

**TO WEAR OR NOT TO WEAR FACE MASK – COVID-19 DILEMMA****Anuradha S.<sup>1</sup>, Narayanan S.<sup>2</sup>, Manopriya T.<sup>3</sup> and Dhastagir Sultan Sheriff<sup>4\*</sup>**<sup>1</sup>Department of Community Medicine, Chennai, India.<sup>2</sup>Department of Anatomy, Chennai, TN, India.<sup>3</sup>Department of Physiology Chennai, India.<sup>4</sup>Faculty of Medicine, Benghazi University, Benghazi, Libya.Article Received on  
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**\*Corresponding Author****Dr. Dhastagir Sultan  
Sheriff**Faculty of Medicine,  
Benghazi University,  
Benghazi, Libya.

COVID-19 pandemic has put nations big or small in such a dilemma that they do not have or look confused with decisions to make regarding certain issues that stare at them. All nations do not have center for disease control (CDC), National Health system (NIH), Indian council of Medical Research (ICMR) to provide guidelines regarding health issues related to COVID-19. World Health Organization (WHO), therefore, assumes the role of guiding nations with respect to updates on Numbers and incidence of COVID-19, provide directions and advisories related to the pandemic including the protective equipment usage.

The questions that arise revolve around three specific areas concerning the pandemic.

1. Can every patient be treated equally?
2. Who wears the face mask? If so whether such masks can be reused?
3. Who get tested?
4. Who gets the ventilator?

These situational queries arise due to scarce medical resources and its distribution in a special circumstance created by a pandemic.

If one looks at the first question community health becomes a priority. It is true that every life is worth saving, leading to the utilitarian concept that to save as many as lives justifying “benefit the most.”

The doctor becomes the person who decides what action to be taken in such a situation which is limited by time factor. The ethical concern what is the code of conduct to be followed in

such a situation. Is the decision to be taken singly by the treating physician or a committee formed by the concerned hospital having members both medical, legal and local citizens. If so what are the guidelines to be framed to tackle such a situation.? If these guidelines framed justify the decision taken by the committee or the doctor, protected by law and supported by the government?

If a doctor is forced to make a decision or recommended by the concerned hospital committee who will benefit from the treatment, will the doctor be protected by the state from legal liability? The recent Ethical frame work published in New England Journal of Medicine provides answers to such dilemma laying emphasis on rationing of Absolutely Health Care Resources.<sup>[1]</sup>

**The Ethical values that are addressed by the guidelines are<sup>[1]</sup>**

**1. Maximizing benefits that will help**

Save most lives

Save the most life years – maximize prognosis

In COVID-19 situation it is to give importance to community health.

**2. Treat people equally**

Between two choices “First come, First served’ and “random selection”, random selection is useful in selecting among patients having similar prognosis.

**3. Promote and reward instrumental value**

The value “relevant contribution” becomes essential when applied to COVID-19 pandemic.

It can be retrospective or prospective. When applied retrospectively, it is suggested that priority to be given to those who have made significant but relevant contribution. It recommends that to give priority to research participants and health care worker when other factors including maximizing benefits are equal.

Prospectively it suggests that priority to be given to those who are likely to make relevant contributions meaning to health care workers.

#### 4. Give priority to those in situations related to worst off situation

Meaning sickest first or youngest first. When applied to COVID-19 pandemic, sickest first means use when it aligns with maximizing benefits or youngest first which aligns with maximizing benefit such as preventing disease.

These recommendations provide an Ethical Frame work to work with by the Doctor or the COVID-19 Hospital committee in which the doctor treats.

World Health Organization's envoy Dr. David Nabarravhad stated earlier that it is safer for all citizens to wear face masks and WHO made a statement later that face masks be spared for those health personnel and to cases with the disease.<sup>[2]</sup>

The CDC (USA) guidelines like WHO is inconsistent, demanding one time that all wear face masks as a protective gear to avoid infecting or getting infected by air borne particles rich with virus particles. The scarcity of protective equipment including the N95 face masks led them make CDC state that to spare those masks for the health care personnel directly in contact with the patients or the patients with the disease. Further scarcity pushed them to consider reusing N95 masks sterilized, making even asking people can wear homemade masks in crowded places where they cannot avoid social distancing.<sup>[3]</sup>

The following Tables describe in a nutshell the different types of face masks used and the categories of people who will wear what type of face mask. (Table.1 and 2).

**Table 1: Types of face mask.**

Basic Face Mask	Surgical Mask	N95 respirator
Face mask that covers the face and mouth	A loose fitting disposable devise that provides a barrier between the mouth and nose of wearer	N-stands for 'not resistant to oil' meaning protects against particles not liquid droplet and 95 means acts as a barrier 95% of air borne particles
Needs no approval by the concerned health agency or authority	Undergoes testing for fluid barrier and filtration efficiency	Tested for bacterial filtration efficiency, differential pressure resistant to synthetic blood, flammability and submicron particulate filtrate efficiency
	Protects the eyes and face from body fluids, liquid splashes of potentially infectious materials	Needs Regulatory Body approval

**Table 2: Different categories of cases that require face masks.**

Health care workers	Patients with the disease	Persons who live with the patient	Asymptomatic carriers	General public	Others
N95 masks	Protective masks	Mask while visiting the patient	Wear the mask say while waiting in the lounge or during transportation	Essential support staff to Health care workers including Police force	Social distancing or use covering in the form of a scarf, bandans,
Alternate to Face Mask	Tissues				
Environment	Proper air flow in the room of stay				

The usage of these face masks have other guidelines regarding usage and disposal, manufacture, supply and distribution following standard approval by the concerned approving authorities.

But the controversy and ethical dilemma regarding the type of face mask to be worn by whom remains a bone of contention and discussion until a universal consensus is reached by a global solidarity under the umbrella of WHO. With major disagreement and differences between donor nations and signatory member nation of WHO it remains to be seen how the global community face and tackle the pandemic.

Medicine is an art and science of uncertainty they say.<sup>[4]</sup> The lack of knowledge about the virus and its spread had pushed people all over to take decisions that create confusion in the minds of ordinary citizens. What they must do whether they wear face mask when they go out or not. If the answer is yes, whether masks made of cotton or other fabric will protect from infecting others even though it is said large particle air borne particles can be filtered out but not the micron sized viral particles.

This uncertainty in the absence of a vaccine to protect the mass makes Medicine a vulnerable science. It also proves that Daedalus effect<sup>[5-6]</sup> that every clinical decision has an adverse side effect, whether it may be a therapy or say wearing a face mask.

The CDC defines herd immunity, or community immunity, as "a situation in which a sufficient proportion of a population is immune to an infectious disease (through vaccination and/or prior illness) to make its spread from person to person unlikely.

"Even individuals not vaccinated (such as newborns and those with chronic illnesses)," the CDC continues, "are offered some protection because the disease has little opportunity to spread within the community."<sup>[7]</sup>

Therefore, herd immunity<sup>[7]</sup> or rather developing immunity among the community with time when the virus does not find a host or it gets saturated with its infecting potential or the virus becomes weak when the community reaches its saturation point of infection as experienced with other viral infections will remain the strategy of fighting the pandemic. Until then it will make every nation or organization uncertain making them hold onto to the principle of self-isolation, social distancing and hand hygiene.

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