Short Review

Healthcare Workers have Become Covid Victims: Are we Failing Them?

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Citation: Kumar MM (2021) Healthcare Workers have Become Covid Victims: Are we Failing Them? J Anes Rese 1: 002.

Received: August 23, 2021

Accepted: September 07, 2021

Published: September 15, 2021

At the start of 2020, the world was hit by the Covid-19 pandemic. Healthcare workers at the frontline had their work applauded and were given the title 'Covid warriors' for they were clearly putting their life at risk.

While the general population was asked to 'Stay at Home', healthcare workers were going to work. Dedicated to their profession and expecting the recommended precautions to safeguard them from the deadly disease, they did not perceive themselves as warriors. Early evidence across the world highlighted that patient-facing healthcare workers were at a significant risk of infection, and the need for protective gear was identified [1-7]. Protecting staff members is crucial as we rely on them to keep the service afloat. If they get infected, not only do they risk their own health, but while they are asymptomatic, they could also potentially spread the virus to their own family and patients. Their absence due to the need to isolate and illness leads to further shortage of the much-needed workforce. Health and Safety at Work Act 1974 mandates a safe environment for the workforce, such that there is no risk to their welfare, health and life. It is the responsibility of the employer to ensure safety, but this risk appears to be consistently overlooked.

PPE

In March 2020, Guidance for the use of Personal Protective Equipment (PPE) by the healthcare workers was issued [8]. The World Health Organisation (WHO) recommended that the disease was significantly more infectious than originally perceived and hence, patient facing staff needed better protection [9]. The guidance has been subsequently revised, numerous times, but healthcare workers continue to get infected as some sections of the guidance remain inadequate.

Infection Prevention and Control experts have confirmed that transmission of Covid-19 is aerosol based and Aerosol Generating Procedures such as upper airway manoeuvring during intubation, ventilation, high flow oxygen administration, bronchoscopy and Upper Gastrointestinal tract endoscopies produce a high risk of viral transmission. These procedures would generally be performed in Operating Theatres and Intensive Care units. Based on this risk stratification, the recommendation is level 3 PPE with FFP3 masks (highest specification aerosol filtering devices), fluid repellent surgical gown, eye protection and gloves for these scenarios. Droplets generated by breathing, talking and coughing are not deemed to be as dangerous and are believed to require much less stringent precautions. Thus, the doctors, nurses and other staff working closely with patients who are confirmed to have Covid-19, are only required to wear 'droplet precaution PPE', which include a standard fluid repellent surgical face mask, eye protection, a flimsy plastic pinafore apron and gloves. The World Health Organisation (WHO) recommended, back in April, that personnel working closely with Covid-19 positive should be wearing at least FFP2 masks and not such ordinary masks [10]. However, UK guidance is still not in line with the WHO recommendation [11]. And yet, images from other countries clearly show ward based staff and paramedics wearing full level 3 PPE and even hazmat suits.

Evidence of Increased Risk of Morbidity and Mortality of Healthcare Professionals

In a large cohort-based study, Shah et al found that the number of doctors and nurses getting infected and succumbing to Covid is significantly high [12]. While it is hard to pinpoint when and where an individual caught the infection, higher prevalence than that in the community points towards infection due to exposure at work. There are numerous publications looking at data that demonstrated that health care professionals, and members of their household are three to six times more likely to require hospitalisation for treatment of Covid than the general population [12,13]. In the general population, the risk of death is higher amongst the geriatric age group, and amongst men. On the other hand, healthcare workers are younger and healthier, and constitute a larger number of women than men. The risk of death due to Covid-19 has been estimated to be up to seven times higher amongst patient-facing healthcare professionals when compared with demographically similar section of the population adjusted for age, sex and socio-economic factors [14,15]. Ethnicity of the professional appears to have a role as well, with the ethnic minorities being at a disproportionately higher risk of mortality [15].

Symptoms of Covid-19 can often be delayed or mild while the person could be shedding the virus. Infected but asymptomatic staff have been thought responsible for causing outbreaks within the hospital environment generating clusters of nosocomial infection cases, even though the hospital is likely to be the place they caught the infection in the first place [16].

It would be an expectation that anaesthetists, intensivists and those performing oral and airway surgery were at a higher risk due to the potential aerosol generation. Ing, Xu and Torun looked at data from across the world and found that although there was a lot of variability within the limited amount of data, there were emerging patterns. There was a higher death rate amongst dentists, otorhinolaryngologists and anaesthetists, followed by General Physicians and Emergency Department doctors [6]. Early data from Italy had the General practitioners as the most at risk [5]. In the UK, there is now plenty of evidence to show that anaesthetists and intensivists have an unexpectedly low incidence of Covid-19 [15]. Eyre et al also found that anaesthetists and intensivists were relatively protected by PPE-related measures and had a much lower risk compared to staff working in acute medicine in patient facing roles, including porters, cleaners, nurses, healthcare assistants and junior doctors [17]. The staff on the wards therefore appear to be inadequately protected by the lower level of PPE recommendation.

Healthcare workers are dealing with unusual stresses currently. Caring for dying patients in the absence of family support for end-of-life care is leading to post traumatic stress disorder. Fatigue, prolonged working hours in the current stressful work environment, and the appreciation of risk to their own health is leading to increased psychological problems. Along with infection, mental health is contributing to increased staff absences.

Key Messages

- High number of patient-facing healthcare workers are getting infected with Covid-19 with the resultant risk of illness and death significantly higher than that in the general population.
- PPE Guidance does not provide adequate protection of patient facing staff and puts them at an unacceptable occupational risk.
- Asymptomatic infected staff can cause outbreaks of nosocomial Covid-19 infection for inpatients.

Conclusion

Effective management of the pandemic relies on prevention and control of spread of the pathogen. The government is attempting to control the spread in the community, but healthcare staff continue to be exposed. A high number of patient-facing healthcare workers are getting infected with Covid-19 with the resultant risk of illness and death significantly higher than that in the general population. Doctors and nurses are trained to provide care. They are not warriors. They are neither prepared for death in the line of duty, nor should they be expected to. It is hard to understand why health care workers do not need high level protection from a coughing covid-19 patient with a high viral load? After all, that is how covid-19 spreads in the community. PPE Guidance does not provide adequate protection of patient-facing staff and puts them at an unacceptable occupational risk. The guidance is not in line with WHO recommendations either. As per Health and Safety Regulations this level of occupation risk is unacceptable. It is evident that PPE Guidance issued was based on availability of resources rather than science and there is a need for it to be addressed urgently.

Conflicts of Interest

None

References

1. Zheng L, Wang X, Zhou C, Liu Q, Li S, et al. (2020) Analysis of the Infection Status of Healthcare Workers in Wuhan During the COVID-19 Outbreak: A Cross-sectional Study. Clin Infect Dis 71: 2109-2113.
2. Zhang Z, Liu S, Xiang M, Li S, Zhao D, et al. (2020) Protecting healthcare personnel from 2019-nCoV infection risks: lessons and suggestions. Front Med 14: 229-231.
3. Sim MR (2020) The COVID-19 pandemic: major risks to healthcare and other workers on the front line. Occupational and Environmental Medicine 77: 281-282.
4. Sant'Ana G, Imoto AM, Amorim FF, Taminato M, Peccin MS, et al. (2020) Infection and death in healthcare workers due to COVID-19: a systematic review. Acta Paul Enferm 33.
5. Lapolla P, Mingoli A, Lee R (2021) Deaths from COVID-19 in healthcare workers in Italy-What can we learn? Infect Control Hosp Epidemiol 42: 364-365.
6. Ing EB, Xu QA, Salimi A, Torun N (2020) Physician deaths from corona virus (COVID-19) disease. Occup Med (Lond) 70(5):370-374.
7. Kua J, Patel R, Nurmi E, Tian S, Gill H, et al. (2020) healthcare COVID: A national cross-sectional observational study identifying risk factors for developing suspected or confirmed COVID-19 in UK healthcare workers.

8. Sayburn A (2020) Covid-19: PHE upgrades PPE advice for all patient contacts with risk of infection. BMJ 369: 1391.

9. Rimmer A (2020) Covid-19: doctors still do not have proper PPE. BMJ 369: 1423.

10. World Health Organisation (2020) Advice on the use of masks in the context of COVID-19: interim guidance, 6 April 2020. World Health Organisation.

11. Public Health England (2021) COVID-19: Guidance for maintaining services within health and care settings Infection prevention and control recommendations. Public Health England.

12. Shah ASV, Wood R, Gribben C, Caldwell D, Bishop J, et al. (2020) Risk of hospital admission with coronavirus disease 2019 in healthcare workers and their households: nationwide linkage cohort study. BMJ 371: 3582.

13. Karlsson U, Fraenkel CJ (2020) Covid-19: risks to healthcare workers and their families. BMJ 371: 3944.

14. Mutambudzi M, Niedwiedz C, Macdonald EB, Leyland A, Mair F, et al. (2020) Occupation and risk of severe COVID-19: prospective cohort study of 120 075 UK Biobank participants. Occup Environ Med.

15. Kursumovic E, Lennane S, Cook TM (2020) Deaths in healthcare workers due to COVID-19: the need for robust data and analysis. Anaesthesia 75: 989-992.

16. Huff HV, Singh A (2020) Asymptomatic Transmission During the Coronavirus Disease 2019 Pandemic and Implications for Public Health Strategies. Clin Infect Dis 71: 2752-2756.

17. Eyre DW, Lumley SF, O'Donnell D, Campbell M, Sims E, et al. (2020) Differential occupational risks to healthcare workers from SARS-CoV-2 observed during a prospective observational study. Elife 9: 60675.