



## Mini-Review Article

## Medical and Ethical Challenges in Caring for Covid 19 Patients

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## ARTICLE INFO

## Article history

Received: 2021-09-13

Received in revised: 2021-09-24

Accepted: 2021-10-26

Manuscript ID: JMCS-2109-1273

Checked for Plagiarism: Yes

Language Editor:

Dr. Behrouz Jamalvandi

Editor who approved publication:

Dr. Zeinab Arzehgar

DOI:10.26655/JMCHMSCI.2022.1.13

## KEYWORDS

Covid-19

Challenge for health

Emerging diseases

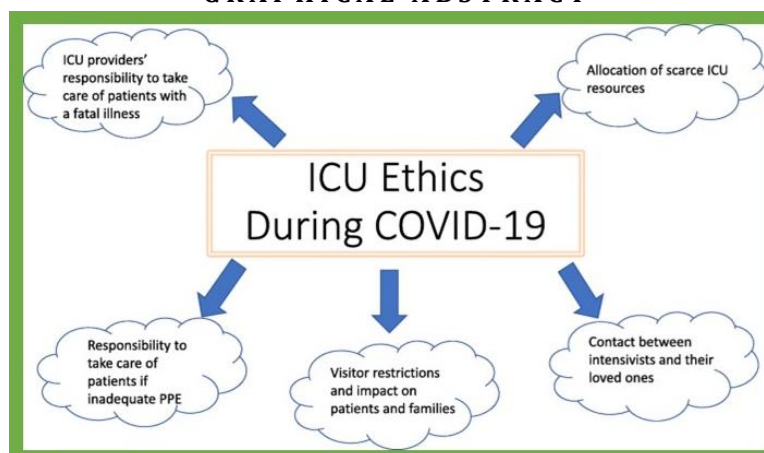
Ethical approach

Medical care

## ABSTRACT

The present study was performed to determine the ethical issues of medical care in Covid 19 disease. The steps were done in such a way that one of the researchers examined the search criteria among the articles and the criteria for including and deleting articles based on their titles and abstracts. In the second stage, the titles were reviewed. Out of 5833 retrieved articles, 5421 were retained after the repetition of duplicates. 201 cases were deleted due to insufficient data reporting, and 1059 cases were deleted due to poor quality. Finally, 153 articles were eligible. Only 20 articles of the studied articles had full text and related to the field of research card. In the third stage, the articles were searched manually; all libraries of Zahedan medical universities were examined, but no new ones were added by deleting articles that did not meet the inclusion criteria; the full text of all articles that met the inclusion criteria was reviewed. Then, their results were extracted according to the investigated factors and provided to two other researchers for reviewing. The quality of the studies was assessed through the STROBE checklist (14). In this systematic review, the articles that met the inclusion criteria were studied and analyzed. Excluded from all retrieved articles were studies that had unspecified sample size and implementation, or articles whose full text was not available. Finally, 20 cases were reviewed and analyzed. To extract the data, two experienced researchers simultaneously reviewed and analyzed the articles.

## GRAPHICAL ABSTRACT



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## Introduction

Currently, the biggest challenge for health and economic systems around the world is the emergence of Covid 19 epidemic. Medical staff, as one of the most important health care providers, must be aware of and respect the ethical aspects of care and managing emerging diseases requires an ethical approach to controlling and caring for them. The increasing advancement of medical science, the diagnosis of various diseases, the discovery of effective drugs in the treatment of incurable diseases, the emergence of emerging diseases, the need for an ethical approach in medicine has become an undeniable necessity. During an epidemic, issues such as adherence to the values of honesty, respect, human dignity, solidarity, justice, reciprocity, transparency and accountability in the response system must be considered. This medical staff, as one of the most important health care providers, must be aware of and respect the ethical aspects of care [1]. With the increasing advancement of medical science, the diagnosis of various diseases, the discovery of effective drugs in the treatment of incurable diseases, the emergence of emerging diseases, the

need for an ethical approach in medicine has become an undeniable necessity [2]. The disease, for which pneumonia clusters have been reported for no reason, spread rapidly across China's borders, and in less than two and a half months, it was declared a pandemic by the World Health Organization (WHO) on March 11, 2020 [3]. In addition to the challenges in the public health system, epidemics also pose some ethical problems [4]. Some of these challenges are associated with macro-management of public health responses, and some ethical issues arise inpatient care for health care providers. In general, the most important moral value in public health, a subset of that epidemic, is solidarity. Given that in the event of an infectious epidemic, public health interests take precedence over individual interests; this will reduce the independence of individuals [5]. In assessing the risks and benefits, the patient is not just raised and must be assessed in balance with the health benefits of society as a whole. On the other hand, these conditions raise the issue of justice in access to resources [6].



**Figure 1:** Challenges facing COVID-19 disease [2]

## Material and methods

Although ethical considerations are often the same in infectious epidemics, the severity of

ethical challenges can vary from epidemic to community. The recent epidemic experience has shown that governments must not only commit to the health status of individuals within their

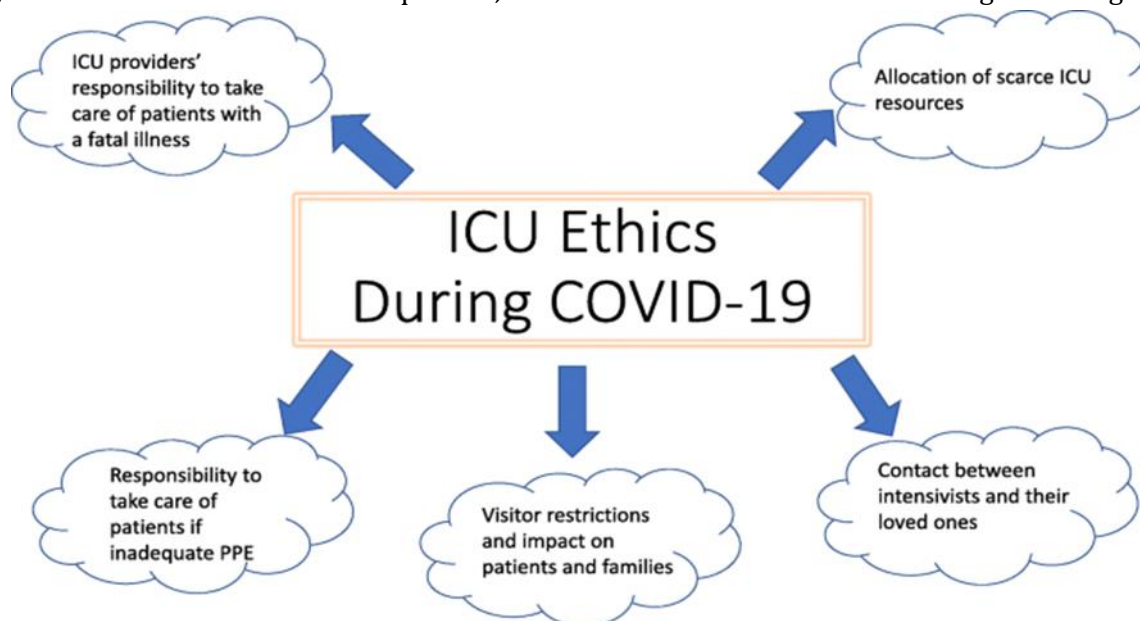
borders, but that they are responsible for preventing the spread of epidemics in other countries [7,8].

The epidemic mainly affects the economies and health of countries with limited resources. Sanctions and wars are international factors for poor health that prevent the control conditions from turning an epidemic into an epidemic [9,10]. International solidarity is crucial to preventing the spread of the disease to other countries, as well as helping countries with poor infrastructure to respond quickly to an epidemic [11]. A dozen challenges arising from COVID-19 are given in Figure 1 [11].

Considering the fact that one of the conditions for achieving the desired status is awareness of the current and existing situation, particularly in reference to the epidemic of this virus and its many humans and financial consequences, this

research project was designed to investigate the challenges of medical ethics to deal with Covid 19 in 1399, which can be used to improve the ethical quality of services against the virus and possible biological epidemics [12-14].

Medical staff, especially physicians and nurses, are required to protect the rights of clients and prevent their harm, both material and immaterial aspects. As health professionals, they have a moral duty to defend the rights of their patients and ensures the continuity of care [15-17]. The inherent nature of nursing is respecting human rights, including cultural rights, the right to life and choice, respecting their dignity and treating them respectfully [18-20]. Controlling ethics will lead to challenges and consequences that will reduce patient satisfaction and reduce the quality of care provided. The challenges of medical ICU ethics to deal with Covid 19 is given in Figure 2).



**Figure 2:** ICU Ethics during covid-19 [5]

### Material and Method

Articles published in prestigious scientific research journals, English language and full text from 2020 until now, which were of quantitative and qualitative type and published in domestic and foreign scientific journals and had full access to the text of the article, were included in the study [21-23]. Exclusion criteria were articles that had an unspecified sample size, articles in which the implementation method was not well defined. The steps were done in such a way that

one of the researchers examined the search criteria among the articles and the criteria for including and deleting articles based on their titles and abstracts. In the second stage, the titles were reviewed. Out of 5833 retrieved articles, 5421 were retained after the repetition of duplicates. 201 cases were deleted due to insufficient data reporting, and 1059 cases were deleted due to poor quality. Finally, 153 articles were eligible. Only 20 articles (4 qualitative articles and 16 quantitative articles) of the studied articles had full text and were related to

the field of research card. In the third stage, the articles were searched manually; all libraries of Zahedan medical universities were examined, but no new ones were added after deleting articles that did not meet the inclusion criteria, the full texts of all articles that met the inclusion criteria were reviewed. Then, their results were extracted according to the investigated factor and the two other researchers reviewed them. The quality of the studies was assessed through the STROBE checklist [24-26]. In this systematic review, the articles that met the inclusion criteria were studied and analyzed. Excluded from all retrieved articles were those that had unspecified sample size and implementation, or articles whose full text was not available [27]. Finally, 20 cases were reviewed and analyzed. To extract the data, two

experienced researchers simultaneously reviewed and analyzed the articles [28].

## Results and Dissection

The most important ethical challenges in the context of the Covid-19 virus epidemic raised in the articles include 1. how to take patients to hospitals; 2. how to treat nurses initially for triage; 3. how to visit doctors; 4. how nurses treat patients; 5. how patients treat patients; 6. how patients' companions communicate; 7. how the doctor communicates with patients; 8. how patients are isolated at home; 9. how to present unfavorable news to patients' companions; and 10. how to manage deceased people. The most important ethical challenges in the context of the Covid-19 virus is given (Figure 3).



**Figure 3:** Ethical challenges in Covid-19 virus

The results of this review study showed that research, especially qualitative research in this field is very limited. The main challenges included how to take patients to hospitals in the context of the Covid-19 virus epidemic, how to initially treat nurses for triage, how to visit doctors, how to treat nurses with patients with Covid-19, how to treat patients with patients, how to communicate with patients with Covid-19, how to insulate the home of patients with Covid-19, how to provide unfavorable news to the patients with Covid-19, and how to manage the deceased in patients with Covid-19. Under normal circumstances, patients are referred to the hospital by direct referral or by transfer by pre-hospital ambulance [29-31]. They have sufficient equipment for personal protection during the visit and transfer of these patients to the ambulance and the hospital at the base. This

site includes teams / teams that are ready to be dispatched for suspicious cases and have been assigned to the Dispatch Center. Disease transmission includes contact route, airborne transmission, respiratory droplets, how to visit, how to transfer the patient, how to use personal protective equipment, paying attention to the importance of hand hygiene and its proper technique, delivery of the patient to the destination hospital, and how to disinfect. They have seen the ambulance and its equipment [32]. They have ambulances, tools for collecting infectious waste and boxes for collecting sharp and sharp tools and how to dispose of them [33]. Initially, it was suggested that due to the Covid pandemic, 19 new challenges were facing the medical transportation system, including unprecedented demand for transportation and long-term contact with infectious patients, and

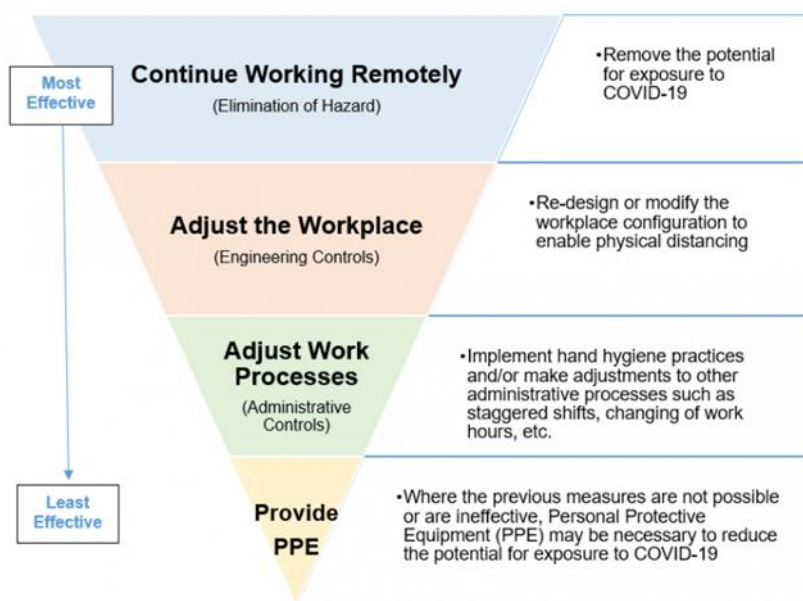


insufficient ambulance equipment. According to the research, if the patient needs to be transported immediately by ambulance to a hospital, the ambulance driver should be informed about any concerns about Quid 19. In other cases, you should first discuss the case with the hospital so that they are aware that Covid 19 has been raised and that the necessary coordination and agreement has been reached on how to transfer the patient [34-36]. Patients with suspected Covid 19 should be instructed not to use public transportation or taxis to get to the hospital. Also, the use of personal protective equipment and tools is available and the necessary training to emergency medical technicians in the form of scientific research can help the issue of the patient's initial dignity of emergency services.

#### *The initial approach of nurses for triage*

Under normal circumstances, the emergency department is the active and 24-hour pre-hospital entrance, which in practice is the most risky and important department of the hospital in providing emergency and life-saving services.

The triage unit is the first space available for the patient upon entering the emergency department and its main function is screening and classification of patients based on the disease status as well as the type and level of medical services required. In this space, patients are initially evaluated by a triage nurse and their information is recorded in the national standard triage form. Considering that the patient's first encounter with the emergency department is the hospital triage unit, it is important to quickly identify and isolate suspicious patients. In CoV-2019, the triage nurse, while taking a syndromic approach to patient risk assessment, refers suspicious cases to specific waiting, examination, or isolation units. Marking the route of transfer of suspected patients from the triage unit to an isolated room should preferably be done in gray. Therefore, according to the researcher, promoting the principles of professional practice by emphasizing the teaching of ethical principles in the field of nursing is very important. Initial approach of nurses in covid 19 is given in Figure 4.



**Figure 4:** Challenges facing COVID-19 disease [2]

Nursing students pay attention to the patient's preferences, i.e. considering the patient as a unique human being, respect for privacy, confidentiality and reciprocity as effective in creating patients' sense of dignity and reducing discrimination, loss of independence and the need for help. Patients should know their dignity

and in order to increase patients' sense of dignity, professional ethics education in nursing should be considered. Physicians use clinical judgment to evaluate the patient for diagnosis, treatment, and prevention. In clinical practice, there is a specific sequence of activities that is commonly observed, including: History, physical

examination, list of problems, identification of differential diagnoses, examinations (including tests and imaging, etc.), reaching a diagnosis, and finally treatment [37-39]. According to the principles of medical ethics, the physician's performance should not cause any intentional harm to the patient either through a wrong action or negligence, and the efforts made for treatment should be in his favor, that is providing a standard. It is acceptable and appropriate to care for the patient, which minimizes the possibility of harm to the patient. In coronary conditions, physicians should not refuse to treat patients because of their dangerous condition [40]. They perform their duties to treat patients during an epidemic, although during resuscitation operations on patients with Covid 19 disease, many times, the health of nurses, physicians, and

other health care providers is compromised and they lose their lives in this situation. With the treatment of the physician and the patient with Covid 19, challenges such as patient autonomy, patient satisfaction, patient benefit, justice for patients and advocacy, and getting the disease in the face of Covid 19 are raised. One of the things that a doctor has the right to violate confidentiality is when he wants to protect others from danger, but it should be noted that this danger must be taken seriously and the probability of its occurrence is high and there is no other way but to violate confidentiality to prevent danger. There should be no harm to the third person and the harm caused by the breach of confidentiality to the patient should be small and acceptable [19].



**Figure 5:** Risks faced by physicians with patients with covid 19 [5]

Unveiling its patient secrets is sought because his concealment causes problems for the individual or society. In this case, the physician is confused because he is faced with two mandatory rulings "obligation" and "sanctity" that have been imposed on a subject; sanctity of disclosing patient secrets and the obligation to prevent corruption and protecting the interests of society. It was found that colleagues' knowledge of the patient's issues plays a role in making decisions. Information should be provided to them and it may be dangerous for the patient to hide a problem and for the doctor's colleagues. The truth should be told about the right decision of colleagues and the task of compiling a medical record. It also increases the quality of

information to patients. Nursing is one of the most important pillars of health care systems in any country. Developing ethical codes appropriate to the culture and religion of the community is a good way to improve the quality of nursing services expected by stakeholders. In recent decades, addressing the issues of ethics and compiling ethical guidelines is one of the most important priorities in the field of health in our country and the nursing ethics code has been developed in this regard with the aim of providing a framework and a guide for ethical decision-making in nursing. Nursing, job honor and executive necessities in health care environments have led to the development of ethical codes of nursing-by-nursing associations

and societies in some countries in the world and the treatment of a large number of patients has put the health systems of many countries under unprecedented pressure and beyond their existing capacities to deal with this epidemic. Meanwhile, the staff of the health system, especially nurses, are among the people who have been most affected by this natural disaster on the front lines of this jihad. This study provided an overview of the various dimensions of barriers and problems that nurses are facing. Studies show that the lack of prevention, diagnosis and treatment equipment at the beginning of the epidemic as well as the low usability of personal protective equipment has been the most important challenge for nurses.

The job characteristics of nurses have also undergone serious changes with increasing physical and mental workload, especially time pressure. In addition, nurses' working conditions have been greatly affected by the inevitable features of the corona phenomenon, including fear and uncertainty. This unprecedented situation has also made it difficult for hospitals to provide a suitable physical environment for their staff and patients. In addition, organizational problems, including lack of skilled manpower, lack of training of new recruits, inefficient rest time, and even extra-organizational problems, including sanctions and stigma, have received less attention despite their importance.

Finally, these difficult and exhausting conditions for many nurses have resulted in many physical and mental disorders that can pose a serious threat to their health and quality of care, as well as the functioning of the health system of countries. It has caused a lot of damage that can

lead to mental disorders, weakening the immune system and reducing the body's ability to fight diseases in the community, including the treatment team (nurses, doctors, etc.) [3]. Nurses are the main element of care in the team. There are therapies that make up more than 75% of the treatment team and are the first to be on the front lines of the Covid Pandemic 19. The nurses' work environment leads to long-lasting stress, and this is the case in self-help professionals. In the meantime, the health of nurses in corona-related areas is at risk due to the nature of work, heavy protective clothing, the use of the N95 mask, and the contamination of others, which can lead to the occurrence of psychological disorders [22]. It was revealed that although full traditional therapists and nurses are at risk in dealing with patients with coronary heart disease, they should remain calm and try to improve their health by taking care of their health and safety while taking care of their health and safety. It may be necessary to keep their mental health, so we can maintain and improve their mental health with appropriate psychological strategies and techniques.

Strengthening the morale and giving hope to patients is very important, not only for coronavirus but for all diseases; what can be very effective in the patient's recovery is morale and hope, and educating the patient and family by nurses. This makes perfect sense because they need to know how to take care of themselves or their family as soon as they get home. Also, in some cases, patients can go home with very complex care regimens, and the family must be able to take care of them all.



**Figure 6:** Risks of Nurses Facing Patients with covid 19 [6]

In general, one of the skills to be learned in life is how to deal with loved ones who sometimes get sick. The patient and his companion, who is the closest person to him, need empathy in critical cases of Covid 19 disease, all social organs, even close relatives and families, distance themselves. Families with coronary heart disease may be more stressed than normal people for a variety of reasons. On the one hand, they are worried about their patient's condition, and on the other hand, they may be worried about themselves or other family members. In addition, quarantining yourself at home to prevent the spread of the disease and losing contact with relatives and friends can also increase this stress.

In addition, patients and family members should receive training in personal hygiene, methods of infection prevention and control, how to care for people suspected of having an infection, and how to prevent and transmit the infection to other family members. The patient and family should be continuously trained and supported. For clinical care at home, the following recommendations should be followed: The patient should be placed in a separate, well-ventilated room, limit the patient's contact with other people; ideally a person who is in good health, for example, preferably not from high-risk groups such as the elderly, should be assigned to care for the patient; the patient should observe respiratory hygiene and keep a distance of at least 3 meters from other family members. To reduce stress and depression in patients with coronary heart disease, seek information only from his physician. Try to stay in touch with the patient. If he is at home and in a separate quarantine room, contact him in good health.

Another way to communicate is to use mobile phones and virtual networks. If the patient is in the hospital, ask the medical staff so that, if possible, you can talk to him for a few minutes via mobile phone or communicate with him online. This not only reduces your unnecessary worries but also the psychological effects of illness and quarantine on the patient. Telling similar sad stories should be avoided if you remember relatives who have the disease you do not need to tell stories about them in front of the patient,

especially if your stories do not have a happy ending. The nurse is a person who is responsible for the services related to the transfer of equipment, supplies and patients in the ward or other units in compliance with the rules and regulations and regulations for the compliance of medical technical affairs with the standards of Sharia. Patients with Covid 19 may leave isolated rooms or wards for a variety of reasons. There may be a need for in-hospital transfers from emergency departments to wards, from general wards to intensive care units, and from wards to radiology.

Patients with severe respiratory distress may need to be transported to a hospital with primary ventilation equipment. During periods of isolation from patients, there is a possibility of disruption in the control of the spread of infection. On the other hand, when Covid 19 patients have problems during transportation, their management is extremely challenging for hospital staff who use heavy and heavy protective equipment. Dangerous transmission of infected cases leading to hospital expansion can stop attempts to break transmission chains [23].

In general, the patient faces managerial and executive challenges and difficulties in dealing with aggressive and aggressive people, competition at work, responsibility for the health and safety of others, time pressure, conflict at work, responsibility for the result of work and one of the challenges ahead. Patients in Covid 19 are afraid of contracting due to close contact with patients, so it is recommended to take appropriate intervention measures for the mental health of these people. Necessary training in psychotherapy methods can be done remotely and using it provided up-to-date facilities such as video conferencing, online programs, the use of appropriate apps, telephones, etc. in the form of appropriate psychotherapy protocols. Quarantine has long been an example of coercion and restrictions to ensure public health. It should be noted that maintaining public health takes precedence over independence and individual interests, but public health interventions must be based on a minimum of individual independence and moral justification. Isolation restricts the



patient's individual freedom and requires respect for the patient's rights to freedom and independence, and moral decision-making [24]. The method of home isolation in coronary conditions is as follows: It is necessary for the patient to stay away from work, school and public places, unless he needs urgent medical visits. With the help of the patient's nurse, it is necessary for the person with coronary artery to be transported by private car and not to use public transportation in any way. It is best to keep the patient in a separate room and away from other family members as much as possible and at home. If there is another bathroom in the house, it is better for other family members to stay away from the spaces used by the patient. It is better to open the window of the patient's room so that fresh air always circulates in the room.

The use of common areas with the patient should be avoided as much as possible. The patient must be at least 6 feet (2 meters) away from family members if necessary. The use of any common device between the patient and family members is prohibited. Accessories such as eating utensils, towels, bedding and electronics should be provided separately for the patient.

One of the challenges of how to isolate home is the issue of tracking contacts and controlling the transmission chain of the disease is still neglected and after identifying patients, its relationship with other people for quarantine is not examined. Serious prevention of the disease transmission chain has been the reduction of the spread of the disease by reducing contact between healthy and suspicious people.

The medical staff, patients and patients' companions are always exposed to the news, conditions and situations that they evaluate as unpleasant and the reaction indicates a feeling of dissatisfaction with hearing or encountering. They show that according to the principles of medical ethics and the Charter of Patients' Rights, sometimes patients around the patient have the right to know and have information about their health, including bad news about their health. This information is provided by the medical staff, especially in the case of providing bad and

unpleasant information and news to the patient and those around him, it should be accompanied by observing and observing the principles of general ethics and medical professional ethics, including the principles of medical confidentiality, autonomy, conflict of interest, right of refusal, accepting treatment or leaving treatment (except in exceptional circumstances). Emergency physicians have special challenges in transmitting bad news. They do not have ongoing relationships with their patients, and the bad news may be sudden and unexpected. Sometimes the family is informed of the diagnosis and prognosis before the patient is diagnosed and requests that the patient not be told. The emergency physician's union with the patient and family is important, although the responsibility for the patient is primary. As death approaches, active care and comfort are important medical tasks for the care team. Announcing death is one so difficult. There are several algorithms to help emergency physicians learn the steps. Families do not have the time to adjust or think about options, and the news cannot be softened. Although family members may ask about their death or lack of knowledge, allowing time to gather news with a delay about the end result may be more helpful for the grieving process.

At the time of admission, Covid 19 patients see health care providers only behind masks, face shields and gowns, so it is difficult for patients to recognize them and establish human relationships with them. This necessitates the need for empathetic communication and attention to patients' psychological concerns by health care providers. To reveal the death of a patient, sit down and consider a comfortable communication distance, use acceptable tone and volume of speech, make eye contact, maintain fitness, warn before the bad news, give death news clearly. Endure the surviving reaction. Describe medical efforts to "rescue" the patient. Use no medical terms. Use language that is clear and easy to understand. Offer to be available to survivors. Conclude appropriately (25). Use the patient's distant relatives because it is more relaxing. Minimize the subject, cheer the patient and companions. Use the patient's psychological

state of understanding and empathy. The bad news is the ask-tell-ask interaction framework, in which the emergency physician is guided by the patient and family according to the speed, amount of information and style that best suits them. And listen to what they need.

These include verifying all the medical facts of the case, clarifying the patient's name, being aware of any uncertainty about the patient's identity, and knowing the relationship between the patient and the people the person will be talking to.

The World Health Organization (WHO) has developed a protocol for providing information on the safe management of coronation of suspected or confirmed coronavirus patients. These measures should be taken not only by medical team personnel, but also by all persons participating in the funeral management of suspected or confirmed coronary heart disease patients. The performance of the burial monitoring team and disinfection methods should be done only by the trained people.

Doing burial is very sensitive for the family and the community and can be a source of problems or even many conflicts. Prior to any operation, the family of the deceased must be fully informed of the burial process and, with respect to their religious and personal beliefs and rights, the burial operation must begin. Health care workers and other people who deal with the bodies of the dead should follow the precautionary standards at all times. If possible, a suitable space should be provided at the site of death to disinfect the body before it is delivered to the morgue.

The place for disinfection should be a place with proper ventilation system. Wearing protective equipment by operational personnel, transporting the body for disinfection after use, personal protective equipment should be decontaminated and disposed of as infectious waste, and hand hygiene should be observed.

Lack of knowledge about the hygienic burial of corpses of people who died of coronavirus and managing the mourning reaction in the survivors of people who died of coronavirus is one of the challenges posed by Covid 19 disease. In order to reduce grief and depression in the survivors of the deceased, it is recommended to prepare a

flowchart of the grief counseling process, to prepare instructions for the executive process of grief counseling, to prepare educational content of grief counseling, and to plan for psychosocial intervention in bereaved families. It is recommended to respect the religious, personal and legal beliefs of the deceased survivors and to educate them to maintain peace in their mind, and not to hold funeral ceremonies to prevent further spread of the disease.

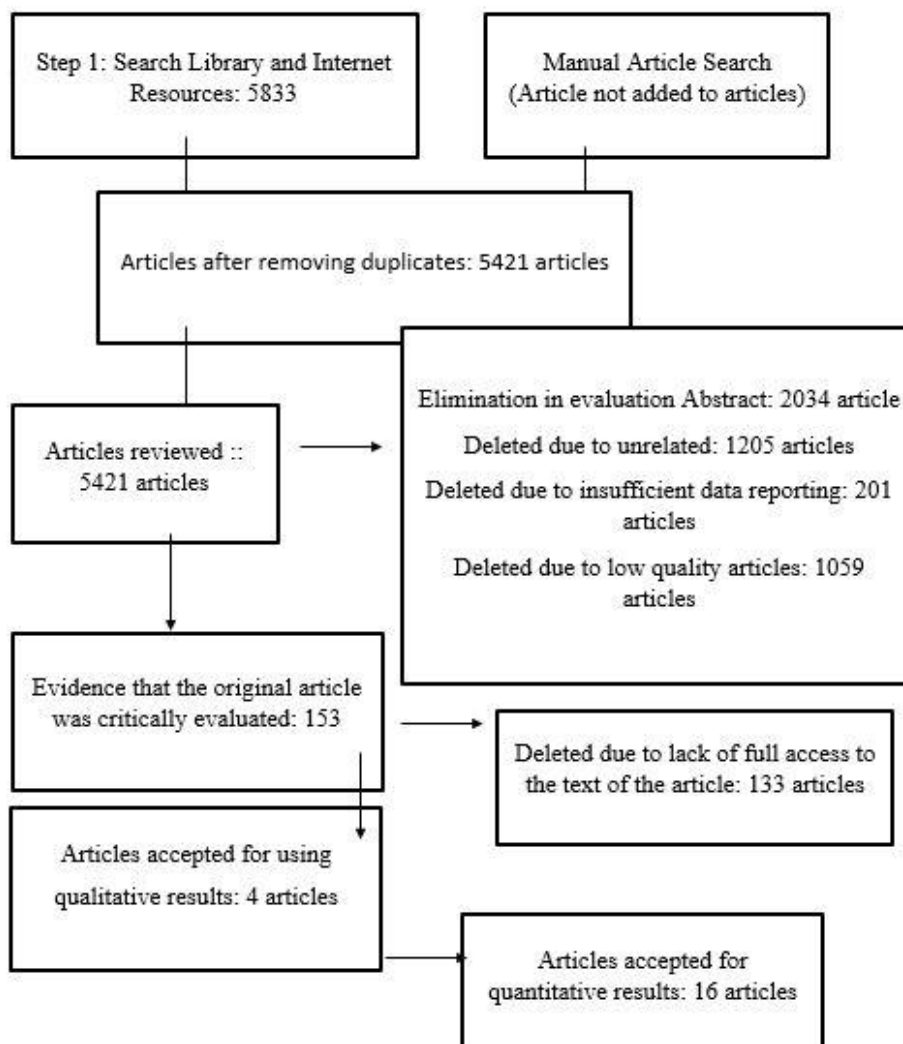
In this study, the ethical medical challenges of the Covid 19 epidemic for health care providers and public health managers' response to the epidemic were examined. As can be seen in the types of challenges raised, the values of solidarity, desirability, fairness, honesty, reciprocity, and the minimum level of limitation of individual independence are essential pillars in the planning and implementation of response measures [26]. Ethical values, accuracy, transparency and accountability must be present in the process of adopting and implementing comprehensive response policies. The experience of Covid 19 shows that the lack of resources has caused a huge shock to the health system of some countries. Unfortunately, the epidemic widens the gap in health inequalities and leads to the highest mortality rates in poor countries with poor infrastructure. In this context, the responsibility of the WHO leadership to use the capacity of all countries to reduce the human casualties of this event is very important. Solidarity, honesty and cooperation at the local and global levels are the most fundamental values we need to control the epidemic. People with Covid 19 disease are guided to understand and realize their rights, including health care, if the conditions are right for them. This requires policies and programs designed to develop social support and services to families and communities. It is recommended to satisfy patients and improve their health through informed and ethical decisions.

## Conclusion

The findings indicate the need to consider ethical considerations in the care of patients with emerging diseases. The inclusion of professional ethics training in the care of emerging diseases

and ethical decision-making in epidemics is recommended in the curriculum of care providers for the optimal management of these diseases. While observing fidelity in analysis, reporting texts and citations, efforts were made

to publish the results away from any bias. This article was approved with the code of ethics IR.ZAUMS.REC.1399.324 in Zahedan University of Medical Sciences and was derived from a thesis (Figure 7).



**Figure 7:** The process of reviewing and selecting retrieved articles based on the PRISMA chart

### Acknowledgments

The research team would like to express its gratitude and appreciation to the head of the Information and Technology Unit of Zahedan University of Medical Sciences for their cooperation and guidance in selecting the appropriate keywords to receive the most appropriate articles and to introduce and access valid databases.

### Funding

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

### Authors' contributions

All authors contributed toward data analysis, drafting and revising the paper and agreed to be responsible for all the aspects of this work.

### Conflict of Interest

The authors assert no conflict of interests of the manuscript.

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#### HOW TO CITE THIS ARTICLE

Ali Abdolrazaghnejad, Asma Khoshroo, Ali Massoudifar. Medical and Ethical Challenges in Caring for Covid 19 Patients, *J. Med. Chem. Sci.*, 2022, 5(1) 116-128  
 DOI: 10.26655/JMCHMSCI.2022.1.13  
 URL: [http://www.jmchemsci.com/article\\_139563.html](http://www.jmchemsci.com/article_139563.html)