



1. Home (<https://www.gov.uk/>)
 2. Coronavirus (COVID-19) (<https://www.gov.uk/coronavirus-taxon>)
 3. Healthcare workers, carers and care settings during coronavirus (<https://www.gov.uk/coronavirus-taxon/healthcare-workers-carers-and-care-settings>)
 4. Vivaldi 2: coronavirus (COVID-19) reinfections in care homes study report (<https://www.gov.uk/government/publications/vivaldi-2-coronavirus-covid-19-reinfections-in-care-homes-study-report>)
- Department of Health & Social Care (<https://www.gov.uk/government/organisations/department-of-health-and-social-care>)

Independent report

Vivaldi 2: COVID-19 reinfection in care homes study report

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Contents

Methodology

Results

Conclusion

Print this page



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Methodology

The Vivaldi study, led by University College London, was set up in June 2020 to investigate SARS-CoV-2 transmission, infection outcomes, and immunity in residents and staff in care homes in England.

Between 1 October 2020 and 1 February 2021 the study considered the number of people in an adult-social care home setting who had previously been infected with COVID-19 (confirmed by antibody testing), who then tested positive for virus with a PCR test more than 90 days later.

The sample size of the study was 682 residents and 1,429 members of staff.

Results

The analysis of 100 care homes suggests that amongst participants who had evidence of previous infection, the risk of subsequent reinfection was 61% lower for staff, and 85% lower for residents (95% CI), when compared with individuals who had not been previously infected.

The number of reinfections recorded in this study was small: out of a cohort size of 2,111, only 4 residents and 10 staff recorded reinfections. Whilst the majority of these cases were symptomatic, none required hospital treatment for their infection.

This analysis only explores natural immunity and does not take into account the effect of the vaccination. To ensure the impact of vaccination was excluded from the analysis, participants in the study were removed from this analysis 12 days following their first vaccination dose.

This data suggests that natural immunity to COVID-19 substantially reduces the risk of reinfection for approximately 10 months following primary infection. The risk of reinfection in care-home staff and residents was less than 1% per month for individuals who had been previously infected.

Conclusion

The data shows a positive picture of the degree of natural immunity from COVID-19 amongst staff and residents in care homes in England, which suggests the risk of being infected twice from this virus is low.

See the report Incidence of SARS-CoV-2 infection according to baseline antibody status in staff and residents of 100 long term care facilities (VIVALDI study)
(<https://www.medrxiv.org/content/10.1101/2021.03.08.21253110v1>)

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