

## EDITORIAL

# COVID 19 AND RESIDENTIAL CARE HOMES IN HONG KONG

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### Introduction

It is known from the first outbreak in Wuhan China that serious illness and fatality occur with increasing age and co-morbidity. Therefore it is not surprising that outbreaks with high fatality rate occur in nursing homes or residential care settings, as is reported in many European countries and the United States (1, 2), where healthcare expertise and resource may be achievable. For middle and low income countries the situation may be worse. Hong Kong is a city of just over seven million people in China, 17.6% aged 65 and over, with 7% living in long term institutional care settings. Although it is a Special Administrative Region of China responsible for its own administration separate from that of China, the physical border with China is essentially porous, with many land, sea and air routes where high volumes of people move each day, many commuting to work or school across these points. The economy of Hong Kong is inseparable from that of China. Therefore it is surprising that not only is there no Covid 19 outbreak among residential care homes, but that no case has been reported among the residents.

### Experience of SARS in 2003

The experience of SARS in 2003 and subsequent measures to prevent outbreaks in the residential care setting was shown to be effective during this current COVID 19 outbreak. Severe acute respiratory syndrome (SARS) occurred in Southern China in November 2002 and spread to Hong Kong in February 2003. Over 4 months 1755 people were infected and 298 died in Hong Kong. The Prince of Wales Hospital was the Hong Kong epicentre and cases spread among older people on transfer to non-acute hospitals in the region. There was a steep learning curve regarding SARS in the elderly, such that geriatricians in Hong Kong took on the responsibility of raising awareness regarding the atypical presentation and implications for management (3). Nursing homes were regarded as the 'hotspots' for infection, as a result of crowded environment, low numbers of qualified staff, poor hygiene, and lack of medical support. Furthermore, residents were frail and were frequent users of hospital services and therefore exposed to increased risk of being infected and on return from hospital, spreading infection to other residents. Residents with dementia pose particular challenges due to poor compliance with wearing

masks and other infection control measures. A typical outbreak was documented by Ho et al (4).

### Current service structure since SARS with respect to infection control and response to Covid 19

Since that time, the Department of Health requires that each RCHE assign a member of staff to be responsible for infection control, to promote infection control policies such as hand hygiene training, mandatory reporting of a cluster of residents having fever, availability of isolation facilities etc. Evidence of absence of any infection is required for discharge from hospital back to RCHE. These measures are strengthened by the provision of community geriatric outreach teams (CGAT) led by a geriatric nurse and a geriatrician based in the regional hospital. Under this infrastructure many new geriatric service initiatives were developed (such as end of life care), and the foundation for a strong liaison between hospital and RCHE was built. Moreover individual RCHEs may employ visiting doctors from the private sector, who liaise with the CGAT teams.

With the current epidemic, anti-Covid 19 control measures include banning of visits by non-staff personnel; remote support by the CGAT team via telemedicine, with prescriptions being picked up by staff from regional hospitals. RCHE staff were trained in the use of personal protective equipment (a standard practice since SARS), and adequate supplies were ensured.

### Functional and psychological impact of anti-Covid 19 measures

Success in preventing outbreak comes at a cost of adverse consequences for older people as a result of anti covid 19 measures. These include depression, increased loneliness and social isolation, decline in physical and cognitive function and increase in dependency, since many services other than direct care were suspended. These undesirable consequences stimulated alternative solutions made available by development of technology. Interaction with family members were facilitated by mobile devices using Whatsapp video calls and transfer of images. These sessions require RCHE staff to set up, as most residents are very dependent.

The CGAT teams set up telemedicine using the zoom software to provide various types of services remotely (doctor

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and nurse consultations; wound and ulcer care with the aid of the camera function; physiotherapy and occupational therapy session). These sessions are particularly useful for psychogeriatricians as well as dermatologists. Remote interaction was made possible as a result of the widespread adoption of Wi Fi services, personal computers and mobile devices in RCHes. Feasibility and efficacy studies for these services had been documented over 20 years ago using a more expensive set up as a pilot study, using ISDN lines and Polycom teleconferencing equipment attached to a television (5-12). At that time in the absence of Wi Fi and other suitable software this mode of service was adopted by community geriatric teams briefly but was not sustainable due to high costs, and the studies remained largely proof of concept studies. Covid-19 provides a new impetus for the adoption of this method of service.

On a more positive note, COVID 19 will likely cause lasting changes in service delivery models in nursing homes in Hong Kong, towards wider adoption of technology to achieve better outcomes in spite of manpower limitations.

*Conflict of Interest:* The author declares no conflicts of interest.

### References

1. Cesari M, Proietti M. Editorial: Geriatric medicine in Italy in the time of COVID-19. *J Nutr Health Aging* 2020;24:459-460.
2. Le Couteur DG, Anderson RM, Newman AB. COVID-19 is a disease of older people. *J Gerontol A Biol Sci Med Sci* 2020.
3. Kong TK. SARS: Geriatric Considerations. In: Chan JCK, Taam Wong VCW, eds. *Challenges of Severe Acute Respiratory Syndrome*, 2006. Elsevier (Singapore) Pte Ltd, Singapore, pp 451-476.
4. Ho WW, Hui E, Kwok TC, Woo J, Leung NW. An outbreak of severe acute respiratory syndrome in a nursing home. *J Am Geriatr Soc* 2003;51:1504-1505.
5. Tang WK, Chiu H, Woo J, Hjelm M, Hui E. Telepsychiatry in psychogeriatric service: a pilot study. *Int J Geriatr Psychiatry* 2001;16:88-93.
6. Hui E, Woo J, Hjelm M, Zhang YT, Tsui HT. Telemedicine: a pilot study in nursing home residents. *Gerontology* 2001;47:82-87.
7. Chan WM, Woo J, Hui E, Hjelm NM. The role of telenursing in the provision of geriatric outreach services to residential homes in Hong Kong. *J Telemed Telecare* 2001;7:38-46.
8. Corcoran H, Hui E, Woo J. The acceptability of telemedicine for podiatric intervention in a residential home for the elderly. *J Telemed Telecare* 2003;9:146-149.
9. Lai JCK, Woo J, Hui E, Chan WM. Telerehabilitation - a new model for community-based stroke rehabilitation. *J Telemed Telecare* 2004;10:199-205.
10. Poon P, Hui E, Dai D, Kwok T, Woo J. Cognitive intervention for community-dwelling older persons with memory problems: telemedicine versus face-to-face treatment. *Int J Geriatr Psychiatry* 2005;20:285-286.
11. Chan WM, Woo J, Hui E, Lau WW, Lai JC, Lee D. A community model for care of elderly people with diabetes via telemedicine. *Appl Nurs Res* 2005;18:77-81.
12. Hui E, Lee PS, Woo J. Management of urinary incontinence in older women using videoconferencing versus conventional management: a randomized controlled trial. *J Telemed Telecare* 2006;12:343-347.