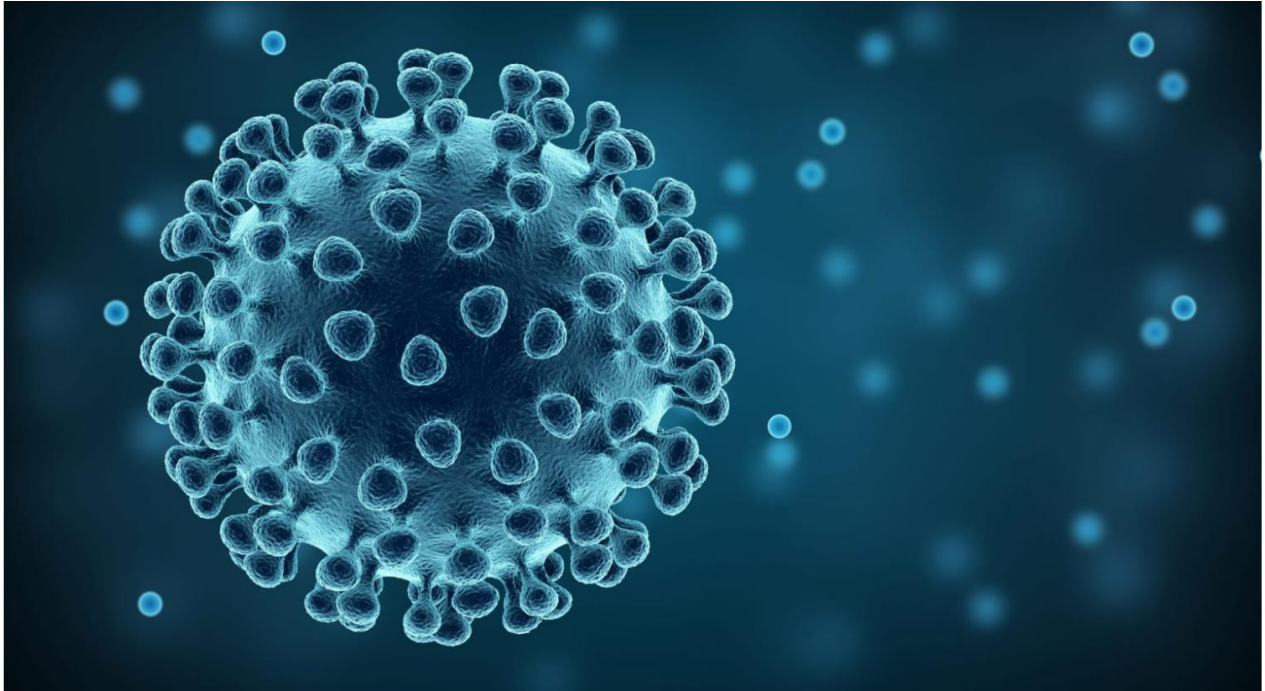


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ALLIED HEALTH CLEANING & HYGIENE CLINICAL EXECUTIVE INFECTION CONTROL

Tips for addressing antimicrobial resistance



Aged care staff have an important role in the fight against antimicrobial resistance, writes Natalie Soulsby.

Antibiotics are among the most frequently prescribed medications in aged care facilities. Up to 70 per cent of aged care residents receive one or more courses of systemic antibiotics when followed over a year.

Similar to the findings in hospitals, studies have shown that 40–75 per cent of antibiotics prescribed in aged care facilities may be unnecessary or inappropriate.

Antimicrobial resistance is a global health problem and has been classified as one of the 3 greatest threats to human health.

Antimicrobial resistance occurs when the microorganisms, commonly called bugs, that are being treated with antibiotics change, or mutate, in some way that reduces or eliminates their effectiveness.

The bacteria survive despite the treatment and continue to multiply causing more harm.

There are several identifiable causes of antimicrobial resistance including:

- unnecessary use of an antibiotic, for example, treatment of an upper respiratory tract infection that is caused by a virus
- inappropriate use of an antibiotic, such as choosing an antibiotic with the wrong spectrum of action so it is either ineffective against the bug or far too effective
- not finishing the course of treatment
- antibiotic treatment not changed when the bugs have been identified from the cultures sent to the laboratory.

Antibiotics are not completely safe and some of the harmful effects from taking antibiotics include:

- increased risk of an infection due to changes in the flora in the gut
- allergic reactions
- drug interactions
- unwanted side effects.

The World Health Organisation declared in 2011 that antimicrobial resistance is one of the greatest threats to human health.

Improving the use of antibiotics in healthcare to protect patients and reduce the threat of antibiotic resistance is a national priority. There is a government directed national antimicrobial resistance strategy in place, which has identified seven objectives including antimicrobial stewardship.

Antibiotic stewardship refers to a set of commitments and actions designed to “optimise the treatment of infections while reducing the adverse events associated with antibiotic use.”

Nursing staff are pivotal in helping reduce the emergence of antimicrobial resistance and can help by:

- assessing, monitoring and responding early to the potential presence of an infection
- ensure that there is appropriate infection prevention and control occurring, for example, hand hygiene
- collecting specimens to send off to the laboratory to confirm the presence of bacteria
- not insisting on antibiotics being prescribed unless there is a proven infection
- ensuring that your antimicrobial guidelines are being followed.

It is important to ensure that families and residents are educated in how they can help reduce the risk of antimicrobial resistance. This can be achieved in many ways including by:

- making sure hand hygiene rules are followed
- discussing any concerns with the nursing staff if there is concern that their family member may have an infection
- being aware that antibiotics are not helpful against viruses and if prescribed in those instances will increase the risk of antimicrobial resistance
- working with the nursing staff and clinicians in deciding whether to treat or not to treat their family member.

Harms from antibiotic overuse are significant for the frail and older adults receiving care in aged care facilities. These harms include risk of serious diarrhoeal infections from clostridium difficile, increased adverse drug events and drug interactions, and colonisation or infection with antibiotic-resistant organisms.

Before starting an antibiotic the following principles should be considered:

- Decisions about antimicrobial prescribing should be based on careful clinical assessment, ensuring that the benefits of antimicrobial use are always weighed against the potential for harm.
- Decisions regarding the prescribing of antimicrobials should be based on the best available evidence. National guidelines such as the Therapeutic Guidelines: Antibiotic should form the basis of prescribing recommendations, with adjustment for individual resident factors, such as allergies or comorbidities.
- Documentation for all antimicrobial prescriptions should be clear to enable effective communication between all staff members.
- Residents should always receive clear information about their clinical condition and treatment in a form they can understand.
- Regular review and refinement of the antimicrobial therapy should occur based on the resident’s clinical progress, including improvement or deterioration, and available clinical information such as investigation results.

Natalie Soulsby is a clinical pharmacist, specialist in geriatric medicine and head of clinical development at Ward Medication Management.

See our feature on minimising infection-related risks and antimicrobial resistance in the May-June edition of Australian Ageing Agenda magazine.