RESEARCH AUSTRALIA

Championing Australian health & medical research & innovation

Communique

A patient-centred approach to preserving antimicrobial effectiveness

The situation

Antibiotics are failing.

This is the result of antimicrobial resistance (AMR) which occurs when disease-causing microbes evolve to resist the effects of medicines, such as antibiotics, designed to kill them. This growing global problem is accelerated by the inappropriate use (overuse, underuse, and misuse) of antimicrobials in humans and animals.

It threatens everyone: from cancer patients who are more susceptible to infections to young children who are in close contact in care environments where germs can spread quickly. Australia needs a comprehensive societal approach if we are to mitigate the impact of AMR.

One key aspect of this approach is optimising antimicrobial prescribing (optimal prescribing) in primary and community healthcare settings.

Project scope

A stakeholder roundtable in August 2024, convened by CSIRO and Research Australia, brought together over 20 people that included representatives from the research sector, professional associations, the health industry and consumer groups.

The goal: to build consensus on the key priorities for achieving optimal prescribing of antimicrobials including opportunities for a more patient-centric and multidisciplinary approach to evidence-informed prescribing. This communique represents the outcomes of the discussion.

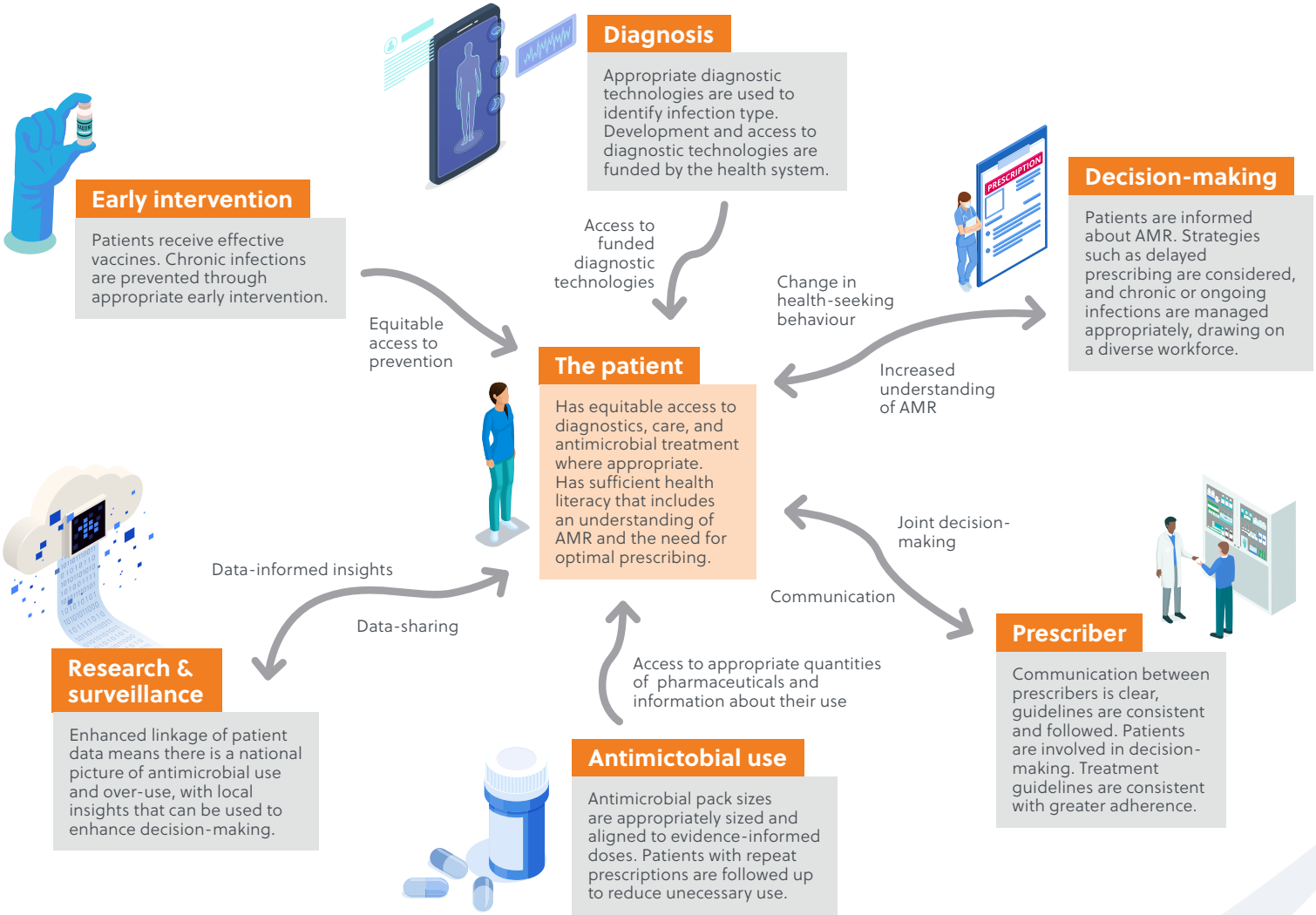
The approach

Optimal prescribing refers to the process of selecting the most appropriate medication for a patient, with consideration for the patient's specific condition and medical history. It involves selecting the right drug, dose, and duration. Optimal prescribing relies on having access to the optimal treatment, which includes all new antimicrobials; otherwise, the treatment regimen is 'best available'.

This ensures effective and equitable treatment for those in need while reducing the unnecessary use of antimicrobials which, in turn, will relieve pressure on antibiotic stock and supply chains. Strategies such as point of care diagnostic testing, delayed prescribing, increased health literacy, and appropriate antimicrobial pack sizes can help in this endeavour.

Optimal prescribing improves patient outcomes, enhances patient safety, reduces costs, supports equitable access, and ensures that antimicrobials are only used when needed, which helps to preserve their efficacy.

A patient-centred approach to prescribing



Priority areas:

Prevention

Preventing infections is a critical component of antimicrobial stewardship (AMS). To reduce the need for antimicrobials, several preventive actions should be prioritised:

Enhance infection prevention efforts: Strengthen early treatment protocols to minimise recurrence and reduce chronic infections.

Promote vaccination: Expand access to vaccines, particularly for children, to lower infection rates and community transmission.

Increase public awareness of antimicrobial alternatives: Educate the public on non-antimicrobial treatments, including over-the-counter medications and lifestyle changes like rest and recovery, to reduce unnecessary demand for antibiotics.

Improve education for healthcare providers: Strategies for direct engagement with GPs and prescribers, to equip them with the knowledge to make better-informed decisions regarding antibiotics, especially in areas of high antimicrobial use or resistance as identified through data analytics.

Packaging

Improving how antimicrobials are packaged and prescribed can help minimise misuse:

Incentivise optimal pack sizes: Wholesale antimicrobial packaging should align with evidence-informed doses to ensure patients receive the correct amount of medication, minimising waste and reducing overuse.

Provide clear dosing information: Pharmacists should have the ability to customise antimicrobial packs based on directions on the script and patient needs This ensures patients only receive the necessary dose for effective treatment duration.

Delayed prescribing is a strategy where a healthcare provider issues a prescription for antibiotics but advises the patient to wait before filling it, allowing time to see if symptoms improve without medication. This approach helps reduce unnecessary antibiotic use, as some infections resolve on their own.

Prescribing

Changing the behaviours of prescribers and patients is essential for reducing inappropriate antimicrobial use:

Adopt a patient-centred approach: Prescribing practices should focus on the patient's journey within the healthcare system. A collaborative approach involving patients in decision-making around antimicrobial use, along with GPs, pharmacists, and nurses, will lead to better stewardship and outcomes.

Encourage delayed prescribing: In some cases, healthcare providers may issue a prescription for antibiotics but advise patients to wait before filling it, allowing time for symptoms to improve without medication. This strategy is particularly effective for viral infections, which often resolve on their own.

Incorporate pharmacy roles: While broadening the scope of antimicrobial prescribers, strong communication between pharmacists and general practitioners (GPs) is necessary. In addition, access to affordable diagnostic tools and clear training guidelines will help ensure proper diagnosis and treatment.

POCTs are diagnostic tools used at or near the site of patient care, providing rapid results without the need for laboratory processing. They enable healthcare providers to quickly identify the cause of infections and help determine whether antibiotics are needed, reducing unnecessary use.

Policy

Policy reform is necessary to support the broader implementation of AMS and reduce AMR:

Expand access to diagnostic technology: Point-of-care tests (POCTs) provide rapid results and help healthcare providers determine whether antibiotics are necessary. Other diagnostic technologies that identify AMR and guide appropriate antibiotic use are also essential. Provision of sufficient reimbursement under the Medicare Benefits Schedule will enable access to and use of diagnostic tools in general practices and pharmacies

Improve national surveillance: Currently, gaps in data linkage, a lack of real-time data-driven solutions, and healthcare system integration hinders efforts to monitor antimicrobial use and resistance. A national strategy is required to improve data sharing across jurisdictions and strengthen AMR surveillance. This should be accompanied by research to address knowledge gaps.

Update, incentivise and monitor therapeutic guidelines: National consistency in antimicrobial prescribing guidelines is essential, along with effective monitoring of adherence. Modifications to guidelines, such as restricting automatic repeat prescriptions and embedding AMS training, must consider local flexibility to meet specific community and patient needs.

RESEARCH AUSTRALIA

Championing Australian health & medical research & innovation

To combat AMR, we need a united, urgent response across sectors. Policy change that expands access to diagnostic tools and supports adherence to best available/optimal prescribing guidelines must be prioritised. **Peak bodies and clinicians** must drive behaviour change, encourage optimal prescribing and promote strategies like delayed antimicrobial use. **Patients** play a crucial role with a need to understand, trust, and adopt these practices. Our ability to reduce AMR's future impact hinges on how well we collaborate, invest, and act today.

Supported by:

Pharmaceutical Society of Australia

PATHOLOGY TECHNOLOGY AUSTRALIA

apaa AUSTRALIAN PATIENT ADVOCACY ALLIANCE

NCAS National Centre for Antimicrobial Stewardship

CSIRO and Research Australia encourage those interested in being involved in ongoing efforts to curb AMR to get in touch and to partner on various advocacy efforts aimed at disseminating the key messages and recommendations of this communique.