

ANTIMICROBIAL STEWARDSHIP - SCH POLICY®

DOCUMENT SUMMARY/KEY POINTS

- Antimicrobial stewardship is based on the following principles
 - Using the most effective therapy, based on evidence, for a given condition
 - Using the safest therapy that minimises toxicity and side effects
 - Providing optimal dosing, administration and monitoring
 - Minimising the selection and amplification of antimicrobial resistant pathogens
 - Providing cost-effective therapy
- This antimicrobial stewardship policy refers to the Antimicrobial Stewardship service at the Sydney Children's Hospital Randwick (SCH-R) and outlines:
 - The structure and function of:
 - The Antimicrobial Stewardship Subcommittee (AMS Subcommittee) of the SCH-R Drug Committee(SCH DC)
 - The SCH-R Antimicrobial Stewardship Service (SCH-R AMS Service)
 - The responsibilities of prescribers/providers of antimicrobials
 - The procedure for prescribing antimicrobials
 - The conflict resolution process for the service.
- Antimicrobials have been categorised according to the level of approval required, before starting the antimicrobial.
- Antimicrobial approvals will now be processed through the electronic "Guidance" system

Approved by:	SCHN Policy, Procedure & Guideline Committee	
Date Effective:	1 st January 2019	Review Period: 3 years
Team Leader:	Staff Specialist	Area/Dept: Infectious Diseases

CHANGE SUMMARY

- References and terminology updated.
- SCH Drug Committee to endorse formulary restrictions.

READ ACKNOWLEDGEMENT

- All staff of SCH-R who are involved in the provision of antimicrobial agents to SCH-R patients.
- Department Heads and Nursing Unit Managers at SCH-R.

TABLE OF CONTENTS

1	Background	3
2	Aims	3
3	Responsibilities	3
4	Procedure for prescribing antimicrobials	5
5	Conflict resolution process	5
6	Definitions	6
	<i>Antimicrobial stewardship</i>	<i>6</i>
	<i>Antimicrobial formulary restriction</i>	<i>6</i>
7	References	6

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1 Background

Improving the safe and appropriate use of antimicrobials is an important component of patient safety in hospitals and there is extensive evidence for the efficacy of Antimicrobial Stewardship (AMS), which involves a systematic approach to optimising the use of antimicrobials^[1].

AMS is one of several initiatives in the Australian Commission on Safety and Quality in Health Care (ACSQHC) healthcare associated infection (HAI) program that has been identified as an important strategy to address systemic problems and gaps in HAI prevention.

The ACSQHC have established a framework for AMS program implementation^[1] that in turn informs the National Safety and Quality Health Service (NSQHS) Standards^[2].

2 Aims

The purpose of this policy is to embed the SCH-R AMS program within the framework established by the ACSQHC in their "Antimicrobial Stewardship in Australian Hospitals: 2018" handbook^[1], which is aligned with the latest edition of the Australian Therapeutic Guidelines: antibiotic^[4].

This will promote the optimal use of antimicrobial agents by ensuring that we:

- Use the most effective therapy, based on evidence, for a given condition
- Use the safest therapy that minimises toxicity and side effects
- Provide optimal dosing, administration and monitoring
- Minimise the selection and amplification of antimicrobial resistant pathogens
- Provide cost-effective therapy

3 Responsibilities

Clinical departments and units will ensure that clinical guidelines involving antimicrobials align with the current version of the Therapeutic Guidelines: antibiotic, or alternatively align with other peer-reviewed and evidence-based consensus statements or policy documents from reputable and authoritative sources.

SCH Drug Committee will endorse formulary restrictions that limit use of broad-spectrum and later generation antimicrobials to patients in whom their use is clinically justified.

An AMS Subcommittee of the SCH Drug Committee will oversee the AMS program for SCH-R in line with the NSQHS Standards, including components such as education, auditing and monitoring of antimicrobial resistance patterns.

The roles of the AMS Subcommittee will be:

- To promote and assess adherence to SCHN antimicrobial policies and protocols within the hospital.

- To formulate, review and update antimicrobial guidelines and policies
- To promote and assess use of the electronic antibiotic stewardship tool 'Guidance MS'.
- To promote and assess antimicrobial use according to elements of the Antimicrobial Stewardship Clinical Care Standard^[4]
- To ensure that the content of Guidance MS is reflective of SCHN policies and protocols applicable to SCH-R.

AMS Subcommittee representation will be from SCH Drug Committee. Representation from outside of SCH Drug Committee will be sought where needed.

AMS Subcommittee will aim to have 3 to 5 regular members representing each of the SCHN Executive, senior medical officers, nursing staff, and Pharmacy.

At a minimum, AMS subcommittee shall comprise at least one of each of the following:

- An infectious diseases physician
- A pharmacist
- A member of SCH Drug Committee
- A member of the SCH-R Infection Prevention and Control Committee (SCHIPPC)
- A representative from SCHN Management/ Executive.
- A nurse

The same individual may fulfil more than one role.

The AMS Subcommittee will have access to, review, and report on antimicrobial usage data for surveillance and audit purposes. The hospital executive will ensure the implementation and maintenance of prescribing decision and approval support software and surveillance/auditing capabilities required by the AMS program. Facilities will provide resources to implement antimicrobial restriction policies.

The operation of the stewardship program at the SCH-R will be lead and managed by the Infectious Diseases service. In addition:

- It will receive support from the SCH Quality use of Medicines pharmacist.
- It will be supported by the prescribing decision and approval support software, Guidance MS.
- It will review electronic requests for antimicrobials in a timely fashion.
- It will provide a consultant-level ward-based consultation service at least twice per week.
- It will provide 24/7 phone-based support

It is the responsibility of all medical, nursing, and pharmacy staff to maintain the principles of the AMS policy and to highlight any issues that may arise, to the AMS service.

4 Procedure for prescribing antimicrobials

Everyone involved in the direct provision of antimicrobials to patients (including doctors, nurses, and pharmacists) will follow the principles of use outlined in SCH and SCHN guidelines and follow the local approval procedures for formulary-restricted antimicrobial agents.

Specifically:

All antimicrobials are assigned one of three colour categories which relates to the level of approval required.

1. Green - No approval required but use should be consistent with Therapeutic Guidelines: antibiotic or hospital guidelines
2. Yellow - Approval required through electronic system
3. Red - Approval required through consultation with AMS service

Before prescribing any restricted antimicrobial, *prescribers* will seek approval using the electronic antibiotic stewardship tool 'Guidance MS', or where necessary by contacting the person on-duty for the AMS Service.

Prescribers will be accurate in reporting the indications for the approval request.

Before dispensing any restricted antimicrobial, *pharmacy staff* will confirm that appropriate approval has been granted. If this cannot be confirmed, the pharmacist will raise the need for an approval with the prescriber or the prescriber's team directly, and raising a pharmacy alert in Guidance MS.

A conflict resolution process will be utilised in instances where a prescriber and the AMS Service are in disagreement on the approval or restriction of a particular antimicrobial for a particular patient (see below).

5 Conflict resolution process

The conflict resolution process is an escalation through a number of steps that are triggered when a request for a restricted antimicrobial is denied. The process may be terminated at any step if there is consensus that the restricted antimicrobial or an alternative is appropriate.

Step 1: Discussion between AMS Service and prescriber

Step 2: Formal infectious diseases consultation is offered

Step 3: Discussion occurs between AMS Service and the prescriber's consultant

Step 4: Discussion occurs between head of Infectious Diseases (ID) and the head of prescriber's unit

Step 5: Referral to the Director of Clinical Services or delegate

6 Definitions

Antimicrobial stewardship

A systematic approach to optimising the use of antimicrobials with the aim to: improve patient outcomes, reduce adverse effects, minimise the emergence of antimicrobial resistance, and ensure cost-effective therapy. AMS programs aim to facilitate prescribing based on the best available evidence that reduces unnecessary use and promotes the use of agents less likely to select for resistant pathogens.

Antimicrobial formulary restriction

A process of restricting the use of broad-spectrum and later generation antimicrobials to patients in whom their use is clinically justified. Selection of agents to be restricted is based on the relative consideration of: spectrum, safety, prevalence of resistance (e.g., of *Clostridium difficile*), resistance-inducing and amplification potential, frequency of indication, potential patient hypersensitivity and toxicity, and cost.

7 References

1. Australian Commission on Safety and Quality in Health Care. Antimicrobial Stewardship in Australian Health Care 2018.
2. Sydney: ACSQHC; 2018 Australian Commission on Safety and Quality in Health Care. National Safety and Quality Health Service Standards. 2nd ed. Sydney: ACSQHC; 2017. Available at <https://www.safetyandquality.gov.au/wp-content/uploads/2017/12/National-Safety-and-Quality-Health-Service-Standards-second-edition.pdf> (accessed 29 October, 2018 2011)
3. Antibiotic Expert Group. Therapeutic guidelines: antibiotic. Version 15. Melbourne: Therapeutic Guidelines Limited, 2014.
4. Australian Commission on Safety and Quality in Health Care. Antimicrobial Stewardship Clinical Care Standard. Sydney: ACSQHC, 2014.

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