Antibiotic Stewardship

A Prescribing Decision Aid for Odontogenic and Selected Periodontal Infections in Immunocompetent Adults (Treatment, Not Prophylaxis)

ADA.org/antibioticstewardship

Clinical Pearl: Antibiotics are adjunctive to — never a substitute for — definitive dental treatment.

Urgent Referral: Deep-space infection, rapidly spreading cellulitis, trismus, dysphagia, voice change, airway compromise, or sepsis concern → refer urgently to ED/OMFS. Do not rely on outpatient oral antibiotics alone.

ODONTOGENIC INFECTIONS

Signs or Symptoms of LOCALIZED INFECTION

Provide DCDT pulpotomy, pulpectomy, root canal treatment, incision & drainage, or extraction (as indicated).
NO SYSTEMIC ANTIBIOTICS

DCDT not available?

DCDT not immediately available + pulp necrosis + localized acute apical abscess → Refer Urgently + immediate prescribing

DCDT unavailable + pulp necrosis + symptomatic apical periodontitis → delayed prescribing

Follow regimens: **TABLE A** (or **TABLE B** if penicillin allergic)

Signs or Symptoms of SYSTEMIC/SPREADING INFECTION

Provide urgent definitive / local treatment
AND systemic antibiotics as an adjunct.

Penicillin allergy? No → **TABLE A** Yes → **TABLE B**

SYSTEMIC ANTIBIOTICS — Adjunct For Odontogenic Infections With Systemic Involvement

TABLE A - First-line agents

Medication	Dose and Duration (adults)
Amoxicillin (preferred)	500 mg, TID for 3–7 days
Penicillin V potassium	500 mg, QID for 3–7 days

If first-line therapy fails: add metronidazole 500 mg TID for 7 d, OR switch to amoxicillin–clavulanate 500/125 mg TID for 7 d. Broadening spectrum should prompt reassessment of the diagnosis and adequacy of definitive treatment.

TABLE B – Penicillin-Allergy Alternatives

Medication	Dose and Duration (adults)
Cephalexin*	500 mg, QID for 3–7 days
Azithromycin†	500 mg day 1, then 250 mg daily for 4 days

*Cephalexin: For penicillin allergy without anaphylaxis, angioedema, or hives.

†Azithromycin: alternative for severe (anaphylaxis / angioedema / hives) penicillin allergy; Clindamycin is reserved only when azithromycin is unsuitable, ideally guided by culture and sensitivity, owing to high risk of *C. difficile* infection.

Penicillin-allergy stewardship tip

Many reported penicillin allergies are not confirmed on evaluation. Review the patient's allergy history and follow CDC penicillin-allergy assessment guidance before prescribing a penicillin alternative.

ANTIBIOTIC STEWARDSHIP FOR ODONTOGENIC INFECTION WITH SYSTEMIC INVOLVEMENT

Use the narrowest-spectrum agent for the shortest effective duration

Reevaluate within 3 days and discontinue 24–48 hrs after systemic signs and symptoms resolve

PERIODONTAL INFECTIONS (Stage I – III Periodontitis‡)

Mechanical therapy (SRP/debridement) is first-line. Routine systemic antibiotics are NOT recommended.

Residual moderate — deep pockets after high-quality SRP: may consider subantimicrobial-dose doxycycline 20 mg BID for 3–9 months in selected moderate — severe cases.

Generalized severe / Grade C disease (systemic antibiotics rarely indicated): amoxicillin 500 mg TID + metronidazole 400–500 mg TID, up to 7 days → only in selected patients after high-quality mechanical therapy and shared decision-making.

Periodontal abscess: manage as an urgent odontogenic infection. Drainage + urgent mechanical therapy; Systemic antibiotics are adjunctive only when there is systemic involvement (see **TABLE A** or **TABLE B** for regimens).

‡*Stage IV periodontitis is outside the scope of this aid – should be individualized and procedure-specific.*

Abbreviations

ED = emergency department
OMFS = oral & maxillofacial surgery
DCDT = definitive, conservative dental treatment
SRP = scaling and root planing
BID = twice daily
TID = three times daily
QID = four times daily

Source: Antibiotic stewardship: balancing patient care and public health — American Dental Association Council on Scientific Affairs Clinical Practice Statement, JADA 2026

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