

Bio-Medical Issues that concern the Pandemic

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Introduction

The COVID-19 pandemic, first identified in 2019 in China, has spread around the world within just few weeks. While the virus blindly strokes entire populations, it fell more aggressively on the most vulnerable, such as the elderly and patients with severe chronic conditions. COVID-19 is an infectious disease pandemic that is spreading more rapidly than our healthcare resources can handle. The ethical issues of the pandemic, therefore, represent an intersection of the ethical problems of a contagious and highly morbid disease with the ethical concepts widely used in directing allocation of scarce resources.

The devastating pandemic that has stricken the worldwide population induced an unprecedented influx of patients in ICUs, raising ethical concerns surrounding triage, withdrawal of life support decisions, family visits and quality of end-of-life support. Whatever the angle of approach, imbalance between utilitarian and individual ethics leads to unsolvable discomforts that caregivers will need to overcome.

The following paper discusses various issues that have come to light in lieu of the pandemic; issues with regard to handling the pandemic and otherwise. An effort has been made to highlight some of the major transgressions and suggest viable alternative measures that can be tried, to reduce the conundrum of risk versus benefit.

Issues Requiring Modification of Admission Strategies

The massive influx of patients raised questions on the eventual modification of admission criteria to the detriment of the most vulnerable populations. The number of requests for admission made at a time of extreme scarcity of ICU beds dramatically increased. It has been shown that in case of shortage of ICU beds, the criteria for patient selection are modified, patients being more frequently considered as necessitating mainly palliative comfort care versus the increased risk of mortality for patients who cannot be admitted to ICU due to lack of beds. Utilitarian ethics would take precedence over individual ethics and employ the means least restrictive to individual liberty in view of accomplishing the public health goal. Utilitarian theories of emergency ICU bed allocation have been criticized in the theoretical literature, especially on the ground of inequity in application of criteria that may disadvantage existing vulnerable populations. In addition to the elements linked to the lack of available beds, several factors in the decision-making process were sources of concern: reduction of the minimum time necessary to make such occasionally “life-or-death” decisions, decrease due to containment measures in the essential time to be spent with relatives and pressure from the continuous flow of arriving ICU patients.

Separating the caregivers in charge of the patient and the triage team

It has been proposed to relieve the ICU teams in charge of patient care of the responsibility of admission or non-admission decisions and to entrust this work to a dedicated triage team headed by a triage officer. The advantage of this approach is that it relieves the healthcare team of the emotional impact of a potentially painful ethical dilemma

Impact of remote/virtual working

Health services needed to adapt quickly to working differently during this pandemic. Much routine clinical work including consultations needed to be done virtually requiring changing a number of areas of practice, including, for instance, assessing and managing risk on the basis of remote consultations, whilst remaining aware of the usual rules of confidentiality and record-keeping.

Ethical values to justify priorities for critically ill patients supported

- Prioritize those most likely to survive the current illness
- Prioritize those most likely to live the longest after recovery (considering comorbid conditions)
- Prioritize those who have lived fewer life stages
- Prioritize those who have a particular narrow social utility to others in a pandemic
- Prioritize the worst off (sickest or youngest)
- First come, first served
- Lottery

Adapted prioritization strategies for triage

In parallel with war medicine or disaster situations, prioritization strategies have been proposed. Among the ethical principles, prediction of number of years to live is posited as the priority selection criterion, which means that the youngest individuals should receive priority, thereby applying the life-cycle principle in allocation decisions.

Issues Related to Access to Treatment / Allocation of Resources

Access to critical care

Two vital threats of a different and competing type; thus, cancer management in times of pandemic emphasizes a more general problem: the conflict between the outbreak of an acute and often lethal pathology, and the presence of a chronic disease, which requires the maintenance of an appropriate offer of care but which, in itself, exposes the patient to a vital risk. How can we approach the ridged narrow path between two threats of a different type and temporality, whose combination requires the weight of two ‘competing’ pathologies, both at the individual and collective levels?

Reconciling two requirements: prioritizing the individualization of decisions by resisting utilitarian choices is a constant tension and a luxury

The COVID-19 pandemic turned the tables: the issue of equity in access to care came suddenly to the forefront.

Secondly how do we allocate scarce resources such as ICU beds, ventilators, and certain medication? How do you ration these resources fairly?

With treatment—we are talking about ICUs, ventilators, and the staff—the purpose is you are trying to save only the severely sick. Managing critical care resources is screening out patients who are unlikely to need critical care and urging them to self-quarantine at home.

We must ensure equity of access for all individuals making “reasonable adjustments” to ensure equity of access – this is the driver for all people.

First, we recommend that treatment decisions for COVID-19 and non-COVID-19 patients be evaluated first on medical merit before considering matters of resource allocation.

Second, we recommend that the adopted protocol for allocating nonfinite scarce resources should be followed systematically, with full transparency and with creative efforts to mitigate the loss experienced by patients to whom limited resources are not directed.

Third, we recommend that protocols be regularly reviewed in order to accommodate the needed changes in response to our growing knowledge of COVID-19.

The way you do that ethically is you screen patients based on medical utility, based on scientific assessments; you basically look at the cases and try to evaluate as quickly and efficiently as possible the likelihood that you can improve a patient's condition quickly. Eg. you remove

people from ventilators when your evaluation of the medical situation suggests that patients are not improving. If a patient is not improving, and it doesn't look like using this scarce resource is a wise investment, then you try it out on another patient who might have better luck.

Creation of “Neo-ICUs”: ICU outside the walls

One solution to overcome the shortage of ICU beds during a pandemic is to quickly set up new ICUs. However, this option has been associated with a significant risk of reduced quality of care for several reasons associated with the difficulties in meeting nationwide standards for critical care facilities in this type of emergency context.

- not adequately designed for the all the equipment and organization required in critical care.
- insufficient training of these HCWs increases the burden of work
- ventilators, are frequently lacking

This type of organization may imply distributive inequality, with access to ICU facilities of heterogeneous efficiency and with a selection criterion that would be close to first come—first served, which could become first come—best served.

Transfers of ICU patients towards distant ICUs with beds available

Patient transfers from regions with dramatic shortages of ICU beds to areas less affected by the outbreak and with a large amount of available ICU beds along with including optimal material and ICU staff, have been implemented. These transfers require aircrafts, helicopters or trains that have been sophisticatedly adapted to the care of critically ill patients. It is associated with increased costs that should not be charged to the patient or his or her relatives. The first ethical issue surrounding such transfers is related to the benefit/risk balance, risk of clinical worsening during transfer, close attention should be paid to severity status, not too severe (transfer would be too risky), and not too well (to avoid unnecessary transfer) along with psychological trauma for the relatives.

Issues regarding Healthcare Workers

In the current pandemic, sources of psychological disorders for HCWs are multiple. They are affected by distress similar to than the general population regarding the effects of lockdown and containment, the risk of personal or families' and friends' illnesses, the uncertainty about pandemic duration and, the lack of effective specific treatment. Fear was more frequent than anxiety and depression with incidences varying from 71, 25, 12% to 73, 44, 50%, respectively. Assessments by other scales confirmed two-thirds of mental health disorders, especially in young women. Sleep disorders were also reported. In some countries, e.g., in Italy or in France, healthcare workers are applauded by the population each evening at 8 pm. Societal reward and “glorification” of the caring function appears to be a protective factor in the short term and in his first address to the nation, the President of France, Emmanuel Macron, called healthcare workers “the heroes with a white coat”.

What are the professional responsibilities of healthcare workers in treating patients with this virus, given the demonstrated high risk of being infected as they care for them? Do providers have the right to refuse to treat a COVID-19 positive patient, or do they have a professional duty to treat the patient, no matter how high the personal risk? There is some degree of inherent risk when providing care to any patient.

Professional obligations

Whilst it is the case that all health professionals are at increased risk by virtue of their work, we must remember that doctors have a duty in such circumstances to consider all requests for redeployment to areas of greater need, and must also ensure that we have a suitable degree of competence in any duties undertaken. Doctors must be aware that crises such as global pandemics will cause such complex ethical dilemmas as to cause moral conflict for individuals, especially when there appear to be differing directives.

On the one hand, they have a set of obligations that inclines them to go to work when they get the call. On the other hand, healthcare workers have their own interests—they don't want to get sick, which can incline them not to work. The punchline is there is an ethical consensus that healthcare workers have a *prima facie* duty to work because of everything that has been invested in them, because of their unique position where not just anybody can replace them, because society looks to them to serve this function, and because they went into this profession and are expected to go into work.

Protecting healthcare workers

The social contract between doctors and society is bidirectional – so whilst doctors must use their training and skills, their employers have an equal duty to ensure that minimum protection such as adequate PPE is available.

Principles to be borne in mind in resolving particular ethical dilemmas include fairness and distributive justice, equity, respect for autonomy, necessity, proportionality and reciprocity, and beneficence and non-maleficence, whilst continuing to promote empowerment, autonomy and recovery. All approaches need to remain consistent with human rights – the Universal Declaration of Human Rights and the Convention on Rights of Persons with Disabilities.

When appropriate protective gear is available, we consider it a professional clinician's ethical duty to provide care for COVID-19 positive patients.

However, the obligation of healthcare workers to show up for their jobs is not absolute. If hospitals don't have personal protective equipment, they are in no position to tell their staff to show up and work. If a hospital cannot provide even a basic level of safety for their employees to do their job, then they are turning their hospital not into a place to treat patients—they are turning it into a hub to exacerbate the problem.

Issues regarding Confidentiality

How is prioritizing patient confidentiality being challenged by the COVID-19 pandemic? How should we report positive cases to the public and to hospital staff members?

Maintaining the privacy of COVID-19 positive patients becomes an ethical dilemma when doing so causes harm to other members of society. The key difference between the current COVID-19 pandemic and the HIV/AIDS pandemic is that no prejudicial stigma is associated with a positive COVID-19 test and, therefore, breaking the seal of confidentiality is not as problematic as it was in the early days of HIV/AIDS.

Sharing of information

But it is important to ensure that patients and families have clear advice regarding what is done with information pertaining to CoViD in individual patients – there will be an obligation to report some data for pandemic management and future learning. However – as ever, the duty of confidentiality to individual patients remains.

We encourage hospitals to warn its providers of the COVID-19 positive status of patients in order to protect the already challenged staff. Furthermore, we recommend that COVID-19 positive patients who can disclose their condition to those contacts they may have put at risk should be given the opportunity to inform these contacts. Ultimately, given the high morbidity and mortality rates and the degree of contagiousness of COVID-19, confidentiality must be limited by public health interests. It is also crucial that physicians and hospital systems report positive cases to public agencies so that data can be accurately tabulated and analyzed in order to inform treatment decisions and resource allocation.

Issues regarding Testing

Which members of the population should be screened and tested for COVID-19 when available tests are limited?

Patients with symptoms should be tested because early diagnosis and supportive treatment are in their best interest and because most of the spread is thought to result from actively symptomatic patients. As more tests and tests with better detection rates become available, we also

recommend screening asymptomatic healthcare workers in order to avoid inadvertent infection of the already high-risk patients with whom they interact. Finally, as tests evolve and become widely available, we recommend universal screening to limit exposure by quarantining potentially infected individuals.

Rationing of COVID-19 testing

The primary purpose of the test is pure public health epidemiology. It's about keeping track of who has COVID-19 in service of trying to limit the spread of the disease to other people. When that is the purpose, the prioritization isn't so much about who is at greatest risk. It's about who is more likely to interact with lots of people, or who is more likely to have interacted with more people.

Issues related to End of Life

How should we address end-of-life issues, including do not resuscitate orders and goals of care discussions?

First, in line with standard of care, one must address the likely medical benefit of resuscitation to the patient and offer CPR only if the particular clinical scenario suggests a medically defined benefit.

Second, providers should be required to perform CPR only if adequate protective equipment is available to them; however, if protective gear is available, then the duty to perform CPR should strictly be dictated by its likely medical benefit.

Finally, the question of allocation of resources should be considered separately from the CPR question and should follow the algorithms outlined above for allocation of scarce nonfinite resources in general. When CPR is deemed to be medically nonbeneficial, this decision must be promptly communicated to the patient and the patient's family. Palliative measures should be offered without delay.

Modification in the decision-making process to withhold or withdraw life support treatments due to the epidemic context

It has been suggested that patient severity assessments be intensified during their progress in ICU stay, so that the withdrawal of one patient's mechanical ventilation can benefit another patient. The appreciable time taken to make these decisions is an element that risks being called into question during an epidemic emergency.

End of life (EOL)

In end-of-life (EOL) situations, the ICU team must avoid depriving family members of the opportunity to say goodbye to the patient. If visitation is usually forbidden in the ICU, it should be made possible in an EOL situation. If the family cannot or does not want to come to the ICU, letting him/her speak to the patient one last time over the phone is important. Family members need to prepare for bereavement, meaning they must understand what is happening: end-of-life family conferences should be organized, remotely if needed

Family visits and family-centered care

Visits were prohibited to ensure that relatives did not contaminate other family members, patients, or healthcare professionals. Family members could no longer be at the patient's bedside and the ICU team was unable to propose structured communication and support to family members. Involvement in decision-making was compromised, and it was felt that this situation was harmful both for patients and family members. After death in the ICU, bereaved family members are at high risk of presenting symptoms that negatively affect their quality of life, such as anxiety, depression, PTSD symptoms and complicated grief.

Issues Concerning the Vaccine

Now since a vaccine has become available, policymakers, public health officials, and healthcare providers face rationing decisions until there is sufficient supply to treat the entire populations. Since the vaccine is out, the first group one is going to want to prioritize are healthcare workers,

who are at risk of getting infected by doing their jobs and saving lives. You would also want to prioritize people who serve essential functions to keep society going—the people who keep the water running, the lights on, police, and firefighters. Then start looking at the high-risk groups.

Conclusions

The COVID-19 pandemic is filled with uncertainty and uncharted territory. Despite being in the early stages of the medical, societal, and legal challenges of this crisis, lessons from both the HIV/AIDS pandemic and the models for allocation of scarce resources practiced most widely in organ transplantation may inform our ethical approach to the most pressing challenges of our time. To overcome the Covid-19 pandemic, in many places throughout the world, new resources were developed in a short period of time, dramatically increasing the number of ICU beds allowing admission of a huge number of critically ill patients. The massive patient influx highlighted numerous ethical concerns that ICU caregivers are likely to face. Some models have proposed ethical justifications to difficult decision-making, usually based on deontological (or societal) rather than individual ethics. Lessons should be learnt from this experience and ethical reflections should be developed in order to anticipate a potential new pandemic in the close or more distant future.

This includes reflexive monitoring in respect of fundamental ethical principles, but also providing help to enlighten and resolve ethical dilemmas in clinical complex situations, support caregivers in their daily practice and sometimes listen to their own suffering and recall general democratic principles in health decisions. Ethical monitoring assists physicians in decision-making, promoting the supportive and palliative dimension of care in a holistic approach. Finally, the principles of deontological ethics, centered on the respect for dignity of each suffering person, including during the context of sanitary tension, may counterbalance, at least in part, the collective injunction of a strictly utilitarian approach.

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Acknowledgements: Nil

Conflict of Interest: Nil

Funding: Nil