

Commentary |  Open Access | Published: 2021-05-24

Challenges in providing end-of-life care to patients dying with SARS-CoV-2 infection

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Introduction

COVID-19 has become a ticking bomb for the entire world, since the first human case of SARS-CoV-2 infection was detected in Wuhan city of China, in December 2019. It has affected almost every community of the world which led the WHO to declare it as a global pandemic on 11 March 2020 (1). Patients infected with SARS-CoV-2 need support and critical care. Those dying of severe COVID-19 infection require intensive palliative care for symptom management. This is called palliative care or end-of-life care which is an important component of healthcare services, especially in pandemics (2). It not only includes management of distressful symptoms of the patients, but also psychological, physical, social, and spiritual support in a medically and ethically difficult situation for the dying patients, family caregivers, and attending healthcare workers (1-4).

Recent studies suggest that older patients with other co-morbid conditions like hypertension and diabetes have a higher risk of dying with severe COVID-19 infection (2). Time duration of end-of-life care of COVID-19 patients is relatively short reflecting a high mortality rate and a short dying period (5). Primary

healthcare workers providing end-of-life care to COVID-19 patients include general practitioners, nurses, and support workers. The increased number of deaths associated with the COVID-19 pandemic, and the shortage of supplies of personal protective equipment required to contain the infection have made the scenario even worse (6). Healthcare workers providing care to dying COVID-19 patients strive to decrease their sufferings as much as possible (3). It has a significant role for older patients infected with SARS-CoV-2. WHO guidelines regarding end-of-life care of COVID-19 patients include preventive measures to control the infection, respiratory distress management, and funeral arrangements after death (4).

Pharmacological management of COVID-19 patients

COVID-19 patients usually present with dyspnea and agitation requiring pharmacologic management (5). Low-dose opioids can be used for dyspnea and pain management. Opioids can also be used to manage persistent cough, which is very distressful for patients and their families. Oral or nebulized medications are not appropriate for patients dying with COVID-19

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because of the risk of viral transmission thus intravenous opioids are preferred. Agitation and confusion are very disturbing to dying patients, thus can be managed by antipsychotic drugs e.g., haloperidol (2). Patients in their end-of-life cannot swallow medications requiring administration via rectal and buccal routes which is also problematic in the case of COVID-19 patients due to the risk of rapid viral spread. Increased workload on healthcare workers during the pandemic suggests engagement of family caregivers in end-of-life care of dying patients (7).

Some COVID-19 patients with a relatively short dying period require higher doses and more frequent drug administration than usual to control distressful symptoms. The COVID-19 pandemic has also raised the issue of whether the drugs should be destroyed after the death of the patient or returned to the pharmacy to be used by other patients. The issue of using drugs prescribed for one patient in managing distressful symptoms of another patient is yet to be resolved (8).

Non-pharmacological interventions

Non-pharmacologic interventions for patients dying of COVID-19 include oxygen therapy, reviewing the current care plan and discontinuing drugs and nasogastric feeding that do not provide comfort, deactivating devices like defibrillators, and routine cardiac and vital signs monitoring (2).

Challenges faced in the context of SARS-COV-2

Providing end-of-life care to dying patients may prove even more challenging during the corona pandemic. Restrictions imposed by physical distancing to limit the viral spread, personal protective equipment (PPE), and limitations on the family member to see their loved one may add to the misery of healthcare professionals. Supporting family members at the time of death also presents various challenges as they might be infected with SARS-CoV-2 and might have recently lost someone (2). It is very heart-breaking to see someone die alone, with their family members having no permission to visit him (9).

Healthcare workers also need moral and psychological support amidst the pandemic as they are overwhelmed, exhausted, stressed, and fatigued by the increased workload on them (9). Protection of frontline workers against COVID-19 using appropriate

measures should be prioritized (1). When doctors and nurses are not available to provide patient-care and to give injections, family caregivers are advised to do the necessary measures themselves, which is also very arduous (8).

Most patients themselves prefer to receive palliative care at home to reduce stress imposed due to physical isolation in the hospital and to avoid seeing other patients die of the same illness, and the associated despair (6). Some prefer to die in peace than to live under the support of others (4). Shortage of drug stocks is also there during this pandemic. The challenge is whether to continue treatment even when death is expected or to preserve the drug stores for those who need them the most (7). Treatment withdrawal at the terminal stages of life of the patient, either on the part of visiting physician or the family caregiver, also needs ethical considerations (3).

Death is a time of family reunion and is highly ritualized in some communities, and is often associated with social norms. At this time of social restrictions and quarantine, the loss of physical connection is a source of distress for dying patients, their friends, and their family members (3). There is a great difficulty in adjusting after the unexpected death of a loved one, which is the main feature of COVID-19 related deaths. Most family members and friends are not allowed to even say their last goodbye to their loved ones, which put a huge emotional and psychological pressure on healthcare teams attending the dying patients (10).

People from low- or middle-income countries (LMICs) are at high risk of getting the infection due to poor nutrition, limited access to healthcare resources, and lack of adequate physical and mental care. The condition has been amplified during the COVID-19 pandemic, deserving special attention (11).

How to combat these challenges?

Frontline healthcare workers are overburdened in their occupational settings amidst the COVID-19 pandemic. Considerations must be taken to mitigate their stress and anxiety which include engaging family caregivers in providing quality care to dying patients.

Non-medical workers like nurses can play a significant role in supporting dying patients and their families. Dedicated social health workers need additional training to engage themselves in providing quality end-of-life care to patients dying of this deadly disease. This

may lead to the development of a sense of mutual respect and responsibility to overcome this pandemic (12). Integration of public health in healthcare decision-making could be an important step to mitigate global health inequities that have been amplified by the pandemic (11).

Future aspects

Telemedicine is an emerging field in clinical medicine which can be used to provide palliative care to COVID-19 patients, reducing the risk of viral transmission. Healthcare staff, dying patients, and their family members may be connected via mobile phones or video calls (2). Healthcare services including end-of-life care can be provided remotely and electronically round the clock (8). It is not feasible to restore meaningful human connection during these precarious conditions of physical isolation and quarantine. This has led to increased interests of healthcare professionals in the use of telemedicine to improve patient care. The emerging challenges during this pandemic require adequate knowledge, experience, and teamwork to devise changes in healthcare systems (9).

Conclusion

Various healthcare issues have been brought to light during the COVID-19 pandemic, including lack of access to end-of-life care and patients' symptom relief. Providing quality end-of-life care to patients dying with SARS-CoV-2 infection is an emerging challenge for healthcare workers during the pandemic. Family caregivers and social workers could be encouraged to mitigate the burden on doctors attending to the infected patients. The rapid spread of SARS-CoV-2 has put a strain on existing healthcare resources. Thus, a worldwide integrated healthcare system should be developed to overcome this challenging situation.

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