

# SARS COV-2 IN THE CORPSE: ETHICAL, SOCIAL AND HEALTH IMPLICATIONS

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## ABSTRACT

*Due to restrictions on visits from family members, numerous deaths from COVID-19 occur in solitude and in contexts where there is a lack of attention to the complexity of the symptoms and the social, psychological and existential problems that appear when an individual is nearing the end of life. On the other hand, isolation precautions must be taken to stop the spread of the virus. Here we address this double aspect of the pandemic from ethical, social and healthcare points of view, providing useful information for professionals and for the families of victims. We also discuss the risks and problems involved in handling infected dead bodies, which raises questions about the dignity of the corpse undergoing postmortem screening.*

**Keywords:** SARS CoV-2, Corpse, Loneliness, Funeral, Post-Mortem Infection, Ethical Issues

## INTRODUCTION

The COVID-19 pandemic has opened up a lively debate on the subjects of treatment, hospitalization and death. Some dying patients prefer to meet death alone for fear of infecting their loved ones (Strang, 2020). However, in most cultures human presence (family and friends) at death is considered to be very important. Yet the entire world population over the last two years has had to face a situation in which infected patients find themselves isolated from everything and everyone, without the reassuring presence of loved ones who are rarely allowed to say goodbye.

Healthcare imperatives mean that infected people are quickly removed from their natural living environment and placed in isolation, away from everyone they know. Naturally they suffer from a strong sense of spatial-temporal disorientation, often in settings where healthcare facilities are under huge pressure with overstretched resources for therapeutic modalities, all of which has a negative impact on the welfare of both patients and healthcare workers.

In this context, the death event, and above all the postmortem, remind us of plague epidemics during the medieval era. Furthermore, those who provide assistance (health workers and others) are subject to various sources of stress, such as exposure to the risk of contagion and death, an intense pace of work due to the shortage of health personnel and direct experience of situations of extreme suffering. Then there are challenges on the level of communication: the use of isolation measures inevitably change the care climate, precluding face-to-face relationships with patients' families (Parks, 2021).

It seems urgent to invest in adequate death education in these times. The pandemic, on the one hand, dramatically confronts us with the loneliness of dying; on the other hand, it imposes a series of precautions that must be taken to stop the spread of the virus, among health workers and relatives. In this paper, we take a closer look at these two aspects: dying alone from COVID-19 and the risk of contagion due to the persistence of the virus in the dead body.

## The Loneliness of Covid-19 Deaths

From the outbreak of the COVID-19 pandemic to date, there have been more than 5 million deaths around the world (WHO, 2021). Perhaps we are witnesses to a scenario in which governments, scientific societies and pharmaceutical companies are giving priority to

investigating the prevention of infection and death, rather than the related ethical, social and political consequences (Han, 2021). Behind every person who dies of COVID-19, there is a story, a family, a job, a social context: a life that is easily overlooked by the figures and statistics.

It has emerged that numerous deaths caused by the coronavirus disease occur in solitude and in contexts where there is a lack of attention to the complexity of the symptoms and the social, psychological and existential problems that appear when an individual is nearing the end of life, especially in the final hours.

In many cultures around the world, death is seen as a transition, a rite of passage, and the relatives of the dying person usually wish to be close to their loved one at the end-of-life stage, to assist them and bid a last farewell. In most countries, the (indispensable) hospitalization of COVID-19 patients means that many patients die alone because of restrictions on visits from family members. Studies have shown that patients  $\geq 65$  years of age admitted to hospital for COVID-19 have high rates of hospital complications and mortality (Becerra-Muñoz, 2021). This not only prevents relatives from saying goodbye one last time, but it also makes it complicated to honor the deceased person's life with a proper funeral ceremony. Furthermore, questions can be raised about the management of corpses with COVID-19 infection. Body handlers are advised to wrap the infectious corpse in a double-layered cloth sheet soaked in disinfectant before packing it in a plastic body bag (Finegan et al., 2020); are we able to say that such a disposal procedure is respectful of the corpse?

The dignity of the corpse is a theme addressed by many authors, from both ethical and scientific points of view, taking into account the role of the family, the use of unclaimed bodies and other issues that must not be overlooked even during this pandemic phase (Wilkinson, 2014). Healthcare practitioners, death care workers and non-forensic personnel in charge of body preparation for funerals may be the only ones to come into contact with the corpse and must take measures to show respect for deceased individuals (and their families).

Another complex situation arises in the absence of suitable spaces for the dying person to meet death in a dignified way. In fact, it has been seen that COVID-19 patients often die in isolated rooms or in dedicated sections reminiscent of lazarets. Even morgues, if only to accommodate closed coffins, are often inadequate, given that in this pandemic phase it is necessary to guarantee physical distancing between people. Therefore, family members are not even protected in expressing their emotional suffering.

The pandemic has therefore disrupted the way in which burials and funerals can be held. Not to mention some dramatic situations as happened in India, with funeral pyres of people who died anonymously. The images of mass cremations broadcast by the social media have certainly made the whole world reflect on the dignity of the dead and their families, including political and economic forces towards an ethic of protection of human rights.

### **Postmortem Survival of Sars-Cov-2**

It has been shown that the virus can survive in the corpse and be potentially contagious. Indeed, evidence of postmortem SARS-CoV-2 infection by means of naso- or oropharyngeal swabs has been demonstrated in several studies (Scendoni, 2020; Edler, 2020), from a few hours after death up to a maximum postmortem interval (PMI) of several days, even in decomposed corpses. In addition, not knowing whether COVID-19 was present at the time of death could create problematic situations. Medical examiners and coroners, in their activity, are called on daily to carry out judicial inspections, external examinations or autopsies on subjects who are not suspected of COVID-19 infection; they are often obliged to intervene immediately and to come into contact with corpses with unknown pathological history which could be carriers of infectious diseases, often in places poorly suited to guaranteeing individual protection. In the case of COVID-19 infection, taking into account the capacity of the virus to survive after death, the risk of contagion for the aforementioned professionals remains high and not always preventable.

In addition, the autopsy (for clinical or judicial purposes) is not always performed immediately; for example, there could be a delay in reporting the death to the judicial authority, and family members sometimes wish to keep the body of their loved one at home before an autopsy is performed. Furthermore, funeral services do not intervene immediately to take charge of the body and transport it, etc. Such delays entail a concrete risk of contagion from the corpse for all those who come into contact with it, especially when the recommended preventive measures are not fully implemented in the treatment of infected bodies or bodies suspected of infection.

Several recognized autopsy procedures have been adopted to date (Joob, 2020), even in deaths at home. However, the risk of postmortem SARS-CoV-2 infection is obviously greater for those who handle bodies in which a SARS-CoV-2 infection is present but unknown and unsuspected (especially when an autopsy shows that the cause of death is linked to a completely different mechanism, such as an aortic dissection or a cerebral hemorrhage).

The phenomenon can take on particular relevance in the field of social insurance, as it can be considered a work-related accident/illness when the infection is contracted by personnel interacting with the corpse (Nuñez, 2020).

Furthermore, a greater number of claims for non-compliance with preventive measures could be filed against health companies by relatives of deceased individuals in cases where a late diagnosis of SARS-CoV-2 infection was made, with considerable social and economic impact (Pak, 2020).

Another aspect linked to the risk of contagion concerns the many different cultural traditions that influence the mourning process, including those that involve contact with the body of the deceased person before hygienic preparation. New knowledge about the transmission of COVID-19 constantly comes to light, replacing old information, but it is certain that a person can contract COVID-19 by touching or handling an infected dead body. Thus, a funeral director who dresses the body or family members who come into contact with the body as part of a burial ritual are all at risk.

Given that COVID-19 can be confirmed by postmortem screening for up to several hours or even days, in our opinion, immediate postmortem testing should be mandatory for all deceased persons, whether or not a SARS-CoV-2 infection is detected before death, in particular in countries where the spread of the virus is rapidly increasing despite the vaccination. Failure to diagnose or late diagnosis of SARS-CoV-2 infection on a corpse involves a series of risks and problems:

- a) Work injury/disease among healthcare professionals who contract the virus in the course of their activity, for example the removal of surgical devices, postmortem liquid withdrawals for cremation purposes, autopsy exams, etc.;
- b) Risk of contagion to healthcare workers in non-hospital settings where the presence of COVID-19 in the dead patient is unknown, as well as risk of infection to family members who remain in close contact with the body as part of the mourning process;
- c) Claims for damages against the health facilities involved, given that healthcare workers respond professionally not only with regard to live patients, but also deceased persons not yet transferred to homes or mortuary rooms.

## CONCLUSION

The ethics of corpse management usually receives less public attention than other ethical issues in healthcare, but with the current pandemic situation questions about the dignity of the deceased have certainly come to the fore, especially in relation to the surrounding social and healthcare contexts. In this day and age it is difficult to find the right balance between respecting the dignity of the dead body and ensuring that the necessary levels of isolation are maintained.

In the light of this, the following conclusive points may be raised:

- All possible measures should be taken to respect the dignity of the COVID-19 dead including avoiding hasty disposal of the body;
- Authorities should manage each corpse by balancing family rights, the need to investigate the cause of death and the risks of exposure to infection;
- An early postmortem diagnosis of SARS-CoV-2 infection can help to safeguard hospital and territorial health workers, medical examiners, family members and funeral staff, thereby avoiding important social, forensic and healthcare repercussions related to COVID-19 infection from a dead body;
- For healthcare workers and funeral staff, specific training must be guaranteed, both in handling the body and in providing all the necessary information to families of the deceased, who are deprived of the opportunity for a final contact.

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