INTRODUCTION

2019 novel coronavirus (2019–nCoV) disease or COVID 19 has been declared as global pandemic by World Health Organization. The greatest risk in COVID 19 is the transmission to healthcare workers, who are at forefront in this war for human race existence. Critical care doctors, nurses and paramedical staff are at highest risk of getting infected directly by the secretions of the patients with novel Corona virus. Healthcare workers can not only get infected self, but can spread infection to their family, friends and become super spreader of this bug to patients and society if proper self-care is not taken. Not only fatigue and burnout healthcare workers are also susceptible to frustration or the fear of contracting disease or guilt of transmitting infection. Adequate protective gears should be provided to healthcare workers with preference. Social distancing should be practiced properly, which can flatten the epidemic curve and prevent collapse of health care system.

Spread to health care workers

COVID 19 is rapidly spreading from its origin in Wuhan City of Hubei Province of China to the rest of the world. [3] The number of cases started increasing exponentially, some of which did not have exposure to the live animal market, suggestive of the fact that human-to-human transmission was occurring. [4] Infection is transmitted through large droplets generated during coughing and sneezing by symptomatic patients but can also occurs from asymptomatic people and before onset of symptoms. [5] The virus can remain viable on surfaces for days in favorable atmospheric conditions but are destroyed in less than a minute by common disinfectants like sodium hypochlorite, hydrogen peroxide etc.[6]

Aerosol-generating procedures, such as non-invasive ventilation (NIV), high-flow nasal cannula (HFNC), bag-mask ventilation, and intubation are of particularly high risk.[7] The anesthesiologist, physicians, ENT specialist, and critical care doctors and nurses with paramedical staff are at highest risk of getting infected directly by the secretions of the patients with novel Corona virus. Those paramedics who collect samples and pathologists are also vulnerable to the disease. Transmission seems to occur primarily through sustained exposure in the absence of basic protection or through the lack of hand hygiene after contact with secretions.

Taking care of the caretakers

The CDC recommends the use of personal protective equipment including a gown, gloves, and either N95 respirator plus a face shield/goggles or a powered, air-purifying respirator (PAPR). [1] All health-care workers are expected to wear at least regular surgical masks for all patient interactions. They must use gloves, maintain proper hand hygiene, and should disinfect all surfaces in between patient consults. In view of proper utilization of the resources and PPE (Personal protective Equipment) the N95 masks, face-protectors, goggles, and gowns could be reserved for procedures where respiratory...
secretions can be aerosolized like intubation, suction and tracheostomies. Such precious PPE should not be directed for regular use to general public, barons and bureaucrats.

Patients with suspicious symptoms (a low-grade fever coupled with a cough, respiratory complaints, fatigue, or muscle aches) or exposures (travel to places with viral spread or contact with someone who tested positive) should be separated from the rest of the patient population. They should be treated by separate teams preferably in COVID special wards or hospitals. Social distancing should be practiced where ever possible in treatment and examination of suspected patients. [8]

Healthcare workers must self-monitor, report signs of illness, and not engage in patient care while exhibiting infectious symptoms. The virus can be transmitted to family members of health care workers so it is advisable to have separation of living spaces and protocols for infection control must be followed after duty, such as removing and washing clothing regularly. [9]

**Indian scenario**

India is world’s second most populous country, control of Covid 19 pandemic is really challenging. More than 4000 are active cases with death toll crossing 100 mark, there is possibility of exponential spread of infection in next few weeks. [10] Using data from National Health Profile-2019, there are 7,13,986 total government hospital beds available in India for the population of 1.38 billion. This amounts to 0.55 beds per 1000 population. (U.S. has about 2.8 hospital beds per 1,000 people, South Korea and Japan have more than 12 hospital beds per 1,000 people and China has 4.3 per 1,000). [11] Registered medical practitioners in India are about 800,000. India may run out of hospital beds, skilled manpower and essential health care equipment devices like ventilators very soon, if pandemic doesn’t get under control.

The center and state officials, anticipated the magnitude of the pandemic and were also aware of insufficient health infrastructure of the country, so did a commendable job in closing schools, colleges, malls, parks, mandate travel restrictions across borders, or quarantine travelers coming into the state/ country at an appropriate time. The three public health tools that could (possibly) slow the spread of the outbreak include - Isolation, Quarantine, Social Distancing, were followed religiously in India. [1]

Indian Prime Minister, Modi had asked people to express gratitude to healthcare workers, sanitary workers, media and police department by clapping hands, beating plates or ringing bells. [12] But on contrary we could see few people in India, pelting stones on health care workers and even spitting on them and abusing physically and verbally. [13,14]

Strict legal action and proper counseling by social workers or counselors would prevent such further events in country like India where the education and living standards are very poor. Involvements of political leaders of all parties and with the common interest to save the human race in this crisis period in anticipated. Social reforms must be taken to prepare society for such pandemic in future.

It is the duty of every individual to understand the magnitude of this global disease. Social distancing and hand washing are the bare minimum which is the need of the hour in order to flatten the epidemic curve so that health care systems are less overwhelmed. [11]

**DISCUSSION**

In the SARS outbreak of 2002, 21% of those affected were healthcare workers. To prepare for future potential outbreaks of SARS and other emerging infectious diseases, appropriate infection control measures in healthcare settings were implemented by few countries. Even after that, in Italy, US, Spain, China and other European countries Health care workers have contracted COVID-19 from working with inadequate equipment or being exposed to asymptomatic carriers. [15]

Few subclinical patients can transmit the virus effectively and also shed high amounts of the virus and infect others even after recovery from the acute illness. These findings warrant aggressive measures (such as N95 masks, goggles, and protective gowns) to ensure the safety of health-care workers during this COVID-19 outbreak, as well as future outbreaks. [2] Isolation of confirmed or suspected cases with mild illness at home is recommended. Social distancing, can help flatten the curve and prevent excessive load on health care facilities and prevent collapse of health care system. Efforts should be made to devise comprehensive measures to prevent future outbreaks of zoonotic origin. [16]

Not only fatigue and burnout, healthcare workers are also susceptible to frustration or the fear of contracting the disease or guilt of transmitting infection. They need peer support sessions, adequate work breaks, shifts and organization of leave structure as well as scope for catharsis. [17]

**CONCLUSION**

Protective gears should be provided to healthcare workers with preference, to prevent them from being super spreaders of the disease. The patients with suspected COVID 19 disease should be directed to dedicated COVID 19 treating hospitals, to prevent mixing of patients. Social distancing if practiced properly can flatten the epidemic curve and prevent collapse of health system and professional burn out. Government should strengthen the law and provide safety to frontline health care workers.

**References**

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