partially delivered immediately and through the next month. Local manufacturer Venus will supply 50,000 N-95 masks per day and comply with the order placed by HLL, the minutes further add.

'Last minute rush'

World Health Organization (WHO) had in February called on industry and governments to increase manufacturing by 40% to meet rising global demand. But the government failed to make any forecasts. The resultant "last minute rush" by the government is inadequate, feel industry experts. According to the government's own document on containment plan, containment of a cluster, lasting a month or two in a population of 100,000, may require 2 million triple layer masks, 200,000 gloves, 100,000 N-95 masks and about 50,000 PPE kits. "The foregoing number is to illustrate that states need to have a rate contract and assured supply for these items," it said.

The manufacturers of personal protective equipment in India also blame the "unnecessary requirements" such as sending the samples for body coveralls to Coimbatore based SITRA for conducting tests and certifications.

"While other countries took measures to not only ban export of PPE products but also raw materials, it did not occur to India to do so till March 19. In the meantime, Indian companies continued catering to foreign governments which were stockpiling," said Sanjiiiv Relhan, Chairman, Preventive Wear Manufacturer Association of India.

"We also repeatedly raised the need for creating stockpiles of protective gear which were ignored. Despite us reaching out to the ministry and requesting for anti-profiteering measures to be imposed, as early as February 7, Indian government did not do that. The price of components used to make the 3 ply face masks have gone from 250/kg to 3,000/kg. Elastics are not available at any price. We are now facing a crisis which is of our own making," he added.

NEWS / HEALTH

India did not stockpile COVID protective equipment for health workers despite clear WHO guidelines

VIDYA KRISHNAN

22 March 2020

The India government took till three weeks after the World Health Organisation issued guidelines about a disruption in the supply of personal protective equipment for healthcare workers before it completely prohibited its export. RAFIQ MAQBOOL/AP PHOTO

On 22 March, as 1.3 billion Indians imposed a curfew on themselves, at the request of Prime Minister Narendra Modi, health workers continued to struggle with the slow-rising horror that India had failed to create stockpiles of personal protective equipment, or PPE, such as masks, gowns, and gloves in the past two months. Modi had called upon the nation to impose the "*janata* curfew" on 18

March, urging them to make noise from their balconies to support India's health workers. But it was only the next day that the Indian government issued a notification prohibiting the export of domestically manufactured PPE, three weeks after the World Health Organisation issued guidelines informing countries to expect a disruption in the supply of PPE.

As early as 27 February, the WHO had issued the guidelines (https://apps.who.int/iris/bitstream/handle/10665/331215/WHO-2019-nCov-IPCPPE_use-2020.1-eng.pdf?sequence=1&isAllowed=y), noting, "The current global stockpile of PPE is insufficient, particularly for medical masks and respirators; the supply of gowns and goggles is soon expected to be insufficient also. Surging global demand – driven not only by the number of COVID-19 cases but also by misinformation, panic buying and stockpiling – will result in further shortages of PPE globally." As described in the WHO guidelines, PPE includes gloves, medical masks, gowns or coveralls, and respirators, such as the N95 masks. Yet, the Indian government waited till 19 March to issue a notification prohibiting the export of domestically manufactured PPEs and the raw material for the same.

Perhaps the most disturbing aspects of the government's decision-making process has been the bizarre progression of developments with respect to PPE, as they watched the pandemic approach. On 31 January, one day after India reported its first COVID-19 case, the government's directorate general of foreign trade issued a notification (https://dgft.gov.in/sites/default/files/Noti%2044_0.pdf) prohibiting the export of all PPE. But in just over a week, on 8 February, the government amended (https://dgft.gov.in/sites/default/files/Noti%2047_0.pdf) that order, permitting the export of surgical masks and all gloves. On 25 February, by which point Italy had reported 11 deaths to the virus and over two hundred cases, the government further relaxed (https://dgft.gov.in/sites/default/files/Noti%2048%20PPE_0.pdf) the restrictions, allowing eight new items for export. It is inexplicably clear that the Indian government did not make the necessary attempts to forecast the demand for PPE kits, as had been recommended by the WHO. As a result, India's doctors and

nurses have paid the price and will continue to do so, as they walk into this public-health nightmare without adequate gear to keep them safe.

Decisions taken by health ministry, the textile ministry and a government-owned company called HLL Lifecare Limited in the past two months have alarmed health activists and health care workers alike. Several manufacturers have told me that the Indian government has granted HLL a monopoly over procurement of PPE, which has since been selling the equipment at inflated prices. The decision made little sense amid the growing public-health crisis, given that HLL is currently not manufacturing PPEs. As a result, by awarding the company with a monopoly during this crisis, HLL has effectively been given free reign to assemble PPE kits from other suppliers, which it has then been selling at Rs 1,000 per kit. Meanwhile, manufacturers of the same PPE kits told me that they could supply the same at costs between Rs 400–500 if permitted by the government. Moreover, the assembly of kits causes further delays.

The price gouging has alarmed health activists. Malini Aisola, the co-convener of a non-profit industry watchdog called the All India Drug Action Network, told me that the AIDAN would be writing to the prime minister on 23 March demanding that the HLL be immediately removed as the nodal agency for the centralised procurement of PPE.

"Most grievously, the government's lack of forecasting has meant that quantities being ordered now will be wholly inadequate," Aisola said. "The government also did not tap into the manufacturing capacity of the local industry. For example, there is a deep discordance between the orders for coveralls by HLL, which has been pitched at roughly 7.5 lakh till May 2020, and real requirements which could be upwards of five lakh per day."

Thus, while Aisola estimated that India's health workers could need upwards of five lakh body coveralls per day, the health ministry estimated—based on questionable forecasting—that it would need 7.25 lakh coveralls up to May. The

ministry's observations are recorded in the minutes of a meeting that took place on 18 March, a day before the government notification prohibiting the export of PPE and its raw material, between the health ministry, the textile ministry and HLL.

The minutes make for a grim read. The health ministry stated that HLL would be providing 7.25 lakh coveralls, 60 lakh N95 masks and 1 crore three-ply masks. But the ministry also noted that "there is a shortage of material and the rate of supply is not meeting the rising demand." The textile ministry, which is under the minister Smriti Irani, is in-charge of coordinating the manufacture of protective overalls. The ministry has not responded to requests from garment manufacturers to provide more centres that can test and validate the quality of material supplied. But during the meeting, the ministry noted, "Demand is also raised by various State Governments, who have reported the difficulty in availability in the market and the unreasonable price quoted by the few available suppliers."

The textile ministry further stated, "There is a shortage of Body Coveralls and N-95 masks. The supply should get prioritised as per the criticality of situation, as arising in different parts of the country. Hence, supply of coveralls and N-95 masks should be controlled through Ministry of Health and Family Welfare and procurement should be centralised through HLL Lifecare Ltd." There appears to be an incongruity between the textile ministry's recognition of the shortage of PPE and its insistence on centralised procurement through HLL. Officials in the health ministry, who requested to remain anonymous, said that it could take weeks before the ministry receives the orders being placed at present. So far, the officials said, the ministry has not received a single order as no order had yet been placed in advance. Meanwhile, Irani, the textile minister, spent part of the morning on 22 March on Twitter, encouraging a singalong (https://www.news18.com/news/buzz/smriti-irani-wins-janata-curfew-day-with-twitter-antakshari-as-indians-share-fav-hindi-songs-2546393.html) with the banging of pots and pans, to combat the pandemic.

The shortage of material discussed in the 18 March meeting has been a result of ill thought-out, knee-jerk decision to issue notifications banning the export of specific PPE, but not preventing the export of raw material used to make the PPE. "While other countries took measures to not only ban export of PPE products but also raw materials, it did not occur to India to do that till 19 March," Sanjiiiv Kumar, the chairman of the Preventive Wear Manufacturers Association of India, said. "In the meantime, Indian companies continued catering to foreign governments, which were stockpiling. We also repeatedly raised the need for creating stockpiles of protective gear which were ignored. Despite us reaching out to the ministry and requesting for anti-profiteering measures to be imposed, as early as 7 February, Indian government did not do that. The price of components used to make the 3-ply face masks have gone from Rs 250 per kg to Rs 3000 per kg. Elastics are not available at any price. We are now facing a crisis which is of our own making."

Meanwhile, doctors across the country feel abandoned by the government. A

resident doctor at a government hospital in Maharashtra spoke to us on the condition of anonymity. "I don't need claps," the doctor said, referring to the prime minister urging everyone to clap for India's healthcare workers. "I need safety gear. " She added, "This is like sending fire responders without any equipment right into a raging fire. I have sent my family away for three months. The goodbye felt final. I am not sure if I will see them again. To know that I have to care for COVID patients without any safety equipment is unsettling."

From 20 to 22 March, the number of confirmed COVID-19 cases reported by the Indian Council of Medical Research increased from 206 to 341 (https://icmr.nic.in/sites/default/files/whats_new/ICMR_website_update_22March_1 But instead of addressing the urgent needs of the healthcare workers, at 5 pm on 22 March, Indians came out to their balconies to imitate Italian lockdown singing to thank healthcare workers for their service. The move has no scientific merit, and will not boost the morale of healthcare workers who are anxious about the coming tsunami of cases.

Correction: An earlier version of this article incorrectly stated that Malini Aisola of the All India Drug Action Network said that the AIDAN and the Preventive Wear Manufacturers Association of India would be writing to the prime minister on 23 March demanding that HLL Lifecare Limited should not be given a monopoly on the distribution of PPE. Aisola said that only the AIDAN would be writing the letter. The Caravan *regrets the error.*

VIDYA KRISHNAN (/AUTHOR/559) is a health journalist based in Goa. Her first book, on the rise of antibiotic resistance and the threat to global health security, is slated to be published in 2020.

KEYWORDS: COVID-19(/tag/covid-19) healthcare(/tag/healthcare) Narendra Modi(/tag/narendra-modi) public health(/tag/public-health)

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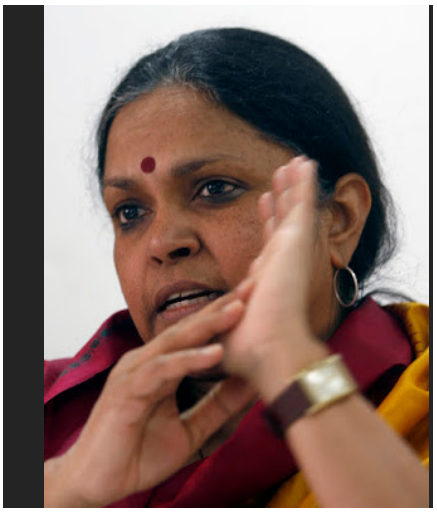

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Centre stares at shortage as sole procurer of COVID-19 gear struggles to supply

Joe C Mathew March 21, 2020

Public sector company HLL Lifecare Ltd, the government's sole procurement agency for personal protective equipment (PPE) kits for use by healthcare professionals, seems to be struggling to match the supply-demand gap in wake of the rising demand. HLL has the Health Ministry's sole mandate to source 7.25 lakh body-coveralls (also called hazmat-or hazardous materials-suits); 60 lakh N-95 masks and 1 crore 3 Or 2-ply face masks.

However, it has managed to place full supply order only in the case of body-coveralls. For the rest, the company has been able to place orders for only 10.5 lakh N-95 masks and 10 lakh 3/2 ply masks so far, it is learnt. To make matters worse, its supplier who bagged the order for 10 lakh 3/2 ply masks at Rs 6 apiece stopped supplies after the first 2 lakh and is now seeking a revised price of Rs 16 per piece to resume supplies.

Since the requirement of PPE kits is likely to go up if COVID-19 cases continue to rise, the inability of HLL to ensure an adequate supply of protection gears will not only put doctors and other healthcare professionals at risk but also make the government pay more for quick purchases.

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There are about 100 local manufacturers of PPE kits, which includes face masks, gloves, coveralls, fluid protection gowns, hood caps, eye protection wear, etc, but very few have the inventory to scale up at short notice. Unless there is better clarity on the likely demand and the standard specifications, the industry will not be able to procure raw materials (including some imported stuff) and be prepared for quick response, the PPE manufacturers say.

According to them, the government needs to do two things to ensure supply of quality products at a reasonable price. One, uniform quality specifications across state government and public sector procurement tenders for the same products to build on the scale. Two, a realistic demand projection or early signalling of the number of personal protection equipment (PPE) kits that may be needed at short notice.

While there is some indication of the quantity required by the central government, the actual demand, in case of a surge in COVID-19, is anybody's guess. What is preventing

them from producing more is the fact that tenders for the same product from different government agencies seek for different specifications. If some are too high a specification for them to adhere, most others have no specifications at all, thereby allowing fly by night operators to make a killing at the cost of health workers' safety.

"The tenders by various state governments and public enterprises are seeking different specifications. Some need PPE kits meant for viruses like EBOLA while others seek high specifications (like AAMI Level IV) meant for surgical procedures. Most tenders have no specifications at all," says Sanjiiv Kumar, Chairman, Preventive Wear Manufacturers Association of India (PWMAI). The industry has been demanding more clarity on the PPE requirement since early February, with a little result.

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INDIA

Not just claps, give us personal protective gear: Doctors fighting COVID-19

Media reports say that doctors even in AIIMS are using masks and sanitisers made by themselves or buying them. There is already a shortage of PPE and doctors are worried

Photo courtesy- social meida

NH Web Desk
Published: 22 Mar 2020, 7:25 PM

Engagement: 11.997 K

"I am a government employed surgeon. I have probably been exposed to Covid-19, I cannot know. I haven't been tested. Our casualty still allows anywhere between 2-20 relatives per patient, & we see over 600 per day. Asking everyone for detailed travel history is a luxury I can't afford," tweeted a doctor this week.

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he went on to say, "I don't want your claps. I want your genuine and holehearted effort in ensuring my wellbeing. I want personal protective quipment."

PEs are in short supply everywhere and while India used to import them from M, DuPont and Honeywell, it is no longer possible to get the supply from abroad ecause of the surging demand abroad. Indeed, in the United States the hashtag#GiveMePPE has been trending for the past several days with medical professionals hitting the panic button.

Personal Protective Equipment include face masks, eye shield, shoe cover, gown and gloves. Medical professionals can use them for only five or six hours before having to discard them. Even N-95 face masks cannot be used for more than a day or two. And there is an elaborate protocol on how to dispose them.

But while the Government estimates it will require 10 million surgical masks, six million N-95 masks and 700,000 body overalls for doctors and para-medics in the next two months, the three firms engaged by the Government, based in Vadodara, Bengaluruand Gurugram, can together manufacture less than one lakh of these gear every month. Ramping up capacity would require adding to the manpower and capital investment.

The problem is exacerbated by bureaucratic red tape. "We have written several times to the health ministry from February 12 onwards and met many of them too," Protection Wear Manufacturers Association of India chairman was quoted as saying on March 21, "You can imagine their sense of urgency when they still haven't managed to come out with specifications, over a month later."

Another doctor admitted, " But we are already facing a severe shortage of masks, sanitizers and other essential Personal Protective Equipment (PPE). We are spending from our own pocket to protect ourselves during OPD and ward rounds. Apart from the designated isolation ward, no other place is being sanitised as per protocol."

A junior doctor in West Bengal has been quoted by Asiavillenews as

recalling, "Today, when we went to work, we were not given N95 masks. This is the state in all state medical colleges. We are being told that if you are not working in the Emergency Room (ER), there is no risk of exposure. But what about patients in wards and OPDs? The authorities say, "We have been working here for 30 years, since before you were even born. We've lived through H1N1, and we have been using normal surgical masks only."

People look at us and say, "Oh, but the mortality in your age group is so low". My own friends said this when they saw me wearing a mask before Stage-II of the epidemic. But we can become carriers and spread it to someone else."

A doctor in Mumbai revealed, "We cannot even test our own elderly, critical patients in our ICUs who have sudden-onset, severe pneumonia. The samples we send are not accepted by Kasturba; they want patients to be sent there, and they will decide on a case-to-case basis. Even if we have a corona patient in the ICU right now, we will not know, because we cannot diagnose it."

For more accounts by doctors, read this report:

https://www.asiavillenews.com/article/the-weekly-dose-indian-doctors-on-the-covid-19-front-line-in-their-own-words-35900

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FROM THE WEB

India

Protective gear shortage worry for health workers

15 lakh overalls, N95 masks and three-ply masks needed; India manufacturers 'helpless'

By Furquan Ameen in New Delhi

Published 23.03.20, 10:17 PM • Updated 23.03.20, 10:17 PM 3 mins read • A- A+

Doctors examine people with flu-like symptoms in Jammu on March 19 (AP photo)

The threat of the coronavirus looms large on doctors and other health workers of the country. In an already stressed and struggling public healthcare system, healthcare officials are bracing themselves for emergencies where they might be forced to work without proper gear.

On the morning of March 23, India had 415 reported cases of coronavirus infection. However, experts have estimated India might have somewhere between 300 to 500 million infected people in the coming four months. While many might still recover from mild consequences, thousands will require hospitalisation.

The health ministry has reportedly decided to arrange 7.25 lakh body overalls, 60 lakh N95 masks and one crore three-ply masks for which orders have been placed.

In the media briefing by health ministry and the Indian Council of Medical Research on Sunday, joint secretary Lav Agarwal was questioned about the lack of transparency in procurement of protective gear.

Agarwal responded with a vague answer that PPE which used to be imported earlier would now be manufactured in India.

On Monday's press briefing, Agarwal was questioned again about the government's failure to maintain a stockpile of personal protective equipment (PPE) despite World Health Organization (WHO) guidelines. Agarwal's response: where is the report?

The Preventive Wear Manufacturers' Association of India (PWMAI), however, estimates that to deal with the influx of patients, a minimum of 5 lakh health workers — which include doctors, nurses, paramedics, maintenance and other support staff — will be required.

If a requirement of three overalls are considered for each worker each day, about 15 lakh PPE will be required daily.

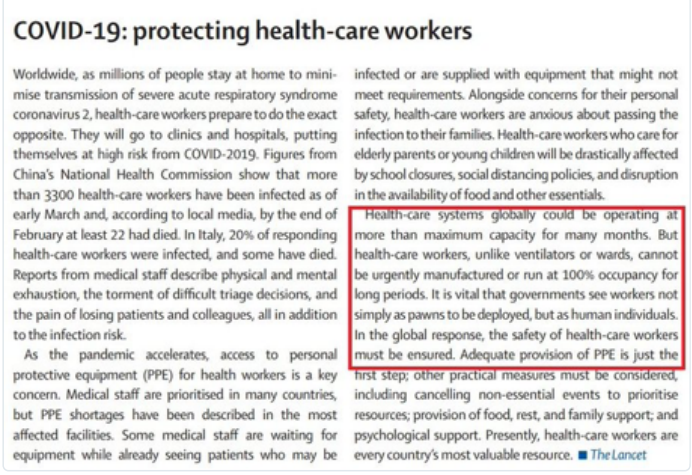
"This is a conservative estimate," said Sanjiiiv Relhan, PWMAI chairman. "Even if we consider one PPE per day per health worker, we cannot provide it. The WHO guidelines suggest you have to change your PPE when you go from one patient to another. We cannot even imagine it."

Relhan added that one of the guidelines was to permit a worker to wear PPE for eight hours only.

At AIIMS, the country's top public hospital, doctors have charted out a protocol wherein each health worker will attend to Covid-19 patients in six hours shifts. By the institute's estimate, each worker will require four PPE changes daily.

I can see a scramble for PPE since they are in such short supply in states like ours. We still have the advantage of being a few days behind on the upslope of this pandemic... Will we heed this advice from The Lancet? twitter.com/spkalantri/sta…

SP Kalantri @spkalantri
Aptly put. "Healthcare workers are not ventilators (you can't manufacture them), nor wards (you can't run at 100% occupancy). They also need food, rest, emotional and family support."
@TheLancet edit brings out the problems health workers are running into. #coronavirusinindia



COVID-19: protecting health-care workers

Worldwide, as millions of people stay at home to minimise transmission of severe acute respiratory syndrome coronavirus 2, health-care workers prepare to do the exact opposite. They will go to clinics and hospitals, putting themselves at high risk from COVID-2019. Figures from China's National Health Commission show that more than 3300 health-care workers have been infected as of early March and, according to local media, by the end of February at least 22 had died. In Italy, 20% of responding health-care workers were infected, and some have died. Reports from medical staff describe physical and mental exhaustion, the torment of difficult triage decisions, and the pain of losing patients and colleagues, all in addition to the infection risk.

As the pandemic accelerates, access to personal protective equipment (PPE) for health workers is a key concern. Medical staff are prioritised in many countries, but PPE shortages have been described in the most affected facilities. Some medical staff are waiting for equipment while already seeing patients who may be infected or are supplied with equipment that might not meet requirements. Alongside concerns for their personal safety, health-care workers are anxious about passing the infection to their families. Health-care workers who care for elderly parents or young children will be drastically affected by school closures, social distancing policies, and disruption in the availability of food and other essentials.

Health-care systems globally could be operating at more than maximum capacity for many months. But health-care workers, unlike ventilators or wards, cannot be urgently manufactured or run at 100% occupancy for long periods. It is vital that governments see workers not simply as pawns to be deployed, but as human individuals. In the global response, the safety of health-care workers must be ensured. Adequate provision of PPE is just the first step; other practical measures must be considered, including cancelling non-essential events to prioritise resources; provision of food, rest, and family support; and psychological support. Presently, health-care workers are every country's most valuable resource. ■ *The Lancet*

♡ 23 7:41 AM - Mar 21, 2020

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On March 16, the Resident Doctor's Association (RDA) of AIIMS wrote a letter to the management raising the issue of inadequate PPEs in the hospital.

In the letter, the association wrote that it "sadly found that most of the wards do not have adequate universal precaution components".

Speaking to **The Telegraph Online**, RDA president Adarsh Pratap Singh said PPE was available for now but future availability depends on the magnitude of the coronavirus pandemic.

"The problem is that we don't have health personnel in adequate numbers. The country's overall health system is not adequate to tackle a huge pandemic," said Singh.

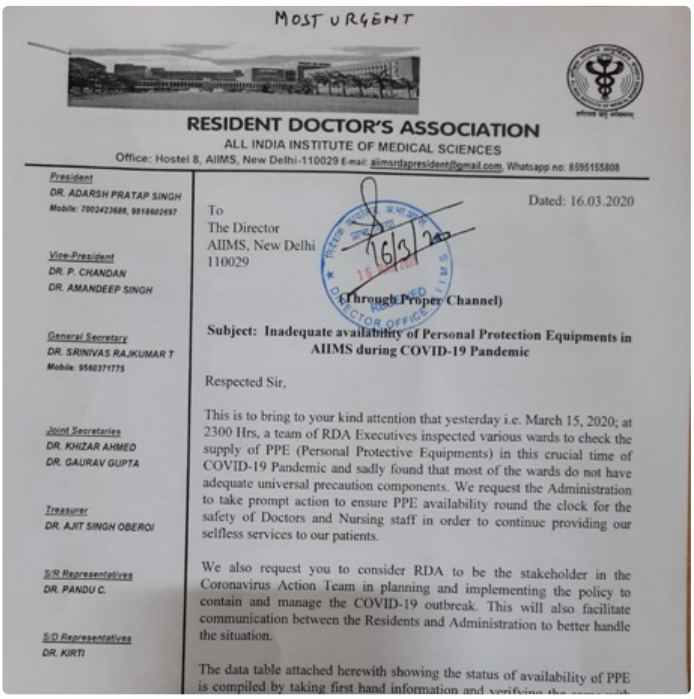
Singh said that all the PPE must be discarded after the six-hour shift and each worker would be required to sanitise themselves.

Singh also added that the staff was looking into making their own sanitiser and basic masks in case there was a severe shortage of these items.

RDAAIIMS
@AIIMSRDA

Inadequate availability of PPE
AIIMS administration kindly take prompt action to ensure the

uninterrupted availability of personal protective equipments. #COVID2019 @MoHFW_INDIA



MOST URGENT

RESIDENT DOCTOR'S ASSOCIATION
ALL INDIA INSTITUTE OF MEDICAL SCIENCES
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SID Representatives
DR. KIRTI

Dated: 16.03.2020

To
The Director
AIIMS, New Delhi
110029

(Through Proper Channel)

Subject: Inadequate availability of Personal Protection Equipments in AIIMS during COVID-19 Pandemic

Respected Sir,

This is to bring to your kind attention that yesterday i.e. March 15, 2020; at 2300 Hrs, a team of RDA Executives inspected various wards to check the supply of PPE (Personal Protective Equipments) in this crucial time of COVID-19 Pandemic and sadly found that most of the wards do not have adequate universal precaution components. We request the Administration to take prompt action to ensure PPE availability round the clock for the safety of Doctors and Nursing staff in order to continue providing our selfless services to our patients.

We also request you to consider RDA to be the stakeholder in the Coronavirus Action Team in planning and implementing the policy to contain and manage the COVID-19 outbreak. This will also facilitate communication between the Residents and Administration to better handle the situation.

The data table attached herewith showing the status of availability of PPE is compiled by taking first hand information and verifying

♡ 38 7:22 PM - Mar 16, 2020

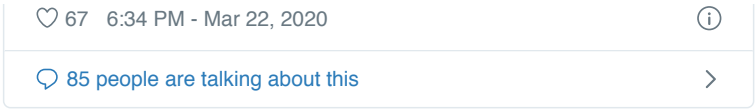
28 people are talking about this

In Jammu's Udhampur, Balvinder Singh, president of the doctor's association, was transferred for demanding that the government arrange masks and hand sanitisers for government hospital workers.

"For a week, we didn't get any mask or sanitiser and we're attending to patients without them. When we go to the medical superintendent to demand masks, we're told that they don't have masks and we must attend to patients without masks," said Singh in a video he shared after getting transferred.

Dr.Dushyant Sisodiya
@dushyant5162

No N95 masks for Drs and Sisters in Emergency in GTB hospital. And no proper PPE.@ArvindKejriwal @narendramodi @AmitShah @MoHFW_INDIA @satyendrajain @aajtak @ZeeNews @indiatv @ndtv



In the past few days, doctors and other health workers across the country took to social media to register their concern about the availability of protective gear.

"...In my hospital, we have to try really hard to find even a basic mask to wear; other stuff like gloves and sanitisers are nowhere to be found," wrote one intern in Maharashtra's government hospital.

> Pathetic situation, Healthcare workers in Assam Medical College are forced to cover themselves with plastic bags which are used to carry biomedical waste bcz of lack of personal protection equipments. Can PM @narendramodi take this issue seriously & provide #PPEsBeforeApplause pic.twitter.com/fMWsKXJIh4
>
> — Harjit Singh Bhatti (@DrHarjitBhatti) March 23, 2020

Another government doctor wrote on Twitter demanding better strategy.

"I don't want your claps. I want your genuine and wholehearted effort in ensuring my wellbeing. I want personal protective equipment," she wrote.

More than 4,800 healthcare workers in Italy have tested positive for the coronavirus and at least 18 doctors treating patients have died since March 11.

In Iran, 170 health workers have been reported to have tested positive. However, Iran has been accused of hiding information on the toll the pandemic is taking on healthcare professionals.

Tags

Healthcare Sector | Coronavirus | World Health Organization (WHO)

Tube test relief for ATCs
India

Congress slams personal protection equipment exports
India

Corona no bar for coronation
India

Coronavirus crisis: Doctor 'suicide-squad' parallel
India

World Health Organization

Shortage of personal protective equipment endangering health workers worldwide

3 March 2020 | News release | Geneva

WHO calls on industry and governments to increase manufacturing by 40 per cent to meet rising global demand

The World Health Organization has warned that severe and mounting disruption to the global supply of personal protective equipment (PPE) – caused by rising demand, panic buying, hoarding and misuse – is putting lives at risk from the new coronavirus and other infectious diseases.

Healthcare workers rely on personal protective equipment to protect themselves and their patients from being infected and infecting others.

But shortages are leaving doctors, nurses and other frontline workers dangerously ill-equipped to care for COVID-19 patients, due to limited access to supplies such as gloves, medical masks, respirators, goggles, face shields, gowns, and aprons.

“Without secure supply chains, the risk to healthcare workers around the world is real. Industry and governments must act quickly to boost supply, ease export restrictions and put measures in place to stop speculation and hoarding. We can’t stop COVID-19 without protecting health workers first,” said WHO Director-General Dr Tedros Adhanom Ghebreyesus.

Since the start of the COVID-19 outbreak, prices have surged. Surgical masks have seen a sixfold increase, N95 respirators have trebled and gowns have doubled.

Supplies can take months to deliver and market manipulation is widespread, with stocks frequently sold to the highest bidder.

WHO has so far shipped nearly half a million sets of personal protective equipment to 47 countries,* but supplies are rapidly depleting.

Based on WHO modelling, an estimated 89 million medical masks are required for the COVID-19 response each month. For examination gloves, that figure goes up to 76 million, while international demand for goggles stands at 1.6 million per month.

Recent WHO guidance calls for the rational and appropriate use of PPE in healthcare settings, and the effective management of supply chains.

WHO is working with governments, industry and the Pandemic Supply Chain Network to boost production and secure allocations for critically affected and at-risk countries.

To meet rising global demand, WHO estimates that industry must increase manufacturing by 40 per cent.

Governments should develop incentives for industry to ramp up production. This includes easing restrictions on the export and distribution of personal protective equipment and other medical supplies.

Every day, WHO is providing guidance, supporting secure supply chains, and delivering critical equipment to countries in need.

***

NOTE TO EDITORS

Since the start of the COVID-19 outbreak, countries that have received WHO PPE supplies include:

- **Western Pacific region: Cambodia, Fiji, Kiribati, Lao People's Democratic Republic, Mongolia, Nauru, Papua New Guinea, Samoa, Solomon Islands, Tonga, Vanuatu and the Philippines**
- **Southeast Asia region: Bangladesh, Bhutan, Maldives, Myanmar, Nepal and Timor-Leste**
- **Eastern Mediteranean region: Afghanistan, Djibouti, Lebanon, Somalia, Pakistan, Sudan, Jordan, Morocco and Iran**
- **Africa region: Senegal, Algeria, Ethiopia, Togo, Ivory Coast, Mauritius, Nigeria, Uganda, Tanzania, Angola, Ghana, Kenya, Zambia, Equatorial Guinea, Gambia, Madagascar, Mauritania, Mozambique, Seychelles and Zimbabwe**

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Rational use of personal protective equipment (PPE) for coronavirus disease (COVID-19) 67

Interim guidance
19 March 2020

World Health Organization

Background

This document summarizes WHO's recommendations for the rational use of personal protective equipment (PPE) in health care and community settings, as well as during the handling of cargo; in this context, PPE includes gloves, medical masks, goggles or a face shield, and gowns, as well as for specific procedures, respirators (i.e. N95 or FFP2 standard or equivalent) and aprons. It is intended for those involved in distributing and managing PPE, as well as public health authorities and individuals in health care and community settings, and it provides information about when PPE use is most appropriate.

WHO will continue update these recommendations as new information becomes available.

Preventive measures for COVID-19 disease

Based on the available evidence, the COVID-19 virus is transmitted between people through close contact and droplets, not by airborne transmission. The people most at risk of infection are those who are in close contact with a COVID-19 patient or who care for COVID-19 patients.

Preventive and mitigation measures are key. The most effective preventive measures in the community include:

- performing hand hygiene frequently with an alcohol-based hand rub if your hands are not visibly dirty or with soap and water if hands are dirty;
- avoiding touching your eyes, nose, and mouth;
- practicing respiratory hygiene by coughing or sneezing into a bent elbow or tissue and then immediately disposing of the tissue;
- wearing a medical mask if you have respiratory symptoms and performing hand hygiene after disposing of the mask;
- maintaining social distance (a minimum of 1 metre) from persons with respiratory symptoms.

Additional precautions are required by health care workers to protect themselves and prevent transmission in the healthcare setting. Precautions to be implemented by health care workers caring for patients with COVID-19 include using PPE appropriately; this involves selecting proper PPE and being trained in how to put on, remove, and dispose of it.

PPE is only one effective measure within a package of administrative and environmental and engineering controls, as described in WHO's Infection prevention and control of epidemic- and pandemic-prone acute respiratory infections in health care.[1] These controls are summarized here.

- **Administrative controls** include ensuring resources for infection prevention and control (IPC) measures, such as appropriate infrastructure, the development of clear IPC policies, facilitated access to laboratory testing, appropriate triage and placement of patients, adequate staff-to-patient ratios, and training of staff.
- **Environmental and engineering controls** aim at reducing the spread of pathogens and the contamination of surfaces and inanimate objects. They include providing adequate space to allow social distance of at least 1 m to be maintained between patients and between patients and health care workers and ensuring the availability of well-ventilated isolation rooms for patients with suspected or confirmed COVID-19.

COVID-19 is a respiratory disease that is different from Ebola virus disease (EVD), which is transmitted through infected bodily fluids. Because of these differences in transmission, the PPE requirements for COVID-19 are different from those required for EVD. Specifically, coveralls (sometimes called Ebola PPE) are not required when managing COVID-19 patients.

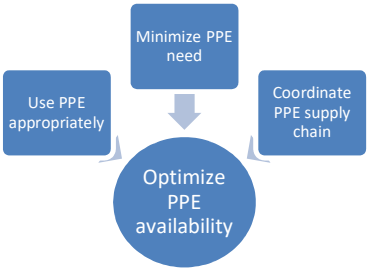
Disruptions in the global supply chain of PPE

The current global stockpile of PPE is insufficient, particularly for medical masks and respirators; the supply of gowns and goggles is soon expected to be insufficient also. Surging global demand − driven not only by the number of COVID-19 cases but also by misinformation, panic buying, and stockpiling − will result in further shortages of PPE globally. The capacity to expand PPE production is limited, and the current demand for respirators and masks cannot be met, especially if widespread inappropriate use of PPE continues.

Recommendations for optimizing the availability of PPE

In view of the global PPE shortage, the following strategies can facilitate optimal PPE availability (Figure 1).

Figure 1. Strategies to optimize the availability of personal protective equipment (PPE)



1. Minimize the need for PPE

The following interventions can minimize the need for PPE while protecting health care workers and others from exposure to the COVID-19 virus in health care settings.

- Consider using telemedicine to evaluate suspected cases of COVID-19[2], thus minimizing the need for these persons to go to health care facilities for evaluation.
- Use physical barriers to reduce exposure to the COVID-19 virus, such as glass or plastic windows. This approach can be implemented in areas of the health care setting where patients will first present, such as triage areas, the registration desk at the emergency department, or at the pharmacy window where medication is collected.
- Restrict health care workers from entering the rooms of COVID-19 patients if they are not involved in direct care. Consider bundling activities to minimize the number of times a room is entered (e.g. check vital signs during medication administration or have food delivered by health care workers while they are performing other care) and plan which activities will be performed at the bedside.

Ideally, visitors will not be allowed but if this is not possible, restrict the number of visitors to areas where COVID-19 patients are being isolated; restrict the amount of time visitors are allowed to spend in the area; and provide clear instructions about how to put on and remove PPE and perform hand hygiene to ensure that visitors avoid self-contamination.

2. Ensure PPE use is rational 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, droplet or aerosol). The overuse of PPE will have a further impact on supply shortages. Observing the following recommendations will ensure rational use of PPE.

- The type of PPE used when caring for COVID-19 patients will vary according to the setting and type of personnel and activity (Table 1).
- Health care workers involved in the direct care of patients should use the following PPE: gowns, gloves, medical mask, and eye protection (goggles or face shield).
- Specifically, for aerosol-generating procedures (e.g. tracheal intubation, non-invasive ventilation, tracheostomy, cardiopulmonary resuscitation, manual ventilation before intubation, bronchoscopy) health care workers should use respirators, eye protection, gloves and gowns; aprons should also be used if gowns are not fluid resistant.[1]
- Respirators (e.g. N95, FFP2 or equivalent standard) have been used for an extended time during previous public health emergencies involving acute respiratory illness when PPE was in short supply.[3] This refers to wearing the same respirator while caring for multiple patients who have the same diagnosis without removing it, and evidence indicates that respirators maintain their protection when used for extended periods. However, using one respirator for longer than 4 hours can lead to discomfort and should be avoided.[4-6]
- Among the general public, persons with respiratory symptoms or those caring for COVID-19 patients at home should receive medical masks. For additional information, see Home care for patients with COVID-19 presenting with mild symptoms and management of their contacts.[7]
- For persons without symptoms, wearing a mask of any type is not recommended. Wearing medical masks when they are not indicated may cause unnecessary cost and a procurement burden and create a false sense of security that can lead to the neglect of other essential preventive measures. For additional information, see Advice on the use of masks in the community, during home care, and in health care settings in the context of COVID-19.[8]

3. Coordinate PPE supply chain management mechanisms.

The management of PPE should be coordinated through essential national and international supply chain management mechanisms that include but are not restricted to:

- Using PPE forecasts based on rational quantification models to ensure the rationalization of requested supplies;
- Monitoring and controlling PPE requests from countries and large responders;
- Promoting a centralized request management approach to avoid duplication of stock and ensuring strict adherence to essential stock management rules to limit wastage, overstock, and stock ruptures;
- Monitoring the end-to-end distribution of PPE;
- Monitoring and controlling the distribution of PPE from medical facilities stores.

Handling cargo from affected countries

The rationalized use and distribution of PPE when handling cargo from and to countries affected by the COVID-19 outbreak includes following these recommendations.

- Wearing a mask of any type is not recommended when handling cargo from an affected country.
- Gloves are not required unless they are used for protection against mechanical hazards, such as when manipulating rough surfaces.
- Importantly, the use of gloves does not replace the need for appropriate hand hygiene, which should be performed frequently, as described above.
- When disinfecting supplies or pallets, no additional PPE is required beyond what is routinely recommended. To date, there is no epidemiological information to suggest that contact with goods or products shipped from countries affected by the COVID-19 outbreak have been the source of COVID-19 disease in humans. WHO will continue to closely monitor the evolution of the COVID-19 outbreak and will update recommendations as needed.

Table 1. Recommended personal PPE during the outbreak of COVID-19 outbreak, according to the setting, personnel, and type of activity[a]

Setting	Target personnel or patients	Activity	Type of PPE or procedure
Health care facilities			
Inpatient facilities			
Patient room	Health care workers	Providing direct care to COVID-19 patients	Medical mask Gown Gloves Eye protection (goggles or face shield)
		Aerosol-generating procedures performed on COVID-19 patients	Respirator N95 or FFP2 standard, or equivalent. Gown Gloves Eye protection Apron
	Cleaners	Entering the room of COVID-19 patients	Medical mask Gown Heavy duty gloves Eye protection (if risk of splash from organic material or chemicals) Boots or closed work shoes
	Visitors[b]	Entering the room of a COVID-19 patient	Medical mask Gown Gloves
Other areas of patient transit (e.g. wards, corridors).	All staff, including health care workers.	Any activity that does not involve contact with COVID-19 patients	No PPE required
Triage	Health care workers	Preliminary screening not involving direct contact[c].	Maintain spatial distance of at least 1 metre. No PPE required
	Patients with respiratory symptoms	Any	Maintain spatial distance of at least 1 metre. Provide medical mask if tolerated by patient.
	Patients without respiratory symptoms	Any	No PPE required
Laboratory	Lab technician	Manipulation of respiratory samples	Medical mask Gown Gloves Eye protection (if risk of splash)
Administrative areas	All staff, including health care workers.	Administrative tasks that do not involve contact with COVID-19 patients.	No PPE required

Outpatient facilities			
Consultation room	Health care workers	Physical examination of patient with respiratory symptoms	Medical mask Gown Gloves Eye protection
	Health care workers	Physical examination of patients without respiratory symptoms	PPE according to standard precautions and risk assessment.
	Patients with respiratory symptoms	Any	Provide medical mask if tolerated.
	Patients without respiratory symptoms	Any	No PPE required
	Cleaners	After and between consultations with patients with respiratory symptoms.	Medical mask Gown Heavy duty gloves Eye protection (if risk of splash from organic material or chemicals). Boots or closed work shoes
Waiting room	Patients with respiratory symptoms	Any	Provide medical mask if tolerated. Immediately move the patient to an isolation room or separate area away from others; if this is not feasible, ensure spatial distance of at least 1 metre from other patients.
	Patients without respiratory symptoms	Any	No PPE required
Administrative areas	All staff, including health care workers	Administrative tasks	No PPE required
Triage	Health care workers	Preliminary screening not involving direct contact[c].	Maintain spatial distance of at least 1 metre. No PPE required
	Patients with respiratory symptoms	Any	Maintain spatial distance of at least 1 metre. Provide medical mask if tolerated.
	Patients without respiratory symptoms	Any	No PPE required
Community			
Home	Patients with respiratory symptoms	Any	Maintain spatial distance of at least 1 metre. Provide medical mask if tolerated, except when sleeping.
	Caregiver	Entering the patient's room, but not providing direct care or assistance	Medical mask
	Caregiver	Providing direct care or when handling stool, urine, or waste from COVID-19 patient being cared for at home	Gloves Medical mask Apron (if risk of splash)
	Health care workers	Providing direct care or assistance to a COVID-19 patient at home	Medical mask Gown Gloves Eye protection
Public areas (e.g. schools, shopping malls, train stations).	Individuals without respiratory symptoms	Any	No PPE required

Points of entry			
Administrative areas	All staff	Any	No PPE required
Screening area	Staff	First screening (temperature measurement) not involving direct contact[c].	Maintain spatial distance of at least 1 metre. No PPE required
	Staff	Second screening (i.e. interviewing passengers with fever for clinical symptoms suggestive of COVID-19 disease and travel history)	Medical mask Gloves
	Cleaners	Cleaning the area where passengers with fever are being screened	Medical mask Gown Heavy duty gloves Eye protection (if risk of splash from organic material or chemicals). Boots or closed work shoes
Temporary isolation area	Staff	Entering the isolation area, but not providing direct assistance	Maintain spatial distance of at least 1 metre. Medical mask Gloves
	Staff, health care workers	Assisting passenger being transported to a health care facility	Medical mask Gown Gloves Eye protection
	Cleaners	Cleaning isolation area	Medical mask Gown Heavy duty gloves Eye protection (if risk of splash from organic material or chemicals). Boots or closed work shoes
Ambulance or transfer vehicle	Health care workers	Transporting suspected COVID-19 patients to the referral health care facility	Medical mask Gowns Gloves Eye protection
	Driver	Involved only in driving the patient with suspected COVID-19 disease and the driver's compartment is separated from the COVID-19 patient	Maintain spatial distance of at least 1 metre. No PPE required
		Assisting with loading or unloading patient with suspected COVID-19	Medical mask Gowns Gloves Eye protection
		No direct contact with patient with suspected COVID-19, but no separation between driver's and patient's compartments	Medical mask
	Patient with suspected COVID-19.	Transport to the referral health care facility.	Medical mask if tolerated
	Cleaners	Cleaning after and between transport of patients with suspected COVID-19 to the referral health care facility.	Medical mask Gown Heavy duty gloves Eye protection (if risk of splash from organic material or chemicals). Boots or closed work shoes

Special considerations for rapid-response teams assisting with public health investigations[d]			
Community			
Anywhere	Rapid-response team investigators	Interview suspected or confirmed COVID-19 patients or their contacts.	No PPE if done remotely (e.g. by telephone or video conference). Remote interview is the preferred method.
		In-person interview of suspected or confirmed COVID-19 patients without direct contact	Medical mask Maintain spatial distance of at least 1 metre. The interview should be conducted outside the house or outdoors, and confirmed or suspected COVID-19 patients should wear a medical mask if tolerated.
		In-person interview with asymptomatic contacts of COVID-19 patients	Maintain spatial distance of at least 1 metre. No PPE required The interview should be performed outside the house or outdoors. If it is necessary to enter the household environment, use a thermal imaging camera to confirm that the individual does not have a fever, maintain spatial distance of at least 1 metre and do not touch anything in the household environment.

[a] In addition to using the appropriate PPE, frequent hand hygiene and respiratory hygiene should always be performed. PPE should be discarded in an appropriate waste container after use, and hand hygiene should be performed before putting on and after taking off PPE.

[b] The number of visitors should be restricted. If visitors must enter a COVID-19 patient's room, they should be provided with clear instructions about how to put on and remove PPE and about performing hand hygiene before putting on and after removing PPE; this should be supervised by a health care worker.

[c] This category includes the use of no-touch thermometers, thermal imaging cameras, and limited observation and questioning, all while maintaining a spatial distance of at least 1 m.

[d] All rapid-response team members must be trained in performing hand hygiene and how to put on and remove PPE to avoid self-contamination.

For PPE specifications, refer to WHO's disease commodity package.

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WHO continues to monitor the situation closely for any changes that may affect this interim guidance. Should any factors change, WHO will issue a further update. Otherwise, this interim guidance document will expire 2 years after the date of publication.

WHO reference number: WHO/2019-nCoV/IPC PPE_use/2020.2

'Everyone is scared to speak up': A&E doctor asks for Covid-19 tests

Nishant Joshi urges frontline workers to highlight lack of protective equipment and risks of no testing

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- **All our coronavirus coverage**

Carole Cadwalladr

@carolecadwalla

Mon 16 Mar 2020 19.38 GMTFirst published on Mon 16 Mar 2020 19.25 GMT

Play Video
1:38
‘Coronavirus has hospitals on a war footing’: A&E doctor calls for urgent help – video

An A&E doctor has urged other frontline healthcare workers to speak up about the risks they are facing from lack of adequate protective equipment and the government’s decision to not test even symptomatic NHS workers.

Nishant Joshi, who works at Luton and Dunstable general hospital, said “everyone is scared to speak up publicly” but he wanted to highlight the government’s “chaotic” guidelines for healthcare workers on the front line of the crisis.

Chief among them, he said, was the total lack of protective clothing for doctors and nurses. As a doctor in A&E, he had volunteered to treat patients with suspected Covid-19, and had been doing so in a full protective suit. But now he said, staff had only the “bare basics”. He was at pains to point out this was not the fault of the hospital management but government policy.

“I’m treating patients who are perhaps presenting for a broken ankle and they suddenly start coughing all over you. You’re breathing in an aerosol spray of droplets and we’re not even wearing a mask – just scrubs and a plastic apron.”

He said that he had escalated his concerns to hospital management and they were doing their best to address them, but he added: “So many of my friends are doctors, nurses and healthcare workers on the frontline. We are all prepared to do that. But it’s not

going to just be a question of sacrificing ourselves, it's the risk we pose to everyone we come into contact with which includes some of the most vulnerable people in Britain?

"And what happens to the healthcare system if we all get ill? Everyone is scared to speak up publicly, and it's possible I could lose my job for doing so, but it's like the moment in the disaster movie when the tide has gone out and everyone is saying, 'Oh let's go to the beach', and you're jumping up and down saying, 'No, run for the hills."

Joshi said his wife, who is also a doctor at another UK hospital and is pregnant, was exposed to a patient who was subsequently confirmed to have the virus. "But she can't get tested. This patient had been on an open ward for a whole day. How many nurses and healthcare assistants were exposed? But the strategy is now not to test. The only guidance is to see if you develop symptoms and then self-isolate for seven days.

"And then you're supposed to return to work on the eighth day but without even knowing if you've had it or not or if there's still a risk you might infect others. And how is the government even going to track it if it doesn't have figures?"

Nearly 1 in 10 of Italy's infected are health care workers

From CNN’s Livia Borghese, Valentina Di Donato, Nicola Ruotolo and John Fiegener in Rome.

A medical worker tends to a patient in a hospital in Lombardy.

A total of 4,826 health care workers in Italy have been infected by the novel coronavirus, according to the latest information Sunday from Italy’s National Health Institute (ISS).

That means some 9% of those infected nationwide by Covid-19 are health care workers.

Italy's National Federation of Surgeons and Dentists is publishing a record of doctors who have contracted and died of Covid-19 since the start of the outbreak. It lists 18 doctors who have passed away since March 11; of those, 15 are from Lombardy, the hardest-hit region and the epicenter of Italy's outbreak.

It is unclear if each of the doctors listed was directly battling the coronavirus outbreak and treating the infected.

Among those doctors who have died is Marcello Natali, 57, who died on March 18, according to the federation website.

Natali, as reported by local media, had been a vocal critic of the initial Italian government response to the outbreak, and also sounded the alarm on the dearth of medical supplies.

Also among the doctors who have died is Francesco Foltrani, 67, who died on March 19. The federation says Foltrani had in-person contact with a local retirement home where many of the elderly residents were known to have contracted coronavirus.

By the numbers: There are approximately 53,578 confirmed coronavirus cases in Italy, according to the Johns Hopkins University & Medicine Coronavirus Resource Center.

FEATURE

'Terrified' Healthcare Workers Fear Lack of Protection Against COVID-19

"You wouldn't send a soldier into war without a gun or body armor," one doctor says. Hard-hit areas offer some tips.

By **Todd Neale** *March 20, 2020*

As COVID-19 sweeps across the globe, doctors and other healthcare workers are witnessing limited availability of personal protective equipment (PPE), particularly appropriate masks, and being confronted by difficult situations that pit their desire to remain safe against their duty to help patients.

In the United Kingdom, for example, doctors in some cases are performing invasive procedures on patients positive for COVID-19 despite the fact that

"That's a situation where the patient's in extremis, you need to act quickly. Ideally you have the equipment, but it's not there so you need to proceed. This is happening," Asif Qasim, MBBChir, PhD (King's College Hospital, London, England), founder and CEO of MedShr, told TCTMD.

That situation is not unique. There are reports from around the world that healthcare workers aren't receiving the equipment they need as they toil away on the front lines of the fight against COVID-19. For a period of time on Thursday, #PPEshortage trended on Twitter.

The potential consequences are clear. There is the personal health risk—highlighted by the death of a doctor from COVID-19 in hard-hit Italy after he had to work without gloves due to a shortage—that gets inflated into a public health danger if enough doctors, nurses, and other healthcare workers get sick and are unable to come into work to care for growing numbers of infected patients. In that case, the system would get overwhelmed.

"If we can't protect our healthcare workers, they can't protect the public," C. Michael Gibson, MD (Baim Institute for Clinical Research, Boston, MA), told TCTMD. "This is really reaching a crisis point."

Gibson put up a couple of Twitter polls to get a sense of what's happening on the ground. In one asking whether hospitals are rationing masks, nearly one-third of respondents said they didn't have any masks and 40% said they had only one mask per day. Gibson said some healthcare workers have told him they have access to only one mask for every COVID-19 patient, "so different people would be asked to share the same mask."

Governments seem to be hearing the concerns, having announced measures meant to address supply issues. In the United States, for instance, Vice President Mike Pence, who heads the coronavirus task force, this week asked construction companies to donate their N95 masks to local hospitals and stop ordering more for right now. He also announced that, through legislation, liability protection has been extended to manufacturers of N95 masks so more can be sold to hospitals, and that companies are ramping up production to meet the needs of healthcare workers.

That's good news, "but the issue is that we need the masks today," Gibson said, cautioning that "if we quarantine cities and we tell people to shelter in place, we may see disruption of supply chains, and the next issue will be how do you get masks that are available from someone like 3M to the hospitals."

The concern among healthcare workers, at least in the UK, "stems, to start with, from having seen what's happened in China and South Korea and Italy, and consistently seeing people there wearing what look like hazmat suits with full respirators for most of their patient contact," Qasim said. He acknowledged that he's not an expert on personal protective clothing, but said, "I think our expectation was that because we saw this coming we'd get similar protection."

> **"If we can't protect our healthcare workers, they can't protect the public."**
>
> **C. MICHAEL GIBSON**

Another element of concern comes from "a feeling that the guidance coming from the [UK National Health Service] is pragmatic guidance based on the availability of equipment, to be frank. So I think there's a perfect answer as to what should happen and then there's a pragmatic solution," he added, saying that N95 supplies, use of fit testing, and recommendations regarding PPE vary across hospitals.

And there appears to be good reason to be concerned. A study of 138 patients hospitalized with COVID-19 in Wuhan, China, where the novel coronavirus SARS-CoV-2 is believed to have originated, showed that 29% were health professionals.

Harriette Van Spall, MD (Population Health Research Institute, Hamilton, Canada), also noted that guidance on which healthcare workers should be wearing the most-protective N95 masks and when differs depending on where you look. There are situations in which personnel are not recommended to wear masks during encounters with patients who are asymptomatic. The problem with that is that SARS-CoV-2 can be transmitted in the absence of symptoms, which would suggest healthcare workers should be protected at all times.

"If the health and safety of the workers was the primary concern, these masks would be recommended for all exposures, but you can see how there's variation, and a lot of the variation is driven by the lack of supply rather than by the science," Van Spall said.

The relative lack of testing that has been done in the US compounds these concerns, Jason Wasfy, MD (Massachusetts General Hospital, Boston), told TCTMD. Clinicians should be assuming that everyone they encounter is

Workplace Safety Issue

Van Spall called this a workplace safety issue. "No other profession is exposed to risk without their workplaces providing safe equipment," she said. "You think of firefighters and military and police. None of them would be expected to purchase their own equipment. But increasingly we're seeing shortages that force healthcare professionals to purchase protective equipment for themselves." She noted that the masks available on the retail market, though they may be N95s, might not be up to industry standards.

Proper protection with masks also requires fit testing, which has proven challenging to get in many organizations, Van Spall said.

> **"Knowing that your people are going in and risking themselves and not giving them the protection they need—there's an inherent ethical concern about it."**
>
> **HARRIETTE VAN SPALL**

There are multiple reasons health systems should be making sure their workers have adequate protection. "Strategically institutions should ensure that their workforce is safe not only to maintain a supply of workforce but also to make sure that they're not increasing their risk of nosocomial spread, and by that mechanism increasing the risk of community spread," Van Spall said.

Underscoring a major problem with the shortage of PPE and the variations in recommendations, she noted that in China, where healthcare workers now have extensive experience with managing COVID-19, standards for protective gear have evolved to include head-to-toe protection because clinicians wearing N95 masks were getting infected.

This raises red flags, Van Spall said. "Knowing that your people are going in and risking themselves and not giving them the protection they need–there's an inherent ethical concern about it."

In some cases, the ethical issues may be more overt, with some physicians on social media saying that they've been warned by hospital leaders about wearing surgical masks in the hospital because of the possibility of causing panic.

With the shortage of appropriate masks, healthcare workers have had to come up some work-arounds, including buying their own masks (when they can find them) from hardware stores. Guidance from the Centers for Disease Control and Prevention (CDC) on strategies to optimize the supply of facemasks even includes a recommendation to consider using scarves or bandanas as a last resort. "However, homemade masks are not considered PPE, since their capability to protect healthcare personnel is unknown," the CDC states. "Caution should be exercised when considering this option. Homemade masks should ideally be used in combination with a face shield that covers the entire front (that extends to the chin or below) and sides of the face."

Gibson cited research looking at the types of materials that provide the greatest ability to filter particles—two layers of a dish towel and a vacuum cleaner filter performed well. Filtration is just one aspect of an effective mask, however, and these types of jury-rigged masks did not fare as well as a standard surgical mask in fit tests assessing the capability of preventing particles from getting in around the edges of the mask.

"So if you do have to resort to a homemade approach, you probably better tape it up around the edges so that particles can't get in that way," Gibson said. He wouldn't speculate on whether the situation will eventually require those types of solutions, but he reiterated that many healthcare workers have reported not having any masks at all.

Due to the shortages, healthcare workers have taken to reusing equipment that would typically be tossed after each use, and in the setting of such uncertainty, have generally opted for less-protective options like standard surgical masks. "In general, in medicine, when there's uncertainty about whether something's safe, you go for the safer thing, but that's not possible because of these shortages," Wasfy said.

Van Spall said that some workers have gone online to educate themselves about the best ways to get in and out of protective equipment that they have available to them and buying masks for themselves when they can. "There's a large element of having to think about your own protection and getting the knowledge, skill set, and supply in order to do that," she said.

Mental Strain

The shortage of appropriate PPE is certainly taking a toll on the mental well-being of frontline healthcare workers, with widespread reports of fear, sleepless nights, and families concerned for their loved ones who are exposing themselves to the risks of COVID-19 every day.

spread and an insufficient supply of PPE. The inherent conflict between the desire to preserve protective equipment for clinicians who treat the highest-risk patients and the desire to protect oneself from possible infection transmitted by an asymptomatic patient causes anxiety, she explained.

Qasim cited the increasing numbers of COVID-19 cases and related deaths as a source of stress for healthcare workers. While some countries seem to be getting the situation under control, Italy remains in a bad place and the UK seems to be heading in that direction, he said. "We don't have enough equipment now and in some ways it feels like this is just beginning."

The degree of mental strain is great, Qasim indicated.

"I've been a doctor for over 20 years. It's the first time I've heard my peers across multiple specialties say that they're terrified," he said. "Tough, hard-working, resilient, skilled doctors across multiple acute and invasive specialties using that same word, terrified, because what they know is that they are going to encounter positive patients, that there's a significant chance that not only will they get infected but they might get a significant viral load from it. And if they get infected, there's a significant chance that they'll need respiratory support or intensive care. The outcome from patients who undergo ventilation is very poor in this condition."

So What Can Be Done?

Over the next several days, while healthcare workers await the promised supply of masks, donated masks bought up by the panic-shopping public or from construction companies may bridge the gap between need and supply, Gibson said.

Qasim said that in the UK and US in particular, the community must press to make sure that all healthcare workers get the proper PPE. "That means making sure that the supply chain's intact, making sure that manufacturing is increased, making sure that distribution is good, and doing it rapidly," he said. "You wouldn't send a soldier into war without a gun or body armor or a helmet."

In the bigger picture, Gibson said, "we've got to reduce the surge of cases" through social distancing. And then other measures, in addition to protecting healthcare workers directly with appropriate PPE, may include creating specialized COVID-19 hospitals—as was recently done with Carney Hospital in Boston—to isolate affected patients, concentrate resources, and contain the spread of the virus.

> **In general, in medicine, when there's uncertainty about whether something's safe, you go for the safer thing, but that's not possible because of these shortages.**
>
> **JASON WASFY**

hospital, the largest in Korea, implemented strict infection control practices that allowed for more selective use of N95 masks. People with recent travel to a high-risk geographical area; those who had received a text message warning of close contact with a COVID-19-positive case; those who had visited any location also visited by a known COVID-19 patient; and those with fever or respiratory symptoms were not allowed access. For that reason, N95 masks were generally reserved for clinicians working in the emergency room or selective triage centers; healthcare workers in other hospital areas made do with dental masks.

A shortage of N95 masks—and comparable KF94 masks used in public—was still seen in South Korea, but these measures, along with social distancing techniques and widespread testing employed nationwide, mitigated the impact, Park explained. The lack of N95 masks could be more problematic in hospital systems with less-strict screening for COVID-19, he added.

Van Spall cited a number of measures that don't involve PPE, but instead processes of care, that could better protect healthcare workers. Those include isolating COVID-19 patients in different units and locations within hospitals; confining physicians to certain locations within hospital systems; having different entry and exit points for clinicians and patients to reduce cross-infection rates; excluding visitors and clinicians who are not required to be at the hospital; using telemedicine more effectively; deploying home care resources; and employing a community hub for screening and detection.

Italian hospitals also implemented separate emergency rooms for COVID-19 intake and other emergency visits.

"Things that prevent the congregation of patients, visitors, and healthcare providers at the highly dense hospitals I think can reduce the overall burden of infection, can prevent acquiring new infection, and in that process, can reduce the demand for some of these supplies," Van Spall said.

bit of an advantage during the current situation. MERS-CoV led to the implementation of various pathways and protocols that involve such strategies as isolating affected patients, using separate healthcare teams to care for infected patients, and having contingency plans in place. Those efforts can help ease any strain on the supplies of PPE and other types of equipment, she indicated.

"It's a whole process," Alasnag told TCTMD. "You have to make sure everybody's up to speed, knows when they need to use this protective equipment, when to call for it, what the pathway is, what to do if a patient is negative, if a patient is suspicious, if a patient is positive, and who you need to call to get the protective equipment and masks."

'People Are Stepping Up'

Qasim pointed out that even though doctors and nurses have difficult jobs every day, most don't put themselves at extreme risk during a normal practice day.

> **"It's not normal for the vast majority of doctors and nurses to get up in the morning, go to work, and know that they're facing a significant health risk by doing it."**
>
> **ASIF QASIM**

"This is not business as usual. It's not normal for the vast majority of doctors and nurses to get up in the morning, go to work, and know that they're facing a significant health risk by doing it," he said, noting that many doctors who have either left practice or retired are now coming back to help out during the pandemic.

"People are stepping up and they're doing what's required, and I think it's evidence of the commitment and loyalty that people have to one another as clinicians and to their patients," he added. "It's an extraordinary thing to see."

Van Spall also touched on the sacrifice healthcare workers are being asked to make during this chaotic and dangerous time, often in the absence of appropriate protective gear. Safety for those on the front lines of the pandemic translates into benefits for society at large, she pointed out.

because one person down in this kind of setting means that several others will follow . . . . So it's a matter of protecting a few for exponential gain. It's a strategic investment, and there needs to be an emphasis on it to decrease the burden of this infection on society."

COVID-19: Who's Protecting the Protectors?

Diana Swift

March 11, 2020

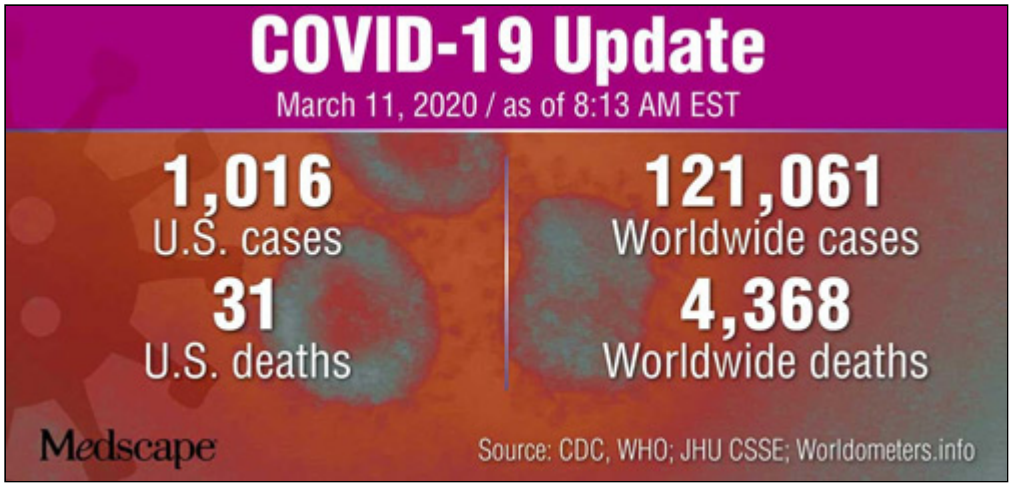
Editor's note: Find the latest COVID-19 news and guidance in Medscape's Coronavirus Resource Center.

When the severe acute respiratory syndrome (SARS) struck in 2003 - 2004, approximately 20% of infections overall occurred in frontline healthcare workers. In Greater Toronto, the North American epicenter of the outbreak, that number more than doubled, to 43%, and two nurses and a physician died.

That represented a double blow: for the infected professionals themselves and for the patients whose care suffered while the essential services of the recovering professionals were rationed. And now, the memory of those statistics hangs like a specter over medical staff battling SARS's new sister virus, SARS-CoV-2, the contagion that causes COVID-19.

"We can't stop COVID-19 without protecting our health workers," Tedros Adhanom Ghebreyesus, director-general of the World health Organization, said at a recent media briefing.

But with the United States bracing for exponential increases in confirmed cases — as of March 11 they totaled at least 1016 across 38 jurisdictions with 31 deaths — and moving from containment to mitigation, healthcare workers doubt enough is being done to protect them and ensure continuity of patient care in already stressed medical centers.



For one thing, as the outbreak disrupts global supply chains, some US facilities are reporting shortages of personal protective equipment (PPE) such as masks, goggles, respirator helmets, gloves, and gowns, according to a report in The *Seattle Times.* Employees are being asked to ration stock.

"Time to Step Up"

Doubts about adequate safety measures are top of mind among registered nurses in New York state, where poor access to PPE, scant training in equipment use and protocols, and improper assessment and triage of patients are being reported by the nurses association.

In a recent nationwide survey of 6500 members by the union National Nurses United (NNU), only 30% of respondents said their employers had sufficient PPE in stock to safeguard staff against a sudden COVID-19 spike. Just 44% said employers had trained them in recognizing and responding to suspected cases.

"Nurses are confident we can care for COVID-19 patients, and even help stop the spread of this virus, if we are given the protections and resources we need to do our jobs," said Bonnie Castillo, RN, executive director of the NNU and the California Nurses Association at a March 5 press conference. "This is not the time to relax our approach or weaken existing state or federal regulations. This is the time to step up all of our efforts."

Sensing a vacuum at the top, the union has petitioned the Occupational Safety and Health Administration (OSHA), calling for sweeping safeguards, including employer education for healthcare workers and maximum protections such as negative pressure rooms and adequate gear.

"Employers shall plan for surges of patients with possible or confirmed COVID-19, including plans to isolate, cohort, and to provide safe staffing," an NNU statement said, recommending that exposed healthcare workers should be given a minimum 14-day precautionary leave with full pay and benefits.

The NNU also cited the troubling case of one symptomatic Northern California Kaiser Permanente nurse who complained of being initially refused testing by the Centers for Disease Control and Prevention on the grounds that she had not been wearing the "recommended" PPE when exposed to an infected patient (which she disputed), and later because she did not have the proper "identifier number."

In hard-hit Washington State, medical and nursing associations released a joint statement stressing gaps in effective protections and communication protocols.

Sally Watkins, PhD, RN, executive director of the state's nurses' association, told *Medscape Medical News* that the concerns of frontline caregivers need prompt attention. "We continue to hear from members who say they are not getting the protective equipment and timely information they need."

"Conflicting Guidance"

While the situation is in rapid flux, Watkins conceded, "Nurses are confused. Not only do hospitals continue to play catch-up on protocols for handling suspected and confirmed COVID-19 cases, but nurses are also hearing conflicting guidance on issues such as the necessary PPE to do their jobs safely."

For example, she said, while N95 respirators are considered the best protection for procedures involving aerosolization, "many infectious disease experts are now reporting that due to the droplet transmission of COVID-19, surgical masks may be used. We need to ensure adequate supplies of all necessary PPE are available including N95 respirators for aerosolized procedures."

And as more symptomatic workers are sent home to wait out a quarantine, the ranks of staff are thinning. The city of Kirkland, in Washington, home to the epidemic's ground zero at the Life Care Center nursing facility already linked to at least 19 deaths, announced that a federal strike team of traveling medical personnel was being flown in as backfill to assist beleaguered staff.

At least 70 symptomatic workers at the facility have been asked to stay home. Similarly, the University of California Davis Medical Center sent home 36 registered nurses and 88 other healthcare workers last month, according to NNU, after the admission of a single coronavirus patient. Dozens of hospital workers were told to go home at Kaiser Permanente's Westside Medical Center in Hillsboro, Oregon.

In the face of the country's struggling testing program, one proactive move in Washington state is worth noting: Seattle's University of Washington Medical Center has established a drive-through test clinic that prioritizes symptomatic healthcare workers, swabbing their nostrils through rolled-down windows in its parking garage. According to National Public Radio, those testing negative go back to work as quickly as possible, while positives are quarantined at home.

In the east, the New York State Nurses Association is also urging the federal and state governments to take immediate action to protect healthcare workers.

Currently, OSHA has no infectious diseases standards in place to protect these employees from COVID-19. In addition, the state health department has yet to issue mandatory orders and protocols to protect healthcare workers and patients alike.

Strict controls, however, do protect frontline staff and patients, as a recent study from 43 public hospitals in Hong Kong suggests, as reported by *Medscape Medical News*. Stringently enforced measures, including the general distribution of masks, resulted in no infections by medical workers and no hospital-acquired cases overall in the first 6 weeks of the outbreak in mainland China.

A similar aggressive containment strategy by Singapore, another city state, is considered by some a model for response, according to a recent report by the *New York Times.*

In Singapore General Hospital's radiology department, COVID-19 response has been shaped by the SARS experience almost 2 decades past, research in the *American Journal of Roentgenology* shows.

At that time, protocol changes included segregation of workflows for inpatients, outpatients, and febrile vs nonfebrile cases. Greatly enhanced infection prevention and control measures were the norm, with all staff knowing their N95 mask type and becoming proficient in the use of PPE, hand sanitizers, and disinfectant wipes.

"To this day, radiology SARS veterans will disinfect their workstations before starting work, much to the amusement of their younger colleagues," Lionel Tim-Ee Cheng, MBBS, a radiologist at Singapore General Hospital, wrote in the journal.

Training and Cooperation

Thinking back to the H1N1 outbreak of 2009, Thomas M. File, MD, chief of the Infectious Disease Service at Summa Health System in Akron, Ohio, said that the key is to reeducate and retrain all healthcare workers, no matter what their function in care, according to the demands of each new infectious crisis.

"There are protocols for control in place, but staff have to be trained in the protocols that apply to the specific standards for each type of outbreak," he told *Medscape Medical News.*

As for the reported shortages of protective gear, these need to be addressed at the federal level. "I hope the appropriations bill signed last week by the president will provide some accommodation for manufacturing protective equipment," said File, who is also a spokesperson for the Infectious Diseases Society of America.

The $8.36 billion bill included $3.1 billion to the Office of the Secretary of Health and Human Services, with $100 million going to community health centers, and these funds may facilitate the purchase of additional supplies.

According to Aaron E. Glatt, MD, an infectious disease specialist at Mount Sinai South Nassau in Oceanside, New York, US hospitals' existing infection control guidelines are capable of achieving low staff transmission rates similar to those seen in Hong Kong — if they are followed to the letter. But if these protocols involve adequate supplies of protective gear, that could be a challenge for the near future.

After the 375 cases of SARS in Toronto, a specially commissioned Ontario SARS report released in 2007 concluded that the healthcare system was inadequately prepared for the crisis and especially lacked the ability to protect frontline medical staff. As the report presenters wryly noted, hospitals are just as dangerous workplaces as mines and factories but have fewer measures to protect staff.

Vicki McKenna, RN, who worked in the trenches during the SARS outbreak in Toronto, is still haunted by the high infection rate and three deaths in healthcare staff. Now president of the Ontario Nurses Association, she says lessons were learned but perhaps not implemented.

"We came to understand as nurses that in the absence of scientific certainty, you must err on the side of caution," she told *Medscape Medical News*. "But there were attempts at many levels to minimize the problem and not to listen to the concerns of frontline workers."

A familiar refrain to today's circumstances? "Nurses need to speak up and be heard," McKenna said.

Ultimately, what is needed is cooperation. "Everyone is working jointly — and very hard — to ensure that the COVID-19 outbreak is being responded to in the best and most rapid way possible," Watkins said. "This is an extraordinary public health emergency and calls for our community to work together."

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What U.S. Health Care Workers Need to Fight Coronavirus

By Nadja Popovich and YuliyaParshina-KottasMarch 11, 2020

As new coronavirus infections accumulate across America, hospitals want to make sure they have everything they need to keep staff safe.

In China, where the virus was first discovered, protecting health care workers was a serious challenge. More than 3,300 nurses, doctors and other hospital staff members across the country were infected, many because of insufficient protective equipment.

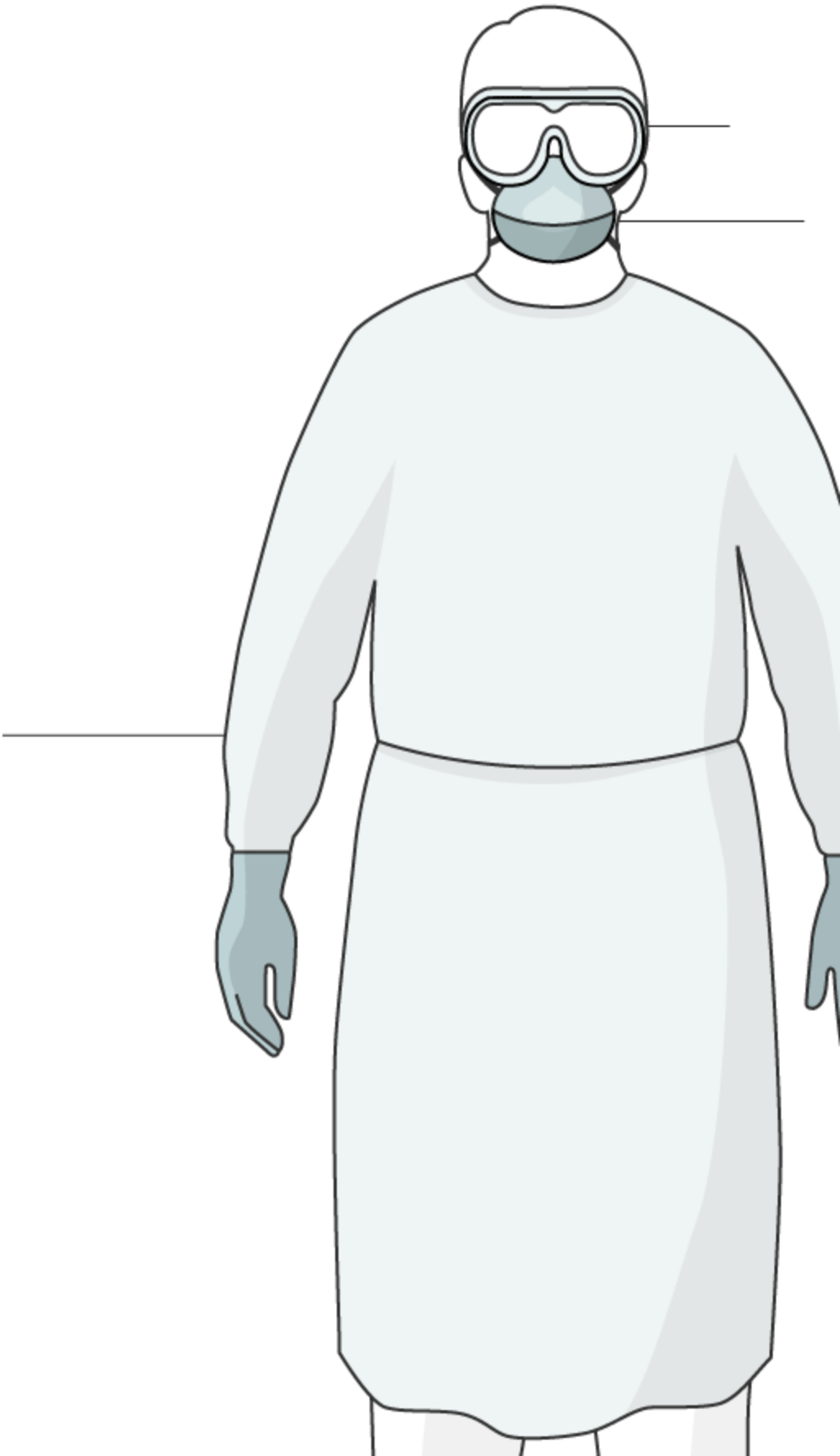
In the United States, some hospitals are already struggling with limited supplies, as health officials figure out the best way to protect workers. More than 1,000 cases of Covid-19, the disease caused by the new coronavirus, have been reported across America so far, with the largest outbreak in Washington State.

“We need to think about what the right thing is for patients, but also for our caregivers to make sure they’re not exposed,” said Amy Compton-Phillips, chief clinical officer at the Providence St. Joseph Health, a hospital network that has treated more than a dozen patients in Washington State.

That means making sure there’s an adequate supply of protective equipment for staff members and enough space to isolate patients,

while also navigating a flurry of regulations and recommendations that could change at any moment.

Protective equipment: gowns, gloves, goggles and respirators



Current C.D.C. recommendations for health care workers

Eye protection
Goggles or face shield
Respirator or medical mask
N95 respirator, if available
Gown
Closed securely
at the back
Gloves
Pulled up over
gown sleeves

There is still some uncertainty about how the new coronavirus spreads, but experts agree it is most likely passed through close contact with people who are infected, and specifically the viral droplets they expel when they cough or sneeze.

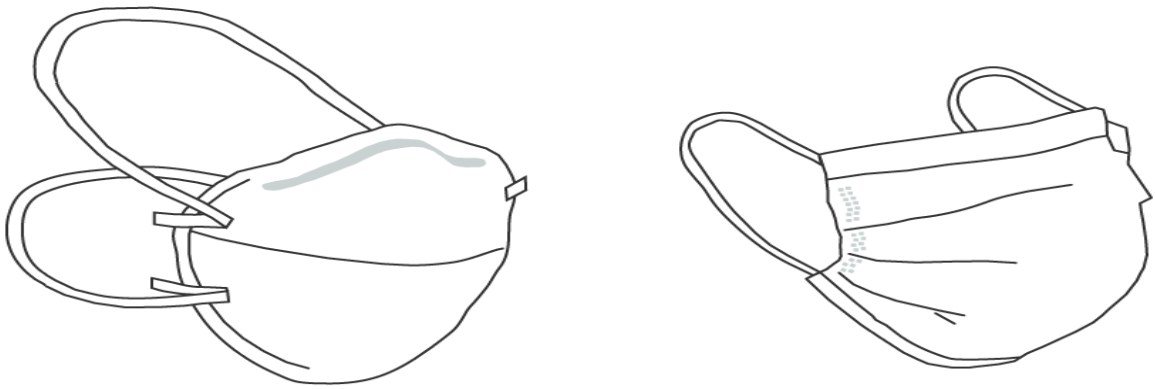
The Centers for Disease Control and Prevention has advised health care workers to treat potential and confirmed cases of Covid-19 with the level of precaution usually reserved for high-risk illnesses that spread easily through the air, like tuberculosis or measles.

Workers are required to wear gowns, gloves, goggles and special masks, like N95 respirators, that fit tightly over the nose and mouth to filter out virus particles before they are inhaled. (They can also wear devices known as PAPRs, or powered air-purifying respirators, which cover the entire head.)

With respirator masks in short supply across the country, the C.D.C. recently updated its recommendations for health care workers. If respirators are not available, the agency says standard medical masks can be used instead for most coronavirus patient care. These looser-fitting masks protect against droplet transmission from coughs and sneezes, but do not filter out airborne pathogens.

The change puts the C.D.C. in closer alignment with World Health Organization guidelines, which only require respirator masks during special procedures that may result in the spray of tiny viral particles. Health departments in two of the hardest hit states, Washington and Oregon, have already adopted standards in line with W.H.O.

As the coronavirus continues to spread across the country and more is learned about the disease, these safety guidelines could evolve.



Surgical mask
Loose fit around edges. Provides protection from large droplets.

N95 respirator
Tight fit; must be specially fitted. Filters out 95% of small particles.

Hospitals across the country are currently facing protective equipment shortages because of increased global demand, as well as supply chain disruptions.

“At the moment, we have significant limitations on our high-level N95 masks, and even surgical masks are in short supply,” said Dr. Compton-Phillips of Providence St. Joseph Health.

Experts say surgical masks and respirators are not effective for protecting the general public from Covid-19 but are crucial for health care workers who are in close contact with infected patients.

And because respirators and other medical supplies are single-use, hospitals need a large stock for doctors, nurses and other staff members. Representatives from hospitals across the country said they were taking steps to preserve the supply of protective equipment, including limiting the number of people who enter a patient's room to essential personnel only.

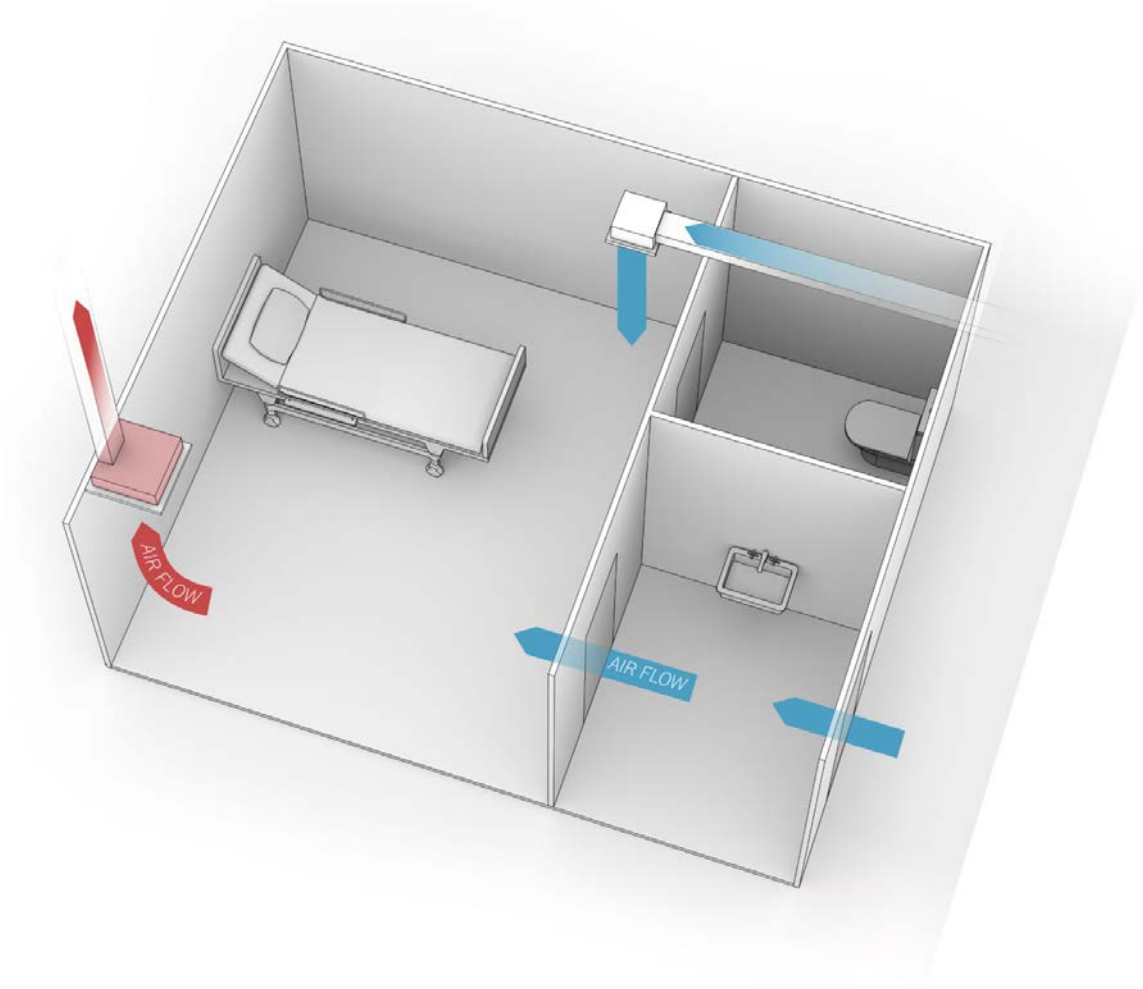
Some larger hospitals and hospital networks maintain their own stockpiles of respirator masks and other equipment. The Department of Health and Human Services also maintains the Strategic National Stockpile of emergency preparedness supplies, which currently contains 13 million N95 respirator masks and 30 million surgical masks, according to a spokeswoman for the agency.

But Alex Azar, the secretary of Health and Human Services, told Congress that as many as 300 million N95 respirator masks could be needed by United States health care workers to fight the spread of the virus. The agency has said it will buy millions more masks over the coming months.

Isolating patients with Covid-19

Under new protocols, the C.D.C. recommends coronavirus patients be isolated in single rooms, behind closed doors, away from other patients. But more severe cases may require the use of a special room

with negative pressure, which allows air to move inward but not escape back into general circulation.



Outside
Air vent
Bathroom
HEPA filter

Hallway
Area of lower air pressure

Anteroom
NEGATIVE PRESSURE allows air to flow inwards, but not out of the room.
Note: This is one possible layout for a negative pressure isolation room; an anteroom is optional, and air flow systems may vary.

Negative pressure isolation rooms are recommended for special procedures that may result in the spray of tiny viral particles, like

intubation for patients who need help breathing, or bronchoscopy, a procedure that allows doctors to examine a patient's lungs. Respirator masks are required during these procedures, too.

But most coronavirus cases will quite likely not require hospitalization, said Dr. Compton-Phillips of Providence St. Joseph Health.

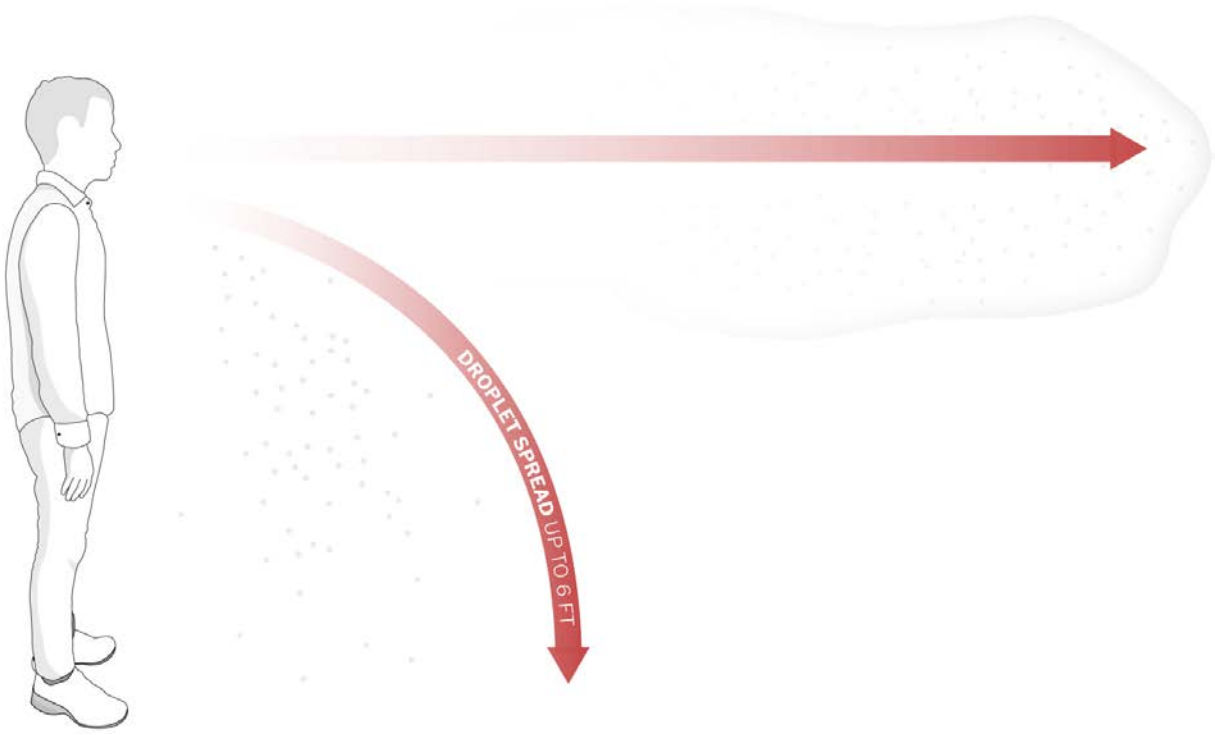
"If you are healthy — even if you have Covid but are not ill enough to be in a hospital — we don't want to treat you in the hospital," she said. Instead, patients with mild coronavirus infections and no underlying medical conditions may be asked to quarantine at home.

According to the W.H.O., 80 percent of Covid-19 patients in China experienced a mild form of the illness, 14 percent had a severe form, and 5 percent became critically ill. Older people and those with prior health conditions were at the highest risk.

"We don't know how big this epidemic will be," said Dr. Gabor D. Kelen, the director of the Johns Hopkins Office of Critical Event Preparedness and Response and the emergency medicine department. "Hopefully most of the people who are sick can be cared for at home and only those with serious respiratory conditions and the elderly who need I.C.U. care are the ones who get admitted to a hospital."

Determining the proper precautions

The gear health care workers need to protect themselves and how they isolate patients depends largely on how an illness is transmitted.



Measles, tuberculosis
Smaller, lighter aerosol droplets can linger in the air.
Influenza, whooping cough, and most likely Covid-19, per W.H.O.
Larger, heavier viral droplets fall to the ground after being expelled.

Some illnesses, like measles and tuberculosis, can spread far and wide through the air. Their ability to linger in the air for hours and travel long distances after a sneeze or cough makes them highly contagious.

But experts think that other respiratory illnesses, like the flu, do not stay airborne for long. Instead, the viral droplets that leave a person's mouth or nose end up falling to the ground within six feet or less. Think of it more like a sprinkle of rain than a cloud of mist.

The W.H.O. has said Covid-19 is most likely spread through this droplet route.

Such illnesses are usually spread through close contact, within family groups or during large gatherings, and can also be transferred by touching infected surfaces. (Reminder: wash your hands and stop touching your face!)

Health care workers routinely treat droplet-borne illnesses at a lower level of precaution than fully airborne ones, using medical masks rather than respirators. But for new diseases, like Covid-19 or H1N1 swine flu, health authorities may recommend higher-level protections while the transmissibility question remains unsettled.

“During the outbreak, you’re going to see changing guidance for hospital workers,” said Amesh Adalja, an infectious disease physician at the Johns Hopkins Center for Health Security. Where the new coronavirus falls in terms of mortality and risk perception “will change as we start to get more data within the United States,” he said.

The updated C.D.C. guidelines, which allow the use of medical masks instead of respirators for health care workers treating coronavirus patients, were met with a mixed response.

“If nurses and health care workers aren’t protected, that means patients and the public are not protected,” said Bonnie Castillo, a registered nurse and executive director of National Nurses United, a union that represents about 150,000 nurses across the country.

“Now is not the time to be weakening our standards and protections, or cutting corners,” she said.

Other medical experts said the new recommendations did not go far enough to clarify how health care workers dealing with the outbreak should be protected.

“We want health care workers to be confident they are being kept safe,” Dr. Adalja said.

VAKALATNAMA

IN THE HON'BLE HIGH COURT OF GUJARAT AT AHMEDABAD

WRIT PETITION NO. OF 2020 (P.I.L.)

Dr. Prabha Kishore Taviad Petitioner

Versus

Union of India &Ors. Respondents

I/We the undersigned do hereby appoint and retain Shri, Dhruvik K Patel & Shri Mandeep Singh Saluja, ADVOCATE to act, appear and plead for me/us in the above matter and in all proceedings that may be taken in respect of any application connected with the same or any application for Review, to file and obtain return of documents, to accept the process of Court and to deposit and receive money on my/our behalf in the said matter and in the applications including that for Review and to Compromise, settle and/or withdraw or to agree to the withdrawal of the said matter or any proceeding arising there in to represent me/us and to take all necessary steps on my/our behalf in the above matter, to ask another Advocate to hold this brief an to appear and plead on my/our behalf if required and to do all things incidental to such acting for me/us. I/we agree to ratify all acts done by the above named ADVOCATE in pursuance of this authority.

Dated this the 25th day of March 2020

ACCEPTED SIGNATURE OF PETITIONER

Dhruvik K Patel Advocate (Code: 7769)
M) 9913342166
Mandeep Singh Saluja Advocate (Code: 8791)
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