

Probiotics for Antibiotic-Associated Diarrhoea (PAAD): a prospective observational study of antibiotic-associated diarrhoea (including *Clostridium difficile*-associated diarrhoea) in care homes

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Plain English summary

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Plain English summary

Care home residents are mostly frail and at high risk of infections. Their care should be based on high-quality evidence, but very little research is carried out in this care sector. We aimed to find out how often antibiotics are prescribed for care home residents and how often residents develop antibiotic-associated diarrhoea (AAD).

We also aimed to explore, through interviews and focus groups with care home staff, residents, relatives and general practitioners, stakeholders' views of ethical and practical issues in conducting research in care homes.

We found that the number of antibiotics prescribed in care homes is high. Just over two antibiotic prescriptions would be expected on average if a care home resident were observed for 1 year. The most common infections needing antibiotics were urinary tract infections followed by upper respiratory tract infections. A wide range of antibiotics was used, with amoxicillin the most commonly prescribed. Use of the antibiotic co-amoxiclav resulted in double the risk of developing AAD compared with treatment with other antibiotics.

About half of all residents treated with antibiotics developed diarrhoea. About 15% of residents who developed diarrhoea while on antibiotics and from whom a stool sample was taken were found to be infected with the potentially serious bacteria *Clostridium difficile*.

We found that stakeholders were supportive of research being conducted in care home settings, and advanced consent procedures would be broadly acceptable to key stakeholders in any future trial of probiotics.

A number of strategies have been identified that those planning analogous research in care homes may wish to consider.

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This report

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