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EDITORIALS

Nursing homes: the titanic of cruise ships – will residential aged care facilities survive the COVID-19 pandemic?

The hallmark of a civilised society is how it treats its most vulnerable people, and our elderly are often amongst our most physically, emotionally and financially vulnerable. Frail and elderly members of our community deserve to, and should, be looked after in the best possible way. (The Hon Richard Tracey AM RFD QC, Chair of the Royal Commission into Aged Care Quality and Safety.)

Internationally residential aged care facilities (RACF) have emerged as 'ground zero' for coronavirus disease 2019 (COVID-19).[1] Residents often depend on prolonged close physical contact with caregivers, and many are cared for in close proximity to other residents. Facilities around the world are reporting overburdened, inadequately trained staff who may work at multiple facilities, increasing both their own risk of exposure and their capacity to transmit the highly contagious virus. The physical infrastructure of RACF seldom allows isolating and there are reports that appropriate isolation has occurred only after a significant number of deaths.[2] Finally, older people can present with atypical symptoms and those with cognitive impairment may be less able to communicate their symptoms leading to a delayed diagnosis.

More than 200 000 Australians currently live in RACF.[3] There are more than 2500 RACF in Australia, operated by private for-profit, government or community-based/charitable providers, funded by consumer contributions and $12.2 billion from the Australian Government annually.[4] Half of all facilities house over 60 residents.[3] In Australia there is no mandatory minimum qualification to work as a personal care worker in an RACF and there is no guarantee that a nurse will be on duty at all times.[4] Community concern about the care provided by the sector prompted the recent Royal Commission into Aged Care Quality and Safety (the Commission). In October 2019 the Commission released its Interim Report in which aged care in Australia was described as a 'Shocking Tale of Neglect'. The Commissioners found that a fundamental overhaul of design, objectives, regulation and funding of aged care in Australia is required.[4] This system now has to meet the challenge of COVID-19 with a funding increase of less than 3% to protect the most vulnerable Australians.[5]

RACF residents who are at risk of becoming infected are more likely to develop severe illness or die due to age, medical comorbidities and frailty. Data from overseas demonstrate between 24–84% of all deaths from COVID-19 have been residents of RACF, the large variation due to inconsistencies in testing and reporting.[6] Locally there have already been several outbreaks, the most significant of which at the time of writing was at Newmarch House in Sydney, with 37 residents and 34 employees infected, including 17 residents' deaths.[7] The cause of this outbreak is under investigation.

There are lessons from overseas experiences to prevent, prepare for and manage COVID-19 outbreaks in Australian RACF. Acknowledging that the physical environment and staffing of aged care facilities overseas varies, we have chosen to refer to all overseas facilities as RACF. One of the first recorded outbreaks in an RACF occurred in the US State of Washington.[8] Due to increasing numbers of cases almost all of the 82 residents at the facility were tested 14 days after the first case was identified. Of the 23 residents who tested positive, only 10 were symptomatic at the time of testing. A further 10 developed symptoms a week after testing. Widespread testing in Belgian RACF revealed that 73% of employees and 69% of residents who tested positive to COVID-19 were asymptomatic at the time of testing.[9] These studies suggest that strict infection prevention measures are needed even before a case of COVID-19 is identified clinically. Another US study demonstrated benefit from serial asymptomatic testing. Two asymptomatic cases were identified 2 weeks after transferring all residents with positive tests, excluding all staff who tested positive and implementing strict infection prevention measures.[10]

In Italy, authors from the Observatory of Long Term Care reported that public and government attention was directed towards acute hospitals with little attention given to RACF.[11] This group identified three main issues leading to failure to contain the outbreak: first, inadequate communication and management guidelines for RACF; second, delay in the provision of personal protective equipment (PPE) to the sector; and third, failure to control the spread of the virus within facilities. As of 30 April 2020, 95% of people who died due to COVID-19 in Italy were aged over 60.[12]

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However, there are no accurate data on the proportion of these that were RACF residents.

The UK government strategy to support RACF during the COVID-19 pandemic prioritised easing pressure on acute hospitals. Facilities were instructed to accept both new and returning residents despite their COVID-19 status and to institute appropriate infection prevention measures. The strategy included instruction on how to ensure adequate supply of PPE.[9] Despite this, RACF workers reported inadequate PPE supply in facilities that had accepted COVID-19 positive patients.[13] COVID-19 cases have occurred in over 2000 RACF in the UK with almost 15 000 deaths.[14]

Singapore appears to be a success story with very low transmission rates within facilities and only four deaths at the time of writing.[15] Measures employed to prevent spread include the restriction and pre-screening of visitors and reduction in unnecessary transfer of patients between health facilities. All employees of RACF have been tested for COVID-19 and testing of all residents is underway. Facilities have been instructed to refer all patients with fever and respiratory illness to acute hospitals where they are isolated while awaiting testing. Documentation is required to confirm that returning residents do not have COVID-19. Over 2500 staff have been accommodated in hotels to reduce their interaction with the community and therefore their risk of exposure.

At present there have been no infections or deaths in RACF in Hong Kong. Officials have postponed all non-urgent medical services, supplied all facilities with PPE at no cost and restricted residents' movements within facilities.[16] A special allowance has been paid for workforce support, recognising more staff are required due to decreased family care visits and to account for increased sick leave during the pandemic. Each facility has a trained 'infection controller' who oversees infection prevention.[14] Residents who have attended hospitals are unable to return until they have undergone a strict quarantine.

As social and physical distancing changes, there is an urgent question of how to protect and care for Australian aged care residents. The Communicable Diseases Network Australia has released National Guidelines for the Prevention, Control and Public Health Management of COVID-19 Outbreaks in Residential Care Facilities.[17] The guidelines state that it is the primary responsibility of the RACF to manage a COVID-19 outbreak. The vast majority of RACF in Australia are private entities but holding individual facilities primarily responsible must be interpreted in the context of the Commission's recent finding of a system that 'lacks transparency in communication, reporting and accountability',[4] three essential features of disease outbreak management. The guidelines clarify that 'state health authorities will act in an advisory role to assist RACF to detect, characterise and manage COVID-19 outbreaks'.[17] This is profoundly inadequate due to the high rate of asymptomatic transmission and the limited capacity of RACF to manage outbreaks. There is currently no enforcement of the sector's compliance with published guidelines and there are concerns that visitor restrictions have further reduced oversight of the sector.

There are concerns about the sector's ability to care for sick and dying residents, as highlighted by disturbing international reports of RACF residents being left abandoned or dead in facilities.[16] The Commission's Interim Report comments on inadequate staffing leading to 'basic standards often not being met', a concerning finding when health facilities are expecting absenteeism of up to 30% at the peak of an outbreak.[4] There are also concerns about how RACF will care for confused, wandering or aggressive COVID-19 patients given the high rates of restrictive practices described in the Commission's Interim Report.

Suggestions to prevent, prepare for and manage a COVID-19 outbreak

Our discussion focusses on suggested changes to the workforce, testing and location of care.

Workforce

Current workforce practices in the aged care sector present challenges for prevention and management of COVID-19 in RACF. Overseas experience suggests that staff should only work at one facility and should not be involved in community care. If this is not possible, staff should be required to complete a register of all facilities at which they work. A centralised government-funded pool of appropriately trained staff skilled in both infection prevention and care of the elderly would have been useful to deploy at Newmarch House during the outbreak as many of their staff were required to quarantine.[18] All RACF staff must receive education about the importance of not attending work while unwell and should have access to paid sick leave if required to quarantine including those employed on a casual or temporary basis.

Testing

There needs to be widespread testing with a low threshold to test and accessible on-site testing. If a single case

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of COVID-19 is confirmed, all staff and residents should be tested regardless of symptom status. Consideration should be given to testing of asymptomatic staff even in the absence of a case. Testing of asymptomatic residents could also be considered. Use of contact and droplet precautions for all residents should be implemented when a resident has been tested until results are available. Because of this, there must be centralised coordination of PPE acquisition and delivery to ensure each facility has a stockpile of appropriate PPE available on site. All staff require frequent training in the use of PPE including simulating care in isolation rooms.

Location of care

Current Australian guidelines recommend transfer of a RACF resident to hospital only if the resident's condition requires it. This recommendation is now worth reconsidering for two reasons. First, it is clear from international experience that inadequate outbreak management in an RACF is likely to lead to high mortality and broader community transmission. This may lead to a higher burden on hospitals than accepting the care of RACF residents with suspected or confirmed COVID-19. Second, our acute care setting now has additional capacity and far greater expertise in infection prevention and management than RACF.

There are three options for management of COVID-19 infections in RACF residents. The first is to transfer all suspected or confirmed COVID-19 cases to an acute hospital setting. This overcomes the limitations of the physical infrastructure of RACF and places the burden of prevention of spread of infection on expert services. The potential harm to the individual (i.e. falls and delirium in an unfamiliar hospital environment) must be balanced against benefit to the community. When reviewing advanced care plans with residents, health care workers should make residents and their families aware of their facility's capacity to isolate them effectively in the event of acquiring COVID-19 so that any transfer to hospital is anticipated. The South Australian Government has recently announced that all COVID-19 positive residents will be transferred immediately to hospital by ambulance. They have considered Advanced Care Directives as not binding in the event of a pandemic emergency.[19] Residents confirmed to have COVID-19 could remain in hospital until they have completed their isolation period unless the health service and RACF are confident they can be effectively isolated at the RACF.

Two other options could be considered if the health care system were to become overwhelmed and rationing required limiting access to hospitals: cohorting to specific COVID-19 facilities and cohorting within the resident's own RACF. Both would require a highly trained, mobile workforce available to be deployed at the beginning of an outbreak. Cohorting to a specific COVID-19 facility would require exposing residents to new unfamiliar environments as they would be if transferred to hospital. Cohorting infected residents within their own facility would not completely remove the risk they pose to other residents. There are multiple examples now that local cohorting places a vulnerable population at great risk for significant morbidity and mortality. Should our health services be overwhelmed by a pandemic wave, specialist facilities established in collaboration with hospital services could care for COVID-19 positive residents.

Conclusion

RACF are required to provide skilled care for a unique, highly dependent population, making physical distancing impossible. Facilities have not been designed with infection prevention strategies in mind and staffing ratios are highly variable. The catastrophic outcomes of this infection in RACF around the world parallel the outcomes seen from cruise ships and urgent action is required to protect RACF residents, workers and the community at large.

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