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Barker, RO, Astle, A, Spilsbury, K [orcid.org/0000-0002-6908-0032](https://orcid.org/0000-0002-6908-0032) et al. (1 more author)  
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**COVID-19 testing during care home outbreaks: the more the better?**

Journal:	<i>Age and Ageing</i>
Manuscript ID	Draft
Manuscript Category:	Editorial
Subject Section:	Care homes, Covid-19
Keywords:	Care home, COVID-19, Mass testing, Long-term care facility, Older people
Keypoints:	More than a year into the pandemic, COVID-19 testing remains of vital importance in care homes, When to initiate mass testing and robust infection prevention/control measures for suspected care home outbreaks is not clear, Earlier triggering of rigorous outbreak control measures could benefit residents/staff, but creates opportunity costs, Failure to engage care homes in policy development can generate a mismatch between guidance and what is feasible, Without a system-wide approach to support care homes, more rigorous outbreak control measures may be a burden on staff/residents

## COVID-19 testing during care home outbreaks: the more the better?

COVID-19 testing has been an important focus of the pandemic response in care homes. In a recent issue of *Age and Ageing*, Tang et al. advocate mass testing following a single suspected or confirmed case of COVID-19 infection amongst residents, staff or visitors, in conjunction with robust infection prevention and control (IPC) measures, as a means to mitigate further COVID-19 transmission in UK care homes [1]. Current UK policy considers that two positive or suspected cases of COVID-19 amongst residents or staff is required to constitute an outbreak [2]. In response, care homes are advised to contact the local Health Protection Team; polymerase chain reaction (PCR) testing is required for residents and staff on day 1 of the outbreak, to be repeated between days 4 to 7 for those with an initial negative result [2]. A policy change to the triggering of rigorous outbreak control measures after one suspected or confirmed case, would escalate the testing intensity for residents and staff.

Intensive testing regimens to identify COVID-19 outbreaks promptly could have an important public health role, benefiting care home residents and staff. Earlier triggering of rigorous COVID-19 testing protocols would give homes more time to respond. Anticipating workforce pressures, 'zoning' of COVID-19 positive residents in particular parts of the care home to minimise transmission, and discussing advance care plans with residents and relatives all take time. Care home staff could be better placed to monitor COVID-19 positive residents closely for signs of deterioration.

Tang et al. suggest that by the time the first resident is suspected of having COVID-19 or tests positive, the virus is already spreading silently within the care home [1]. Even at this point, a high proportion of residents and staff are likely to have been exposed, and a surge of positive results may be inevitable. The authors propose that the mass testing of residents and staff after only one suspected or confirmed COVID-19 infection could help to minimise the impact of an outbreak [1]. However, even at this stage, the chance to prevent a significant outbreak may have been missed. An outbreak may be inevitable regardless of mass testing or enhanced IPC measures.

COVID-19 outbreaks in care homes can escalate rapidly. Soon after the first suspected or confirmed infection, care home teams can find themselves facing a depleted workforce due to large numbers of staff obliged to self-isolate. At the same time, staff are caring for a high number of acutely deteriorating residents, as they are susceptible to severe COVID-19 disease [3,4], and frequently require end-of-life care [5]. Mass testing and enhanced IPCs during an outbreak could put an impossible burden on care homes.

Tang et al. argue that robust IPC measures during an outbreak could play an important role in mitigating further COVID-19 transmission [1]. However, it is unclear how effectively such measures

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3 can be implemented in the care home sector, with homes varying in size, layout and resident  
4 population. For example, residents with dementia may 'wander with purpose,' making strict infection  
5 control measures, such as isolation and 'zoning,' impractical and ineffective [6].  
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9 For a policy of rigorous testing protocols at the early stages of a suspected outbreak to be effective,  
10 outbreak control measures need to be feasible for care home teams. The low levels of adherence to  
11 routine staff testing and the associated burden [7] may be magnified for residents. The practical  
12 reasons resulting in two out of four care homes not completing follow-up testing for residents in the  
13 study by Tang et al. are not known [1]. Residents may be resistive to testing and distressed by the  
14 process [6]. The time taken for carers to perform mass testing on residents and themselves [6] is also  
15 an important opportunity cost to mass testing.  
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21 The toll of the COVID-19 pandemic on care home residents, their families, and staff has been  
22 immeasurable [5,8]. The earlier triggering of rigorous outbreak protocols may result in unnecessary  
23 alarm and anxiety for residents and staff and lead to further visiting restrictions, which have already  
24 had a detrimental impact on the wellbeing of residents, families and staff during the pandemic.  
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29 During the early stages of the pandemic, guidance for care homes on COVID-19 outbreak management  
30 and the absence of widespread testing for residents and staff was an important problem [5,8]. A  
31 coherent strategy to COVID-19 outbreaks in care homes could have made the difference between  
32 rapid, effective responses that are tailored to residents and staff, and the high rates of infection and  
33 mortality amongst residents that have been the hallmark of the COVID-19 pandemic.  
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38 More than a year into the pandemic, guidelines are rapidly evolving and the landscape of COVID-19  
39 outbreak control, testing and IPC is changing with the widespread vaccination of residents and staff,  
40 lower COVID-19 incidence but emerging novel variants. Unfortunately, there is ongoing concern  
41 within the care home sector about the extent to which care home providers and senior staff are  
42 engaged with the development of guidelines. This results in a mismatch between what is written in  
43 the guideline and what is feasible for care homes teams. Policies to date place excessive onus on care  
44 homes to implement their own policies and procedures for managing evolving COVID-19 outbreaks  
45 without additional support or financial resource. This leaves care providers with uncertainties [9] and  
46 a feeling of vulnerability to external scrutiny.  
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53 There is an important role for mass testing and IPCs as COVID-19 outbreak control measures,  
54 highlighted by Tang et al [1]. However, without political will, resources and a system-wide approach  
55 to supporting care homes to meet increased demands, advocating more extensive testing and IPC  
56 measures is unlikely to achieve the public health aims. It may even compound the distress already  
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3 experienced by staff and residents. Going forward, care homes are searching for ways to live with  
4 COVID-19. It is more important than ever that policies place care homes at the centre of any changes,  
5 and interventions are consistent with the priorities of people who live and work in care homes.  
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