

# Fallacy of the last bed dilemma

Luca Valera <sup>1</sup>, María A. Carrasco,<sup>2</sup> Ricardo Castro<sup>3</sup>

<sup>1</sup>Bioethics Centre, Pontificia Universidad Católica de Chile, Santiago, Chile

<sup>2</sup>Bioethics Centre, Department of Philosophy, Pontificia Universidad Católica de Chile, Santiago, Chile

<sup>3</sup>Department of Intensive Care Medicine, School of Medicine, Pontificia Universidad Católica de Chile, Santiago, Chile

## Correspondence to

Professor Luca Valera, Bioethics Centre, Pontificia Universidad Católica de Chile, Santiago 8331150, Chile; luvalera@uc.cl

Received 23 February 2021

Accepted 14 May 2021

## ABSTRACT

The COVID-19 pandemic highlights the relevance of adequate decision making at both public health and healthcare levels. A bioethical response to the demand for medical care, supplies and access to critical care is needed. Ethically sound strategies are required for the allocation of increasingly scarce resources, such as rationing critical care beds. In this regard, it is worth mentioning the so-called 'last bed dilemma'. In this paper, we examine this dilemma, pointing out the main criteria used to solve it and argue that we cannot face these ethical issues as though they are only a dilemma. A more complex ethical view regarding the care of COVID-19 patients that is focused on proportional and ordinary treatments is required. Furthermore, discussions and forward planning are essential because deliberation becomes extremely complex during an emergency and the physicians' sense of responsibility may be increased if it is faced only as a moral dilemma.

## INTRODUCTION: THE LAST BED DILEMMA

The rapid spread of COVID-19, caused by the SARS-CoV-2, has created complex scenarios for making medical decisions, which are often influenced by shortages of clinical resources and healthcare professionals.<sup>1</sup> The excessive demand for care has resulted in particularly dramatic circumstances, such as those seen in Italy, Spain and the USA.<sup>2,3</sup> This situation calls on healthcare teams and clinical ethics experts to reflect on which ethical criteria are to be used in these circumstances.<sup>4-6</sup> The ethical questions that arise are numerous and include the meaning and impact of restrictions placed on movement and activities, school closures, closures of employment sources, social isolation, intrusion into the privacy of infected individuals and their contacts and even the relaxation of the norms related to human experimentation. All these questions involve decisions that are relevant to public health policies and have a strong impact, particularly on the most vulnerable groups.<sup>7</sup> At the clinical level, the most acute concerns are related to the allocation of medical resources in this exceptional context and, consequently, to intensive care unit (ICU) admission and the management of seriously ill patients.<sup>8-10</sup> The contexts in which COVID-19 decisions are being made vary greatly. This is due to variations in how the disease has progressed in different countries, its possible mutations, our knowledge of the behaviour of the virus and the scarcity of scientific evidence.<sup>11</sup> In this sense, it is

necessary to contextualise and adapt the decision-making process to the clinical situation of each patient and hospital.

By way of an example, consider an 81-year-old hypertensive female with respiratory insufficiency secondary to COVID-19 infection. She presents with fever, tachycardia, mild hypoxaemia and leukocytosis. Due to the number and magnitude of organ dysfunctions and her previous frail status, her probability of survival is very low.<sup>12</sup> In all clinical scenarios, and not only during a pandemic, multiple aspects (including social and age-related factors, patient's wills and so forth) are considered when deciding to admit a patient to ICU regardless of bed availability, and often admission is directed towards symptom control treatments rather than attempting full resuscitative intervention. Compare this first patient to a 27-year-old man with a similar presentation but without comorbidities. These patients have quite different pre-ICU prospects, and the man has a much higher probability of survival. In a situation with an extreme scarcity of resources, what is the correct decision regarding the treatment of these patients and which decision criteria should be used?

One of the most widespread answers, at least at the mediatic level, has been to frame this situation as a case of the so-called 'last bed dilemma' and to resolve it accordingly.<sup>ii</sup> This dilemma implies that intensivists, who, under normal conditions would make an effort to save both lives, are forced to choose which patient to save and which to let die due to a present shortage of resources.<sup>13</sup> Different clinical guidelines, which emphasise certain aspects of 'competing patients', have been developed to make this decision. However, we claim that the 'last bed' framing of this problem is fallacious, and we provide an alternative proposal.<sup>iii</sup>

In section II, we clarify what a moral dilemma is and why the COVID-19 pandemic does not fall into this scenario. In section III, we briefly list the

<sup>ii</sup>The concept of the last bed dilemma is not new: 'In 1993, Teres stated that one of the great ethical dilemmas affecting Intensive Care Services was the admission of patients under almost full occupancy, which he described as the ritual of the last bed, noting the need for policies to maximize the use of resources and minimize costly triage processes. Increasing ICU occupancy levels and access block rates are leading to full or even overwhelmed ICUs. Thus, it is no longer a question of how to allocate the last bed but how to proceed when there is none'.<sup>39</sup>

<sup>iii</sup>Moreover, in the clinical setting, mainly during a health crisis, admission decisions are often multifaceted. After being triaged, there can be several patients who simultaneously require an ICU or intermediate unit bed. Usually, the situation is constantly changing so that multiple decisions are required concurrently. For the sake of clarity, and to follow the main media debate precisely, we have provided a simplified scenario of two seriously ill patients in need of an ICU bed when there is only a single ICU bed available in the hospital.

<sup>i</sup>It should be noted that various global, regional and national organisations; research centres; and unions have formulated recommendations or ethical guidelines that particularly regard the so-called 'last bed dilemma' for addressing possible health crises.<sup>31-38</sup>



© Author(s) (or their employer(s)) 2021. No commercial re-use. See rights and permissions. Published by BMJ.

**To cite:** Valera L, Carrasco MA, Castro R. *J Med Ethics* Epub ahead of print: [please include Day Month Year]. doi:10.1136/medethics-2021-107333

different ethical criteria that have been proposed for making medical judgements in the current situation of shortages due to the COVID-19 pandemic. In section IV, we elaborate on our proposal, explaining why physicians are not faced with a moral dilemma and should not be deceived by a false rhetoric that is incompatible with their professional judgement. Finally, section V outlines some conclusions and provides a flow chart that shows the successive steps that should be taken with every patient with COVID-19 requiring ICU care to remove any arbitrary discrimination.

### MORAL DILEMMAS AND THE 'LAST BED'

Cases, such as those mentioned above, have been interpreted as ethical dilemmas in many countries, particularly in public debates.<sup>14 15</sup> The dilemma implies that when facing ethical problems generated by a shortage of critical care beds, the medical team has to choose between the opposing options of saving one patient while leaving the other to die.<sup>4</sup> As Ives<sup>5</sup> argues: 'This kind of situation places us in a genuinely dilemmatic situation in which we have good reasons to be obliged to try to save all lives, but we are nonetheless forced by circumstance to choose who to try to save. Whatever we choose to do, we will be doing something wrong – and that is a defining feature of a genuine moral dilemma'.

This is why the COVID-19 pandemic has been presented as a dilemma, or a situation involving a choice between equally unsatisfactory alternatives.<sup>16</sup> In these contexts, 'one principle enjoins one action and another, and it is impossible that the agent should do both. Usually, the impossibility is fairly and squarely an empirical impossibility, and it is often up to the agent to rack his brains for a way out before declaring that the conflict is real'.<sup>17</sup> Thus, we may describe a dilemma in terms of (A) and (B) where we have both the obligation and the impossibility of doing (A) and (B). It is a situation for which 'compelling moral considerations favor each of the courses of action open to him [a person]'.<sup>18</sup> In our example, the options are to save either the elderly female or the young male. Both options are unsatisfactory because there are compelling moral reasons for saving both patients, but this is empirically impossible. Finally, another important feature of moral dilemmas is that, at the practical level, they 'call out for resolution. Facing a difficult situation, a person is bound to seek a sound and reliable way through the difficulty'.<sup>18</sup> Accordingly, a moral dilemma implies: (A) two alternative actions of roughly equivalent value; (B) compelling reasons for doing both of them; (C) an empirical impossibility for doing both; and (D) a need for resolution.

An efficient way to avoid moral dilemmas and the uncomfortable obligation of deciding between two bad or suboptimal options is to take a purely utilitarian approach. Given that utilitarian judgments imply only a single principle—the maximisation of utilities—and a computational methodology,<sup>19</sup> its deliberation consists of calculating the utility of each alternative action and placing them in a hierarchy according to value. Therefore, in utilitarianism, actions are said to be good or bad, not for intrinsic reasons, but for their relative position in this utility ranking. Thus, it precludes moral dilemmas because it does not acknowledge intrinsic 'compelling moral considerations' for choosing any particular action. Similarly, there will never be two 'equally bad' or incorrect (or conversely, equally correct) options, because the one that maximises utility will be the correct option, and the other incorrect, regardless of what the action is. Even if there is an improbable tie in utility between two actions, the utilitarian decision maker can always

add further features to its definition of 'utility' or, ultimately, can flip a coin. The utilitarian framework does not admit the existence of dilemmas because once the agents define what will count as 'utility' (for instance, number of Quality-Adjusted Life-Years (QALYs) left), they must simply adopt the corresponding computational procedure to obtain the morally correct decision. In our example, saving the 81-year-old woman might yield five QALYs, while saving the 27-year-old man will yield 40 QALYs. Therefore, there is no dilemma as the last bed *must* go to the young male.

Marcus notes that 'for dilemmas to arise some deontological principle is required – a principle that proscribes or commends certain clearly specified intentional actions toward others, without regard to wider consequences'.<sup>19</sup> Naturally, 'a purely utilitarian approach' is by definition incompatible with deontological principles. However, in actual clinical practice, physicians and healthcare institutions are always committed to at least one deontic principle, that is to save lives if possible or to provide emergency care to anyone whose life is in danger. Deontic principles are a priori statements, or norms, for which utilitarian consequence computations are morally irrelevant. Consequently, medical judgement cannot adopt a pure utilitarian approach and cannot avoid moral dilemmas.

Another way to confront the issue of dilemmas, and not elude them, is to follow ethical guidelines. This is the most common strategy used in medical decisions.<sup>20</sup> One of the more burdensome aspects of dilemmatic situations is the huge responsibility that is placed on the decision maker (the medical team), especially when the decision entails a patient's death. Thus, ethical guidelines that are built on common ethical principles are frequently developed to help orient professionals when facing concrete moral dilemmas. The ability to rely on a set of public norms and protocols helps reduce the decision maker's responsibility. In this sense, Emanuel *et al*<sup>10</sup> argue that guidelines 'ensure that individual doctors are never tasked with deciding unaided which patients receive life-saving care and which do not. Instead, we believe guidelines should be provided at a higher level of authority, both to alleviate physician burden and to ensure equal treatment'. Thus, guidelines should be part of a practical solution to possible conflicts, because—besides having other useful functions—they help the medical team to psychologically mitigate the negative effects of the 'moral residues'. In McConnell's words, these include 'the remorse or guilt that agents experience after acting in conflict situations; the duty to apologize or to make amends that arises after acting in a conflict situation; and the second-order moral requirement to structure one's life so as to minimize conflicts between basic rules and principles'.<sup>21</sup>

Ethical questions that arise in the context of an extraordinary shortage of medical resources are usually characterised as a dilemma (in this case, the 'last bed dilemma'), because they apparently fulfil the characteristics that define dilemmatic situations: that is, a difficult situation that calls for solutions, but there are no satisfactory solutions. There are also compelling moral reasons for deciding in favour of both options, which are, however, exclusive. Consequently, it is empirically impossible for the agents to do what they should do, and they must assume the responsibility for the unintended negative consequences of their actions.

We do not subscribe to this thesis and will explain why this is a fallacious characterisation of the current pandemic situation and also why it is deleterious for medical professionals (sections IV and V). However, we know that the mixed (or deontic) approach that defines medical judgement may easily mislead the public's interpretations.

In the following section, we mention some of the strategies that have been proposed and used for facing the shortage of medical resources during the pandemic. Most have characterised the situation as a ‘last-bed dilemma’ and, thus, have proceeded to apply guidelines that combine deontic principles and utilitarian computations.

### FACING THE DILEMMA: THE ETHICAL CRITERIA FOR THE LAST BED

The criteria used to assess the ethical problems concerning the ‘last bed dilemma’ have been quite distinct in different countries, but it appears that most often the ‘mixed approach’ has been used,<sup>22</sup> especially in the more famous ethical guidelines that have been developed. Despite the differences, which are most likely dictated by the regulatory frameworks of these countries, it can be consistently affirmed that ‘the utilitarian rule of maximizing the number of lives saved is widely accepted during a public health emergency’.<sup>22</sup> This rule looks for the best utility for the greatest possible number of patients and can discriminate between patients according to: (1) the QALY; (2) the required medical effort invested in each patient (always considering that the smaller the effort, the greater the number of patients that can be treated); or (3) a combination of both of these criteria. However, this is not the only rule used.

For the sake of clarity, it is worth identifying the main criteria used in the ethical guidelines concerning decision making in ICUs in the era of COVID-19. These criteria reflect the values honoured by practitioners and healthcare centres. Among the most commonly used, we may mention ‘the first come, first served rule’, privileges the patients who come first to the hospital (and this may be conditioned by social factors, accessibility and so forth); ‘the fair innings rule’,<sup>iv</sup> that requires that everyone is given an equal chance or is entitled to have a fair innings and reach the appropriate threshold age but, once reached, it is considered that they have had their fair allotment<sup>23</sup>; ‘the military triage rule’, which represents a strategic calculation of resources that is based on strict inclusion and exclusion criteria and on the norm that it is a duty to ‘treat combatants with minor injuries first’; the ‘laissez-faire rule’, which follows the logic of an extreme free market (without corrections) and, thus, prioritises the patient who is able to pay (‘the payer’); and the ‘populist rule’, which is based on social endorsement or benefits.<sup>v</sup>

### FACING THE MORAL CONCERN: BEYOND THE DILEMMA

We may now advance a proposal on how to confront this issue. We will begin by describing the reasons why the ‘last bed’ is not a true ethical ‘dilemma’.

Let us return to the clinical case presented at the beginning of the paper. What decision should the medical team make? To provide an answer, the clinical decision needs to be assessed

<sup>iv</sup>This rule has been seriously considered by many countries, both in the guidelines and in public debate.<sup>40,41</sup> Intuitively, it appears that older people should make room for younger people.<sup>42</sup> For example, countries like Italy have directly recommended age-based discrimination<sup>36</sup> and have even prescribed that individuals over a certain age are not to be intubated.<sup>4</sup> The logic of this criterion is that the length of a normal life is approximately 70 years, and it may be considered that living longer than this is an ‘extra bonus’, while an earlier death implies an ‘unfair lifespan’. Therefore, the physician should always choose to let the person who has already had their fair innings die in favour of those who have yet to complete it.

<sup>v</sup>Critics of this criterion state that we should also be aware that one’s ‘dignity as a person [...] cannot be reduced to his past or future contribution to society’.<sup>43</sup>

ethically, and this requires us to delve into the main clinical and ethical criteria (subsection iii). From our perspective, the governing principle of any ethical consideration in medical decision-making processes is the centrality of the individual patient. Consistently, this principle obliges the medical team to treat each patient with dignity and to offer quality care that is proportionate to the patient’s clinical condition. In these specific circumstances, the most difficult issue is to determine the concrete meaning of ‘proportionate’. To do so, we have to clarify the classical distinction between ‘ordinary’ and ‘extraordinary’ means (subsection i), and between ‘proportionate’ and ‘disproportionate’ means (subsection ii).

### Ordinary versus extraordinary means

In 1595, Domingo Bañez (1528–1604) was the first to use the terms ‘ordinary’ and ‘extraordinary’ when referring to the obligatory and non-obligatory means of preserving life.<sup>24</sup> The importance of this distinction is essentially ethical and not clinical: the ordinariness of treatments (or means) refers to the *mandatory* dimension of the action implemented through those means, while the extraordinariness indicates the *optionality* of the action itself. In other words, the distinction is clinical insofar as it is ethical, but not vice versa. Given the importance of using this distinction for making clinical judgments, we need to provide an extremely clear definition of each of these means. According to Cronin, ordinary means are those ‘commonly used in given circumstances, which this individual in his present physical, psychological, and economic condition can reasonably employ with definite hope of proportionate benefit’.<sup>25</sup> On the contrary, extraordinary means are those ‘not commonly used in given circumstances, or those means in common use which this individual in his present physical, psychological, and economic condition cannot reasonably employ, or, if he can, will not give him definite hope of proportionate benefit’.<sup>25</sup>

Given these definitions, we can identify the main features used to distinguish between these two kinds of means/treatments. They are the commonality of their use, the reasonability of their employment and the hope of a proportionate benefit for the patient. Sullivan agrees with these three elements but adds a fourth one: the means are undemanding.<sup>26</sup> Thus, a treatment should be considered ordinary if: (1) it presents a ‘reasonable hope of benefit (*spes salutis*)’; (2) it is a ‘common means (*media communia*)’; (3) it is ‘proportionate according to [the patient’s] status (*secundum proportionem status*)’; and (4) it is an ‘undemanding means (*media non difficilia*)’.<sup>26</sup> These four conditions ought to occur simultaneously to be considered as ordinary. It would be non-sense for someone to be morally obligated to begin a therapy that is quite common, proportionate and not too demanding for the patient but is without hope of providing a benefit: *nemo ad inutile tenetur*.<sup>vi</sup> This is particularly important when considering the best therapy for the patient and the moral obligation that arises from the available means.

Extraordinary means are exactly the opposite. They are characterised by five main criteria: (1) they imply ‘something impossible (*quaedam impossibilitas*)’; (2) they require a ‘great effort (*summus labor*)’; (3) they may cause ‘enormous pain (*ingens dolor*)’; (4) they are ‘exquisite means’ and may involve an ‘extraordinary expense (*media exquisita et sumptus extraordinarius*)’; and (5) they may cause a ‘severe dread (*vehemens horror*)’.<sup>26vii</sup>

<sup>vi</sup>That is, ‘no one is bound to the futile’.

<sup>vii</sup>More concisely, Kelly writes: ‘By extraordinary they mean everything which involves excessive difficulty by reason of physical pain, repugnance, expense, and so forth’.<sup>27</sup>

In short, we may state that ordinary means refer to ‘such things as can be obtained and used without great difficulty’,<sup>27</sup> and the opposite applies to extraordinary means. It is worth noting that the meaning of this last sentence is not obvious. What does a ‘great difficulty’ mean when considering the concrete situation of a patient in the context of COVID-19? As an example, let us consider the use of high-flow oxygen to assist a patient with severe hypoxemia due to COVID-19 infection. How and when is it used ‘without great difficulty’? First, it must be useful for this patient’s clinical condition (*spes salutis*): that is, the patient has a good probability of hospital survival according to specific indicators (eg, the Acute Physiology And Chronic Health Evaluation II (APACHE II) score). Second, it must be available for that patient specifically (*media communia*). This is one of the most basic notions of ‘ordinary’, that is, its availability *hic et nunc* (here and now). Third, it must be reasonable according to the patient’s financial or social status (*secundum proportionem status*); for example, the patient is able to afford it.<sup>viii</sup> Fourth, it must not be extremely demanding for the patient (*media non difficilia*); for example, it is extremely painful. Even though almost all therapeutic means are demanding for the patient, the idea here is that the difficulty must be proportionate to the possibilities of the individual patient. It is also important to note ‘the relative nature of these standards’<sup>26</sup>: they depend on the geographical and temporal setting of the hospital, cultural conditions, financial status, psychological condition and so forth. These, and other, conditions ‘are all disagreeable factors that prohibit establishing an absolute standard for what is meant by “ordinary means”’.<sup>26</sup>

### Proportionate versus disproportionate means

If the ordinary/extraordinary distinction mainly refers to the *means* that are forbidden, allowed or mandatory to use in a specific context, the distinction between proportionate and disproportionate principally concerns the *patient’s clinical condition*: a therapy may be proportionate to the condition of a particular patient depending on their illness, age, comorbidities and so forth. This distinction is ‘based on the prudential judgment of the patient or surrogate on whether the means used offered a proportionate hope of benefit without imposing excessive burdens to the overall quality of the patient’s life’.<sup>24</sup> The criterion of proportionality mainly concerns the balance between the hope of benefit and the burden that certain means may inflict on the patient. Following Jansen and Sulmasy, we may affirm that ‘the proportionality principle instructs the physician to estimate the total intensity or amount of his or her patient’s suffering’.<sup>28</sup> Indeed, some therapeutic means are proportionate if they imply a reasonable hope of benefit to the patient’s condition (a possible therapeutic success) and if the patient finds the suffering affordable. In contrast, disproportionate means imply a great (or unbearable) suffering with very little hope of receiving a benefit.

A theoretical problem emerges here: if this is the correct meaning of the concept of proportionate, is there any difference between this criterion and the first (*spes salutis*) and third (*secundum proportionem status*) criteria for the ordinary means? Regarding *secundum proportionem status*, it is useful to recall that it deals with the economic and social status of patients and not their clinical status. In this sense, the two criteria refer to different elements. Regarding *spes salutis*,

the question is more difficult. Indeed, both criteria refer to the chance of success of the proposed treatment, but it may be more appropriate to consider the hope of benefit as something related to the patient’s clinical condition rather than to the means.

Consequently, we propose to define ‘ordinary means’ as those that are commonly used (*media communia*), are proportionate according to the patient’s status (*secundum proportionem status*) and are undemanding (*media non difficilia*), while ‘proportionate means’ are those that imply a reasonable hope of benefit to the patient’s condition without unbearable suffering.<sup>ix</sup> With these definitions, we may now examine our initial case example.

### Discussion: a clinical and ethical decision but not ‘a dilemma’

When applying the previous distinctions to an ethical judgement, we may justifiably affirm that *ordinary and proportionate means* are always morally obligatory; *extraordinary and proportionate means* are licit but not mandatory; and *disproportionate means* (either ordinary or extraordinary) are always prohibited. These conclusions are very useful for clinical decision-making processes. Therefore, what is the correct clinical and ethical assessment regarding our example of the 81-year-old hypertensive female who enters the ER with the symptoms mentioned above, while 95% of the national healthcare system’s ICUs are occupied?

Let us start by examining the means. Is ICU admission and intubation or connecting her to a ventilator considered ordinary or extraordinary means? To be ordinary, three conditions must be met: it must be a common means (*hic et nunc*), it must be proportionate to the patient’s status, and it must be undemanding. *Ex hypothesi*, we may presume that modern technology is available, and this patient has the required status. Also, *ex hypothesi*, we have stated that the whole system is extremely stressed and, therefore, critical care beds are no longer ‘common’ (due to a lack of availability and not a lack of technology). Moreover, it is not an undemanding means<sup>x</sup>; for example, besides the lack of available ventilators, the patient may have to be moved to another hospital, or the ICU’s medical teams are overwhelmed, and so forth. In sum, in this specific context, this treatment is extraordinary.

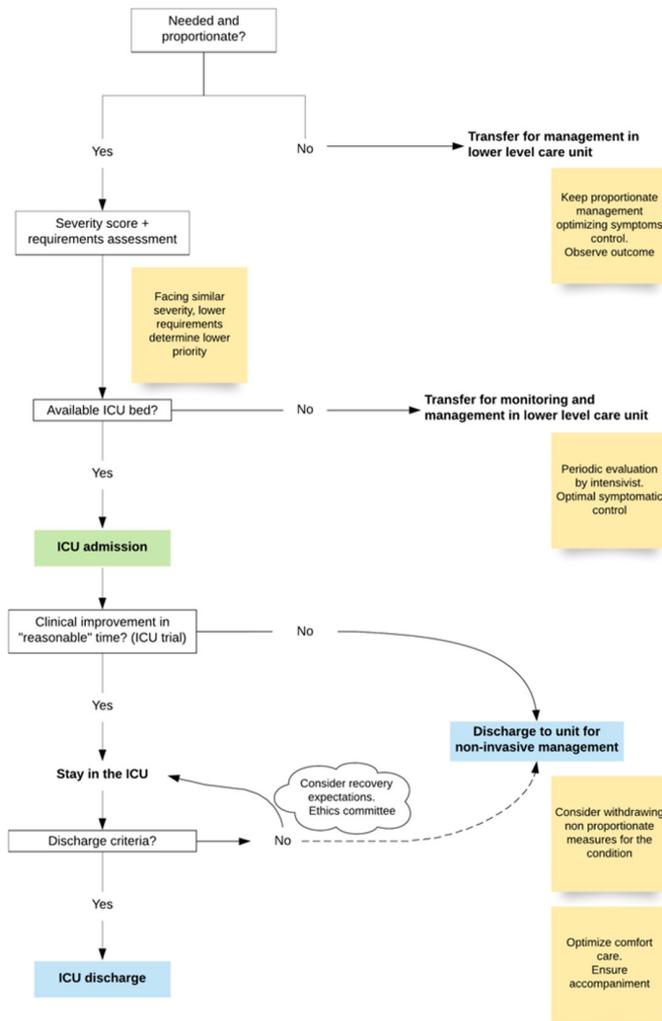
Is it proportionate or disproportionate? We said that the proportionality was directly related to the patient’s clinical condition. In this case, given the comorbidities, age and APACHE score of the patient, it is quite clear that there is no balance between the chances of success and the burden and suffering that the invasive treatment will impose on her. Consequently, to admit and connect this patient to a ventilator would be considered disproportionate means, and *if* the means are extraordinary *and* disproportionate, then they are *ethically prohibited*. The appropriate clinical and ethical judgement for this particular patient is that she should not be artificially ventilated.

The second patient in our example was a 27-year-old man with a similar presentation but no comorbidities. What is the correct assessment in this case? First, it must be said that he must, and deserves, to be evaluated on his own merit, regardless

<sup>ix</sup>Another option is to introduce the proportionality criterion within the ordinary/extraordinary distinction, as a fourth condition. However, we prefer to separate these distinctions to emphasise that one is concerned mainly with the means or clinical resources, while the other refers to the patient’s clinical condition.

<sup>x</sup>The use of ExtraCorporeal Membrane Oxygenation (ECMO) is a concrete example of a very demanding treatment—especially in the pandemic context—in terms of resources used and the burden for the patient, as it is not ‘a zero-sum game’.<sup>44</sup>

<sup>viii</sup>This condition depends on the healthcare system of the specific country or region in which the hospital falls.



**Figure 1** Flow chart of decision-making process at ICU. ICU, intensive care unit.

of whoever came before or after him. The correct clinical-ethical judgement considers each patient within the context but never compares or trades-off patients. Given the context of the pandemic, we must assume that the means are also extraordinary for him. But are they proportionate or disproportionate? There is, here, an important difference. Due to the patient’s clinical condition, the balance between the hope of benefitting and the burden of the treatment on the patient neatly favours the benefits. There is a very good chance for this patient to overcome this unfortunate illness and recover without major consequences. Therefore, despite being extraordinary, the means are absolutely proportionate in this case, and *if* the means are extraordinary *and* proportionate, then they are *ethically allowed*. Hence, the medical team will be encouraged to make its best effort to save this patient’s life.

Unsurprisingly, this situation may change, and continuous evaluations are required (see figure 1)<sup>xi</sup>. However, no dilemma exists as no individual is required to decide who shall continue living and who shall be left to die. Each case is evaluated on its own merit, regardless of the status and condition of other patients demanding attention. For an appropriate clinical and

ethical judgement, the decision must be determined by considering whether the means are ordinary or extraordinary (by focusing on the contingent circumstances in which the particular emergency takes place, such as the availability of clinical devices, specialists, etc) and also the proportionality or disproportionality of using those means for that specific patient (by focusing on their clinical condition and chances of success). Any other considerations, especially those that involve comparing patients in the deliberation, divert the judgement away from an ethically laudable medical practice. A good triage professional has only one patient: the one that is presently being examined.<sup>xii</sup>

Our last objection would be framing all of the above as a dilemma. Imagine that instead of the 81-year-old woman, two young males, with exactly the same symptoms and no comorbidities, arrive at the ER. They are at the same place, at the same time, and have the same (low) probability of hospital mortality. The problem is that there is only one critical care bed left in this ICU. Who should be saved, and why? Is this a real dilemma?

Obviously, this case cannot be a *real* dilemma because it is not *real* life, but one of those extremely improbable fantastical hypothetical scenarios that people like to imagine. Moreover, if this was a real case, there are always some options available to the medical team, such as sharing one ventilator or sending one of the patients to another hospital. However, if we accept the reasoning behind this hypothetical scenario, we can still provide an answer. Each of these patients ought to be evaluated on his or her own merit. Given their basic health conditions, the required treatment will be proportionate for both of them. But, given the severe scarcity of resources, the required means will be extremely extraordinary for both of them. Therefore, *if* (extremely) extraordinary *and* proportionate, the treatment is licit though not mandatory. This is very important because one of the essential features of moral dilemmas (section II) was the existence of ‘compelling moral considerations (deontic principles) for complying with each of the possible options’. In this hypothetical scenario, there is no compelling moral consideration to treat either patient. If they arrived at exactly the same time and are evaluated by different triage teams, the first team to complete this evaluation will have more options than the other because there is still one ventilator available. However, suddenly, the second team has fewer options because now there is no ventilator available for their patient. They would not be morally or professionally neglectful as the means are no longer available to them: duty implies power, and, in this case, the material means are lacking. Fortunately, the real world is more resourceful than these rigid hypothetical scenarios, and most importantly, even in this absurd fantasy, no individual had to choose between either of these patient’s lives.

**CONCLUSION: ETHICS WILL NOT CHANGE IN EXCEPTIONAL TIMES**

The examples we assessed above are challenging ethical cases since they imply extreme choices, and there is no ‘a priori mechanism by which to determine where to draw the line in all cases. As in other areas of ethics, there is no replacement for prudential judgment.<sup>27</sup> In this regard, the ethicist’s task is to offer

<sup>xi</sup>With reference to this latest aspect, it is worth considering the possible paths to death and recovery in patients needing respiratory support, as Vincent and Taccone did.<sup>45</sup>

<sup>xii</sup>Moreover, we should consider that beds can also be made available by discharging patients (figure 1). Following our previous considerations on proportionality, there is a huge difference between withdrawing and withholding a treatment. Indeed, I can only withdraw a treatment if it is no longer proportionate and it is an excessive burden on the patient’s condition and not because it will benefit another (virtually) curable patient.

interpretative tools that may help a clinical team to make a judicious decision by assessing the different conditions and dimensions through flexible criteria, such as those presented above.

Indeed, in the current pandemic context, the ethical issues may appear more demanding than ever, pushing us to advocate for a radical ethical change. Are we facing a huge transition in the field of clinical ethics? No. We do not have to change ethics to confront these issues. On the contrary, we have to return to the genuine meaning of medicine, that is, the idea that physicians should always take care of the patient's vulnerability, even if they cannot cure it.<sup>29</sup> Following Callahan, 'it is the vulnerability that illness creates that most requires the response of others. I call that response one of "caring"'.<sup>30</sup> In the context of a pandemic, more than ever, physicians have to stress 'the priority of *care* over *cure*'.<sup>30xiii</sup> Despite the scarcity of resources, physicians cannot cease to provide care to a patient, that is, they cannot abandon any person, as the principle of '*non-abandonment*' clearly commands.

This ethical point regards both the patient receiving treatment and the one that is not, while the last bed dilemma is concerned only with the patient receiving treatment. Prioritising care over the cure implies that the patients with their illnesses are at the core of medicine: in this sense, the clinical team must focus primarily on the patient's health and on the most adequate care and therapies that they are able to supply (possibly, the gold standard). The assessment of patients should be integral and consider all of their dimensions, from the presence of comorbidities and previous functional status<sup>xiv</sup> to the expectations of recovery, always avoiding the possible futility of invasive treatments and being placed under permanent monitoring. Lastly, a prudent approach to the patient should entail a regular and ongoing re-evaluation of the objectives and the proportionality of the treatment and care. Indeed, we have developed a flow chart (figure 1) that may help a clinical team during the decision-making process and create a culture of shared responsibility. One of the main issues that the last bed dilemma highlights is the physicians' 'responsibility overload' when they have to decide which life to save. However, in explaining why the last bed dilemma is a fallacious dilemma, we also presented a solution to this problem: physicians would not have to decide which life to save and which to abandon and, consequently, their sense of responsibility changes drastically.

**Acknowledgements** The authors thank Rommy von Bernhardt and Rodrigo López for their comments on a previous draft of this article.

**Contributors** All the authors equally participated in the paper. LV is mainly responsible for sections I, IV and V. MAC is mainly responsible for sections II and III. RC is responsible for the medical details, figure and clinical cases.

**Funding** The authors have not declared a specific grant for this research from any funding agency in the public, commercial or not-for-profit sectors.

**Competing interests** None declared.

**Patient consent for publication** Not required.

**Provenance and peer review** Not commissioned; externally peer reviewed.

This article is made freely available for use in accordance with BMJ's website terms and conditions for the duration of the covid-19 pandemic or until otherwise

<sup>xiii</sup>This principle implies, for example, that the symptoms of physical discomfort, such as pain or dyspnoea, must always be treated, and the accompaniment of the patient should also be considered according to the possibilities available.<sup>44</sup>

<sup>xiv</sup>In this regard, age as a criterion for admission into the ICU should only be used as a reference for defining the patient's health status and prognosis. Age limits should not be used as the unique criterion to ethically and clinically assess which sort of therapy or care to provide.

determined by BMJ. You may use, download and print the article for any lawful, non-commercial purpose (including text and data mining) provided that all copyright notices and trade marks are retained.

#### ORCID iD

Luca Valera <http://orcid.org/0000-0002-1693-396X>

#### REFERENCES

- Lowe A, Hewlett A, Schonfeld T. How should clinicians respond to international public health emergencies? *AMA J Ethics* 2020;22(1):E16–21.
- Rosenbaum L. Facing COVID-19 in Italy – Ethics, Logistics, and Therapeutics on the Epidemic's Front Line. *NEJM* 2020;321:1874–81.
- Mounk Y. The extraordinary decisions facing Italian doctors. *Atlantic*, 2020. Available: <https://www.theatlantic.com/ideas/archive/2020/03/who-gets-hospital-bed/607807/> [Accessed 15 Mar 2020].
- Gandhi R, Patel A. What if two COVID-19 victims need ventilators and just one is available? *Scientific American*, 2020. Available: <https://blogs.scientificamerican.com/observations/what-if-two-covid-19-victims-need-ventilators-and-just-one-is-available/> [Accessed 23 Mar 2020].
- Ives J. Coronavirus may force UK doctors to decide who they will save. *The Guardian*, 2020. Available: <https://www.theguardian.com/commentisfree/2020/mar/14/coronavirus-outbreak-older-people-doctors-treatment-ethics> [Accessed 23 Mar 2020].
- Sokol D. The life and death decisions of COVID-19. *The British Medical Journal* opinion, 2020. Available: <https://blogs.bmj.com/bmj/2020/03/20/daniel-sokol-the-life-and-death-decisions-of-covid-19/> [Accessed 22 Mar 2020].
- Webb Hooper M, Nápoles AM, Pérez-Stable EJ. COVID-19 and racial/ethnic disparities. *JAMA* 2020;323(24).
- Biddison ELD, Gwon HS, Schoch-Spana M, *et al.* Scarce resource allocation during disasters: a Mixed-Method community engagement study. *Chest* 2018;153(1):187–95.
- Daugherty Biddison EL, Faden R, Gwon HS, *et al.* Too many patients... a framework to guide statewide allocation of scarce mechanical ventilation during disasters. *Chest* 2019;155(4):848–54.
- Emanuel EJ, Persad G, Upshur R, *et al.* Fair allocation of scarce medical resources in the time of COVID-19. *N Engl J Med* 2020;382(21):2049–55.
- Salajan A, Tsovala S, Ciotti M, *et al.* To what extent does evidence support decision making during infectious disease outbreaks? A scoping literature review. *Evid Policy* 2020;16(3):453–75.
- Azoulay É, Beloucif S, Guidet B, *et al.* Admission decisions to intensive care units in the context of the major COVID-19 outbreak: local guidance from the COVID-19 Paris-region area. *Crit Care* 2020;24(1):293.
- Teres D. Civilian triage in the intensive care unit: the ritual of the last bed. *Crit Care Med* 1993;21(4):598–606.
- Frakt A. Who should be saved first? experts offer ethical guidance. *The New York Times*, 2020. Available: <https://www.nytimes.com/2020/03/24/upshot/coronavirus-triage-decisions-ethicists.html> [Accessed 3 Jul 2020].
- McGinty T, Maremont M, Evans M. Older coronavirus patients face looming ICU bed shortage. *The Wall Street Journal*, 2020. Available: <https://www.wsj.com/articles/older-coronavirus-patients-face-looming-icu-bed-shortage-11585067606> [Accessed 1 Jul 2020].
- Aroskar MA. Anatomy of an ethical dilemma: the theory. *Am J Nurs* 1980;80(4):658–60.
- Foot P. *Moral dilemmas and other topics in moral philosophy*. Oxford: Clarendon Press, 2002.
- Mason HE. Introduction. In: Mason HE, ed. *Moral dilemmas and moral theory*. Oxford: Oxford University Press, 1996: 3–9.
- Marcus G. Mason HE, ed. *Moral dilemmas and moral theory*. Oxford: Oxford University Press, 1996: 23–35.
- Childress JF. *Triage in response to a Bioterrorist attack*. Cambridge, MA: MIT Press, 2003.
- McConnell TC. Moral Residue and Dilemmas. In: Mason HE, ed. *Moral dilemmas and moral theory*. Oxford: Oxford University Press, 1996: 36–47.
- White DB, Katz MH, Luce JM, *et al.* Who should receive life support during a public health emergency? Using ethical principles to improve allocation decisions. *Ann Intern Med* 2009;150(2):132–8.
- Archard D, Caplan A, Connolly V. Is it wrong to prioritise younger patients with COVID-19? *BMJ* 2020;369:m1509.
- Clark P. Tube feedings and persistent vegetative state patients: ordinary or extraordinary means? *Christ Bioeth* 2006;12(1):43–64.
- Cronin DA. The Moral Law in Regard to the Ordinary and Extraordinary Means of Conserving Life. In: Smith RE, ed. *Conserving human life*. Braintree, MA: Pope John Center, 1989: 1–145.
- Sullivan SM. The development and nature of the ordinary/extraordinary means distinction in the Roman Catholic tradition. *Bioethics* 2007;21(7):386–97.
- Kelly G. The duty of using artificial means of preserving life. *Theol Stud* 1950;11(2):203–20.
- Jansen LA, Sulmasy DP. Proportionality SDP. Proportionality, terminal suffering and the restorative goals of medicine. *Theor Med Bioeth* 2002;23(4-5):321–37.

- 29 Valera L, Carrasco MA, López R, *et al*. Orientaciones éticas para la toma de decisiones médicas en el contexto de la pandemia de COVID-19 en Chile. *Rev Méd Chile* 2020;148(3):393–8.
- 30 Callahan D. *What kind of life? The limits of medical progress*. Washington, DC: Georgetown University Press, 1995.
- 31 Berlinger N, Wynia M, Powell T. The Hastings center. Ethical framework for health care institutions responding to novel coronavirus SARS-CoV-2 (COVID-19). Guidelines for institutional ethics services responding to COVID-19 managing uncertainty, Safeguarding communities, guiding practice, 2020. Available: <https://www.thehastingscenter.org/ethicalframeworkCOVID19/> [Accessed 24 Mar 2020].
- 32 Comité Consultatif National d'Éthique. Contribution du comité consultatif national d'éthique: Enjeux éthiques face une pandémie, 2020. Available: [https://www.ccne-ethique.fr/sites/default/files/reponse\\_ccne\\_-\\_COVID-19\\_def.pdf](https://www.ccne-ethique.fr/sites/default/files/reponse_ccne_-_COVID-19_def.pdf) [Accessed 24 Mar 2020].
- 33 Hick JL, Hanfling D, Wynia MK. National Academy of medicine. Duty to plan: health care, crisis standards of care, and novel coronavirus SARS-CoV, 2020. Available: <https://nam.edu/duty-to-plan-health-care-crisis-standards-of-care-and-novel-coronavirus-sars-cov-2/> [Accessed 24 Mar 2020].
- 34 Sociedad Chilena de Medicina Intensiva (SOCHIMI). Recomendaciones generales respecto de las decisiones éticas difíciles y la adecuación de la intensidad asistencial e ingreso a unidades de paciente crítico en situaciones de crisis, 2020. Available: [https://www.medicina-intensiva.cl/site/COVID/recomenda\\_etica.pdf](https://www.medicina-intensiva.cl/site/COVID/recomenda_etica.pdf) [Accessed 23 Mar 2020].
- 35 Sociedad Española de Anestesiología, Reanimación y Terapéutica del dolor (SEDAR). Marco ético pandemia COVID-19, 2020. Available: [https://www.sedar.es/images/site/BIBLIOGRAFIA\\_COVID-19/Anestesia/DOC\\_SEDAR\\_Marco\\_etico\\_pandemia\\_coronavirus.pdf](https://www.sedar.es/images/site/BIBLIOGRAFIA_COVID-19/Anestesia/DOC_SEDAR_Marco_etico_pandemia_coronavirus.pdf) [Accessed 23 May 2020].
- 36 Societ Italiana di Anestesia Analgesia Rianimazione e Terapia Intensiva (SIAARTI). Clinical ethics recommendations for the allocation of intensive care treatments, in exceptional, resource-limited circumstances, 2020. Available: <http://www.siaarti.it/SiteAssets/News/COVID19%20-%20documenti%20SIAARTI/SIAARTI%20-%20COVID-19%20-%20Clinical%20Ethics%20Reccomendations.pdf> [Accessed 17 May 2020].
- 37 The Nuffield Council on Bioethics. New briefing: responding to the COVID-19 pandemic – ethical considerations, 2020. Available: <https://www.nuffieldbioethics.org/assets/pdfs/Ethical-considerations-in-responding-to-the-COVID-19-pandemic.pdf> [Accessed 23 Mar 2020].
- 38 Wax RS, Christian MD. Practical recommendations for critical care and anesthesiology teams caring for novel coronavirus (2019-nCoV) patients. *Can J Anaesth* 2020;67(5):568–76.
- 39 Azcárate C, Esparza L, Mallor F. The problem of the last bed: Contextualization and a new simulation framework for analyzing physician decisions. *Omega* 2020;96(1):102120.
- 40 Harris J. *The value of life. An introduction to medical ethics*. London & New York: Routledge, 1985.
- 41 Lloyd-Sherlock P, Ebrahim S, Geffen L, *et al*. Bearing the brunt of COVID-19: older people in low and middle income countries. *BMJ* 2020;368.
- 42 White DB, Lo B. A framework for rationing ventilators and critical care beds during the COVID-19 pandemic. *JAMA* 2020;323(18).
- 43 Childress JF. Who shall live when not all can live? *Soundings* 1970;53:339–55.
- 44 Abrams D, Lorusso R, Vincent J-L, *et al*. ECMO during the COVID-19 pandemic: when is it unjustified? *Crit Care* 2020;24(1).
- 45 Vincent J-L, Taccone FS. Understanding pathways to death in patients with COVID-19. *Lancet Respir Med* 2020;8(5):430–2.