

Inappropriate topical application of antimicrobials

Inappropriate or overuse of antimicrobials increases the risk of multi-drug resistant organisms in the individual patient, as well as the healthcare environment. Antimicrobials should only be used where there is clear evidence that the benefit outweighs potential harm to patients.

Position

- Topical antimicrobials *are* appropriate for prophylaxis in certain ophthalmic surgical procedures (Refer to the Surgical Antimicrobial Prophylaxis Clinical Guideline: www.sahealth.sa.gov.au/antimicrobials). Topical antimicrobials *are* appropriate for the *treatment* of some ophthalmic and otolaryngeal infections.
- Post-operative application of topical antimicrobials (e.g. chloramphenicol ointment) should *not* be used routinely on surgical skin incisions as it contributes to the emergence of antimicrobial resistance.
- Antimicrobial agents should not be used as irrigations, pastes or washes for surgical prophylaxis as there is limited high-quality evidence to indicate superior outcomes compared to standard-of-care prophylaxis recommended in clinical guidelines endorsed by SAAGAR or local Antimicrobial Stewardship Committees.
- There are no high-quality controlled studies to show superior clinical outcomes by soaking of prosthetic implants in antibiotic solutions or applying intra-operative antibiotic powder compared to the use of appropriate peri-operative intravenous antibiotics alone.
- Non-antibiotic measures are important in preventing post-operative infections, including pre-operative skin preparation with alcohol-based antiseptic solutions (e.g. chlorhexidine/alcohol), no shaving and good surgical technique.

References

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