

## COVID-19: THE ROLE OF INFECTION CONTROL IN PROTECTING THE HEALTHCARE WORKERS IN VIETNAM

Tran Dinh Binh<sup>1\*</sup>, Tran Thanh Loan<sup>1</sup>

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### ABSTRACT

*Protecting healthcare workers (HCWs) is a top priority in COVID-19 pandemic at this time. HCWs who carry the pathogens will increase the risk of infecting their patients, their colleagues as well as the community. Therefore, HCWs must follow the guidance of preventive measures issued by the Ministry of Health to ensure safety, although that means they have to work under uncomfortable condition. That is the reason why the role of surveillance and assessment the risk of infection is extremely critical. Only with regular and continuous supervision, with instructions and reminders, can HCWs effectively prevent the COVID-19 infection, especially while being under intensity - work pressure of the current situation.*

**Keywords:** COVID-19, surveillance, healthcare workers (HCWs), risk of infection.

### I. INTRODUCTION

From the very first days of the COVID-19 outbreak, the health sector was acutely aware that healthcare workers (HCWs), who have potential contact with patients, their blood or body substances, are at high risk of acquiring or transmitting COVID-19 infections to others, as human-to-human transmission of SARS-CoV-2 occurs frequently through close contact activities, particularly at the medical facilities [1 - 4].

According to World Health Organization statistics, the rate of COVID-19 infection among HCWs is much higher than that of people in the community. While HCWs make up only 3% of the global population, they account for up to 14% of infected cases reported to WHO. It is estimated that about 10% of HCWs have been infected with COVID-19 all over the world [2 - 6]. In Vietnam, up to August 2021, according to the Vietnam National

Union of Health Working, over 2,300 HCWs have been infected since the COVID-19 pandemic emerged 18 months ago, and three have lost their lives, proving the danger of COVID-19 to health sector in particular and to the community in general [7, 8]. To ensure the epidemic control, management and prevention to be carried out smoothly and continuously by the healthcare system, protection of HCW must be a priority. Infection control is considered as an important key to reduce infection rates in the healthcare settings. Thus, infection control need to be properly and prudishly implemented to ensure the well - being of not only HCW but also the general public in the fight against COVID-19.

The Ministry of Health (MoH) has issued documents guiding the prevention and control of SARS-CoV-2 virus infection for HCWs at medical examination

<sup>1</sup>Hue University of Medicine  
and Pharmacy Hospital

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- Corresponding author: Tran Dinh Binh  
- Email: tdbinh@huemed-univ.edu.vn; Phone: 0913363930

and treatment establishments since the outbreak of COVID-19 in March 2020, in which infection control is considered as key measure. Decision No. 4158/QD-BYT dated August 28, 2021 [8] on promulgating the guidance for management of HCWs in risk of COVID-19 infection in Health Care Facility, and Decision No. 5188/QD-BYT dated December 14, 2020 [9] promulgating the guidance on prevention and control of SARS-CoV-2 in medical examination and treatment establishments were the two most recent documents. The guidelines include basic infection control principles as well as specific control measures in patient admission and screening process, handling of medical equipment, etc... which helps protect patients, their family members as well as HCWs from SAR-CoV-2 infection.

Medical facilities have implemented relevant activities base on those documents. COVID-19 epidemic prevention and control in practice has demonstrated the remarkable effectiveness of infection control in protecting the HCWs who directly participated in screening, tracing, examining, caring and treating Covid-19 patients. Therefore, the following measures of infection control should be fully performed at the healthcare settings, COVID-19 patient admission and treatment facilities, and infection control units.

## **II. THE ROLE OF INFECTION CONTROL**

### **2.1. Infection control training and arming**

- All the HCWs have to be armed with knowledge, skills, attitudes and practices for prevention of COVID-19 infection at medical examination and treatment establishments. The Ministry of Health, the hospitals and health organizations have continuously hold training courses as well as seminars both face-to-face and online in order to ensure that all HCWs were possible to access these above contents. Nevertheless, there were still HCWs who were so subjective that they have not paid enough attention to the training courses. It is recommended to check the basic knowledge and skills of these people before actually participating in the fight against COVID-19.

- All the HCWs directly involving in the fight against the epidemic need to be fully and properly equipped with personal protective equipment (PPE) according to the MoH instructions in Decision no. 1616/QD-BYT dated April 08 2020 [10] on interim guidelines on technical requirements for COVID-19 personal protective equipment and classification and selection thereof, and Decision 4159/QD-BYT dated August 28, 2021 [11] on promulgating the guidance for selection and use of PPE for prevention and control COVID-19. In case the equipment and/or the suitable PPE according to work requirements is inadequate, HCWs should not enter the epidemic areas or expose to F0 [4].

- To organize the F0 treatment area, the medical facilities have to comply with the basic requirements on organization, arrangement, and assurance of work according to Decision 4111/QD-BYT dated May 26. August 2021 [12] on promulgating the Guidance for setting up the three-tiered COVID-19 treatment model.

### **2.2. Infection control arrangement and implementation**

- The medical facility managers have to sufficiently and appropriately arrange human resources for the work at all stages. Only arrange HCWs who have been trained and proficiently practiced infection prevention measures to directly treat and serve infected or suspected patients with COVID-19. Do not arrange HCWs who have not been trained or have not passed the test of knowledge and skills in COVID-19 infection prevention. Do not arrange HCWs who are too old, with underlying medical conditions, pregnant or have children under 12 months of age as well as HCWs who have not been fully vaccinated. At the same time, it is necessary to arrange appropriate working shifts to ensure the well-being of the HCWs [3 - 5, 8].

- Based on the guidance documents of superiors, the medical facility managers develop and fully disseminate specific procedures to the HCWs on separation, screening, examination, admission, transfer, care and treatment... that appropriate to their medical facilities. Meanwhile, all HCWs must

be clearly educated and adequately trained on the implementation of these regulations [8].

- Based on the guidance documents of the superiors, the medical facility managers fully establish infection control procedures (with checklist) when performing the medical procedures of caring and treating COVID-19 patients in accordance with the specific tasks of each medical facility [8].

### **2.3. Infection control surveillance and assessment**

- The risk of HCWs infection assessment must be carried out daily after work shifts by using checklists. Checklists are built to monitor activities such as classification, screening, examination, admission, transfer, care, treatment, etc.... By assessing the risk of infection of HCWs, the leaders could adjust appropriate plans of human resource. All HCWs at the COVID-19 admission and treatment establishments need to closely and consistently follow the principles to reduce the risk of infection [9].

- It is necessary to arrange human resource sufficiently to guide and supervise HCWs who

carrying out the medical procedures ... in order to report and assess the risk of infection of HCWs as well as to propose appropriate management plans. At the same time, recommends sanctions to the medical unit managers when HCWs violate regulations on epidemic prevention [8, 9, 12].

### **III. CONCLUSION**

Protecting healthcare workers is a top priority at this time. HCWs who carry the pathogens will increase the risk of infecting their patients, their colleagues as well as the community. Therefore, HCWs must follow the guidance of preventive measures issued by the Ministry of Health to ensure safety, although that means they have to work under uncomfortable condition. That is the reason why the role of surveillance and assessment the risk of infection is extremely critical. Only with regular and continuous supervision, with instructions and reminders, can HCWs effectively prevent the COVID-19 infection, especially while being under intensity - work pressure of the current situation.

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