



# Antimicrobial Stewardship Policy

## 1. Purpose

Antimicrobial stewardship (AMS) supports avoiding unnecessary use of antimicrobials and ensuring that antimicrobials are used with care to minimise the risk of antimicrobial resistance.

The key objectives of AMS are reducing inappropriate antimicrobial use, improving patient care outcomes and mitigating adverse consequences of antimicrobial use, such as antimicrobial resistance, preventable patient harm and unnecessary costs associated with pharmaceutical expenses and drug-resistant infections.

This policy establishes key directives for AMS across WA Country Health Service (WACHS), with particular reference to antimicrobial prescribing processes, antimicrobial usage surveillance and the use of evidence-based therapy. This policy is intended to supplement the overarching WACHS [Medication Prescribing and Administration Policy](#).

## 2. Policy

### 2.1 Guiding principles

Principles are:

- All sites must have an AMS program that ensures appropriate use and review of antimicrobials.
- Antimicrobial prescribing must be guided by the decision support tool, [Antimicrobial Pathways](#) or the advice of an Infectious Disease Physician / Clinical Microbiologist.
- Antimicrobial Stewardship must be undertaken in a manner consistent with the Australian Commission on Safety and Quality in Health Care (ACSQHC)'s [Antimicrobial Stewardship Clinical Care Standard](#), and associated guidance publications (where appropriate).

### 2.2 Prescribing principles

Principles of antimicrobial prescribing:

- It is best practice to collect appropriate specimens whenever possible prior to commencement of empiric antimicrobial therapy if this does not unduly delay therapy.
- The following factors are to be considered when prescribing any antimicrobial agent:
  - M** microbiology guides therapy where possible
  - I** indications should be evidence based
  - N** narrowest spectrum required
  - D** dosage appropriate to the site and type of infection
  - M** minimise duration of therapy
  - E** ensure monotherapy in most cases
- All antimicrobial prescriptions should include documentation of indication, duration of therapy and, for restricted antimicrobials, the Antimicrobial Pathways approval code.

- A switch from the intravenous (IV) to the oral formulation of an antimicrobial is to be made as soon as safe to do so and IV-oral switch is to be promoted by pharmacists, prescribers and local AMS groups and programs. Criteria for IV to oral switching:
  - oral fluid / food is tolerated and no concern about malabsorption
  - temperature less than 38°C or improving over 24 hours
  - no signs of sepsis
  - an appropriate oral alternative is available
  - no diagnostic criteria for IV therapy e.g., endocarditis, febrile neutropenia, *S. aureus* bacteraemia, meningitis, osteomyelitis.
- All patients on antimicrobial agents are to be reviewed at each prescriber's attendance to consider, based on the clinical picture and laboratory results, whether to de-escalate to a narrow spectrum agent, to switch to IV/oral, or to cease antimicrobials.

### 2.3 Stop orders

In the absence of a specific cessation date on the medication chart:

- an oral or topical antimicrobial order has a seven (7) day stop order as maximum duration
- IV prescription has a three (3) day stop order as maximum duration.

The prescriber or delegate is to be informed prior to the implementation of a stop order and a stop order is not to be enacted until this occurs.

### 2.4 Use of evidence-based guidelines and Antimicrobial Pathways

Appropriate prescribing includes not only the appropriate medicine but also the dose, formulation, route, frequency of administration and duration for the patient's clinical condition.

WACHS endorses the following sources for antimicrobial prescribing guidance, including surgical prophylaxis:

- [Antimicrobial Pathways decision support tool](#)
- [Australian Therapeutic Guidelines \(Antibiotic\) ® \(TG\)](#)
- [WA State Medicines Formulary \(Formulary One\).](#)
- [Perth Children's Hospital \(PCH\) Children's Antimicrobial Management Program \(ChAMP\)](#)
- [KEMH Clinical Guideline for Antibiotic Prophylaxis for Caesarean Section](#)
- Fiona Stanley Fremantle Hospitals Group ([FSFHG](#)) [Subcutaneous Administration of Antibiotics guideline](#) (this guideline provides prescribing and administration guidance).

Any other guides for the use of antimicrobials must be approved by the WACHS Medicines and Therapeutics Committee with endorsement from the WACHS Antimicrobial Stewardship Forum.

### Antimicrobial Pathways – general information

[Antimicrobial Pathways](#) is a web-based, antimicrobial prescribing decision support tool that must be used to guide antimicrobial prescribing. Antimicrobial Pathways is available to all WACHS clinicians and incorporates:

- Australian Therapeutic Guidelines
- Statewide formulary restrictions

- Regional antibiograms.

When prescribing restricted antimicrobials as advised by Antimicrobial Pathways, the prescriber must record the provided approval code on the patient's medication chart. If the prescription is not on a medication chart, the approval code must be reported in the patient's medical record.

Where an indication is not listed in the approved sources or Antimicrobial Pathways, the prescriber is to refer to other WACHS endorsed resources and policies or seek expert advice. Care should be taken to ensure that any such recommendations made are relevant to the local context.

If a patient is prescribed antimicrobial therapy that is not in concordance with endorsed guidelines, the prescriber must document their clinical reasoning in the patient's medical record.

### **Antimicrobial Pathways - governance**

Antimicrobial Pathways is a customisable decision support tool that can be modified to meet the needs of WACHS or an individual region to optimise and adapt AMS strategies.

Any region-specific changes must be endorsed by:

- Regional Medicines and Therapeutics Committee (MTC)
- WACHS Antimicrobial Stewardship Forum for advice and, if deemed necessary, escalation to the WACHS MTC.

Any WACHS-wide changes must be endorsed by:

- WACHS Antimicrobial Stewardship Forum
- WACHS MTC.

Changes to the software can only be made once endorsement has been received. The WACHS Chief Pharmacist is data custodian of Antimicrobial Pathways and is responsible for approving administrator access to Antimicrobial Pathways. A list of all approved staff must be presented to WACHS Antimicrobial Stewardship Forum annually for review.

## **3. Roles and Responsibilities**

**WACHS Regional Executive Teams** are responsible for providing oversight and support for the regional Medicines and Therapeutics Committee (MTC) - the regional MTC has a formal governance role in relation to AMS.

**Regional Medical Directors** are the responsible regional executive for antimicrobial stewardship and must evaluate and regularly review the regional AMS program.

They are responsible for:

- ensuring ready access to TG to prescribers
- defining and communicating the means for prescribers and pharmacists to obtain specialist infectious diseases / clinical microbiologist advice to meet the requirements of the SMF
- ensuring medical support for the annual National Antimicrobial Prescribing Survey.

**Regional Chief Pharmacists** are responsible for:

- the provision of clinical pharmacy expertise to advise and educate prescribers and implement relevant policy
- contributing to AMS governance group activities including program implementation and audit
- participating in the application of antimicrobial formulary and prescribing guidelines
- complying with the WACHS Medication Handling and Accountability Policy.

**Clinical Pharmacists** are responsible for reviewing antimicrobial orders for adherence to local guidelines and providing timely feedback where applicable to the prescriber

**Prescribers** are responsible for:

- complying with the principles of good antimicrobial prescribing in this policy
- documenting the indication, Antimicrobial Pathways approval code and expected duration for prescription of all antimicrobials
- complying with the local approval process for restricted antimicrobials
- complying with the WACHS [Medication Prescribing and Administration Policy](#) .

**Nursing and midwifery staff** are responsible for complying with the WACHS [Medication Prescribing and Administration Policy](#).

**Regional Medicines and Therapeutics Committee (RMTc):**

- may choose to establish a regional Antimicrobial Stewardship Forum as an advisory and clinical support group for the region and the MTC, however ultimately the MTC maintains responsibility for the regional AMS program
- determines the regional AMS program using a risk-based approach based on local data, risks and issues that is consistent with the Antimicrobial Stewardship Clinical Care Standard
- leads the dissemination and feedback of policy, guidelines, and monitoring data to prescribers, executive and others as appropriate
- utilises the resources from the NSQHS Standards Guide for Hospitals, Antimicrobial Stewardship resources and the Guide for Multi-Purpose Services and small hospitals to set out the key tasks required to implement an AMS program
- are responsible for defining an approval process for “restricted” antimicrobials (this approval process should at a minimum include a discussion with an infectious diseases physician / clinical microbiologist that is documented in the patient’s medical record, and is therefore auditable)
- must report to the appropriate Patient Safety and Quality governance groups and the Regional Executive.

**Clinical microbiology services** are responsible for providing:

- best practice diagnostic testing for infection,
- clinical microbiology advice
- regular analyses of antimicrobial resistance according to service level agreements or comparable contracts.

**All staff** are required to work within policies and guidelines to make sure that WACHS is a safe, equitable and positive place to be.

## 4. Monitoring and Evaluation

### 4.1 Monitoring

Relevant data is to be regularly monitored to identify local risks, inform the focus of local quality improvement and evaluate the effectiveness of the local AMS program activities.

#### **National Antimicrobial Utilisation Surveillance Program**

Pharmacy distribution data is to be regularly analysed by AMS governance groups via participation in the National Antimicrobial Utilisation Surveillance Program (NAUSP). NAUSP data compares antimicrobial usage to other comparable sites across Australia.

#### **Antibiograms**

Pathology data provided by the Clinical Microbiology Service (PathWest) in the form of a standard antibiogram is to be analysed on a regular basis. Antibiogram data is to be discussed with the WACHS Regional Clinical Microbiologist and the regional governance group before dissemination or action.

### 4.2 Evaluation

Monitoring quality of prescribing:

- Each region is expected to undertake monitoring of this policy and their AMS program in a manner that is consistent with the Antimicrobial Stewardship Clinical Care Standard (2020).
- At a minimum, each region is expected to undertake:
  - Annual National Antimicrobial Prescribing Survey (NAPS) for all sites
  - Ongoing National Antimicrobial Utilisation Surveillance Program (NAUSP) for sites identified by the regional Medicines and Therapeutics Committee
  - Annual Surgical National Antimicrobial Prescribing Survey (SNAPS) for areas identified by the regional Medicines and Therapeutics Committee

Such data is to be carefully analysed by the MTC and distributed appropriately including to prescribers, pharmacists, and nursing staff.

If unwanted clinical variation is detected during this monitoring, accountable staff are expected to take action in response.

## 5. Compliance

Failure to comply with this policy may constitute a breach of the WA Health Code of Conduct (Code). The Code is part of the [Integrity Policy Framework](#) issued pursuant to Section 26 of the [Health Services Act 2016](#) and is binding on all WACHS staff which for this purpose includes trainees, students, volunteers, researchers, contractors for service (including all visiting health professionals and agency staff) and persons delivering training or education within WACHS.

WACHS staff are reminded that compliance with all policies and procedures is mandatory.

## 6. References

Australian Commission on Safety and Quality in Health Care (ACSQHC) [Internet] Sydney NSW [Antimicrobial Stewardship Clinical Care Standard](#). 2020 [Accessed 22 August 2023]

## 7. Definitions

Term	Definition
<b>Antimicrobial Pathways</b>	A web-based, antimicrobial prescribing decision support tool that incorporates: <ul style="list-style-type: none"> <li>• Australian Therapeutic Guidelines</li> <li>• State-wide formulary restrictions</li> <li>• Regional antibiograms</li> </ul> Available to all WACHS staff at: <a href="#">Clinical Branches</a>
<b>Antimicrobial Stewardship</b>	Antimicrobial Stewardship (AMS) is an ongoing and systematic effort to optimise the use of antimicrobial medicines within a health service organisation
<b>Formulary One</b>	A web-based application that provides access to the State-wide medicines formulary. Available to all health staff at: <a href="#">Formulary One</a>
<b>National Antimicrobial Utilisation Surveillance Program (NAUSP)</b>	The National Antimicrobial Utilisation Surveillance Program (NAUSP) conducts volume-based antimicrobial surveillance and data from this surveillance can be used to monitor trends in usage and benchmark usage rates against other hospitals.
<b>National Antimicrobial Prescribing Survey (NAPS)</b>	The National Antimicrobial Prescribing Survey (NAPS) is a clinical audit tool used across Australia that allows benchmarking and assessment of antimicrobial prescribing appropriateness and adherence to guidelines.
<b>Prescribers</b>	Those health professionals authorised under the Medicines and Poisons Regulations to prescribe Schedule 4 and Schedule 8 medications.
<b>State-wide Medicines Formulary</b>	The Statewide Medicines Formulary (SMF) is a single list of approved medicines which may be initiated in public hospitals in Western Australia, along with any restrictions and guidance that may be in place on the prescribing of that medicine.

## 8. Document Summary

<b>Coverage</b>	WACHS wide
<b>Audience</b>	All staff involved in decisions related to antimicrobials (including prescribing, administration, and dispensing)
<b>Records Management</b>	Clinical: <a href="#">Health Record Management Policy</a>
<b>Related Legislation</b>	<a href="#">Medicines and Poisons Act 2014</a> (WA) <a href="#">Medicines and Poisons Regulations 2016</a> (WA)
<b>Related Mandatory Policies / Frameworks</b>	<ul style="list-style-type: none"> <li>• MP 0077/18 <a href="#">Statewide Medicines Formulary Policy</a></li> <li>• <a href="#">Clinical Governance, Safety and Quality Framework</a></li> </ul>
<b>Related WACHS Policy Documents</b>	<ul style="list-style-type: none"> <li>• <a href="#">High Risk Medications Procedure</a></li> <li>• <a href="#">Medication Prescribing and Administration Policy</a></li> <li>• <a href="#">Medication Handling and Accountability Policy</a></li> </ul>
<b>Other Related Documents</b>	<ul style="list-style-type: none"> <li>• ACSQHC <a href="#">Antimicrobial Stewardship Clinical Care Standard</a></li> <li>• ACSQHC <a href="#">Antimicrobial Stewardship in Australian Health Care</a></li> <li>• <a href="#">Antimicrobial Stewardship Guidance Document</a></li> <li>• <a href="#">Australian Therapeutic Guidelines (Antibiotic) ® (TG)</a></li> <li>• FSFHG <a href="#">Subcutaneous Administration of Antibiotics Guideline</a></li> <li>• KEMH <a href="#">Clinical Guideline for Antibiotic Prophylaxis for Caesarean Section</a></li> <li>• PCH <a href="#">Children's Antimicrobial Management Program (ChAMP) Guidelines</a></li> </ul>
<b>Related Forms</b>	<ul style="list-style-type: none"> <li>• MR170A <a href="#">WA Hospital Medication Chart – Short Stay</a></li> <li>• MR170D <a href="#">National Inpatient Medication Chart - Paediatric Short Stay</a></li> <li>• MR170E <a href="#">National Inpatient Medication Chart - Paediatric Long Stay</a></li> <li>• MR171 <a href="#">WA Hospital Medication Chart – Adult Long Stay</a></li> </ul>
<b>Related Training Packages</b>	<a href="#">WA Hospital Medication Chart Education Resources</a> <a href="#">NPS MedicineWise Learning Antimicrobial Modules</a>
<b>Aboriginal Health Impact Statement Declaration (ISD)</b>	ISD Record ID: 2987
<b>National Safety and Quality Health Service (NSQHS) Standards</b>	1.03, 1.07, 1.27 3.18, 3.19, 4.01, 4.04, 4.13, 4.15
<b>Aged Care Quality Standards</b>	Standard 3 (3) (a)(d)(g)
<b>National Standards for Mental Health Services</b>	Nil

## 9. Document Control

Version	Published date	Current from	Summary of changes
3.00	6 Oct 2023	6 Oct 2023	<ul style="list-style-type: none"> <li>routine review to incorporate Antimicrobial Pathways decision support tool.</li> </ul>
3.01	29 January 2024	6 Oct 2023	<ul style="list-style-type: none"> <li>inclusion of the use of the FSFHG guideline for subcutaneous administration of specified antimicrobials</li> <li>definition for prescribers amended.</li> </ul>

## 10. Approval

<b>Policy Owner</b>	Executive Director Clinical Excellence
<b>Co-approver</b>	Executive Director Medical Services Executive Director Nursing and Midwifery
<b>Contact</b>	WACHS Chief Pharmacist
<b>Business Unit</b>	Pharmacy Services
<b>EDRMS #</b>	ED-CO-14-20413
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