

## Review Article

# Lessons from the Pandemic and Healthcare Service Delivery for the Senior Citizens

Rhea Wason<sup>1</sup>, S K Arora<sup>2</sup>, Ashish Goel<sup>3</sup>

**Background :** The healthcare delivery system is an important indicator of the quality of life in a society. The advent of the Corona Virus pandemic led to an unfortunate and unforeseen disruption in the healthcare services Globally. The older persons were impacted on multiple counts including limitations in healthcare service availability, access and social marginalization.

As we gain more insight into the full impact of the Pandemic on the health quality indicators and look to resume Medical service delivery in Postpandemic times, it's important to ensure that the older population is not neglected.

**Discussions :** Small transitions in the delivery models but larger modifications in the mind-set may be needed to provide continued, effective and seamless healthcare services to the older Indian population. Planned interventions at each level of the system can ensure a smooth transition into the modified systems.

Integration of modern telecommunication technology into the medical practice and extensive research in the area can make telemedicine a more accessible and acceptable option to the elderly patients with chronic ailments. The full extent of the impact of the Pandemic on healthcare will be revealed in the coming times requiring constant adaptation of each element of the system to cope with it.

[J Indian Med Assoc 2022; 120(1): 32-8]

**Key words :** Senior citizen clinic, COVID-19, Interruption of care.

Every aspect of human life has been impacted like never before in the last one year ever since the arrival of the SARS-CoV-2 pandemic. Disruptions in healthcare service delivery have been noticed and reported across all disciplines and modalities. While some areas of healthcare delivery are struggling to get back to a new normal, elderly healthcare continues to remain suspended in most cities across the world, including India.

After surviving the first wave of the pandemic in 2020, India was hit by yet another devastating second wave in February 2021, experiencing unprecedented shortage of beds, oxygen and other medical supplies<sup>1</sup>. With the infection spreading in the Rural areas as well, the mutant viruses causing this wave proved to be much more infectious than the previous ones<sup>2</sup>. Even though the case fatality rate is lower, the surge of cases has crippled the already burdened healthcare system of the country.

Exhaustion of medical resources due to the large

<sup>1</sup>MBBS 3rd Year Student, Maulana Azad Medical College, New Delhi 110002

<sup>2</sup>MBBS, DTCD, MD (AM), Dip (Cardiology), PGDHHM, Additional Director Health, SPO NPHCE Delhi State, GNCTD

<sup>3</sup>MBBS, MD (Medicine), MPH, Professor, Department of Medicine, University College of Medical Sciences, New Delhi 110095 and Corresponding Author

Received on : 13/04/2021

Accepted on : 03/06/2021

### Editor's Comment :

- The geriatric age group has been affected disproportionately by the COVID pandemic with various aspects of their life being hindered. Healthcare services for them became gradually more inaccessible as the lockdown was imposed and the senior citizen clinics came to an abrupt halt. With the possibility of subsequent waves of infection in the near future, modification of the health service delivery systems has become the need of the hour.
- This article tries to shed light on how with the strategic use of technology and multilevel health management practices, it's possible to restart the irreplaceable services provided by these clinics. Planned revamping of the healthcare system will allow us to move towards a new normal of geriatric care.

number of COVID-19 patients that led to the suspension of non-urgent services leading to an impact on the management of chronic non-communicable conditions especially in the older population. Recognition of the Geriatric Age Group as one of the major risk factors for COVID-19, the senior citizens were advised not to visit healthcare facilities unless very essential. Timely measures can help reverse and mitigate the acute and delayed adverse effects on Geriatric Health that happened consequentially.

The current review summarizes the interruption and its impact on the lives of older persons and aims to assist make informed decisions around re-initiation of effective and efficient healthcare services to the elderly through the previously established Senior Citizen clinics with considerations towards the needs of the

various stakeholders.

### **Healthcare for Older Persons – National Program for Healthcare of Elderly (NPHCE) :**

The elderly population of any country requires specialised care in all aspects of life including health. The healthcare system of the country needs to be modified time and again as we better understand the specialised needs of the older people as Geriatric Medicine and the society in general evolves. To cater to the needs of the Geriatric Population of India, the Government launched the National Programme for the Healthcare of the Elderly (NPHCE) in the year 2010<sup>3</sup>. The programme ensures a holistic approach to providing healthcare to old people- ranging from Health Education to Tertiary Healthcare Services. Geriatric clinics and specialised Geriatric OPDs have been set up at Primary Health Centre, CHCs, District Hospitals and Regional Geriatric Centres of the country under the scheme. Other geriatric services like physiotherapy services, supportive devices, home care and home-based services are also provided. Training of public healthcare staff in geriatric care, development of specialised human resource by providing Geriatric Medicine MD in the Regional Geriatric Centres and promotion of Geriatric Research are also the focus areas of the scheme<sup>4</sup>.

#### **1.1. The Senior Citizen Clinic Scheme :**

Weekly Geriatric Clinics at the Primary Health Centres, biweekly Geriatric Clinics at the Community Health Centre, dedicated Geriatric OPD services in the District Hospitals and the Regional Geriatric Centres had been set up following the guidelines outlined under NPHCE<sup>2</sup>. These clinics offer health assessment and laboratory investigations to the older people.

Routine medical check-ups of old people help monitoring the progression of the multiple co-morbid conditions, the multiple drugs taken by them and to screen for common conditions<sup>5</sup>. Screening helps in early detection of diseases and reduces the chances of developing complications and promotes healthy ageing. Regular visits also improve drug compliance. Senior citizen clinics have been instrumental in improving healthcare access for the Geriatric Population in many states. It's important to note that most of the Geriatric Population of India continues to attend the routine OPDs rather than these specialised states due to lack of awareness or accessibility.

### **Interruption of Healthcare Services for Elderly during the Pandemic :**

Following the spread of the outbreak of Pneumonia from Wuhan to the entire World earlier this year, the

Indian Government had initiated a Nationwide lockdown in late March to reduce the extent of spread. The unprecedented and unforeseen administrative action not only brought non-essential services to a standstill but also created an atmosphere of panic with rapid adoption of social distancing practices to avoid infection. Many hospitals experienced reduced outpatient visits and admissions into the non-COVID-19 wards<sup>6</sup>.

Although, the lockdown was removed in phases, the fear among the older persons intensified with several National and International advisories following reports of increased susceptibility of elderly patients to the disease, from the Western Scientific Community. Preliminary research done in some countries suggests that there's a significant decline in the health quality indicators like follow up, control and screening of diseases as well as vaccinations due to the reduced accessibility of primary healthcare for the people<sup>7</sup>.

#### **1.2. Impact on Senior citizens :**

The elderly people have been a particularly vulnerable population in this scenario. COVID-19 has been proven to have a higher morbidity and mortality in the Geriatric population<sup>8</sup>. The disruption and the delay in resumption of medical services has inevitably led to secondary effects. Arguably, the greatest misfortune of this environment was the neglect of healthcare delivery for chronic non-communicable ailments which disproportionately affect the elderly. They waited patiently with remarkable tolerance not only for the services to resume but also for the pandemic to ebb before seeking healthcare.

The gap in the regular primary healthcare access due to the pandemic is expected to have long term effects on the epidemiology of non-communicable diseases<sup>9</sup>. Disruption in other services like senior activity centres, rehabilitation centres and dementia day-care centres has also worsened the prognosis of diseases in the elderly<sup>10</sup>. There is also an expected adverse effect on their mental health<sup>11</sup>.

### **Resuming Healthcare Delivery :**

Since the lockdown could not be continued indefinitely, Governments have started resuming services including healthcare services. Returning to the pre-COVID-19 standards may not be feasible and a new normal may soon be found. Modifications in the health delivery system would be required for safe delivery of health care.

#### **1.3. Guidelines and Advisories :**

The WHO has suggested many measures to ensure safe delivery of healthcare for the elderly. The organisation proposes that the elderly be actively

involved in the process to ensure a sustainable model<sup>12</sup>:

**(1) Health promotion:**

- a) Education about preventive measures and good hygiene practices
- b) Promotion of safe and adequate physical activity at home
- c) Education about when to seek help and how
- d) Education regarding helplines for reporting abuse and/or mental health issues

**(2) Care of older people with disabilities**

- a) Ensuring availability of information for those with impaired senses
- b) Facilitating access to rehabilitation services including self-management information, assistive products and home exercise programmes

**(3) Care of old people with chronic diseases**

- a) Reaching out proactively to old people and caregivers through tele medicine and community engagement
- b) Ensuring availability of critical medicines with an effective delivery system
- c) Regular monitoring and follow up of older people through tele health

**(4) Care of care dependent old people**

- a) Identifying alternate caregiver and facility in case the primary is unavailable.
- b) Offering psychosocial support and respite to caregivers

**(5) When transitioning towards the restoration of services, the following are advised**

- a) Implementing outreach to high-risk groups and establishment of dedicated helplines
- b) Assessing the changes in the treatment coverage and the utilization of social care services and rehabilitation services
- c) Anticipating the backlog in suspended non-urgent healthcare services

Many organisations have also released Health Advisories for the elderly to better equip them to take care of themselves during the lockdown and to prevent infection. The International Association for Gerontology and Geriatrics Asia-Oceania (IAGG-AO) region has come up with a unique mnemonic making it easier for people to remember the health advice<sup>13</sup>:

- C - Catnap (adequate sleep)
- O - Optimistic emotion
- V - Vigour (active exercise)
- I - Intake of adequate nutritious food
- D - Distancing
- I - Increase online social contact
- A - Administer routine medicines
- G - Get enough sunlight
- G - Go to emergency room/call emergency services

in case of distressing symptoms

- A - Active handwashing
- O - Order groceries and medicines online or via caregiver/friends

At the start of the pandemic, the need for urgent measures to address the management of non-communicable diseases was realised. It was suggested that the patients be provided prescription refills for longer periods and doorstep medicine delivery mechanisms be set up in order to reduce the exposure to the virus in vulnerable groups<sup>14</sup>. Taking prompt action, the Government of India took many measures like releasing a health advisory and launching COVID-19 helpline number for senior citizens<sup>15</sup>. A guidance note was issued by the Government to enable deliver of essential services during the pandemic<sup>16</sup>.

- This note identifies care of elderly as one of the non-COVID essential service.
- Regular delivery of 3 months' supply of medicines for non-communicable diseases with the help of Accredited Social Health Activists (ASHA) or at SHCs on prescription to be ensured
- States to ensure availability of dialysis and cancer treatment for patients including transport facilities.
- Auxiliary Nurse Midwives (ANM) or Community Health Officers (CHO) to visit households of elderly bimonthly to check for complications and treatment adherence. ASHAs to be connected via telephone to the elderly and their families.

Although several guidelines are available but there is considerable scope for improving awareness and compliance.

**1.4. The Era of Telemedicine- The Virtual Geriatric Clinic :**

The inability to physically connect with a physician has invariably led to the virtual connection becoming more important. The COVID-19 pandemic heralds the era of telemedicine. There has been a mass shift from in-person visits to tele-consultation in the initial months of the pandemic<sup>17</sup>. Recognising the need for training the practicing physicians to use the virtual platforms effectively, many guidelines were issued and trainings conducted.

One of the new concepts have been the Virtual geriatric clinics. A systematic review of available literature showed that the virtual clinic practices have been largely satisfactory for the patients and the physician by providing effective polypharmacy review, reducing complications, reducing the waiting time for consultation and being cost effective<sup>18</sup>. There have been promising development of Telehealth Geriatric Assessment models but more research and trials are

needed in this area<sup>19</sup>.

Extensive research is being done to understand the challenges and the feasibility of using telemedicine. The older population can find it difficult to access telehealth services because of many factors like lack of knowledge and understanding of the system, reluctance to use new technology due to trust and privacy issues and lack of electronic appliances or internet access<sup>20</sup>. Lack of internet access and the high rates of illiteracy among the older people are the major challenges in India. Addressing these issues along with training and appropriate counselling of the older people can go a long way in increasing acceptance of telemedicine and this can prove to be an efficient way to provide outpatient consultation, regular health check-ups and follow-ups. Use of telephone for consultation can be used in a resource restricted environment like India.

#### Future and Planning — Lessons from Other Nations and the Role of NGOs :

The greatest challenge for India would be to remodel, reanalyse and revamp the existing healthcare system to overcome the burden of the increasing COVID-19 cases and the backlog of the *non-urgent* procedures and services that had been suspended.

The challenges faced and the innovative approaches adopted by other Nations can serve as lessons for us. Asian Countries like China, Hong Kong and Singapore were prompt in taking measures to ensure Geriatric care such as launching of official app for specialist guidance, fully online rehabilitation and nursing sessions, webinars for training of families in first aid

and care of elderly and production and distribution of free printed and virtual health promotion material in English and native languages, use of radio and television for health promotion and postal drug refills<sup>10</sup>. Many of these measures are suitable and can be adapted to fit the Indian scenario.

In India, NGOs like HelpAge India have been doing their bit by giving health advisories to elder people via phone, launching free elderly helplines, mobile units and health teams, delivering medicines and protective hygiene kits and providing transportation to the hospitals<sup>21</sup>.

#### Towards a New Normal :

The pandemic has forced the healthcare system to modify itself within a short span of time. Consequently, the various stakeholders of the system have had to and will have to keep pace with the latest developments. Navigating through the vast information explosion about COVID-19 that has happened during the past months can be a difficult task. Through this article, the authors aim to crystallise the roles and expectations from the different stakeholders and provide implementation strategies to aid provision of effective and efficient services to the elderly.

#### 1.5. The Stakeholders- Concerns and Expectations :

As we look to formulate the plan to restart our healthcare services, it's helpful to take a look at the expectations we have from all the elements of the system and major concerns for them that need to be addressed (Tables 1&2).

Table 1 — Concerns and expectations for the various stakeholders

Stakeholder	Expectations from the system	Concerns
Healthcare seekers	<ul style="list-style-type: none"> <li>Free medicines</li> <li>Timely prescription refill</li> <li>Regular follow up and consultation</li> </ul>	<ul style="list-style-type: none"> <li>Risk of infection with COVID-19</li> <li>Difficulty in getting transportation</li> <li>Difficulty in accepting telemedicine services</li> </ul>
Healthcare provider	<ul style="list-style-type: none"> <li>Adequate supply of personal protective equipment</li> <li>Help in setting up telemedicine services in clinics/hospitals with training</li> <li>Support from the paramedical and social workers to deliver services</li> <li>Funding to carry out research</li> </ul>	<ul style="list-style-type: none"> <li>Risk of infection with COVID-19</li> <li>Increased working hours and exhaustion</li> </ul>
Hospital/Clinic Administrator	<ul style="list-style-type: none"> <li>Adequate financial support from the policy makers to revamp the services.</li> <li>Uninterrupted supplies of all logistics from various agencies.</li> </ul>	<ul style="list-style-type: none"> <li>Limited funds</li> <li>Being able to reduce complaints and increase satisfaction with minimal changes in the existing system</li> </ul>
Policy Maker	<ul style="list-style-type: none"> <li>Adequate support from the other stakeholders to form the best policies.</li> <li>Proper implementation of the policies</li> <li>Receptiveness and a feel-good factor among the communities</li> </ul>	<ul style="list-style-type: none"> <li>Pressure from various groups to initiate services early.</li> <li>Limited resources for allocation into parallel areas</li> </ul>

Table 2 — Measures to take at various levels while resuming healthcare services for the elderly.

Level of care	Measures to be taken
Personal*	<ul style="list-style-type: none"> <li>• Keep information about local and online emergency and elective services.</li> <li>• Keep updated information about Govt. and NGO schemes, support available.</li> <li>• Rely on verified sources for health information and follow appropriate guidelines.</li> <li>• Use telemedicine services for follow up or new complaints to minimise inpatient visits.</li> <li>• Learn about common symptoms and complications of diseases, seek medical attention when something is not right</li> </ul>
Doctors	<ul style="list-style-type: none"> <li>• Use video call and telephone services for follow ups and general health assessments with adequate grievance redressal mechanisms for patients.</li> <li>• Use upcoming telehealth assessment models for the geriatric patients<sup>19</sup></li> <li>• Pre-schedule inpatient visits to prevent waiting room rush.</li> <li>• Regular trainings through webinar/ other if permissible</li> </ul>
Paramedical staff**	<ul style="list-style-type: none"> <li>• Schedule regular home visits for general assessments and delivering drugs and other supplies.</li> <li>• Maintain constant contact with old people via telephone or other online services.</li> <li>• Conduct online rehabilitation and health promotional sessions for patients and care takers.</li> <li>• Train patients to use telemedicine platforms with adequate grievance addressal</li> </ul>
Health Administration	<ul style="list-style-type: none"> <li>• Conduct training of staff to use new technology.</li> <li>• Using apps and software for managing patient visits, monitoring patient health, conducting teleconsultations and maintaining doctor patient interaction</li> <li>• Distribute tokens with numbers at windows or use automated kiosks.</li> <li>• Ensure adherence to the use of face masks and social distancing protocols within the premises.</li> <li>• Ensure uninterrupted supply of personal protection equipment &amp; other logistics.</li> <li>• Advertise policies widely using platforms that cater to the target user base in the catchment area of the hospital.</li> <li>• Develop a robust grievance redressal mechanism.</li> <li>• Wide publicity of helpline numbers and health messages/ instructions on social media and other mass media.</li> <li>• Longer prescription refills and doorstep delivery of medicines for non-communicable diseases</li> </ul>
Policy Makers	<ul style="list-style-type: none"> <li>• Provide medical and financial relief to the older population.</li> <li>• Invest in creating apps and software that can be used for free for telemedicine.</li> <li>• Develop and circulate (online and printed) health promotional material in native languages.</li> <li>• Advertise policy decisions and changes to the user base in a timely manner to reduce chaos.</li> <li>• Provide incentives to conduct geriatric medical research.</li> <li>• Creating more seats in MD Geriatrics for human resource development</li> </ul>
*Individual and caretaker- Assistance of the caretaker is important for navigating new technology. **nurses, physiotherapists Info. = Information, Govt. = Government, NGO=Non-Government Organisation	

### 1.6. Resuming the Senior Citizen Clinic :

The following table summarises the existing services provided and the suggested modifications in the Geriatric Clinics operating at different levels of the healthcare system (Table 3).

### 1.7 COVID Vaccination Drive :

The Central Drugs Standard Control Organisation (CDSCO) in India has granted an emergency use authorisation to two vaccines against COVID - Covishield® and Covaxin®. The Government of India started a phased vaccination drive with the higher risk groups being vaccinated on priority<sup>22</sup>.

As the geriatric population is among the first ones being vaccinated to reduce the mortality associated with the disease, the senior citizen clinics can serve as vaccination centres. Additional Information Education Communication (IEC) sessions can be held at the clinics to address any concerns and misconception about the vaccine.

### CONCLUSION

During the last one year, healthcare communication has transformed to allow younger individuals to adopt modern solutions but older people who form the largest user base of healthcare services, have been disproportionately challenged. They have been affected not only by a limitation of service but also hindered by restrictions in access and social marginalization. The full impact of the multiple whammies may become evident only in the coming months when we are likely to see continued smaller surges in cases as the virus adapts and transforms.

With the ongoing Second Wave and the possibility of subsequent waves in the near future, we can't expect the pre-covid healthcare infrastructure to work without the appropriate modifications. A phased resumption of healthcare services along with novel unprecedented infrastructure redevelopment of the existing models by

Table 3 — Services provided and modifications at different levels (Government)

Health Facility	Existing Services+	Suggested Modifications
Primary Health Centre	<ul style="list-style-type: none"> <li>• OPD Services</li> <li>• Home visits</li> <li>• Simple lab investigations</li> <li>• Supportive devices given.</li> <li>• Health education and promotion</li> </ul>	<ul style="list-style-type: none"> <li>• Ensuring strict adherence to face mask use and social distancing by the patient and the caregiver both.</li> <li>• Rapid antigen testing before physical consults for high suspicion patients.</li> <li>• Health educators and assistants to help patients become familiar with telemedicine.</li> <li>• Webinars to make patients comfortable with new technology.</li> <li>• Booking appointments over phone (both online and offline) and initiating helplines</li> <li>• Develop teams for home visits.</li> <li>• Omit mandatory visit to the doctor for patients who merely need prescription refills.</li> <li>• Early vaccination for patients and healthcare workers</li> <li>• Teleconsultation facility (one screen and internet connection)</li> </ul>
Community Health Centre	<ul style="list-style-type: none"> <li>• OPD Services</li> <li>• Physiotherapy</li> <li>• Home visits</li> <li>• Rehabilitation services</li> <li>• Supportive devices given</li> </ul>	<ul style="list-style-type: none"> <li>• Ensuring strict adherence to face mask use and social distancing by the patient and the caregiver both.</li> <li>• Rapid antigen testing before physical consults for high suspicion patients.</li> <li>• Encourage Home visits</li> <li>• Limit the need for doctor to consult merely for prescription refills.</li> <li>• Rehabilitation services can be shifted online.</li> <li>• Early vaccination for patients and healthcare workers</li> <li>• Teleconsultation facility (one screen and internet connection)</li> </ul>
District Hospitals	<ul style="list-style-type: none"> <li>• OPD Services</li> <li>• Physiotherapy</li> <li>• Indoor admissions</li> <li>• Supportive devices given</li> </ul>	<ul style="list-style-type: none"> <li>• Ensuring strict adherence to face mask use and social distancing by the patient and the caregiver both.</li> <li>• Rapid antigen testing before physical consults for high suspicion patients.</li> <li>• Online booking of appointments for consultations</li> <li>• Facilities for segregation of contagious patients</li> <li>• Robust biomedical waste management</li> <li>• Early vaccination for patients and healthcare workers</li> <li>• Teleconsultation facility (one screen and internet connection)</li> </ul>
Regional Geriatric Centres	<ul style="list-style-type: none"> <li>• OPD Services</li> <li>• Physiotherapy</li> <li>• Indoor admissions</li> <li>• Supportive devices given.</li> <li>• Lab investigations</li> </ul>	<ul style="list-style-type: none"> <li>• Ensuring strict adherence to face mask use and social distancing by the patient and the caregiver both.</li> <li>• Rapid antigen testing before physical consults for high suspicion patients.</li> <li>• Online booking of appointments for consultations</li> <li>• Facilities for segregation of contagious patients</li> <li>• Early vaccination for patients and healthcare workers</li> <li>• Teleconsultation facility (one screen and internet connection)</li> </ul>

+ According to the National Programme for Healthcare of Elderly (NPHCE)<sup>4</sup>

incorporating new innovative ideas using out-of-the-box thinking could ensure effective delivery to the older adults. New models would be needed to maintain social distancing while ensuring adequate delivery despite an increased demand from an already rapidly growing segment of the population.

#### REFERENCES

- 1 BBC News. Covid-19 in India: Why second coronavirus wave is devastating Internet2021 [updated 21 April 2021; cited 2021 31 May 2021]. Available from: <https://www.bbc.com/news/world-asia-india-56811315>.
- 2 Ranjan R, Sharma A, Verma MK — Characterization of the Second Wave of COVID-19 in India. 2021.
- 3 Ministry of Health & Family Welfare — National Programme For Health Care of the Elderly (NPHCE) Internet [updated 13 February 2019; cited 2020 1 November]. Available from: <https://main.mohfw.gov.in/major-programmes/other-national-health-programmes/national-programme-health-care-elderlynphce>.
- 4 Directorate General Of Health Services GoI. National Programme on Healthcare of Elderly Internet2017 [updated 15 March 2017; cited 2020 3 December]. Available from: [https://dghs.gov.in/content/1359\\_3\\_NationalProgrammeHealthCareElderly.aspx](https://dghs.gov.in/content/1359_3_NationalProgrammeHealthCareElderly.aspx).
- 5 Sazlina SG — Health screening for older people-what are the current recommendations? *Malays Fam Physician* 2015; **10(1)**: 2-10.
- 6 Moustakis J, Piperidis AA, Ogunrombi AB — The effect of COVID-19 on essential surgical admissions in South Africa: A retrospective observational analysis of admissions before and during lockdown at a tertiary healthcare complex. *S Afr Med J* 2020; **110(9)**: 910-5.
- 7 Coma E, Mora N, Méndez L, Benítez M, Hermosilla E, Fàbregas M, *et al* — Primary care in the time of COVID-19: monitoring

- the effect of the pandemic and the lockdown measures on 34 quality of care indicators calculated for 288 primary care practices covering about 6 million people in Catalonia. *BMC Family Practice* 2020; 21(1).
- 8 Perrotta F, Corbi G, Mazzeo G, Boccia M, Aronne L, D'Agnano V, *et al* — COVID-19 and the elderly: insights into pathogenesis and clinical decision-making. *Aging Clinical and Experimental Research* 2020; **32(8)**: 1599-608.
  - 9 Palmer K, Monaco A, Kivipelto M, Onder G, Maggi S, Michel J-P, *et al* — The potential long-term impact of the COVID-19 outbreak on patients with non-communicable diseases in Europe: consequences for healthy ageing. *Aging Clinical and Experimental Research* 2020; **32(7)**: 1189-94.
  - 10 Lim WS, Liang CK, Assantachai P, Auyeung TW, Kang L, Lee WJ, *et al* — COVID 19 and older people in Asia: Asian Working Group for Sarcopenia calls to action. *Geriatrics & Gerontology International* 2020; **20(6)**: 547-58.
  - 11 Philip J, Cherian V — Impact of COVID-19 on mental health of the elderly. *International Journal of Community Medicine And Public Health* 2020; **7(6)**: 2435.
  - 12 World Health Organisation — Maintaining essential health services: operational guidance for the COVID-19 context interim guidance [Internet]: World Health Organisation; 2020. Available from: <https://apps.who.int/iris/handle/10665/332240>.
  - 13 Chhetri JK, Chan P, Arai H, Park SC, Sriyani Gunaratne P, Setiati S, *et al* — Prevention of COVID-19 in Older Adults: A Brief Guidance from the International Association for Gerontology and Geriatrics (IAGG) Asia/Oceania Region. *The journal of nutrition, health & aging* 2020; **24(5)**: 471-2.
  - 14 Basu S — Non-communicable disease management in vulnerable patients during Covid-19. *Indian Journal of Medical Ethics* 2020; V(2).
  - 15 The Economic Times — 1077 will be Delhi's Covid-19 helpline number for senior citizens Internet2020 [updated 1 May 2020; cited 2020 4 December]. Available from: <https://health.economictimes.indiatimes.com/news/policy/1077-will-be-delhis-covid-19-helpline-number-for-senior-citizens/75482614>.
  - 16 Government of India — Enabling Delivery of Essential Health Services during the COVID 19 Outbreak: Guidance note. In: Ministry of Health and Family Welfare, editor. Internet 2020. p. 19.
  - 17 Mann DM, Chen J, Chunara R, Testa PA, Nov O — COVID-19 transforms health care through telemedicine: Evidence from the field. *Journal of the American Medical Informatics Association* 2020; **27(7)**: 1132-5.
  - 18 Murphy RP, Dennehy KA, Costello MM, Murphy EP, Judge CS, O'Donnell MJ, *et al* — Virtual geriatric clinics and the COVID-19 catalyst: a rapid review. *Age and Ageing* 2020; **49(6)**: 907-14.
  - 19 Digiovanni G, Mousaw K, Lloyd T, Dukelow N, Fitzgerald B, D'Aurizio H, *et al* — Development of a telehealth geriatric assessment model in response to the COVID-19 pandemic. *Journal of Geriatric Oncology* 2020; **11(5)**: 761-3.
  - 20 Cimperman M, Brenè MM, Trkman P, Stanonik MDL — Older Adults' Perceptions of Home Telehealth Services. *Telemedicine and e-Health* 2013; **19(10)**: 786-90.
  - 21 Help Age India — COVID-19 Emergency Response: Situation on Ground Internet2020 [updated n.d.; cited 2020 4 December]. Available from: <https://www.helpageindia.org/covid-19-emergency-response/>.
  - 22 Ministry of Health and Family Welfare GoI. Frequently Asked Questions Internet2021 [updated 25 March, 2021; cited 2021 31 March]. Available from: [https://www.mohfw.gov.in/covid\\_vaccination/vaccination/faqs.html](https://www.mohfw.gov.in/covid_vaccination/vaccination/faqs.html).

## Disclaimer

The information and opinions presented in the Journal reflect the views of the authors and not of the Journal or its Editorial Board or the Publisher. Publication does not constitute endorsement by the journal.

JIMA assumes no responsibility for the authenticity or reliability of any product, equipment, gadget or any claim by medical establishments/institutions/manufacturers or any training programme in the form of advertisements appearing in JIMA and also does not endorse or give any guarantee to such products or training programme or promote any such thing or claims made so after.

— *Hony Editor*