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Ideas required

Antimicrobial resistance in aged-care facilities requires a novel approach

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The volume of antimicrobials used in aged-care facilities is startling and needs to be addressed. The call for research grants in this space provides hope for the future.

We are ageing. More and more of us are planning for, and accessing, care in residential aged-care facilities (RACFs). In Australia, the number of people aged 80 and over — the group most likely to require RACFs — is expected to double from 3% of the population in 1998 to 6% in 2031.[1,2]

Recent research[3,4,5] sheds light on the extraordinary and startling use of antimicrobials in RACF settings and the complex factors contributing to this, for which there are few original, ready solutions. AURA 20166 and AURA 20177, the first and second reports on antimicrobial use in human health respectively, document the extent of the AMR problem Australia faces and the significant challenges we all face. The extent of these issues was brought into sharp focus[8] in the 2015 Aged Care National Antimicrobial Prescribing Survey (acNAPS), which called for improvements in three main areas:

1. **Better antimicrobial use documentation**; 36% of prescriptions did not have an indication recorded as to why they were being used and 65.0% of prescriptions did not have a review or stop date.
2. **Less use of antimicrobials for unspecified infections**; 17.5% of antimicrobials were being used for unspecified skin infections.
3. **The need to review and reduce prolonged prescription duration;** 31.4% of prescriptions were prescribed six months or longer, only 51% had an indication documented, and only 2% had a review or stop date recorded.

Delivery care in RACFs is complex due to:

- the presenting conditions and infections being chronic;
- delayed diagnosis and poorer clinical outcomes[3];
- the lack of or limited access to diagnostics;
- client placement in shared accommodation, close living proximity and frequent transfer in and out of acute care settings.[3,4,5]

These data paint a bleak picture, demonstrating how complex and challenging it is to achieve quality use of antimicrobials in RACF settings.

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Responding to the challenges of AMR and antimicrobial use in RACFs requires novel and original solutions. This need is highlighted by the lack of RACF-specific AMR surveillance and AMS programs to address the high levels of inappropriate antimicrobial use.

News of the Australian Government’s recent commitment to address these challenges through the Medical Research Future Fund Antimicrobial Resistance Targeted Call for Research Grants is very encouraging.

These grants focus squarely on the development of novel and innovative approaches to containing and preventing of AMR in residential and aged-care facilities to the tune of $5.9 million.[2] They seek to stimulate research on novel and innovative methodologies, such as genomics, to determine antimicrobial resistance profiles and transmission within and to/from RACFs. The ultimate goal is to promote and develop optimal and appropriate antimicrobial use in RACFs.

We, and our colleagues within the Australasian College for Infection Prevention and Control, welcome this new commitment of the Australian Government. We look forward to future opportunities for targeted research that focuses specifically on other non-antimicrobial solutions, specifically infection prevention and control practices, education and surveillance of infection in RACFs more generally. These are inseparable from the challenges of, and solutions to, antimicrobial use and AMR.

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