Endodontic Spotlight

Steven C. Kwan, D.D.S., M.S.D.
Diplomate of the American Board of Endodontics
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Introduction
Happy New Year! In this issue, we're highlighting the new JADA article that provides guidelines on antibiotics in endodontics. Recommendations are made based on the preoperative diagnosis as well as if endodontic care is immediately available. Hopefully this will help provide some guidance on when you should prescribe antibiotics.

As you will see, the availability of emergent or urgent endodontic care is important in the management of these types of patients. At Kwan Endodontics, we do offer a limited number of emergency treatment appointments. Although these can fill up quickly, we do try to make every effort to accommodate your patients who have a true dental emergency, especially if we regularly work with your office. We would love to assist you in providing the best care possible for your patients.

Lockhart PB, Tampi MP, Abt E, Aminoshariae A, Durkin MJ, Fouad AF, Gopal P, Hatten BW, Kennedy E, Lang MS, Patton LL, Paumier T, Suda KJ, Pilcher L, Urquhart O, O'Brien KK, Carrasco-Labra A. Evidenced-based clinical practice guideline on antibiotic use for the urgent management of pulpal- and periapical-related dental pain and intraoral swelling. J Amer Dent Assoc 2019;150:906-921.
The ADA convened an expert panel to perform a systematic review and provide clinical practice guidelines on the use of antibiotics in various endodontic situations. They formulated five clinical recommendations and two good practice statements (which are less strong as they lack the certainty of evidence of a clinical recommendation). These guidelines, which are targeted at the general dentist population, apply to immunocompetent adults and are based on the preoperative diagnosis and on whether definitive conservative dental treatment (DCDT which includes pulpotomy, pulpectomy, non-surgical root canal therapy or incise & drain) is immediately available. In general, antibiotics are only indicated if a localized acute apical abscess is present and DCDT can NOT be immediately provided, or if the acute apical abscess has systemic involvement (fever, malaise, etc). Antibiotics are not indicated for cases of irreversible pulpitis, pulp necrosis without an acute apical abscess (i.e. just symptomatic apical periodontitis), or pulp necrosis with a localized acute apical abscess where DCDT has been provided. They recommend both amoxicillin (500 mg, tid for 3-7 days) or penicillin (500 mg, qid for 3-7 days) as first line treatments, though simultaneously state that amoxicillin is preferred. Please see Table (next page) and the full article for footnotes and full details. In general these guideline are similar to how Board Certified Endodontists have been practicing for the last decade or so with only minor changes, though the authors suggest that the general population is currently provides antibiotics more frequently than recommended. *SUMMARY: Clinical guidelines for antibiotic use in endodontic infections are provided that suggest that they are only indicated for cases that include a localized acute apical abscess where immediate treatment is NOT provided or for cases with acute apical abscess with systemic involvement.*

Table. Summary of clinical recommendations for the urgent management of symptomatic irreversible pulpitis with or without symptomatic apical periodontitis, pulp necrosis and symptomatic apical periodontitis, and pulp necrosis and localized acute apical abscess.

SETTING, CLINICAL QUESTION	EXPERT PANEL RECOMMENDATIONS AND GOOD PRACTICE STATEMENTS
Urgent Situations in Dental Settings in Which Pulpotomy, Pulpectomy, Nonsurgical Root Canal Treatment, or Incision for Drainage of Abscess Are *Not* an Immediate Option (Not On Same Visit)	
1. For immunocompetent* adults **with symptomatic irreversible pulpitis**† **with or without symptomatic apical periodontitis,**‡ should we recommend the use of oral systemic antibiotics compared with the nonuse of oral systemic antibiotics to improve health outcomes?	Recommendation 1: The expert panel recommends dentists *do not prescribe* oral systemic antibiotics for immunocompetent adults with **symptomatic irreversible pulpitis**† **with or without symptomatic apical periodontitis**‡ (strong recommendation, low certainty). Clinicians should refer§ patients for DCDT¶ while providing interim monitoring.#
2. For immunocompetent adults with **pulp necrosis and symptomatic apical periodontitis or localized acute apical abscess,**** should we recommend the use of oral systemic antibiotics compared with the nonuse of oral systemic antibiotics to improve health outcomes?	Recommendation 2A: The expert panel suggests dentists *do not prescribe* oral systemic antibiotics for immunocompetent adults with **pulp necrosis and symptomatic apical periodontitis** (conditional recommendation, very low certainty). Clinicians should refer patients for DCDT while providing interim monitoring. If DCDT is not feasible, a delayed prescription†† for oral amoxicillin (500 mg, 3 times per d, 3-7 d) or oral penicillin V potassium (500 mg, 4 times per d, 3-7 d)‡‡,§§,¶¶,##,*** should be provided. Recommendation 2B: The expert panel suggests dentists prescribe oral amoxicillin (500 mg, 3 times per d, 3-7 d) or oral penicillin V potassium (500 mg, 4 times per d, 3-7 d)‡‡,§§,¶¶,##,*** for immunocompetent adults with **pulp necrosis and localized acute apical abscess** (conditional recommendation, very low certainty). Clinicians also should provide urgent referral as DCDT should not be delayed.#
No corresponding clinical question	Good practice statement: The expert panel suggests dentists prescribe oral amoxicillin (500 mg, 3 times per d, 3-7 d) or oral penicillin V potassium (500 mg, 4 times per d, 3-7 d)‡‡,§§,¶¶,##,*** for immunocompetent adults with **pulp necrosis and acute apical abscess with systemic involvement.**††† Clinicians also should provide urgent referral as DCDT should not be delayed.# If the clinical condition worsens or if there is concern for deeper space infection or immediate threat to life, refer patient for urgent evaluation.‡‡‡
Urgent Situations in Dental Settings and Pulpotomy, Pulpectomy, Nonsurgical Root Canal Treatment, or Incision for Drainage of Abscess *Are* an Immediate Option (Same Visit)	
3. For immunocompetent adults with **pulp necrosis and symptomatic apical periodontitis or localized acute apical abscess,** should we recommend the use of oral systemic antibiotics compared with the nonuse of oral systemic antibiotics as adjuncts to DCDT§§§ to improve health outcomes?	Recommendation 3: The expert panel recommends dentists *do not prescribe* oral systemic antibiotics as an adjunct to DCDT§§§ for immunocompetent adults with **pulp necrosis and symptomatic apical periodontitis or localized acute apical abscess** (strong recommendation, very low certainty).
4. For immunocompetent adults with **symptomatic irreversible pulpitis with or without symptomatic apical periodontitis,** should we recommend the use of oral systemic antibiotics compared with the nonuse of oral systemic antibiotics as adjuncts to DCDT¶¶¶ to improve health outcomes?	Recommendation 4: The expert panel suggests dentists *do not prescribe* oral systemic antibiotics as an adjunct to DCDT¶¶¶ for immunocompetent adults with **symptomatic irreversible pulpitis with or without symptomatic apical periodontitis** (conditional recommendation, very low certainty).
No corresponding clinical question	Good practice statement: The expert panel suggests dentists perform urgent DCDT§§§ in conjunction with prescribing oral amoxicillin (500 mg, 3 times per d, 3-7 d) or oral penicillin V potassium (500 mg, 4 times per d, 3-7 d)‡‡,§§,¶¶,##,*** for immunocompetent adults with **pulp necrosis and acute apical abscess with systemic involvement.**††† If the clinical condition worsens or if there is concern for deeper space infection or immediate threat to life, refer for urgent evaluation.‡‡‡

Endodontic Spotlight is published quarterly by Steven C. Kwan, D.D.S., M.S.D.
KWAN ENDODONTICS is located at 6715 Fort Dent Way, Tukwila WA 98188
206-248-3330; 206-431-1158 (fax); www.seattle-endodontics.com
To subscribe or unsubscribe from this publication, email endodonticspotlight@gmail.com.