

Discussion on infection prevention and control when media reporters enter into isolation wards during COVID-19 epidemic

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Abstract

The mass media serves as an indispensable force in the prevention and control of epidemics, and plays a vital role in information distribution, public opinion guidance and confidence enhancement during a pandemic of infectious diseases. However, due to the particularity of infectious disease outbreaks, interview work in medical institutions should be conducted in an orderly and efficient manner under the guidance of hospital-acquired infection control and prevention protocols. This paper summarizes measures for infection control during news material collection in isolation wards from Beijing's medical aid team to Hubei province in the fight against COVID-19, so as to provide a reference for the media to carry out relevant work on the prevention and control of infectious diseases in the future.

Keywords

COVID-19; Media reporter; Isolation ward; Hospital-acquired infection control

Since December 2019, there has been an COVID-19 outbreak in Wuhan, Hubei Province. With the spread of the epidemic, such cases have been found in other parts of China and in many countries abroad. As an acute respiratory infectious disease, COVID-19 has been included in the Class B infectious diseases stipulated in the Law of the People's Republic of China on the Prevention and Treatment of Infectious Diseases, and shall be managed according to Class A infectious disease [1].

Dr. Tedros Adhanom Ghebreyesus, Director-General of the World Health Organization (WHO), declared that COVID-19 outbreak was "a public health emergency of international concern (PHEIC)" on January 30, 2020 [2]. The epidemic has rapidly attracted much attention throughout the country since its outbreak, and the task of treatment has been arduous and urgent.

From January 24, 2020 to March 1, 2020, a total of 344 national medical teams and a total of 42,322 medical personnel were sent to assist Hubei in batches. In order to solve the problem of bed shortage for suspected cases in isolated treatment, as of February 20, the Wuhan Municipal Health Commission had opened 48 designated hospitals with 20,969 beds. As of February 22, 15 mobile cabin hospitals in Wuhan have been open to the public for treatment of COVID-19 patients, and results were gradually achieved as "suspected patients would all be admitted" [3], and the fight against COVID-19 was in full swing throughout the country.

In addition to the medical and logistics personnel involved in the treatment, there are also a group of people reporting

the latest anti-epidemic information on the "front line", as part of the efforts to encourage the whole society to build up confidence, provide the most authentic treatment scenes on the "battlefield", and allow more people understand the "the most beautiful people who are going in the reverse direction than most others" in the process of fighting the epidemic - they are reporters shuttling through various hospitals, community treatment points, and isolation points.

Media reporting serves as an indispensable force in epidemic prevention and control, and it is one of the important windows for the public to deal with the epidemic and understand the knowledge of protection. Using all kinds of media to do a good job in broadcast and reporting and guiding the public by positive public opinions can help the public deepen their understanding of epidemic prevention and control, master the knowledge of epidemic prevention and control, actively cooperate and have a sense of participation, and play a positive role in epidemic prevention and control [4]. In the process of anti-epidemic measures, a large number of journalists entered epidemic areas and even the most dangerous front line, transmitting a large number of anti-epidemic messages.

According to incomplete statistics, during 65 days of aid to Hubei's battle against COVID-19, more than 10 journalists followed Beijing's medical team to assist Hubei, and they have published more than 90 full-page reports, more than 2,000 manuscripts, more than 600 new media products, and there have been more than 400 million hits for their reports on the Internet. Members of the hospital-acquired infection management group of Beijing's medical team to assist Hubei Province

assessed the exposure risk during media interviews and applied a series of infection prevention and control measures. As of April 13, 2020, members of the medical team and relevant journalists returned to Beijing after 14 days of quarantine. Their nucleic acid and antibody tests were all negative.

Compared with sudden disaster rescue, the epidemic situation of infectious diseases features rapid spread, wide radiation and great harm. The nature of the work requires reporters to conduct in-depth interviews, and reporters are also faced with danger and uncertainty like those experienced by medical staff during their on-site interview work. More targeted protocols are required for the prevention and control of hospital-acquired infection in this kind of population. There are still some issues worthy of discussion in the risk management of media reporters entering isolation wards for photo or video shooting and interviewing. The experience is summarized below from the point of view of prevention and control of hospital-acquired infection. In this paper, isolation areas include clean areas, potentially contaminated areas and contaminated areas.

1. Classified management of reporters

Reporters are divided into two categories: resident correspondents, and non-resident reporters who cover news temporarily. As members of the medical teams, resident correspondents need to be managed uniformly in accordance with the rules of station management of medical personnel, including their accommodation, diet, work behavior patterns and so on. When non-resident reporters temporarily enter the isolation wards for interviews, the infection risk should be evaluated as to their form of interviews, and then infection prevention and control management should be conducted according to the risks.

2. Risk evaluation on form of interviews

2.1 Online interview

Traditional on-the-spot interviews will be affected by unexpected situations such as time, weather, itinerary, and so on. With the development of scientific and technological information, the era of new media has arrived. In order to improve the efficiency of interviews, great changes have taken place in the means and planning of media interviews. For example, the Internet can be selected for remote online interviews, and real-time communication can be carried out through the Internet connection, which eliminates the need for staff to come to the scenes in person, and further reduces the risk of exposure of media reporters. Meanwhile, interviews can be conducted through mobile apps for messaging such as WeChat, e-mail, etc., as the interview content can be sent to the interviewees and the interviewees can edit and provide feedback in detail and in-depth communication can be carried out. Such interviews can be conducted through simultaneous multithreading; moreover, the schedule is flexible; efficiency is greatly improved, and the risk of infection for media journalists is the lowest.

However, as the two sides of a remote interview cannot communicate face to face, the depth and breadth of the interview content are easily limited, and the success of the interview often depends on the capability and communication skills of

the interviewer and the interviewee. After entering the era of social media, as all kinds of video capture equipment are readily available and efficient, professional shooting equipment is no longer a necessary condition for making news, and the success of news interviews tests reporters' accurate analysis and original opinions on events. Therefore, unless there are more stringent requirements for interview scenes, there is no need for reporters to enter the isolation wards for real-scene interviews.

2.2 Interview in clean areas of isolation wards

For media journalists, the risk of infection in clean area interviews is low. However, medical workers who will also enter potentially contaminated areas and work in contaminated areas are at high risk for infection. At the same time, reporters will move among agencies in epidemic areas and may become carriers of pathogens through contact.

Therefore, in the process of media interviews, certain protective measures should be taken for the common contact of journalists and medical personnel in clean areas, such as wearing medical surgical masks, maintaining effective social distance, and avoiding handshakes, hugs and other behaviors, avoiding unnecessary exposure and reducing the risk of cross-infection.

2.3 Interview in potentially contaminated areas and contaminated areas of isolation wards

Media reporters are at the highest risk of infection in contaminated and potentially contaminated areas. Some studies have shown that during the fight against the SARS epidemic in Beijing, outpatient departments, emergency wards and inpatient wards were the main departments for the infection of medical staff during the period of medical integration. During the remission period when the epidemic was under control, the SARS wards became the main departments at high risk of infection for the medical staff [5]. Medical professionals can work in potentially contaminated areas and contaminated areas only after strict pre-job training in hospital-acquired infection.

As non-medical professionals, journalists have insufficient knowledge about infectious diseases, and they have various levels of personal hygiene habits and health literacy. It is difficult to carry out short-term training on infection prevention and control. After entering potentially contaminated areas and contaminated areas, they may face a higher risk of infection. At the same time, when all kinds of interview tools and personal belongings leave the area, if the final disinfection is not complete, they may also become the medium of transmission.

3. Measures based on risk evaluation

3.1 Daily life management of resident correspondents

The management of resident correspondents should be the same as that of the medical staff, with the same standard and unified management, and their daily living should comply

with the rules of resident management of medical personnel during the epidemic. Considering the nature of the interview work, the requirements in some specific aspects should be more stringent. As resident correspondents may go in and out of the isolation wards many times in their daily work, they should participate in skills training related to the prevention and control of infectious diseases and hospital-acquired infection together with medical staff, and pass the relevant examinations.

The training contents include but are not limited to the use of personal protective equipment, the route of transmission of infectious diseases, hand hygiene, and so on. Through professional training, resident media reporters can have certain knowledge and skills concerning infectious disease prevention and control.

3.2 Infection prevention and control measures for interview in isolation wards

Before entering isolation wards to carry out interviews, media reporters should be trained in the skills related to the prevention and control of infectious diseases. The training contents include management of hand hygiene and behaviors after entering isolation wards; layout of the isolation wards, donning and removal processes for protective equipment as well as concise communication gestures according to the areas designed for the interview. Media reporters who need to enter potentially contaminated areas and contaminated areas should also, in the first place, focus on practicing the processes of donning and removal of protective equipment and enter only after passing an assessment of proficiency.

Furthermore, the number of media reporters entering potentially contaminated areas and contaminated areas for interviews and filming should be reduced as much as possible. As non-medical professionals, journalists may have extreme fear and stress when they come into close contact with patients and the diagnosis and treatment environment, such as physical discomfort, collapse and other symptoms when wearing heavy protective equipment. Meanwhile, in case of emergencies such as dislodging or damage of protective equipment, if they cannot be dealt with properly in time, these reporters may face a greater risk of exposure. In addition, the space in the wards is small, and the medical equipment is complex, thus, there may not be sufficient space for interviews. It is also worth noting that there may be a temporary change for location of a camera stand, which will also have an impact on the normal order of diagnosis and treatment.

If it is necessary to obtain images from potentially contaminated areas and contaminated areas, medical personnel can assist media reporters to complete the collection. At the same time, media reporters may train medical staff about video capture, list detailed shooting contents and requirements before the interviews, and complete the collection of image materials in potentially contaminated areas and contaminated areas with the assistance of medical staff. After that, the reporter can carry on the post-production by themselves.

If media reporters have to enter the potentially contaminated areas and contaminated areas to carry out shooting work due to special shooting needs, they should put forward the

requirements to the medical management team of the quarantined ward in advance, and provide video shooting scripts for communication in advance. Afterwards, with the consent of the management team, the plan will be re-evaluated and implemented by the group in charge of hospital-acquired infection; the hospital staff will cooperate with the relevant shooting work on the condition that it is really feasible.

Guidelines for communication before the interview should be designed in advance to reduce the time of remaining in contaminated or potentially contaminated areas for the relevant personnel. Images that do not require presence in such areas should be arranged to be completed in clean areas as much as possible. When shooting in potentially contaminated areas and contaminated areas, the number of media personnel should be reduced as much as possible and shooting time should be strictly controlled; the equipment and personal belongings journalists carry should also be minimal, and mobile phones in the above areas could also be used to complete the shooting.

If professional photographic equipment must be brought in, isolation and disinfection of the equipment should be conducted, such as trying to select equipment with waterproof design, wrapping equipment with double protective covers, and disinfecting and disassembling equipment layer by layer when leaving. Afterwards, the surface of the equipment should be wiped with 75% alcohol. The equipment should be put in a sealed package before being taken out. The whole shooting process should be accompanied by hospital infection management professionals or experienced medical staff.

The accompanying personnel shall guide the behavior of media reporters in potentially contaminated areas and contaminated areas throughout the process, guide their route, and provide guidance and assistance in the process of donning and removal of protective equipment. At the same time, the medical management team in the isolation wards should also formulate strategies to deal with accidents such as fainting and accidental exposure, so as to minimize the risk of infection exposure (Table 1).

4. Discussion

During the epidemic prevention and control period, medical managers need to be familiar with the law of news publicity, respond to public concerns in a timely manner, and effectively carry out emergency news publicity while actively conducting medical treatment. However, medical rescue work during the epidemic brooks no delay. On-the-spot media reports can show the true panorama of prevention, control and rescue work. However, if the work cannot be coordinated properly, normal development of epidemic prevention and control as well as medical rescue work may be impeded. Therefore, the medical management team should cooperate with media reporters in entering isolation wards for news coverage work in a safe manner. This is an indispensable part of the medical management work, rather than a temporary decision.

The management team should establish a comprehensive management process and establish a prior communication and training mechanism, so as to deal with all kinds of emergencies. The interview process should be accompanied by professional personnel trained in infection prevention and control.

TABLE 1. Risk evaluation on form of interviews and response strategies.

Form of interviews	Risk Evaluation of infection	Suggestion		Response strategies based on risk evaluation	
		General	Specialness		
Online interview	the lowest	recommendation			Internet connection; mobile app for messaging such as WeChat; e-mail, etc.
Real-scene interviews					
Interview in clean areas of isolation wards	low	permission	1. The training The training contents include the management on hand hygiene and behaviors after entering the isolation wards; the layout of the isolation wards, wearing and take-off process of protective equipment as well as concise communication gestures according to the areas designed for the interview.		Certain protective measures should be taken for the common contact, such as 1. wearing medical surgical masks 2. maintaining effective social distance 3. avoiding handshakes, hugs and other behaviors
Interview in potentially contaminated areas and contaminated areas of isolation wards	the highest	no recommendation	2. Reporting applications Media reporters should put forward the demand to the medical management team of the quarantined ward in advance, and provide video shooting scripts for communication in advance. 3. Privacy protection		1. The number of media reporters entering potentially contaminated areas and contaminated areas for interviews and filming should be reduced as much as possible. 2. Medical staff complete the collection of image materials in potentially contaminated areas and contaminated areas, the reporter can carry on the post-production by themselves. 3. Media reporters who need to enter potentially contaminated areas and contaminated areas should also, in the first place, focus on practicing the process of wearing and taking off protective equipment and then enter after passing the assessment. 4. When shooting in potentially contaminated areas and contaminated areas, the number of media personnel should be reduced as much as possible and the shooting time should be strictly controlled; the equipment and personal belongings they carry should also be the minimum. 5. If professional photographic equipment must be brought in, the isolation and disinfection of the equipment should be conducted. 6. The whole shooting process should be accompanied by hospital infection management professionals or experienced medical staff in potentially contaminated areas and contaminated areas throughout the process.

The duties of personnel on infection prevention and control include but are not limited to supervising the use of all kinds of protective equipment, guiding the scope of activities of media journalists, and guiding the terminal disinfection of equipment. In addition to prevention and control management of hospital-acquired infection, protection of the privacy of medical staff and patients is also a management priority. Each interview and video shooting should obtain the consent and approval of the interviewees. During the prevention and control period of respiratory infectious diseases, there is little relevant literature on prevention and control of hospital-acquired infection for media journalists, especially about the terminal disinfection of photographic equipment and other equipment.

COVID-19 is sensitive to most disinfectants and disinfection of photographic equipment is relatively easy to complete. If the virus resistance to disinfective agents were stronger, the choice of chemical disinfectants would be limited, and could inevitably cause corrosion to the equipment and affect the function of the equipment. If the equipment parts are similar to endoscopes, with properties such as waterproofing and anti-corrosion, there could be more disinfection and sterilization methods to choose from. There is room for further discussion on the management of media journalists, the final disinfection methods of photographic equipment and other equipment after they have entered the contaminated area during the epidemic. This paper has summarized the relevant work during the epidemic of COVID-19 for reference of the same trade.

ABBREVIATIONS

COVID-19, Corona Virus Disease 2019; SARS, Severe Acute Respiratory Syndrome.

AUTHOR CONTRIBUTIONS

Hong Li and Hui Chen designed the study. Peng Xian and Yue-Xin Shi collected the data. Zhong-Yao Xie and Shuang Liu analyzed the results and drafted the manuscript.

ETHICS APPROVAL AND CONSENT TO PARTICIPATE

The study has been approved by Beijing Jishuitan Hospital Ethics Committee.

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CONFLICT OF INTEREST

The authors declare that there is no conflict of interest regarding the publication of this article.

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