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Weekly Care Homes Evidence Digest

Prevention and control of COVID-19 in home care/care homes settings
24th December 2020

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.

Please note, there will not be a Care Homes Evidence Digest published next week. The next digest will be produced on 7th January 2021.

Peer-Reviewed Articles

Publication date	Title / URL	Journal / Article type	Digest
14.12.2020	Evaluating intervention strategies in controlling COVID-19 spread in care homes: An agent-based model	Infection Control & Hospital Epidemiology / Study	<ul style="list-style-type: none"> Developed an agent-based model that simulates the transmission dynamics of COVID-19 via contacts between individuals, including residents, staff members, and visitors in a care home setting. In the presence of the reference interventions that have been implemented in many care homes, including testing of new admissions, isolation of symptomatic residents, and restricted public visiting, routine testing of staff appears to be the most effective and practical approach. Routine testing of residents is no more effective as a reference strategy while routine testing of both staff and residents only shows a negligible additive effect.
15.12.2020	Nursing home staff networks and COVID-19	Proceedings of the National Academy of Sciences / Study	<ul style="list-style-type: none"> Large-scale analysis of smartphone location data reports half a million individuals entering a nursing home following the March 13 federal ban on visitors. With 5.1% of these individuals entering two or more facilities, a nursing home snapshot network emerges. More connections, likely arising from contractors and staff working at multiple facilities, are highly predictive of COVID-19 cases, whereas traditional regulatory quality metrics are unimportant in predicting outbreak size. With an estimated 49% of nursing home cases attributable to cross-facility staff movement, attention to highly connected nursing facilities is warranted.
16.12.2020	Ethical care during COVID-19 for care home residents with dementia	Nursing Ethics / Research article	<ul style="list-style-type: none"> A set of salient ethical values for delivering care to care home residents living with dementia during the pandemic was derived from a synthesis of relevant ethical standards, codes and philosophical approaches. The ethical values identified were caring, non-maleficence, beneficence, procedural justice, dignity in death and dying, well-being, safety, and personhood. The analysis identifies positive examples of ethical values displayed by care home staff, care sector organisations,

			healthcare professionals and third sector advocacy organisations. However, concerns relating to the death rates, dignity, safety, well-being and personhood – of residents and staff – are also evident.
16.12.2020	Inosine Pranobex Significantly Decreased the Case-Fatality Rate among PCR Positive Elderly with SARS-CoV-2 at Three Nursing Homes in the Czech Republic	Pathogens / Study	<ul style="list-style-type: none"> • In three NH experiencing the SARS-CoV-2 virus epidemic, we started treatment with IP as soon as clients tested PCR+. In Litovel, CZ, the difference in case-fatality rate (CFR) for the PCR+ group using vs. not using IP was statistically significant, and the odds ratio (OR) was 7.2. • When comparing all those taking IP in the three NH vs. the non-drug PCR+ group in Litovel, the odds ratio was lower for all three NH, but still significant at 2.9. The CFR in all three tested NHs, age range 75–84, compared to the CFR in all NHs in the Czech Republic, was significantly reduced (7.5% vs. 18%) (OR: 2.8); there was also a significant difference across all age groups (OR: 1.7). • In 301 residents, the CFR was significantly reduced (OR: 2.8) to 11.9% (17/142) in comparison to a study in Ireland with 27.6% (211/764).
18.12.2020	Rapid review of decision-making for place of care and death in older people: Lessons for COVID-19	Age and Ageing / Review	<ul style="list-style-type: none"> • Review aims explore key factors influencing place of care and place of death decisions in older adults. Secondary aim was to investigate key factors influencing the process and outcome of these decisions in older adults • Concludes the process and outcomes of decision-making for older people are affected by many factors—all of which have the potential to influence both patients and caregivers experience of illness and dying. • Within the context of COVID-19, such decisions may have to be made rapidly and be reflexive to changing needs of systems and of families and patients.
19.12.2020	Maximizing Participant and Staff Safety During	Journal of the American Geriatrics Society / Study	<ul style="list-style-type: none"> • Study observes that physical performance assessment is a key part of older care, and that, by increasing breathing rates, some of

	<p>Assessment of Physical Function in the COVID-19 Era</p>		<p>these assessments, including cardiopulmonary exercise training (CPXT), present additional risks for transmission of COVID-19</p> <ul style="list-style-type: none"> • However, most tests for physical function are not aerosol-generating. • Authors argue that tests should be evaluated against the risk/benefit of aerosolization & COVID-19 transmission/data gained, and that a number of additional mitigations should be considered. • The mitigation strategies described fall into four categories: personal hygiene and the use of personal protective equipment; standardized screening; reconfiguration of laboratory space; and optimization of laboratory ventilation
<p>19.12.2020</p>	<p>Prevalence of dementia and its impact on mortality in patients with coronavirus disease 2019: A systematic review and meta-analysis</p>	<p>Geriatrics & Gerontology International / Review</p>	<ul style="list-style-type: none"> • Systematic review & meta-analysis aims to evaluate prevalence of dementia in patients with COVID-19 and its association with mortality, as well as whether age, sex and other comorbidities might affect the association between dementia and mortality • The authors conclude that dementia is associated with increased mortality in COVID-19 patients, and that the association was affected by age and comorbidities
<p>19.12.2020</p>	<p>Temporal Associations between Community Incidence of COVID-19 and Nursing Home Outbreaks in Ontario, Canada</p>	<p>Journal of the American Medical Directors Association / Study</p>	<ul style="list-style-type: none"> • Study aims to evaluate temporal relationship between community incidence of COVID-19 and consequent risk of outbreaks in Ontarian care homes • Concludes increased incidence of COVID-19 in the community predicts a 23-day lagged increase in number of nursing homes experiencing outbreaks. • The study also attempts to quantify key thresholds, finding that when daily active COVID-19 cases in Ontario are 2.3/day, there is a 75% probability of an outbreak in a nursing home five days later
<p>20.12.2020</p>	<p>A systematic review assessing the under-representation of elderly adults in COVID-19 trials</p>	<p>BMC Geriatrics / Review</p>	<ul style="list-style-type: none"> • Assesses 12 RCTs comparing therapeutic / prophylactic interventions in relation to COVID-19 and evaluates participation of elderly patients in those trials

			<ul style="list-style-type: none"> • Concludes elderly patients are clearly underrepresented in RCTs, despite comprising the population hardest hit by COVID-19 • Authors note that Long-term outcomes such as the need of rehabilitation or institutionalization were not reported, and that future investigations should target specifically this vulnerable population.
20.12.2020	An Account of Immune Senescence in the Clinical Pathophysiology of COVID-19 Infection in Aging	Aging and Disease / Review	<ul style="list-style-type: none"> • Review explores mechanism of how senescent cells trigger hyperimmune inflammatory response, in turn causing high mortality in aging people infected with COVID-19 • The authors hope this observation could serve as a potential aid to alleviate the treatment for elderly battling COVID-19 infection and the underlying mechanism of immune senescence should be considered for drug invention & protective vaccination in the elderly
21.12.2020	Age Differences in Stress, Life Changes, and Social Ties During the COVID-19 Pandemic: Implications for Psychological Well-Being	The Gerontologist / Study	<ul style="list-style-type: none"> • Study examined age differences in pandemic-related stress and social ties, and links with psychological well-being. • Results showed that older people reported less pandemic-related stress, less life change, less social isolation, and lower negative relationship quality than younger people. Greater pandemic-related stress, life change, social isolation, and negative relationship quality were associated with poorer psychological well-being, and poorer social ties exacerbated the effects of the COVID-19 pandemic (stress, life change on psychological well-being). • Authors conclude that, contrary to popular assumptions, young adults may be relatively more vulnerable to COVID-19 pandemic-related stress and social isolation
21.12.2020 <i>Formerly included as a Preprint, Sept. 2020</i>	Asymptomatic Cases and Limited Transmission of SARS-CoV-2 in Residents and Healthcare Workers in Three Dutch Nursing Homes	Gerontology & Geriatric Medicine / Report	<ul style="list-style-type: none"> • Study aimed to assess the contribution of a- and presymptomatic residents and healthcare workers in transmission of COVID-19 in nursing homes, by testing 297 residents and 542 healthcare workers of three Dutch nursing homes with recent COVID-19 induction

			<ul style="list-style-type: none"> • In first point-prevalence survey, 15 residents tested positive of which one was presymptomatic and three remained asymptomatic; at second, one resident and one healthcare worker tested positive and both remained asymptomatic. • While a limited number of positive cases were identified, this study confirms a- and presymptomatic occurrence of Covid-19. The authors also describe possible factors contributing to prevention of transmission.
21.12.2020	Changes in Elder Abuse Risk Factors Reported by Caregivers of Older Adults During the COVID-19 Pandemic	Journal of the American Geriatrics Society / Study	<ul style="list-style-type: none"> • Study aimed to examine self-reported changes in caregiver-related risk factors for elder abuse during the COVID-19 pandemic in the USA • Findings indicate caregivers of older adults are experiencing increased elder abuse risk factors since the beginning of the COVID-19 pandemic, including stress, alcohol use, social isolation and negative impacts on their own health. • Additionally, younger caregivers, who may be more likely to be working jobs concurrently with caregiving responsibilities, are more likely to be experiencing financial strain due to the pandemic
22.12.2020	Transforming Aging Services: Area Agencies on Aging and the COVID-19 Response	The Gerontologist / Research article	<ul style="list-style-type: none"> • In the United States, Area Agencies on Aging (AAAs) have served as focal points to help older adults remain in their homes and communities, and partner with other organizations to administer services authorized under the Older Americans Act. • This study examines how Aging Network, including the over 600 AAAs, has responded to rapidly changing needs in the era of COVID-19 • Article argues the community-specific, collaborative, nature of AAAs places them at a unique position to respond to the challenges that arise with COVID-19, and offers ideas on how AAAs can continue to adapt to meet the needs of older adults and the people who care for them.

<p>23.12.2020</p>	<p>The Italian National Survey on COVID-19 epidemic spread in Nursing Homes</p>	<p>International Journal of Geriatric Psychiatry / Study</p>	<ul style="list-style-type: none"> • A total of 1356 nursing homes voluntarily participated to the survey, hosting a total of 100,806 residents. 9154 residents died due to any cause from February 1 to the time when the questionnaire was completed (March 25 to May 5). Of these, 7.4% had COVID-19 and 33.8% had flu-like symptoms, corresponding to a cumulative incidence of 0.7 and 3.1, respectively. • Lack of personnel, difficulty in transferring patients to hospital or other facility, isolating residents with COVID-19, number of beds and geographical area were the main factor positively associated to the presence of COVID-19 in nursing homes.
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Preprints

Publication date	Title / URL	Journal / Article type	Digest
<p>16.12.2020</p>	<p>Everyday Life in a Swedish Nursing Home During the COVID-19 Pandemic: The Safest Isolation in the World?</p>	<p>SSRN / Article</p>	<ul style="list-style-type: none"> • A random sample of 10 persons aged 85 to 100 years, living in a nursing home in an urban setting in Sweden were interviewed in June 2020. • Respondent felt that the nursing home represented a bubble, protecting the persons living there from the virus but isolating them from the outside world. The older persons felt taken care of and lived one day at a time, without fear of the virus, but they also felt that they were in the hands of others, and they had lost the opportunity to do what really mattered. • The findings provide empirical support for negative consequences of visitor restrictions, physical distancing and cancelled activities for people living in nursing homes.
<p>20.12.2020</p>	<p>The impact of the first UK Covid-19 lockdown on carers and people living with low</p>	<p>MedRxiv</p>	<ul style="list-style-type: none"> • An online survey (of 184 carers and 24 people with dementia), including eleven questions about the impact of the lockdown on both the person with dementia and their family caregivers was conducted.

	<p>prevalence dementia: results from the Rare Dementia Support survey</p>		<ul style="list-style-type: none"> • People with dementia experienced worsening of cognitive symptoms (70%), ability to do things (62%) and well-being (57%) according to their carers. Carers also reported a reduction in the support received for caring (55%). 93% of carers of people living in care homes reported a reduction in their ability to provide care. 26% of carers reported changes in the medication of the person with dementia during the lockdown. 74% of people with dementia reported decreased ability to connect with people socially.
<p>22.12.2020</p>	<p>Modeling effectiveness of testing strategies to prevent COVID-19 in nursing homes-- United States, 2020</p>	<p>MedRxiv / Article</p>	<ul style="list-style-type: none"> • Using published SARS-CoV-2 transmission parameters, the fraction of SARS-CoV-2 transmissions prevented through serial testing (weekly, every three days, or daily) and isolation of asymptomatic persons compared to symptom-based testing and isolation was evaluated through mathematical modeling using a Reed-Frost model to estimate the percentage of cases prevented through either outbreak testing alone or outbreak plus non-outbreak testing. • Modeling suggests that outbreak testing could prevent 54% (weekly testing with 48-hour test turnaround) to 92% (daily testing with immediate results and 50% relative sensitivity) of SARS-CoV-2 infections. Adding non-outbreak testing could prevent up to an additional 8% of SARS-CoV-2 infections.
<p>22.12.2020</p>	<p>SARS-CoV-2 infections among personnel providing home care services for the elderly in Stockholm, Sweden</p>	<p>MedRxiv / Article</p>	<ul style="list-style-type: none"> • Five companies offered participation to 438 employees at work and 405 employees (92.5%) were enrolled. Serum samples were analysed for IgG to SARS-CoV-2 and throat swabs were tested by for the SARS-CoV-2 virus by PCR. • Among home care employees, 20.1% (81/403) were seropositive, about twice as many as in a simultaneously enrolled reference population (healthcare workers entirely without patient contact, n=3,671; 9.7% seropositivity). Only 13/379 employees (3.4%) had evidence of a current infection (PCR positivity). • Personnel providing home service for the elderly appear to be a risk group for SARS-CoV-2 infection. Employees likely to be

			pre-symptomatic for COVID-19 can be readily identified by screening.
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Reports and other publications

Publication date	Title / URL	Author(s)	Digest
December 2020	Public perceptions of health and social care in light of COVID-19 (November 2020): Results from an Ipsos MORI survey commissioned by the Health Foundation	The Health Foundation	<ul style="list-style-type: none"> • Presents the findings of a survey commissioned by the Health Foundation and conducted by Ipsos MORI between 13 and 24 November 2020. This was a follow up survey to two previous rounds of polling: the first carried out in May 2020 and the second in July 2020. • Highlights the public's strong support for the £20 a week increase in Universal Credit and Working Tax Credit for families during the pandemic (74%), with only one in ten opposing it (9%). The majority of the public support making the increase permanent (59%), with one in five opposing this (20%). • The public's concern about the risk of coronavirus to the health and wellbeing of the nation remains high, with 86% saying they are concerned. However, the public are even more concerned about the knock-on impact of the coronavirus on lifestyles and the economy (94%). • Public support for the UK government's response to the pandemic has deteriorated. Only 39% of the public think the government has handled the pandemic well, a fall of 21 percentage points from 60% in May. • The survey also shows many aspects of the coronavirus pandemic have had a negative impact on people's mental health. In particular, 73% say that worry about family and friends catching the virus is having a negative impact on their mental wellbeing.

<p>14.12.2020</p>	<p>North West Covid Lessons Learned</p>	<p>Association of Directors of Adult Social Services - North West Branch</p>	<ul style="list-style-type: none"> • A “lessons learned” review across the 23 UK north west local authorities, exploring the health and care system response to Covid-19 and the implications for the future direction of social care in the region. • Lessons learned included: <ul style="list-style-type: none"> ○ For integration to succeed, systems need a common sense of purpose which extends beyond Covid-19 ○ Strong, decisive leadership and moral courage inspires change ○ The market is responsive and resilient when given the right environment ○ Old ways won’t open new doors ○ People powered change: the power of communities to deliver solutions ○ Demand and the concept of personalisation is fragile ○ Steer little and often: the value of data and intelligence in shaping operational and strategic approaches ○ The public needs a better understanding of social care ○ Social care workers are people too ○ Infection prevention and control is for life, not just for Covid
<p>17.12.2020</p>	<p>Caring for Washington’s older adults in the COVID-19 pandemic: Interviews with organization leaders about the state of social and healthcare services</p>	<p>Berridge, C.; et al.</p>	<ul style="list-style-type: none"> • Draws on interviews with 45 senior leaders of social services and health care organizations serving older adults in Washington state, USA, this report identifies current challenges confronting service delivery and client care, as well as those that will persist to shape future strategy and planning. • Concludes senior leaders are most concerned about people living with dementia, those with low incomes, those who are living alone or unhoused, Latinx immigrant and migrant older adults, people with limited English proficiency, and tribal elders. • Several key findings and themes relevant to policy and practice include: intensified social isolation and the digital divide; creative

			and promising adaptations; observed negative health impacts; staffing reductions and shortages; and urgent fiscal shortfalls and organizational needs
17.12.2020	Caring in Covid	National Care Forum	<ul style="list-style-type: none"> • ‘Caring in COVID’ eBook brings together a collection of real-life stories detailing how care homes and others coped with restrictions during the pandemic.
21.12.2020	How long-term dementia care facilities in South Africa have coped with the COVID-19 Lockdown: synthesis reports from 2 rounds of a survey	Ashwell, Alice; et al.	<ul style="list-style-type: none"> • This report synthesizes findings from a survey of 48 Long Term Care Facilities (LTCFs). From the time LTCFs went into lockdown until the date of submission of their questionnaires, 16 of the 48 LTCFs (33.0%) surveyed had experienced infections, recoveries and/or deaths amongst residents and/or staff members (last responses dated 2 September 2020). • News from the UK and Europe about the impact on COVID on Long-Term Care Facilities (LTCFs) allowed South African LTCFs to plan in time for the hard lockdown that started in late March 2020. This limited the number of infections and deaths attributed to COVID. • The impact on people with dementia was significant as many could not understand the need for masks and did not cope with being in isolation in their rooms. Efforts were made in some facilities to find ways to organise the living areas to avoid having to isolate people with dementia in their rooms. • A recommendation proposed by participants is that the entire long-term care system be reviewed, including LTCFs, home-based care and community-based support. Conversations are needed about the future of retirement villages and care homes, alternative perspectives on ageing, ‘age-friendly’ communities, and appropriate models of care.

22.12.2020	Coronavirus (COVID-19) - dementia and COVID-19: action plan	Scottish Government	<ul style="list-style-type: none"> This national action plan sets out how the Scottish Government will build on our national response to the coronavirus pandemic since March 2020 and how we will continue and expand that response in 2021 to continue to support recovery for people with dementia and their carers.
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Guidance

Publication date	Title / URL	Author(s)	Digest
17.12.2020	Staff movement: a risk management framework	Care Provider Alliance	<ul style="list-style-type: none"> Outlines a risk management approach (developed by the Registered Nursing Home Association) that care homes can use to manage restrictions on staff movements. The briefing relates to CQC registered care homes with or without nursing in England.
18.12.2020	Standard operating procedure: COVID-19 local vaccination services deployment in community settings	NHS England	<ul style="list-style-type: none"> This standard operating procedure (SOP) applies to all providers who have been contracted to provide local vaccination services in community settings including at NHS sites (GP Practices, Community Pharmacies), non-NHS sites, care homes, and patients' own homes. All NHS and non-NHS sites providing vaccination will have been 'designated' via a Commissioner-led site assessment process
21.12.2020	Importance of COVID-19 Vaccination for Residents of Long-term Care Facilities	Centers for Disease Control and Prevention	<ul style="list-style-type: none"> Based on recommendations from the Advisory Committee on Immunization Practices (ACIP), an independent panel of medical and public health experts, CDC recommends residents of long-term care facilities (LTCF) be included among those offered the first supply of COVID-19 vaccines.

23.12.2020	Making a Christmas bubble if you live in a supported living setting	Department of Health and Social Care	<ul style="list-style-type: none"> • Sets out advice for people who live in a supported living setting who are considering forming a Christmas bubble.
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Evidence Summaries

Publication Date	Title / URL	Author(s)	Digest
23.12.2020	Evidence summary for lateral flow devices (LFD) in relation to care homes	Department of Health & Social Care	<ul style="list-style-type: none"> • Rapid turnaround lateral flow tests are appropriate to use in care homes as an adjunct to risk reduction. • Rapid turnaround lateral flow tests enable care homes to use them frequently with results within 30 minutes, which is important in reducing risk. • Testing will not eliminate risk and must be used in conjunction with personal protective equipment (PPE) and infection prevention and control (IPC) measures to support residents to see loved ones as safely as possible This document provides a summary of evidence for care homes on lateral flow device (LFD) testing of visitors for SARS-CoV-2 (the virus that causes COVID-19) using lateral flow technology on entry to the care homes. A visitor is defined as any relative or friend wishing to visit a resident, or any visiting professional who is not a healthcare professional (for example, a hairdresser).

Statistics

Publication date	Title / URL	Author(s)	Digest
22.12.2020	Notifications to Care Inspectorate Wales related to	Welsh Government	<ul style="list-style-type: none"> • Notifications related to COVID-19 in adult care homes during the coronavirus pandemic for 1 March to 18 December 2020.

	COVID-19 in adult care homes: 1 March to 18 December 2020		
22.12.2020	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.
23.12.2020	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.
23.12.2020	State COVID-19 Data and Policy Actions	KFF (Kaiser Family Foundation)	<ul style="list-style-type: none"> Explore United States state-level data on a variety of COVID-19 metrics, including the latest hotspots, cases and deaths by race and ethnicity and at long-term care facilities. Provides information on state policy actions on social distancing measures and reducing barriers to COVID-19 testing and treatment.

Editorials and News

Publication date	Title / URL	Author(s)	Digest
17.12.2020	“Having the pod will make us part of the community again” – first ‘visiting pods’ delivered to Welsh care homes	Welsh Government	<ul style="list-style-type: none"> The first ‘visiting pods’ providing extra visiting space in care homes have been delivered this week. The £3m pilot, which covers the procurement, installation and lease of up to 100 visiting pods, will see almost 80 units being installed and ready to use before Christmas.

<p>19.12.2020</p>	<p>Covid-19 vaccines: delivering protective immunity</p>	<p>BMJ / Editorial</p>	<ul style="list-style-type: none"> • Reports on results from COVID-19 vaccine trials and the implications of results for T- and B- cell memories, which in some cases are showing results after 6 months
<p>23.12.2020</p>	<p>£149 million to support increased care home testing</p>	<p>Department of Health and Social Care / Press Release</p>	<ul style="list-style-type: none"> • Staff in all tiers will receive 2 rapid tests a week, in addition to the weekly PCR test • Care homes in all tiers given access to £149 million grant to support roll out of rapid testing • New grant will also help care homes in Tiers 1, 2 and 3 meet additional costs associated with visits, supporting residents to see friends and family