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Achieving Safe, Effective, and **Compassionate Quarantine or Isolation of Older Adults With Dementia in Nursing Homes**

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ABSTRACT

Nursing homes are facing the rapid spread of COVID-19 among residents and staff and are at the centre of the public health emergency due to the COVID-19 pandemic. As policy changes and interventions designed to support nursing *homes are put into place, there are barriers to implementing a fundamental,* highly effective element of infection control, namely the isolation of suspected or confirmed cases. Many nursing home residents have dementia, associated with impairments in memory, language, insight, and judgment that impact their ability to understand and appreciate the necessity of isolation and to voluntarily comply with isolation procedures. While there is a clear ethical and legal basis for the involuntary confinement of people with dementia, the potential for unintended harm with these interventions is high, and there is little guidance for nursing homes on how to isolate safely, while maintaining the buman dignity and personbood of the individual with dementia. In this commentary, we discuss strategies for effective, safe, and compassionate isolation care planning, and present a case vignette of a person with dementia who is placed in quarantine on a dementia unit. (Am J Geriatr Psychiatry 2020; 28:835 -838)

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INTRODUCTION

 ${f R}$ esidents of nursing homes account for a disproportionate number of COVID-19 related deaths, making up half of all COVID-19 related deaths in Western countries.¹ In Canada, the most recent data shows a 26% case fatality rate in nursing home residents.² One driver of the transmission of the virus in nursing homes has been delays in implementing appropriate infection control protocols.³ We know that achieving effective quarantine or isolation is challenging in residents with dementia, whose compromised cognitive functioning, insight, and judgment impact their capacity to voluntarily comply with restrictions. In this commentary, we will discuss important barriers to achieving isolation in this population, including the need for ethical and clinical frameworks to guide rapid and decisive decisionmaking. We also provide a case vignette illustrating an approach to safe, effective, and compassionate quarantine of an older adult with dementia.

Quarantine and isolation are highly effective tools in the control of contagious disease,⁴ but they have been difficult to implement effectively in nursing homes. A pre-pandemic systematic review identified that some common features of outbreaks in nursing homes are delay in the implementation of control measures, and insufficient application of isolation and cohorting.⁵ In particular, the perception that infection control practices are in conflict with quality of life goals and the rights of the resident are an important barrier to their effective use.⁶ Several features of the COVID-19 infection-the duration of the incubation period, asymptomatic spread, and atypical presentations in older adults-represent challenges to infection control in nursing homes. Isolating and screening nursing home residents based on symptoms alone would fail to identify approximately half of residents with COVID-19.7 Widespread screening in nursing homes may be required, which will identify both symptomatic and asymptomatic COVID-19-positive residents who need to be isolated. Nursing home staff is experiencing moral distress due to the potential harms associated with isolation of residents, as well as the severe consequences if these infection control measures are not effectively implemented.

Healthcare providers in nursing homes thus require substantial moral resilience and courage during these pandemic times, which can be fostered by ethical capacity building and institutional supports.^{8,9} From an ethical

perspective, the context of a pandemic shifts priorities toward the protection of a population (in this case, the other residents and staff), while providing safeguards for individual rights. Principles used to balance the individual rights with collective safety include use of the least restrictive alternative to achieve effective infection control, addressing fairness and justice, and providing transparency and accountability in decision making to maintain public trust.¹⁰ These public health principles are in contrast to the principles which have guided dementia care best practices over the past few decades, with a focus on relational ethics and the ethics of care, and emphasizing trust and responsiveness within the individual therapeutic relationship.^{11,12} The use of an ethical framework addressing these conflicts can help to support and guide ethical decision-making.¹³

Anecdotally, we have heard that uncertainty about nursing home regulations, fear for staff safety in trying to isolate residents, and lack of specific guidance about how to isolate residents, have contributed to nursing homes failing to react decisively to isolate residents with dementia. While international guidance has been consistent in recommending isolation of residents of nursing homes with confirmed or suspected COVID-19,¹ none of these guidelines directly address the practical challenges faced when trying to isolate people with dementia effectively while maintaining their safety and human dignity.

There are several important gaps to address here. First, clinical guidance is needed for the development of isolation care plans that address the personhood needs of the isolated resident and that incorporate safeguards to minimize any harms. Second, there is a need for guidance about the use of pharmacological management, seclusion, and physical restraint measures when less restrictive measures have failed. In the case vignette, we describe the safe and effective use of some of these measures and the steps taken to minimize harm, in a well-resourced setting. Staffing shortages, lack of training, and lack of resources place residents at higher risk of harm from more restrictive interventions, including the risk of falls and injuries, stroke, deconditioning, skin breakdown, blood clots, and death. Overall, there is a need to have an urgent investment in staffing and training, and additional resources provided to the nursing home sector to support the effective use of necessary infection control measures.

In summary, nursing homes that have not yet been impacted by COVID-19 have a narrow window of opportunity to prepare for the isolation of residents with dementia. Front-line staff are looking to their leadership and government bodies now to help staff plan and prepare to implement effective infection control measures as safely and compassionately as possible.

CASE VIGNETTE

Mrs. X, a 65-year-old woman with frontotemporal dementia was admitted to a tertiary dementia behavioral unit. In her nursing home, she would closely follow staff and residents while making loud, perseverative vocalizations. She was large, healthy, strong, and intimidating. Seven days after admission, her nursing home confirmed COVID-19 infection in several residents and staff, including a nurse with direct contact with Mrs. X. While Mrs. X was asymptomatic, the hospital's guidelines stipulated that COVID-19 exposed individuals should be quarantined for 14 days (7 days of which remained). We informed her substitute decision-maker of the necessity of quarantine and obtained consent for all measures. Mrs. X had an initial negative COVID-19 swab.

The treatment team developed an "isolation care plan" using what was known about Mrs. X. The plan included providing math worksheets and coloring pages, and playing movies and music on a tablet. Signs were posted in her room for orientation.¹⁴ From noon to 8 P.M., an additional nurse was assigned to her, which served to minimize staff exposed and personal protective equipment (PPE) use.

It became clear that Mrs. X was unable to consistently isolate voluntarily in her room, despite frequent interaction with her nurse and other staff. Due to her size and strength, she could not be prevented by staff from leaving the room. Seclusion was not possible: the door could be unlocked from inside the room. A door exit alarm¹⁵ was used to notify us if she was leaving or another resident was entering the room, but staff responding to the alarm were often faced with directing Mrs. X without time to don PPE. Given that less restrictive measures were not consistently effective, the decision was made to use pharmacological measures and physical restraints when necessary. At the times she could not be directed to stay in her room, Mrs. X was restrained in a geriatric recliner using a pelvic holder with three staff in PPE required to safely initiate restraint. A tray table allowed her to engage in her preferred activities and to hold snacks and drinks. In keeping with hospital policies, she was restrained at intervals no longer than 2 hours, and she was monitored and socially engaged by staff every 15 minutes for the first hour and every 30 minutes thereafter. If she fell asleep, she was assisted into bed. From the perspective of pharmacological management, her antipsychotic medication was changed to a more sedating agent, loxapine 5 mg BID, and increased to 10 mg BID 3 days later, with loxapine 5 mg used as needed.

Over the 7-day period of quarantine, she received 16 doses of as needed loxapine, and was restrained for 14 hours (13% of waking hours). Her final COVID-19 swab was negative. The isolation restrictions ended and Mrs. X was able to move freely around the unit. There were no obvious physical or psychological consequences of the quarantine.

AUTHOR CONTRIBUTIONS

AI conceived the idea and wrote the manuscript. AC, MM, KR, CM, MAG, HQ, KR, and RK were involved in the review of the case, collected material for the report, and contributed to the writing of the manuscript.

DISCLOSURE

The authors report no conflicts with any product mentioned or concept discussed in this article.

References

- 1. Comas-Herrera A, Zalakain J. Mortality associated with COVID-19 outbreaks in care homes: early international evidence. LTCcovid.org, International Long-Term Care Policy Network, CPEC-LSE [Internet]. 2020, Accessed April 16, 2020. Available at: LTCcovid.org
- Hsu AT, Lane NE, Sinha SK, Dunning J, Dhuper M, Kahiel Z, Sveistrup H. Report: Understanding the impact of COVID-19 on residents of Canada's long-term care homes — ongoing

challenges and policy responses. Article in LTCcovid.org, International Long-Term Care Policy Network, CPEC-LSE, 2020, Accessed May 11, 2020

- McMichael TM, Currie DW, Clark S, et al: Epidemiology of Covid-19 in a long-term care facility in King County, Washington. N Engl J Med 2020, Available at doi.org/10.1056/NEJMoa2005412
- 4. Koo JR, Cook AR, Park M, et al: Interventions to mitigate early spread of SARS-CoV-2 in Singapore: a modelling study. Lancet

Infect Dis 2020, Available at doi.org/10.1016/S1473-3099(20) 30162-6

- Lee MH, Lee GA, Lee SH, Park YH: A systematic review on the causes of the transmission and control measures of outbreaks in long-term care facilities: back to basics of infection control. PLoS One 2020; 15:e0229911
- Cohen CC, Pogorzelska-Maziarz M, Herzig CT, et al: Infection prevention and control in nursing homes: a qualitative study of decision-making regarding isolation-based practices. BMJ Qual Saf 2015 Oct; 24:630–636
- Kimball A, Hatfield KM, Arons M, et al: Asymptomatic and Presymptomatic SARS-CoV-2 Infections in Residents of a Long-Term Care Skilled Nursing Facility — King County, Washington, March 2020. MMWR Morb Mortal Wkly 2020: 377–381
- Rushton CH: Cultivating moral resilience. Am J Nurs 2017; 117(2 Suppl 1):S11–Ss5
- 9. Murray CJS.Moral courage in healthcare: Acting ethically even in the presence of risk. Online J. Issues Nurs. 2010, 15.

- Gostin LO, Bayer R, Fairchild AL: Ethical and legal challenges posed by severe acute respiratory syndrome: implications for the control of severe infectious disease threats. JAMA 2003; 290:3229–3237
- 11. Barnes M, Brannelly T: Achieving care and social justice for people with dementia. Nurs Ethics 2008; 15:384-395
- **12.** Daly L, Fahey-McCarthy E: Re-examining the basis for ethical dementia care practice. Br J Nurs 2014; 23:81–82, 4-5
- 13. Dementia Toolkit Working Group [Internet]. Ethical guidance for people who work in long-term care: what is the right thing to do in a pandemic? 2020. Accessed April 24, 2020. Available at: https://brainxchange.ca/Public/Files/COVID-19/Ethical-Guidance-for-LTC-v1-4-23-20.aspx
- COVID-19 Resources [Internet]. Dementiability; c2016. Accessed April 16, 2020. Available at: https://www.dementiability.com/COVID-19-Resources
- smartcaregiver.com [Internet]. Fall prevention and anti-wandering; c2020. Accessed April 16, 2020. Available at: http://smartcaregiver.com/