
Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Services wishing to use remote delivery must therefore ensure the necessary technology is provided to overcome access barriers, and that its use is supported. Studies have indicated that it is possible to provide equipment such as tablets, laptops, or devices connected to the TV[4,5,10]; however, studies also frequently report technical failures even in pilot studies, which can be associated with dropouts.[6] Technical support was frequently used in feasibility studies, indicating that providing this is an important part of remote intervention delivery.

In conclusion, although these interventions are potentially effective and received positively by some frail older people, those evaluating or providing services should ensure that digitally underserved older people are not left behind by facilitating contact with health care professionals and providing both the technology and technical support needed for interventions to be successful.

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https://doi.org/10.1016/j.jamda.2020.05.038

# COVID-19: Decisions to Offer Interventions With Limited Availability Should Be Decided Based on Chance of Recovery

*Dear Editor:*

We read with interest the article by Cesari and Proietti,[1] entitled "COVID-19 in Italy: ageism and decision making in a pandemic," which rejects a priori discrimination of aged people in access to care. The issue is particularly relevant in a time when a large number of older subjects, who lived in nursing homes, died following infection by COVID-19 patients who were transferred to the facilities due to an insufficiency of hospital beds.[2]

Individual allocation of limited medical resources is a crucial issue in the time of COVID-19[1,3–7] because it involves the decision to offer or deprive patients of chances of survival. To avoid discretionality and uncertainty, such decisions should be based on juridical grounds. However, liberal democracies are not well equipped for this challenge. The Italian constitution, for example, states "the Republic safeguards health as a fundamental right of the individual and as a collective interest" (article 32). Given that "all citizens have equal social status and are equal before the law, without regard to their sex, race, language, religion, political opinions, and personal or social conditions," as the constitution also states (article 3), it follows that no juridical criteria can be adopted that discriminates among individuals with regard to their right to health. For example, coming back to Cesari and Proietti,[1] aged people cannot be discriminated against.

Perhaps ethics can offer greater rationale than law, but it too faces serious obstacles. Being pluralistic, liberal democracies do not allow for a single ethical standard. However, pertaining to a matter involving the collectivity, utilitarian ethics,[8] which looks at the greatest advantage for society, might seem a possible path. In the time of COVID-19, it has been proposed by influential researchers to give precedence to saving the most lives and life-years, give priority to research participants and health care workers and the sickest and youngest, and apply random selection among patients with similar prognosis.[4]

Unfortunately, a pragmatic approach also has several limitations.[3] Generalized categorization is disputable,[7] while specific categorizations are context-sensitive and unable to predict all possible situations.

In countries where health care is mainly private, those with resources pay for what they need. Individuals without resources, like people living in countries where health care is public, are faced with a predicament that cannot be resolved by guidelines and bureaucratic protocols. Among 2 patients with priority,[4] for example, both health workers, who receives therapy when only 1 ventilator is available? Between patients without priority and with similar prognosis,[4] who receives treatment first? Random selection is not a reasonable option because it clashes with common sense when other valuable criteria could be taken into consideration. Should honest citizens who pay taxes, that help buy ventilators, be privileged over tax evaders? Is it right to care differently for a person who has recently acquired citizenship compared with an individual from a family that has paid into the health care system for decades? Who has priority, the citizen or a noncitizen who does not pay taxes? Remaining in the perspective of maximizing benefit, is it right to *not* consider the social contribution 1 person can make compared with another? Which is more useful, the life of an older scientist or that of a young criminal or low achiever? Such rhetorical questions demonstrate that utilitarianism is unable to avoid discretionality, uncertainty, and discrimination.

The Italian position for allocation of medical resources looks to the principle of proportionality of care, with preference given to patients with the greatest possibility of therapeutic success.[5,6] However, this approach clashes with the previously mentioned Constitutional precept when framed in guidelines/recommendations and, again, when an age limit for the intensive care is set a priori.[5,6]

The dramatic conclusion is that health operators, as well as ordinary people, are alone in the face of this current crisis. At the very end, the most reasonable solution is to give priority on a case-by-case basis to the individual who, in that moment under those conditions, and with the situation at hand, has the best chance of

survival and of recovering from the infection, if provided the treatment under discussion. This criterion was that previously adopted in the case of school of the conjoined twins Mary and Jodie.[9] Separation was required to prevent the death of both but was certain to cause the death of the weaker twin. The England and Wales Court of Appeals considered prevailing the interest of Jodie because Marie was self-designated for a very early death.

We are aware that even case-by-case criteria cannot ultimately avoid discrimination, for example, when dealing with patients with similar chances of recovery. In such cases, inevitably the "first-come, first-served" rule is in force, a seemingly impersonal fact that is not, however, a value judgment.

A case-by-case approach that depends on chance of recovery avoids a priori categorization, providing health operators with objectifiable, medical criteria. Therefore, it has universal value, freeing physicians from the burden of conscience and exposure to possible legal ramifications, as well as freeing legislators from making partisan decisions. Furthermore, it could help patients and families better comprehend the medical choices to which they are subjected.

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https://doi.org/10.1016/j.jamda.2020.05.024

# The COVID Grim Reaper

*To the Editor:*

The articles "COVID-19 in Italy: Ageism and decision making in a pandemic" by Cesari and Proietti[1] and "The geriatrician: The frontline specialist in the treatment of COVID-19 patients - Gemelli against COVID-19 Geriatrics Team" by Landi et al.[2] clearly discuss the topics to be considered to best manage the care of sick older individuals in COVID-19 outbreaks.

Multimorbidity, frailty, physical disability and cognitive impairment, and alterations of the biological background all may play an additional role in worsening the prognosis and increasing the risk of adverse outcomes more than the mere number of years lived.

Whatever the causes, the mortality rate in older patients is remarkably high: in our hospital located in Brescia, in the region of Lombardy (the area with the highest rate of SARS-CoV-2 infection and death in Italy), in patients older than 80 the mortality rate is 54%, in patients older than 85 the mortality rate is 75%, and in those with severe to terminal dementia [Clinical Dementia Rating (CDR3) to CDR5] the mortality rate is 100%.

The use of cutpoints based on chronological age as guidance of clinical decision of treatment may put most older patients at risk for second-class care, but very old patients in the COVID-19 pandemic have a negligible survival hope; they are "de facto" a doomed population.

A community that abandons their older citizens is a hateful community; if we want to save older lives we must absolutely avoid COVID-19 infection. COVID-19 infection for an aged person is the "Grim Reaper," and age should therefore be taken into account mainly to incentivize an obligation toward prevention.

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https://doi.org/10.1016/j.jamda.2020.05.001

# Plasma Therapies and Parabiosis in the COVID-19 Era

*To the Editor:*

A novel coronavirus (SARS-CoV-2), likely spilled over from bats, is causing a nightmarish global pandemic and has ignited a worldwide race for the discovery of effective therapies against COVID-19. The disease severity and lethality are clearly higher in older adults, with notable sex-specific differences. The impact of age on COVID-19 outcomes is reflected by case fatality rates in older patients being up to 100-fold higher than in infants.[1] At all ages, men are more severely affected than women.[1] An ageism-guided reallocation of medical resources to prioritize assistance of younger patients may contribute to the excess mortality in older citizens.[2] Yet, the combined effect of age and gender on COVID-19–related morbidity and mortality mirrors what is commonly encountered in aging research and in major chronic diseases.

According to the geroscience paradigm, some molecular pathways, collectively called "hallmarks of aging," underpin age-related