



Synopsis

Technology-enabled CONTACT tracing in care homes in the COVID-19 pandemic: the CONTACT non-randomised mixed-methods feasibility study

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Plain language summary

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Why did we do this study?

Care home residents and staff were at high risk during the coronavirus disease pandemic. Lockdowns had uncertain benefits and increased risks of isolation and loneliness. Traditional contact tracing is challenging in care homes due to residents' memory issues and staff's unavoidable contacts. We developed 'CONtact TrAcIng in Care homes using digital Technology', a system using bluetooth-enabled wearables (BLE wearables) worn by residents and staff to collect data on who is most at risk, potential infection hotspots, and the effectiveness of infection control. For CONtact TrAcIng in Care homes using digital Technology to be effective, it needed to be reliable and acceptable, with homes acting on the information. Before conducting a large study comparing homes with and without CONtact TrAcIng in Care homes using digital Technology, we first assessed its feasibility and acceptability.

What did we do?

Between November 2021 and April 2022, 202 residents and 158 staff in four care homes in North and West Yorkshire, United Kingdom, wore bluetooth-enabled wearables for 2 months. We collected information on their perceptions of the technology, how they used it, infections in the homes, and changes in work practices. We simulated the technology's use to examine factors affecting performance, such as device usage and building materials. We also partnered with the PROTECT COVID-19 study to measure air quality in two homes.

What did we find?

CONtact TrAcIng in Care homes using digital Technology was not ready to progress to a large randomised study. While effective in controlled conditions, implementation was too varied and unreliable. Trust issues and privacy concerns among staff reduced confidence in CONtact TrAcIng in Care homes using digital Technology. The burden of participation outweighed the usefulness of the feedback provided.

What does this mean for people who live and work in care homes?

Bluetooth-enabled wearables for contact tracing could still be helpful but need to be more acceptable and provide more useful information. Researchers should collaborate with care homes to improve the experience of using bluetooth-enabled wearables, enhance understanding of infection risks, and minimise research burden.

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