Topical antibiotics: very few indications for use

New Zealand has one of the highest levels of antibiotic use in the world, which also means that we have increasing rates of antibiotic resistance. We need to carefully consider how we are prescribing antibiotics, so they remain useful for treating the conditions for which they are indicated.

Topical antibiotics are often used excessively, and in recent times there has been an increase in the prevalence of bacterial resistance to both mupirocin and fusidic acid. Despite this, topical fusidic acid remains a valid treatment option for patients with localised areas of impetigo caused by *Staphylococcus aureus*, *Streptococcus pyogenes* or other related streptococci. Oral antibiotics are appropriate for patients with more extensive areas of impetigo or systemic symptoms. Fusidic acid cream or ointment 2% may also be considered for treating patients with small, localised areas of infected eczema, although oral antibiotics are more likely to be required.

Topical mupirocin should be reserved for treating patients with localised mild skin infections (impetigo or infected eczema) that are resistant to fusidic acid and have sensitivity to mupirocin. Combination topical antimicrobial/corticosteroid products are best reserved for treating small areas of localised infection in patients with an underlying inflammatory skin condition that will respond to a topical steroid.

There is no clear guidance at this stage on whether topical antiseptics should be used for treating minor skin infections. However, this may be an emerging management strategy.

Patients with recurrent skin abscesses should be investigated for carriage of *S. aureus*, and if appropriate, undergo a decolonisation regimen. This involves a combination of topical antibiotic treatment, antiseptic washing and decolonisation of household items.

What can I do to preserve the use of antibiotics?

There are a number of principles that can assist clinicians in ensuring that oral and topical antibiotics are used appropriately in order to limit the development of antimicrobial resistance. This is referred to as antimicrobial stewardship. Principles include:

- Do not prescribe an antibiotic when it is not required, e.g. for a viral upper respiratory tract infection, sinusitis, self-limiting cases of otitis media and conjunctivitis (which is often viral), boils (unless co-morbidities) and most diarrhoeal illnesses
- Use an antibiotic appropriate for the infection, and where possible avoid broad spectrum antibiotics, e.g. prescribe flucloxacillin for a *S. aureus* infection instead of cephalexin or amoxicillin clavulanate
- Prescribe antibiotic treatment for the recommended duration and advise patients to complete the full course; avoid prolonged or repeated courses without a strong clinical justification
- Prioritise consideration of antibiotic resistance, over palatability and convenience for the patient, when deciding what antibiotic to prescribe
- Ensure that the patient understands the importance of using antibiotics appropriately

Peer group discussion points:

1. How do you decide whether or not to prescribe a topical antibiotic to a patient with a skin infection?
2. How do you decide which topical antibiotic to prescribe?
3. What criteria do you use to decide whether to prescribe a topical or oral antibiotic?
4. In your experience, how often do patients return for further antibiotic treatment because their infection has not resolved? How do you usually manage these patients?
5. Have the increasing rates of antimicrobial resistance in New Zealand influenced your antibiotic prescribing?
6. Do you discuss with patients the importance of using antibiotics appropriately?
7. Have you prescribed a topical antiseptic to help prevent bacterial infections? How effective have you found topical antiseptics?
8. Have you had any experience with performing a *S. aureus* decolonisation in a patient with recurrent abscesses? If so, how did you go about this and how effective was it?

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