



UNIVERSITAT DE  
BARCELONA



Revista de Bioética y Derecho

Perspectivas Bioéticas

www.bioeticayderecho.ub.edu - ISSN 1886-5887

## DOSSIER CUESTIONES BIOÉTICAS DE LA PANDEMIA COVID-19

**Ethical health resources allocation: Why the distinction between 'rationing' and 'rationalization' matters**

**Asignación ética de los recursos de salud: por qué es importante la distinción entre 'racionamiento' y 'racionalización'**

**Alocação ética de recursos de saúde: Porque importa a distinção entre 'racionar' e 'racionalizar'**

**Assignació ètica dels recursos de salut: Per què és important la distinció entre 'racionament' i 'racionalització'**

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## Abstract

Allocation of health resources has an irreducible ethical dimension, thus cannot be decided only technically, but must be ethically weighed, what paradigmatic experiences of macro (Oregon Basic Health Services Act, 1989) and micro allocation (God's Committee, 1962) have shown. Justice is required in the enunciation of prioritization criteria, and transparency in its application. In situations of aggravated resource scarcity, it is common to take 'allocate' and 'rationing' as synonyms or claim that 'allocate' is always 'rationing'. Rejecting these positions, there is a distinction between 'allocating' (resource management) from 'rationing' (allocation of limited resources to a limited number of persons) and 'rationalizing' (optimization of available resources). These distinctions are ethically pertinent, showing how only 'rationalization' respects justice, transparency and human dignity.

**Keywords:** allocation; rationing; rationalization; justice; transparency; human dignity.

## Resumen

La asignación de recursos de salud tiene una dimensión ética irreducible, que no se puede solo decidirse técnicamente, sino que debe sopesarse éticamente, lo que han demostrado experiencias paradigmáticas de macro (Ley de Servicios Básicos de Salud de Oregon, 1989) y microasignación (Comité de Dios, 1962). Se requiere justicia, en la enunciación de los criterios de priorización, y transparencia, en su aplicación. En situaciones de grave escasez de recursos, es común tomar 'asignar' y 'racionar' como sinónimos, o afirmar que 'asignar' siempre es 'racionar'. Al rechazar estas posiciones, hay una distinción entre 'asignar' (gestión de recursos) del 'racionar' (asignación de recursos limitados a un número limitado de personas) y 'racionalizar' (optimización de los recursos disponibles). Estas distinciones son éticamente relevantes y muestran cómo solo la 'racionalización' respeta la justicia, la transparencia y la dignidad humana.

**Palabras clave:** asignación; racionamiento; racionalización; justicia, transparencia; dignidad humana.

## Resumo

A alocação de recursos em saúde tem uma dimensão ética irredutível, não podendo ser apenas tecnicamente decidida, mas devendo ser eticamente ponderada, o que experiências paradigmáticas de macro (Oregon Basic Health Services Act, 1989) e microalocação (God's Committee, 1962) evidenciaram. Exige-se justiça, na enunciação de critérios de priorização, e transparência, na sua aplicação. Em situações de escassez agravada de recursos é comum tomar 'alocar' e 'racionar' como sinónimos, ou afirmar que 'alocar' é sempre 'racionar'. Rejeitando estas posições, distingue-se 'alocar' (gestão de recursos) de 'racionar' (atribuição de recursos limitados a um número limitado de pessoas) e de 'racionalizar' (optimização dos recursos disponíveis). Estas distinções são eticamente pertinentes, evidenciando-se como só a 'racionalização' respeita a justiça, transparência e dignidade humana.

**Palavras-chave:** alocação; racionamento; racionalização; justiça; transparência; dignidade humana.

## Resum

L'assignació de recursos de salut té una dimensió ètica irreductible, que no es pot decidir només tècnicament, sinó que s'ha de sospesar èticament, el que han demostrat experiències paradigmàtiques de macro (Llei de Serveis Bàsics de Salut d'Oregon, 1989) i microassignació (Comitè de Déu, 1962). És requereix justícia, en l'enunciació dels criteris de priorització, i transparència, en la seva aplicació. En situacions de greu escassetat de recursos, és habitual interpretar 'assignar' i 'racionar' com a sinònims, o afirmar que 'assignar' sempre és 'racionar'. Quan es rebutja aquesta perspectiva, hi ha una distinció entre 'assignar' (gestió de recursos) envers 'racionar' (assignació de recursos limitats a un número limitat de persones) i 'racionalitzar' (optimització dels recursos disponibles). Aquestes distincions són èticament rellevants i mostren com únicament la 'racionalització' respecta la justícia, la transparència i la dignitat humana.

**Paraules clau:** assignació; racionament; racionalització; justícia, transparència; dignitat humana.

**Artículo en portugués disponible en:**

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## 1. The ethical dimension of resource allocation

Broadly, resource allocation refers to the availability or distribution of existing resources, or means of intervention, to certain sectors of activity or people (Encyclopædia Britannica online). The same general definition applies to the scope of healthcare, in which the resources to be allocated can be human, technical or financial, always with a significant impact on the lives of patients and public health. In all domains considered, resource allocation refers primarily to good management practice, regardless of the volume of existing resources.

Allocation of health resources cannot be seen as a purely technical action, carried out only by medical imperatives (prioritizing the most severe clinical conditions), economic ones (prioritizing the therapeutic means that produce 'more health'), administrative management (prioritizing the options that make the existing resources more profitable), or political considerations (prioritizing the most obvious health needs). 'Allocate', derived from the Latin words *ad* (to) + *locus, i* (place), means etymologically 'to put in the right place', in the best place, to which something belongs. It is therefore appropriate to say that 'allocate' has a double ethical dimension: from an etymological-conceptual perspective, 'allocate' means to rightly place or to give a good destiny to the available resources; from an operative perspective, it refers to the attribution or distribution of resources to chosen 'places'. In both approaches, 'allocate' expresses the option for the best alternative among several possibilities, an evaluation based on the criteria of 'good' and 'evil'; thus, this option refers not only to facts, being technically decided, but also to norms, being ethically considered.

Healthcare allocation gains a stronger expression and urgency as the scarcity of resources deepens. This has become ever more evident, particularly since the biotechnological revolution triggered by the discovery of the double helix structure of DNA in 1953, which created favorable conditions for the production of advanced therapeutic technologies and innovative drugs. These helped to cure, control or mitigate more and more pathologies, with a hitherto unseen level of effectiveness. However, they became generally inaccessible to the majority of the population due to the high cost with which they reached the market, and which, in turn, discouraged their production in greater quantities. Thus, a new reality emerged that has become the contemporary context for the allocation of healthcare resources: the existence of effective therapeutic resources rendered inaccessible due to their price and scarcity.

It is in this context that: at the macro level, centered on healthcare services, it becomes necessary that the entities responsible for public health make choices about the priority sectors in which to invest; at the micro level, centered on the patients, health professionals are required to choose the patients to whom they assign priority in accessing the limited existing resources

(Kilner, 1995). Thus, at both levels of decision making, choices are required from the responsible agents. These, as human options between alternatives, always have an ethical component. In fact, the allocation of healthcare resources has an irreducibly ethical dimension. This has been obvious since the very first media cases of macro and micro-allocation of resources, in the contemporary context.

## 1.1 Macro allocation and prioritization of healthcare services: The Oregon experience

Let us briefly consider the most innovative and pioneering case of macro-allocation of healthcare resources in the era of healthcare technology. We refer to the 'Oregon Basic Health Services Act', an initiative of the North American State of Oregon, approved in 1989 and implemented in 1994, which established a mandatory health insurance for all employees, guaranteed by their employers, and created a package of universal state coverage of basic healthcare for the most deprived in the population (Golenski and Thompson, 1991; Morone and Ehlke, 2013).

The context of this initiative goes back to the severe economic depression that this State had gone through, during which time a significant segment of its population lost health insurance, and the State excluded some therapeutic interventions from public coverage due to their financial cost. However, the process was triggered, in 1987, by the highly mediatized case of a 7-year-old boy who suffered from leukemia and needed a bone marrow transplant, one of the procedures excluded from state health coverage. The child died while a public fundraising initiative was underway (Spicer, 2010), which generated a strong social outcry.

Prompted by the widespread criticism by public opinion, the political power within the State launched an initiative to expand the coverage of healthcare and to prioritize the services to be considered, using two methodologies. A first one, technical and quite common, of economic cost-utility analysis, in which the ratio between the cost of the therapeutic procedure in question and the benefits produced is evaluated in terms of health obtained and years of life gained (Robinson, 2009). And a second one, an unprecedented methodology of community decision-making, in which citizens are consulted about the medical care that should be covered by the State. This process encouraged the enthusiastic involvement of the population who, in public hearings and through their representatives, expressed their personal opinions. In 1984, a parliament for health care, composed only of citizens, gathered to analyze the reports produced by the various communities, and prepared a final report that included a list of 15 public health policy principles to be used as criteria for the prioritization of healthcare services. At the end of this process, about

700 different clinical conditions and respective treatments were analyzed and prioritized, taking into account the citizens' own ideas of justice.

The Oregon case shows that the macro-allocation of health resources, in a context of severe financial constraints, could not only depend on an economic (technical) assessment, but also had to integrate the ethical opinions of citizens.

## 1.2. Micro allocation and the beneficiaries' selection: The God's Committee experience

Let us now consider, also briefly, the most outstanding paradigmatic case of micro-allocation of healthcare resources, in order to, once again, highlight the decisive character of the ethical component. We are referring to the famous God's Committee, the name by which the Admissions and Policy Committee became known. It was established by the American nephrologist Belding Scribner, in 1962, when he was confronted with a far greater number of kidney patients than the hemodialysis capabilities available could contend with. He had improved the dialysis machine, previously created for a single use in a poisoning situation, making it then suitable for regular use. This treatment was extraordinarily expensive and each admitted patient would need to maintain the treatment throughout their lifetime. Patients began to flock to the Seattle Artificial Kidney Center in an ever-increasing number, making it impossible to assist everyone. Scribner then created a commission of nephrologists – the Medical Advisory Committee – to analyze the clinical processes of the candidates, selecting only those whose survival depended on access to hemodialysis. The number of patients selected by this commission, however, was still greater than the technical capacities of the Center, so it was necessary to submit the patients, who had already been evaluated (technically, medically) as being in a life-threatening situation, to a new selection process, this time focusing on social rather than strictly medical criteria.

This commission, made up of seven ordinary people – lawyer, minister, bank employee, housewife, state government official, labor leader, and surgeon (Levine, 2009) – as a micro representation of society, sought to establish selection criteria that favored an objective and impartial assessment of the cases. Among these non-medical criteria, different aspects were considered, such as age, sex, marital status, number of dependents, income, net worth, emotional stability, educational background, profession, past performance and future potential, and even took into consideration personal references obtained from other individuals. The commission's members tried to evaluate what we could call the 'social value' of each patient, taking into account the person's merits (past), as well as the consequences of their potential death (future), especially with regard to the well-being of their dependents (Jonsen, 1998). The selection methods of this

commission provoked much criticism, but they had the merit of highlighting the need to formulate non-technical criteria, in addition to medical assessments and financial interests, for prioritizing beneficiaries of available resources. In a serious situation of scarcity of resources, the selection of patients by the commission sought to be ethical, in an attempt to determine what would be fairer to the various candidates.

Briefly, all resource allocation, macro or micro, in the past as in the present, has an ethical dimension that cannot be concealed and that inexorably demands the consideration, well-founded and sustainable, of the criteria to be enunciated and implemented.

### 1.3. Basic ethical principles in healthcare resources allocation: Justice and Transparency

The proposal of ethical criteria for the allocation of health resources becomes all the more pressing as it is certain that they will remain inexorably necessary. Indeed, despite the budgetary strengthening of most national health systems, which should lead to a relief in the urgency and strong impact of decisions to be taken, the pressure on health budgets continues to increase (WHO, 2019) due to a plurality of factors such as: the aforementioned continually evolving new cutting-edge technologies and the latest generation drugs, with very high acquisition costs, to which are added a growing prevalence of chronic diseases and an increase in life expectancy, which are, in turn, reflected in a higher number of users of health services and in a greater need of care.

Throughout the long ethical reflection on macro and micro allocation of health resources, the principle of justice is invariably invoked as elementary and imperative. This, however, only refers the obligation to 'treat equals as equals and different as different' (Aristotle), without advocating any form of action. It is from this formal and abstract definition of justice that several theories develop specifying this general principle in concrete rules of action, structuring different criteria for the allocation of resources.

Among the theories of justice with the greatest impact on healthcare is that of the utilitarian. Justice, in the utilitarian theory, consists of the realization of the greatest good for the greatest number of people; that is, in the maximization of good, in what corresponds to the specification of the principle of utility (and not exactly of justice), formulated by Jeremy Bentham and Stuart Mill. In this perspective, however, individual rights or the plurality of social values may be neglected. There is also no commitment to an equitable distribution that, for utilitarians, will only be justified if it contributes to increase social utility. This being the hegemonic criterion, the utilitarian macro-allocation will privilege healthcare services that assist the greatest number of people and whose

provision brings a greater good; that is, those which produce a more beneficial and lasting situation.

In the context of the SARS-CoV-2 pandemic, utilitarianism will justify, for example, the priority given to COVID-19 patients over those affected by other pathologies, due to the high infectious level of the coronavirus and the exponential number of people affected by this disease. At the micro level, utilitarianism will grant priority access to healthcare according to the benefit that each person can convey to the community, naturally excluding the elderly due to their reduced life expectancy. The God's Committee patient selection criterion, according to its social value, was utilitarian. At both levels, macro and micro, utilitarianism will establish priorities based on an economically oriented cost-benefit analysis that guarantees an allocation of available resources in order to maximize the benefit, the well-being of the population concerned, the best for the greatest number; that is, the production of maximum efficiency.

On the other hand, the egalitarian theory of justice is structured precisely on the principle of equal distribution of elementary or basic goods by all people, such as primary healthcare. This is the maximin rule that aims to maximize the minimum that everyone should enjoy. Egalitarianism, especially in the philosophy of John Rawls (who was not a strict egalitarian), refers to an 'equality of opportunity' (principle of fair equality of opportunity) which, in certain situations, will require the establishment of some inequalities to benefit the most disadvantaged (principle of difference), thus contributing to equality, namely by eliminating the negative effects that the 'lottery' of life – gender, race, ethnicity, disability, among others – can originate. The principle of fair equality of opportunity and the difference principle, together, allow to compensate arbitrary and undeserved disadvantages, thus building a distributive justice of benefits and burdens, of rights and duties; that is, justice as equity. Maximizing benefits and equity are often considered to be the structuring principles of resource allocation (Brock and Wikler, 2006). In any case, for Rawls, denoting the influence of liberalism, once the fundamental freedoms of all are guaranteed, some inequalities that seek to promote overall equality, or that work as a stimulus for the social performance of each, are acceptable.

Egalitarianism will require, at the level of macro-allocation, the universal availability of basic, primary care, similar to that which occurred in the State of Oregon. At the micro-allocation level, it will also recommend a (maximum) minimum of healthcare for all patients, namely with COVID-19. However, strict egalitarianism will accept the order of arrival ('first come, first served') criterion for access to differentiated care; in a liberal egalitarianism, Rawlsian-type, like the one developed by Norman Daniels, it would be expected that each person would take due steps in relation to their own health throughout their lifetime, the exclusion of patients on account of their

advanced age also being justifiable in a pandemic, thus contributing to a more equitable enjoyment of life span (Daniels, 1988).

As another example, it is justified to mention the communitarian theory which, in general, in common features that we find in Michel Sandel, Alasdair MacIntyre or Charles Taylor, rejects the whole pre-established model of justice, considering that the hypothesis of a unique and universal model of justice, objective and valid for all societies, is utopian and uprooted from reality. It then states the importance of addressing different communities, in their cultural traditions, in their moral experiences, in the individual and social rights they recognize, in order to formulate a specific theory or principle of justice that responds to the needs of that community, while remaining in line with their common morals and contributing to the strengthening and consolidation of social cohesion. The process of citizen consultation in Oregon's macro-allocation illustrates well the communitarian model of justice that, in the micro-allocation plan, will require a contextualized debate, a deliberative process for the formulation of prioritization criteria consensual with the values of the community to which it relates.

This specific reference to some theories of justice intends to highlight the difficulty, or impossibility, of adopting a single model of justice to the exclusion of all others. Even if it were possible to identify a widely consensual notion of justice - as tends today to happen with justice as equity - and also of norms or criteria for its application to specific cases - more doubtful because of the controversy which arises in the construction of equity, in the forms of compensation for natural disadvantages - it would still be necessary to attend to the socioeconomic context of the community in which it intervenes: more or less egalitarian societies will require different strategies to achieve justice. In summary, social justice must be seen as a deliberative, plural and inclusive process, and permanently open.

In fact, this is the fundamental reason for requiring a second irreducible and transversal ethical principle in the allocation of resources: that of transparency. The obligation of transparency - formulated in the financial domain, developed in the political domain and in both associated with the notion of duty to be accountable or answer to others - originally refers to what 'lets the light through', thus also letting the eye see or become visible; that is, making a given reality publicly accessible. In the case of the distribution of limited goods by the population, criteria are required to be visible or accessible to all, and must also be widely explained, rationally argued and consensually accepted. Any criterion of prioritization that it is considered convenient to hide from public opinion is being hidden because it is, after all, not ethical. Transparency is proof of commitment to justice and an essential requirement for its legitimacy.

We therefore consider that there are two ethical principles that are strictly imposed as being imperative, at the macro and micro level of allocation: that of justice, in the enunciation of



the criteria for the allocation of resources, especially in a situation of scarcity, and that of transparency, in their application.

## 2. Allocation criteria: ethical balance of 'rationing' vs 'rationalization'

The allocation of health resources, particularly at a more immediate level, as is the micro, is aggravated in exceptional situations such as those of war, natural disasters and pandemics, such as that which has dominated the world in 2020; and the need for ethical requirements in the formulation of the criteria and in their implementation, are also intensified.

In emergency situations it becomes more frequent to use the word 'ration', or to limit the quantity, as a synonym for "allocate", or to manage what is available, being also frequent to state that "to allocate" is always "rationing". We consider it, however, not only conceptually equivocal, but also disturbing of a deliberation process that is already complex in nature. In fact, even in the economic-financial context where these concepts originated, they are distinct: "allocate" focuses on the available goods and "rationing" on the people to be benefited. In the specific context of health care provision, "allocate" refers to the distribution of resources and "rationing" to a possible method of restrictive or limited allocation; the first concept being broader than the second, which also has a negative connotation that the former does not (Sulmasy, 2007). The concepts are really close; which, in addition to facilitating the confusion between the two, makes their distinction all the more urgent, especially since it is morally significant: 'allocation' manages existing resources, regardless of their scarcity, and 'rationing' limits its distribution, only occurring in times of scarcity.

In fact, 'rationing' is a model or method of 'allocating', but it is not the only one. Allocating may not be rationing; it can also be 'rationalizing', this being another concept that arises in the scope of healthcare allocation, albeit rarely. Its conceptualization, especially compared to that of 'rationing', is ambiguous and difficult, aggravated by the phonetic similarity between the two terms. Nevertheless, 'rationing' and 'rationalization' are two different types of allocation of healthcare resources, which impose a different logic of prioritization (Patrão Neves, 2020). However, the literature in the field does not tend to stress the differences between the two and even less to highlight the different implications of the two models, almost invariably using the term 'rationing' whenever referring to the context of a demand for health resources greater than their availability. This homogenizing perspective, which is also therefore a reductive one, of two different models of action, is very penalizing, especially in situations as serious as the pandemic. This is why their distinction matters.

## 2.1. Definition of concepts and their operability

The distinction between 'rationing' and 'rationalization' should start with the recovery of their etymology as an objective basis for their definition.

From an etymological point of view, 'rationing' and 'rationalization' have a common Latin etymus, *ratio* (*onis*). This noun, however, has two meanings: it can refer to the 'account', 'calculation', a numerical calculation; that is, the product or result of a mental activity; it can also refer to the 'ability to calculate', reason, intelligence or judgment; that is, the mental exercise itself, the human faculty that is reason. Hence, the Latin *ratio* is at the origin of both the verb *ratiocinor* (*aris, ari, atus, sum*), which means 'to count', 'to make calculations', and that of the adjective *rationale* (*is*), which means 'endowed with reason', 'in which reasoning is employed'.

The current words 'rationing' and 'rationalization' recover the original two meanings of *ratio*, respectively: 'rationing' focuses on the product, the ratio or coefficient between two values, such as the goods to be assigned and the people in need of them, what is allowed to establish the relationship between both; 'rationalization' focuses on the exercise of reason, the act of rationalizing or applying reason to any decision, including the allocation of resources, in order to obtain the maximum benefit, making it more effective.

So also, from a conceptual point of view, built upon the etymology of the terms, but above all from their use over time in various contexts, particularly the economic and financial contexts in which they have developed, 'rationing' refers to the administrative process, to the regulatory and mainly to the control distributing limited goods. 'Rationalization' refers to the process of reorganizing the systems or processes in question, which may include reducing or eliminating lines of action or reinforcing investment in others, making the action more logical and justified, as well as more consistent and efficient.

From an operational point of view, that is, from the application of these concepts to the concrete reality, considering their modalities and impacts, and very specifically to the allocation of health resources, 'rationing' classifies official restrictions on the consumption of certain goods made accessible to a limited number of people. For example, at the beginning of the pandemic, disinfectants ran out of public sale. As small quantities of these products arrived on the market, their sale was being rationed, allowing each person to purchase only a limited quantity, on a 'first come, first served' basis, until the product ran out again. The objective was to make these goods accessible to a maximum number of people, by reducing the quantity available to each one. Another relevant example is related to face masks, which ran out not only in the public consumer market, but also in the supply chain to healthcare professionals. When the production of masks intensified, priority was given to healthcare professionals and others in the first line of defense against the coronavirus. This is another form of rationing through prioritizing people.

In this same context, 'rationalization' refers to the reorganization of spaces, equipment and the performance of healthcare professionals in order to, with the existing means and their eventual reinforcement, meet the care needs at a given moment. In the pandemic situation of SARS-CoV-2, there was an exceptional influx of patients with very high infection levels that needed to be isolated from all physical contact, so it was also imperative to restructure procedures. The reorganization of spaces for the circulation of patients and professionals, and the protocols for personal hygiene and disinfection of hospital spaces, for example, corresponded to actions to rationalize resources. In this process, hospital services were also closed and it became necessary to reschedule, for example, medical appointments and surgeries for non-COVID-19 patients, which should have been done by endeavoring to enhance the profitability of the available means. This is another way of rationalizing health care, by prioritizing services and not individuals.

Prioritization in health is not synonymous with rationing, as the general bibliography assumes, but it can also be done through the rationalization of resources, which implies different procedures, with different grounds and ethical implications.

## 2.2. Ethical foundation of healthcare prioritization

The scarcity of resources to respond to the healthcare needs of the population imposes an increased ethical requirement in the proposal of fair and transparent prioritization criteria, which is aggravated in the exceptional situation of the pandemic given the potentially dramatic consequences of the decisions being taken.

The refusal to formulate prioritization criteria, such as maintaining the 'first come, first served' rule, in its intrinsic randomness, could be endorsed by strict egalitarians given the recognition of the inability to formulate an objective justice principle. However, the entities involved would be subject to criticism for failing or abnegating their responsibilities.

The adoption of the criterion 'greater severity, greater priority', maintaining the classic model of emergency screening and extending it to the field of public health, is challenged, in particular, by utilitarians who criticize the investment directed at patients with no reasonable prospect of survival, diverting the scarce resources to less needy patients, but those who are more likely to recover.

There is, therefore, an urgent need to consider the models of 'rationing' and 'rationalization' in establishing priorities in access to scarce healthcare.

### 2.2.1. How to fulfill social justice and respect human dignity

Rationing, as we have already said, refers to the distribution of limited resources by a limited number of people, according to criteria that should be fair and transparent. These criteria are formulated based on the assessment of personal characteristics, as we saw in the example of the masks: the profession - being a health professional or police, or working in the food supply chain - will be a factor of preference for priority access to masks. In addition to the profession, there are other characteristics which are usually considered, such as gender, age, ethnicity or nationality. In the SARS-CoV-2 pandemic the most debated feature was the age of the patients. The ethical debate then tends to focus on the justice inherent to each of these characteristics.

However, the fundamental and established issue is the fairness of a priority access criterion based on personal characteristics (in particular those which the person is not responsible for). After all, whatever the distinctive characteristic considered, some groups of people are always discriminated against in relation to others. This might be considered a positive discrimination. This concerns the favoring of some without affecting others, aiming to maximizing common good. In fact, any privileged benefit of some, inevitably and comparatively harms others, even if they remain factually in the same circumstance. In the case of prioritizing healthcare professionals in access to means of personal protection, it is obvious that they are not only those who are most exposed to the infection (in different circumstances to the others), but also those who are more decisive in preserving the common good. Therefore, positive discrimination seems to be justified, even when recognizing the comparative harm to others, who will see their chances of access to masks decrease. If, however, we consider, as an example, a characteristic in which the person has no responsibility, such as age or ethnicity, any prioritization becomes difficult to justify (Carrieri, Peccatori and Boniolo, 2020) and will be a flagrant violation of the principle of human dignity, and Human Rights.

The Universal Declaration of Human Rights (United Nations, 1948 [2009] online) reiterates, throughout its text, equality between all human beings, and states, in point 2 of article 21, that “everyone has the right of equal access to public service in his country”, including health. It also states, in article 1, that everyone is “equal in dignity and rights”. 'Human dignity' refers to the absolute (total, without degrees), unconditional (regardless of any condition), inalienable (non-eliminable) and intrinsic (identity constituent) value of every human being, which is not compatible with any form of assessment based on natural characteristics.

Rationalization, in turn, and as we have already mentioned, concerns the rational use of the limited resources available, with the logic of obtaining maximum profitability: it is through the optimization of all healthcare resources that these become accessible to a greater number of people; that is, the more efficiently that they are used, the wider their availability. Therefore, the

distribution of the limited resources available is based on the impact of their performance on each of their possible beneficiaries, in the maximization of their function: the existing therapeutic resources are allocated to the clinical situations that can most benefit from them, in that their performance can be optimized, regardless, for example, of the profession (chosen by) of the patient or their age (which naturally and inevitably adds up).

Similarly to that which happens with rationing, the utilitarian perspective of justice is also observed in rationalization; however, contrary to that which happens with the rationing of healthcare goods, its rationalization also respects the principle of human dignity, since the prioritization of its attribution is not based on the assessment of characteristics of patients, but rather on the characteristics of the available healthcare resources to be allocated to clinical situations that can be improved to the maximum.

In short, while rationing focuses on patients and their personal characteristics, rationalization focuses on resources and their performance. Both approaches can be supported by a utilitarian conception of justice because, in different ways, both aim to maximize the common good; however, rationing allows the sacrifice of some people in favor of the majority, which is what respect for the principle of human dignity, through rationalization, prevents.

### 2.2.2. How to ethically practice 'rationing' and 'rationalization'

'Rationing' and 'rationalization' in allocating limited healthcare resources are ethically legitimate when applied to specific, different domains.

'Rationing' should only be used in relation to non-vital healthcare resources, such as masks. At this level, the negative discrimination that it imposes on some, reverts in favor of a greater social good (e.g. prioritizing healthcare professionals), from which the victims themselves may benefit, in addition to being able to be compensated in the future for their present loss. Therefore, the utilitarian principle of justice is fulfilled, within an extended time frame, without the principle of human dignity being called into question.

However, this will not happen if we consider vital health resources, such as mechanical ventilators. In this case, the prioritization of some will dictate the exclusion of others, whose lives will be sacrificed, for the sake of privileged lives, and with no possibility of recovering from the damage suffered. The principle of human dignity, which affirms the absolute, and therefore identical value of all human lives, will thus be disregarded by the assessment made about the lives of some.

On the contrary, the 'rationalization' model can be applied to both non-vital and vital resources, because it complies with both the principle of justice, under the utilitarian perspective

of maximizing the good of the greatest number, and that of human dignity. This is an indelible milestone in contemporary democratic societies that can and should be integrated into a Rawlsian conception of justice as equity, which requires not only the provision of universal fundamental goods, but also respect for structural human rights.

### 2.2.3 How to ethically consider the 'age' factor in prioritizing resources

When thinking about the criteria for prioritizing COVID-19 patients, the characteristic 'age' was a recurrent theme in the scrutiny of access to mechanical ventilation, a vital resource. It was almost invariably a factor of exclusion –not admitting patients over a certain age – or of secondary access (Beauchamp and Childress, 2009) –admitting the elderly only in the absence of pressure on resources. Among the reasons for rationing, those that are based on the utilitarian principle of justice stand out: the elderly have lived longer than the others; their 'life expectancy' is lower; just as their 'quality of life' is also lower (Emanuel et al., 2020). In fact, these expressions, which are axiologically neutral, tend to replace the reference to 'age' in an unclear or misleading language policy. Still showing a lack of transparency, the utilitarian guideline recommends the calculation of the ventilator's effectiveness (from a rationalization perspective) not considering the probability of recovery from COVID-19, but taking into account the years of healthy life that may be to come, creating a situation which, surreptitiously but inexorably, excludes the elderly. It is also argued that 'age' is not a characteristic analogous to any other (ethnicity or gender) (Daniels, 1985), in an attempt to get around the violation of human dignity.

'Age' as a 'rationing' factor does not take into account the difference between chronological age and biological age, making it possible to prioritize a chronologically younger patient over a biologically younger one, thus with a better life expectancy. Secondly, it underestimates medical criteria, namely comorbidities. Thirdly, the same logic of exclusion due to physical characteristics (banned in democracies when referring to gender, ethnicity, etc.) could be coherently extended to the exclusion of many other individuals: e.g. the disabled (Solomon, Wynia and Gostin, 2020), and those with genetic or chronic diseases. Finally, the establishment of a chronological age of exclusion varies widely, the limit being decided not on the basis of the persons concerned, but on the basis of other arbitrary factors.

In prioritizing access to vital therapeutic resources, the biological 'age' factor will always have to be considered together with other relevant indicators for the clinical evaluation of the person (Caplan, 2020) and never by itself (Deutscher, 2020; Ministerio Sanidad de España, 2020), to rationalize the means available. The rationalization of ventilators to COVID-19 patients, addresses all of the four aspects mentioned, fulfilling justice as equity, in maximizing social

benefits and in the equal treatment of all citizens, thus also respecting human dignity, and not excluding anyone.

The legitimate distinction between 'rationing' and 'rationalization' contributes to a more efficient and ethical allocation of resources in all circumstances.

### 3. Justice, Transparency, and Dignity for an ethical allocation in healthcare

Allocation in health is, first and foremost, a good management of the available resources, being a technical-professional requirement at all times. It is also an ethical requirement, which must be recognized and assimilated, as it entails the prioritization choices based on humanly formulated criteria. In times of scarcity of resources, and even more so in exceptional situations such as a pandemic, the choices become more difficult, especially given that the privileging of some implies the exclusion of others, with great harm for them. That is why the formulation of fair criteria is an unavoidable imperative. However, because there are several theories or models of justice, it is important to add the imperative of transparency in the implementation of the adopted criteria.

These two principles are not, however, sufficient to guarantee the ethics of healthcare allocation, because there are cases in which their application does not prevent discrimination against some of the most vulnerable people in our societies, such as the elderly. Only respect for their dignity can protect them, so this is the third ethical principle to be considered in all healthcare allocations.

The compliance with these three principles will also facilitate the understanding of the need to distinguish 'rationing' and 'rationalization' as two models of allocation in healthcare, which have not been systematized in the characterization of its different procedure, nor, above all, in its different ethical implications. Only 'rationalization' meets the basic ethical requirements outlined.

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Fecha de recepción: 15 de junio de 2020

Fecha de aceptación: 17 de junio de 2020