

Antimicrobial Stewardship Policy

Policy Number 1.437

Policy Function Continuum of Care

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Summary This policy establishes key directives for antimicrobial prescribing and management in Justice Health and Forensic Mental Health Network, with particular reference to antimicrobial prescribing processes, management of antimicrobial formulary and restrictions, use of evidence-based therapy and access to expert clinical advice

Responsible Officer Executive Director Clinical Operations (Custodial Health)

Applicable Sites

- Administration Centres
- Community Sites (e.g. Court Liaison Service, Community Integration Team, etc.)
- Health Centres (Adult Correctional Centres or Police Cells)
- Health Centres (Youth Justice NSW)
- Long Bay Hospital
- The Forensic Hospital

Previous Issue(s) Policy 1.437 (Nov 2016; Dec 2015)

Change Summary Review of restriction list and incorporation of Antimicrobial Stewardship Clinical Care Standard statements.

TRIM Reference POLJH/1437

Authorised by Chief Executive, Justice Health and Forensic Mental Health Network

1. Preface

This policy establishes key directives for antimicrobial prescribing and management in Justice Health and Forensic Mental Health Network (the Network), with particular reference to antimicrobial prescribing processes, management of antimicrobial formulary and restrictions, use of evidence-based therapy and access to expert clinical advice.

Antimicrobial Stewardship (AMS) can be defined as an ongoing and systematic effort to optimise the use of antimicrobial medicines within a health service organisation. In the Australian healthcare setting, AMS activities are developed and delivered through AMS programs instituted within or across one or more healthcare facilities. The key objectives of these programs include 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).

The Network AMS Steering Committee has developed this policy to detail the Network AMS framework and establish key principles around antimicrobial prescribing and management within the Network.

2. Policy Content

2.1 Mandatory Requirements

This policy establishes key directives for antimicrobial prescribing within the Network and establishes key principles around antimicrobial prescribing and management within the Network and the requirements of Network clinicians.

2.2 Implementation - Roles & Responsibilities

2.2.1 Chief Executive

- Must provide managers with the resources to support compliance with this policy and its associated procedures.

2.2.2 Executive Director Clinical Operations

- Must review all reported incidents of non-compliance with this policy in accordance with Policy [2.030 Incident Management](#).

2.2.3 Managers

- Must ensure compliance with this policy and its associated procedures.
- Must bring this policy and its associated procedures to the attention of all Network staff.

2.2.5 Network Staff

- Must comply with this policy and its associated procedures.

2.2.6 The AMS Steering Committee

The Network AMS Steering Committee is a multidisciplinary group responsible for the development and ongoing evaluation of the Network AMS program. Core membership on this committee consists of Clinical Director Primary Care, Clinical Director Adolescent Health, Clinical Director

Oral Health, Clinical Nurse Consultant Infection Prevention & Communicable Diseases, Chief Pharmacist, Nurse Practitioner representative, Pharmacist representative, Clinical Governance representative, Prince of Wales Hospital Infectious Diseases Specialist. The AMS Steering Committee reports to the Network Drugs and Therapeutics Committee (D&TC).

2.2.7 The AMS Team

The AMS Team is a group of clinicians with duties dedicated to AMS activities. The AMS Team is primarily responsible for providing advice, education and feedback on antimicrobial prescribing, managing approval requests for restricted antimicrobials and monitoring antimicrobial usage as directed by the AMS program plan.

The AMS Team may be contacted as detailed in Section 5.

3. Procedure Content

3.1 Principles of Antimicrobial Prescribing

3.1.1 Key Prescribing Principles

All Network prescribers are expected to prescribe antimicrobial therapy according to the following key principles (adopted from [Australian Commission of Safety and Quality in Health Care. Antimicrobial Stewardship Clinical Care Standards](#)):

- (i) A patient with a life-threatening condition due to a suspected bacterial infection receives prompt antibiotic treatment without waiting for the results of investigations.
- (ii) A patient with a suspected bacterial infection has samples taken for microbiology testing as clinically indicated, preferably before starting antibiotic treatment.
- (iii) A patient with a suspected infection, receives information on their health condition and treatment options in a format and language that they can understand so that the patient can participate in the decision-making process about their treatment, which may or may not include antibiotics.
- (iv) When a patient is prescribed antibiotics, whether empirical or directed, this is done in accordance with the current version of the *Therapeutic Guidelines*¹ (or local antibiotic formulary). This is also guided by the patient's clinical condition and/or the results of microbiology testing.
- (v) When a patient is prescribed antibiotics, information about when, how and for how long to take them, as well as potential side effects and a review plan, is discussed with the patient and/or their carer.
- (vi) When a patient is prescribed antibiotics, the reason, drug name, dose, route of administration, intended duration and review plan is documented in the patient's health record.
- (vii) A patient who is treated with broad-spectrum antibiotics has the treatment reviewed and, if indicated, switched to treatment with a narrow-spectrum antibiotic. This is guided by the patient's clinical condition and the results of microbiology tests.
- (viii) If investigations are conducted for a suspected bacterial infection, the responsible clinician reviews these results in a timely manner (within 24 hours of results being available) and

antibiotic therapy is adjusted taking into account the patient's clinical condition and investigation results.

- (ix) If a patient having surgery requires prophylactic antibiotics, the prescription is made in accordance with the current Therapeutic Guidelines¹ (or local antibiotic formulary), and takes into consideration the patient's clinical condition.

3.1.2 Use of Evidence-based Prescribing Guidelines

Therapeutic Guidelines: Antibiotic

The current version of [Therapeutic Guidelines: Antibiotic](#) must be used in clinical scenarios when prescribing antibiotics. These guidelines are an Australian resource developed by a multidisciplinary committee of experts, with recommendations based on best available evidence for empirical efficacy, harm minimisation and other important considerations such as antimicrobial resistance and individual patient factors.

Prescribing outside the Therapeutic Guidelines: Antibiotic

If a patient is prescribed antimicrobial therapy that is not in concordance with the [Therapeutic Guidelines: Antibiotic](#), the prescriber must document their clinical reasoning in the patient's eProgress notes and in the medicine notes section of the medication order.

Where an indication or clinical scenario is not covered by the [Therapeutic Guidelines: Antibiotic](#), a prescriber may choose antimicrobial therapy based on an appropriate, peer-reviewed source or the latest medical evidence for emerging infectious diseases or resistance patterns. Care should be taken to ensure the recommendations made are relevant to the local Australian context in terms of both antimicrobial resistance patterns and availability of the selected antimicrobial agents. Alternatively, a prescriber may wish to seek advice via the AMS Team via the Clinical Director of Primary Care with further consultation from an infectious diseases specialist/microbiologist from POWH or other tertiary hospital AMS Team obtained as needed.

3.2 Access to Prescribing Resources and Support

3.2.1 Access to Evidence-based Prescribing Guidelines

[Therapeutic Guidelines: Antibiotic](#) can be accessed through eTG Complete via the Clinical Information Access Portal (CIAP) available on the Network intranet and through JHeHS link to CIAP.

3.2.2 Access to Antibiotic Advice

Prescribers at all Network facilities have access to expert advice on antimicrobial prescribing and the management of infectious diseases 24 hours a day, 7 days a week.

During business hours (Mon-Fri, 8:30am-5pm), prescribers should contact the AMS Team as per detailed in Section 5. The AMS Team is the first point of call for general advice regarding antimicrobial prescribing and approval of restricted antimicrobial agents. In more complex cases, the AMS Team may recommend a consultation by an infectious diseases physician.

After hours, prescribers may contact the on-call medical officer for infectious diseases or microbiology, via the Prince of Wales Hospital (02) 9382 2222 switchboard or local hospital if services are available.

3.3 Local Restrictions and Non-Formulary Antimicrobials

3.3.1 Formulary and Non-Formulary Antimicrobials

A list of antimicrobial formulary items, restricted antibiotics and antimicrobials that are available as standing orders is available on the intranet: [The Network Prescribing Formulary](#), [The Network Medication Guidelines](#), [The Network Adolescent Standing Order Protocols](#) and [Adult Standing Order Protocols](#).

The use of a non-formulary product for an individual patient requires individual patient use approval by the Clinical Director Primary Care (CDPC). An Individual Patient Use (IPU) form must be completed and scanned to the Network Pharmacy Department and is then sent to the CDPC for approval.

3.3.2 Antimicrobial Restrictions

The implementation and maintenance of antimicrobial restrictions is a core AMS strategy. The AMS Steering Committee determines the restriction status for each antimicrobial agent (or specific formulations) based on the following considerations:

- Best practice prescribing
- Patient safety risks associated with particular antimicrobials (including adverse effects, drug interactions, the need for therapeutic drug monitoring, risk of *Clostridium difficile* infection and risk of selecting for more resistant organisms)
- Complexity of relevant disease states and/or public health risks
- Potential for contributing to antimicrobial resistance in the healthcare environment
- Cost-effectiveness (as compared to alternative agents)
- Resources available to manage antimicrobial restrictions

The Network adopted the 'traffic light system' from NSW Clinical Excellence Commission "[List of Recommended Antimicrobial Restrictions](#)". Antimicrobial agents (or specific antimicrobial formulations) are grouped into one of three levels, according to their relative degree of restriction.

UNRESTRICTED (Green)

Antimicrobials in this category should be prescribed appropriately, but have no specific restrictions on their use. They do not require an approval for use, but are to be used in accordance with the Therapeutic Guidelines: Antibiotic. Although unrestricted antimicrobials are ordered and supplied as normal, prescriptions are still subject to monitoring and review by the AMS Team.

RESTRICTED (Orange)

Antimicrobials in this category are subject to criteria based restrictions. Prescriptions are automatically approved if prescribed in accordance with the listed indication and/or duration (refer to Appendix 1). All other indications or durations longer than specified are considered "Red" and must be approved by the Clinical Director Primary Care or AMS Team. This would be facilitated through an IPU.

HIGHLY RESTRICTED (Red)

Antimicrobials in this category are highly restricted, meaning there are strict limitations on use. Prescription review or consultation is required with an infectious disease physician and/or medical microbiologist prior to use. These antimicrobials prescriptions should always be flagged for review by the Clinical Director Primary Care or AMS Team. This would be facilitated through an IPU.

For details of antimicrobial restrictions, rationales and approval criteria, see the Network AMS Restriction Lists in [Appendix 1](#).

3.4 Other Antimicrobial Stewardship Activities

3.4.1 Monitoring of Antimicrobial Usage and Resistance

The Network AMS program incorporates a range of data collection methodologies to monitor both the quantity and quality of antimicrobial usage and examine processes associated with antimicrobial prescribing and supply. These methods include (but are not limited to):

- Report monthly to the Network Drug and Therapeutics Committee usage of restricted antimicrobials
- Annual National Antimicrobial Prescribing Survey (NAPS)
- Audits of compliance with the [Therapeutic Guidelines: Antibiotic](#) as determined by the AMS Committee.

3.4.2 Targeted Interventions

Special initiatives or projects may be developed by the Network AMS Steering Committee to target particular areas of practice. Examples of targeted interventions may include an 'IV to oral switch' project, an AMS awareness campaign aimed at clinical staff, or development of a series of antimicrobial prescribing tutorials for Prescribers – Medical Officers or Nurse Practitioners.

3.4.3 Performance Measures

Assessment of organisational compliance with the Network AMS policy and evaluation of performance is outlined in the AMS program plan. Specific monitoring activities should be undertaken according to the needs and risk assessment performed for the Network. The Network staff must comply with approved assessment and evaluation activities (including audit and feedback) and may direct their concerns or queries to the AMS Steering Committee.

4. Definitions

Antimicrobial Stewardship

An ongoing and systematic effort to optimise the use of antimicrobial medicines within a health service organisation to optimise antimicrobial use in order to improve patient outcomes, ensure cost effective therapy and reduce adverse sequelae of antimicrobial use, including antimicrobial resistance.

Antimicrobial Stewardship Program Plan

A rolling document that details AMS risk assessments, priorities, strategies and organised action as directed by the AMS Steering Committee.

Must

Indicates a mandatory action required to be complied with.

Prescribing Formulary

The range of medications including antimicrobial products available for use in The Network and configured to provide treatment options for the large majority of patient encounters.

Medication Chart

Refers to a paper-based (Long Stay Medication Chart, National Inpatient Medication Chart) or electronic medication order.

Patient Health Record

A hybrid record of paper-based and electronic information pertaining to the health of the patient.

Should

Indicates a recommended action to be followed unless there are sound reasons for taking a different course of action.

5. Contacts

During business hours (Mon-Fri, 8:00am-4:30pm)

AMS Chair - Clinical Director, Primary Care – (02) 9700 3223 or (02) 9700 3222

Infectious Diseases Prince of Wales Hospital – (02) 9382 3404

Pharmacy - Phone: (02) 9700 3888

JHFMHN-PharmacyFax@health.nsw.gov.au

After hours:

On-call medical officer via 13000 ROAMS

For infectious diseases or microbiology Prince of Wales Hospital: (02) 9382 2222

6. Legislation and Related Documents

Network Policies and Procedures	<i>Medication Guidelines</i> <i>Prescribing Formulary</i> <i>Adolescent Standing Order Protocols</i> <i>Adult Standing Order Protocols</i>
Legislation	<i>The Therapeutic Goods Act 1989 (Commonwealth)</i> <i>Poisons and Therapeutic Goods Act 1966 (NSW)</i>
Australian Commission on Safety and Quality in Health Care	<i>Antimicrobial Stewardship Clinical Standards</i> <i>National Standards of Safety and Quality Standard 3: Preventing and Controlling Healthcare Associated Infections.</i>
eTG Complete	<i>Therapeutic Guidelines: Antibiotic</i>
Clinical Excellence Commission	<i>List of Recommended Antimicrobial Restrictions</i> <i>Quality Use of Antimicrobials in Healthcare</i>

Appendix 1: Antimicrobial Traffic Light System and Restriction List

Principles of Restricted Antimicrobial within the Network

- Refer to the tables below for Green, Orange and Red antimicrobials
- All non-formulary antimicrobials are considered “red” and require the approval of the Clinical Director Primary Care who may also suggest consultation with an infectious diseases physician. Once approved the medication can be obtained from the Network Pharmacy Department.
- Patient’s returning from hospital prescribed a restricted antimicrobial can continue treatment as per the discharge summary, without acquiring AMS approval for up to 2 weeks. Non-formulary antimicrobials still require approval from the CDPC and should be requested urgently.

Green List

Aciclovir (oral) Amoxicillin Amoxicillin with Clavulanic Acid Ampicillin IV Amphotericin (oral lozenges) Benzathine (Benzyl)penicillin Benzylpenicillin Cefaclor Cefalotin Cephalexin Cephazolin IV Chloramphenicol Clindamycin (oral, topical) Dicloxacillin Doxycycline	Erythromycin (oral) Famciclovir Flucloxacillin Fluconazole (oral) Framycetin (ear, eye) Gentamicin (eye) Gramicidin (topical) Griseofulvin Hexamine Hippurate Mebendazole Metronidazole (oral, topical) Minocycline Neomycin (topical) Nitrofurantoin Nystatin	Phenoxymethylpenicillin Procaine Penicillin Pyrantel Roxithromycin Terbinafine Tinidazole Trimethoprim Trimethoprim + Sulfamethoxazole Valaciclovir
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Orange List

Antimicrobial	Restriction
Azithromycin (oral)	<ol style="list-style-type: none"> 1. Single oral dose for the treatment of chlamydia trachomatis as per Standing Order (1 Dose) 2. Uncomplicated gonorrhoea infections in combination with ceftriaxone as per eTGS (1 Dose)
Ceftriaxone	<ol style="list-style-type: none"> 1. Single dose for suspected cases of meningococcal disease before hospitalisation in patients with hypersensitivity to penicillin as per Standing Order. (1 Dose) 2. Uncomplicated gonorrhoea infections in combination with Azithromycin as per eTGS (1 Dose) 3. Severe Respiratory Infections prior to hospitalisation or unable to transfer (Maximum 48 hours)

Ciprofloxacin	<p><u>Eye and ear preparations</u></p> <ol style="list-style-type: none"> 1. Acute bacterial otitis externa due to susceptible organisms in adults (Ciproxin HC Ear Drops) 2. Chronic suppurative otitis media due to susceptible organisms (Ciprofloxacin 0.3% ear drops) 3. Bacterial keratitis (infected corneal ulcers) (Ciprofloxacin 0.3% eye drops) 4. Severe bacterial conjunctivitis due to susceptible organisms (Ciprofloxacin 0.3% eye drops) <p><u>Oral Therapy</u></p> <ol style="list-style-type: none"> 5. Continuation of therapy, according to the discharge summary when initiated during tertiary hospital admission (2 weeks)
Clarithromycin	<ol style="list-style-type: none"> 1. The treatment of pertussis (7 Days) 2. The management of pertussis contacts (women in the last month of pregnancy or individuals who may transmit pertussis to infants younger than 6 months) (7 Days) 3. MAC Prophylaxis for immunocompromised patient. To be managed in consultation with specialist 4. H.Pylori eradication (7 days)
Ethambutol	<ol style="list-style-type: none"> 1. The management of tuberculous (TB) when used in combination with other anti-tuberculosis therapy. To be managed in consultation with an Infectious Diseases / Respiratory specialist
Gentamicin	<ol style="list-style-type: none"> 1. According to eTGS for a maximum of 48 hours
Isoniazid	<ol style="list-style-type: none"> 1. The management of tuberculous (TB) when used in combination with other anti-tuberculosis therapy. To be managed in consultation with an Infectious Diseases / Respiratory specialist
Metronidazole (injectable)	<ol style="list-style-type: none"> 1. For use in MSU (LBH) only - in accordance to eTGS
Moxifloxacin (oral)	<ol style="list-style-type: none"> 1. Moderate to severe respiratory infection in patients with immediate severe or delayed severe hypersensitivity to penicillins (7 Days)
Mupirocin (topical)	<ol style="list-style-type: none"> 1. Staphylococcal skin infection (7 Days)
Norfloxacin	<ol style="list-style-type: none"> 1. For prophylaxis of spontaneous bacterial peritonitis for patients with hypersensitivity to trimethoprim + sulfamethoxazole or if a trimethoprim + sulfamethoxazole-resistant organism is cultured
Oseltamivir	<ol style="list-style-type: none"> 1. Treatment and prophylaxis of influenza and influenza-like-illness as per Standing Order
Pyrazinamide	<ol style="list-style-type: none"> 1. The management of tuberculous (TB) when used in combination with other anti-tuberculosis therapy. To be managed in consultation with an Infectious Diseases / Respiratory specialist
Rifampicin	<ol style="list-style-type: none"> 1. The management of tuberculous (TB) when used in combination with other anti-tuberculosis therapy. To be managed in consultation with an Infectious Diseases / Respiratory specialist 2. The treatment of MRSA when used in combination with Sodium Fusidate
Rifaximin	<ol style="list-style-type: none"> 1. Prevention of hepatic encephalopathy where other treatments have failed or are contraindicated. To be prescribed in consultation with specialist

Silver Sulfadiazine	1. Prevention of infection in severe burns; other wounds e.g. pressure sores, leg ulcers (excluding very exudative)
Sodium Fusidate (oral, topical)	1. The treatment of MRSA when used in combination with Rifampicin (Oral) 2. Staphylococcal skin infection (Topical) (7 Days)
Tobramycin Eye Drops	Suspected pseudomonas eye infection or infection not responding to other topical antimicrobial agents and in consultation with specialist
Vancomycin	For use in MSU (LBH) only and 1. Continuation of therapy, according to the discharge summary when initiated during tertiary hospital admission. Refer to High Risk Medicine Framework (2 weeks)

Red List

Dapsone	Ganciclovir	Valganciclovir
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