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Ethical and clinical challenges when providing medical care during the COVID-19 pandemic in Colombia: A global perspective to contribute to the local context

Problemas ético-clínicos en la atención médica durante la pandemia por COVID-19 en Colombia: una mirada global para un aporte local

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Abstract

The COVID-19 pandemic has posed many challenges, particularly for health systems, which may be forced to ration the resources available to treat patients with this disease. With its ethical implications, this decision forces health care institutions to choose, among patients with similar vital needs, who will receive the scarce available life support resources in the emergency room or intensive care units based on prognostic criteria.

This utilitarian approach aims to achieve the greatest benefit for the largest possible number of patients; however, in Colombia, its implementation faces several obstacles, such as the medical *ethos*, the instruments used to define the prognosis, the prioritization criteria, the legal-constitutional precepts, and the economic nature of the provision of intensive care services in the country.

This article aims to reflect on these aspects and propose a model for patient prioritization based on the creation of multidisciplinary teams that make decisions within a transparent, humane, plural, impartial, equitable, and fair methodological framework.

In the context of the current pandemic, these multidisciplinary teams should be guided by four ethical-clinical principles: (a) treat all persons equally, (b) prioritize patients with the worst condition, (c) maximize the benefits that can be obtained from the scarce resources available and (d) preferably select patients with instrumental value.

If these four principles are followed, the guidelines drawn up by the Colombian Government concerning the care of COVID-19 patients would be fulfilled within a context of ethical medical autonomy and scientific and professional practice determined by a utilitarian perspective.

Keywords: Pandemics; COVID-19; Ethical Issues; Intensive Care Units; Mechanical Ventilation; Decision Making (MeSH).

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Resumen

La pandemia por COVID-19 ha generado muchas dificultades, sobre todo en los sistemas sanitarios, los cuales podrían verse obligados a racionar los recursos disponibles para la atención de pacientes con esta enfermedad. Lo anterior obliga a las instituciones de salud a escoger quién puede acceder a los escasos recursos de soporte vital disponibles en los servicios de urgencias o en las unidades de cuidado intensivo, una decisión de connotación ética que debe tomarse desde una perspectiva utilitarista, entre pacientes con necesidades vitales similares y según los criterios pronósticos de cada individuo.

La aproximación utilitarista busca el mayor beneficio para el mayor número posible de pacientes; sin embargo, en Colombia su implementación enfrenta varios obstáculos, tales como el *ethos* médico, los instrumentos empleados para definir el pronóstico, los criterios de priorización, los preceptos jurídico-constitucionales y la naturaleza económica de la prestación de servicios de cuidados intensivos.

Dado el panorama, los objetivos de este artículo son reflexionar sobre los aspectos relacionados con la asignación de los recursos de cuidado intensivo a pacientes con COVID-19 ante una posible escasez de los mismos y proponer un modelo de aproximación para dicha asignación basado en la creación de equipos multidisciplinarios que tomen estas decisiones dentro de un marco metodológico transparente, humano, plural, imparcial, equitativo y justo.

En el contexto de la actual pandemia, estos equipos podrían guiarse por cuatro principios ético-clínicos para tomar las decisiones de asignación de los equipos: i) tratar a todas las personas por igual, ii) priorizar a los pacientes cuya condición sea peor, iii) maximizar los beneficios que puedan obtenerse a partir de los escasos recursos disponibles y iv) darle prelación a aquellos pacientes con un valor instrumental. Si se siguen estos cuatro principios, la atención de pacientes con COVID-19 se daría dentro de un marco de autonomía médica ética, además la práctica científica y profesional estaría determinada por una perspectiva utilitaria.

Palabras clave: Pandemia; COVID-19; Ética; Unidades de cuidado intensivo; Ventilación mecánica; Toma de decisiones (DeCS).

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Introduction

By the end of 2020, the COVID-19 pandemic, which began in December 2019 in China, had already left more than 73 million people infected and more than 1.5 million deaths worldwide.[1] Consequently, it has generated an unprecedented social crisis with immediate effects in the health sector,[2,3] where tensions translate into not only technical problems but also ethical issues.[4,5]

The social problems caused by the restriction to mobility and the isolation of people in their homes have changed the mental health of the entire population[6,7] and have led to an increase in domestic violence rates.[8] In addition, some administrations, both national and local, have engaged in questionable practices, such as resource grabs, affecting the financial capacity of economically vulnerable countries or regions and preventing them from competing on an equal footing with richer countries.[9,10]

Although thousands of clinical trials have been conducted so far, only one drug (dexamethasone) has been proven to be effective for treating COVID-19.[11-14] Most published research on the use of drugs to treat the disease has preliminary results that cannot be extrapolated, and their safety has not yet been established. Despite this lack of evidence, some health workers,[15] leaders and politicians have encouraged and stimulated mass medication and self-medication, even with toxic products.[16-18]

As is evident, the COVID-19 pandemic has serious implications for the care of infected patients; however, the ethical challenge that has urged this reflection is the phenomenon experienced in several countries during the initial peaks or outbreaks of the epidemic, which could occur in Colombia as well. Treating physicians have been forced to decide which of the many critically ill patients that need urgent care should "receive" the only ventilator available to preserve their lives.[19] So, what should be the fundamental perspective or criterion for determining whom to give the chance to survive?

To answer this question, the literature recurrently reports that "beneficiaries" should be selected according to the best vital or functional prognosis, both present and future, through a relatively objective approximation. There are also more subjective indications that suggest the allocation of resources to treat people who dedicate their lives to serve others, who just started living so that they can have a new opportunity, or who play an instrumental role in society. Solidarity is also invoked to give opportunities to those who have historically been most vulnerable, and strategies such as assigning the machines to patients on a "first come, first served" basis or by draw are considered so that everyone can have the same chance to access care services.[19-21]

From our clinical perspective, and taking into account the ethical framework governing medical practice and the prioritization of patients' fundamental rights, ethical challenges would not arise if we did not have to make the decision to "rule out" advanced life support or the provision of a particular resource to patients based on established standards, possibly proposed by imperfect subjective or qualification systems based on value judgments or discriminatory aspects, such as economic and social status, age, race, sex, or comorbidities.

According to *individual ethics,*[20,22] each patient should receive the best comprehensive health care with the same opportunities and without restrictions. In this regard, based on the principles of well-being and autonomy, the health system should be required to increase the supply of goods and services to meet the growing demand resulting from the current pandemic. However, even for major economic systems, the actual problem is that these goods, resources, and services are finite, and their availability to provide health services will eventually be exhausted as a result of an extraordinary event, such as the peaks of contagion in the current pandemic. This will lead to a large number of patients with this disease who will not be able to receive treatment before such resources are available again due to the death or recovery of those who are being treated.

Thus, the beds and ventilators available to care for patients with severe COVID-19 illness are invaluable assets that should be prioritized to extend their benefit to a greater number of people. This perspective, known as *utilitarianism,*[20,22,23] requires establishing "objective" selection criteria that consider the instrumental value of the patient that receives the good or resource, preferentially considering those most affected by the disease.[24]

In short, when allocating the resources necessary to care for the most critical patients in intensive care units (ICUs), health care professionals must decide whether to take an individualistic stand, closer to the medical *ethos* and even to legal practices that state that all human beings should have the same opportunities, or a utilitarian stance to ensure a high social value to provide the best possible health coverage and benefits. The latter stance requires losing human sense and even intervene in triage processes and suggest the removal and/or reassignment of ventilators and beds to certain patients.[20-23]

By taking a more appropriate stance, physicians should make decisions from a clinical perspective contemplating the preferences of patients and their families and requesting informed consent and advance directives. These decisions should also involve a comprehensive evaluation of the context by an interdisciplinary collegiate body to establish prognostic ranges[25] and realistic expectations in each particular care scenario, with its possibilities and constraints. Also, palliative care protocols should be prepared to treat all the patients that will not receive the resource.

In this sense, the objectives of this article are to reflect on the aspects associated with the allocation of intensive care resources to COVID-19 patients in the event of a shortage and propose an approach model for patient prioritization based on the creation of multidisciplinary teams that make these decisions within a transparent, humane, plural, impartial, equitable and fair methodological framework.

Difficulties in implementing the utilitarian perspective in the face of the need to prioritize ICU resources

In Colombia, health professionals face significant obstacles to take a utilitarian stance when allocating ICU resources to patients who require them. These obstacles are associated with the difficulties that these professionals have to establish the prognosis of each patient,

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the circumstances of the disease and the pandemic, the legal aspects of the health system, and the characteristics of the goods and resources available for intensive care in the country.

Wynant *et al.*[26] carried out a critical systematic review of publications reporting the use of different scales, new or adapted, for the clinical diagnosis of COVID-19 and to establish survival, predictors of progression to severe forms, and the future need for intubation or ventilation, ICU admission and hospital stay in patients with this disease. The study identified 27 publications describing 31 predictive models or scales. All were at high risk of bias due to systematic errors in the selection and artificial enrichment of samples and improper calibrations, verifications, and designs. Given the poor evidence found, the authors recommended not to use these models and scales in everyday clinical practice.

Therefore, there is no exact way to establish which individuals have the best prognosis, and any decision made based on those scales would be subjective. Furthermore, most patients with COVID-19 who require mechanical ventilation have common underlying factors that determine very close prognoses,[27] which means that small differences —perhaps a couple of years less, a less compromised organ, or some other detail— become the criteria for deciding whether the resources are assigned to one patient or another. This level of arbitrariness in a life-or-death decision is, of course, questionable and inadmissible.[28]

Most patients with COVID-19 who are admitted to the ICU require mechanical support within 24 hours after admission due to the severe acute respiratory syndrome caused by the virus.[28,29] In this regard, Mahase, [30] citing a report from the Intensive Care National Audit and Research Center, stated that the median ICU stay was three days for both survivors and non-survivors and that the median duration of advanced respiratory care was five days. Also, according to Armstrong *et al.,*[31] ICU stays of patients with severe COVID-19 disease in the United Kingdom last more than 28 days in 20% of cases and more than 42 days in 9%.

Similarly, according to the reports, mechanical ventilation is unpredictable despite early weaning or suspension when multiple organ failure is irreversible or in case of brain death.[30,32] This means that, as the epidemic progresses, there will be fewer resources available and more patients who need them, and therefore it will be more difficult to choose to whom to give the few new available beds. This is a dynamic that will overload health systems and affect health care staff, morally and legally.[33,34]

It should be noted that, as theoretically modeled, although countries have made an important effort to increase the number of ICU beds since the beginning of the pandemic (the number in Colombia has doubled and in countries like the USA, it has quadrupled), because of the virus's contagion dynamics, they will reach 100% occupancy during peaks of contagion or outbreaks, and sooner or later health personnel will be forced to prioritize resources.[28,35,36,37]

Forecasting the potential shortage of beds and ventilators has led both providers and potential users, i.e., patients, to take speculative actions that can turn those resources into a problem rather than a life-saving alternative. For example, in northern Italy, ICU beds were already occupied by patients with seasonal influenza during the first weeks of the pandemic. Despite this, health authorities did not consider the impact that COVID-19 was already having on China, took no containment measures and continued to admit less severe patients until they exceeded the installed capacity. Thus, when the patients started to develop severe manifestations of COVID-19, the ICUs were occupied, and they began to accumulate and overcrowd the emergency services, collapsing them. This situation greatly affected biosafety protocols and led to an epidemic among the health personnel.[38,39]

The magnitude of the problem was unclear at the time, and the means of transmission of the virus were not well known, so hospitals became an intense source of contamination to the point that it is assured that the transmission of the virus became mainly nosocomial in northern Italy.[38,39]

Consequently, it is necessary to explore the implications or restrictions that constitutional, legal, and regulatory considerations, as well as the funding of ICU resources,[40] which in some countries are an obstacle or limitation to strictly medical decision-making,[34] may have on the utilitarian perspective.

In Colombia, a significant obstacle to the utilitarian perspective is the nature and installed capacity of the UCIs, which are asymmetrically distributed throughout the territory and mostly belong to the private sector.[41] At the beginning of the pandemic, the country had 6 159 ICU beds (5 271 for adults and 888 for children), of which half were in Bogotá, Cali and Medellin and 85% were private.[41] The prevalence of UCI beds in private institutions in Colombia, governed by the market economy, hinders the generation of public-private partnerships and creates a paradox in which the social cost-opportunity ratio is sacrificed in relation to the management of health conditions that are also severe[42,43] since, eventually, someone will have to bear the costs of using these resources.[44]

Proposal for the organization of the decision-making process in resource allocation from a medical perspective

The limitations, obstacles and characteristics described above demonstrate how difficult it is to apply a utilitarian perspective. Therefore, the suggestion is to conceive a perspective in which both ethical and clinical considerations are taken into account, without forgetting the principles of individualized medical care, and decisions on the implementation or discontinuation of an intervention, a good or a service are addressed on an individual basis, without making generalizations or using standardized guidelines. Such a perspective must always be governed by the principles of beneficence, human dignity, and humanization of practice.[45]

It has been suggested that this option in the current context of the COVID-19 pandemic, and in the face of limited resources, could be guided by four ethical principles, perhaps in this order: i) treat everyone equally, ii) prioritize patients whose condition is worse, iii) maximize the benefits that can be obtained from the scarce resources available, and iv) give priority to patients with instrumental value.

To this end, the first administrative decision should be the one proposed by the District Health Office of Bogotá,

which coordinates the availability of ICU beds, both public and private, in a kind of social pact through the Emergencies and Urgencies Regulatory Center.[46] Thus, the treating physician or the person in charge of allocating the resources should provide all the information necessary to understand the patient's condition to prevent doctors from getting involved in decision-making processes and spare them the emotional toll that these situations can produce.[43,47]

In this context, a methodological alternative arises, which is to create *ad hoc* committees[20] or teams under the Colombian legal framework[48] to decide who will receive the resources. Moreover, these decisions should focus on clinical commitment and the possibility of short-term survival, estimated based on the available resources, and long-term survival, estimated based on each patient's comorbidities.[19,20,22]

The committees would be available 24 hours a day, 7 days a week, to make decisions since the patient is admitted to the hospital, including triage. They would be composed of an odd number of medical specialists from various disciplines, whether they work at the health centers or not, and would operate through formal consensus methodologies in a humane, plural, impartial, equitable, and fair framework, complying with government guidelines, but following the framework of autonomous *ethos* and professional scientific practice.[48] The decisions of these expert groups would not only be to prioritize the initiation of advanced life support for certain patients but also to place and transfer patients where resources are available.

In order to make any decision, the treating medical body should inform such teams about the patients' advance directives and/or preferences; their previous functionality, stage, severity, and predicted evolution of the current disease, and palliative care options and prognostic estimates within the framework of their *lex artis* (taking into account the information provided by the scales with caution). In that context, the most appropriate decisions can be made with a kind of mixed outlook. Similarly, the committees would be able to engage in an open dialog with the patient and their family to share decision-making.

Conclusions

In a disaster scenario, such as the one we are experiencing because of the COVID-19 pandemic and in which resources for patient care are insufficient, health care professionals must take a utilitarian perspective to ration the resources for a greater final benefit. The main difficulty of this perspective is the economic interest of health goods and services providers, in this case, in the care of critical patients, which are established within the liberal framework of a free market.

However, any patient entering the health system in a disaster situation should receive comprehensive care with the highest possible quality standard to obtain proper treatment or alleviate their suffering through palliative care when it is the only alternative. In this sense, and given the problems referred to in the deontological framework of each ethical perspective, decisions regarding the allocation of resources during emergency care due to COVID-19 should be made by institutional collegiate bodies, created for such purposes, which have no conflict of interest in the provisions they adopt. Thus, decisions on the prioritization of available resources should result from a combination of utilitarian alternatives and perspectives focused on human dignity.

Conflicts of interest

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