



Antibiotic effectiveness in Periodontics: Unlocking research opportunities with the PAAS trial

The **Periodontal Adjunctive Antibiotics Study (PAAS)** will assign patients with periodontitis to receive either Amoxicillin + Metronidazole or placebo as an adjunct treatment to scaling and root planing. Over 12 months, we will track periodontal clinical parameters, complications, and patient satisfaction.

- **Misuse of antibiotics** poses a growing threat, jeopardizing both patient health and microbial resistance.
- **Current guidelines lack strong evidence**,^{1,2} leading to confusion and inconsistencies in prescribing practices.
- **PAAS will bridge the gap**, providing definitive data to establish clear, optimal antibiotic utilization strategies.

Study Details:

- **Double-blind, randomized clinical trial design:** Testing Amoxicillin + Metronidazole as adjunct to non-surgical periodontal therapy (scaling and root planing).
- **Data collection:**
 - Practitioners will record full mouth probing depth, bleeding on probing, gingival recession, etc. at baseline, 6-week, and 1-year follow-up visits and upload periodontal charts via a user-friendly web form.
 - Practitioners will dispense Amoxicillin + Metronidazole or placebo to their patients in conjunction to scaling and root planing (SRP) treatment.
 - Patients will complete short web-based surveys at baseline, 10 days after baseline, and at the 6-week and 1-year follow-up visits.
 - Both practitioners and patients will report on adverse events throughout the study.
- **Sample size:** 544 patients from 36 practices in the South Central, Southwest, and Western Network Regions.
- **Outcomes:**
 - Primary: Improved clinical parameters of probing depth, and bleeding on probing at 1 year as primary outcome
 - Effect of adjunctive antibiotics on other clinical parameters (gingival recession, attachment level).
 - Identify factors associated with high response to adjunctive antibiotics.
 - Evaluate the safety and tolerability of adjunctive antibiotics.



Potential benefits for practitioners and their patients:

- **Shape the future of periodontal therapy.** Your data will directly influence future clinical guidelines, with clear protocols for antibiotic use, optimizing both patient care and antibiotic stewardship.
- **Benefit your patients.** Advance scientific knowledge to deliver the best possible periodontal care.

Current study status:

1. Currently enrolling practitioners from the participating regions.
2. Expected patient enrollment is April through July 2024.

[1] Smiley CJ, Tracy SL, Abt E, Michalowicz BS, John MT, Gunsolley J, Cobb CM, Rossmann J, Harrel SK, Forrest JL, Hujoel PP, Noraian KW, Greenwell H, Frantsve-Hawley J, Estrich C, Hanson N. Systematic review and meta-analysis on the nonsurgical treatment of chronic periodontitis by means of scaling and root planing with or without adjuncts. J Am Dent Assoc. 2015 Jul;146(7):508-24.e5. doi: 10.1016/j.adaj.2015.01.028. PMID: [26113099](#).

[2] Smiley CJ, Tracy SL, Abt E, Michalowicz BS, John MT, Gunsolley J, Cobb CM, Rossmann J, Harrel SK, Forrest JL, Hujoel PP, Noraian KW, Greenwell H, Frantsve-Hawley J, Estrich C, Hanson N. Evidence-based clinical practice guideline on the nonsurgical treatment of chronic periodontitis by means of scaling and root planing with or without adjuncts. J Am Dent Assoc. 2015 Jul;146(7):525-35. doi: 10.1016/j.adaj.2015.01.026. PMID: [26113100](#).



Group facilitator: Introduce yourself and facilitate a discussion of the study and implications to practice. Promote a space where all practitioners voice their opinion. Call on people directly, particularly if one person is dominating the conversation.

Group recorder: Please record a summary of the group's discussion on the form provided and, in conjunction with the practitioner group leader, be prepared to summarize your group's findings.

Antibiotic effectiveness in Periodontics: Unlocking research opportunities with the PAAS trial

1. In your experience, what challenges do you face in making informed decisions about prescribing antibiotics for periodontal treatment?
2. Do the current guidelines regarding adjunctive antibiotics feel vague or lacking in supporting evidence? If so, how does this impact your approach to treatment?
3. In your opinion, what factors currently make predicting individual patient response to adjunctive antibiotics in periodontics difficult?
4. What specific insights from the PAAS trial do you anticipate will be most valuable for shaping future clinical guidelines and best practices for antibiotic use in periodontics?
5. Beyond influencing antibiotic guidelines, how do you envision the findings of PAAS shaping the future of periodontal therapy overall?

For digital resources and references, visit www.nationaldentalpbrn.org/meetingresources2024/ by scanning the QR code below.

