

# Ethical point – criteria for allocation of scarce resources in the COVID-19 pandemic: a review

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## ABSTRACT

**Objective:** to analyze the ethical issues related to the criteria for allocation of scarce resources during the COVID-19 pandemic.

**Methods:** integrative literature review, in which 52 articles were identified, using Google Scholar and PubMed databases, using the following descriptors: scarce resources, ICU, pandemic, and COVID-19, of which 14 were selected for the study.

**Results:** we identified an ethical pillar on which decision-making regarding the allocation of scarce resources should be based. Which does not make this decision easy and without psychological repercussions for those involved.

**Conclusions:** the situation of resource scarcity forced the adaptation of existing protocols and the creation of new ones to respect ethical and moral precepts when allocating resources that have become scarce in the COVID-19 pandemic.

**Keywords:** Scarce resources; ICU; Pandemic; COVID-19

## RESUMO

### Ponto ético – critérios para alocação de recursos escassos na pandemia por COVID-19: revisão integrativa

**Objetivo:** analisar as questões éticas relacionadas aos critérios de alocação de recursos escassos durante a pandemia de COVID-19.

**Métodos:** revisão integrativa da literatura, na qual foram identificados 52 artigos, usando os bancos de dados Google Acadêmico e PubMed, a partir dos seguintes descritores: recursos escassos, UTI, pandemia e COVID-19, dos quais 14 foram selecionados para o estudo.

**Resultados:** identificou-se um pilar ético no qual se deve basear as tomadas de decisões quanto à alocação dos recursos escassos. O que não torna esta decisão fácil e sem repercussões psicológicas aos envolvidos.

**Conclusões:** a situação de escassez de recursos forçou adequação de protocolos existentes e a criação de novos, a fim de respeitar os preceitos éticos e morais ao se alocar os recursos que se tornaram escassos na pandemia de COVID-19.

**Palavras-chave:** Recursos escassos; UTI; Pandemia; COVID-19.

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## Introduction

The COVID-19 pandemic can probably be considered the biggest health issue of contemporary times. It had very wide-ranging effects, as it affected practically all countries.<sup>1</sup> But, in addition, the pandemic represented a supply crisis, especially in the health sector.

Faced with this situation of high burden on the health system, both public and private, there was a need to allocate and prioritize available resources.<sup>2</sup> In Brazil, the issue of resource allocation is not an exclusive reality during the pandemic, “The Brazil was already facing a shortage of ICU beds in the SUS before the new coronavirus arrived.”<sup>3</sup> With the situation of the pandemic, this condition of the country escalated, affecting the supply of all types, from equipment such as oxygen, fans, medicines, to beds in the Intensive Care Unit (ICU).<sup>4</sup>

In Brazil, Resolution No. 2,156/2016 of the Federal Council of Medicine<sup>5</sup> regulates the guiding criteria for ICU admission. In article 6, it provides five priority scales for evaluating people, considering the probability of recovery and the absence of limitations in therapeutic support. First in priority are people with “a high probability of recovery and no limitation of therapeutic support”. Finally, those with “disease in the terminal phase, or dying, with no possibility of recovery”.<sup>5</sup>

The establishment of clear and objective rules, in addition to new protocols in the face of insufficient resources, became necessary as a way of guaranteeing the maintenance of ethical and bioethical precepts when allocating scarce resources. In view of the situation, there were updates and recommendations of protocols established by the Association of Intensive Medicine, Emergency Medicine, Brazilian Society of Geriatrics and Gerontology and the National Academy of Palliative Care.<sup>6</sup>

In a larger context, bioethical and ethical issues are significant in the management of scarce resources and establishment of criteria for choosing patients who received the most adequate health support.<sup>7</sup>

In this sense, the objective of this study is to systematize the ethical issues that surround decisions to allocate scarce resources during the COVID-19 pandemic. Because, in addition to the adequacy and creation of standards and protocols, the ethical factor is essential in the face of the pandemic situation, since it represents a health and humanitarian crisis. Therefore, scientific works that focus on this issue are essential.

## Methods

It is an integrative review (IR) of the literature, which gathers and synthesizes the available studies on the topic and leads to a practice based on scientific knowledge. The study model adopts steps to be followed: selection of the research question; sampling; representation of research characteristics; analysis of selected studies; analysis and interpretation of results; and review report. The guiding question of the study was: “What are the ethical issues for deciding on the allocation of scarce resources during the COVID-19 pandemic?”

### Search source and study period

For the study, materials already published on the topic were used as guiding tools, considering scientific articles; official protocols and recommendations; and dissertation theses. Scientific papers were collected through searches on Google Scholar and PubMed. The samples included were those published in the last five years, from 2017 to 2022, in Portuguese and English. In total, 52 references were found, based on the descriptors: scarce resources, ICU, pandemic and COVID-19. From this survey, the following exclusion criteria were used: irrelevant titles, which did not answer the guiding question, exclusively epidemiological; texts that were not available in full; and surveys that were in Spanish. At the end of the process, fourteen works were considered eligible for the production of this study.

## Results

In the present study, fourteen articles were analyzed that met the established inclusion and exclusion criteria. Of the total number of selected works, all fourteen were found on Google Scholar. As for the methodology, six were bibliographic reviews, a technical note, a guideline proposal, an integrative review, two course conclusion monographs, an ethical consideration, an official recommendation and an official protocol. Such information is described in Table 1.

**TABLE 1 – CHARACTERIZATION OF ANALYZED WORKS.**

ORDER	AUTHOR	TITLE	METHODOLOGY
A1	Cotta VAF <sup>4</sup>	The scarcity of resources during the COVID-19 pandemic: the role of the Federal Council of Medicine and the Regional Councils of Medicine and people with disabilities	Monograph
A2	Dadalto L, Mascarenhas IL e Matos AC <sup>1</sup>	Also save the elderly: ageism and the allocation of resources in the Brazilian reality of combating COVID	Literature review
A3	Wang D, Lucca-Silveira M. <sup>9</sup>	Dramatic Choices in Tragic Contexts: Allocation of ICU Vacancies during the COVID-19 Crisis	Technical Note
A4	Ismael MLM, Silva LOP, Marques JFS. <sup>17</sup>	The establishment of criteria for the occupation of ICU beds in Brazil during the COVID-19 pandemic: an analysis of the legal-philosophical limitations imposed.	Literature review
A5	Schulman G. <sup>10</sup>	Criteria for allocation of scarce resources - hospital beds - in view of COVID-19	Literature review
A6	Azevedo M, Dall'Agnol D, Bonella A et al. <sup>11</sup>	Proposal of ethical guidelines for allocation of treatment in ICU (Intensive Care Unit) during the COVID-19 pandemic	Literature review
A7	Marmelstein G, Morozowski AC. <sup>12</sup>	What lives to save? Shortage of ICU beds, objective screening criteria and the COVID-19 pandemic	Literature review
A8	Silva KR, Souza FG, Roquete FF et al. <sup>13</sup>	Resource allocation for health care in times of the COVID-19 pandemic: integrative review	Integrative Review
A9	Bitencourt BG <sup>14</sup>	Intensive Care Unit admission protocol in the situation of scarcity of resources and its importance in the COVID-19 pandemic: Bibliographic Analysis and Review	Monograph
A10	Goncalves L, Dias MC. <sup>8</sup>	Bioethical discussions on resource allocation during the COVID-19 pandemic in Brazil	Literature review
A11	Costa A, COSTA CMA, Pompermayer FCL. <sup>15</sup>	Protocols in times of a COVID-19 pandemic with criteria for the allocation of scarce resources: can you consider them (un)fair?	Literature review
A12	Satomi E, Souza PMR, Thomé BC et al. <sup>16</sup>	Fair allocation of scarce health resources in the face of the COVID-19 pandemic: ethical considerations	Ethical Considerations
A13	Kretzer L, Berbigier E, Lisboa R et al. <sup>16</sup>	AMIB, ABRAMEDE, SBGG and ANCP recommendations for the allocation of depleted resources during the COVID-19 pandemic	Official Recommendation
A14	Kretzer L, Berbigier E, Lisboa R et al. <sup>6</sup>	AMIB protocol for resource allocations in depletion during the COVID-19 pandemic	Official Protocol

**Caption A:** article following the numerical sequence adopted for data presentation.

## Discussion

The COVID-19 pandemic has proved to be a major global challenge in many ways. Regarding the health issue, the drama faced is amplified by the scarcity of resources, especially those of the Intensive Care Units (ICU), such as beds, medicines, oxygen, equipment and mechanical fans.<sup>4</sup>

In this sense, it was found that having criteria for allocating such resources is fundamental for the functioning of the health system, in addition to the ethical and moral weight that such decisions have, since this choice is seen as a life or death choice. Brazil already has a CFM resolution that establishes prioritization criteria, CFM Resolution 2,156/2016.<sup>5</sup> However, it was prepared for a normal situation, since in exceptional situations, such as the COVID-19 pandemic, it may not be possible to meet the patients following these criteria.<sup>8</sup>

With the need to create new protocols for the allocation of scarce resources, due to the COVID-19 pandemic, new questions appear to guide this issue. Questions such as, “Severity of the patient’s situation? Order of arrival? Greater chances of recovery?”.<sup>11</sup> In general, the priority is to save as many people as possible, without a well-defined criterion that allows a universal consensus. When it comes to intensive care, the severity of the patient’s condition is assumed, since patients with greater chances of recovering tend to spend less time in the ICU.<sup>12</sup> Studies show that decision-making for resource allocation is conflicting and, most of the time, professionals do not feel prepared to perform them.<sup>13</sup>

Faced with a new situation, such as the COVID-19 pandemic, adjustments are necessary to maintain ethical aspects, since new concerns arise with groups that may be harmed, such as the elderly, who may be discriminated against due to ageism practices. A resource rationing policy, when not very judicious, can end up violating isonomy, age, gender, economic, social or ethnic-racial criteria cannot be used as a justification for the reallocation of resources. So, it is noted that decisions to allocate scarce resources must be based on clinical-technical criteria.<sup>1</sup>

In view of this alarming situation, for decisions to allocate scarce resources to be ethically defensible, such a process must occur through protocols that are clear, transparent, technically well-founded, aesthetically justified and that are in line with Brazilian regulations.<sup>6</sup> During the pandemic, a refinement was carried out regarding the description of the legal bases that support the protocols developed by the Brazilian Associations of Intensive and Emergency Medicine, aiming at technical and normative balance. The bioethical aspect regarding the criteria for allocation of resources, which is consensus, is the prioritization of patients with better chances of benefit and with greater expectations of survival.<sup>16</sup>

There are legal limitations for establishing criteria for choosing which resource will be allocated to which patient. Thus, the legal system is formed by norms in order to protect the dignity of the human person.<sup>9</sup> But, even in the face of the broad legislative foundation, there are no parameters in the laws that reach definitive conclusions for this new scenario, given that there is a statute that defends children and adolescents, the Statute of the Child and Adolescent (Law nº8.069/1990)<sup>18</sup>, and another statute that defends the elderly, Statute of the Elderly, art. 1519 and the Organic Health Law (SUS Law), Law No. 8.080.20.21

Thus, there is a general recommendation that the criteria be shared, above all, with the definition of a triage plan, in order to avoid individual decisions.<sup>10</sup>

Decision making can be understood as a process of ethical deliberations that involve individualized selection of people. In this follow-up, there are selection criteria that can be considered bad and appropriate. Of the bad ones, age, social value, prioritization of health professionals and order of arrival are included. From the appropriate ones, there are criteria to estimate the baseline clinical situation and to evaluate the current clinical situation.<sup>17</sup> From this, it is inferred that the more subjective factors should be left aside and reinforces the idea that the allocation of resources should be based on criteria clinicians and technicians, which is considered an international consensus, as it is based on objectivity and pragmatic affectivity. It is considered morally valid, as it allocates resources to those with a greater prospect of recovery, requiring less care time.<sup>7</sup>

There is a recommendation from the Brazilian Society of Bioethics that human dignity should be the main foundation during the face of the pandemic, so everyone must have equal screening rights, transparency and access to information and care. This consideration was found to be the ethical pillar

for the establishment of protocols.<sup>15</sup> The weight of deciding on the allocation of available resources should not fall on the professionals who are on the “front line”, since the overload of the situation can interfere with the decision-making, and thus promote failures and injustices in this process. In addition, the integrity of these professionals must also be taken into account and protected, as they play a key role in this pandemic scenario.<sup>17</sup>

## Conclusion

In Brazil, the pandemic represented a sharp escalation of the lack of resources in health. Deciding which resources should be allocated to which patients in the tragic situation of the COVID-19 pandemic, even if such decisions are based on ethical and legal justifications, are traumatic for all involved, particularly for triage professionals and family members of patients.

This text was created as a way of summarizing the criteria used to allocate scarce resources from an ethical point of view. In view of this, a common factor was found, that the decision, to be as humane as possible in a scenario of public calamity, is to try to save as many people as possible. This utilitarian point of view in decision-making in the field of health would make the pain of a minority percentage of society minimally just and, if necessary, the death of some, as long as it brought about a benefit for the majority.

Evidence has shown that several places in the world, including Brazil, have developed guidelines and protocols to try to reduce the subjective criteria involved in the choice and make clinical-technicians prevail. In some situations, this may mean limiting treatment for some patients, which may cause discomfort, malaise and psychological damage to physicians. Due to the great pressure that this situation has on physicians, the protocols also serve to minimize this weariness, by offering a more objective parameter and removing the decision-making weight from them.

Establishing protocols and guidelines for such situations is important to minimize the damage that the COVID-19 supply crisis has caused. However, such decisions, in addition to being based on medical reasons, should not fail to take into account the need to provide the maximum effectiveness of available resources, respecting ethical and legal values.

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