

Response of the SLMA to the issue of COVID 19 death management in Sri Lanka

The ongoing COVID-19 outbreak had many an adverse impact on the world population and the global economy. As of 25th December 2020, over 79.5 million people have been infected with more than 1.74 million deaths worldwide. Sri Lanka has reported over 43,000 cases with over 200 deaths. Since the virus was first identified in December 2019, the number of deaths has been increasing exponentially, causing countries across the world, including Sri Lanka, to develop and enhance emergency measures to combat the virus.

Since the recent past, disposal of COVID-19 dead bodies has affected ethnic harmony in Sri Lanka. In view of the cultural diversity of Sri Lanka, it is essential to have a proper policy for disposal of the dead which is acceptable to all.

Based on the limited scientific evidence available at the initial stages, a decision was made by the Director General of Health Services of the Ministry of Health to cremate all dead bodies of COVID-19 positive patients. Since then, there has been significant unrest among some communities regarding the government's decision to impose compulsory cremation as the only avenue of disposal of COVID-19 deaths. This has the potential to cause much civil unrest. As a result, it was also found that people were generally reluctant to cooperate with the COVID control measures implemented by the Government. Many of them avoided seeing doctors and hence there were several deaths occurring at home without seeking medical attention or treatment.

In view of all these considerations, the SLMA decided to review the situation as a matter of urgency, taking into account some new scientific knowledge available now regarding the COVID-19 disease. It was noted that good health means physical, mental, social, and spiritual wellbeing. The significant adverse impact currently experienced by close family members and loved ones of COVID deaths and the disposal of bodies were also considered.

SLMA had a meeting of the medical experts in all relevant fields on 31st December 2020. After extensive deliberations the following observations were made based solely on the currently available scientific evidence.

1. COVID infection occurs only through respiratory route. There are no reported infections through any other routes, including the gastro-intestinal portal.
2. Virus itself can thrive only inside a living cell. As such, it is unlikely that it could remain infectious within a dead body for any significant period of time.
3. A positive PCR found post-mortem does not necessarily mean that the dead body is infectious.
4. Contamination of water supply by sewage, consisting of excretions and secretions of COVID-19 infected patients could be much worse than any possible contamination from buried corpses.
5. Although there are a few instances reported where viral particles have been isolated from ground water, there are no reports of them being infective. There are no records of such

infection even with older viruses like influenza and SARS-CoV-I, which have been studied in much greater detail.

6. The reported planned exhumation and cremation of large numbers of minks culled in Denmark was not due to any possible contamination of water resources by the virus. It was due to a large amount of nitrogenous waste from these decomposing mink carcasses contaminating the nearby water sources and polluting the environment.
7. Even in the case of severe waterborne diseases like Cholera, burial of corpses was one of the practices of disposal of infected dead bodies.

Based on these observations made, relying on currently available scientific information, the council of the Sri Lanka Medical Association is with the view that burial of COVID-19 dead bodies could be permitted in Sri Lanka.



CCPSL Position Paper on the debate about compulsory cremation of victims of COVID-19

Background

The global impact of the ongoing COVID-19 pandemic has been devastating and at the same time it has brought to the fore, a number of hitherto unheard social and cultural issues. There are cultural implications of COVID-19 in relation to disease spread, case detection, treatment, prevention and control and also in relation to management of dead bodies. These complex interactions may create situations which may adversely affect the pandemic control activities. The present guidelines on safe disposal of dead bodies of person infected with SARS-CoV-2 virus in Sri Lanka have created such a situation.

The Ministry of Health Provisional Clinical Practice Guidelines on COVID-19 Suspected and Confirmed Patients dated 27th March 2020 allowed for burial of dead bodies under certain conditions. However, the subsequent versions from 31st March onward and the current version¹ require that all COVID-19 victims be cremated. The Extraordinary Gazette notification 2170/8 of April 11 of the Democratic Socialist Republic of Sri Lanka, has amended the regulations made by the Minister of Health and Indigenous Medical Services under Section 2 and 3 of the Quarantine and Prevention of Diseases Ordinance (Chapter 222) to include the following: “Cremation of Corpse of a person who has died of Coronavirus Disease 2019 (COVID-19) - Notwithstanding the provisions of regulations 61 and 62, the corpse of a person who has died or is suspected to have died, of Coronavirus Disease 2019 (COVID-19) shall be cremated....”². At present, all dead bodies of COVID-19 confirmed or suspected persons should be cremated. This practice has become a major concern in some communities, which are affected by COVID-19, more than others.

COVID-19 is a rapidly evolving situation in which the decision making had to be based on precautionary principles at the early stage of the pandemic. When there was an uncertainty at the onset of the pandemic – we as the College of Community Physicians of Sri Lanka accepted it at that point of time. However, the subsequent accumulation of evidence forces us to rethink and revise the recommendations. This position paper is intended to voice a scientific opinion in this debate after examining the currently available evidence. However, it should be noted that this position could change depending on the nature of evidence and the observations which will surface in the future.

¹ Provisional Clinical Practice Guidelines on COVID-19 suspected and confirmed patients, Ministry of health, Sri Lanka. https://www.epid.gov.lk/web/images/pdf/Circulars/Corona_virus/covid-19_cpg_version_5.pdf

² Quarantine and Prevention Of Diseases Ordinance (Chapter 222).
http://www.documents.gov.lk/files/egz/2020/4/2170-08_E.pdf

The infection risk from COVID-19 dead bodies

The latest scientific brief updated in October 2020 by the National Center for Immunization and Respiratory Diseases (NCIRD), Division of Viral Diseases, Center for Disease Control clearly confirms that the spread of SARS-CoV-2 is primarily through respiratory droplets. Contact transmission and air borne transmission are also possible but not the main mode of transmission³. This updated scientific brief is similar to the evidence summary published previously in July 2020 by WHO⁴ and there is no change in the evidence on the transmission of SARS-CoV-2 virus with more than 80 million global cases and 1.7 million deaths.

With more than 85,000 published scientific literature on COVID-19, not a single case has been reported due to virus transmitted through a dead body. A report published in May 2020 suggested that two forensic medicine professionals contracted COVID-19 from a corpse⁵, but later an erratum was published by the authors that the article was not on a case of confirmed transmission of COVID-19 from corpse⁶.

The claims on the SARS-CoV-2 spread directly through groundwater have not been scientifically substantiated and there is no indication that the virus could be transmitted through the drinking water⁷. As per the viral biology, these viruses need a host cell to survive for a long period. And there are scientific methods available that could be adopted to minimize such effects viz. insulation, leachate collection and treatment. The principal sources and routes of potential transmission of SARS-CoV-2 in water systems could be hospital sewage, waste from isolation and quarantine centers, faecal-oral transmission, contaminated surface and groundwater sources and contaminated sewage⁸, but not the dead bodies. Coronaviruses die off rapidly in wastewater at 23 °C, within 2 to 4 days and the process is rapid in higher temperatures as in Sri Lanka⁹.

The risk of COVID-19 from the human remains/ dead bodies has been discussed in almost all public health programmes around the world. Two systematic reviews on dead body management during global pandemic of COVID-19 clearly show that there is no evidence on COVID-19

³ Scientific Brief: SARS-CoV-2 and Potential Airborne Transmission, National Center for Immunization and Respiratory Diseases (NCIRD), Division of Viral Diseases, CDC, 10th November 2020.

<https://www.cdc.gov/coronavirus/2019-ncov/more/scientific-brief-sars-cov-2.html>

⁴ Coronavirus disease (COVID-19): How is it transmitted? World Health Organization, 9th July 2020.

<https://www.who.int/emergencies/diseases/novel-coronavirus-2019/question-and-answers-hub/q-a-detail/coronavirus-disease-covid-19-how-is-it-transmitted>

⁵ Sriwijitalai W, Wiwanitkit V. COVID-19 in forensic medicine unit personnel: Observation from Thailand. *J Forensic Leg Med.* 2020 May;72:101964. doi: 10.1016/j.jflm.2020.101964.

⁶ Sriwijitalai W, Wiwanitkit V. Corrigendum to "COVID-19 in forensic medicine unit personnel: Observation from Thailand" [*J Forensic Legal Med* 72 May 2020, 101964]. *J Forensic Leg Med.* 2020 May;72:101967. doi: 10.1016/j.jflm.2020.101967.

<https://www.who.int/publications/i/item/WHO-2019-nCoV-IPC-WASH-2020.4>

⁷ Water, sanitation, hygiene, and waste management for SARS-CoV-2, the virus that causes COVID-19. World Health Organization, 29th July 2020. <https://www.who.int/publications/i/item/WHO-2019-nCoV-IPC-WASH-2020.4>

⁸ Sunkari ED, Korboe HM, Abu M, Kizildeniz T. Sources and routes of SARS-CoV-2 transmission in water systems in Africa: Are there any sustainable remedies? *Sci Total Environ.* 2021 Jan 20;753:142298. doi: 10.1016/j.scitotenv.2020.142298. Epub 2020 Sep 9. PMID: 33207460; PMCID: PMC7480675.

⁹ Gundy, P. M., Gerba, C. P., & Pepper, I. L. (2009). Survival of coronaviruses in water and wastewater. *Food and Environmental Virology*, 1(1), 10.

transmission so far from dead bodies^{10,11}. However, the duration of viral survival in dead body is still debatable and WHO, CDC and the European Center for Disease Prevention and Control had issued clear and extensive guidelines on handling dead bodies confirmed or suspected as having COVID-19 with detailed attention to the procedures in relation to handling the body in the ward, mortuary, funeral home, during transfer, and crematorium /burial site. At the same time these guidelines strongly discourage any ritual practice which may involve in risk of disease transmission. Nevertheless, all these global pandemic control programmes clearly stipulate that the victims can be "buried or cremated" with all precautions mentioned earlier.

Impact of cultural issues on the COVID-19 control activities

Due to the highly contagious nature of this disease and the resulting quarantine and lockdown, it is natural that the fear associated with the disease is also rising when the disease is fast spreading, affecting the well-being of people. Anxiety, preoccupation with thoughts of Coronavirus infection, paranoia with getting infected, disease-related social media have been found as common manifestations of this fear psychosis. Biological disasters like this pandemic can generate immense prejudice, xenophobia, stigma and othering, all of which have adverse consequences on health and well-being¹² and in the public participation in the control programme.

COVID-19 pandemic has taught the world many lessons: one is about the importance of collective responsibility vs. individual responsibility in shaping the wellbeing of all. A proper COVID-19 control strategy has to be all inclusive, lest, could end up in endangering the lives of all. This is the true meaning of Whole-of-Government, Whole-of-Society approach. A scientific cost benefit evaluation is required in culturally sensitive issues which might affect participation of some communities in disease control activities such as getting engaged in early detection, contact tracing, volunteering with correct information and in seeking healthcare.

Conclusion

There are no solid evidence indicating that burial of dead bodies would increase the spread of the disease. With the available scientific evidence and the impact of the decision on cremation on pandemic control activities at large, CCPSL concludes that adhering to global guidelines¹³, each citizen of Sri Lanka should be allowed to be cremated or buried as per his/her and the family's desire within the strict guidelines recommended by the Ministry of Health.

¹⁰ Vidua, R. K., Duskova, I., Bhargava, D. C., Chouksey, V. K., & Parthasarathi, P. (2020). Dead body management amidst global pandemic of Covid-19. *Medico-Legal Journal*, 0025817220926930.

¹¹ Yaacoub, Sally, et al. "Safe management of bodies of deceased persons with suspected or confirmed COVID-19: a rapid systematic review." *BMJ Global Health* 5.5 (2020): e002650.

¹² Ahuja, K. K., Banerjee, D., Chaudhary, K., & Gidwani, C. (2020). Fear, xenophobia and collectivism as predictors of well-being during Coronavirus disease 2019: An empirical study from India. *International Journal of Social Psychiatry*, 0020764020936323.

¹³ Global recommendations

World Health Organization:

https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8&ved=2ahUKewiG056O2fTtAhUuzzgGHWliDHwQFjABegQIAhAC&url=https%3A%2F%2Fapps.who.int%2Firis%2Frest%2Fbitstreams%2F1300088%2Fretrieve&usg=AOvVaw170Zv7sIU_MbgDiRWZSbng

Centre for Disease Prevention and Control, USA: <https://www.cdc.gov/coronavirus/2019-ncov/daily-life-coping/funeral-guidance.html>

European Centre for Disease Prevention and Control:

<https://www.ecdc.europa.eu/sites/default/files/documents/COVID-19-safe-handling-of-bodies-or-persons-dying-from-COVID19.pdf>

