

Antimicrobial Stewardship *in the community*

POLICY AND PROCEDURE

1. Scope

This policy applies to the provision of support services to Subee Newlake clients in the community.

This policy and procedure is to provide and guide best practice regarding antimicrobial stewardship with Subee Newlake clients.

2. Purpose

The purpose of this procedure is to promote evidence-based practice in the optimal use of antimicrobials for our clients. High rates of inappropriate antimicrobial use pose an increased risk to the safety of client care and the acquisition of antimicrobial resistant infections. The aim of Antimicrobial Stewardship is to improve client safety and reduce antimicrobial resistance.

3. Desired Outcome

- To maintain a quality and safe standard of service delivery support
- To optimise antibiotic management of clients to ensure optimal treatment as prescribed by the Medical Practitioner.
- Overseeing and promoting the Antimicrobial Stewardship program.
- Track antimicrobial use as part of 3 clinical reviews and part of clinical indicators reporting at monthly clinical meetings.
- Communicating expectations and results of the program with key stakeholders

4. Definitions

Antimicrobial - A chemical substance that kills or inhibits the growth of bacteria, viruses and fungi, including yeasts or moulds.

Antimicrobial resistance - Antimicrobial resistance happens when bacteria change to protect themselves from an antimicrobial. When this happens,

antimicrobials that previously would have killed the bacteria, or stopped them from multiplying, no longer work against those bacteria. (Australian Commission on Safety and Quality in Health Care, 2014).

Bacteria Microscopic living organisms, usually one-celled, that can be found everywhere. Most bacteria are harmless, but they can become dangerous when they cause infections.

Broad-spectrum antimicrobials - Antimicrobials that are active against a wide range of organisms are referred to as broad-spectrum antimicrobials.

Narrow-spectrum antimicrobials - Antimicrobials that target particular organisms or groups of organisms are referred to as narrow-spectrum antimicrobials. See also Broad-spectrum antimicrobials.

Prophylactic use - The use of antimicrobials to prevent an infection in clinical situations where there is significant risk of infection occurring. For example, antimicrobials are sometimes given before surgery as a preventative measure against infection.

5. Assessment guidelines

The use of antimicrobials in clients is governed through the clinical team. Subee Newlake aims to assess client's need to use antimicrobials, recommend appropriate interventions and evaluate overall antibiotic use at the home. The clinical team consists of Clinical Team Leader/Business Owner and Registered nurses. The clinical team role includes but is not limited to the following:

- collection and reporting on data related to antimicrobial prescribing and use, antimicrobial resistant organisms, culturing and adverse drug events;
- evaluation of the risk of antimicrobial related harms to the client;
- identification of infection based on standardised criteria;

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- use of evidence-based antimicrobial prescribing guidelines;
- identification of antimicrobial use that is not aligned with organisational policy or guidelines;
- review of prescriptions for antimicrobial use to ensure they are aligned with the goals of care;
- review of length of antimicrobial treatment and effectiveness;
- review of appropriateness of antimicrobials prescribed;
- identify adverse outcomes that might be associated with antimicrobials;
- provide information on:
 - o safe administration of antimicrobials and prevention of medication errors;
 - o the return of unused antimicrobials to pharmacist; and
 - o documentation of the antimicrobial treatment plan in the clients health record.

Prior to commencing antimicrobial therapy consider the risk of antimicrobial related harms to the client(s). These include risk of serious diarrheal infections from C.difficile, increased adverse drug events and drug interactions and colonisation and/or infection with antimicrobial-resistant organisms.

6.Procedure

The aim of the antimicrobial stewardship program:

- Identify clients who require antimicrobial therapy and recognise the risks associated with high, or inappropriate, antimicrobial use.
 - o Conduct clinical assessment and collect clinical evidence to confirm presence, source and type of infection.
 - o If clinical criteria of new, or increasing, infection are present carry out diagnostic testing. Specimens for microbiology must be collected correctly and in a timely manner before commencing antimicrobials.
 - o Follow up and review microbiology results in a timely manner to confirm presence of infection. Refer

to previous antimicrobial susceptibility results where a specimen/culture could not be collected, or microbiology results are not available.

- Communicate the clinical indicators of infection in a timely and effective manner to the medical officer/GP. Discuss use of evidence-based antimicrobial prescribing guidelines (e.g. Therapeutic Guidelines Ltd) to understand the:
 - o duration of therapy (kept at a minimum for resolution of infection);
 - o dosage and frequency targeted to the client's clinical condition, site and type of infection;
 - o the narrowest spectrum therapy required; and
 - o the use of alternative interventions to manage asymptomatic bacteriuria.
 - The response to clients presenting with serious infection or acute deterioration must be escalated.
 - Establish and verify if the client has a history of antimicrobial allergies or other antimicrobial adverse effects.
 - Establish the client's goals of care (comfort versus survival) or when their condition changes as this will inform antimicrobial use at end of life for example: alignment of the decision to prescribe an antimicrobial or not with the client's goals of care – i.e. comfort or end of life care or extended survival. Consideration of whether the clinical symptoms justify the prescription of antimicrobials and if the goals of care have been discussed with the client and or their representative.
 - If antimicrobial therapy is not indicated, document concerns and investigations and communicate to client (s) and their representative why this is the case.
 - The antimicrobial stewardship program at the home will support safe administration of antimicrobials and prevention of medication errors.
- This includes:
- o checking the client's allergy status;
 - o ensuring the right antimicrobial is administered to the right client at the right dose, route, form and time, and then documented;

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- o identifying and challenging antimicrobial use that does not align with policy or guidelines;
- o returning unused antimicrobials to the pharmacist for appropriate disposal;
- o ensuring the client's antimicrobial treatment plan is documented in a timely manner in the health record and includes:
 - ▣ indication(s) for treatment
 - ▣ generic drug name, dose, time and route of administration
 - ▣ planned duration of treatment
 - ▣ review/stop date
- Following initiation of an antimicrobial, monitor and document the client's response to treatment including any allergic responses and adverse effects of antimicrobial use such as:
 - o diarrhoea associated with C.difficile;
 - o increased incidence of diarrhoea amongst other clients suggesting transmission; and
 - o candidiasis (oropharyngeal, vulvovaginal).
- Where antimicrobial therapy for a suspected infection was commenced prior to receipt of investigation results, contact the medical officer to:
 - o review the results within 24 hours of receipt; and
 - o adjust or cease antimicrobial therapy as appropriate.
- The clients clinical team (nurse, medical officer/GP, and pharmacist) should initiate an antimicrobial review process after 48-72 hours of commencing treatment or on the documented review date to assess ongoing need and choice of antimicrobial. This review needs to include:
 - o identification of treatment that is not in line with microbiological results or recommended guidance, and highlight this to prescribers;
 - o repeat of microbiology to inform continuation or cessation of antimicrobial;
 - o reconciliation and adjustment of the prescription (appropriateness of antimicrobial, dose, duration and route of administration) in accordance to the client's clinical need and response to treatment; and

- o switching treatment with broad spectrum antibiotic to a narrow spectrum antibiotic as guided by microbiology results and clinical condition; and specialist advice to ensure optimal treatment is being provided

- When an antimicrobial has been prescribed, the client need to be given information in an accessible and understandable format. This includes information about the infection, treatment, benefits and risks of treatment.

Provision of general education to clients and family needs to include:

- o What antimicrobial stewardship is, and why it is important;
 - o The difference between bacterial and viral infections and the role of antimicrobials;
 - o Safe and appropriate medication use; and
 - o Expectations and goals of care.
- Education to Staff
- The Clinical Team Leader is responsible to ensure appropriate training is provided to staff regarding antimicrobial stewardship

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To Dip or Not to Dip?

'To Dip or Not to Dip' is an evidence-based pathway which aims to improve the diagnosis and management of Urinary Tract Infections (UTI) in older people living in care homes. This pathway has been shown to reduce antibiotic use and hospital admissions for UTI. This leaflet explains more about UTIs and the 'To Dip or Not to Dip' care pathway.

The presence of bacteria in the urine in older people



The presence of bacteria in the urine in older people does not necessarily mean there is an infection that requires antibiotics. Bacteria can live harmlessly in the urine of older people. In fact, around 50% of older people have bacteria in the urine without causing any symptoms. In those with a long-term urinary catheter, this rises to 100%.

What's the problem with urine dipsticks?

Urine dipsticks are often used in the diagnosis of UTI in older people living in care homes. A positive result for 'nitrite' (bacterial marker) or 'leucocyte' (white blood cell marker) may be a normal finding because of the high proportion of older people that have bacteria in the urine. Often, if a resident has a positive dipstick result and has non-specific symptoms, such as had a fall or is drowsy, they are inappropriately diagnosed with a UTI. The real diagnosis may be missed and the resident may receive antibiotics unnecessarily.



Antibiotics: More harm than good?

Antibiotics are powerful and precious drugs. Bacteria can develop antibiotic resistance. This means that antibiotics may not work when a person really does need them and these resistant bacteria can spread very easily in an aged care home setting. Side effects such as nausea, stomach upset and skin rashes are common in older people receiving antibiotics. A life-threatening infection called C.difficile diarrhoea (or 'C. diff') can be caused by antibiotics. Everyone has a responsibility to protect antibiotics and they should only be used when there is strong evidence of a bacterial infection.



To Dip or Not to Dip Clinical Pathway

Aged care home staff use a Clinical Pathway which is based on best practice guidelines. Urine dipsticks are not used first up. Instead staff use the Clinical

Pathway to focus on assessing for symptoms and signs that suggest UTI or other causes, and what actions to take. If UTI is suspected, collecting urine cultures is very important to allow treatment with the best and safest antibiotic.

Questions? Contact your manager or IPC Lead.

Want to know more? Go to agedcarequality.gov.au/antimicrobial-stewardship

Adapted from NHS Nottinghamshire County Council 'To Dip or Not to Dip' project and Dr Annie Joseph's work. 'To Dip or Not To Dip' is adapted from a successful NHS Quality Improvement project in care homes in England.

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Australian Government
Aged Care Quality and Safety Commission



Better use
of antibiotics