COVID-19 management: Opportunity to reassess protocols?

Jitender Sodhi¹, Pankaj Arora², Manisha Biswal³, Ranjitpal S. Bhogal², Shweta Talati², Navneet Dhaliwal²

¹Department of Hospital Administration, All India Institute of Medical Sciences, New Delhi, Departments of ²Hospital Administration and ³Medical Microbiology, Postgraduate Institute of Medical Education and Research, Chandigarh, India

Abstract

The COVID 19 pandemic ravaged the globe with a remarkable ferocity and has not entirely abated till now with cases flaring up at various places at different times. The expected course is for it to become endemic with recurring exacerbations. Over the past two years, we have become wiser to its pathology, diagnosis, and treatment. However, it is imperative for us to regularly and consistently reassess our protocols to assimilate the current and ever-growing knowledge in this direction. Doing so will help us to use our resources judiciously, improve patient care, and enhance the overall benefit to stakeholders. In this article, we aim draw the researchers’ attention to few issues which may not be at the forefront at this point in time but important nevertheless. These include the use of personal protective equipment (PPE), universal gloving, isolation criteria, and handling of dead bodies, among others. We hope that a reassessment of the challenges involved in the said procedures will help us to be better prepared to face and tackle potential future waves and the multiple challenges that would potentially ensue post-spikes in infection incidences.

Keywords: COVID 19, dead bodies, gloving, PPE, protocols

Introduction

The “Novel” coronavirus, SARS-CoV-2, has battered the globe since late 2019. We have learned a lot about its transmission, diagnosis, and treatment throughout the pandemic. We now have a better sense and awareness regarding the steps required to mitigate its ill-effects, both clinically and administratively. However, the fear is persistent and palpable among healthcare workers (HCWs), administrators, policymakers, and the general populace. The second wave has left a devastating effect on India, and we need to keep our guards up for the subsequent waves. The period of relative “lull” allows us to review our protocols to improve the services and even conserve available resources, striking a balance between clinical needs and administrative requirements. At the peak of the second wave, when the country was grappling with the increased demand for oxygen, some states made a policy shift toward minimizing the use of a high-flow nasal cannula to manage oxygen consumption. Similarly, a few other crucial steps, for example, personal protective equipment (PPE) and its use, universal gloving, patients’ stay in dedicated COVID wards, testing requirements, strict isolation, and handling of dead bodies, among others. We hope that a reassessment of the challenges involved in the said procedures will help us to be better prepared to face and tackle potential future waves and the multiple challenges that would potentially ensue post-spikes in infection incidences.

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wave. Thus, some of the issues discussed here may pertain to the hospital setting but may also have a direct or indirect bearing on general practice.

**Personal Protective Equipment (PPE)**

An HCW in a white coverall (called a jumpsuit in colloquial language), drenched in sweat, is a defining image in this pandemic. Initially, when the pandemic was unraveling, PPE akin to protection against Ebola was considered an appropriate gear. Water-impermeable, non-breathable jumpsuits were used due to the paucity of breathable fabric suits in most resource-constrained settings. These jumpsuits cause much sweating and are pretty uncomfortable to use. It undoubtedly results in decreased efficiency while performing patient care activities and may lead to inadvertent errors. Fear of contracting the disease led HCWs to cover every possible inch of the exposed skin. The guidelines issued by the Ministry of Health and Family Welfare, Government of India, specified no documented advantage of coveralls over gowns. The World Health Organization (WHO) has updated its PPE guidelines and prescribes single-use or reusable, mid-calf-sized gowns. However, HCWs continued to use coveralls despite adverse physical conditions without any documented advantage. The PPE depicted by Ortega et al. in their video may indicate what kind of protective gown is appropriate. Taping every inch of the bodysuit may hamper clinical care as vision will be impaired (Figure 1). Profuse sweating inside the impervious coverall may lead to dehydration also. There may not be any need to cover the back or the feet, as the likelihood of transmission of the virus from the back or feet is practically nil. The use of linen gowns, as suggested by WHO, may need to be introduced/advocated, especially in resource-constrained settings. The linen gown may be supplemented with an impermeable apron covering the front of the chest while performing an aerosol-generating procedure (AGP). It will ease the working conditions and significantly reduce the amount of biomedical waste generated. The efforts toward eliminating plastic waste came to a grinding halt during the pandemic, and it is critical that we renew our focus on this aspect.

**Universal gloving**

The practice of universal gloving to protect HCW vis-à-vis cross-transmission of infection is already a matter of debate. It has been reported that compliance to hand hygiene decreases with universal gloving. The HCW feels safe and probably ignores the principles of asepsis. On the contrary, hand-hygiene compliance increases if the gloving is only done for indications like potential contact with body fluids. The same is true for COVID pandemic as well. The authors have observed for themselves and learned from colleagues at other centers that HCWs use multiple pairs of gloves. It gives credence to the assumption that hand-hygiene practices are compromised since it is impractical for the HCW to remove all the pairs of gloves, perform hand hygiene, and don gloves again. The HCWs perform multiple activities on multiple patients wearing the same gloves.

Coupled with the fact that a cocktail of antibiotics has been used on even the mildly symptomatic patients, it may give rise to resistant bugs. The experiential evidence points to multiple antibiotics prescribed to the patients in home isolation by primary physicians based on the practices followed in hospitals.

It should alarm us to relook our guidelines for glove use, which ranges from universal gloving to contact-based gloving. The HCW should use gloves only when potential contact with body fluids is anticipated and not as a general measure. It will improve hand hygiene and reduce healthcare-associated infections besides rationalizing the usage of gloves.

**Stay in dedicated COVID wards**

The recent guidelines on the discharge of patients, except those severely sick, have done away with repeat testing. It is based on current knowledge about transmission and probability of false-positives due to the continuous shedding of the dead virus. It is believed that the probability of transmission of COVID-19 from a patient to a healthy person after 14 days is very minimal. The need to treat a COVID-19-positive patient in dedicated wards until they are discharged or test negative needs a relook to improve the throughput of COVID beds and thereby ease pressure on the facilities. It would probably improve patient care since strict isolation will not be required, and the attendants would contribute to patients’ physical and mental well-being.

**Burden on our testing facilities**

The humungous burden mounted on our testing facilities due to unwarranted needs of a test or its incorrect choice strained the supply chains of testing kits and reagents across healthcare settings in our country and led to their disproportionate availability. Consequently, the “turnaround time” of testing results was adversely affected, and sometimes it took more than 72 hours to get the testing results reported. It requires precise recalibration, in terms of choice of test and the purpose. Do we need to test all the patients coming to a hospital? Should we
use fully automated PCR or conventional RTPCR, considering that the results may vary due to different CT values?

**Strict isolation**

COVID-19 patients admitted to hospitals suffer physically and emotionally due to strict isolation. In resource-constrained settings, attendants commonly contribute to their patients’ care besides providing mental/emotional support. In certain circumstances, it may be appropriate to allow attendants to be with their patients during hospitalization. These may include the attendant being COVID-19 positive currently or in the recent past, a trained HCW, or an attendant willing to be trained. The minimum qualification for outsourced housekeeping staff in our setting is 12 years of formal education in any stream. If the prospective attendant has similar or better credentials, they could be trained to observe and learn precautions to protect oneself while caring for the patient.

The isolation criterion may become challenging to implement if the number of patients increases in the future, especially in the pediatric age group. The practical implications of isolation for this age group need different considerations. Patients in isolation suffer from emotional stress, which should be even higher in the pediatric age group. The physical needs of children may also force the placement of either parent as a caretaker. Hence, we must prepare for those situations now by revisiting our isolation policy.

**Handling of dead bodies**

The trauma of losing near and dear ones to COVID-19 does not end after their passing. The performance of their last rites further accentuates the pain. Initially, the body was not handed over to the attendants, and the local municipal authorities performed the last rites. Subsequently, only a handful of relatives (one or two) were allowed to view the body of the deceased kin or family member, and the rites were performed in the presence of local authorities.

The people involved, including the priest, used to don the PPE kit despite knowing that there is zero possibility of transmission of infection in viewing a dead body or performing certain rituals that do not involve physically handling the dead body. Moreover, the justification of people donning full-blown PPE at crematoriums is not even supported by the guidelines on COVID-19 dead body management by the Ministry of Health and Family Welfare. Thus, there is indeed a need to reframe the guidelines for dead body disposal so that in case of increased mortality overzealous staff members do not panic and insist on blindly adhering to some of the safety protocols now deemed as unnecessary, or even harmful to the HCWs, based on current knowledge about how and in what situations COVID-19 spreads and possible ways those infected can deal with it once tested positive.

**Conclusion**

The entire world was caught unprepared by this “once in a century” COVID-19 pandemic—a shock to the system, an existential crisis for the whole humanity. During the past two years, the medical fraternity and polity have been devising strategies to combat the disease and mitigate its effects. We cannot underestimate the importance of the lessons from our approach in dealing with a pandemic of this magnitude. The issues highlighted above may seem peripheral in the context of care during hospitalization. But knowledge gathered from practical experiences in dealing with the infected populations tells us otherwise. Thus, the need to exercise caution and revisit the do's and don'ts and doing away with unnecessary or even counterproductive steps is of tremendous significance from a societal perspective. The primary care physicians, a bridge between the patient and the hospital, must become better aware of this need so that they are better prepared to face challenges arising from potential future waves of the pandemic, especially in light of this article’s discussion on the steps involved in handling patients during the pre- and post-infection phases.

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**Conflicts of interest**

There are no conflicts of interest.

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