Procedure

Antimicrobial: Prescribing and Management

<table>
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<tr>
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<tr>
<td>Executive sponsor</td>
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<tr>
<td>Author/custodian</td>
<td>Director - Infection Management and Prevention service</td>
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<td>Applicable to</td>
<td>All Children's Health Queensland (CHQ) Staff</td>
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<td>Authorisation</td>
<td>Executive Director Hospital Services (EDHS)</td>
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**Purpose**

This procedure supports a standardised approach to the appropriate use and prescribing of antimicrobial therapy at Children’s Health Queensland Hospital and Health Service (CHQHHS) in order to:

- Optimise clinical outcome.
- Minimise adverse consequences of antimicrobial use (toxicity, selection of pathogenic organisms and emergence of resistant organisms) and
- Support prudent management of antimicrobial associated health care costs.

The purpose of this procedure is to embed the implementation of an Antimicrobial Stewardship programme at CHQ within the framework established by the Australian Commission on Safety and Quality in Health Care (ACSQHC). To align CHQ processes with the Australian Council on Healthcare Standards, in particular the key priority of Healthcare Associated Infections. The goal is to provide safe quality health care within the framework of the National Quality and Safety standards.

**Scope**

This procedure relates to all CHQ staff involved in prescribing, dispensing, preparation and administration of antimicrobials. Each staff member, including Agency, Locum or staff on rotation, is individually responsible and accountable for ensuring safe and appropriate use of antimicrobials (Antimicrobial Stewardship) in accordance with CHQ Antimicrobial procedures, guidelines and restrictions.
Procedure

- All CHQ staff involved in the direct provision of antimicrobials to patients will follow the principles of use of antimicrobials as per *Therapeutic Guidelines: Antibiotic*.
- Antimicrobials will be prescribed per evidence-based guidelines for antimicrobials as per CHQ, Queensland Health List of Approved Medicines (LAM), approved departmental policies or guidelines and the current version of the *Therapeutic Guidelines: Antibiotic*.
- Clinical departments and units will ensure that clinical guidelines involving antimicrobials are reviewed by the Antimicrobial Stewardship team and align with the endorsed antimicrobial prescribing guidelines for CHQ.
- All such endorsed policies and guidelines recommending antimicrobial use will be made available through the AMS website.
- The decision to prescribe an antimicrobial should always be clinically justified and the reason(s) recorded on the Paediatric National Inpatient Medication Chart and Medical chart. In addition, the course length or review date for antimicrobial therapy should be clearly documented.
- The patient’s antimicrobial treatment and microbiology results should be reviewed regularly by the treating medical team and antimicrobial therapy rationalised accordingly.
- Parenteral antimicrobial therapy should only be used for those patients with severe infections or who are unable to take oral antimicrobials. Parenteral antimicrobials should be reviewed regularly and, if appropriate, the patient should be switched to oral therapy.
- The Antimicrobial Stewardship Steering Committee and the Medicines Advisory Committee will approve and publish formulary restrictions that limit the use of broad-spectrum antimicrobials to patients in whom their use is clinically justified.
- Approval from a Consultant in Paediatric Infectious Disease / Microbiology or their delegate will be required to use restricted antimicrobials.
- Antimicrobials for surgical prophylaxis should be prescribed and administered in accordance with the CHQ Surgical Antibiotic Prophylaxis guidelines and the *Therapeutic Guidelines: Antibiotic*.
- Procedures will be in place to communicate to health care professionals (including doctors, nurses and pharmacists) involved in the direct provision of antimicrobials to patients, to ensure they are aware of the Antimicrobial: Prescribing and Management procedure.
- A decision support escalation process will be utilised in instances where a prescriber is in disagreement on the approval or restriction of a particular antimicrobial for a particular patient (see flowchart below).
- The Antimicrobial Stewardship Steering Committee will monitor the audit results and review outcome measures produced by the antimicrobial stewardship programme. Appropriate feedback will be provided to health care professionals involved in the direct provision of antimicrobials to patients.
ALERT

DECISION SUPPORT PROCESS

The decision support 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 if there is a consensus that the restricted antimicrobial or an alternative is appropriate.

- Discussion between healthcare professionals (including doctors, pharmacists and nurses) and prescriber
- Formal infectious diseases consultation is offered
- Discussion between healthcare professionals (including doctors, pharmacists and nurses) and
- Discussion occurs between Director of IMPS and head of the prescriber’s unit
- Referral to the Medicines Advisory Committee
Supporting documents


Consultation

Key stakeholders who reviewed this version:
- Director, Infection Management and Prevention Service (IMPS, CHQ)
- Antimicrobial Stewardship Steering Committee (LCCH)
- Antimicrobial Stewardship Pharmacist (LCCH)

Definition of terms

<table>
<thead>
<tr>
<th>Term</th>
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References

1. Australian Commission on Quality and Safety in Healthcare
2. Australian Society of Infectious Diseases
Audit/evaluation strategy

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<th>Level of risk</th>
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<tr>
<td>Strategy</td>
<td>Annual Point Prevalence audit, Regular AMS rounds, Quarterly reporting on RCH Antimicrobial expenditure, Drug Use evaluations, Annual review of CHQ Antibiograms</td>
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<tr>
<td>Audit/review tool(s) attached</td>
<td>Nil</td>
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<td>Audit/Review date</td>
<td>Monthly reporting to Antimicrobial Stewardship Steering Committee</td>
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<td>Review responsibility</td>
<td>Antimicrobial Stewardship Team Infection Management and Prevention Service</td>
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| Key elements / Indicators / Outcomes | • Benchmark CHQ Paediatric Point Prevalence data against National and International Paediatric hospitals (ARPEC study).
• Percentage of patients undergoing specified surgical procedures that receive an appropriate prophylactic antibiotic regimen.
• Percentage of prescriptions for restricted antibiotics that are concordant with CHQ Antimicrobials Restrictions approved criteria.
• Percentage of patients with a toxic or sub-therapeutic aminoglycoside or vancomycin concentration whose dosage has been adjusted or reviewed prior to the next aminoglycoside or vancomycin dose.
• Surveillance reporting outcomes on detection and management of Multi-resistant organisms. |

Procedure revision and approval history

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<tr>
<th>Version No.</th>
<th>Modified by</th>
<th>Amendments authorised by</th>
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<tr>
<td>1.0</td>
<td>Infectious Diseases Consultant-Antimicrobial Stewardship (Infection Management and Prevention Service)</td>
<td>Medicines Advisory Committee (MAC) Antimicrobial Stewardship Steering Committee (CHQ)</td>
<td>General Manager Operations</td>
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<td>2.0</td>
<td>Director- Infection Management and Prevention Service and Antimicrobial Stewardship Pharmacist (LCCH)</td>
<td>Medicines Advisory Committee (MAC) Antimicrobial Stewardship Steering Committee (CHQ)</td>
<td>Executive Director Hospital Services</td>
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Keywords

Antimicrobials, antibiotics, Antimicrobial Stewardship, AMS, Antimicrobial Prescribing and Management, 01036

Accreditation references

EQuiPNational Standards (11-15): Standard 15 –Corporate Systems and Safety