

ANTIMICROBIAL STEWARDSHIP PROGRAM D/2015/33392 [V3]

Policy Owner: Quality & Risk Manager

No. of pages: 6

Policy Statement

The appropriate use of antimicrobials is critical to the effective delivery of care for patients. To optimise and direct the use of antimicrobials at the Mater with the goal of reducing unnecessary antimicrobial use, improving patient outcomes and reducing adverse sequelae of antimicrobial use including antimicrobial resistance, toxicity and unnecessary costs.

Scope of Policy

Healthcare-associated infection (HAI) programs have been nominated as one of the National and NSW priority areas in health. Included in this is the establishment of effective antimicrobial stewardship (AMS). A requirement for antimicrobial stewardship is included in the National Safety and Quality Health Service Standards in Standard 3: Preventing and Controlling Health Care Associated Infections. This policy applies to Medical Officers prescribing, Pharmacists dispensing and nursing staff administering medications.

Aims:

- Improve the prescription and management of antimicrobials.
- Minimise selection of resistance through effective antimicrobial stewardship.
- To ensure organisational compliance with Standard 3.14 (NSQHS).

Definitions

HAI – Health Care Associated Infections

AMS – Antimicrobial Stewardship

Roles & Responsibilities

The Mater AMS Program has the support of the executive leaders including the Executive Director and the Director of Clinical Services.

All clinical staff has access to the current Therapeutic Guideline Antibiotic Version 16, 2019 on the intranet and will follow the principle of use as per this guideline.

Guidelines

1. Governance of Antimicrobial Stewardship

1.1 The Mater Hospital AMS Committee

The Mater Hospital AMS Committee is a multidisciplinary group responsible for the development and ongoing evaluation of the AMS program. Core membership on this committee consists of representation from executive, medical, surgical, pharmacy, and nursing stakeholders. The AMS Committee also maintains links to the Medication Safety Committee, Infection Prevention and Control Committee and the Medical Advisory Committee. A list of AMS Committee members and a copy of the AMS Committee Terms of Reference is available on the Mater Hospital AMS intranet page, or alternatively the Chair and Secretariat may be contacted via the Infection Prevention and Control Committee/Coordinator.

ANTIMICROBIAL STEWARDSHIP PROGRAM D/2015/33392 [V3]

Policy Owner: Quality & Risk Manager No. of pages: 6

1.2 The Mater Hospital AMS Team

The Mater Hospital AMS team is a group of clinicians with daily duties dedicated to AMS activities. This team consists of an Infectious Diseases Specialist, AMS Pharmacist and Infection Control Clinical Nurse Coordinator. The AMS team is chiefly 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 via Pharmacy.

2. Principles of Antimicrobial Prescribing

2.1 Key Prescribing Principles

All prescribers at the Mater Hospital are expected to prescribe antimicrobial therapy according to the following key principles:

- Therapeutic decisions regarding the prescription of antimicrobials will be based on best available evidence. Empiric antimicrobial therapy (the infective pathogen is not known) or prophylactic therapy (given to prevent acquisition or development of infection) is prescribed according to the Therapeutic Guidelines: Antibiotic version 16. When the infective pathogen is known, antimicrobials are to be prescribed according to microbiology results and antimicrobial susceptibilities, where available.
- Prescribed antimicrobials will be of the narrowest spectrum possible for achieving the intended effect.
- Dosage, route and frequency of prescribed antimicrobials will be appropriate for the individual patient, as well as the site and type of infection.
- The duration of antimicrobial therapy will be defined and/or regularly reviewed (based on evidence-based guidelines and clinical improvement).
- Monotherapy is used in most indications, where clinically appropriate.

2.2 The Use of Evidence-Based Prescribing Guidelines

- NPS Medicinewise Antimicrobial Modules
Developed in collaboration with the Australian Commission on Safety and Quality in Health Care (ACSQHC), these courses deal with antimicrobial prescribing in a hospital setting. Medical interns, CMOs and intensive care registrars are encouraged to complete these prescribing modules as part of their learning and development plan to be able to implement a systematic approach to using current antimicrobial guidelines for prescribing.
- Therapeutic Guidelines: Antibiotic version 16
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

ANTIMICROBIAL STEWARDSHIP PROGRAM D/2015/33392 [V3]

Policy Owner: Quality & Risk Manager No. of pages: 6

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 is expected to document their clinical reasoning in the patient's notes or chart. Where an indication or clinical scenario is not covered by the guidelines, a prescriber may choose antimicrobial therapy based on an appropriate, peer-reviewed source. Care should be taken to ensure the recommendations made are relevant to an Australian context in terms of both antimicrobial resistance patterns and availability of the selected antimicrobial agents. Alternatively, a prescriber may wish to seek expert advice via the AMS team or an infectious diseases/microbiology consultation.

3. Access to Prescribing Resources and Support

3.1 Access to Evidence-Based Prescribing Guidelines

All clinical areas within the Mater Hospital have electronic access to antimicrobial prescribing guidelines via the Mater Hospital intranet page. Therapeutic Guidelines: Antibiotic can be accessed through eTG complete via Pharmacy Drug Info (Medchart).

3.2 Access to Antibiotic Advice

Prescribers at the Mater Hospital 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 via the Pharmacy (02) 9046 7100. 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 Hospital switchboard.

4. Local Restrictions on Antimicrobial Prescribing

4.1 Antimicrobial Restrictions

The implementation and maintenance of antimicrobial restrictions is a core AMS strategy at the Mater Hospital. The AMS Committee determines the restriction status and access rules 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)

ANTIMICROBIAL STEWARDSHIP PROGRAM D/2015/33392 [V3]

Policy Owner:	Quality & Risk Manager	No. of pages: 6
---------------	------------------------	-----------------

- 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

Antimicrobials are classified as either “green” (no restrictions) or “red” (restricted) antimicrobials at the Mater Hospital.

If a red antimicrobial is required, this needs approval prior to commencement. No drug will be withheld pending the approval process to avoid potential patient harm. The process of gaining approval is by phone or email with the Infectious Diseases physician. This approval is then noted on the AMS surveillance spread sheet maintained by the pharmacy and updated regularly with the input of the Infectious Diseases physician.

LIST OF **RED** (RESTRICTED) ANTIMICROBIALS:

Amikacin	Teicoplanin
Anidulafungin	Tigecycline
Azithromycin – IV	Vancomycin - neb, oral & IV
Caspofungin	Albendazole
Ciprofloxacin - oral & IV	Anti-malarial drugs
Cefepime	Aztreonam
Ertapenem	Ceftaroline
Fusidic acid	Dapsone
Gentamicin - nebs & >48 hours use	Daptomycin
Imipenem	Fidaxomicin
Ivermectin	Flucytosine
Itraconazole	Foscarnet
Linezolid - oral & IV	Fosfomycin
Meropenem	Piperacillin+tazobactam
Moxifloxacin - oral & IV	Posaconazole
Mupirocin 2% ointment	Praziquantel
Norfloxacin	Tobramycin - nebs & IV
Oseltamivir	Triclabendazole
Pristinamycin	Voriconazole
Rifampicin - non-mycobacterial use	
Anti-virals except prophylaxis on protocols	

RED DRUGS USED AS PER PROTOCOL

Amphotericin - liposomal - neb & IV
Anti-tuberculous drugs
Colistimethate - nebs & IV
Ganciclovir
Pentamidine

ANTIMICROBIAL STEWARDSHIP PROGRAM		
D/2015/33392 [V3]		

Policy Owner:	Quality & Risk Manager	No. of pages: 6
---------------	------------------------	-----------------

Posaconazole
Rifaximin
S100 drugs
Special access scheme (SAS) drugs
Sulfamethoxazole-trimethoprim - IV
Vaganciclovir
Viral hepatitis drugs
Voriconazole - oral & IV
Zanamavir

5. Other Antimicrobial Stewardship Initiatives

5.1 Monitoring of Antimicrobial Usage and Resistance

The Mater Hospital 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):

- Submission and analysis of National Antimicrobial Utilisation Surveillance Program (NAUSP) reports for Public Acute Group A Hospitals every month.
- Yearly review of audits of compliance with antimicrobial prescribing guidelines using the National Antimicrobial Prescribing Survey (NAPS).
- Yearly review of Surgical National Antimicrobial Prescribing Survey (SNAPS).
- Local data collection maintained by pharmacy on the use of restricted antimicrobials.

The AMS committee also works closely with the local pathology service to extract and evaluate data on local antimicrobial resistance rates and changes or trends that emerge over time. This includes:

- Review of cumulative hospital-level antibiograms for the Mater Hospital.

5.2 Targeted Interventions

Special initiatives or projects may be developed by the Mater Hospital AMS Committee to target particular areas of practice. Examples of targeted interventions may include an AMS awareness campaign aimed at nursing staff, or targeted practice audits on surgical prophylaxis per specialty.

Evaluation

The Mater Hospital Organisational Quality Improvement Plan includes antimicrobial stewardship initiatives to reduce the rates of inappropriate antimicrobial prescribing within the hospital.

Audits to assess compliance with antimicrobial prescribing will be conducted at least annually.

The Infection Control and Antimicrobial Stewardship Committees will monitor antimicrobial usage, particularly high-risk antimicrobials.

ANTIMICROBIAL STEWARDSHIP PROGRAM D/2015/33392 [V3]
--

Policy Owner: Quality & Risk Manager

No. of pages: 6

National Safety & Quality Healthcare Standards (NSQHS)

Standard 3 – Preventing and Controlling Healthcare Associated Infections
Standard 4 - Medication Safety

References

Antimicrobial Stewardship in Australian Hospitals, 2011
Australian Commission on Safety and Quality in Healthcare
SVPH Antimicrobial Stewardship Policy, Draft of February 2013
Therapeutic Guidelines, Antibiotics Version 16, 2019

Revision History

Date Written:	27/05/2013
Date of Last Review:	01/10/2020
Date of Next Review:	October 2023
Reviewed By:	MHS HPS Pharmacist
Committee Approval:	Infection Control Committee
Date	14/10/2020
Approved by:	Quality & Risk Manager
Date	01/10/2020