



MEASURES TAKEN FOR SAFETY OF HEALTH CARE WORKERS (HCW) BY GOVERNMENT OF INDIA DURING COVID-19 PANDEMIC IN INDIA.

Community Medicine

Mayavati Nannaware* Associate professor Dept. of Community Medicine Institution: Smt. KashibaiNavale Medical college and hospital, Pune. *Corresponding Author

VaishaliBhagat Assistant professor Dept. of Community Medicine Institution: Smt. KashibaiNavale Medical college and hospital, Pune.

Shraddha Kulkarni Assistant professor Dept. of Community Medicine Institution: Smt. KashibaiNavale Medical college and hospital, Pune.

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First case of COVID 19 was reported on 31st Dec 2019 from Wuhan Province of china. WHO declared novel corona virus outbreak as a public health emergency of international concern.(1) Globally 19,718,030 cases and 728,013 number of deaths reported on 10 August 2020.(2) In India first confirmed case of COVID -19 was reported from Kerala on 30th January 2020. In India on 10th August 2020, total number of reported cases and reported deaths are 22,686,75 and 45257 respectively.(3)

Worldwide, as millions of people stay at home to minimise transmission of COVID 19, health-care workers need to do their duties as COVID warriors. They have to go to clinics and hospitals, putting themselves at high risk from COVID-19.(4)

Apart from the direct infection risks arising from close contact with patients and/ or potentially infectious co- workers during the COVID-19 pandemic, healthcare workers are also under increasing stress and mental health risks, as was the case with the SARS epidemic.(5) The more risk of infection is noted with the factors like involved in endotracheal intubation, not using PPE, Masks, gloves and not taken HCQ prophylaxis.(6)

As per WHO COVID-19 pandemic has hit over 22,000 healthcare workers across 52 countries and regions. As on 23 July 2020 - The World Health Organization warned of the threat posed by COVID-19 to health workers across Africa. More than 10,000 health workers in the 40 countries which have reported on such infections have been infected with COVID. On 3rd April 2020, of the total 3387 deaths, 23 health care professionals had died from COVID-19 after they became infected during the practice of medicine in Wuhan and elsewhere in china.(9) As of 9th April, 2020 a total of 9,282 U.S. health care provider with con- firmed COVID-19 had been reported to CDC.(10) as per cross sectional study among the HCW 14.7% had flu-like symptoms and 1.8% (20/1113) of the participants tested were positive for the SARS virus.(11) In India about 1,207 doctors and nurses who have tested positive include those working at Delhi hospitals. An analysis of data from 351 government and private healthcare institutions across the Maharashtra shows that 969 doctors, nurses, lab assistants, ward boys,, ambulance drivers and other paramedical and housekeeping staff have been infected with Covid-19.(13)

WHO has given interim guidelines for 'risk assessment and management of exposure of health care worker in the context of COVID 19', in which they had given a format to be filled by the health care worker, depending upon which HCW can be classified as having High risk and Low risk exposure. Management for high risk includes- testing for COVID 19, quarantine for 14 days, providing psychosocial support and repeating infection prevention and control training(14)

Following Measures are undertaken to ensure the safety of healthcare worker in India:

1. Training of all the health care workers has been conducted at Institutional level. Webinar was conducted by AIIMS Delhi for Doctors and nurses regarding infection prevention and control, Ventilation strategy, aerosol generating procedures and psychological care of the patients all over the country.

2. Training resources for Medical and Para medical person are updated regularly and available on website of Ministry of health and family welfare. Ministry has also issued a pocket book for frontline workers like Accredited Social Health Activist, Auxillary Nurse Midwives and Anganwadi workers. Frontline workers has been trained in home based care, personal protection, social distancing and outreach visits. Integrated Government online training (iGOT)-**Diksha** platform of the government has been utilized for ensuring uniform training.
3. A High level Multi-disciplinary team was constituted to guide the states in Cluster Containment and ICU Management.
4. A dedicated toll free helpline **08046110007**, has been created for Psychosocial support to the healthcare provider.
5. Accidental insurance cover of 50 lakhs has been announced under **Pradhan Mantri Garib kalyan** package for health care workers.(15)
6. Central Govt. supplied PPE and N95 masks to central and state Hospitals and issued guidelines for its rational use which includes PPE use in different settings like outpatient department, help desk, inpatient department, emergency services and other ancillary services in Covid and Non Covid area.(16)

Table 1: Use of PPE in Outpatient department.

S.No	Setting	Risk	Recommended PPE	Remarks
1	Help desk/ Registration counter	Mild risk	<ul style="list-style-type: none"> Triple layer medicalmask Latex examination gloves 	Physical distancing to be followed at all times
2	Doctors chamber	Mild risk	<ul style="list-style-type: none"> Triple layer medicalmask Latex examination gloves 	No aerosol generating procedures should be allowed.
3	Chamber of Dental/ENT doctors/ Ophthalmology doctors	Moderate risk	<ul style="list-style-type: none"> N-95mask Goggles Latex examination gloves 	Aerosol generating procedures anticipated.
			+ face shield	Face shield, when a splash of body fluid is expected
4	Pre-anesthetic	Moderate risk	<ul style="list-style-type: none"> N-95mask Goggles* Latex examination gloves 	* Only
	check-up clinic	risk		recommended when
				close examination of

				oralcavity/dentures is to be done
5	Pharmacy counter	Mild risk	<ul style="list-style-type: none"> Triple layer medicalmask Latex examination gloves 	Frequent use of hand sanitizer is advised over gloves.
6	Sanitary staff	Mild risk	<ul style="list-style-type: none"> Triple layer medicalmask Latex examination gloves 	

Table 2: In-patient Department (Non-COVID Hospital & Non-COVID treatment areas of a hospital which has a COVID block)

S.No.	Setting	Risk	Recommended PPE	Remarks
1	Ward/individual rooms	Mild risk	<ul style="list-style-type: none"> Triple layer medicalmask Latex examination gloves 	Patients stable. No aerosol generating activity.
2	ICU/ Critical care	Moderate risk	<ul style="list-style-type: none"> N-95mask Goggles Nitrile examination gloves 	Aerosol generating activities performed.
			+Face shield	Face shield, when a splash of body fluid is expected
3	Ward/ICU/critical care	Low Risk	<ul style="list-style-type: none"> Triple Layer medicalmask Latex examination gloves 	
4	Ward/ICU/ Critical care (Non-COVID)	Low Risk	<ul style="list-style-type: none"> Triple Layer medicalmask Latex examination gloves 	
5	Labor room	Moderate Risk	<ul style="list-style-type: none"> Triple Layer medicalmask Face shield Sterile latex gloves 	Patient to be masked in the Labor room
			N-95 mask*	*If the pregnant woman is a resident of containment zone
6	Operation Theater	Moderate Risk	<ul style="list-style-type: none"> Triple Layer medicalmask Face shield (-whereverfeasible) Sterile latex gloves 	Already OT staff shall be wearing
			+ Goggles	For personnel involved in aerosol generating procedures

Table3: Emergency Department(Non-COVID)

S.No.	Setting	Activity	Risk	Recommended PPE	Remarks
1	Emergency	Attending emergency cases	Mild risk	<ul style="list-style-type: none"> Triple Layer medicalmask Latex examination gloves 	No aerosol generating procedures are allowed
2		Attending to severely ill patients while performing aerosol generating procedure	High risk	<ul style="list-style-type: none"> Full complement of PPE (N-95 mask, coverall, goggle, Nitrile examination gloves, shoe cover) 	

Table 4: Other Supportive/ Ancillary Services.

S.No.	Setting	Activity	Risk	Recommended PPE	Remarks
1.	Routine Laboratory	Sample collection and transportation and testing of routine (non-respiratory) samples	Mild risk	<ul style="list-style-type: none"> Triple layer medicalmask Latex examination gloves 	
		Respiratory samples	Moderate risk	<ul style="list-style-type: none"> N-95mask Latex examination gloves 	
2	Radio-diagnosis, Blood bank, etc.	Imaging services, blood bank services etc.	Mild risk	<ul style="list-style-type: none"> Triple layer medicalmask Latex examination gloves 	
3	CSSD/Laundry	Handling linen	Mild risk	<ul style="list-style-type: none"> Triple layer medicalmask Latex examination gloves 	
4	Other supportive services including kitchen	Administrative financial engineering* and dietary**services	Low risk	<ul style="list-style-type: none"> Face cover 	** Engineering and dietary service personnel visiting treatment areas will wear personal protective gears appropriate to that area

Table 5: Pre-hospital (Ambulance) Services.

S.No.	Setting	Activity	Risk	Recommended PPE	Remarks
1	Ambulance Transfer to designated hospital	Transporting patients not on any assisted ventilation	Low risk	<ul style="list-style-type: none"> Triple layer medicalmask Latex examination gloves 	
		Management of SARI patient	High risk	<ul style="list-style-type: none"> Full complement of PPE (N-95 mask, coverall, goggle, latex examination gloves, shoe cover) 	While performing aerosol generating procedure
		Driving the ambulance	Low risk	<ul style="list-style-type: none"> Triple layer medicalmask Latex examination gloves 	Driver helps in shifting patients to the emergency

ICMR has recommended use of Hydroxy-Chloroquine 400 mg BD on first day followed by 400mg once a week for 7 weeks for prophylaxis in high risk contacts including asymptomatic health care workers involved in care of suspected or confirmed cases of COVID 19 and also tested if appropriate protection not taken while examination of confirmed case or if become symptomatic.(17)

Aarogya Setu is a COVID-19 tracking mobile application developed by the National Informatics Centre in 11 different languages which is made available by govt. of India free of cost. It can assess status of person using questionnaire in the app and also gives information about

the nearby Indian Council of Medical research approved testing Laboratories. It will track the various locations person has travelled and this data will be submitted to Government once the person becomes COVID-19 positive. It also gives the information about number of COVID-19 positive patients around you upto the radius of 10 kms.(18)

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