

# COVID-19: when health care resources run short, how to pick who should (not) get treated?

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**Abstract.** *Introduction:* Almost a year and a half after its appearance, Covid-19 continues to make painful triage choices necessary in granting access intensive care. *Objective:* the article aims to illustrate the difference between the utilitarian-collectivist approach and the deontologic approach, which inspired the guidelines drawn up in Italy in 2021 by SIAARTI in collaboration with SIMLA. *Materials and methods:* the article draws upon international scientific sources and documents from ethics committees and scientific societies on triage for Covid-19 patients in intensive care. *Results:* only medical parameters should be evaluated to establish the prognosis through which to identify the patients to be treated as a priority. If non-medical standards are taken into account, such as patient age, discrimination is likely to arise, and the patient's interest is somehow subordinated to that of the community. *Discussion:* it is not part of the doctor's duty to exclude patients from intensive care in order to grant access to treatment to those most likely to survive. Guaranteeing treatment availability for as many patients as possible is the duty of national and local health policy managers, and cannot be deemed to be the doctors' responsibility. *Conclusion:* moral judgment cannot concern only the choices of doctors. According to the principle of beneficence, hospital directors and national and local health policy managers must also take action, in particular to eliminate waste of economic resources so as to allocate more of them to health protection, especially in consideration of the predictability with which infection rates increase, and in light of the fact that immunization through vaccination is only temporary. ([www.actabiomedica.it](http://www.actabiomedica.it))

**Key words:** CoViD-19, allocation of resources, intensive care triage, quality adjusted life years, deontological approach

## Introduction

As early as 2004, the World Health Organization had warned that the Sars infection (1) developed in the province of Guandong (China) in November 2002, whose transmission chain was interrupted in July 2003, could resurface and predictably, would have caused shortages of hospital beds and automatic respirators in ICUs (2). In addition, in its 2016 Guide, the World Health Organization had also stressed the importance of "preparedness", i.e. of all the interventions

necessary to actively combat the spread of a pathogen whose harmful effects are scientifically known. In its analysis, the WHO had called on governments and health care facilities to lay out criteria for the rational allocation of scarce resources in advance (3). Unfortunately, the Italian health system has not been able to strike a tenable balance between basic medicine and high specialization, territories and hospitals. This has brought about «a general imbalance of the system, which has severely penalized basic medicine and local services» (4, 5).

Doctors are therefore faced with a morally intrac-table dilemma: who to admit and who to exclude from intensive care? Based on what standards? What pro-cedures should be implemented in order to choose patients (6)?

The situation of serious imbalance lasted only a few weeks in Italy, but in the third wave of the pan-demic still underway, the health emergency is still serious and there is a real risk that a similar state of emergency might arise again.

Contact-tracing app use has so far failed to live up to expectations (7). Moreover, uncertainty and dismay about future prospects have led many to turn to psy-choactive substances to relieve their anguish, including first time users (8, 9).

Looking ahead, the problem might reemerge, considering that immunity from currently available vaccines is believed to last few months.

## Objective

Within such a context, the problem arises of evaluating which management and access changes to intensive care are admissible from the utilitarian-collectivist perspective as well as from the ethical one.

## Materials and methods

The authors have conducted their analysis by searching through scientific databases PubMed and Scopus, the following keys: ICU, resource, Covid-19, age. 107 articles from Scopus and 54 from Pub-Med have been found. After eliminating the articles found twice in both databases and those not focused on bioethical analysis, 24 articles have been deemed relevant. Through the references of these articles, the authors found 9 more relevant sources.

## Results

### *The utilitarian-collectivist approach*

The utilitarian-collectivist orientation entails the choice to allocate insufficient medical resources to

“those who will benefit most”, that is, to those who are most likely to return to a life of good quality and with limited costs, and who are active and productive mem-bers of society (10). From that perspective, utilitarian logic prioritizes young patients over elderly ones, who have shorter life expectancy in terms of the number of years left to live, as well as the presumable quality of life level. This principle is summarized in the formula “quality adjusted life years” (QALY), which appraises life expectancy by taking into account quality and costs, for the greatest possible number of individuals. (11) In fact, it often occurs that in young and healthy people the course of the disease is short, whereas it becomes longer, hence requiring more health care resources, in the case of elderly, frail patients, often with comorbiditi-ties. The longer patients are kept hospitalized in ICU, the lower the possibility of admitting other individuals to life-saving treatment. Furthermore, the treatment carried out on older people is less effective than on younger patients. In fact, it frequently happens that after days of assisted ventilation, the elderly patient dies. Spending resources on such patients means tak-ing it away from younger patients who would benefit from it (12).

The utilitarian approach generally applies in legal systems that do not provide for a constitutionally guar-anteed fundamental right to universal health care, such as in the United Kingdom, where patients are treated on the basis of allocated financial resources. In the British system, the allocation of resources is carried out through standards outlined in the guidelines of the National Institute for Health and Care Excellence, based on econometric parameters, such as Quality adjusted life years, which establish which treatments can be provided by the health service. Recently, guide-lines have been published in Spain that have explicitly adhered to the QALY criterion (13).

The Swiss Academy of Medical Sciences and the Swiss Society of Intensive Medicine have also recently modified hospital guidelines by introducing the age parameter among the triage criteria. They affirm that age in and of itself is not a viable decision-making standard because, by attributing a lower value to the elderly than to young people, it violates the constitutional principle which codifies the prohibition of discrimination. How-ever, it cannot be ignored that in COVID-19 patients, age constitutes a risk factor that can lead to death. A

COVID patient over the age of 85 should therefore no longer be admitted to intensive care even if the person is not in a comorbid situation.(14)

### *The deontological approach*

An interesting analysis, in this regard, was laid out in the Italian guidelines developed in 2021 by SIAARTI in collaboration with the Italian Society of Forensic Medicine and Insurance (SIMLA), in order to better clarify and integrate the recommendations that SIAARTI itself had published in 2020 and which had drawn criticism (15, 16).

Those guidelines, released on January 13, 2021(16) with the approval of the Center for Clinical Excellence, Quality and Safety of Care (CNEC) and the Italian High Institute of Health (ISS), contained numerous Statements and were based on the principles of universal access to care, non-discrimination, equal social dignity and solidarity. Respect for these principles entails the implementation of all possible strategies (search for other resources, better use of those available) to prevent serious shortages of available resources (Statement 1), both at the institutional level and at the level of individual professionals (18).

The Briefing Note of the Worldwide Hospice Palliative Care Alliance (19) also states that patients with similar health conditions must have equal access to health treatment, without discrimination based on ethnicity, religion, gender, age, disability, socio-economic status or political orientation.

Should a disproportion arise between the need for care and health resources, it is necessary to make an assessment to establish which patients need to be prioritized for treatment (triage, from the French verb “trier”, in use since the 14th century with the meaning of “classify “ or “ select “), because treating sick people according to their order of arrival is not a criterion conducive to fairness and equality. As for those in need of intensive care, it is essential to carry out a comparative assessment of the general conditions of all such patients (triage), not in order to determine who needs treatment the most based on severity of conditions, but rather to establish who will be more likely to overcome the critical phase through intensive care, with a reasonable life expectancy, at least in the short term (a few months), after being discharged from the

hospital. The underlying purpose of intensive care triage is to guarantee life support treatments to as many patients as possible who can benefit from them (Statement 5), in compliance with the aforementioned principles.

For the purpose of a thorough evaluation, the medical team must assess the following parameters: 1) number and type of comorbidities; 2) previous functional status and significant fragility with respect to the response to treatment; 3) severity of current clinical conditions; 4) expected response to intensive treatments, also in consideration of the patient’s age; 5) will of the patient in regard to intensive care, which should be verified as soon as possible in the initial phase of the triage. These triage criteria do not have a predefined hierarchy, and must not be seen as absolute. Rather, they must be balanced and contextualized in each clinical condition, in which one or more of them can take on greater importance, and therefore predominantly inform and guide each clinical decision. In the overall assessment of each individual patient, it may be advisable to use assessment tools that can provide an aid for the comparative prognostic classification, such as the Charlson Index (Charlson Comorbidity Index), predictor of survival, the Clinical Frailty Scale, aimed at evaluating the basic status of the sick person before the recent acute event, and, only in the case of patients with COVID-19, the 4C Mortality Score (Coronavirus Clinical Characterization Consortium), specifically developed for COVID-19 patients based on the success / failure outcomes of intensive treatment during the pandemic (Statement 6).

Whenever appropriate, the use of such tools, which have orientational and informational value, can enable professionals to make concerted decisions within the medical-assistance team and to discuss with patients and their family members or legal representatives on the basis of recognized prognostic indicators, bearing in mind that there is currently no single tool, or set of tools, that can replace a comprehensive clinical evaluation. It is therefore inappropriate to tie the outcome of the triage for intensive care solely to the score resulting from the use of any tool or algorithm, even if proposed or used in other countries. In case of previous comorbidities, the assessment of the severity and stage of the disease should be based on objective criteria and parameters (Statement 6).

Patient age carries considerable weight both in the Charlson comorbidities index and in the 4C mortality score, but must be evaluated within the patient's overall clinical picture. Only if other factors are found to be equal, can patient age play a role in the overall assessment, since in older patients, the likelihood of positive response to intensive care decreases. Still, it is not possible during the triage phase to establish age thresholds (cut off) for admittance into intensive care, because age is not in itself a standard for establishing which patients can benefit most from intensive care (Statement 7).

The comparative evaluation is aimed at assessing "who is most likely (or least likely) to overcome the current critical condition with the support of intensive care with a reasonable life expectancy outside of intensive care: i.e. short-term survival (a few months) after discharge from the hospital" (Statements 4-7). Hence, there is no exclusion of certain patients that is not based to the evolution of clinical conditions. In this way the triage choices are weighted because they avoid both random selection, similar to a "lottery" (20) (21), and the risk of discriminating against people only because they are disabled or elderly (22) (23).

In fact, according to the World Medical Association, "In selecting the patients who may be saved, the physician should consider only their medical status and predicted response to the treatment, and should exclude any other consideration based on non-medical criteria" (24).

The Italian and Spanish Bioethics Committee, in addition to the Pontifical Academy for Life, also expressed their opinion on the age criterion. Everyone agrees that, when it is necessary to decide how to allocate resources not available to everyone, age cannot be a single and decisive factor to make a choice, or even the main one, since that would entail an element of discrimination against elderly and frail people. Age must be taken into account by the physician for the current clinical and prognostic evaluation, but not to deny or limit health care and the use of certain means of life support. (25) The only valid parameter is the thorough implementation of triage, respecting all human life with clinical appropriateness and proportionality of care. Therefore, the doctor must carry out therapeutic interventions based on the disease and on

the evaluation of potential clinical benefits obtainable through the treatment itself, in terms of prognosis. In other words, when ICU places are not enough for everyone, they should be given to those who have the best chances of benefiting from them.

It is advisable that the triage process not be governed by a single professional figure, but should rather "represent the result of a concerted assessment of the medical-assistance team, which can also choose to rely, if necessary, on external professional figures ("second opinion") (Statement 12). An external ethical consultancy is also necessary, accompanied by legal consultancy, to validate the choices of distributive justice and fair allocation of scarce health care resources. Technical consultancy is already required in other countries (26). In Spain for instance, the National Ethics Committee calls for the choice of doctors based on clinical criteria to be confirmed by commissions made up of professionals with expertise in clinical specialties, with a representation of bioethicists and jurists (27), while for the same purposes, the French National Ethics Committee calls for the establishment of a «ethical support cell» (éthique de soutien cells). (28) Just as importantly, triage choices should be entrusted to doctors not involved in the direct assistance of patients or to special committees, made up of doctors and experienced ethicists, with «no personal or professional reasons for preferring one patient or group over another». (29)

## Discussion

The QALY utilitarian criterion is in itself objectionable to a significant degree. Firstly, it is difficult to calculate life expectancy according to a probabilistic criterion; moreover, the way of understanding and conceiving the notion of "quality of life" is subjective. It is not a matter of attributing to the elderly a lower value than young people's in terms of dignity, nor is it necessarily about implementing econometric criteria. It is simply a matter of preferring those who have «more years of life saved». The health perspective therefore comes to coincide with the social one. Yet, in doing so, individual interest is necessarily subordinated to the collective one, according to a collectivist

rationale better suited to authoritarian regimes than modern Western democracies.

In the current context of the COVID-19 pandemic, that aspect takes on great relevance, as the virus impacts old people the worst, and inevitably leads to the marginalization of the elderly, terminally ill, people with disabilities, weaker patients, who are deemed “marginal”, to the benefit of young people. It is an ethically questionable choice, because it introduces a hierarchy between worthy and unworthy lives, between lives with more or less dignity, based on quality of life conditions, number of years left to live, and chances of full recovery. It therefore denies the recognition of the intrinsic dignity of every human being and of his or her fundamental right to health care.(30) According to the Spanish National Ethics Committee itself, excluding a disabled person from treatment on the basis of pre-existing functional impairments, which do not necessarily affect survival prospects, is inadmissible discrimination on a legal and ethical level. (27) Although the Spanish Bioethics Committee itself maintains that patients with dementia or incapable should not receive life support by invasive mechanical ventilation, it also admits that we are facing a violation of human rights against the 2006 Convention of the UN on the Rights of Persons with Disabilities, which provides special protection for the incapable, even in the face of high-risk scenarios or humanitarian emergencies (art. 11). (31)

Even in the current health care emergency, it does not appear ethically acceptable to discriminate against the most vulnerable, that is, the elderly, the disabled, the poor on the basis of a strictly utilitarian perspective. Obviously, that does not mean either implementing practices of futile care, because they are disproportionate, ineffective and burdensome, or treating patients despite their valid refusal.

Under normal circumstances of sufficient availability of resources for everyone, the standard that is most consistent with the ethical approach is to give priority to those who need treatment most urgently and, in cases of equal degrees of urgency, to those who first access the health facility (first come-first served).

That standard is however inadequate in cases of scarce resources. In fact, since the resources are not enough to cover everyone, even the “first come, first

served” criterion is tantamount to choosing not to treat any subsequent patients, who would be excluded from intensive care.

This does not mean that an ethical approach to the cases under examination is impossible.

First and foremost, the principle of autonomy should always be upheld. To all sick people for whom the future need for intensive care is foreseeable, inclusive health care planning should be offered, so that all thoroughly informed patients can express their will, and facilities can avoid triaging people who do not wish to undergo intensive care. (Statement 8). To that end, advance directives should also be considered, as long as it is documented and provable that the patient has received information, detailed and concrete enough, in order to prove that the patient would have confirmed the same choice contained in the directive, if able to do so. (32) (33)

Secondly, guaranteeing treatment to as many patients as possible is the duty of politicians and administrators, through the adequate allocation of financial resources and efficient organization. On the other hand, the duty of doctors is to take care of all those who can be treated, without selecting patients except for reasons based on the absolute impossibility to deliver care. For example, it also appears permissible for doctors to make such triage decisions if the lack of resources is sudden and unpredictable, for example due to the abrupt arrival of many injured patients following a terrorist attack. That is not the case with COVID-19, whose effects on intensive care units was foreseeable in Italy from the first wave.

Consequently, a doctor cannot be asked not to treat a patient just because after a few minutes another one with a better chance of survival may show up. There is a risk that triage will be used as a convenient tool for national and regional policymakers to shirk their responsibility of allocating and managing adequate health care resources, to ensure all those in need can be properly treated in a timely fashion.

## Conclusion

The current collectivist utilitarianism, which calls for the exclusion of old patients from intensive



care, is not an expression of a criminal logic. Indeed, it almost seems to cloak itself with an ethical aura, because it favors younger people who can presumably be more helpful for others. However, dangerous confusion must be avoided. Withholding care from older patients means resigning oneself to their death with no certainty that such a choice will save the lives of others. The only certainty is that the community will no longer bear the expenses arising from the assistance needs of such elderly patients. This means subordinating the individual right to life to the economic interests of the community. It can be subscribed to, but it is certainly far from an ethical approach

The Covid-19 pandemic has posed a daunting issue of resource allocation that does not solely impact doctors who provide the services, but above all those who organize health services at a higher level, and even at the political and legislative level. If doctors are no longer able to guarantee equal access to care (or it is foreseeable that they will not), health facility management must reconfigure the organization of spaces and staff. If even such measures turn out to be insufficient, the ruling class must intervene to spell out priorities and improve the financial management so as to allocate larger resources for health care. It should not be overlooked that it is doctors and elderly patients who most of all have borne the burden of the overall lack of preparedness of the health care system in terms of identifying the chain of contagion and providing adequate information about preventive measures and individual protective devices to health care operators aimed at preventing the spread of the disease. Rulers may have immunity from prosecution, but they will never be immune from the moral judgment of the citizens. The failure to intervene in a timely fashion means violating the principle of beneficence, because managers and health workers are consequently left with making extremely hard and even tragic choices, and people are deprived of the care that could have saved them. This is all the more serious in the currently unfolding COVID-19 pandemic, in which the new outbreaks of infections are now expected months in advance and even vaccines may not entirely be decisive, as they offer temporary coverage and the virus has demonstrated the ability to develop numerous variations.

The pandemic is an opportunity to reaffirm that the protection of health is the primary good, a prerequisite

for the enjoyment of all other assets, despite the apparent sensibleness of the utilitarian approach. Financial resources cannot be disproportionately allocated to health care. Indeed, all rights must be upheld. Therefore, under extraordinary circumstances such as the pandemic ones, it may be compatible with the principle of justice to deprive a seriously ill patient of access to care, but only after it has been proven that every suitable measure has been implemented to reduce financial waste at all levels, including the central political one.

The danger is that the adoption of the triage criteria which we have herein examined, albeit justified in the emergency context, will still be used in the future after the pandemic, due to policies that do not allocate enough financial resources for healthcare. It is likely that the elderly, the disabled, the chronically ill could end up being cut off in the event of a new pandemic incident, which would constitute an egregious violation of art. 2, 3, 13 and 32 of the Italian Constitution, whose combined provisions were designed to ensure that everyone's right to life, health and therapeutic self-determination are upheld at all times and without any discrimination of any kind. Cutting off entire segments of the population would be tantamount to a form of preventive negative eugenic selection, which would deny the most fragile among us access to the public health care system because of their fragility, in blatant violation of common sense, medical ethics, the fundamental principles of the rule of law, as well as numerous international provisions that directly or indirectly prohibit the use of eugenic practices: it worth referencing in that regard art. 21 of the Charter of Fundamental Rights of the European Union and art. 11 of the Oviedo Convention.

**Conflict of Interest:** Each author declares that he or she has no commercial associations (e.g. consultancies, stock ownership, equity interest, patent/licensing arrangement etc.) that might pose a conflict of interest in connection with the submitted article

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