

# INTRODUCTION TO ORAL AND DENTAL INFECTION GUIDELINES V2.0

These guidelines have been developed by the Dental Expert Advisory Group, which is a subgroup of the Community Antimicrobial Guidelines Editorial Group associated with the HSE Antimicrobial Resistance and Infection Control (AMRIC) Programme.

These guidelines have been developed after review of national and international guidelines, current practice, expert opinion, clinical consensus and published evidence where it exists. The treatment options recommended have been produced as a guide for prescribers and are not intended to replace clinical judgement but to augment it. While the guidelines are primarily for use by dentists they may also be of benefit to GPs where a patient presents with an oral infection.

These guidelines have been developed to promote antimicrobial stewardship within dentistry. Key aims of antimicrobial stewardship are to optimise antimicrobial treatment and to limit unintended consequences of antimicrobial use, for example adverse effects and the development of antimicrobial resistance.

## Principles of Antimicrobial Stewardship in Dentistry

1. Consider local measures which may avoid the need for an antimicrobial therapeutic agent and prescribe an antibiotic only when there is likely to be a clear clinical benefit.
2. Most dental infections can be treated without antibiotic treatment by removal of the cause and drainage of the infection using a dental procedure.
3. Antimicrobial therapy is not a substitute for dental treatment. The use of antimicrobials for dental procedures is likely to be as an adjunct to operative intervention or other treatment modalities.
4. For people with a severe spreading dental infection, effective antibiotics and operative management are imperative and should be managed promptly.
5. Some scenarios where antimicrobials are not indicated in dentistry include:
  - Before a dental procedure to decrease inflammation or to cure toothache.
  - Antibiotics are not needed before most dental procedures to prevent surgical site infections.
  - Acute pulpitis where operative dental treatment or treatment with analgesia is more appropriate.
  - Endodontic treatment unless there is evidence of significant local spread of infection or systemic infection. Antimicrobials should not be routinely prescribed post-operatively for endodontic therapy as research indicates that it does not reduce pain, swelling or the need for analgesics in symptomatic root filled teeth.
6. These guidelines detail empiric treatment recommendations. Where antimicrobials are indicated, drug choice, dose and duration of treatment is suggested. Antimicrobial treatment should be reviewed and adjusted as necessary, if / when microbiological culture and sensitivity data is available.
7. The importance of the correct antibiotic dose should be recognised.
  - Under-dosing has been shown to be associated with increasing resistance.
  - Overdosing may lead to toxicity and adverse drug reactions.

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8. For children with a severe infection or at extremes of body weight for their age, the antibiotic dose should be calculated using a weight-based dose (mg/kg). The child's weight should be recorded on the prescription. Further information on prescribing in children is available on [www.antibioticprescribing.ie](http://www.antibioticprescribing.ie), including advice on prescribing analgesia ([paracetamol](#) and [ibuprofen](#)).
9. Before prescribing antimicrobials, clinicians should also consider the following:
  - Previous antimicrobial treatment which has been prescribed for the current and previous infections.
  - The allergy status of the patient.
  - Patient's medical history.
  - Other medicines the patient is taking (See [Drug Interactions Tables](#)).
  - Renal or hepatic impairment (See [Renal Dosing Tables](#)).
10. The use of clindamycin, cephalosporins or co-amoxiclav are not recommended for the routine management of oral infections. The inappropriate use of these antibiotics can increase the risk of *Clostridioides difficile* infection and of antibiotic resistance, Co-amoxiclav has also been associated with increased incidence of liver toxicity.
11. Particular caution in prescribing practices is advised for patients who are pregnant or breastfeeding, have kidney or liver disease and in children and the elderly. (refer to the Summary of Product Characteristics via [www.HPRA.ie](http://www.HPRA.ie) or in a recognised formulary, such as the BNF for further details).
12. There is a risk of significant interactions between certain antibiotics, antifungals, and other medicines.
  - Caution is advised when prescribing macrolides such as clarithromycin or miconazole oral gel with statins as they have shown adverse reactions, such as a risk of myopathy.
  - As all antimicrobials may effect warfarin levels, monitoring INR during and after antimicrobial treatment is recommended. Co-administration of miconazole oral gel with warfarin is contraindicated.

The above is not a full list of potential drug interactions. Further information is available from the [drug interactions tables](#) for commonly prescribed medications in primary care, or refer to the Summary of Product Characteristics via [www.HPRA.ie](http://www.HPRA.ie).

13. Ideally follow up should be arranged for each patient to ensure that infections have resolved. Follow up should ensure that necessary treatment is completed to resolve the source of infection as this may reduce the potential for reinfection and the need for further antibiotics.
14. Clinicians should also make patients aware of what they will be taking, why they are being given a prescription, how to identify adverse reactions and who to contact in case of difficulty.
15. In the event of a serious side effect, or any adverse reaction to a newly authorised product, report it to the Health Products Regulatory Authority ([www.hpra.ie](http://www.hpra.ie)).

### [See guide on how to write a prescription for Dentists](#)