



Public Health
England

Protecting and improving the nation's health

Weekly Care Homes Evidence Digest

Prevention and control of COVID-19 in home care/care homes settings 5th March 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 an international webinar, early reflections on the implications of the Covid-19 pandemic for models for care homes of the future; an international perspective on the impact of nursing home visiting policies; from the USA, further evidence from mathematical modelling of the importance of vaccinating nursing home staff to prevent cases of Covid-19 in nursing homes; from Italy, further evidence to support the prioritisation of first doses of Covid-19 vaccination in older people. From the UK, the importance of vigilance for triggers to instigate mass testing in care homes; factors underpinning a resilient response to the Covid-19 pandemic by care homes; the impact of the first wave of the Covid-19 pandemic on hospitalisation of care home residents; and emerging evidence of the impact of Covid-19 vaccines on morbidity and mortality in older people. Finally, summaries of recently published reports, guidance and statistics.

The ongoing series of PHE rapid reviews can be found at <https://phelibrary.koha-ptfs.co.uk/covid19rapidreviews/>.

Peer-Reviewed Articles

Publication date	Title / URL	Journal / Article type	Digest
23.02.2021	Mass testing after a single suspected or confirmed case of COVID-19 in London care homes, April–May 2020: implications for policy and practice	Age and Ageing / study	<ul style="list-style-type: none"> • Previous investigations have identified high rates of SARS-CoV-2 infection among residents and staff in care homes reporting an outbreak of COVID-19. • The study investigated care homes reporting a single suspected or confirmed case to assess whether early mass testing might reduce risk of transmission during the peak of the pandemic in London.
23.02.2021	Delayed health consequences of Covid-19 lockdown in an older adult	Age and Ageing / study	<ul style="list-style-type: none"> • The study reports a case of a retired school teacher who presented with rapid cognitive and functional decline following the COVID-19 lockdown period that was diagnosed as worsening depression by referring physician. • This highlights the potentially life-threatening consequences of delayed diagnosis and management of delirium, an often reversible syndrome, due to lockdown restrictions. • As the pandemic outlives its initial projections, its downstream impact on an already vulnerable population continues to emerge
23.02.2021	Atypical symptoms, SARS-CoV-2 test results, and immunization rates in 456 residents from eight nursing homes facing a COVID-19 outbreak	Age and Ageing / study	<ul style="list-style-type: none"> • Frail older persons may have an atypical presentation of COVID-19. • The value of rRT-PCR testing for identifying SARS-CoV-2 nursing homes (NH) residents is not known. • To determine whether (i) atypical symptoms may predict rRT-PCR results and (ii) rRT-PCR results may predict immunization against SARS-CoV-2 in NH residents.
25.02.2021	Care homes, their communities, and resilience in the face of the COVID-19 pandemic: interim findings from a qualitative study	BMC Geriatrics / Study	<ul style="list-style-type: none"> • Study examined the complex interdependencies of support as staff responded to COVID-19, and to inform more effective responses to the ongoing pandemic, and to improve understanding of how to work with care home staff and organisations after the pandemic has passed • Three key groups of interdependencies were identified: care processes and practice; resources; and governance. Care home staff had to deliver care in innovative ways, making high stakes decisions in circumstances defined by: fluid ties to organisations outside the care home; multiple, sometimes conflicting, sources of expertise and information; and a sense of deprioritisation by authorities

			<ul style="list-style-type: none"> • Interdependency between care home organisations, the surrounding community, and key statutory and non-statutory organisations beyond their locality, shaped decision making and care delivery during the pandemic. • Recognising these interdependencies, and the expertise shown by care home managers and staff as they navigate them, is key to providing effective healthcare in care homes as the pandemic progresses, and as the sector recovers afterwards.
26.02.2021	Can We Protect Those We Care for in A Pandemic? - Prevalence of Neutralizing Antibodies against SARS-CoV-2 in Nursing Homes	Aging and Disease / opinion	<ul style="list-style-type: none"> • In this work, the effects of the COVID 19 pandemic on five nursing homes in Austria, which cared for 889 residents in the first half of 2020, were examined. • The research question was whether the measures taken were appropriate to prevent an outbreak within the individual facilities. • To detect previously unrecognized infections, the present study evaluated the prevalence of neutralizing antibodies against the SARS-CoV-2 virus in residents and employees of the nursing homes.
28.02.2021	Nurse Practitioners Rising to the Challenge During the COVID-19 Pandemic in Long-Term Care Homes	Gerontologist / study	<ul style="list-style-type: none"> • There is an urgency to respond to the long-standing deficiencies in health human resources in the long-term care (LTC) home sector, which have been laid bare by the Coronavirus Disease 2019 (COVID-19) pandemic. • Nurse Practitioners (NPs) represent an efficient solution to human resource challenges. • This study aims to understand the NPs' roles in optimizing resident care and supporting LTC staff during the pandemic.

Preprints

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25.02.2021	Hospital Admissions From Care Homes in England During the COVID-19 Pandemic: A Retrospective, Cross-Sectional	Preprints.org	<ul style="list-style-type: none"> • Examines trends in the number of hospital admissions for care home residents during the first months of the COVID-19 outbreak • Hospital admission rates rapidly declined during early March 2020 and remained substantially lower than in 2019 until the end of June. Between March and May, 2,960 admissions from residential homes (16.2%) and 3,295 admissions from nursing homes (23.7%) were for

	Analysis Using Linked Administrative Data		<p>suspected or confirmed COVID-19. Rates of other emergency admissions decreased by 36% for residential and by 38% for nursing home residents</p> <ul style="list-style-type: none"> This is the first study showing that care home residents' hospital use declined during the first wave of COVID-19, potentially resulting in substantial unmet health need that will need to be addressed alongside ongoing pressures from COVID-19.
01.03.2021	Early effectiveness of COVID-19 vaccination with BNT162b2 mRNA vaccine and ChAdOx1 adenovirus vector vaccine on symptomatic disease, hospitalisations and mortality in older adults in England	MedRxiv Preprint	<ul style="list-style-type: none"> Study compares the rate of vaccination in symptomatic people aged over 70 years of age who test positive for COVID-19, compared to those who test negative, as well as rate of hospitalisation in confirmed COVID-19 cases aged over 80 who were vaccinated more than 14 days before testing positive, compared to unvaccinated cases Study also compares the rate of deaths in confirmed COVID-19 cases aged over 80 who were vaccinated with Pfizer vaccine more than 14 days before testing positive, compared to unvaccinated cases The data suggests a single dose of either vaccine is more than 80% effective at preventing hospitalisation, around 3 to 4 weeks after the jab. There is also evidence for the Pfizer vaccine, which suggests it leads to an 83% reduction in deaths from COVID-19. The data also shows symptomatic infections in over 70s decreasing from around 3 weeks after one dose of both vaccines.
01.03.2021	Muscle Strength Explains the Protective Effect of Physical Activity against COVID-19 Hospitalization among Adults aged 50 Years and Older	MedRxiv Preprint	<ul style="list-style-type: none"> Study examines association between physical activity and COVID-19 hospitalization and whether this relationship was explained by other risk factors for severe COVID-19 Of 3,139 participants included in the study, 266 were tested positive for COVID-19 and 66 were hospitalised Results showed that individuals who engaged in physical activity more than once a week had lower odds of COVID-19 hospitalisation than individuals who hardly ever or never engaged in physical activity Findings suggest that, after 50 years of age, engaging in physical activity more than once a week is associated with lower odds of COVID-19 hospitalisation, and that this is explained by muscle strength
01.03.2021	Mathematical modeling to inform vaccination strategies and testing	MedRxiv Preprint	<ul style="list-style-type: none"> Study uses stochastic agent-based SEIR model of a nursing home to simulate SARS-CoV-2 transmission and model 3 scenarios, varying VE against infection, infectiousness, and symptoms, to understand the expected impact of vaccination in nursing homes, increasing staff

	approaches for COVID-19 in nursing homes		<p>vaccination coverage, and different screening testing strategies under each scenario</p> <ul style="list-style-type: none"> Increasing vaccination coverage in staff decreases total symptomatic cases in each scenario When there is low VE against infection and infectiousness, increasing staff coverage reduces symptomatic cases among residents. If vaccination only protects against symptoms, but asymptomatic cases remain infectious, increased staff coverage increases symptomatic cases among residents through exposure to asymptomatic but infected staff Authors conclude encouraging staff vaccination is not only important for protecting staff, but might also reduce symptomatic cases in residents if a vaccine confers at least some protection against infection or infectiousness
01.03.2021	Clinical presentation and in-hospital outcomes of older patients hospitalized with COVID-19 in Montreal, Canada: a retrospective review	MedRxiv Preprint	<ul style="list-style-type: none"> Retrospective review of charts of 429 consecutive patients hospitalized in Montreal, Canada, with PCR-confirmed COVID-19, recording baseline health, presentation, in-hospital complications, and outcomes Older patients presented with more comorbidities compared to younger patients as captured by the Charlson Comorbidity Index, including higher rates of cardiovascular, cerebrovascular, chronic obstructive pulmonary, and chronic kidney disease Older patients were less likely than younger patients to present with cough or dyspnea, however, they were more likely to present with geriatric syndromes such as delirium, functional decline, or falls
01.03.2021	The social support networks of elderly people in Slovenia during the Covid-19 pandemic	SocArXiv Preprint	<ul style="list-style-type: none"> Study aims to identify and describe various types of personal social support networks available to the elderly population during the pandemic, using a survey of Slovenians older than 64 years was conducted from April 25 to May 4, 2020 While over 50% of the respondents have satisfactory social support, a significant share exists with no source of social support Additionally, a relatively big share of those with support have supporters who are all unavailable because they live in another municipality
02.03.2021	Prioritizing the first doses of SARS-CoV-2 vaccine to save the elderly: the case study of Italy	MedRxiv Preprint	<ul style="list-style-type: none"> Uses model for estimating of the impact of vaccination on the mortality of the elderly following a schedule of mRNA SARS-CoV-2 vaccine that prioritises first dose administration as alternative to the standard schedule of two doses administered 3 to 4 weeks apart

			<ul style="list-style-type: none"> • Under different conditions of quantity of vaccine administration, the schedule prioritising first doses showed always significant increase of protected individuals, and a decrease of deaths, up to 19.8% less than the standard schedule. • These findings support the vaccination option of prioritising the first dose in the elderly until vaccine supplies are adequate.
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Reports and other publications

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26.02.2021	Suspected Recurrent SARS-CoV-2 Infections Among Residents of a Skilled Nursing Facility During a Second COVID-19 Outbreak — Kentucky, July–November 2020	Cavanaugh et al	<ul style="list-style-type: none"> • Five residents of a skilled nursing facility received positive SARS-CoV-2 nucleic acid test results in two separate COVID-19 outbreaks separated by 3 months. • Residents received at least four negative test results between the two outbreaks, suggesting the possibility of reinfection. • Severity of disease in the five residents during the second outbreak was worse than that during the first outbreak and included one death.

Guidance

Publication date	Title / URL	Author(s)	Digest
01.03.2021	COVID-19 Infection Prevention Guidance for Healthcare Staff in Residential Care Facilities	Irish Health Protection Surveillance Centre	<ul style="list-style-type: none"> • Guidance for Healthcare Staff in Residential Care Facilities

Statistics

Publication date	Title / URL	Author(s)	Digest

24.02.2021	Coronavirus (COVID-19) infections in the community in England	ONS	<ul style="list-style-type: none"> Characteristics of people testing positive for the coronavirus (COVID-19) in England taken from the COVID-19 Infection Survey.
02.03.2021	Deaths registered weekly in England and Wales, provisional	ONS	<ul style="list-style-type: none"> Provisional counts of the number of deaths registered in England and Wales, by age, sex and region, in the latest weeks for which data are available. Includes the most up-to-date figures available for deaths involving the coronavirus (COVID-19).
02.03.2021	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.
02.03.2021	Weekly epidemiological update	World Health Organisation (WHO)	<ul style="list-style-type: none"> Over 2.6 million new cases were reported last week, a 7% increase compared to the previous week, following six consecutive weeks of declines. The global case increase was driven by increases in the Eastern Mediterranean (14%), South-East Asia (9%), Europe (9%) and the Americas (6%).
02.03.2021	Notifications to Care Inspectorate Wales related to COVID-19 in adult care homes: 1 March 2020 to 26 February 2021	Welsh Government	<ul style="list-style-type: none"> In order to improve the timely availability of data related to coronavirus (COVID-19) in adult care homes the Welsh Government and Care Inspectorate Wales (CIW) have agreed to publish provisional counts of the number of adult care homes reporting one or more confirmed cases of COVID-19 and provisional counts of deaths in care homes, based on notifications by care home providers to CIW.
03.03.2021	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

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<p>22.02.2021</p>	<p>Video and slides of the webinar on: COVID-19 and the care homes of the future (22nd February)</p>	<p>Adelina Comas-Herrera et al</p>	<ul style="list-style-type: none"> • This webinar brought together international speakers who have looked at care home models from a variety of perspectives, before and during COVID-19, with the aim of reflecting on what has been learnt from the pandemic and from previous thinking about the role of communal living in the continuum of care. • In the post we share the video, slides and papers presented by the speakers, and also links share by participants in the webinar.
<p>26.02.2021</p>	<p>Safe visiting is essential for nursing home residents during the COVID-19 pandemic: an international perspective</p>	<p>Low et al.</p>	<ul style="list-style-type: none"> • Blanket and total bans of nursing home visitors were widespread at the beginning of the COVID-19 pandemic when governments and homes were unprepared to prevent and manage outbreaks. • These visitor restrictions have been prolonged and often reinstated after having been lifted, despite increased home and health system readiness and mounting evidence of harms to residents. • In most nursing homes, visitor bans were introduced without discussion or consent from residents or their advocates, constituting a violation of the resident’s rights to have visitors.
<p>01.03.2021</p>	<p>COVID-19 Vaccination in Nursing Homes: Trust in the Tunnel Will Help Staff See the Light at the End</p>	<p>Kaldy, Joanne</p>	<ul style="list-style-type: none"> • Observes that vaccination in carehomes presents a “light at the end of the tunnel” in the COVID-19 pandemic, but that problems remain in convincing staff to take advantage of vaccination • Offers suggestions for overcoming resistance, and explores some lessons learned in relation to vaccination as a result of the pandemic