



Public Health
England

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Weekly Care Homes Evidence Digest

Prevention and control of COVID-19 in home care/care homes settings
28th January 2021

Summary

This weekly digest contains a selection of evidence published in the last 7 days, in relation to the prevention and control of COVID-19 in home care/care home settings. We search a number of Covid-19 review repositories, an existing PHE Covid-19 evidence digest, Ovid Medline and Embase, Social Care Online, medRxiv (pre-print server) and various websites. We select peer reviewed and non-peer reviewed publications (pre-prints), as well as systematic reviews, guidance and evidence summaries.

The digest is produced by PHE **Knowledge and Library Services** (KLS), in conjunction with a small editorial team.

We do not accept responsibility for the availability, reliability or content of the items included in this resource and do not necessarily endorse the views expressed within them. Our intent is to highlight early emerging research findings as well as research that has been subject to peer review and wider scrutiny.

This week's digest includes: from USA, further evidence of waning natural immunity following infection with SARS-CoV-2 among long term care residents; evidence for lower mortality from COVID-19 in smaller non-traditional nursing homes; and impact of non-pharmaceutical interventions and isolation of asymptomatic carriers in reducing transmission of SARS-CoV-2 in nursing homes. From the UK, an evaluation of the use of point of care tests as part of COVID-19 testing regimens in care homes; further evidence of the extent of silent transmission of SARS-CoV-2 in care homes; evidence of disease-specific differences in susceptibility to COVID-19 in people with chronic neurodegenerative disorders; and further evidence of the impact of lockdowns on the mental health of home carers. Finally, summaries of other recently published reports, guidance and statistics.

Peer-Reviewed Articles

Publication date	Title / URL	Journal / Article type	Digest
22.01.2021	<p>“Getting back to normality seems as big of a step as going into lockdown”: The Impact of the COVID-19 Pandemic on People with Early-Middle Stage Dementia</p>	Age and Ageing / Study	<ul style="list-style-type: none"> • Study examines how COVID-19 pandemic has impacted lives of people with early-middle stage dementia, and what longer-term impacts may result. • 19 people with dementia were interviewed and thematic analysis generated five themes: 1) The forgotten person with dementia; 2) Confusion over government guidance; 3) Deterioration of cognitive function; 4) Loss of meaning and social isolation; 5) Safety of the lockdown bubble. • Findings suggest that the pandemic has accelerated the “shrinking world” effect and created a tension in how people with dementia perceive the outside world. • Participants felt safe and secure in lockdown but also missed the social interaction, cognitive stimulation, and meaningful activities that took place outdoors. • As time in lockdown continued, individuals experienced a loss of confidence and were anxious about their ability to re-engage in everyday practices that allow them to participate in society. • The authors recommend ways the government, communities, and organisations might counteract some of the harms posed by this shrinking world
22.01.2021	<p>COVID-19 testing in English care homes and implications for staff and residents</p>	Age and Ageing / Study	<ul style="list-style-type: none"> • Study evaluated current testing pathways in care homes to explore the role of point-of-care tests (POCTs). • Four main steps were identified in testing: infection prevention, preparatory steps, swabbing procedure, and management of residents. Infection prevention was particularly challenging for mobile residents with cognitive impairment. Swabbing and preparatory steps were resource-intensive, requiring additional staff resource. Swabbing required flexibility and staff who were familiar to the resident. Frequent approaches to residents were needed to ensure they would participate at a suitable time • Swab-based testing is organisationally complex and resource-intensive in care homes. It needs to be flexible to meet the needs of residents

			and provide care homes with rapid information to support care decisions. POCT could help address gaps but the complexity of the setting means that each technology must be evaluated in context before widespread adoption in care homes.
22.01.2021	Decreased volume of hip fractures observed during COVID-19 lockdown	European Geriatric Medicine / Study	<ul style="list-style-type: none"> • Paper investigates whether number and characteristics of hip fractures changed during COVID-19 lockdown • Socio-demographic characteristics and baseline status of patients suffering hip fractures during COVID-19 lockdown were similar, but the volume of hip fractures admitted dropped by nearly one quarter • Concludes effect of the COVID-19 pandemic fragility hip fractures may depend on the incidence of the disease itself, as well as on the severity of lockdown measures
22.01.2021	Infection and transmission of SARS-CoV-2 in London care homes reporting no cases or outbreaks of COVID-19: prospective observational cohort study, England 2020	Lancet Regional Health – Europe / Study	<ul style="list-style-type: none"> • Investigates potential role of asymptomatic infection and silent transmission in London care homes that reported no cases of COVID-19 during the first wave of the pandemic • Five care homes with no cases and two care homes reporting a single case of COVID-19 (non-outbreak homes) were investigated with nasal swabbing for SARS-CoV-2 RT-PCR and serology for SARS-CoV-2 antibodies five weeks later • Study found high rates of asymptomatic infection and transmission even in care homes with no COVID-19 cases: 16 individuals (13 residents, 3 staff) in five care homes with no reported cases were RT-PCR positive (care home positivity rates, 0 to 7.6%) compared to 13 individuals (3.0 and 11.1% positivity) in two homes reporting a single case • Seropositivity across these seven homes varied between 10.7-56.5%, with four exceeding community seroprevalence in London (14.8%). Seropositivity rates for staff and residents correlated significantly (rs 0.84, [95% CI 0.51-0.95] p <0.001) across the 13 homes • Higher seropositivity rates compared to RT-PCR positivity highlights the true extent of the silent outbreak

<p>22.01.2021</p>	<p>“We have become prisoners of our own age”: From a continuing care retirement community to a total institution in the midst of the COVID-19 outbreak</p>	<p>Age and Ageing / Study</p>	<ul style="list-style-type: none"> • Study explores personal experiences of continuing care retirement communities residents during the lockdown in Israel • In-depth interviews were conducted with 24 CCRC residents from 13 different CCRCs and thematic analysis of transcripts was conducted, identifying three major themes: (1) Others are Worse Off - constant attempts to compare their situation to that of others; (2) Power Imbalance - between older adults and the staff and management in the setting; (3) We have Become Prisoners of our own Age - strong emotions of despair, depression and anger • Authors conclude the measures imposed on residents by managements of CCRCs during the lockdown, and the emotional responses of distress among some of the residents, revealed that CCRCs have components of total institutions, not normally evident. This underscores the hidden emotional costs of the lockdown among those whose autonomy was compromised.
<p>22.01.21</p>	<p>Follow-up services for delirium after COVID-19—where now?</p>	<p>Age and Ageing / Study</p>	<ul style="list-style-type: none"> • Authors note delirium is a common presentation in older inpatients with COVID-19, and a risk factor for cognitive decline at discharge. They contend gaps in service provision in delirium care, regardless of aetiology, after a hospital admission existed prior to the pandemic but the current situation provides opportunity to address them, and patients might benefit from personalised care and support planning. • Study asserts there is no evidence base suggesting delirium following COVID-19 is fundamentally different from any other delirium. Authors propose needs of older patients who have experienced delirium including from COVID-19 could be addressed through a new model of post-acute delirium care combining early supported discharge, including discharge-to-assess, with community-based follow-up to assess for persistent delirium and early new long-term cognitive impairment
<p>23.01.2021</p>	<p>Caregiving in Quarantine: Evaluating the Impact of the Covid-19 Pandemic on Adult Child Informal Caregivers of a Parent</p>	<p>Gerontology and Geriatric Medicine / Study</p>	<ul style="list-style-type: none"> • Study investigates differences in subjective burden before and during the Covid-19 pandemic among adult children who are primary informal caregivers of a parent. Additionally, this study explored family composition to determine if the presence of siblings or dependent children affected burden scores • Analysis identified significantly more burden since the onset of the Covid-19 pandemic when compared to pre-pandemic burden

			<ul style="list-style-type: none"> • Those with living siblings reported less burden than those without siblings, while there was no difference in burden between sandwich generation caregivers and those providing care only for a parent
23.01.2021	Psychiatric symptoms during the COVID-19 outbreak in older adults with bipolar disorder	International Journal of Geriatric Psychiatry / Study	<ul style="list-style-type: none"> • Older adults with bipolar disorder (OABD) are vulnerable for a COVID-19 infection via multiple pathways. It is essential for OABD to adhere to the COVID-19 measures, with potential consequences for the psychiatric symptoms • This study included 81 OABD patients aged over 50 years. Factors measured at baseline in patients that participated in 2017/2018 were compared with factors measured during the COVID-19 outbreak • Participants experienced less psychiatric symptoms during COVID-19 than at baseline. Not having children, more feelings of loneliness, lower mastery, passive coping style and neuroticism were associated with more psychiatric symptoms during COVID-19 measure • Authors' results indicate promising targets for psychological interventions aimed at curing and preventing recurrence in OABD and improving quality of life in this growing vulnerable group
23.01.2021	Durability of SARS-CoV-2 IgG Antibody Among Residents in a Long-Term Care Community	Journal of the American Medical Directors Association / Study	<ul style="list-style-type: none"> • Reports on study to assess durability of COVID-19 antibody response in a long-term care population in Boston, USA, from the time of initial infection over a six month period • Of thirty residents in a single long-term care unit who were all negative by PCR at baseline, twenty-four were infected with COVID-19 during April 2020. Hospitalization was required in 11 patients (46%), and 8 patients (33%) died. Of these twenty-four COVID-19 positive patients, fifteen had antibody testing performed • during the six-month study; nine were unavailable for testing • Among the fifteen COVID-19 positive residents with antibody testing performed, three had tests in 1-6 days from the time of infection diagnosis and all three had negative results. By days 7-14, all residents who were tested had antibodies detected. By six months, ten out of eleven residents tested still had detectable antibodies, although the index value was lower for all

			<ul style="list-style-type: none"> • Every resident followed a similar pattern, with peak response at thirty to forty-five days and declining response thereafter. Authors conclude durability of response to natural infection in this vulnerable population clearly wanes over time, further magnifying the importance of the vaccination effort
25.01.2021	Impact of a public policy restricting staff mobility between nursing homes in Ontario, Canada during the COVID-19 pandemic	Journal of the American Medical Directors Association / Study	<ul style="list-style-type: none"> • In Ontario, Canada, an emergency order restricting staff from working at multiple nursing homes greatly reduced mobility between homes. This study used GPS location data from mobile devices to approximate connectivity between 623 nursing homes in Ontario for 7 weeks prior to the order (March 1 – April 21) and after it came into effect (April 22 – June 13). Authors then constructed a network diagram visualizing connectivity between nursing homes in Ontario and calculated the number of homes that had a connection with another nursing home and the average number of connections per home in each period • In the period preceding restrictions, 266 (42.7%) nursing homes had a connection with at least one other home, compared to 79 (12.7%) homes during the period after restrictions, i.e., figures showed a drop of 70.3% • In both periods, mobility between nursing homes was higher in homes located in larger communities, those with higher bed counts, and those part of a large chain. The residual connectivity between homes remains a potential vector of COVID-19
25.01.2021	Nontraditional Small House Nursing Homes Have Fewer COVID-19 Cases and Deaths	Journal of the American Medical Directors Association / Study	<ul style="list-style-type: none"> • The Green House Project is an American non-profit organisation seeking to create alternatives to traditional nursing home care facilities. Green House and other small nursing home (NH) models are considered “nontraditional” due to their size (10-12 beds), universal caregivers, and other home-like features • These have generated speculation of the potential to limit COVID-19 infections due to fewer people living, working, visiting, and being admitted, as well as their use of private bathrooms and rooms. This cohort study compared rates of COVID-19 infections, COVID-19

			<p>admissions/readmissions, and COVID-19 mortality, among Green House/small NHs to rates in other NHs between 20th January 2020 and 31st July 2020</p> <ul style="list-style-type: none"> • Rates per 1000 resident days were derived for COVID-19 cases and admissions, and per 100 COVID-19 positive cases for mortality • Rates of all outcomes were significantly lower in Green House/small NHs than in traditional NHs that had <50 beds and ≥50 beds • Median rates of COVID-19 cases per 1000 resident days were 0 in both Green House/small NHs and NHs with <50 beds, and were 0.06 in NHs ≥50 beds • In terms of COVID-19 mortality, the median rates per 100 positive residents were 0 (GH/small NHs), 10 (<50 beds), and 12.5 (≥50 beds)
26.01.2021	Alzheimer's and Parkinson's Diseases Predict Different COVID-19 Outcomes: A UK Biobank Study	Geriatrics / Study	<ul style="list-style-type: none"> • Study investigates links between neurodegeneration and COVID-19. • Authors analysed primary health records of 13,338 UK individuals tested for COVID-19 between March and July 2020. • Findings are that pre-existing diagnosis of Alzheimer's disease predicts the highest risk of COVID-19 and mortality among elderly individuals • By contrast, Parkinson's disease patients were found to have a higher risk of SARS-CoV-2 infection but not mortality from COVID-19 • Authors conclude there are disease-specific differences in COVID-19 susceptibility among patients affected by neurodegenerative disorders
26.01.2021	COVID-19 Pandemic and Management of Chronic Pain in Nursing Homes	Journal of the American Medical Directors Association / Study	<ul style="list-style-type: none"> • Study seeks to address key elements of management of chronic pain in nursing home setting during COVID-19 pandemic • Argues during COVID-19 pandemic, all medications should be assessed for their necessity, including the need for continuation of opioids and other pharmacological agents for chronic pain as reducing the number of medications can decrease pill burden among the residents. • Decreased medication passes also reduces workload burden during staffing shortages arising from the pandemic, and helps decrease (1) the number of interactions with COVID-19 infected residents; (2) costs

			<p>associated with personal protective equipment; and, (3) potential exposure to the nursing staff</p> <ul style="list-style-type: none"> • Authors conclude that management of chronic pain should not be delayed in times of COVID-19, but the way we approach treatment has become increasingly complicated and requires an integrated multi-disciplinary approach. While person-centered pain management has been particularly challenging during the pandemic, it is critical to improving quality of life and function for older adults in nursing homes.
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Preprints

Publication date	Title / URL	Journal / Article type	Digest
25.01.2021	Tracking the mental health of home-carers during the first COVID-19 national lockdown: evidence from a nationally representative UK survey	MedRxiv / Study	<ul style="list-style-type: none"> • Examines impact of the first UK lockdown on unpaid carers who look after another member of their household (home-carers), who are known to have poorer mental health than the general population as a baseline • Data from 9,737 adult participants were used to explore changes in 12-item General Health Questionnaire (GHQ-12) score between (a) pre-pandemic (2019) and early lockdown (April 2020) and (b) early and later (July 2020) lockdown • GHQ-12 scores among home-carers were higher pre-lockdown and increased more than for non-carers from 2019 to April 2020 with further increases for home-carers compared with non-carers between April and July • The mental health of home-carers deteriorated more during lockdown than non-carers. Policies that reinstate support for them and their care-recipients will benefit the health of both vulnerable groups
25.01.2021	Using Non-Pharmaceutical Interventions and High Isolation of Asymptomatic Carriers to	MedRxiv / Study	<ul style="list-style-type: none"> • Study investigates degree of control over pre-symptomatic transmission that common non-pharmaceutical interventions (NPIs) would require to reduce the spread in long-term care facilities

	Contain the Spread of SARS-CoV-2 in Nursing Homes		<ul style="list-style-type: none"> The most rigorous NPIs decreased the peak number of infections by 4.3 and delayed the peak by 9.7 days in the absence of pre-symptomatic controls Common NPIs delayed and reduced epidemic peaks. Reducing attack rates ultimately required efficient isolation of pre-symptomatic cases, including rapid antigen tests on a nearly daily basis. Authors conclude that this must be accounted for in testing and contact tracing plans for group living settings
26.01.2021	Impact of social restrictions during the COVID-19 pandemic on the physical activity levels of older adults: an analysis of the CHARLOT COVID-19 Rapid Response Study	MedRxiv / Analysis	<ul style="list-style-type: none"> Examines impact of lockdown on physical activity (PA) levels of older adults, and the demographic, lifestyle and social predictors of this change Results 6,219 adults aged 50 to 92 years completed the survey during the period of April - July 2020. Mean PA significantly reduced following lockdown Those who were divorced or single; living alone; or reported feeling lonely often were less active after lockdown than those married, cohabiting and not reporting loneliness, respectively. Social isolation and loneliness were associated with a reduction in PA following lockdown in the UK. Interventions to improve PA in older adults should take account of social and community factors.

Reports and other publications

Publication date	Title / URL	Author(s)	Digest
18.01.2021	Asymptomatic SARS COV-2 carriers among nursing home staff: A source of contamination for residents?	Bayle, Catherine; et al.	<ul style="list-style-type: none"> Letter reports on a screening campaign of asymptomatic staff workers in elderly nursing homes in Paris. Prior to campaign, 12.1% of the employees had developed symptomatic COVID-19 However, employees not known to have the virus, and screened in the campaign 32/241 (i.e., 13.3%) tested positive for SARS-CoV2. Staff carrying SARS-CoV2 were asymptomatic in 75% of cases, and a total of 23.5% of the home employees had been carriers for COVID-19.

			<ul style="list-style-type: none"> • Screening for viral carriage of asymptomatic staff in nursing homes can therefore help avoid contact and transmission to vulnerable residents
19.01.2021	Nursing homes or abandoned castles: COVID-19 in Italy	Trabucci, Marco; deLego, Diego	<ul style="list-style-type: none"> • Letter describes shift in Italian retirement homes from a status as ‘besieged castles’, suffering high numbers of first-wave deaths, prohibiting all visits, but capable of maintaining strong internal standards of care in May 2020, to a new status in the second wave in December 2020: the authors would now describe Italian nursing homes as ‘abandoned castles’, in which COVID-19 has settled, causing very serious damage • Authors argue there have been four failures to bring about this change: (1) Governmental failure: In Italy, a large amount of money was distributed to different types of private enterprise but none was dedicated to helping the survival of residences for older people, and the government repeatedly declared that retirement homes do not belong to the public service network • (2) residences for older people were ignored by many citizens, and (3) care homes have been abandoned by staff, particularly nurses, with some moving to public hospitals, where the salary is much higher. Residence homes find it hard to recruit replacements because there is a chronic shortage of qualified health-care workers in Italy. Unfortunately, the staff who have remained at work in the residence homes show fatigue, disappointment, and demotivation • Finally (4), the homes have also been abandoned by medical culture, and topics relating to older people who live there, or to their need for adequate clinical care, are neglected
21.01.2021	Shift in the Distributions of Pre-existing Medical Condition, Gender and Age across Different COVID-19 Outcomes	Zheng, Ming; Song, Lun	<ul style="list-style-type: none"> • Letter analyses CDC data from 22nd Jan – 30th May 2020, exploring distribution of pre-existing medical conditions, gender, and age across different outcomes in a large cohort of COVID-positive patients

			<ul style="list-style-type: none"> • Authors conclude COVID-19-related risks should be assessed according to pre-existing medical conditions, gender, and age subgroups • Additionally, they argue public health policy on COVID-19 should be made specifically for populations with medical histories of cardiovascular diseases, diabetes, and chronic lung diseases, male gender, and aged more than 50 years old
24.01.2021	Impact of social distancing due to coronavirus disease 2019 in old age psychiatry	Piacenza, Francesco; Ong, Suet K.	<ul style="list-style-type: none"> • Letter flags extent to which COVID-19 pandemic is affecting the mental health of service users at old age psychiatry service in the South-East of Ireland • The most common presentation is of either an anxiety disorder or a depressive disorder triggered by various psychosocial factors, including the fear of infection and death, the inability to perform physical and social activities, loneliness, and feeling like a burden on their family and society • Such deterioration has been corroborated by a recent study that described several cases of new-onset psychosis during the COVID-19 pandemic

Guidance

Publication date	Title / URL	Author(s)	Digest
13.01.2021	Your step-by-step guide for COVID-19 self-testing: Lateral Flow Test Kits	UK Government	<ul style="list-style-type: none"> • Guide for Care Home staff and Care Home managers who are self-testing at home using Lateral Flow Tests • explains how to test yourself using LFD and self-report results to the NHS

Updated 25.01.2021	Designated settings for people discharged to a care home	UK Government	<ul style="list-style-type: none"> Guidance on the designated settings scheme for people discharged from hospital to a care home with a positive coronavirus (COVID-19) test.
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Statistics

Publication date	Title / URL	Author(s)	Digest
20.01.2021	Notifications to Care Inspectorate Wales related to COVID-19 in adult care homes: 1 March to 18 December 2020	Welsh Government	<ul style="list-style-type: none"> Notifications related to COVID-19 in adult care homes during the coronavirus pandemic for 1 March 2020 to 15 January 2021.
26.01.2021	Number of deaths in care homes notified to the Care Quality Commission, England	Office for National Statistics, Care Quality Commission	<ul style="list-style-type: none"> Provisional counts of deaths in care homes caused by the coronavirus (COVID-19) by local authority.
27.01.2021	Coronavirus (COVID-19): adult care homes - additional data	Scottish Government	<ul style="list-style-type: none"> Weekly data on COVID-19 in adult care homes in Scotland.

Editorials and News

Publication date	Title / URL	Author(s)	Digest
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<p>18.01.2021</p>	<p>Care homes: averting market failure in a post-covid-19 world</p>	<p>Manthorpe, Jill</p>	<ul style="list-style-type: none"> • Editorial examines likely increasing pressure on care homes from aging population and declining place numbers, and considers possible solutions to a potential future crisis
<p>20.01.2021</p>	<p>COVID19 Vaccination in Frail People. Lots of Hope and Some Questions</p>	<p>Rolland, Y.; er al.</p>	<ul style="list-style-type: none"> • Editorial reflects on fact that nursing home residents make up a very small percentage of population in most Western nations but still represent an extremely high proportion of deaths due to COVID-19, and remain the group most at risk. The authors note that nursing home residents should thus have priority for vaccination but question whether all vulnerable adults can give consent. Concerns are also raised around the mistrust of vaccines and the false “facts” spread by anti-vax proponents
<p>25.01.2021</p>	<p>Loneliness during the COVID-19 pandemic</p>	<p>Dahlberg, Lena</p>	<ul style="list-style-type: none"> • Editorial examines potential impact of loneliness on older people during the COVID-19 pandemic, and possible methods to mitigate it