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satisfaction is derived from the reduction in travel time and transportation costs, which, in turn, might be spent on that of telehealth and home delivery of medications. The digital literacy of our patients is also crucial in determining the success of a telemedicine-based outpatient framework. Locally, a national survey by the Infocomm Development Authority of Singapore showed that the computer usage rate among senior citizens aged 50 to 59 and 60 and older rose to 63% and 27%, respectively, in 2014: an increase of 14 and 11 percentage points from 2012, respectively.<sup>5</sup>

COVID-19 has prompted us to review the utility and limitations of the conventional clinic structure, led us to implement measures to enable continuity of our clinics, and inspired us to envision a novel clinic structure built on virtual consultation and remote monitoring (Table 1). This pandemic has ironically integrated care by bringing together a patient's multiple health care providers in closer communication with one another. Although the pandemic has disrupted much of our medical services, it has prompted us to implement changes to our health care system, which will hopefully remain relevant beyond COVID-19.

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## Using Remote Interventions in Promoting the Health of Frail Older Persons Following the COVID-19 Lockdown: Challenges and Solutions



In light of the COVID-19 pandemic, many older people across the world are being asked to self-isolate to protect their health. This has led to a rapid reconfiguration of health promotion services, which are diverse in focus, and may include exercise, dietary interventions, or psychosocial interventions, toward remote delivery, for example by phone or using computers. Although currently they are unable to be safely delivered any other way, there are concerns that these remote interventions may replace face-to-face interventions beyond the end of social restrictions. We advocate caution with taking this forward, particularly for frailer older people.

Evidence of effectiveness for remote interventions for frail older people is promising, but very limited at present. Small randomized controlled trials have shown positive impacts on quality of life from video exercises with weekly phone calls,<sup>1</sup> improved mental functioning from computer-based home exercises,<sup>2</sup> improved balance from home exercise with phone calls,<sup>3</sup> and reduced depression from problem-solving therapy delivered by videoconferencing.<sup>4</sup> Similarly, for malnourished older people, phone-based nutrition interventions with dietitians improved protein intake and quality of life, but not other outcomes in 1 systematic review of 9 studies.<sup>5</sup> However, despite an increase in research on this topic over the past 5 years, these interventions are rarely compared with face-to-face delivery, and small sample sizes often limit the power and generalizability of these studies. Most also included a face-to-face session with a health care professional to assess and plan treatment beforehand,<sup>1,3,5</sup> an orientation meeting to ensure the technology works,<sup>2</sup> or both.<sup>4</sup>

Use of remote interventions therefore needs to facilitate rather than replace contacts with health care professionals. Phone-based support may be particularly applicable to a population with less Internet and computer access, and may improve adherence to independent exercise programs,<sup>3,6</sup> as well as being used for intervention delivery.<sup>5</sup> Videoconferencing for psychological therapies also showed comparable effects to face-to-face delivery with similar numbers of people completing sessions (49 of 56 vs 54 of 63).<sup>4</sup> One systematic review found that mobile health technologies for older people are more acceptable when they facilitate communication with a health care provider rather than disrupt it,<sup>7</sup> and a cohort study found that frail older people using teleassistance at home who took up additional specialist telecounseling were almost twice as likely to complete the study after 1 year (94% vs 44%).<sup>8</sup>

There are also known access issues. A recent population-based Finnish study suggested that frail older people are less likely than robust older people to have an Internet connection (46% vs 79%), to have used the Internet in the past 3 months (34% vs 72%), and have used a computer in the past 12 months (30% vs 70%).<sup>9</sup> They also found that frail older people are more likely to hold negative opinions about the usefulness and usability of mobile information and communication technology. This risks a large proportion of the population being excluded. Although there is clear evidence of high acceptability scores for remote interventions in those who complete studies,<sup>2,4,6</sup> these can also suffer from high dropout rates, particularly when unsupervised,<sup>3,6</sup> are evaluated mainly for short-term interventions, and typically lack generalizability to wider populations.

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<sup>4,5,10</sup>; however, studies also frequently report technical failures even in pilot studies, which can be associated with dropouts.<sup>6</sup> 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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## 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,<sup>1</sup> 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.<sup>2</sup>

Individual allocation of limited medical resources is a crucial issue in the time of COVID-19<sup>1,3–7</sup> 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,<sup>1</sup> 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,<sup>8</sup> 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.<sup>4</sup>

Unfortunately, a pragmatic approach also has several limitations.<sup>3</sup> Generalized categorization is disputable,<sup>7</sup> 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,<sup>4</sup> for example, both health workers, who receives therapy when only 1 ventilator is available? Between patients without priority and with similar prognosis,<sup>4</sup> 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.<sup>5,6</sup> 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.<sup>5,6</sup>

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