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Pragmatic Innovations in Post-Acute and Long-Term Care Medicine

Feasible new, practical products or approaches intended to improve outcomes or processes in post-acute or long-term care

The Geriatrician: The Frontline Specialist in the Treatment of COVID-19 Patients



Gemelli Against COVID-19 Geriatrics Team:

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ABSTRACT

On February 20, 2020, a man living in the north of Italy was admitted to the emergency room with an atypical pneumonia that later proved to be COVID-19. This was the trigger of one of the most serious clusters of COVID-19 in the world, outside of China. Despite aggressive restraint and inhibition efforts, COVID-19 continues to increase, and the total number of infected patients in Italy is growing daily. After 6 weeks, the total number of patients reached 128,948 cases (April 5, 2020), with the higher case-fatality rate (15,887 deaths) dominated by old and very old patients.

This sudden health emergency severely challenged the Italian Health System, in particular acute care hospitals and intensive care units. In 1 hospital, geriatric observation units were created, the experience of which can be extremely useful for European countries, the United States, and all countries that in the coming days will face a similar situation.

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Problem/Significance

The coronavirus disease COVID-19 (SARS-CoV-2) is an infectious disease that mainly affects the respiratory system, with the manifestation of interstitial pneumonia and severe acute respiratory syndrome.¹ The team of medical doctors that is primarily involved has always been composed by infectious disease specialists, pneumologists, and anesthesiologists. Although no age group is safe from the SARS-CoV-2 infection, the burden is higher and most severe for persons aged 70 years and older, with documented mortality rates of more than 20% among octogenarians.² It is clear that the COVID-19 susceptible and dying population involves older people and people with certain underlying medical conditions (such as cardiovascular diseases, diabetes mellitus, renal failure, and respiratory diseases), which requires more attention and care.³ The presence of multiple pre-existing comorbidities is correlated with more severe COVID-19

infection, reflecting the presence of pre-existing physical and/or cognitive frailty.

Innovation

For this reason, it is important to create a clear and simple triage at the emergency room level, separating patients suspected to be positive for SARS-CoV-2 from nonsuspect patients. This strategy obviously implies that all patients with significant symptoms will get through the dedicated “track,” and consequently many frail older patients with fever, cough, and dyspnea will enter the COVID-19 units waiting for first and eventually second pharyngeal and nasal swabs.⁴

The Fondazione Policlinico Gemelli IRCCS Teaching Hospital in Rome immediately established this type of “track” and, in addition to the infectious diseases units, dedicated 9 other units for the observation and treatment of patients suspected and confirmed to be affected by SARS-CoV-2 infection. The 4 weeks' experience, beginning with the day on which 2 elective surgical units were transformed into COVID-19 observation units (40 beds) and were entrusted to a team of geriatricians, can be particularly instructive for all the hospitals in the world that will have to deal with this emergency.

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Implementation and Evaluation

During this period, 110 patients were admitted to the COVID-19 geriatric units directly from the emergency room, including 75 (68%) males and 35 (32%) females. Their mean age was 68.6 ± 16.1 years. The most frequent symptoms were fever (85%), cough (50%), dyspnea (46%), myalgia and/or arthralgia (15%), fatigue (24%), nausea (10%), and diarrhea (5%). Of this sample, 76 patients (57 males and 19 females) were found to be positive for COVID-19 at the first (72) or the second (4) pharyngeal and/or nasal swabs. Among patients positive for COVID-19, the mean number of diseases was 1.9 ± 1.7 , with the most frequently observed diseases being hypertension (41%), heart failure (29%), respiratory diseases (19%), diabetes (15%), renal failure (13%), and cancer (10%). All patients suffered from interstitial pneumonia. Thirteen patients were transferred to the intensive care unit for a worsening of respiratory symptoms and oxygen saturation. Three patients with comorbidities, aged 86, 84, and 96 years, died 4, 7, and 10 days after admission to the COVID-19 unit, respectively.

Comment

Our experience suggests the importance of involving geriatricians for the correct evaluation and management of COVID-19 patients. These patients have poor outcomes and die because of age and comorbidity and are in need of doctors able to deal with such conditions. First of all, the geriatrician is the doctor who best knows the multi-dimensional health problems of older patients, with a great ability and competence to manage multimorbid and complex patients. Geriatricians are the doctors who best know the principles of teamwork and are able to adapt protective measures according to the needs of the patients in close collaboration with the other health care professionals and family. Moreover, geriatrics is the “guardian” for the best possible treatment based on clinical and functional conditions and not only on the basis of age.

For the health care systems in many countries, it will be crucial that attention moves as quickly as possible to plan for the increase in demand and recognize how to reconfigure services to cope with demand. The COVID-19 pandemic disease has revealed the problem of any health care service in the world.⁵ The older population puts health and social systems in crisis because they are not able to overcome problems that younger populations can overcome. Only the early assessment of this “fragility” in the community and in long-term care can prevent these systemic crises and, as a consequence, a new and modern health care system is mandatory. Furthermore, it is important to plan the new hospital organization on the assumption that most of the population may contract the virus with few or no harmful effects, while harnessing vital health care resources and expertise to treat and manage the percentage of old people who become seriously ill.⁶ This is an alarming emergency, given that this older age group accounts for the majority of more severe cases and of deaths. This oversight must be addressed immediately. Trusting not on an ideological speculation but on the real experience of these days, we suggest that, for all countries that are experiencing the same Italian situation, dedicated geriatrics care teams be integrated into the management of this COVID-19 crisis.

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The pragmatic innovation described in this article may need to be modified for use by others; in addition, strong evidence does not yet exist regarding efficacy or effectiveness. Therefore, successful implementation and outcomes cannot be assured. When necessary, administrative and legal review conducted with due diligence may be appropriate before implementing a pragmatic innovation.