

Covid versus Nurses: Initiative to combat

Grover Anu, Yadav Usha

Assistant Professor, SGT University, Gurugram

Assistant Professor, SLTO, SGT University, Gurugram

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I. Introduction

The emergent infectious disease caused by newly discovered coronavirus which has been originated from Wuhan, China in the month of November,^{1,2} and on January 30th 2019 it was declared as public health emergency of international concern by WHO and on 11th March it became a pandemic^{3,4,5} The number of confirmed cases has touched the mark of 3.76 million with no signs of slowing down.³⁵ Till May 9th 2020, the confirmed cases are 59,662 over time and death toll has surpassed 1,981 in India. According to the data collected by the Johns Hopkins University in the United States, more than 896,000 people have been recovered from the disease, worldwide.^{5,6}

Talking about symptoms of covid -19 it includes fever, dry cough, fatigue or malaise, shortness of breath and sometimes person may complain of anosmia (loss of smell), covid toes.^{7,8,9,34} People may complain of nasal congestion, throat pain, runny nose, diarrhoea sometimes.¹⁰ The complications may include Pneumonia, and acute respiratory distress syndrome¹¹ The virus spreads through the respiratory droplets expelled by the infected person who coughs or have other symptoms like fever or tiredness. The time span from exposure to onset of the symptoms is considered as five days but may vary from 2-14 days.^{10,12,13} COVID-19 impacted every section of community, and if we talk Specifically about the real warriors , Doctors ,Nurses and other health care workers who are addressing the pandemic with no known vaccine or specific antiviral treatment, it is a fight to save their own life along with patients. As there is no known vaccine or specific antiviral treatment it is a fight to save their own lives if we talk about the doctors and nurses who are addressing the pandemic, by giving the different levels of treatment which is symptomatic and supportive therapy and facing an unprecedented global crisis.^{14,15,19}

Nurses play a vital role locally and globally as well. Day in and day out they are on front lines for the patients affected by this virus.¹⁸ The care of the infected patients putting a direct risk to the nurses working with or caring a person with this disease which may cause many risks to the nurses which can be potentially harmful for their physical, and psychosocial health aspect. It becomes more disturbing mentally when they provide care to their own colleagues who are getting sick with Covid-19. Due to continuous working hours and with full PPEs it puts stress to their working environment due to the fast moving outbreak. It is actually very challenging for the nurses when they know they might be at risk in their job profiles,¹⁷ though several vaccination trials are underway in different parts of the world. India is pitching plasma therapy as an effective mode of treatment³⁵, but considering many life threatening complications has not been adopted as a permanent solution for this crisis as it is being experimented with and there is no evidence to support it as a treatment, said Lav Agarwal, Joint secretary health ministry.³⁶

Through the use of evidence-based practice and studies related to the prevention of disease, nursing has come a long way and has to lead the charge of decreasing risks to the personal and professional life, but still during this emerging disease there are some responsibilities such as following the IPC guidelines and so on, which nurses should follow or fulfil.¹⁶ According to Terri Rebmann, a nurse researcher and director of the Institute for Biosecurity at Saint Louis University, the Health care workers spend a lot of time in close contact with the patient doing aerosol generating activities which includes putting the patients on ventilators or collecting sputum samples of affected with covid -19.¹⁷

Hand Hygiene: A scientific approach and a practical solution to prevent from the harm of any kind of a problem is infection prevention, says WHO.²⁰ Evidence from both the SARS and COVID-19 epidemics, shows that hand hygiene which have mechanical and chemical action is very important to protect health care workers from getting infected.²¹ Using the right technique at a right time for hand washing will help to prevent a spread of infection which is key responsibility of a nurse.²⁴ Nurses must be constantly attentive to prevent the spread of contagious disease²⁹ and you should make sure that after every touch you wash your hands with soap and water.²² Addition to this hand washing will definitely help to remove the germs through mechanical action.²³

Rational use of Personal Protective Equipments (PPEs): A comprehensive understanding of infection prevention and control is mandatory for nurses while seeking to protect themselves, patients, colleagues and community. So taking it after the hand hygiene, understanding the key component of the proper use of PPE is when and how to put it on (don) and how to take it off (doff) again comes under lead responsibilities. The nurses should select the appropriate PPE like a HAZMAT SUIT³⁷ before undertaking any clinical intervention according to the provision of ministry of health.²⁶ Preventing the spread of infection to and from nurses and patients depends totally on your prompt actions by the effective and proper use of Personal protective equipments i.e cover all gowns or plastic aprons, Triple layer medical mask or N-95 Respirator mask, goggles, face shields and gloves, head and shoe cover.^{27,29}

Utility of Personal Protective equipments (PPEs): Using the PPEs is not only the role as a nurse, well taking care of inventory and reducing the unnecessary cost is again an important part of their jobs.²⁵ A critical shortage of the PPEs is already been projected in the areas of high demand. Due to the precious commodity and scarcity the nurses should identify the different levels of operational status given by the centers for disease control and prevention, which are being highlighted as 3 levels known as conventional, contingency and crisis.²⁸ Considering the advice given by the Government you should utilize the resources that masks will protect the community at large level, and also there is guide for making the masks at home in the manual also lays down steps to make these face covers and masks at home using just clean strips of cloth and a sewing machine.³⁸

As a nurse leader: As a nurse leader you should communicate and have liaison with the hospital administrators to develop scheduled meetings regularly to inform the nurses working under you regarding the updated policies, IPC, triage of Covid patients and other safety measures as mentioned by the Ministry of health based on the infection prevention and control also on other safety measures as well. You should be with the staff in managing the internal conflicts which can arise in personal and professional responsibilities at the time of Covid -19 will definitely help to relieve your employees from the mental stress to improve the productivity. Other than this, a meaningful recognition to the staffs actually engaged with the affected patient care efforts will promote the healthy working and reinforce the staff resilience.³⁰

Knowledge upgradation: Last but not least the knowledge always there whether it is for you, for your patients moreover their relatives or community. It is important that you should be trained and have the knowledge to get perfect on skills, evidence based treatments and care modules in your hand to prevent the infection and promote the health and well being of a patient in this situation of covid-19.¹⁸ Attending the Staff Development Programmes to upgrade your knowledge will be help for you to provide the compassionate care to your clients has been discussed in one of the mixed method systematic review.³³

You as an individual: As an individual here as a nurse you are the key stakeholder to prevent the spread of disease and also to promote the well being of you and community .The first and foremost that you as an individual should maintain social distancing ,Hand hygiene and respiratory hygiene while in common areas and during the break timings. Stay home if you are sick is the another thing to keep in mind for you as a nurse. If you get sick during your working hours wear face mask, inform the supervisor and leave the workplace and consider it as priority by handing over your work to another assigned person. Don't hesitate to get screened and tested. Start your shift after the thermal screening daily and also end up with the same. Feel comfortable to inform on the change of ward if you have been exposed to high risk areas before especially in covid-19 wards.³¹ Look after yourselves and your colleagues, because togetherness is the way forward through the uncertain times we face, says Howard Catton the chief executive officer of ICN In one of his post on twitter . So, in a time of crisis you as a nurse should step up and step forward whenever it is required.³²

Advocacy and managerial responsibilities: Last but not least disseminating knowledge and facts to the community on the prevention of infection as a health education should be considered as an important task by you as a professional nurse. You should be enthusiastic at your managerial roles and it will be better support by you for your clients and community if you can become their advocate to help them in the situation of crisis.

As nurses around the world are working like the strong warriors under this stressful and confusing situation, battling with COVID-19 infection and its humanitarian crisis with limited protective supplies.

As nurse's possess a unique spirit of courage, compassion, care, it is necessary for them to understand the importance of various modalities through which they can withstand adversity and humanize health care.

This pandemic does not change our professional phenomenon of providing basic nursing care but invariably it bring us all together with strong perspective which will help us to go above and beyond to the centre care around the patient and their best interest. So, it's high time for managers and hospital administrators too, to think and understand the support required by nurses to ensure the provision of effective and efficient care.

References:

- [1]. March 2020, Jeanna Bryner-Live Science Editor-in-Chief 14. "1st known case of coronavirus traced back to November in China". livescience.com. Retrieved 30 April 2020.
- [2]. "WHO | Novel Coronavirus—China". WHO. Retrieved 9 April 2020.
- [3]. Statement on the second meeting of the International Health Regulations (2005) Emergency Committee regarding the outbreak of novel coronavirus (2019-nCoV)". World Health Organization. 30 January 2020. Archived from the original on 31 January 2020. Retrieved 30 January 2020.
- [4]. Jump up to:^a ^b ^c "WHO Director-General's opening remarks at the media briefing on COVID-19—11 March 2020". World Health Organization. 11 March 2020. Retrieved 11 March 2020
- [5]. COVID-19 Dashboard by the Center for Systems Science and Engineering (CSSE) at Johns Hopkins University (JHU)". ArcGIS. Johns Hopkins University. Retrieved 30 April 2020
- [6]. <https://www.aljazeera.com/news/2020/01/china-coronavirus-500-words-200127065154334.html>
- [7]. "Q&A on coronaviruses". World Health Organization. 11 February 2020. Retrieved 13 April 2020.
- [8]. Hopkins C. "Loss of sense of smell as marker of COVID-19 infection". Ear, Nose and Throat surgery body of United Kingdom. Retrieved 28 March 2020.
- [9]. ^ Jump up to:^a ^b "Coronavirus Disease 2019 (COVID-19)—Symptoms". Centers for Disease Control and Prevention. 20 March 2020. Retrieved 21 March 2020
- [10]. <https://www.who.int/news-room/q-a-detail/q-a-coronaviruses>
- [11]. Interim Clinical Guidance for Management of Patients with Confirmed Coronavirus Disease (COVID-19)". Centers for Disease Control and Prevention. 4 April 2020. Retrieved 11 April 2020
- [12]. "Symptoms of Novel Coronavirus (2019-nCoV)". US Centers for Disease Control and Prevention. 10 February 2020. Retrieved 11 February 2020.
- [13]. ^ Velavan TP, Meyer CG (March 2020). "The COVID-19 epidemic". *Tropical Medicine & International Health*. 25 (3): 278–280
- [14]. Caring for Yourself at Home". Centers for Disease Control and Prevention. 11 February 2020. Retrieved 23 March 2020
- [15]. <https://www.wired.com/story/coronavirus-covid-19-healthcare-risks-equipment/>
- [16]. How Do Nurses Protect Themselves from Highly Infectious Patients?<https://www.registerednursing.org/how-nurses-protect-from-highly-infectious-patients/>
- [17]. Health care workers at high risk of catching covid -19<https://www.theverge.com/2020/3/5/21166088/coronavirus-covid-19-protection-doctors-nurses-health-workers-risk> By Nicole Wetsman Updated Mar 6, 2020
- [18]. <http://www.buffalo.edu/ubnow/stories/2020/04/qa-sands-nurses-covid.html> Q&A The role of nurses in the COVID-19 pandemic By CHARLES ANZALONE Published April 10, 2020
- [19]. https://www.who.int/docs/default-source/coronaviruse/who-rights-roles-respon-hw-covid-19.pdf?sfvrsn=bcabd401_0 coronavirus disease (covid-19) outbreak: rights, roles and responsibilities of health workers, including key considerations for occupational safety and health
- [20]. <https://www.who.int/infection-prevention/about/ipc/en/>
- [21]. (Seto WH et al, "Lancet" 2003; Ran L et al, "Clin Infect Dis" 2020).
- [22]. (Sickbert-Bennett EE et al, "Am J Infect Control" 2005).
- [23]. (WHO Guidelines on Hand Hygiene in Health Care 2009).
- [24]. https://www.who.int/infection-prevention/campaigns/clean-hands/WHO_HH-Community-Campaign_finalv3.pdf?ua=1
- [25]. <https://journals.rcni.com/nursing-standard/cpd/use-of-personal-protective-equipment-in-nursing-practice-ns.2019.e11260/full>
- [26]. (Siegel et al 2007, National Health and Medical Research Council 2010)Appropriate use of PPE
- [27]. March 28, 2020Sourcing Personal Protective Equipment During the COVID-19 Pandemic Edward Livingston, MD¹; Angel Desai, MD, MPH¹; Michael Berkwits, MD, MSCE¹ Author Affiliations Article Information JAMA. Published online March 28, 2020. doi:10.1001/jama.2020.5317
- [28]. Strategies for optimizing the supply of facemasks. Centers for Disease Control and Prevention. Published March 17, 2020. Accessed March 27, 2020. <https://www.cdc.gov/coronavirus/2019-ncov/hcp/ppe-strategy/face-masks.html>
- [29]. <https://www.registerednursing.org/how-nurses-protect-from-highly-infectious-patients/How-Do-Nurses-Protect-Themselves-from-Highly-Infectious-Patients?>
- [30]. Nursing Leadership Concerns Shih FJ, Turale S, Lin YS, et al. Surviving a life-threatening crisis: Taiwan's nurse leaders' reflections and difficulties fighting the SARS epidemic. *J Clin Nurs*. 2009;18(24):3391-3400.
- [31]. <https://www.cdc.gov/coronavirus/2019-ncov/hcp/long-term-care.html>
- [32]. Covid -19 has seen nurses around the world do what nurses always do: step up <https://rcni.com/nursing-standard/opinion/comment/covid-19-has-seen-nurses-around-world-do-what-nurses-always-do-step-158506>
- [33]. The impact of compassionate care education on nurses: A mixed-method systematic review <https://onlinelibrary.wiley.com/doi/pdf/10.1111/jan.14088>
- [34]. <https://www.indiatoday.in/coronavirus-outbreak/story/covid-toes-among-kids-new-symptom-of-novel-coronavirus-infection-1670462-2020-04-24> covid toes among kids: New symptom of Novel coronavirus infection.
- [35]. <https://timesofindia.indiatimes.com/life-style/health-fitness/health-news/all-you-need-to-know-about-plasma-therapy-that-is-being-touted-as-an-effective-coronavirus-treatment/photostory/75605066.cms> coronavirus treatment: All you need to know about plasma therapy that is being touted as an effective treatment for COVID-19.
- [36]. <https://www.hindustantimes.com/india-news/plasma-therapy-not-approved-treatment-for-covid-19-can-be-dangerous-says-centre/story-vTeSdM43Q7ND3UiThCAZK.html> plasma therapy not approved treatment for covid-19,can be dangerous, says centre.
- [37]. <https://www.scmp.com/week-asia/health-environment/article/3077339/coronavirus-choice-indonesian-nurses-used-hazmat-suit> A coronavirus choice for Indonesian Nurses: used hazmat suit or raincoat.
- [38]. <https://www.hindustantimes.com/india-news/coronavirus-cloth-scissors-sewing-machine-govt-issues-manual-on-making-masks-at-home/story-JBL5ilrO3k211NIFDb6h4O.html> coronavirus:cloth, scissors, sewing machine- Govt's DIY guide on making masks at home.

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