

SGPGI ADVISORY ABOUT USE OF MASKS BY HCWs

Any one wearing a face mask must be clear why he or she is using it.

Use of N-95 Masks

An **uninfected person needs an N-95 mask for effective protection** from infection by the nCOV. Since only a very limited supply of N-95 masks is available, its use has been restricted to those who are at the highest risk of acquiring nCOV infection.

We must husband our limited resources and care must be taken to ensure that N-95 masks are not wasted so that we are not found in want of these masks at the very time when we need them most. The SGPGI COVID Logistics team is working hard on procuring N-95 masks and PPE kits.

Who **MUST** use an N-95 mask and PPE?

N-95 masks and PPE must be used by **all HCWs** involved in the following activities:

- A. Caring for **proven nCOV infected person(s)** in COVID Isolation or Intensive care areas,
- B. Caring for patients with **suspected nCOV infection** in ICUs, OTs, endoscopy theatres, bronchoscopy theatres, IR suites, dialysis units, cardiac catheterization labs, etc.
- C. **Collecting, handling and testing** nasopharyngeal samples from suspected COVID patients
- D. **Handling dead bodies** of known or suspected COVID patient

N-95 masks may also be used by HCWs in the following situations

- A. At **Triage (T0) and Reception counters** screening patients with symptoms suggestive of an influenza-like illness (ILI)
- B. **HCWs working in aerosol producing situations** not covered in A-D above. A partial list of these procedures is as follows:
 - Nebulization
 - Open suction of airways,
 - Esophageal intubation during UGI endoscopy
 - Non-invasive ventilation (NIV)
 - Bronchoscopy
 - Manual ventilation before intubation
 - Tracheal intubation/ extubation
 - Tracheostomy procedure
 - Cardiopulmonary resuscitation

Downside of N95 masks

N95 increases the work of breathing and it is not possible to wear them continuously for long. After half an hour of use suffocation builds up. Pregnant patients and the elderly often refuse to use them.

Who should wear disposable 3-ply surgical masks OR home-made, reusable linen masks and why

The purpose of wearing these masks is to **prevent infection to others**. They have no role in protecting the wearer from infection by nCOV.

1. In the setting of the present COVID pandemic, **ALL persons, including all HCWs**, should use masks (either disposable surgical or home-made linen masks, depending on availability) at all times **for the protection of others** on the following premise:
 - a) **An infected person MUST wear a mask** to prevent spread of virus to others through droplet infection.

- b) Those who are **asymptomatic but infected** and possibly shedding virus **should also wear masks**. Since it can never be known which uninfected person is shedding virus, in the present setting of a spreading pandemic, it is logical that **everyone must compulsorily wear a mask at all times to minimize spread of infection to others** by asymptomatic but infected individuals.
 - c) The core message and rationale behind the use of these masks is, **“My mask protects you; your mask protects me.”**
 - d) Wearing masks at all times is considered a **prosocial behaviour** in these times.
2. For minimizing spread of infection to others by droplets and microdroplets ($\leq 5-10\mu$), **both 3-ply disposable and home-made types of masks are effective**. While there is evidence that disposable, 3-ply surgical masks may be superior to home-made linen masks, the latter are better than no masks at all.
 3. Presently, a large supply of washable and reusable linen masks has been distributed to all HCWs in SGPGI and is continuing to be distributed by Mr. MN Shukla. All HCWs are requested to ensure that they have 2 such masks each and continue to wash and constantly use them.

Surgical 3-ply masks should be used in the following situations

- a) All HCWs working **in critical care areas** including ICUs, OTs, endoscopy theatres, bronchoscopy theatres, IR suites, etc.
- b) **Drivers of ambulances and paramedical workers** transporting patients with suspected or proven COVID infection.
- c) HCWs manning **enquiry counters and T1 triage** areas.

All other categories of HCWs in other hospital areas should use either surgical or home-made masks as per availability.

Caveats and Precautions

1. Persons wearing masks **MUST** remember at all times that a mask is **NOT a replacement for cough etiquette, hand hygiene and social distancing**. It must be borne in mind that the use of masks may place the user at greater risk as complacency produced by wearing a mask may result in laxity in following these three pillars of prevention.
- 2.

REFERENCES

1. Bronchoscopy International, March 2020. www.Bronchoscopy.org. Masks and Respirators.
2. NEJM article.