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Supporting Information

Additional supporting information may be found in the online version of this article at the publisher's website:

Supplementary Table 1 Patient characteristics

Supplementary Table 2 eGFR-related variables according to age categories

How to cite this article: Suzuki S, Yamashita T, Otsuka T, *et al.* Decline of estimated glomerular filtration rate has triphasic changes according to age. *Geriatr. Gerontol. Int.* 2020;20:844–846. <https://doi.org/10.1111/ggi.13999>

COMMENTS

Balancing infection control and frailty prevention during and after the COVID-19 pandemic: Introduction of the National Center for Geriatrics and Gerontology Home Exercise Program for Older People Home Exercise Program for Older People 2020

Dear Editor,

We read with great interest the article entitled “COVID-19 and older people in Asia: Asian Working Group for Sarcopenia calls to action”.¹ The authors summarized the challenges of and responses to the COVID-19 pandemic, along with its impact on older people in Asian countries. In addition, they proposed recommendations for older people that are germane to the Asian context. This is a very useful clinical review for older people who are prone to isolation from society and are rendered inactive by the pandemic. Omura *et al.* also described COVID-19-related problems from two perspectives: (i) physical effects, including

frailty and aggravation of age-related comorbidities; and (ii) psychosocial effects of COVID-19-induced changes.²

In many countries, the government requested that people stay home to prevent spread of the infection. Although the restrictions are gradually being eased considering their impact on the economy, many older people are still practicing physical distancing. To prevent infection, the Japanese government has recommended avoiding the three “Cs” (closed spaces, crowded places and close-contact settings), which has affected the lifestyle of older people. Indeed, according to Yamada *et al.*, who surveyed changes in the lifestyle of 1600 community-dwelling older people in Japan, the total time

spent engaging in physical activity in April 2020 had decreased by approximately 30% compared with that in January 2020.³

Physical inactivity is known to lead to frailty and sarcopenia in older people. To maintain the physical functioning and daily routine of older people for frailty prevention, the Japanese Geriatric Society has proposed eight recommendations addressing the following three points: (i) exercise and nutrition; (ii) oral function; and (iii) social support.⁴ From the perspective of infection control, it is difficult to provide rehabilitation services; thus, several remote rehabilitation services have been tested.⁵ These systems have been very useful during the COVID-19 pandemic. Although many electronic devices, and internet-based medical and welfare support tools have been developed, older individuals who rarely use the internet might have difficulty accessing these services.

Therefore, we have issued the National Center for Geriatrics and Gerontology Home Exercise Program for Older People (NCGG-HEPOP) 2020.⁶ The NCGG-HEPOP 2020 was created to support older people who cannot go out or are restricted from social activities. In addition to presenting various types of exercises

and activities, the flowchart (Fig. 1) can be used to determine the appropriate activity plans for the individual, so they can safely engage in appropriate activities to prevent mental and physical deterioration while isolating at home. In the NCGG-HEPOP 2020, we focused on physical function, nutrition and oral function. In addition, we included exercises and information to maintain eating and swallowing function, and cognitive function. The flowchart and exercise plans can be accessed by anyone from anywhere in the world, from the website of our hospital (<https://www.ncgg.go.jp/hospital/english/index.html>). For older people who cannot access the internet, we have prepared a way for families and caregivers to download and print the information, and we also distribute printed brochures.

The NCGG-HEPOP 2020 has just been issued, and it has received a very positive response from medical and welfare personnel. Considering the global situation during and after the COVID-19 pandemic, it is important to maintain the physical, oral and cognitive function of older people, while preventing infection. To this end, efforts should be made to clearly indicate

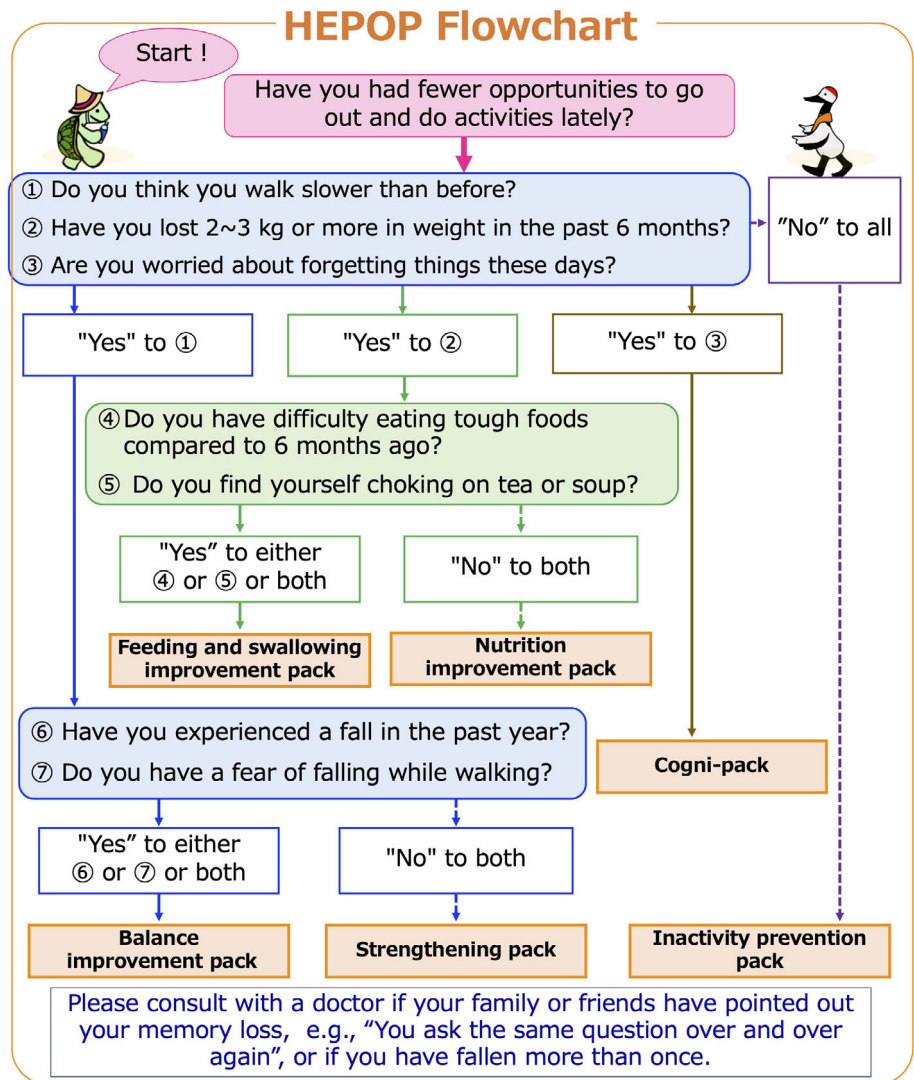





Figure 1 This flowchart can be used to determine which plan is most appropriate for individuals. First, the user should answer questions 1–3, and based on their responses to these questions, the subsequent questions indicated by the arrows should be addressed, to determine the appropriate exercise and activity pack for them. In some cases, such as when they answer yes to both 1 and 3, more than one appropriate pack can be selected for each answer.

Citation:
5-item self-report questionnaire for frailty (Yamada M, Arai H; J Am Med Dir Assoc. 2015 Nov 1; 16(11) : 1002.e7-11),
The questionnaire for elderly in the later stage of life / Kihon Checklist (Japan Ministry of Health, Labour and Welfare)

what older people should do, what is appropriate and to establish a system to directly disseminate such information to older people.

Disclosure statement

The authors declare no conflict of interest.

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How to cite this article: Osawa A, Maeshima S, Kondo I, Arai H. Balancing infection control and frailty prevention during and after the COVID-19 pandemic: Introduction of the National Center for Geriatrics and Gerontology Home Exercise Program for Older People Home Exercise Program for Older People 2020. *Geriatr Gerontol. Int.* 2020;20:846–848. <https://doi.org/10.1111/ggi.13991>