Evidence Tables

*	Calculated by review team
A.a	Actinobacillus actinomycetemcomitans
ANCOVA	Analysis of Covariance
ANOVA	Analysis of Variance
API	Approximal plague index
Appts.	appointments
BANA.	Benxoyl-DL-Arginine-Naphthylamide test
B.f..	Bacteroides forsythus
B.g..	Bacteroids gingivalis
bid	Two times daily
B1	Bleeding
BL	Bone Loss
BOP/SBI	Bleeding on Probing
C	Control Group
C.r..	Campylobacter rectus
CAG	Chronic Atrophia Gastritis
CAL	Clinical Attachment Level/Loss
CDI	Cell-directed Inhibitors
CHX	Chlorhexidine
CIS	Simplified Calculus Index
CPITN.	Community Periodontal Index of Treatment Needs
Diff	Difference
E.c..	Eikenella corrodens
EDTA	Ethylenediaminetetracetic Acid
GCF	Gingival Crevicular Fluid
GI	Gingival Index or Gingivitis Index
GLM	General Linear Models
Grad.	Graduate Grp Group
HCI	Hydrochloride
Ind.	Index
JP	Juvenile Periodontitis
LAP	Localized Aggressive Peridontitis
LoA	Level of Attachment
max.	Maximum
Mg.	Milligram
MGI.	Modified Gingival Index
min.	Minute
mm	Millimeter
mg/ml.	Milligrams per milliliter
MMP-8	Metalloproteinas-8
Mo	Month
NA.	Not Applicable, measure not part of study
ng/ml.	nanogram per milliliter
NR	Not reported
NS	Not significant
P	Probability
PAL	Probing Attachment Level
PBI	Papilla Bleeding Index
PD	Probing Depth
PDI	Peridontal Disease Index
P.g.	Porphyromonas gingivalis
P.i.	Prevotella intermedia
PlI	Plaque Index
PD	Probing Depth Pocket
Pts	Patients
quad.	Quadrant
RCT	Randomized Controlled Trial
Rmg.	Remaining
RP	Root Planing
SBI	Sulcus Bleeding Index
SD	Standard Deviation
SDD	Subantimicrobial Dose Doxycycline
se	Standard Error
sig.	significance
SL	Stomelysin
SRP	Scaling and Root Planing
T	Treatment Group
TC	Triclosan
T.d.	Treponema denticola
TET	Tetracyline
tid	Three times daily
TIMP	Tissue Inhibitor of Metalloproteinases
Txt	Treatment
wk.	Week
w/w.	Weight percent
x.	Per
Yr	Year

Evidence Table 1a. Effectiveness of Systemic Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Haffajee et al., 1995[46] **Study Period:** 43 weeks (10 months) **Study/Treatment Site:** Hospital Dental Clinic **Location:** USA **Patients Selected:** Originally 98 patients aged 14-71 with evidence of prior attachment loss, at least 20 teeth and at least 4 pockets >4 mm and 4 sites of LOA >3mm, no localized JP. From this pool, subjects exhibiting LOA >2.5 mm at = 1 sites anytime during 6 months observation period were admitted to study	**Design Type:** RCT **Subject/Site Allocation:** Random **Blinding:** Examiners and patients blind **Placebo:** Yes **Split-mouth:** No	**Severity:** Active disease, no rapidly progressing periodontal disease **Types of Teeth:** All excluding third molars **Widman flap:** Yes, at active sites and where PD > 4mm	**Number:** 1 **Trained:** NA **Assigned to Subjects:** Same examiner throughout study	**SRP performed:** Scaling and root planing by quadrant, approximate 10 day intervals, repeated during course of study every 3 months for 1 yr **Time spent on SRP:** NR

Evidence Table 1a. Effectiveness of Systemic Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Time Interval(s)
Subject/Site allocation: 24 subjects, 6 sites per tooth T: 13 subjects C: 11 subjects **Dose, Mode, Schedule:** All rinsed with 0.12% chlorhexidine for 30 days T: SRP plus 250 mg tetracycline 3xday for 30 days C: SRP plus placebo (250 mg sucrose) 3xday for 30 days	**Age:** Mean All: 48 ± 12 Mean T: 44 ± 15 Mean C: 48 ± 11 **Gender:** All: 57% Male T: 62% Male C: 55% Male **Race/Ethnicity:** NR	NR	Before SRP	6 times (at baseline and 2, 4, 6, 8, and 10 months)

Evidence Table 1a. Effectiveness of Systemic Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
Haffajee et al., 1995[46] (continued)	**Clinical Measurement:** BOP/SBI PD CAL GI **Radiographic Techniques:** NR **Microbiological Methods:** DNA probes and colony lifts for 14 taxa in 29 of 40 subjects **Subject Self Report:** NR	NR	NR	**Type of analysis reported:** Mann-Whitney and Kruskal-Wallis, change by site, averaged for individual, then averaged for group

Evidence Table 1a. Effectiveness of Systemic Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

		Outcomes Accessed			
		Attachment Level mm	Probing Depth mm	Spirochetes	
	(N of Pts)	$\bar{x}$ (SD)	$\bar{x}$ (SD)	$\bar{x}$% (SD)	Comments
Baseline:					Only baseline values presented in table. Change score mostly presented in bar graphs. Text presents change scores for PD, but not the associated SDs.
T:	13	3.6 (1.1)	3.8 (0.5)	NA	
C:	11	3.5 (1.2)	3.6 (0.5)	NA	
Final: 43 weeks (10 months)					
T:	13	NR	NR	NA	
C:	11	NR	NR	NA	**Quality Score:** 62; 46
Change:		Gain	Reduction		
T:		0.49 (NR)	0.75 (NR)	NA	
C:		NR	0.46 (NR)	NA	
Test:		Mann Whitney Test	Mann Whitney Test		
P value:		NS	NS		

Evidence Table 1a. Effectiveness of Systemic Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Author and Year: Lindhe et al, 1983[44] **Study Period:** 50 weeks **Site of Study:** Dept of Periodontology, Univ of Gothenburg, Sweden **Location:** Gothenburg, Sweden **Patients Selected:** Referral patients with at least 20 teeth, and 4 pairs of diseased sites around contralateral premolars or incisors with = 6 mm PD and = 40% bone loss	**Design Type:** RCT **Subject/Site Allocation:** Random **Blinding:** Examiners and patients blind **Placebo:** Yes **Split-mouth:** Yes, for SRP No, for inter-vention	**Severity:** Advanced periodontitis **Types of Teeth:** Premolars and incisors **Widman flap:** No	**Number:** NR **Trained:** NR **Assigned to Subjects:** NR	**SRP performed:** Meticulous scaling under anesthesia (half mouth) requiring 2-4 visits during course of week **Time spent on SRP:** NR

Evidence Table 1a. Effectiveness of Systemic Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Assessment Time Interval(s)
Subject/Site allocation: 14 subjects T: 7 subjects C: 7 subjects **Dose, Mode, Schedule:** T: SRP plus 250 mg tetracycline 4xday for 2 weeks, then 250 mg 1xday for 48 weeks C: SRP plus placebo	**Age:** Range: 37-52 **Gender Distribution:** Male: 6 Female: 8 **Race/Ethnicity:** NR	NR	Before SRP	5 exams (at baseline, 2, 10, 20, and 30 weeks)

Evidence Table 1a. Effectiveness of Systemic Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
Lindhe et al, 1983[44] (continued)	**Clinical Measurement:** OHI GI BOP PD CAL **Radiographic Techniques:** NR **Microbiological Methods:** Subgingival plaque; % coccoids, rods, spirochetes **Subject Self Report:** NR	NR	NR	**Type of analysis reported:** Full participants only

Evidence Table 1a. Effectiveness of Systemic Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

		Outcomes Accessed			
		Attachment Level mm	Probing Depth mm	Spirochetes	
	(N of Pts)	$\bar{x}$ (SD)	$\bar{x}$ (SD)	$\bar{x}$% (SD)	Comments
Baseline:					The PD values and spirochetes were measured at each exam. The CAL values are change scores from baseline. Standard errors are shown rather than standard deviations.
T:	7	7.1 (0.4)	7.5 (0.3 se)	48 (3 se)	
C:	7	7.4 (0.5)	7.7 (0.4 se)	37 (10 se)	
Final: 50 weeks					
T:	7	NR	4.4 (0.1 se)	0 (0 se)	
C:	7	NR	5.4 (0.2 se)	8 (8 se)	
					Quality Score: 70; 77
Change:		Gain			
T:		1.7 (0.3 se)	3.1* (NR)	NR	
C:		1.4 (0.3 se)	2.3* (NR)	NR	
Test:		NR	NR		
P value:		NR	NR		

Evidence Table 1a. Effectiveness of Systemic Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Author and Year: Listgarten et al., 1978[43] **Study Period:** 25 weeks **Site of Study:** Central Hospital **Location:** Sweden **Patients Selected:** Wait-listed patients for periodontal care, patients had at least 3 pairs of contralateral teeth with PD of = 5 mm and 50% bone loss	**Design Type:** RCT **Subject/Site Allocation:** Random **Blinding:** NR **Placebo:** No **Split-mouth:** Yes, for SRP No, for intervention	**Severity:** Severe chronic periodontitis **Types of Teeth:** NR **Widman flap:** NR	**Number:** NR **Trained:** NR **Assigned to Subjects:** NR	**SRPperformed:** Series of weekly scalings requiring 2 to 4 appts for 2 selected quadrants 2 additional scalings at weeks 15 and 22; not described in terms of intensity **Time spent on SRP:** NR

Evidence Table 1a. Effectiveness of Systemic Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Assessment Time Interval(s)
Subject/Site allocation: 12 subjects T: 6 subjects C: 6 subjects **Dose, Mode, Schedule:** T: SRP plus 250mg tetracycline 4xday for 2 two-week periods, separated by 4 weeks C: SRP only	**Age:** Mean: 34 Range: 27 - 42 **Gender Distribution:** Male: 7 Female: 5 **Race/Ethnicity:** NR	NR	Before SRP	3 times (at baseline and weeks 8 and 25)

Evidence Table 1a. Effectiveness of Systemic Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
Listgarten et al, 1978[43] (continued)	**Clinical Measurement:** Gingival fluid flow GI PI PD CAL **Radiographic Techniques:** NR **Microbiological Methods:** Microbial composition Histological data Electron microscopy data **Subject Self Report:** NR	NR	NR	**Type of analysis reported:** Full participants only

Evidence Table 1a. Effectiveness of Systemic Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

		Outcomes Accessed			
		Attachment Level mm	Probing Depth mm	Spirochetes	
	(N of Pts)	$\bar{x}$ (SD)	$\bar{x}$ (SD)	$\bar{x}$% (SD)	Comments
Baseline:					No statistical testing of change scores between groups. No data reported for CAL, text says "no detectable change occurred."
T:	6	NR	7.2 (0.5 se)	36.3 (5.2 se)	
C:	6	NR	7.0 (0.6 se)	34.8 (6.2 se)	
Final: 25 weeks					
T:	6	NR	4.8 (0.3 se)	6.5 (4.0 se)	**Quality Score:** 38; 31
C:	6	NR	4.8 (0.9 se)	6.3 (4.3 se)	
Change:					
T:		NR	2.4* (NR)	NR	
C:		NR	2.2* (NR)	NR	
Test:			NR		
P value:			NS		

Evidence Table 1a. Effectiveness of Systemic Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Al-Joburi et al., 1989[45] **Study Period:** 24 weeks **Study/Treatment Site:** Several Universities **Location:** Canada **Patient Population:** Patients with = 2 sites with PD of = 7 mm, and at least 15 teeth	**Design Type:** RCT **Subject/Site Allocation:** Random **Blinding:** Examiners and patients blind **Placebo:** Yes **Split-mouth:** No	**Severity:** Advanced adult chronic periodontitis **Types of Teeth:** NR **Widman flap:** NR	**Number:** 2 **Trained:** NR **Assigned to Subjects:** Same examiner throughout study	**SRP performed:** Thorough scaling and root planing (intensive) completed in 2 visits, one week apart **Time spent:** 6 hours

Evidence Table 1a. Effectiveness of Systemic Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Time Interval(s)
Subject/Site allocation: 96 enrolled in full study 79 completed full study 2 sites per subject 51 in relevant groups T: 27 completed C: 24 completed **Dose, Mode, Schedule:** T: SRP plus 250 mg tetracycline capsule 4xday for 14 days C: SRP plus placebo capsule 4xday for 14 days	**Age:** Mean: 46 ± 9 (full study) **Gender:** NR **Race/Ethnicity:** NR	Yes	Before SRP	5 times (at baseline and weeks 2, 8, 12, and 24)

Evidence Table 1a. Effectiveness of Systemic Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
Al-Joburi et al., 1989[45] (continued)	**Clinical Measurement:** BOP/SBI PII PD CAL **Radiographic Techniques:** NR **Microbiological Methods:** Crevicular fluid microbiota Plaque microbiota **Subject Self Report:** NR	Yes, 1 subject excluded because of nausea	17 subjects excluded from full study: intercurrent but unrelated illness during the study which required taking antibiotics other than study medication (1); lost to follow-up (3); failed to take medication as prescribed (6); developed severe diarrhea (1)	**Type of analysis reported:** Full participants for these 2 study groups

Evidence Table 1a. Effectiveness of Systemic Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

	Outcomes Accessed			
	Attachment Level mm	Probing Pocket Depth mm	Spirochetes	
(N of Pts)	$\bar{x}$ (SD)	$\bar{x}$ (SD)	$\bar{x}$ (SD)	Comments
PD 1 to 3 mm:				The difference in the reduction in spirochetes between tetracycline group and SRP alone group was significant at 2 and 8 weeks
Baseline:				
T: NR	7.25 (0.46)	3.00 (0.00)	NR	
C: NR	7.50 (0.84)	3.00 (0.00)	NR	
Final: 24 weeks				
T: 27	7.06 (0.55)	2.88 (0.22)	NR	
C: 24	7.80 (0.82)	3.00 (0.16)	NR	% Spirochetes:
Change:				Baseline Final
T:	0.19 (NR)	0.12 (NR)		T: 26 (NR) 7 (NR)
C:	-0.30 (NR)	0.00 (NR)		C: 30 (NR) 11 (NR)
Test:				(P = 0.05)
P value:				
PD 4 to 5 mm:				**Quality Score:** 69; 62
Baseline:				
T:	9.06 (0.26)	5.21 (0.08)		
C:	9.11 (0.22)	5.25 (0.08)		
Final: 24 weeks				
T:	8.00 (0.27)	3.54 (0.14)		
C:	8.09 (0.21)	3.53 (0.12)		
Change:				
T:	1.06 (NR)	1.67 (NR)		
C:	1.02 (NR)	1.72 (NR)		
Test:	t-test	t-test		
P value:	NS	NS		
PD = 7 mm:				
Baseline:				
T:	10.58 (0.25)	7.40 (0.11)		
C:	10.75 (0.29)	7.60 (0.12)		
Final: 24 weeks				
T:	8.79 (0.26)	4.36 (0.21)		
C:	9.21 (0.34)	4.75 (0.24)		
Change:				
T:	1.99 (NR)	3.04 (NR)		
C:	1.54 (NR)	2.85 (NR)		
Test:	t-test	t-test		
P value:	NS	NS		

Evidence Table 1a. Effectiveness of Systemic Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Ramberg et al., 2001[47] **Study Period:** 13 years (52 weeks of data reported) **Study/Treatment Site:** Department of Peridontology **Location:** Helsingborg, Sweden **Patient Population:** Adults referred to the clinic, with = 16 teeth (2 must be molars)	**Design Type:** Prospective clinical trial **Subject/Site Allocation:** No mention of how subjects were assigned to groups; age; and gender matched control **Blinding:** NR **Placebo:** Yes **Split-mouth:** No	**Severity:** Advanced periodontitis **Types of Teeth:** All teeth **Widman flap:** NR	**Number:** 2 **Trained:** NR **Assigned to Subjects:** NR	**SRP performed:** 4 to 6 sessions of non-surgical periodontal therapy under local anesthesia, during 3 week treatment interval. **Time spent:** 60 to 90 minutes

Evidence Table 1a. Effectiveness of Systemic Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Time Interval(s)
Subject/Site allocation: 89 subjects T: 28 subjects C: 61 subjects **Dose, Mode, Schedule:** T: SRP plus 250 mg tetracycline tablet 4xday for 3 weeks and 0.2% chlorhexidine rinse 2xday C: SRP and 0.2% chlorhexidine rinse 2xday	**Age:** Mean: T: 41.2 C: 42.1 Range: T: 24-60 C: 23-66 **Gender:** T: Male: 16 Female: 19 C: Male: 38 Female: 42 **Race/Ethnicity:** NR	NR	Before SRP	4 times (at baseline and years 1, 3, 5, and 13)

Evidence Table 1a. Effectiveness of Systemic Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
Ramberg et al., 2001[47] (continued)	**Clinical Measurement:** BOP PII PD all teeth, six sites/tooth CAL Number of teeth **Radiographic Techniques:** Bone Loss/Regeneration **Microbiological Methods:** NR **Subject Self Report:** NR	NR	Died (3), moved (18), withdrew from txt group (5)	**Type of analysis reported:** Full participants only

Evidence Table 1a. Effectiveness of Systemic Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

		Outcomes Accessed			
		Attachment Level mm	Probing Depth mm	Spirochetes	
	(N of Pts)	$\bar{x}$ (SD)	$\bar{x}$ (SD)	$\bar{x}$% (SD)	Comments
Baseline:					The mean individual PD value which was decreased between baseline and Year 1 had significantly increased between 5 and 12 years
T:	35	NR	4.2 (0.8)	NA	
C:	80	NR	3.9 (0.9)	NA	
Final: 52 weeks					
T:	28	NR	NR	NA	No sig difference in any measures reported for 3, 5, and 12 years
C:	61	NR	NR	NA	
Change: 52 weeks		Gain	Reduction		
T:		0.47 (0.6)	1.0 (0.8)	NA	**Quality Score:** 31; 23
C:		0.16 (0.5)	0.7 (0.7)	NA	
Test:		t-test	t-test		
P value:		< 0.001	NS		

Evidence Table 1b. Effectiveness of Local Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Darhous et al., 1995[50] **Study Period:** 8 weeks **Study/Treatment Site:** Graduate Program University Clinic **Location:** Cairo, Egypt **Patient Population:** Adult patients with 4 to 7 mm PD	**Design Type:** Non-RCT **Subject/Site Allocation:** Unknown **Blinding:** NR **Placebo:** No **Split-mouth:** Yes	**Severity:** Moderate **Types of Teeth:** NR **Widman flap:** Always on all patients	**Number:** NR **Trained:** NR **Assigned to Subjects:** NR	**SRP performed:** NR; modified Widman flap for all sites **Time spent:** NR

Evidence Table 1b. Effectiveness of Local Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Time Interval(s)
Subject/Site allocation: 7 subjects, 2 sites (quadrants) per subject T: 7 subjects C: 7 subjects **Dose, Mode, Schedule:** T: SRP plus irrigation with 100 mg/ml tetracycline HCl for 5 minutes C: SRP only	**Age:** Range: 35 to 65 **Gender:** NR **Race/Ethnicity:** NR	NA	Before SRP	3 times (at baseline and weeks 6 and 8)

Evidence Table 1b. Effectiveness of Local Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
Darhous et al., 1995[50] (continued)	**Clinical Measurement:** PlI PD CAL GI Gingival fluid flow **Radiographic Techniques:** NR **Microbiological Methods:** Plaque microbiota **Subject Self Report:** NR	NR	NR	**Type of analysis reported:** Full participants only

Evidence Table 1b. Effectiveness of Local Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

		Outcomes Accessed			
		Attachment Level mm	Probing Depth mm	Spirochetes	
	(N of Pts)	$\bar{x}$ (SD)	$\bar{x}$ (SD)	$\bar{x}$% (SD)	Comments
Baseline:					Tetracycline irrigation gave less bacterial counts than the control group right after irrigation, however, after 2 weeks the bacterial counts increased again and were insignificantly different in the 2 groups
T:	7	6.54 (0.18)	5.54 (0.67)	NA	
C:	7	6.53 (0.16)	5.73 (0.24)	NA	
Final: 8 weeks					
T:	7	3.45 (0.25)	1.82 (0.69)	NA	
C:	7	5.24 (0.21)	3.05 (0.24)	NA	
Change:					**Quality Score:** 31; 31
T:		3.09 (0.35)	3.72 (0.40)	NA	
C:		1.29 (0.31)	2.68 (0.24)	NA	
Test:		NR	NR		
P value:		NR	NR		

Evidence Table 1b. Effectiveness of Local Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Drisko et al., 1995[49] **Study Period:** 52 weeks **Study/Treatment Site:** Dental Center and 2 universities **Location:** Eastman Dental Center; Minneapolis, MN University of MN Kansas City, MO University of Missouri-Kansas USA **Patient Population:** Adult patients with 1-2 teeth with = 5 mm PD and BOP. 46% were new to perio therapy, 54% were maintenance patients Approximately equal distribution between 3 centers	**Design Type:** RCT **Subject/Site Allocation:** Random **Blinding:** Examiners blind **Placebo:** No **Split-mouth:** Yes	**Severity:** NR **Types of Teeth:** NR **Widman flap:** NR	**Number:** 3 (1 at each center) **Trained:** Calibration (gold standard) **Assigned to Subjects:** Same examiner throughout study	**SRP performed:** Scaling and root planing under local anesthesia. Scaling could also occur after 10 days at fiber removal visit **Time spent:** 5 minutes on each tooth

Evidence Table 1b. Effectiveness of Local Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Time Interval(s)
Subject/Site allocation: 122 (116 completed) T: 116 sites C: 116 sites **Dose, Mode, Schedule:** T: SRP plus 17 mg tetracycline HCl fiber, removed at 10 days C: SRP only	**Age:** Mean: 45.1 Range: 25 to 73 **Gender:** Male: 68 Female: 54 **Race/Ethnicity:** NR	Yes	Before SRP	6 times (at baseline and months 1, 3, 6, 9, and 12)

Evidence Table 1b. Effectiveness of Local Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
Drisko et al., 1995[49] (continued)	**Clinical Measurement:** BOP/SBI PII PD CAL **Radiographic Techniques:** NR **Microbiological Methods:** NR **Subject Self Report:** Subject Satisfaction	Yes, 12 adverse events: severe gingival redness, tongue pigmentation, glossitis, periodontal abscess, lymphadenopathy, oral candidiasis	Poor compliance or unrelated illness (4); oral candidiasis (1); periodontal abscess 6 months after treatment (1)	**Type of analysis reported:** Full participants only

Evidence Table 1b. Effectiveness of Local Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

		Outcomes Accessed			
		Attachment Level mm	Probing Depth mm	Spirochetes	
(N of Pts)		$\bar{x}$ (SD)	$\bar{x}$ (SD)	$\bar{x}$% (SD)	Comments
Baseline:					There were no clinically significant differences in probing depth nor in clinical attachment level in the 2 groups of subjects at any of the examination intervals
T:		NR	4.94 (NR)	NA	
C:		NR	4.96 (NR)	NA	
Final: 52 weeks					
T:	116	NR	NR	NA	**Quality Score:** 62; 62
C:	116	NR	NR	NA	
Change:					
T:		NR	NR	NA	
C:		NR	NR	NA	
Test:		NR	NR		
P value:		NS	NS		

Evidence Table 1b. Effectiveness of Local Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Friesen et al., 2002[58]	**Design Type:** RCT	**Severity:** NR	**Number:** NR	**SRP performed:** Local anesthesia
Study Period: 26 weeks (6 months)	**Subject/Site Allocation:** Random site within subject	**Types of Teeth:** Both	**Trained:** Standardization	**Time spent:** Minimum of 5 minutes per tooth
Study/Treatment Site: Graduate Program University Clinic	**Blinding:** Examiners blind	**Widman flap:** NR	**Assigned to Subjects:** NR	
Location: USA	**Placebo:** No			
Patient Population: Adult patients with 4 non-adjacent teeth with 6-10 mm PD and BOP	**Split-mouth:** Yes			

Evidence Table 1b. Effectiveness of Local Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Time Interval(s)
Subject/Site allocation: 28 subjects enrolled 24 completed 3 sites/subject T1: 24 sites T2: 24 sites C: 24 sites **Dose, Mode, Schedule:** T1: SRP plus single 13.5mg tetracycline strip inserted in pocket for 7 to 10 days T2: SRP plus multiple 13.5mg tetracycline strips for 7 to 10 days C: SRP only	**Age:** Mean: 43.6 Range: 26 to 69 **Gender:** Male: 13 Female: 15 **Race/Ethnicity:** NR	NA	Before SRP	4 times (at baseline and months 1, 3, and 6)

Evidence Table 1b. Effectiveness of Local Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued))

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
Friesen et al., 2002[58] (continued)	**Clinical Measurement:** BOP/SBI PII PD CAL GI **Radiographic Techniques:** NR **Microbiological Methods:** NR **Subject Self Report:** NR	Bitter taste	Lost to follow-up (3), removed due to antibiotic use (1)	**Type of analysis reported:** Intent to treat

Evidence Table 1b. Effectiveness of Local Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

		Outcomes Assessed			
		Attachment Level mm	Probing Depth mm	Spirochetes	
	(N of Pts)	$\bar{x}$ (SD)	$\bar{x}$ (SD)	$\bar{x}$% (SD)	Comments
T1 (Single Strip):					Single and multiple fiber treatments resulted in a statistically significant reduction in probing depths (*P* = 0.333) compared to the scaling and untreated group, but the groups were not tested individually (one by one).
Baseline:					
T:	24	NR	6.26 (0.95)	NA	
C:	24	NR	6.60 (1.10)	NA	
Final: 26 weeks					
T:	24	NR	NR	NA	
C:	24	NR	NR	NA	
Change:		Gain	Reduction		
T:	24	0.31 (0.92)	1.41 (NR)	NA	**Quality Score:** 46; 38
C:	24	- 0.13 (0.71)	0.98 (NR)	NA	
Test:		ANOVA	ANOVA		
P value:		NS	NR		
T2 (Multiple Strip):					
Baseline:					
T:	24	NR	6.58 (1.23)	NA	
C:	24	NR	6.60 (1.10)	NA	
Final: 26 weeks					
T:	24	NR	NR	NA	
C:	24	NR	NR	NA	
Change:		Gain	Reduction		
T:		0.35 (0.68)	1.85 (NR)	NA	
C:		-0.13 (0.71)	0.98 (NR)	NA	
Test:		ANOVA	ANOVA		
P value:		NS	NR		

Evidence Table 1b. Effectiveness of Local Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Author and Year: Goodson et al., 1985[48]	**Design Type:** RCT	**Severity:** Currently active	**Number:** 1	**SRP performed:** Scaling on day of fiber placement and again on day of fiber removal (day 10)
Study Period: 52 weeks	**Subject/Site Allocation:** Random	**Types of Teeth:** NR, all in quadrant?	**Trained:** NA	**Time spent on SRP:** Minimum of 45 min/quad
Site of Study: NR	**Blinding:** Examiner blind	**Widman flap:** No	**Assigned to Subjects:** Same examiner throughout the study	
Location: NR (US authors)	**Placebo:** No			
Patients Selected: Patients with currently active periodontal disease and attachment loss of = 2 mm at = 1 sites	**Split-mouth:** Yes			

Evidence Table 1b. Effectiveness of Local Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Assessment Time Interval(s)
Subject/Site allocation: 10 subjects 4 quadrants/subject T: 9 teeth (96 sites) C: 9 teeth (91 sites) **Dose, Mode, Schedule:** T: SRP plus 25% tetracycline fibers for 10 days C: SRP only at baseline and day 10	**Mean Age:** NR **Gender Distribution:** Male: NR Female: NR **Race/Ethnicity:** NR	NA	Before SRP	6 times (at baseline and months 1, 3, 6, 9, and 12)

Evidence Table 1b. Effectiveness of Local Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
Goodson et al., 1985[48] (continued)	**Clinical Measurement:** PD CAL **Radiographic Techniques:** NR **Microbiological Methods:** NR **Subject Self Report:** NR	NR	NR	**Type of analysis reported:** All who completed treatment

Evidence Table 1b. Effectiveness of Local Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

		Outcomes Accessed			
		Attachment Level mm	Probing Depth mm	Spirochetes	
	(N of Pts)	$\bar{x}$ (SD)	$\bar{x}$ (SD)	$\bar{x}$% (SD)	Comments
Baseline:					CAL reported differently in 2 tables. Difference not clear. PD reported only in highly summarized version, not included here.
T:	NR	NR	NR	NA	
C:	NR	NR	NR	NA	
Final: 52 weeks					
T:	96 sites	NR	NR	NA	**Quality Score:** 38; 31
C:	91 sites	NR	NR	NA	
Change: n=9		Gain for initial PD of > 3 mm			
T:		1.19 (0.14 se)	NR	NA	
C:		0.85 (0.15 se)	NR	NA	
Test:		ANOVA			
P value:		NS			
Change: n=7		Gain for initial PD of > 6 mm			
T:		2.04 (0.32 se)	NR	NA	
C:		1.71 (0.45 se)	NR	NA	
Test:		ANOVA			
P value:		NS			

Evidence Table 1b. Effectiveness of Local Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Jeong et al., 1994[33] **Study Period:** 12 weeks **Study/Treatment Site:** NR **Location:** NR **Patient Population:** Adult patients with 1 tooth in each quadrant with 4-6 mm PD	**Design Type:** RCT **Subject/Site Allocation:** Random (quadrant within subject) **Blinding:** NR **Placebo:** No **Split-mouth:** Yes	**Severity:** Moderate **Types of Teeth:** Single-rooted teeth **Widman flap:** NR	**Number:** 1 **Trained:** NA **Assigned to Subjects:** Same examiner throughout study	**SRP performed:** Thorough root planing at baseline, previous receipt of supragingival scaling **Time spent:** 5 minutes each tooth

Evidence Table 1b. Effectiveness of Local Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Time Interval(s)
Subject/Site allocation: 16 subjects T1: 16 teeth T2: 16 teeth C: 16 teeth **Dose, Mode, Schedule:** T1: SRP plus 5% tetracycline HCI gel, 1 application T2: SRP plus 5% tetracycline HCI plus citric acid in gel, 1 application C: SRP only	**Age:** Mean: NR Range: 28 to 58 **Gender:** Male: 6 Female: 10 **Race/Ethnicity:** NR	NA	Unclear	5 times (at baseline and weeks 2, 4, 8, and 12)

Evidence Table 1b. Effectiveness of Local Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
Jeong et al., 1994[33] (continued)	**Clinical Measurement:** SBI PII Tooth Mobility CAL PD **Radiographic Techniques:** NR **Microbiological Methods:** Plaque microbiota (% motile rods and spirochetes) **Subject Self Report:** NR	NR	NR	**Type of analysis reported:** Full participants only

Evidence Table 1b. Effectiveness of Local Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

		Outcomes Assessed			
	(N of Pts)	Attachment Level mm $\bar{x}$ (SD)	Probing Depth mm $\bar{x}$ (SD)	Spirochetes $\bar{x}$% (SD)	Comments
T1 (Tetracycline)					
Baseline:					
T:	16	5.06 (0.95)	4.94 (0.77)	8.7 (9.9)	
C:	16	5.07 (1.03)	4.67 (0.62)	7.2 (9.9)	
Final: 12 weeks					
T:	16	3.31 (1.01)	3.00 (0.73)	1.7 (5.7)	
C:	16	3.46 (0.74)	3.00 (0.65)	2.4 (5.0)	
Change:					
T:		1.75* (NR)	1.94* (NR)	7.0* (NR)	
C:		1.61* (NR)	1.67* (NR)	4.8* (NR)	
Test:		NR	NR	NR	
P value:		NS	NS	NR	
T2 (Tetracycline and Citric Acid)					Significant decrease in probing depth was noted after 12 weeks in tetracycline and citric acid group compared to the other groups No difference between groups for CAL change **Quality Score:** 38; 46
Baseline:					
T:	16	5.27 (0.73)	5.07 (0.7)	10.7 (13.4)	
C:	16	5.07 (1.03)	4.67 (0.62)	7.2 (9.9)	
Final: 12 weeks					
T:	16	2.93 (0.96)	2.47 (0.74)	4.0 (8.5)	
C:	16	3.46 (0.74)	3.0 (0.65)	2.4 (5.0)	
Change:					
T:		2.34* (NR)	2.60* (NR)	6.7* (NR)	
C:		1.61* (NR)	1.67* (NR)	4.8* (NR)	
Test:		NR	NR	NR	
P value:		NS	< 0.05NR	NR	

Evidence Table 1b. Effectiveness of Local Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Kinane and Radvar 1999[53] **Study Period:** 26 weeks (6 months) **Study/Treatment Site:** Dental Hospital, Dental Clinic **Location:** Glasgow, Scotland **Patient Population:** Patients with persistent pockets that did not respond to SRP with = 4 pockets with =5 mm PD and BOP	**Design Type:** RCT **Subject/Site Allocation:** Random **Blinding:** Examiner blind **Placebo:** No **Split-mouth:** No	**Severity:** Severe, persistent pockets not responding to SRP **Types of Teeth:** NR **Widman flap:** NR	**Number:** 1 **Trained:** NA **Assigned to Subjects:** Same examiner throughout study	**SRP performed:** SRP under local anesthesia **Time spent:** NR

Evidence Table 1b. Effectiveness of Local Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Time Interval(s)
Subject/Site allocation: 39 subjects, 4 sites/subject T: 19 subjects C: 20 subjects **Dose, Mode, Schedule:** T: SRP plus 25% tetracycline fibers, removed after 10 days C: SRP only	**Age:** Mean: 45 ± 6.4 **Gender:** Male: 29 Female: 50 **Race/Ethnicity:** NR	NA	Before SRP	4 times (at baseline, 6 weeks and months 3 and 6)

Evidence Table 1b. Effectiveness of Local Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
Kinane and Radvar 1999[53] (continued)	**Clinical Measurement:** BOP/SBI PII PD CAL GI Supperation **Radiographic Techniques:** NR **Microbiological Methods:** NR **Subject Self Report:** NR	Yes, found none	1 subject dropped from control, reason not given	**Type of analysis reported:** All with any follow-up Analysis adjusted: GLM, baseline value as continuous covariate

Evidence Table 1b. Effectiveness of Local Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

		Outcomes Accessed			
		Attachment Level mm	Probing Depth mm	Spirochetes	
	(N of Pts)	$\bar{x}$ (SD)	$\bar{x}$ (SD)	$\bar{x}$% (SD)	Comments
Baseline:					The probing depth reduction at all time points was significantly greater in the SRP plus tetracycline fiber group than the SRP alone group (*P* < 0.01)
T:	19	NR	5.402 (0.141 se)	NA	
C:	20	NR	5.480 (0.175 se)	NA	
Final: 26 weeks					
T:	19	NR	NR	NA	This is a follow-up study
C:	20	NR	NR	NA	
Change:		Gain	Reduction		**Quality Score:** 54; 62
T:		0.687 (0.138 se)	1.38 (0.166 se)	NA	
C:		0.537 (0.143 se)	0.711 (0.188 se)	NA	
Test:		GLM	GLM		
P value:		NS	= 0.008		

Evidence Table 1b. Effectiveness of Local Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Lie et al., 1998[34] **Study Period:** 26 weeks **Study/Treatment Site:** University of Bergen, Department of Peridontology **Location:** Bergen, Norway **Patient Population:** Patients with untreated PD = 5 mm and BOP	**Design Type:** RCT **Subject/Site Allocation:** Random **Blinding:** Examiner and patients blind **Placebo:** No **Split-mouth:** Yes	**Severity:** Moderate to severe **Types of Teeth:** Single-rooted **Widman flap:** NR	**Number:** 1 **Trained:** NA **Assigned to Patients:** Same examiner throughout study	**SRP performed:** Sonic instrument and curets, 2 sessions, 1 week apart **Time spent:** NR

Evidence Table 1b. Effectiveness of Local Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Time Interval(s)
Subject/Site allocation: 18 subjects T: 18 sites C: 18 sites **Dose, Mode, Schedule:** T: SRP plus application of 3% tetracycline ointment after each SRP session, 1 week apart C: SRP only	**Age:** Range: 36 to 77 **Gender:** NR **Race/Ethnicity:** NR	NA	NR	3 times (at baseline and months 3 and 6)

Evidence Table 1b. Effectiveness of Local Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
Lie et al., 1998[34] (continued)	**Clinical Measurement:** BOP/SBI PD CAL **Radiographic Techniques:** NR **Microbiological Methods:** NR **Patient Self Report:** NR	NR	NR	**Type of analysis reported:** Full participants only

Evidence Table 1b. Effectiveness of Local Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

		Outcomes Accessed			
	(N of Pts)	Attachment Level mm $\bar{x}$ (SD)	Probing Depth mm $\bar{x}$ (SD)	Spirochetes $\bar{x}$ (SD)	Comments
Defect Sites					There were no significant differences between the effects following topical application of the tetracycline ointment. Scaling and root planing alone appeared as effective as the drug augmented regiment
Baseline:					
T:	18 sites	13.8 (2.5)	5.2 (1.5)	NA	
C:	18 sites	13.4 (1.8)	5.1 (1.2)	NA	
Final: 26 weeks					
T:	18 sites	12.6 (2.0)	3.5 (1.6)	NA	
C:	18 sites	13.2 (1.5)	4.0 (1.4)	NA	
Change:					*P.g.* was significantly reduced in the treatment group.
T:		1.2* (NR)	1.7* (NR)	NA	
C:		0.2* (NR)	1.1* (NR)	NA	
Test:		ANOVA	ANOVA		**Quality Score:** 62; 62
P value:		NS	NS		
Nondefect Sites					
Baseline:					
T:		13.1 (2.3)	3.1 (0.6)		
C:		12.8 (1.6)	3.2 (1.1)		
Final: 26 weeks					
T:		12.5 (1.3)	2.7 (0.9)		
C:		12.4 (1.5)	2.5 (0.9)		
Change:					
T:		0.6* (NR)	0.4* (NR)		
C:		0.4 *(NR)	0.7* (NR)		
Test:		NR	NR		
P value:		NS	NS		

Evidence Table 1b. Effectiveness of Local Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Author and Year: MacAlpine et al., 1985[31] **Study Period:** 24 weeks **Site of Study:** NR **Location:** NR (Swedish and US authors) **Patients Selected:** Patients with = 6 mm PD demonstrated by loss of attachment BOP and subgingival calculus	**Design Type:** Clinical trial **Subject/Site Allocation:** Assignment method not reported **Blinding:** NR **Placebo:** Yes **Split-mouth:** Yes	**Severity:** Generalized chronic periodontitis **Types of Teeth:** Single root **Widman flap:** No	**Number:** 1 **Trained:** NA **Assigned to Subjects:** Same examiner throughout study	**SRP performed:** Supra and subgingival instrumentation under local anesthesia **Time spent on SRP:** NR

Evidence Table 1b. Effectiveness of Local Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Assessment Time Interval(s)
Subject/Site allocation: 11 subjects 4 or 8 sites per subject T: 16 sites C: 16 sites **Dose, Mode, Schedule:** T: SRP plus subgingival irrigation with tetracycline solution 50mg/ml every 2 weeks for 22 weeks C: SRP plus saline irrigation, every 2 weeks for 22 weeks	**Age:** Range: 25-67 **Gender Distribution:** Males: 2 Females: 9 **Race/Ethnicity:** NR	NA	Before SRP	4 times (at baseline, and weeks 8, 16, and 24)

Evidence Table 1b. Effectiveness of Local Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
MacAlpine et al., 1985[31] (continued)	**Clinical Measurement:** BOP Plaque PD CAL **Radiographic Techniques:** NR **Microbiological Methods:** Plaque microbiota (% spirochetes) **Subject Self Report:** NR	NR	NR	**Type of analysis reported:** All who completed treatment

Evidence Table 1b. Effectiveness of Local Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

		Outcomes Accessed			
		Attachment Level mm	Probing Depth mm	Spirochetes	
(N of Pts)		$\bar{x}$ (SD)	$\bar{x}$ (SD)	$\bar{x}$% (SD)	Comments
Tetracycline vs Saline					**Quality Score:** 38; 38
Baseline:					
T:	16	NR	7.5 (0.5)	36 (NR)	
C:	16	NR	7.4 (0.6)	39 (NR)	
Final: 24 weeks					
T:	16	NR	4.6 (1.3)	1 (NR)	
C:	16	NR	4.9 (1.8)	4 (NR)	
Change:		Gain	Reduction		
T:		1.1 (1.4)	2.9 (NR)		
C:		0.8 (1.4)	2.5 (NR)		
Test:		NR	NR		
P value:		NS	NR		

Evidence Table 1b. Effectiveness of Local Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Minabe et al., 1991[52] **Study Period:** 8 weeks **Study/Treatment Site:** Hospital dental clinic **Location:** Yokosuka, Kanagawa, Japan **Patient Population:** Adults attending hospital dental clinic	**Design Type:** RCT **Subject/Site Allocation:** Random **Blinding:** NR **Placebo:** No **Split-mouth:** Yes	**Severity:** Generalized periodontitis **Types of Teeth:** Teeth bifurcated (molars) with furcation involvement **Widman flap:** NR	**Number:** NR **Trained:** NR **Assigned to Subjects:** NR	**SRP performed:** Single episode of supra- and ultrasonic subgingival root planing performed under local anesthesia **Time spent:** NR

Evidence Table 1b. Effectiveness of Local Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Time Interval(s)
Subject/Site allocation: 16 subjects provided 46 total teeth, randomly allocated to 4 groups, only two groups included here T: 10 sites C: 8 sites **Dose, Mode, Schedule:** T: SRP plus tetracycline-immobilized cross-linked collagen film administered at 1 week intervals at 4 times C: SRP only	**Age:** Mean: 46 Range: NR **Gender:** Male: 8 Female: 8 **Race/Ethnicity:** NR	NA	Before SRP	4 times (at baseline and weeks 4, 6, and 8)

Evidence Table 1b. Effectiveness of Local Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
Minabe et al., 1991[52] (continued)	**Clinical Measurement:** BOP PII PD CAL GI **Radiographic Techniques:** NR **Microbiological Methods:** Density of micro-organisms in periodontal pocket **Subject Self Report:** NR	NR	NR	**Type of analysis reported:** Full participants only

Evidence Table 1b. Effectiveness of Local Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

		Outcomes Accessed			
		Attachment Level mm	Probing Depth mm	Spirochetes	
	(N of Pts)	$\bar{x}$ (SD)	$\bar{x}$ (SD)	$\bar{x}$% (SD)	Comments
Baseline:					No sig difference between treatments at any test period for PD or CAL or spirochetes.
T:	10	7.4 (2.22)	6.60 (1.71)	16.65 (14.1)	
C:	8	7.81 (2.33)	6.03 (1.13)	10.55 (9.96)	
Final: 8 weeks					Only reported PD and CAL for 4 weeks, (graphic presentation shows little difference from 8 weeks):
T:	10	NR	NR	2.39 (3.4)	
C:	8	NR	NR	3.93 (5.89)	
Change:					CAL: T: 5.4 (1.85) C: 7.0 (1.36) PD : T: 3.8 (0.79) C: 4.25 (0.71)
T:		NR	2.7 (NR)	NR	
C:		NR	2.0 (NR)	NR	
Test:		Mann Whitney U	Mann Whitney U	Mann Whitney U	
P value:		NS	NS	NS	
					Quality Score: 23 ; 23

Evidence Table 1b. Effectiveness of Local Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Newman et al., 1994[57] **Study Period:** 26 weeks (6 months) **Study/Treatment Site:** 7 private dental practices **Location:** USA **Patient Population:** Periodontal maintenance patients receiving regular supportive periodontal therapy. Pts had sites in 2 quadrants with 5-8 mm PD and BOP	**Design Type:** Randomized in blocks of 4 such that 2 subjects within the block received control treatment in site with lower teeth and experimental treatment in the site with the higher tooth number **Subject/Site Allocation:** Random **Blinding:** Examiners blind **Placebo:** No **Split-mouth:** Yes	**Severity:** Localized recurrent periodontitis in maintenance patients **Types of Teeth:** Molars, pre-molars, cuspids, incisors **Widman flap:** NR	**Number:** 7 **Trained:** Calibration (gold standard) **Assigned to Subjects:** Same examiner throughout study	**SRP performed:** Full mouth ultrasonic scaling and root planing in accepted mechanical procedure for treating periodontitis **Time spent:** NR

Evidence Table 1b. Effectiveness of Local Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Time Interval(s)
Subject/Site allocation: 113 subjects started 105 completed 2 teeth/subject T: 105 sites C: 105 sites **Dose, Mode, Schedule:** T: SRP plus 12.1 cm of tetracycline HCl fiber applied for 10 days C: SRP only	**Age:** Mean: 51.0 **Gender:** Male: 56 Female: 49 **Race/Ethnicity:** NR	Yes	After SRP	4 times (at baseline and months 1, 3, and 6)

Evidence Table 1b. Effectiveness of Local Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
Newman et al., 1994[57] (continued)	**Clinical Measurement:** BOP/SBI PD CAL Recession Oral soft tissue **Radiographic Techniques:** NR **Microbiological Methods:** Plaque microbiota **Subject Self Report:** NR	NR	Moved or could not complete the study due to unrelated illness (6); undated tooth fracture (1); data recording errors (1)	**Type of analysis reported:** All with any follow-up

Evidence Table 1b. Effectiveness of Local Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

		Outcomes Accessed			
		Attachment Level mm	Probing Depth mm	Spirochetes	
	(N of Pts)	$\bar{x}$ (SD)	$\bar{x}$ (SD)	$\bar{x}$% (SD)	Comments
Baseline:					Fiber therapy significantly enhanced the effectiveness of SRP
T:	NR	7.77 (2.17)	6.46 (1.01)	NA	
C:	NR	7.55 (2.19)	6.31 (1.20)	NA	
Final: (26 weeks)					**Quality Score:** 69; 69
T:	105 (sites)	NR	NR	NA	
C:	105 (sites)	NR	NR	NA	
Change:		Gain	Reduction		
T:		1.56 (0.145 se)	1.81 (0.121 se)	NA	
C:		1.08 (0.145 se)	1.08 (0.121 se)	NA	
Test:		ANCOVA	ANCOVA		
P value:		< 0.05	< 0.01		

Evidence Table 1b. Effectiveness of Local Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Nylund and Egelberg, 1990[51] **Study Period:** 52 weeks **Site of Study:** NR **Location:** NR **Patients Selected:** Patients with loss of attachment, BOP, subgingival calculus, and 2+ molars with furcation involvement. No perio treatment for 3 years	**Design Type:** Clinical trial **Subject/Site Allocation:** NR **Blinding:** Examiner not blinded **Placebo:** Yes **Split-mouth:** Yes	**Severity:** Generalized periodontitis **Types of Teeth:** Molars with furcation involvement **Widman flap:** No	**Number:** 1 **Trained:** NR **Assigned to Subjects:** Same examiner throughout study	**SRP performed:** Single episode of crown and root debridement under local anesthesia using sonic, ultrasonic and various had instruments **Time spent on SRP:** 6-9 minutes/tooth

Evidence Table 1b. Effectiveness of Local Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Assessment Time Interval(s)
Subject/Site allocation: 20 subjects T: 20 subjects (65 teeth) C: 20 subjects (58 teeth) **Dose, Mode, Schedule:** T: SRP plus irrigation with 50mg/ml tetracycline solution once every two weeks for 3 months C: SRP plus irrigation with saline once every two weeks for 3 months	**Mean Age:** NR **Gender Distribution:** NR **Race/Ethnicity:** NR	NA	Before SRP	7 times (at baseline, and months 1, 2, 3, 6, 9, and 12)

Evidence Table 1b. Effectiveness of Local Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
Nylund and Egelberg, 1990[51] (continued)	**Clinical Measurement:** PD CAL Plaque BOP **Radiographic Techniques:** NR **Microbiological Methods:** NR **Subject Self Report:** NR	NR	NR	**Type of analysis reported:** All who completed treatment; t-tests on site data for subgroups of sites by baseline PD and furcation grade

Evidence Table 1b. Effectiveness of Local Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

		Outcomes Accessed			
		Attachment Level mm	Probing Depth mm	Spirochetes	
(N of Pts)		$\bar{x}$ (SD)	$\bar{x}$ (SD)	$\bar{x}$% (SD)	Comments
Baseline:					All data reported in graphs. No significant differences found between treatment and control for any subgroup (by baseline PD or furcation grade) at any time point
T:	65 teeth	NR	NR	NA	
C:	58 teeth	NR	NR	NA	
Final:					
T:	NR	NR	NR	NA	
C:	NR	NR	NR	NA	**Quality Score:** 15; 23
Change:					
T:		NR	NR	NA	
C:		NR	NR	NA	
Test:		NR	NR		
P value:		NS	NS		

Evidence Table 1b. Effectiveness of Local Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Shiloah and Patters, 1994[54] **Study Period:** 4 weeks (1 month) **Study/Treatment Site:** Graduate Program University Clinic **Location:** USA **Patient Population:** Adults with = 5 non-adjacent sites with = 5 mm PD and attachment loss	**Design Type:** RCT **Subject/Site Allocation:** Random sites within subjects **Blinding:** Examiner blind **Placebo:** Yes **Split-mouth:** Yes	**Severity:** Moderate to severe chronic adult periodontitis **Types of Teeth:** Both **Widman flap:** NR	**Number:** 1 **Trained:** Calibration (Gold standard) **Assigned to Subjects:** Same examiner throughout study	**SRP performed:** SRP of entire dentition performed with ultrasonic scaler and Gracey curettes under local anesthesia **Time spent:** 4 to 7 hours per subject over several visits

Evidence Table 1b. Effectiveness of Local Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Time Interval(s)
Subject/Site allocation: 7 subjects (1 or 2 teeth per subject) T: 12 sites C: 12 sites **Dose, Mode, Schedule:** T: SRP plus 5% aqueous tetracycline, 2 cc irrigation/site, 1 application C: SRP plus saline irrigation	**Age:** Mean: 49.5 Range: 33 to 65 **Gender:** Male: 2 Female: 5 **Race/Ethnicity:** NR	NA	Before SRP	3 times (at baseline, week 1 and month 1)

Evidence Table 1b. Effectiveness of Local Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
Shiloah and Patters, 1994[54] (continued)	**Clinical Measurement:** PII GI PD CAL Gingival Fluid Flow **Radiographic Techniques:** NR **Microbiological Methods:** Bacterial DNA probes for *A.a., P.g.,* and *P.i.* **Subject Self Report:** NR	NR	NR	**Type of analysis reported:** Full participants only

Evidence Table 1b. Effectiveness of Local Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

	Outcomes Accessed			
	Attachment Level mm	Probing Depth mm	Spirochetes	
(N of Pts)	$\bar{x}$ (SD)	$\bar{x}$ (SD)	$\bar{x}$% (SD)	Comments
Baseline:				Data presented by figures only (bar charts) PD reduced 1-2mm, and CAL gained approx 1 mm in control and treatment groups.
T:	NR	NR	NA	
C:	NR	NR	NA	
Final: 4 weeks				
T: 12 sites	NR	NR	NA	Microbial outcomes: Not sig for *P.g., A.a.*
C: 12 sites	NR	NR	NA	
Change:				Numbers of bacteria by type per site were also reduced in control and treatment groups, with no sig differences between groups.
T:	NR	NR	NA	
C:	NR	NR	NA	
Test:	ANOVA	ANOVA		
P value:	NS	NS		
				Quality Score: 54; 54

Evidence Table 1b. Effectiveness of Local Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Tonetti et al., 1998[35] **Study Period:** 26 weeks (6 months) **Study/Treatment Site:** Multicenter, 6 Private Periodontal Practices **Location:** Italy **Patient Population:** Patients participating in regular periodontal supportive periodontal care programs, and presenting with at least 1 mandibular Class II furcation with persistent BOP, in maintenance care	**Design Type:** RCT **Subject/Site Allocation:** Random **Blinding:** Examiners blind **Placebo:** No **Split-mouth:** No	**Severity:** NR **Types of Teeth:** Molars with furcation involvement **Widman flap:** NR	**Number:** 6, 1 per center **Trained:** Standardi-zation **Assigned to Subjects:** Same examiner throughout the study	**SRP performed:** Using sonic and hand instruments **Time spent:** Minimum of 3 minutes

Evidence Table 1b. Effectiveness of Local Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Time Interval(s)
Subject/Site allocation: 127 subjects enrolled 123 completed T: 63 subjects C: 60 subjects **Dose, Mode, Schedule:** T: SRP plus tetracycline fibers containing 25% w/w tetracycline HCl crystals dispersed into a copolymer of ethylene and vinyl-acetate fiber in place for 10 ± 3 days C: SRP only	**Age:** Mean: 49.7 (± 9.2) **Gender:** Male: 69 Female: 56 **Race/Ethnicity:** NR	Yes	Before SRP	3 times (at baseline and months 3 and 6)

Evidence Table 1b. Effectiveness of Local Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
Tonetti et al., 1998[35] (continued)	**Clinical Measurement:** BOP/SBI PD CAL **Radiographic Techniques:** NR **Microbiological Methods:** Plaque microbiota **Subject Self Report:** NR	7 subjects exhibited adverse events consisting of periodontal abscesses	Root fracture (1), abcess developed at experimental sites (3)	**Type of analysis reported:** Full participants only

Evidence Table 1b. Effectiveness of Local Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

		Outcomes Accessed			
		Attachment Level mm	Probing Depth mm	Spirochetes	
	(N of Pts)	$\bar{x}$ (SD)	$\bar{x}$ (SD)	$\bar{x}$% (SD)	Comments
Baseline:					Test treatment resulted in a 0.5 mm greater reduction of PD than the control at 3 months, the improvement was highly significant but its duration did not extend until the 6 months evaluation. No differences were observed in terms of changes in CAL
T:	66	8.0 (2.0)	6.3 (1.6)	NA	
C:	61	8.1 (2.3)	5.8 (1.7)	NA	
Final: 26 weeks (6 months)					
T:	63	7.1 (0.13 se)	5.0 (1.5)	NA	
C:	60	7.1 (0.14 se)	4.9 (1.4)	NA	
Change:		Gain	Reduction		
T:		0.9* (NR)	1.3* (NR)	NA	**Quality Score:** 69; 69
C:		1.0* (NR)	0.9* (NR)	NA	
Test:		ANOVA	ANOVA		
P value:		NS	NS		

Evidence Table 1b. Effectiveness of Local Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Trombelli et al., 1996[55] **Study Period:** 8 weeks (60 days) **Study/Treatment Site:** Department of Periodontology, University of Ferrara, School of Dentistry **Location:** Ferrara, Italy **Patient Population:** Adults referred for treatment with at least 3 non-molar teeth in same arch, sites having = 5 mm PD	**Design Type:** RCT **Subject/Site Allocation:** Random **Blinding:** Examiners blind **Placebo:** No **Split-mouth:** Yes	**Severity:** Adult advanced periodontitis **Types of Teeth:** Single-rooted teeth **Widman flap:** NR	**Number:** NR **Trained:** NR **Assigned to Subjects:** NR	**SRP performed:** Supragingival and subgingival ultrasonic scaling **Time spent:** NR

Evidence Table 1b. Effectiveness of Local Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Time Interval(s)
Subject/Site allocation: 12 subjects with 63 sites T1: 20 sites T2: 24 sites C: 19 sites **Dose, Mode, Schedule:** T1: SRP plus irrigation with 100 mg/ml tetracycline solution, 15 ml delivered subgingivally, 1 application for 4 minutes T2: SRP plus vinyl acetate fibers with 25% tetracycline HCl by weight positioned in pockets and packed with blunt instrument. Removed after 10 days C: SRP only	**Age:** Mean: 41.8 Range: 27 to 63 **Gender:** Male: 4 Female: 8 **Race/Ethnicity:** NR	NA	Before SRP	3 times (at baseline, and days 30 and 60)

Evidence Table 1b. Effectiveness of Local Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
Trombelli et al., 1996[55] (continued)	**Clinical Measurement:** BOP PII PD CAL GI Recession depth O'Leary Plaque Control Record **Radiographic Techniques:** NR **Microbiological Methods:** NR **Subject Self Report:** NR	NR	NR	**Type of analysis reported:** NR

Evidence Table 1b. Effectiveness of Local Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

		Outcomes Accessed			
		Attachment Level mm	Probing Depth mm	Spirochetes	
	(N of Pts)	$\bar{x}$ (SD)	$\bar{x}$ (SD)	$\bar{x}$% (SD)	Comments
T1 (Irrigation with Tetracycline):					For PD, the 2 treatments differed from SRP alone (*P* = 0.011).
Baseline:					
T:	(20 sites)	6.3 (1.9 se)	5.8 (0.9 se)	NA	
C:	(19 sites)	6.3 (1.2 se)	6.1 (1.3 se)	NA	
Final: 8 weeks					For CAL, there is no significant difference btw treatment groups and control (*P* = 0.121)
T:		4.7 (1.7 se)	3.6 (1.9 se)	NA	
C:		4.9 (1.9 se)	4.3 (1.9 se)	NA	
Change:					**Quality Score:** 38 ; 46
T:		1.8* (NR)	2.2* (NR)	NA	
C:		1.4* (NR)	1.8* (NR)	NA	
Test:		ANOVA	ANOVA		
P value:		NS	NS		
T2 (Tetracycline Fibers):					
Baseline:					
T:	(24 sites)	7.3 (1.8 se)	6.1 (1.1 se)	NA	
C:	(19 sites)	6.3 (1.2 se)	6.1 (1.3 se)	NA	
Final: 8 weeks					
T:		5.5 (2.4 se)	3.8 (1.4 se)	NA	
C:		4.9 (1.9 se)	4.3 (1.9 se)	NA	
Change:					
T:		1.6* (NR)	2.3* (NR)	NA	
C:		1.4* (NR)	1.8* (NR)	NA	
Test:		ANOVA	ANOVA		
P value:		NS	NS		

Evidence Table 1b. Effectiveness of Local Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Unsal et al., 1994[59] **Study Period:** 12 weeks **Study/Treatment Site:** Department of Peridontology, Faculty of Dentistry **Location:** University of Ankara, Turkey **Patient Population:** Adult patients referred to clinic for treatment of periodontal disease, with = 3 teeth in each quadrant with 2 sites having periodontal disease = 4 mm, BOP, and radiographic evidence bone loss	**Design Type:** RCT **Subject/Site Allocation:** Random **Blinding:** NR **Placebo:** No **Split-mouth:** No	**Severity:** Moderate to advanced periodontitis **Types of Teeth:** NR **Widman flap:** NR	**Number:** NR **Trained:** NR **Assigned to Subjects:** NR	**SRP performed:** All subjects received hand and ultrasonic scaling and root planing; selected sites were mechanically debrided with hand instruments **Time spent:** NR

Evidence Table 1b. Effectiveness of Local Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Time Interval(s)
Subject/Site allocation: 22 subjects invited 15 subjects in relevant 2 groups T: 7 (99 sites) C: 8 (110 teeth) **Dose, Mode, Schedule:** T: SRP plus 40% tetracycline HCI (w/w) in white petroleum, single application of paste C: SRP only	**Age:** Mean: 42 Range: 30 to 57 **Gender:** Male: 10 Female: 12 **Race/Ethnicity:** NR	NR	Before SRP	2 times (at baseline and at week 12)

Evidence Table 1b. Effectiveness of Local Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
Unsal et al., 1994[59] (continued)	**Clinical Measurement:** Bleeding index PII PD CAL GI/GI-S Position of gingival margin **Radiographic Techniques:** NR **Microbiological Methods:** NR **Subject Self Report:** NR	None were reported	NR	**Type of analysis reported:** Intent to treat.

Evidence Table 1b. Effectiveness of Local Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

		Outcomes Accessed			
	(N of Pts)	Attachment Level mm $\bar{x}$ (SD)	Probing Depth mm $\bar{x}$ (SD)	Spirochetes $\bar{x}$% (SD)	Comments
Baseline:					For both PD and CAL, the control experienced NS better outcomes than the tetracycline group
T:	7 (99 teeth)	3.10 (1.21)	4.25 (0.85)	NA	
C:	8 (110 teeth)	3.66 (1.22)	5.14 (1.45)	NA	
Final:	12 weeks				**Quality Score:** 38; 46
T:	7	2.29 (0.96)	2.85 (0.55)	NA	
C:	8	2.62 (1.24)	3.31 (0.73)	NA	
Change:					
T:		0.81 (0.69)	1.40 (0.32)	NA	
C:		1.04 (0.16)	1.83 (0.54)	NA	
Test:		ANOVA	ANOVA		
P value:		NS	NS		

Evidence Table 1b. Effectiveness of Local Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Yalcin et al., 1999[56] **Study Period:** 7 weeks **Study/Treatment Site:** Health Department Clinic **Location:** Istanbul, Turkey **Patient Population:** Patients with = 2 sites in each of 4 quadrants with pocket depths of = 5 mm	**Design Type:** RCT **Subject/Site Allocation:** Random **Blinding:** Examiners blind **Placebo:** No **Split-mouth:** Yes	**Severity:** Moderate to advanced periodontitis never treated **Types of Teeth:** Both single and multi-root teeth **Widman flap:** NR	**Number:** 1 examiner performed clinical measure-ments 1 examiner did SRP 1 examiner placed fibers **Trained:** NR **Assigned to Subjects:** NR	**SRP performed:** NR **Time spent:** NR

Evidence Table 1b. Effectiveness of Local Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Time Interval(s)
Subject/Site allocation: 17 subjects T: 221 sites C: 191 sites **Dose, Mode, Schedule:** T: SRP plus slow-release tetracycline fibers placed subgingivally for 10 days C: SRP only	**Age:** Range: 25 to 52 **Gender:** Male: 9 Female: 8 **Race/Ethnicity:** NR	NA	Before SRP	4 times (at baseline and weeks 1, 3, and 7)

Evidence Table 1b. Effectiveness of Local Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
Yalcin et al., 1999[56] (continued)	**Clinical Measurement:** BOP/SBI PII PD CAL GI Oral soft tissue examined to assess adverse effects **Radiographic Techniques:** NR **Microbiological Methods:** NR **Subject Self Report:** NR	Oral candidiasis (1); severe gingival redness on quadrants treated with fibers (2)	NR	**Type of analysis reported:** All with any follow-up

Evidence Table 1b. Effectiveness of Local Tetracycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

	Outcomes Accessed			
	Attachment Level mm	Probing Depth mm	Spirochetes	
(N of Pts)	$\bar{x}$ (SD)	$\bar{x}$ (SD)	$\bar{x}$% (SD)	Comments
Baseline:				Tetracycline fiber treatment as adjunct to SRP is effective in regard to probing depth and bleeding on probing
T: 210 (sites) CAL	5.12 (2.53)	4.71 (2.34)	NA	
221 (sites) PD				
C: 179 (sites) CAL	5.25 (2.59)	4.55 (2.37)	NA	
191 (sites) PD				
				Quality Score: 62; 69
Final: 7 weeks				
T: NR	NR	NR	NA	
C: NR	NR	NR	NA	
Change:	Gain	Reduction		
T:	0.95 (0.132 se)	1.45 (0.14 se)	NA	
C:	0.75 (0.158 se)	1.04 (.0148 se)	NA	
Test:	ANCOVA	ANCOVA		
P value:	NS	= 0.047		

Evidence Table 2a. Effectiveness of Systemic Minocycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Atilla et al., 1996[62] **Study Period:** 8 weeks **Study/Treatment Site:** NR **Location:** Turkey **Patient Population:** Adult patients with minimum of 20 natural teeth and PD = 4 mm	**Design Type:** Parallel non-randomized clinical trial **Subject/Site Allocation:** Patients with PD = 4 to 5 mm in one group, patients with PD = 6 mm in another group **Blinding:** NR **Placebo:** No **Split-mouth:** No	**Severity:** Moderate to severe periodontitis **Types of Teeth:** NR **Widman flap:** NR	**Number:** NR **Trained:** NR **Assigned to Subjects:** Clinical measure-ments were determined by the same periodontist	**SRP performed:** Non-surgical periodontal SRP **Time spent:** 2 or more appointments

Evidence Table 2a. Effectiveness of Systemic Minocycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Time Interval(s)
Subject/Site allocation: 21 subjects T1: 5 subjects (PD 4-5mm) T2: 5 subjects (PD = 6 mm) C1: 6 subjects (PD 4-5 mm) C2: 5 subjects (PD = 6 mm) **Dose, Mode, Schedule:** T1 and 2: SRP plus 100 mg minocycline 1xday for 14 days C1 and 2: SRP only	**Age:** Mean: 44 ± 5.87 Range: 37 to 52 **Gender:** Male: 12 Female: 9 **Race/Ethnicity:** NR	NA	Before SRP	2 times (at baseline and 8 weeks)

Evidence Table 2a. Effectiveness of Systemic Minocycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
Atilla et al., 1996[62] (continued)	**Clinical Measurement:** BOP/SBI PD Level of neutral proteasse activity Counting of epithelial cells in saliva Number of sites with PD of 4 to 5 mm or = 6mm **Radiographic Techniques:** NR **Microbiological Methods:** NR **Subject Self Report:** NR	NR	NR	**Type of analysis reported:** Full participants only

Evidence Table 2a. Effectiveness of Systemic Minocycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

		Outcomes Accessed			
	(N of Pts)	Attachment Level mm $\bar{x}$ (SD)	Probing Depth mm $\bar{x}$ (SD)	Spirochetes $\bar{x}$% (SD)	Comments
T1: PD 4 to 5 mm					Systemic minocycline therapy might be useful as an adjunct to non-surgical therapy in the presence of deep pockets, especially for reinfected cases
Baseline:					
T:	5	NA	3.11 (0.32)	NA	
C:	6	NA	3.26 (0.47)	NA	
Final: 6 weeks					
T:	5	NA	1.67 (0.52)	NA	**Quality Score:** 31; 38
C:	6	NA	1.76 (0.52)	NA	
Change:					
T:		NA	1.44* (NR)	NA	
C:		NA	1.50* (NR)	NA	
Test:			NR		
P value:			NS		
T2: PD = 6 mm					
Baseline:					
T:	5	NA	4.17 (0.34)	NA	
C:	5	NA	4.19 (0.30)	NA	
Final: 6 weeks					
T:	5	NA	1.94 (0.42)	NA	
C:	5	NA	2.45 (0.59)	NA	
Change:					
T:		NA	2.23* (NR)	NA	
C:		NA	1.74* (NR)	NA	
Test:			NR		
P value:			NS		

Evidence Table 2a. Effectiveness of Systemic Minocycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Author and Year: Ciancio, et al., 1982[61] **Study Period:** 10 weeks **Site of Study:** Dept of Periodontology and Periodontal Disease Clinical Research Center, State University of New York at Buffalo **Location:** Buffalo, NY **Patients Selected:** Adults with PD = 5 mm and a gingival inflammatory index of = 1	**Design Type:** RCT **Subject/Site Allocation:** Random **Blinding:** Examiner and subjects blind **Placebo:** Yes **Split-mouth:** Yes	**Severity:** Moderate to severe periodontitis **Types of Teeth:** Ramfjord teeth (molars, premolars, incisors) **Widman flap:** No	**Number:** 1 **Trained:** NR **Assigned to Subjects:** Same examiner throughout study	**SRP performed:** Mechanical debridement by hand performed by 2 dental hygienists to mimic common practice **Time spent on SRP:** 45-60 min on average for 2 quadrants

Evidence Table 2a. Effectiveness of Systemic Minocycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Assessment Time Interval(s)
Subject/Site allocation: 26 subjects T: 13 subjects C: 13 subjects **Dose, Mode, Schedule:** T: SRP plus 200 mg minocycline 1xday for 7days C: SRP plus placebo	**Age:** Range 35-65 **Gender Distribution:** NR **Race/Ethnicity:** NR	NR	Before SRP	6 times (at baseline, and days 7, 14, 35, 49, and 70)

Evidence Table 2a. Effectiveness of Systemic Minocycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
Ciancio et al., 1982[61] (continued)	**Clinical Measurement:** PD GI PI **Radiographic Techniques:** NR **Microbiological Methods:** Plaque microbiota: % spirochetes, coccoid cells, non-motile rods, filaments and motile rods, gram stain, colonial and cellular morphology **Subject Self Report:** NR	Vertigo in 2 subjects in treatment group, though not severe enough to affect walking	NR	**Type of analysis reported:** Intent to treat

Evidence Table 2a. Effectiveness of Systemic Minocycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

	Outcomes Accessed				
	(N of Pts)	Attachment Level mm $\bar{x}$ (SD)	Probing Depth mm $\bar{x}$ (SD)	Spirochetes $\bar{x}$% (SD)	Comments
Baseline:					No PD data reported for baseline or final exam. Results stated as "no significant changes in any study group during the experimental period"
T:	13	NA	NR	29 (NR)	
C:	13	NA	NR	25 (NR)	
Final: 10 weeks					
T:	13	NA	NR	12 (NR)	The treatment resulted in a marked and long-lasting decrease in the proportion of spirochetes
C:	13	NA	NR	15 (NR)	
Change:					
T:		NA	NR	17* (NR)	
C:		NA	NR	10* (NR)	**Quality Score:** 62; 69
Test:			NR	NR	
P value:			NS	NR	

Evidence Table 2b. Effectiveness of Local Minocycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Author and Year: Graca et al., 1997[32] **Study Period:** 12 weeks **Site of Study:** United Medical and Dental Schools of Guy's and St. Thomas' Hospitals **Location:** London, England **Patients Selected:** Adults with 2 pockets 5-10 mm on separate teeth with attachment loss > 4 mm and radiographic evidence of bone loss and BOP	**Design Type:** RCT **Subject/Site Allocation:** Paired according to smoking, gender, age. If more than 6 teeth met criteria (PD = 5-10 mm) then selection was random **Blinding:** Examiner and patients blind **Placebo:** Yes **Split-mouth:** NR	**Severity:** Moderate to advanced periodontitis **Types of Teeth:** NR **Widman flap:** NR	**Number:** 1 **Trained:** NR **Assigned to Subjects:** Same examiner throughout study	**SRP performed:** 2-6 teeth per patient were planed under local anesthesia using hand and ultrasonic instruments **Time spent on SRP:** NR

Evidence Table 2b. Effectiveness of Local Minocycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Assessment Time Interval(s)
Subject/Site allocation: 30 subjects enrolled 26 completed, 2 to 6 teeth per subject T: 13 subjects C: 13 subjects **Dose, Mode, Schedule:** T: SRP plus 2% minocycline gel applied at baseline, and weeks 2 and 4 C: SRP plus placebo gel	**Age:** Range: 25 to 50 **Gender Distribution:** Males: 6 Females: 20 **Race/Ethnicity:** White: 16	NA	Before SRP	3 times (at baseline, and weeks 6 and 12)

Evidence Table 2b. Effectiveness of Local Minocycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
Graca et al., 1997[32] (continued)	**Clinical Measurement:** PII BOP CAL PD **Radiographic Techniques:** NR **Microbiological Methods:** NR **Subject Self Report:** NR	Root sensitivity	2 pairs lost: systemic antibiotics (1); inability to keep appointments (1)	**Type of analysis reported:** Full participants only Matched pairs

Evidence Table 2b. Effectiveness of Local Minocycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

		Outcomes Accessed			
	(N of Pts)	Attachment Level mm $\bar{x}$ (SD)	Probing Depth mm $\bar{x}$ (SD)	Spirochetes $\bar{x}$% (SD)	Comments
					Quality Score: 69; 69
Baseline:					
T:	13	6.86 (1.04)	5.93 (0.48)	NA	
C:	13	6.83 (0.73)	5.74 (0.35)	NA	
Final:	12 weeks				
T:	13	4.91 (0.72)	3.29 (0.49)	NA	
C:	13	5.27 (0.76)	3.44 (0.47)	NA	
Change:					
T:		1.95* (NR)	2.64* (NR)	NA	
C:		1.56* (NR)	2.30* (NR)	NA	
Test:		ANCOVA	ANCOVA		
P value:		<0.05	NS		

Evidence Table 2b. Effectiveness of Local Minocycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Author and Year: Henderson et al., 2002[67] **Study Period:** 26 weeks (6 months) **Site of Study:** Department of Oral Rehabilitation, School of Dentistry, University of Otago **Location:** New Zealand **Patients Selected:** Adult patients with = 2 pairs of adjacent 6-9 mm pockets and = 3 mm loss of attachment, located in adjacent teeth in an interproximal space, on opposite sides of the mouth	**Design Type:** RCT **Subject/Site Allocation:** Random **Blinding:** Examiners blind **Placebo:** No **Split-mouth:** Yes	**Severity:** Moderate to advanced chronic periodontitis **Types of Teeth:** NR **Widman flap:** NR	**Number:** NR **Trained:** NR **Assigned to Patients:** NR	**SRP performed:** Single episode of full mouth ultrasonic and hand instrumentation under local anesthetic **Time spent on SRP:** 90 minutes

Evidence Table 2b. Effectiveness of Local Minocycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Assessment Time Interval(s)
Subject/Site allocation: 15 subjects One of 2 teeth per subject received treatment, adjacent tooth or opposite side (remote) served as controls, remotes used for control in this report T: 15 subjects C: 15 subjects **Dose, Mode, Schedule:** T: SRP plus a single application of 1 mg minocycline C: SRP only	**Mean Age:** Mean: 46.3 Range: 35 to 69 **Gender Distribution:** Male: 7 Female: 8 **Race/Ethnicity:** NR	NR	Before SRP	3 times (at baseline, and months 3 and 6

Evidence Table 2b. Effectiveness of Local Minocycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
Henderson et al., 2002[67] (continued)	**Clinical Measurement:** PD CAL BOP PII BI Soft tissue appearance **Radiographic Techniques:** NR **Microbiological Methods:** NR **Patient Self Report:** NR	No adverse events were reported by completers	NR	**Type of analysis reported:** Full participants only

Evidence Table 2b. Effectiveness of Local Minocycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

	Outcomes Accessed			
	Attachment Level mm	Probing Depth mm	Spirochetes	
(N of Pts)	$\bar{x}$ (SD)	$\bar{x}$ (SD)	$\bar{x}$ (SD)	Comments
Baseline:				Statistically significant differences in pocket depths were found between groups over the six months of the study but the *P* value was not reported
T:	NR	6.7 (1.0)	NA	
C:	NR	7.1 (1.0)	NA	
Final: 26 weeks (6 months)				
T:	NR	4.3 (1.4)	NA	**Quality Score:** 54; 54
C:	NR	5.2 (1.2)	NA	
Change:				
T:	2.1 (1.5)	2.5 (1.4)	NA	
C:	1.3 (1.3)	1.8 (1.7)	NA	
Test:	NR	NR		
P value:	0.04	= 0.05		

Evidence Table 2b. Effectiveness of Local Minocycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Author and Year: Jones et al., 1994[64] **Study Period:** 26 weeks (6 months) **Site of Study:** University of Texas Health Science Center **Location:** San Antonio, Texas, USA **Patients Selected:** Adults with at least 2 sites on different teeth in 1 quadrant with PD > 7 mm and presence of *P.g., P.i. or A.a.* microbial species.	**Design Type:** RCT **Subject/Site Allocation:** Random assignment to 4 groups All sites = 5 mm in the most diseased quadrant received treatment, other quadrants not treated **Blinding:** Examiners and patients blind **Placebo:** Yes **Split-mouth:** No	**Severity:** Moderate to advanced periodontitis **Types of Teeth:** 3rd molars and abutment teeth excluded **Widman flap:** NR	**Number:** NR **Trained:** NR **Assigned to Subjects:** NR	**SRP performed:** NR **Time spent on SRP:** NR

Evidence Table 2b. Effectiveness of Local Minocycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Assessment Time Interval(s)
Subject/Site allocation: 26 subjects enrolled 17 completed T: 11 subjects C: 6 subjects **Dose, Mode, Schedule:** T: SRP plus microencapsulated minocycline HCL powder in a biodegradable controlled-release system, injected into = 5 mm pockets, 1 application C: SRP plus saline subgingival irrigation for 30 seconds	**Mean Age:** NR **Gender Distribution:** NR **Race/Ethnicity:** NR	NA	Before SRP	4 times (at baseline, and months 1, 3 and 6) CAL also recorded at month 5

Evidence Table 2b. Effectiveness of Local Minocycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
Jones et al., 1994[64] (continued)	**Clinical Measurement:** CAL PD PII GI BOP **Radiographic Techniques:** NR **Microbiological Methods:** Anaerobic cultures (*A.a., P.g., P.i., E.c., C.r.*) DNA probe Monoclonal antibodies **Subject Self Report:** NR	No untoward reactions were observed	No reasons given, but 9 were lost	**Type of analysis reported:** Full participants only Sites averaged across each subject and then averaged across subjects to create group mean Any site with = 2 mm attachment loss was eliminated from analysis

Evidence Table 2b. Effectiveness of Local Minocycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

	Outcomes Accessed			
	Attachment Level mm	Probing Depth mm	Spirochetes	
(N of Pts)	$\bar{x}$ (SD)	$\bar{x}$ (SD)	$\bar{x}$% (SD)	Comments
Baseline:				Presented actual data for baseline but not for final. Instead just showed figures (bar graphs) which depicted the amount of change. Can not interpolate data from records.
T:	10.93 (1.5)	6.12 (0.63)	NA	
C:	10.77 (1.22)	5.56 (0.95)	NA	
Final: 26 weeks				
T: 11	NR	NR	NA	
C: 6	NR	NR	NA	**Quality Score:** 46; 46
Change:				
T:	NR	NR	NA	
C:	NR	NR	NA	
Test:	Duncans Multiple Range Test	Duncans Multiple Range Test		
P value:	NS	NS		

Evidence Table 2b. Effectiveness of Local Minocycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Author and Year: Kinane and Radvar 1999[53] **Study Period:** 26 weeks (6 months) **Site of Study:** Peridontal Department of the Glasgow Dental Hospital **Location:** Glasgow, Scotland **Patients Selected:** Patients with pockets that did not respond to SRP; at least 4 pockets > 5 mm and BOP that did not respond to SRP	**Design Type:** Parallel RCT **Subject/Site Allocation:** Random **Blinding:** Examiner blind **Placebo:** No **Split-mouth:** No	**Severity:** Chronic periodontitis with persistent pockets **Types of Teeth:** Sites with furcation lesions excluded **Widman flap:** NR	**Number:** 1 **Trained:** NR **Assigned to Subjects:** Same examiner throughout study	**SRP performed:** Scaling and root planing under local anesthesia **Time spent on SRP:** NR

Evidence Table 2b. Effectiveness of Local Minocycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Assessment Time Interval(s)
Subject/Site allocation: 41 subjects T: 21 subjects C: 20 subjects **Dose, Mode, Schedule:** T: SRP plus 2% minocycline gel at baseline and weeks 2 and 4 C: SRP only	**Age:** Mean: 45 (± 6.4) **Gender Distribution:** Males: 50 Females: 29 **Race/Ethnicity:** NR	NR	Before SRP	3 times (at baseline, 6 weeks, and 6 months)

Evidence Table 2b. Effectiveness of Local Minocycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
Kinane and Radvar 1999[53] (continued)	**Clinical Measurement:** PD BOP/SBI PII CAL MGI Supperation **Radiographic Techniques:** NR **Microbiological Methods:** NR **Subject Self Report:** NR	Examined for adverse signs but none reported	Control: reason not given (1); Treatment group: reason not given (1)	**Type of analysis reported:** Full participants only Analysis adjusted: GLM, baseline as continuous covariate

Evidence Table 2b. Effectiveness of Local Minocycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

		Outcomes Accessed			
	(N of Pts)	Attachment Level mm $\bar{x}$ (SD)	Probing Depth mm $\bar{x}$ (SD)	Spirochetes $\bar{x}$% (SD)	Comments
Baseline:					This is a follow-up study
T:	21	NR	5.58 (0.15 se)	NA	
C:	20	NR	5.48 (0.18 se)	NA	**Quality Score:** 54; 62
Final: 26 weeks					
T:	21	NR	NR	NA	
C:	20	NR	NR	NA	
Change:		Gain	Reduction		
T:		0.57 (0.11 se)	1.10 (0.16 se)	NA	
C:		0.54 (0.14 se)	0.71 (0.19 se)	NA	
Test:		GLM	GLM		
P value:		NS	NS		

Evidence Table 2b. Effectiveness of Local Minocycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Author and Year: Van Dyke et al, 2002[68] **Study Period:** 26 weeks (6 months) **Site of Study:** NR **Location:** NR **Patients Selected:** Adult patients with = 2 teeth having 1 site with PD = 6 mm and prostaglandin E_2 levels > 66.2 nt/ml in gingival crevicular fluid	**Design Type:** RCT **Subject/Site Allocation:** Random **Blinding:** Examiners and patients blind **Placebo:** No **Split-mouth:** No	**Severity:** Moderate to severe peridontitis **Types of Teeth:** No third molars **Widman flap:** NR	**Number:** NR **Trained:** NR **Assigned to Patients:** NR	**SRP performed:** NR **Time spent on SRP:** NR

Evidence Table 2b. Effectiveness of Local Minocycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Assessment Time Interval(s)
Subject/Site allocation: 50 subjects recruited for full study (2 teeth per subject per treatment group) 22 completed T: 12 subjects (77 sites) C: 10 subjects (53 sites) **Dose, Mode, Schedule:** T: SRP plus 1 mg microencapsulated minocycline C: SRP and saline	**Mean Age:** NR **Gender Distribution:** Male: NR Female: NR **Race/Ethnicity:** NR	NR	Before SRP	4 times (at baseline, 1, 3 and 6 months)

Evidence Table 2b. Effectiveness of Local Minocycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
Van Dyke et al., 2002[68] (continued)	**Clinical Measurement:** PD CAL BI PI GI **Radiographic Techniques:** NR **Microbiological Methods:** NR **Patient Self Report:** NR	Treatment group: black hairy tongue and abscesses at study sites unrelated to study drug (1), rhinitis (1); 1 subject in control group reported myalgia and granulo-matous lesion	7 sites in 2 subjects in treatment group not evaluable due to insufficient baseline PD	**Type of analysis reported:** Intent to treat

Evidence Table 2b. Effectiveness of Local Minocycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

	Outcomes Accessed			
	Attachment Level mm	Probing Depth mm	Spirochetes	
(N of Pts)	$\bar{x}$ (SD)	$\bar{x}$ (SD)	$\bar{x}$ (SD)	Comments
Baseline:				Substantially greater reductions in PD and CAL gains at each post treatment point versus control
T:	11.01 (NR)	6.86 (NR)	N/A	
C:	11.11 (NR)	6.53 (NR)	N/A	
Final: 26 weeks (6 months)				Difference between treatments in sites with = 5 mm and < 6 mm PD were highly significant (*P* < 0.01) at time points
T: 12	NR	NR	N/A	
C: 10	NR	NR	N/A	
Change:				
T:	1.02 (0.26 se)	1.94 (0.21 se)	N/A	
C:	0.54 (0.18 se)	1.66 (0.20 se)	N/A	For sites with PD > 6 mm no statistical significant differences between treatment groups
Test:	NR	NR		
P value:	NS	NS		
				Quality Score: 46; 46

Evidence Table 2b. Effectiveness of Local Minocycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Author and Year: van Steenberghe et al., 1993[63] **Study Period:** 12 weeks **Site of Study:** 4 Universities **Location:** Belgium **Patients Selected:** Adults with at least 1 PD with = 5 mm and attachment loss = 3 mm in at least 1 site per quadrant; and radiographic evidence of alveoler bone loss	**Design Type:** RCT **Subject/Site Allocation:** Random **Blinding:** Examiners and patients blind **Placebo:** Yes **Split-mouth:** No	**Severity:** Moderate to severe chronic periodontitis **Types of Teeth:** NR **Widman flap:** NR	**Number:** I at each site **Trained:** Yes, experienced thorough discussion prior and during trial minimized diffs in clinical procedures **Assigned to Subjects:** Same examiner throughout study	**SRP performed:** SRP using hand instruments were performed at all surfaces of tested teeth **Time spent on SRP:** Max 3 minutes/tooth and 15/quad

Evidence Table 2b. Effectiveness of Local Minocycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Assessment Time Interval(s)
Subject/Site allocation: 103 subjects enrolled 81 subjects completed T: 42 subjects C: 39 subjects **Dose, Mode, Schedule:** T: SRP plus 2% minocycline ointment applied at baseline, and weeks 2, 4, and 6 C: SRP plus placebo at baseline, and weeks 2, 4, and 6	**Age:** Mean: 48.7 **Gender Distribution:** Males: 41 Females: 62 **Race/Ethnicity:** NR	NA	Before SRP	5 times (at baseline, and weeks 2, 4, 6, and 12)

Evidence Table 2b. Effectiveness of Local Minocycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
van Steenberghe et al., 1993[63] (continued)	**Clinical Measurement:** BOP PII GI GCF PD CAL **Radiographic Techniques:** NR **Microbiological Methods:** DNA Probe assay **Subject Self Report:** NR	T: 17% gingival abcesses, diarrhea, gingival edema, echy-mosis, upset stomach C: 12% gingival abcesses, mouth ulceration and pain	22 subjects not included because of: lack of baseline data (4); failed to return (14); lost to follow-up (3); antibiotic use (1)	**Type of analysis reported:** Full participants only

Evidence Table 2b. Effectiveness of Local Minocycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

	Outcomes Accessed			
	Attachment Level mm	Probing Depth mm	Spirochetes	
(N of Pts)	$\bar{x}$ (SD)	$\bar{x}$ (SD)	$\bar{x}$% (SD)	Comments
PD = 5 m				Difference in PAL 0.8 mm in each group, not significant, *P* = 0.58
Baseline:				
T:	NR	5.9 (NR)	NA	
C:	NR	5.9 (NR)	NA	
Final: 12 weeks				Microbial outcomes assessed: No data, but stated significant changes in *P.g., A.a.,* and *P.I.* at weeks 6 and 12
T: 42 (897 sites)	NR	4.2 (NR)	NA	
C: 39 (745 sites)	NR	4.5 (NR)	NA	
Change:				Reduction in bacterial counts were associated with an improvement in clinical parameters
T:	0.8 (NR)	1.7 (NR)	NA	
C:	0.8 (NR)	1.4 (NR)	NA	
Test:	t-test	t-test		
P value:	NS	= 0.0018		**Quality Score:** 69; 77
PD = 7 mm				
Baseline:				
T:	NR	7.5 (NR)	NA	
C:	NR	7.8 (NR)	NA	
Final: 12 weeks				
T: 28 (151 sites)	NR	4.4 (NR)	NA	
C: 24 (140 (sites)	NR	5.7 (NR)	NA	
Change:				
T:	1.3 (NR)	3.1 (NR)	NA	
C:	0.9 (NR)	2.1 (NR)	NA	
Test:	t-test	t-test		
P value:	NS	=0.0001		

Evidence Table 2b. Effectiveness of Local Minocycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Author and Year: van Steenberghe et al., 1999[65] **Study Period:** 65 weeks (15 months) **Site of Study:** 6 university centers **Location:** Belgium, Sweden, The Netherlands, United Kingdom **Patients Selected:** Patients with = 1 approximal PD of > 5 mm attachment loss of = 3 mm, and radiographic evidence of alveolar bone loss in at least 1 site per quadrant	**Design Type:** RCT **Subject/Site Allocation:** Random **Blinding:** Examiners and patients blind **Placebo:** Yes **Split-mouth:** No	**Severity:** Moderate to severe chronic periodontitis **Types of Teeth:** NR **Widman flap:** NR	**Number:** 1/center (6 centers) **Trained:** Yes **Assigned to Subjects:** NR	**SRP performed:** Both supra and subgingival hand scaling under local anesthesia (if necessary); repeated at 6 and 12 months. **Time spent on SRP:** Maximum 15 min/quad

Evidence Table 2b. Effectiveness of Local Minocycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Assessment Time Interval(s)
Subject/Site allocation: 104 subjects enrolled 93 completed T: 46 subjects C: 47subjects **Dose, Mode, Schedule:** T: SRP plus 2% minocycline ointment applied at baseline, 2 wks, 1, 3, 6, 9, and 12 months C: SRP plus placebo applied at baseline, 2 wks, 3, 6, 9, and 12 months	**Age:** Enrollees: Mean: 46 Range: 34 to 64 **Gender Distribution:** Males: 50% Males: 43 Females: 50 **Race/Ethnicity:** NR	NR	Before SRP	7 times (at baseline, and months 1, 3, 6, 9, 12, and 15) Additional microbiological sampling at week 2.

Evidence Table 2b. Effectiveness of Local Minocycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
van Steenberghe et al., 1999[65] (continued)	**Clinical Measurement:** BOP PII PD CAL GI BI **Radiographic Techniques:** Full mouth intra-oral radiography **Microbiological Methods:** DNA/RNA Probe (P.i. and microbiological) **Subject Self Report:** NR	T: 11 C: 14 Minor clinical adverse reactions (e.g., redness) 3 in of treatment group reported abcesses	6 treatment and 5 control subjects excluded because they did not have a valid baseline evaluation, invalid post-baseline visits, improper randomiza-tions, plus other reasons not listed for 2 subjects	**Type of analysis reported:** Full participants only

Evidence Table 2b. Effectiveness of Local Minocycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

	Outcomes Accessed				
	(N of Pts)	Attachment Level mm $\bar{x}$ (SD)	Probing Depth mm $\bar{x}$ (SD)	Spirochetes $\bar{x}$% (SD)	Comments
PD = 5 mm					Microbial outcomes assessed:
Baseline:					
T:	46	NR	6.5 (NR)	NA	
C:	47	NR	6.3 (NR)	NA	Statistically significant greater reductions in P.g., T.d., and C.r. from baseline. For P.i. and A.a. the changes were not significant. F.n. and E.c. changes were not significant.
Final: 65 weeks					
T: (PD)	(1241 sites)	NR	4.6 (NR)	NA	
C: (PD)	(1275 sites)	NR	5.1 (NR)	NA	
Change:		Gain			
T: (CAL)	45 (1.231 sites)	0.9 (NR)	1.9 (NR)	NA	**Quality Score:** 85; 92
C: (CAL)	45 (1.275 sites)	0.5 (NR)	1.2 (NR)	NA	
Test:		t-test	t-test		
P value:		0.0001	0.0001		
PD = 7 mm					
Baseline:					
T:		NR	8.1 (NR)	NA	
C:		NR	7.7 (NR)	NA	
Final: 65 weeks					
T:	36 (334 sites)	NR	5.3 (NR)	NA	
C:	35 (284 sites)	NR	6.0 (NR)	NA	
Change:		Gain			
T:		1.4 (NR)	2.8 (NR)	NA	
C:		1.0 (NR)	1.7 (NR)	NA	
Test:		t-test	t-test		
P value:		0.0001	0.0001		

Evidence Table 2b. Effectiveness of Local Minocycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Author and Year: Williams et al., 2001[66] **Study Period:** 39 weeks (9 months) **Site of Study:** 18 centers at Universities **Location:** USA **Patients Selected:** Adult patients with at least 4 teeth with 6-9 mm PD with BOP	**Design Type:** RCT **Subject/Site Allocation:** Random but stratified for smoking and study center **Blinding:** Examiners and patients blind **Placebo:** Yes **Split-mouth:** No	**Severity:** Moderate to advanced periodontitis **Types of Teeth:** NR **Widman flap:** NR	**Number:** 1 per site **Trained:** Trained and calibrated **Assigned to Subjects:** Same examiner throughout study	**SRP performed:** Full mouth, local anesthesia if needed **Time spent on SRP:** No limit on time

Evidence Table 2b. Effectiveness of Local Minocycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Assessment Time Interval(s)
Subject/Site allocation: 498 subjects enrolled 467 completed T: 249/237 subjects C: 249/230 subjects **Dose, Mode, Schedule:** T: SRP plus 1 mg of 2% minocycline microspheres in 3 mg of polymer applied in all sites with pockets = 5 mm at baseline and months 3 and 6 C: SRP plus 3 mg of placebo polymer	**Age:** Mean: T: 49.1 C: 47.2 Range: 27-79 **Gender Distribution:** Male: 54.8% **Race/Ethnicity:** White: 76%	NA	Before SRP	5 times (at baseline, 1, 3, 6, and 9 months)

Evidence Table 2b. Effectiveness of Local Minocycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
Williams et al., 2001[66] (continued)	**Clinical Measurement:** PD CAL BOP **Radiographic Techniques:** NR **Microbiological Methods:** NR **Subject Self Report:** NR``	T: 68% C: 72% Most common: headache, dental infection, increased perio-dontitis, tooth sensitivity, tooth caries, dental pain, gingivitis, stomatitis	NR	**Type of analysis reported:** Intent to treat (All sites with PD = 5 mm at baseline were included)

Evidence Table 2b. Effectiveness of Local Minocycline as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

	Outcomes Accessed			
	Attachment Level mm	Probing Depth mm	Spirochetes	
(N of Pts)	$\bar{x}$ (SD)	$\bar{x}$ (SD)	$\bar{x}$% (SD)	Comments
Baseline:				CAL: Changes not reported for any group
T:	5.39 (1.43)	5.8 (0.4)	NA	Change for PD = 6 mm: T: 1.46 (0.09 se) C: 1.05 (0.10 se) *P* = 0.01
C:	5.38 (1.38)	5.9 (0.5)	NA	
Final: 39 weeks				Change for PD = 7 mm: T: 1.99 (0.31 se) C: 0.98 (0.29 se) *P* = 0.06
T: 237	NR	NR	NA	
C: 230	NR	NR	NA	
Change:		Reduction		**Quality Score:** 92; 92
T:	NR	1.32 (0.04 se)	NA	
C:	NR	1.00 (0.04 se)	NA	
Test:		ANCOVA/GLM		
P value:		< 0.001		

Evidence Table 3a. Effectiveness of Systemic Metronidazole as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Joyston-Bechal et al., 1986[71]	**Design Type:** RCT	**Severity:** Moderate, severe	**Number:** NR	**SRP performed:** Scaling and oral hygiene
Study Period: 156 weeks (3 years)	**Subject/Site Allocation:** Random	**Types of Teeth:** Teeth 16, 21, 24, 36, 41, and 44	**Trained:** NR	**Time spent:** NR
Study/Treatment Site: Hospital dental clinic	**Blinding:** Examiners and patients blind	**Widman flap:** NR	**Assigned to Subjects:** NR	
Location: London, England	**Placebo:** Yes			
Patient Population: Patients from a previous study invited for follow-up study 3 years later	**Split-mouth:** No			

Evidence Table 3a. Effectiveness of Systemic Metronidazole as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Time Interval(s)
Subject/Site allocation: 28 subjects of the original 45 subjects in earlier study T: 15 subjects C: 13 subjects **Dose, Mode, Schedule:** T: SRP plus 1% chlorhexidine gel for the first 10 weeks; at the end of 2 weeks, they began 200 mg metronidazole, 1 that evening and 3xday for 5 days; repeated 4 weeks later; SRP as needed at 4 week intervals until week 10. Over the next 3 years, SRP given 2xyear as needed C: SRP with placebo; 1 tablet that evening and 3xday for 5 days; repeated 4 weeks later; SRP as needed at 4 week intervals until week 10. Over the next 3 years, got SRP 2xyear as needed	**Age:** NR **Gender:** NR **Race/Ethnicity:** NR	NR	NR	2 times (at baseline and 156 weeks)

Evidence Table 3a. Effectiveness of Systemic Metronidazole as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
Joyston-Bechal et al., 1986[71] (continued)	**Clinical Measurement:** BOP/SBI PII PD Gingival bleeding Calculus **Radiographic Techniques:** NR **Microbiological Methods:** NR **Subject Self Report:** NR	NR	NR	**Type of analysis reported:** All who completed follow-up

Evidence Table 3a. Effectiveness of Systemic Metronidazole as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

	Outcomes Accessed				
	(N of Pts)	Attachment Level mm $\bar{x}$ (SD)	Probing Depth mm $\bar{x}$ (SD)	Spirochetes $\bar{x}$% (SD)	Comments
Baseline:					There were no significant differences between test and control groups in mean PD. However, when T and C were subdivided into severity groups, the shallower pockets differed by treatment group (*P* = 0.027) but the deeper did not (*P* = 0.89). These results are different from the original 22 week study where deeper pockets benefited more from metronidazole.
T:	15	NA	3.61 (NR)	NA	
C:	13	NA	3.61 (NR)	NA	
Final: 156 weeks					
T:	15	NA	2.58 (NR)	NA	
C:	13	NA	2.99 (NR)	NA	
Change:			Reduction		
T:	15	NA	1.03 (NR)	NA	
C:	13	NA	0.62 (NR)	NA	
Test:			t-test		
P value:			0.214		
					Quality Score: 38; 31

Evidence Table 3a. Effectiveness of Systemic Metronidazole as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Loesche et al., 1984[69] **Study Period:** 30 weeks **Study/Treatment Site:** University of Michigan, School of Dentistry **Location:** Ann Arbor, MI **Patient Population:** Patients with multiple sites of periodontal bone loss, BOP, and an anaerobic periodontal infection assigned to groups depending on initial severity of condition	**Design Type:** RCT **Subject/Site Allocation:** Random **Blinding:** Examiner and patients blind **Placebo:** Yes **Split-mouth:** No	**Severity:** Moderate to advanced periodontitis, multiple sites with bone loss and infection **Types of Teeth:** Both **Widman flap:** NR	**Number:** 1 **Trained:** NA **Assigned to Subjects:** Same examiner throughout study	**SRP performed:** Mechanical debridement (meticulous root surface debridement) **Time spent:** NR

Evidence Table 3a. Effectiveness of Systemic Metronidazole as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Time Interval(s)
Subject/Site allocation: 14 subjects T: 7 subjects C: 7 subjects **Dose, Mode, Schedule:** T: SRP plus 250 mg metronidazole 3xday for 7 days starting at first session of root scaling C: SRP and placebo tablets 3xday for 7 days	**Age:** NR **Gender:** NR **Race/Ethnicity:** NR	All subjects reported that they used the entire supply of medication	NR	4 times (at baseline and weeks 2, 15, and 30)

Evidence Table 3a. Effectiveness of Systemic Metronidazole as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
Loesche et al., 1984[69] (continued)	**Clinical Measurement:** PD CAL **Radiographic Techniques:** NR **Microbiological Methods:** Bacteriological sampling, anaerobic count of agar colonies dark field microscopy **Subject Self Report:** NR	Metallic taste	Unknown number of subjects that did not return for clinical examinations of PD and CAL	**Type of analysis reported:** Full participants only, though the bacteriological analysis used all available data

Evidence Table 3a. Effectiveness of Systemic Metronidazole as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

		Outcomes Accessed			
	(N of Pts)	Attachment Level mm $\bar{x}$ (SD)	Probing Depth mm $\bar{x}$ (SD)	Spirochetes $\bar{x}$% (SD)	Comments
					Microbial Outcomes:
Baseline:					P.g.
T:	NR	5.4 (NR)	5.2 (NR)	37.8 (NR)	Baseline: Final:
C:	NR	5.0 (NR)	6.2 (NR)	31.7 (NR)	T: 5.9 T: 0.9
					C: 5.8 C: 2.0
Final: 15 to 30 weeks					
T:	NR	NR	NR	19.6 (NR)	The treatment group had significant and sustained reduction of certain anaerobic organisms, such as *B.g.* and large spirochetes
C:	NR	NR	NR	31.2 (NR)	
PD 4 to 6 mm or 4-6 mm Attachment Loss:					
Change:		Gain	Reduction		
T:	NR	0.38	1.19 (NR)	NR	
C:	NR	0.28	1.05 (NR)	NR	
Test:		t-test	t-test		
P value:		NS	NS		**Quality Score:** 46; 46
PD 6+ mm:					
Change:		Gain	Reduction		
T:	NR	1.42 (NR)	3.19 (NR)	NR	
C:	NR	0.23 (NR)	1.55 (NR)	NR	
Test:		t-test	t-test		
P value:		0.05	0.03		

Evidence Table 3a. Effectiveness of Systemic Metronidazole as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Loesche et al., 1991[73] **Study Period:** 52 weeks **Study/Treatment Site:** Graduate Periodontal University Clinic **Location:** USA **Patient Population:** Adult patients with deep pocketing and radiographic evidence bone loss about one or more teeth per jaw quadrant, spirochete infection in 2 quadrants	**Design Type:** RCT **Subject/Site Allocation:** Random **Blinding:** Examiners and patients blind **Placebo:** Yes **Split-mouth:** No	**Severity:** Advanced periodontitis **Types of Teeth:** Disto lingual sites not included **Widman flap:** NR	**Number:** 15 graduate students provided treatment, clinician did pre and post exam **Trained:** Used standard procedures **Assigned to Subjects:** Same examiner at each treatment planning assessment	**SRP performed:** Rigorous debridement of the root surfaces of teeth that had 3 mm of probing depth and occlusal adjustment of the teeth if necessary **Time spent:** 3 to 8 clinic visits

Evidence Table 3a. Effectiveness of Systemic Metronidazole as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Time Interval(s)
Subject/Site allocation: 50 subjects started 39 completed T: 18 subjects C: 21 subjects **Dose, Mode, Schedule:** T: SRP plus 250 mg metronidazole tablets 3xday for 1 week C: SRP plus placebo tablets for 1 week	**Age:** T: 47.9 ± 9.2 C: 48.3 ± 11.5 **Gender:** Males: 20 (T: 9; C: 11) Females: 19 (T: 9, C: 10) **Race/Ethnicity:** NR	All subjects reported taking the medication as instructed except for 1 who stopped taking meds after 4 days because of a "leg cramp"	Before SRP	4 times (at baseline, weeks 4 to 6, and 2 annual visits)

Evidence Table 3a. Effectiveness of Systemic Metronidazole as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
Loesche et al., 1991[73]	**Clinical Measurement:** BOP/SBI PD CAL Root topography Nature of bony defect Adequacy of access for thorough root instrumentation **Radiographic Techniques:** Bone Loss/Regeneration **Microbiological Methods:** Plaque microbiota, total anaerobic count, dark field microscopy	No complaints about medication	Of the original 50, losses were due to pts not returning for treatment, moved from community, or refused treatment (no numbers reported)	**Type of analysis reported:** All who completed follow-up

Evidence Table 3a. Effectiveness of Systemic Metronidazole as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

		Outcomes Accessed			
	(N of Pts)	Attachment Level mm $\bar{x}$ (SD)	Probing Depth mm $\bar{x}$ (SD)	Spirochetes $\bar{x}$% (SD)	Comments
					Microbial Outcomes:
Baseline:					Baseline: Final:
T:	18	NR	NR	52.6 (4.1)	*P.g.* *P.g.*
C:	21	NR	NR	59.1 (2.5)	T: 0.5 (0.2) T: 0.5 (0.5)
					C: 3.0 (2.1) C: 0.2 (0.1)
Final: 52 weeks					
T:	18	NR	NR	NR	*A.a.* *A.a.*
C:	21	NR	NR	NR	T: < 0.01 T: < 0.01
PD 4-6 mm (23 – 74 sites)					C: < 0.01 C: < 0.01
Change:		Gain	Reduction		Metronidazole had a significant effect on the site specific reduction of spirochetes. 90% of sites in the treatment group and 64% in control had decrease in the percentage of spirochetes (*P* < 0.05)
T:	17	0.40 (NR)	0.75 (NR)	NR	
C:	19	0.27 (NR)	0.81 (NR)	NR	
Test:		ANOVA	ANOVA		
P value:		NS	NS		
PD 7+ mm (1-47 sites)					
Change:					
T:	17	0.86 (NR)	1.91 (NR)	NR	
C:	19	0.54 (NR)	1.50 (NR)	NR	No significant differences between the treatment groups were observed for CAL or PD.
Test:		ANOVA	ANOVA		
P value:		NS	NS		
					Quality Score: 54; 46

Evidence Table 3a. Effectiveness of Systemic Metronidazole as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Loesche et al., 1992[74] **Study Period:** 104 weeks (2 years) **Study/Treatment Site:** Graduate Periodontal Clinic **Location:** NR **Patient Population:** Adult patients with deep pocketing and bone loss about 1 or more teeth per jaw quadrant (at least 4 such teeth per patient) with 20% + spirochetes	**Design Type:** RCT **Subject/Site Allocation:** Random **Blinding:** Examiners and patients blind **Placebo:** Yes **Split-mouth:** No	**Severity:** Advanced adult periodontitis **Types of Teeth:** NR **Widman flap:** NR	**Number:** NR **Trained:** NR **Assigned to Subjects:** Same examiner for each treatment planning session; examiner not involved in evaluation of data	**SRP performed:** Rigorous debridement of root surfaces of teeth that had 3 mm or more PD and occlusal adjustment of teeth if necessary by 2 grad students **Time spent:** NR

Evidence Table 3a. Effectiveness of Systemic Metronidazole as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Time Interval(s)
Subject/Site allocation: 33 subjects completed T: 15 subjects C: 18 subjects **Dose, Mode, Schedule:** T: SRP plus 250 mg metronidazole 3xday for 1 week after SRP C: SRP with placebo (3xday for 1 week)	**Age:** NR **Gender:** Males: 17 Females: 16 **Race/Ethnicity:** NR	All subjects reported taking the medication as instructed	Before SRP	5 times (at baseline, 4-6 weeks, then annually for 2 years)

Evidence Table 3a. Effectiveness of Systemic Metronidazole as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
Loesche et al., 1992[74] (continued)	**Clinical Measurement:** BOP/SBI PD CAL Root topography Nature of bony defect Adequacy of access for thorough root instrumentation **Radiographic Techniques:** Bone Loss/Regeneration **Microbiological Methods:** Anaerobic count of agar colonies **Subject Self Report:** NR	Metallic taste	Non-return for treatments; moved from community, or deceased	**Type of analysis reported:** Full participants only (with exception of 1 subject who completed the bacteriological analysis but wouldn't return for clinical exam)

Evidence Table 3a. Effectiveness of Systemic Metronidazole as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

	Outcomes Accessed			
	Attachment Level mm	Probing Depth mm	Spirochetes	
(N of Pts)	$\bar{x}$ (SD)	$\bar{x}$ (SD)	$\bar{x}$% (SD)	Comments
PD = 3 mm (39-121 sites) per subject				Microbial Outcomes:
Baseline:				Baseline: Final:
T:	NR	NR	NA	*P.g.* *P.g.*
C:	NR	NR	NA	T: 0.1 (0.2) T: < 0.1 (0.1)
Final: 104 weeks				C: 0.4 (1.4) C: < 0.1 (0.1)
T:	NR	NR	NA	*A.a.* *A.a.*
C:	NR	NR	NA	T: < 0.1 (0.1) T: < 0.1 (0.1)
Change:	Gain	Reduction		C: 0.3 (1.1) C: < 0.1 (0.1)
T:	0.04 (NR)	0.05 (NR)	NA	The clinical improvements in the metronidazole group were associated with significantly lower proportions of spirochetes. These findings indicate that systemic metronidazole, when given after the root surface debridement is completed, leads to additional treatment benefits including a reduced need for surgery.
C:	-0.33 (NR)	0.20 (NR)	NA	
Test:	ANOVA	ANOVA		
P value:	0.07	0.08		
PD4 – 6 mm (16-69 sites) per subject				
Baseline:				
T:	NR	NR	NA	
C:	NR	NR	NA	
Final: 104 weeks				
T:	NR	NR	NA	
C:	NR	NR	NA	
Change:	Gain	Reduction		At 4-6 weeks, treatment group had highly significant (*P* < 0.01) reduction in PD and gain in attachment levels in relation to controls in PD 4-6 mm and = 7 mm.
T:	0.79 (NR)	1.22 (NR)	NA	
C:	0.32 (NR)	0.75 (NR)	NA	
Test:	ANOVA	ANOVA		
P value:	< 0.01	< 0.01		
PD = 7 mm (1-51 sites) per subject				
Baseline:				**Quality Score:** 46; 38
T:	NR	NR	NA	
C:	NR	NR	NA	
Final: 104 weeks				
T:	NR	NR	NA	
C:	NR	NR	NA	Spirochetes ($\bar{x}$%):
Change:	Gain			Baseline Final
T:	1.69 (NR)	2.83 (NR)	NA	T: 59.1 (18.0 22.9 (17.0)
C:	1.03 (NR)	1.78 (NR)	NA	C: 60.0 (12.7) 34.8 (20.3)
Test:	ANOVA	ANOVA		
P value:	0.06	< 0.01		

Evidence Table 3a. Effectiveness of Systemic Metronidazole as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Noyan et al., 1997[75] **Study Period:** 6 weeks **Study/Treatment Site:** NR **Location:** Turkey **Patient Population:** Adults with at least 1 approximal site per quadrant with PD = 5 mm	**Design Type:** RCT **Subject/Site Allocation:** Random **Blinding:** NR **Placebo:** No **Split-mouth:** Yes	**Severity:** NR **Types of Teeth:** NR **Widman flap:** NR	**Number:** 2 **Trained:** NR **Assigned to Subjects:** NR	**SRP performed:** Mechanical subgingival debridement at selected sites in 2 quadrants, repeated 7 days later. **Time spent:** NR

Evidence Table 3a. Effectiveness of Systemic Metronidazole as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Time Interval(s)
Subject/Site allocation: 10 subjects T: 5 subjects C: 5 subjects **Dose, Mode, Schedule:** T: SRP plus 250 mg 1xday metronidazole for 7 days and second SRP after 1 week C: SRP at baseline and second SRP at week 1	**Age:** Range: 35 to 51 **Gender:** Male: 3 Female: 7 **Race/Ethnicity:** NR	NR	Before SRP	2 times (at baseline and 6 weeks)

Evidence Table 3a. Effectiveness of Systemic Metronidazole as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
Noyan et al., 1997[75] (continued)	**Clinical Measurement:** PlI PD CAL GI **Radiographic Techniques:** NR **Microbiological Methods:** Subgingival samples, agar colonies, anaerobic counts **Subject Self Report:** NR	NR	NR	**Type of analysis reported:** All who completed follow-up

Evidence Table 3a. Effectiveness of Systemic Metronidazole as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

		Outcomes Accessed			
	(N of Pts)	Attachment Level mm $\bar{x}$ (SD)	Probing Depth mm $\bar{x}$ (SD)	Spirochetes $\bar{x}$% (SD)	Comments
					Quality Score: 31; 23
Baseline:					
T:	5	9.61 (NR)	5.53 (NR)	NA	
C:	5	9.56 (NR)	5.19 (NR)	NA	
Final: 6 weeks					
T:	5	8.61 (NR)	3.62 (NR)	NA	
C:	5	8.97 (NR)	3.88 (NR)	NA	
Change:					
T:		1.00 (NR)	1.91 (NR)	NA	
C:		0.59 (NR)	1.31 (NR)	NA	
Test:		Krustal Wallis, ANOVA	Krustal Wallis, ANOVA		
P value:		0.001	0.001		

Evidence Table 3a. Effectiveness of Systemic Metronidazole as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Palmer et al., 1998[76] **Study Period:** 24 weeks **Study/Treatment Site:** Hospital Dental Clinic, United Medical and Dental Schools of Guy's and St. Thomas Hospitals **Location:** London, UK **Patient Population:** Patients referred from dental practitioners, with PD of = 5 mm and attachment loss = 2 mm and bone loss = 4 mm	**Design Type:** RCT **Subject/Site Allocation:** Random **Blinding:** Examiners blind **Placebo:** No **Split-mouth:** No	**Severity:** Moderate to advanced adult periodontitis **Types of Teeth:** NR **Widman flap:** NR	**Number:** NR **Trained:** NR **Assigned to Subjects:** Same examiner throughout study	**SRP performed:** Subgingival scaling by ultrasonic instrumentation under local anesthesia of all affected teeth **Time spent:** 2 appointments, 90 minutes per appointment, 1 week apart, 2 contralateral quadrants done at each appointment

Evidence Table 3a. Effectiveness of Systemic Metronidazole as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Time Interval(s)
Subject/Site allocation: 58 subjects T: 31 subjects C: 27 subjects **Dose, Mode, Schedule:** T: SRP plus 200 mg metronidazole 3xday for 7 days C: SRP only	**Age:** Mean: T: 44.7 (6.2) C: 50.5 (6.1) Range: 35 to 65 **Gender:** Male: 47 Female: 43 **Race/Ethnicity:** NR	NR	Before SRP	4 times (at baseline and weeks 8 and 24)

Evidence Table 3a. Effectiveness of Systemic Metronidazole as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
Palmer et al., 1998[76] (continued)	**Clinical Measurement:** BOP/SBI PII PD CAL **Radiographic Techniques:** NR **Microbiological Methods:** Plaque microbiota, bacterial morphotype evaluated with dark field microscopy **Subject Self Report:** NR	NR	Failed to attend 2nd appointment or re-evaluation (6) (not reported as to which treatment group these subjects were assigned to)	**Type of analysis reported:** Full participants only Only sites with baseline PD = 4-6 mm were evaluated

Evidence Table 3a. Effectiveness of Systemic Metronidazole as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

	Outcomes Accessed			
	Attachment Level mm	Probing Depth mm	Spirochetes	
(N of Pts)	$\bar{x}$ (SD)	$\bar{x}$ (SD)	$\bar{x}$% (SD)	Comments
Baseline:				Probing depth presented graphically, no statistical significance found between groups for PD, CAL, or spirochetes
T:	NR	NR	47.1 (10.1)	
C:	NR	NR	47.2 (13.0)	
Final: 26 weeks (6 months)				
T:	NR	NR	25.8 (10.3)	**Quality Score:** 46; 46
C:	NR	NR	25.6 (10.9)	
Change:	Gain			
T:	0.67 (0.67)	1.62 (NR)	NR	
C:	0.51 (0.43)	1.68 (NR)	NR	
Test:	ANOVA	ANOVA	ANOVA	
P value:	NS	NS	NS	

Evidence Table 3a. Effectiveness of Systemic Metronidazole as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Author and Year: Rooney et al., 2002[70] **Study Period:** 26 weeks (6 months) **Site of Study:** Department of Perodontology, Bristol Dental School and Hospital **Location:** UK **Patients Selected:** Patients <46 years old referred by practitioners who had failed to respond to non-surgical periodontal treatment with PD = 6 mm and BOP.	**Design Type:** RCT **Subject/Site Allocation:** Random **Blinding:** Examiners and patients blind **Placebo:** Yes **Split-mouth:** Yes, for microbiotic samples, 1 in each quadrant	**Severity:** Advanced chronic periodontal disease **Types of Teeth:** All but 3rd molars and severely malpositioned teeth **Widman flap:** NR	**Number:** 2 **Trained:** NR **Assigned to Patients:** Same clinician provided treatment throughout study	**SRP performed:** Quadrant root planings under local anesthesia with ultrasonic scaler and Gracey curettes. SRP done by 2 experienced periodontists. **Time spent on SRP:** 45 minutes for all teeth in quadrant; SRPs separated by maximum of 12 days, usually 7 days.

Evidence Table 3a. Effectiveness of Systemic Metronidazole as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Assessment Time Interval(s)
Subject/Site allocation: 31 subjects T: 16 subjects C: 15 subjects **Dose, Mode, Schedule:** All received 0.2% chlorhexidine mouthrinse (10ml, 60s) 2xday until 1 week after non-surgical therapy T: SRP plus 200 mg metronidazole + placebo (calcium lactate tablets) 3xday for 7 days C: SRP plus placebo (lactose capsules and calcium lactate tablets) 3xday for 7 days	**Age:** Range: 20 to 45 **Gender Distribution:** NR **Race/Ethnicity:** NR	NR	Before SRP	4 times (at baseline, and months 1, 3, and 6)

Evidence Table 3a. Effectiveness of Systemic Metronidazole as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
Rooney et al., 2002[70] (continued)	**Clinical Measurement:** PD CAL BOP Presence of Suppuration Plaque deposits **Radiographic Techniques:** NR **Microbiological Methods:** Following incubation, anaerobic counts from agar plates for *P.g., P.i., A..a.*, and others **Patient Self Report:** NR	None	66 recruited for full study; 4 were lost: lacked one month data (1); lacked 3 month data (1); had no 6 month data (3); no 3 and 6 month data (2); unable to determine which treatment groups the 4 were assigned to	**Type of analysis reported:** Full participants only

Evidence Table 3a. Effectiveness of Systemic Metronidazole as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

		Outcomes Accessed			
		Attachment Level mm	Probing Depth mm	Spirochetes	
	(N of Pts)	$\bar{x}$ (SD)	$\bar{x}$ (SD)	$\bar{x}$% (SD)	Comments
Baseline:					Presented as % of sites with low (0-3 mm) or high (= 6 mm), not in actual mm measurements or changes.
T:	NR	NR	NR	NA	
C:	NR	NR	NR	NA	
Final: 26 weeks					
T:	16	NR	NR	NA	
C:	15	NR	NR	NA	Differences in PD and CAL treatment effects were significantly greater in the treatment group than in the control.
Change:					
T:		NR	NR	NA	
C:		NR	NR	NA	
Test		ANCOVA	ANCOVA		Microbiological data showed significant difference for treatment group versus control only at 1 month and not at months 3 and 6.
P-value		=0.05	=0.001		
					For PD = 6 mm, at 24 weeks there was a significant PD change in favor of the treatment ($P < 0.05$) but a nonsignificant CAL change.
					Quality Score: 69; 54

Evidence Table 3a. Effectiveness of Systemic Metronidazole as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Soder, Frithiof, et al., 1990[72] **Study Period:** 26 weeks (6 months) **Study/Treatment Site:** NR **Location:** Stockholm, Germany **Patient Population:** Young adult patients originally randomly selected from register of residents for Stockholm in 1985. This sample group is a subset with persistent pockets = 5 mm in = 3 teeth and radiographic marginal alveolar bone loss	**Design Type:** RCT **Subject/Site Allocation:** Random **Blinding:** Examiners and patients blind **Placebo:** Yes **Split-mouth:** No	**Severity:** Moderate to advanced recalcitrant to comprehen-sive non-surgical treatment **Types of Teeth:** NR **Widman flap:** NR	**Number:** 4 (authors) **Trained:** Calibration (gold standard) **Assigned to Subjects:** NR	**SRP performed:** All received deep scaling **Time spent:** NR

Evidence Table 3a. Effectiveness of Systemic Metronidazole as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Time Interval(s)
Subject/Site allocation: 98 subjects started 92 completed T: 46 sites C: 46 sites **Dose, Mode, Schedule:** T: SRP plus 400 mg metronidazole tablets 3xday for 1 week C: SRP plus placebo	**Age:** Range: 31-40 **Gender:** Male: 52 Female: 46 **Race/Ethnicity:** NR	Checked by interviews and tablet count. 92 complied, 2 lost to follow up appts, 4 reduced their intake between 2 and 6 days	Before SRP	3 times (at baseline and months 1 and 6)

Evidence Table 3a. Effectiveness of Systemic Metronidazole as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
Soder, Frithiof, et al., 1990[72] (continued)	**Clinical Measurement:** BOP/SBI PD Furcation involvement Tooth morbidity Gingival retraction Presence of purulent exudates PI **Radiographic Techniques:** Bone loss/regeneration **Microbiological Methods:** Crevicular fluid microbiota (samples from Ramfjord teeth) **Subject Self Report:** Recording of remaining teeth, filled services, improvement of oral conditions, cervical sensitivity	Gastric discomfort (6); severe diarrhea (1); objected to taste of metronidazole (8) (T: 15, C: 9)	Refused to take tablets (1); left Sweden and did not attend clinic (3); worked too far from clinic (1); lacked time (1) Not clear which treatment group each was assigned to	**Type of analysis reported:** Full participants only

Evidence Table 3a. Effectiveness of Systemic Metronidazole as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

	Outcomes Accessed			
	Attachment Level mm	Probing Depth mm	Spirochetes	
(N of Pts)	$\bar{x}$ (SD)	$\bar{x}$ (SD)	$\bar{x}$% (SD)	Comments
Baseline:				The results show the supplementary effect of adjunctive metronidazole in non-surgical treatment of moderate and advanced periodontitis
T:	NA	2.81 (0.61)	6.69 (12.15)	
C:	NA	2.75 (0.46)	7.65 (10.46)	
Final: 26 weeks				
T: 46 sites	NA	2.35 (0.61)	4.35 (6.31)	The mean percentage of spirochetes as related to the total number of microorganisms counted did not differ significantly between groups
C: 46 sites (43 for spirochetes)	NA	2.34 (0.43)	7.86 (12.51)	
Change:				
T:	NA	0.46* (NR)	2.34* (NR)	
C:	NA	0.41* (NR)	-0.21 (NR)	
Test:		NR	t-test	
P value:		NR	NS	**Quality Score:** 85; 85

Evidence Table 3b. Effectiveness of Local Metronidazole as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Author and Year: Al-Mubarak et al., 2000[80] **Study Period:** 13 weeks (90 days) **Site of Study:** NR **Location:** NR **Patients Selected:** Adult patients with at least 1 tooth in each quadrant with PD = 5 mm	**Design Type:** RCT **Subject/Site Allocation:** Random **Blinding:** Examiner blind **Placebo:** No **Split-mouth:** Yes	**Severity:** Moderate to advanced signs of adult periodontitis **Types of Teeth:** No teeth with profound furcation involvement or advanced degree of mobility **Widman flap:** NR	**Number:** 1 **Trained:** Calibrated **Assigned to Patients:** Same provider throughout study	**SRP performed:** One session of SRP for all teeth with PD > 5 mm within the involved quadrant **Time spent on SRP:** One hour

Evidence Table 3b. Effectiveness of Local Metronidazole as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Assessment Time Interval(s)
Subject/Site allocation: 15 subjects started 14 completed T: 14 subjects C: 14 subjects **Dose, Mode, Schedule:** T: SRP plus 25% metronidazole gel applied on days 0 and 7 C: SRP only	**Mean Age:** Mean: 58.6 Range: 41 to 79 **Gender Distribution:** Male: 8 Female: 7 **Race/Ethnicity:** NR	NR	Before SRP	2 times (at baseline and 90 days)

Evidence Table 3b. Effectiveness of Local Metronidazole as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
Al-Mubarak et al, 2000[80] (continued)	**Clinical Measurement:** PD Plaque Registration BOP **Radiographic Techniques:** NR **Microbiological Methods:** NR **Patient Self Report:** NR	NR	1 female subject withdrew from study before second examination	**Type of analysis reported:** Full participants only

Evidence Table 3b. Effectiveness of Local Metronidazole as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

	Outcomes Accessed			
	Attachment Level mm	Probing Depth mm	Spirochetes	
(N of Pts)	$\bar{x}$ (SD)	$\bar{x}$ (SD)	$\bar{x}$ (SD)	Comments
Baseline:				Treatment group had significantly more PD improvement than control (*P* < 0.03)
T:	NA	NR	NA	
C:	NA	NR	NA	
Final: 13 weeks (90 days)				**Quality Score:** 46; 46
T:	NA	NR	NA	
C:	NA	NR	NA	
Change:				
T:	NA	2.2 (0.6)	NA	
C:	NA	1.4 (0.8)	NA	
Test:		NR		
P value:		< 0.03		

Evidence Table 3b. Effectiveness of Local Metronidazole as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Awartani et al., 1998[28] **Study Period:** 14 weeks **Study/Treatment Site:** College of Dentistry, King Saud University **Location:** Saudi Arabia **Patient Population:** Patients with at least 1 tooth in each quadrant with PD = 5 mm	**Design Type:** RCT **Subject/Site Allocation:** Random to quadrants **Blinding:** Examiners blind **Placebo:** No **Split-mouth:** Yes	**Severity:** Mild to moderate periodontitis **Types of Teeth:** NR **Widman flap:** NR	**Number:** 1 **Trained:** NA **Assigned to Subjects:** Same examiner throughout study	**SRP performed:** Subgingival scaling performed under local anesthesia, moderate to heavy supragingival calculus removed by ultrasonic scaling; subgingival SRP as needed by Gracey curettes **Time spent:** 1 session per quadrant

Evidence Table 3b. Effectiveness of Local Metronidazole as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Time Interval(s)
Subject/Site allocation: 13 subjects (247 teeth) started 12 subjects completed T: 60 teeth (360 sites) C: 63 teeth (378 sites) **Dose, Mode, Schedule:** T: SRP plus 25% metronidazole gel applied once daily on days 0 and 7 C: SRP alone	**Age:** Mean: 37.3 Range: 28 to 57 **Gender:** All Male **Race/Ethnicity:** NR	NR	Before SRP	5 times (at baseline and weeks 2, 4, 6, and 14)

Evidence Table 3b. Effectiveness of Local Metronidazole as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
Awartani et al., 1998[28] (continued)	**Clinical Measurement:** BOP/SBI PII PD GI **Radiographic Techniques:** NR **Microbiological Methods:** NR **Subject Self Report:** NR	None reported by subjects	1 subject failed to show up for last examination	**Type of analysis reported:** All subjects who completed all follow-ups

Evidence Table 3b. Effectiveness of Local Metronidazole as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

		Outcomes Accessed			
		Attachment Level mm	Probing Depth mm	Spirochetes	
	(N of Pts)	$\bar{x}$ (SD)	$\bar{x}$ (SD)	$\bar{x}$% (SD)	Comments
Baseline:					For the treatment of mild to moderate adult periodontitis subgingival scaling alone is as effective as the combination of scaling and antibiotic therapy
T:	360 sites	NA	4.61 (NR)	NA	
C:	378 sites	NA	4.65(NR)	NA	
Final:	14 weeks				
T:	NR	NA	NR	NA	
C:	NR	NA	NR	NA	**Quality Score:** 54; 54
Change:			Reduction		
T:		NA	0.21 (NR)	NA	
C:		NA	0.33 (NR)	NA	
Test:			Tukey's and Scheffe's Multiple Range		
P value:			NS		

Evidence Table 3b. Effectiveness of Local Metronidazole as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Aziz-Gandour and Newman, 1986[77]	**Design Type:** RCT	**Severity:** Chronic periodontitis	**Number:** NR	**SRP performed:** Supra and subgingival scaling, root planing and sub-contact area debridement and polishing
Study Period: 12 weeks (84 days)	**Subject/Site Allocation:** Random	**Types of Teeth:** NR	**Trained:** Nr	
Study/Treatment Site: Health Department Clinic	**Blinding:** Examiners and patients blind	**Widman flap:** NR	**Assigned to Subjects:** NR	**Time spent:** NR
Location: UK	**Placebo:** Yes			
Patient Population: Patients with approximal surface pockets = 4 mm with bone reabsorption as seen on radiographs	**Split-mouth:** No			

Evidence Table 3b. Effectiveness of Local Metronidazole as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Time Interval(s)
Subject/Site allocation: 16 subjects T: 10 (210 sites) C: 6 (118 sites) **Dose, Mode, Schedule:** T: SRP plus irrigation with 0.05% metronidazole formulation for 28 days C: SRP plus irrigation with 0.1% quinine sulphate formulation for 28 days	**Age:** T: Mean: 42 Range: 29 to 54 C: Mean: 48 Range: 43 to 55 **Gender:** T: Male: 5 Female: 5 C: Male: 4 Female: 2 **Race/Ethnicity:** NR	Yes with irrigation profiency checked at day 7	Before SRP	5 times (at baseline and days 7, 28, 56, and 84)

Evidence Table 3b. Effectiveness of Local Metronidazole as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
Aziz-Gandour and Newman, 1986[77] (continued)	**Clinical Measurement:** SBI PII PD GI Gingival recession **Radiographic Techniques:** NR **Microbiological Methods:** NR **Subject Self Report:** NR	NR	1 subject excluded from overall study excluded because of failure to attend all visits, but it is not clear which treatment group subject was assigned to	**Type of analysis reported:** Full participants only

Evidence Table 3b. Effectiveness of Local Metronidazole as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

	Outcomes Accessed				
	(N of Pts)	Attachment Level mm $\bar{x}$ (SD)	Probing Depth mm $\bar{x}$ (SD)	Spirochetes $\bar{x}$% (SD)	Comments
Baseline:					PD reductions reached a maximum at day 28 (last day of treatment) and were less at days 56 and 84.
T:	NR	NA	5.3 (NR)	NA	
C:	NR	NA	4.6 (NR)	NA	
Final:	12 weeks				There were sig diffs at all times between treatment and placebo, favoring metronidazole treatment for 84 days (*P* <0.01).
T:	10 (210 sites)	NA	NR	NA	
C:	6 (118 sites)	NA	NR	NA	
Change:					
T:		NA	NR	NA	
C:		NA	NR	NA	PD final outcomes in graphic form only.
Test:			Chi Square		
P value:			<0.01		**Quality Score:** 46; 46

Evidence Table 3b. Effectiveness of Local Metronidazole as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Griffiths et al., 2000[79] **Study Period:** 39 weeks (9 months) **Study/Treatment Site:** Department of Periodontology, Eastman Dental Institute London Royal Air Force Institute of Dental Health and Training at Haton, Bucks **Location:** UK **Patient Population:** Patients referred by general dental practitioners for treatment; at least 2 sites in each quadrant with PD = 5 mm other than 3rd molars	**Design Type:** RCT **Subject/Site Allocation:** Random **Blinding:** Examiners blind **Placebo:** No **Split-mouth:** Yes	**Severity:** Chronic adult periodontitis **Types of Teeth:** No third molars **Widman flap:** NR	**Number:** 2 (1 at each center) **Trained:** Calibration (gold standard) **Assigned to Subjects:** Same examiner throughout study	**SRP performed:** Subgingival scaling of all quadrants. Supragingival scaling was provided if necessary to facilitate home care procedures **Time spent:** Supragingival scaling of not more than 20 minutes; subgingival debridement: 60 minutes per quadrant, 1 wk apart, = 2 times

Evidence Table 3b. Effectiveness of Local Metronidazole as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Time Interval(s)
Subject/Site allocation: 88 subjects (average of 42 sites per subject) 10 sites per quadrant T: 1,770 sites C: 1,780 sites **Dose, Mode, Schedule:** T: SRP plus 25% metronidazole gel applied 1xweek for 3 weeks for each quadrant (1 week delay between quadrants) C: SRP alone	**Age:** Mean: 46 (clinic 1) 47 (clinic 2) Range: 34 to 71 **Gender:** Male: 42 Female: 46 **Race/Ethnicity:** NR	NA	Before SRP	5 times (at baseline and months 1, 3, 6, and 9)

Evidence Table 3b. Effectiveness of Local Metronidazole as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
Griffiths et al., 2000[79] (continued)	**Clinical Measurement:** BOP/SBI PD CAL **Radiographic Techniques:** NR **Microbiological Methods:** NR **Subject Self Report:** NR	NR	NR	**Type of analysis reported:** Intent to treat

Evidence Table 3b. Effectiveness of Local Metronidazole as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

		Outcomes Accessed			
	(N of Pts)	Attachment Level mm $\bar{x}$ (SD)	Probing Depth mm $\bar{x}$ (SD)	Spirochetes $\bar{x}$% (SD)	Comments
					Quality Score: 62; 62
Baseline:					
T:	1,770 sites	11.2 (1.6*)	5.9 (0.6*)	NA	
C:	1,780 sites	11.2 (1.6*)	6.0 (0.5*)	NA	
Final:	36 weeks				
T:	NR	NR	NR	NA	
C:	NR	NR	NR	NA	
Change:		Gain	Reduction		
T:		0.8 (NR)	1.5 (NR)	NA	
C:		0.4 (NR)	1.0 (NR)	NA	
Test:		paired t-test	paired t-test		
P value:		< 0.001	< 0.001		

* NR as to standard error or standard deviation.

Evidence Table 3b. Effectiveness of Local Metronidazole as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Kinane and Radvar 1999[53] **Study Period:** 26 weeks (6 months) **Study/Treatment Site:** Hospital Dental Clinic **Location:** Glasgow, Scotland **Patient Population:** Patients with persistent pockets that did not respond to SRP, with at least 4 non-adjacent teeth, with PD = 5 mm and BOP	**Design Type:** RCT **Subject/Site Allocation:** Random **Blinding:** Examiner blind **Placebo:** No **Split-mouth:** No	**Severity:** Chronic periodontitis with previously unsuccessful mechanical therapy **Types of Teeth:** NR **Widman flap:** NR	**Number:** 1 **Trained:** NR **Assigned to Subjects:** Same examiner throughout study	**SRP performed:** SRP under local anesthesia **Time spent:** NR

Evidence Table 3b. Effectiveness of Local Metronidazole as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Time Interval(s)
Subject/Site allocation: 39 subjects (4 sites per subject) T: 19 subjects C: 20 subjects **Dose, Mode, Schedule:** T: SRP plus 25% metronidazole gel 2xday, repeated after 7 days C: SRP only	**Age:** Mean: 45 ± 6.4 Range: NR **Gender: (Full study)** Male: 29 Female: 50 **Race/Ethnicity:** NR	NA	Before SRP	4 times (at baseline, 6 weeks and at months 3 and 6)

Evidence Table 3b. Effectiveness of Local Metronidazole as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
Kinane and Radvar 1999[53] (continued)	**Clinical Measurement:** BOP/SBI PII PD CAL GI Supperation **Radiographic Techniques:** NR **Microbiological Methods:** NR **Subject Self Report:** NR	Yes, found none	2 from treatment, 1 from control group, reasons not given	**Type of analysis reported:** All with any follow-up **Analysis adjusted:** GLM, baseline value as continuous covariate

Evidence Table 3b. Effectiveness of Local Metronidazole as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

	Outcomes Accessed			
	Attachment Level mm	Probing Depth mm	Spirochetes	
(N of Pts)	$\bar{x}$ (SD)	$\bar{x}$ (SD)	$\bar{x}$% (SD)	Comments
Baseline:				This is a follow-up study
T:	NR	5.506 (0.152 se)	NA	
C:	NR	5.480 (0.175 se)	NA	**Quality Score:** 54; 62
Final: 26 weeks				
T: 17 (75 sites)	NR	NR	NA	
C: 19 (79 sites)	NR	NR	NA	
Change:	Gain	Reduction		
T:	0.541 (0.214)	0.929 (0.196)	NA	
C:	0.537 (0.143)	0.711 (0.188)	NA	
Test:	GLM	GLM		
P value:	0.768	NS		

Evidence Table 3b. Effectiveness of Local Metronidazole as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Lie et al., 1998[34] **Study Period:** 26 weeks **Study/Treatment Site:** Department of Periodontology, University of Bergen **Location:** Bergen, Norway **Patient Population:** Patients referred for treatment, previously untreated, with PD = 5 mm and BOP	**Design Type:** RCT **Subject/Site Allocation:** Random **Blinding:** Examiner and patients blind **Placebo:** No **Split-mouth:** Yes	**Severity:** Moderate to severe **Types of Teeth:** Single-rooted **Widman flap:** NR	**Number:** 2 (1 operator; 1 examiner, blind) **Trained:** NR **Assigned to Subjects:** 1 operator and 1 examiner assigned to all patients	**SRP performed:** Subgingival SRP with sonic instrument and curettes, two sessions, 1 week apart **Time spent:** NR

Evidence Table 3b. Effectiveness of Local Metronidazole as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Time Interval(s)
Subject/Site allocation: 18 subjects T: 18 sites C: 18 sites **Dose, Mode, Schedule:** T: SRP plus application of 25% metronidazole sustained release gel after each SRP session, 1 week apart C: Two SRP sessions, at baseline and week 1	**Age:** Range: 36 to 77 **Gender:** NR **Race/Ethnicity:** NR	NA	Before SRP	3 times (at baseline and months 3 and 6)

Evidence Table 3b. Effectiveness of Local Metronidazole as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
Lie et al., 1998[34] (continued)	**Clinical Measurement:** BOP/SBI PD CAL **Radiographic Techniques:** NR **Microbiological Methods:** Use of commercial kit **Subject Self Report:** NR	NR	None	**Type of analysis reported:** All subjects who completed all follow-ups

Evidence Table 3b. Effectiveness of Local Metronidazole as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

		Outcomes Accessed			
	(N of Pts)	Attachment Level mm $\bar{x}$ (SD)	Probing Depth mm $\bar{x}$ (SD)	Spirochetes $\bar{x}$% (SD)	Comments
Defect Sites:					Clinical and microbiological recordings were also performed on non-defect sites: the ANOVA revealed no differences for probing depth between treatment groups (*P* = 0.6247). The same findings apply to the attachment level measure (*P* = 0.3966). *A.a.* were rarely detected by the diagnostic handling. *P.g.* was significantly reduced in all treatment groups
Baseline:					
T:	18 (18 sites)	13.2 (1.2)	5.0 (1.1)	NA	
C:	18 (18 sites)	13.4 (1.8)	5.1 (1.2)	NA	
Final: 26 weeks					
T:	18 (18 sites)	12.3 (1.5)	3.4 (1.0)	NA	
C:	18 (18 sites)	13.2 (1.5)	4.0 (1.4)	NA	
Change:					
T:		0.9* (NR)	1.6* (NR)	NA	
C:		0.2* (NR)	1.1* (NR)	NA	
Test:		ANOVA	ANOVA		
P value:		NS	NS		
NonDefect Sites:					
Baseline:					**Quality Score:** 54; 62
T:					
C:					
Final: 26 weeks					
T:					
C:					
Change:					
T:					
C:					
Test:					
P value:					

Evidence Table 3b. Effectiveness of Local Metronidazole as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Moran et al., 1990[37] **Study Period:** 13 weeks (3 months) **Study/Treatment Site:** Health Department Clinic (Department of Peridontology, University of Wales **Location:** Wales, UK **Patient Population:** Adult patients referred by outside practitioners or other departments w/in the hospital, with pocketing = 6 mm at several sites anterior to molars	**Design Type:** RCT **Subject/Site Allocation:** Random **Blinding:** Examiners and patients blind **Placebo:** No **Split-mouth:** No	**Severity:** Chronic periodontitis **Types of Teeth:** Anterior to molars **Widman flap:** NR	**Number:** 1 **Trained:** NR **Assigned to Subjects:** Same examiner throughout study	**SRP performed:** Root planing by hand with local anesthesia using Gracey-type curettes **Time spent:** 10 to 15 minutes per tooth

Evidence Table 3b. Effectiveness of Local Metronidazole as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Time Interval(s)
Subject/Site allocation: 69 subjects completed full study (101 pockets) T: 15 pockets C: 18 pockets Rmg subjects assigned to non-eligible treatments **Dose, Mode, Schedule:** T: SRP plus acrylic strips impregnated with metronidazole C: SRP only	**Age:** Mean: 47.6 Range: 37 to 58 **Gender:** Male: 28 Female: 41 **Race/Ethnicity:** NR	NA	Before SRP	6 times (at baseline and weeks 1, 2, 4, 8, and 12)

Evidence Table 3b. Effectiveness of Local Metronidazole as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
Moran et al., 1990[37] (continued)	**Clinical Measurement:** BOP/SBI PD CAL **Radiographic Techniques:** NR **Microbiological Methods:** Crevicular fluid microbiota (white blood cells count) **Subject Self Report:** NR	NR	Failure to make all visits (4). Not clear which groups they were assigned to	**Type of analysis reported:** Full participants only

Evidence Table 3b. Effectiveness of Local Metronidazole as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

		Outcomes Accessed			
	(N of Pts)	Attachment Level mm $\bar{x}$ (SD)	Probing Depth mm $\bar{x}$ (SD)	Spirochetes $\bar{x}$% (SD)	Comments
Baseline:					Maximum reductions in microbiota counts were seen in treatment sites and sustained over 12 weeks.
T:	15 pockets	7.9 (2.0)	6.6 (0.9)	NA	
C:	18 pockets	7.8 (1.9)	6.9 (1.4)	NA	
Final: 12 weeks					
T:	15 pockets	6.0 (2.3)	3.2 (1.4)	NA	**Quality Score:** 62; 62
C:	18 pockets	6.2 (2.5)	4.4 (2.2)	NA	
Change:					
T:		1.9* (NR)	3.4* (NR)	NA	
C:		1.6* (NR)	2.5* (NR)	NA	
Test:		ANCOVA	ANCOVA		
P value:		NS	NS		

Evidence Table 3b. Effectiveness of Local Metronidazole as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Noyan et al., 1997[75] **Study Period:** 6 weeks **Study/Treatment Site:** NR **Location:** Turkey **Patient Population:** Adult patients with 1 tooth/quadrant having at least 1 approximal site with PD = 5 mm	**Design Type:** RCT **Subject/Site Allocation:** Random **Blinding:** NR **Placebo:** No **Split-mouth:** Yes	**Severity:** NR **Types of Teeth:** NR **Widman flap:** NR	**Number:** 2 **Trained:** NR **Assigned to Subjects:** NR	**SRP performed:** Careful mechanical subgingival debridement at selected sites in 2 quadrants, repeated 7 days later in 3 quadrants **Time spent:** NR

Evidence Table 3b. Effectiveness of Local Metronidazole as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Time Interval(s)
Subject/Site allocation: 10 subjects T: 5 subjects (5 sites) C: 5 subjects (5 sites) **Dose, Mode, Schedule:** T: SRP plus 25% metronidazole gel at day 0 and 7, SRP again at day 7 C: SRP at baseline and week 1	**Age:** Range: 35 to 51 **Gender:** Male: 3 Female: 7 **Race/Ethnicity:** NR	NA	Before SRP	2 times (at baseline and 6 weeks)

Evidence Table 3b. Effectiveness of Local Metronidazole as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
Noyan et al., 1997[75] (continued)	**Clinical Measurement:** PlI PD CAL GI **Radiographic Techniques:** NR **Microbiological Methods:** Subgingival samples, agar colonies, anaerobic counts (*A.a.)* **Subject Self Report:** NR	NR	NR	**Type of analysis reported:** All who completed follow-up

Evidence Table 3b. Effectiveness of Local Metronidazole as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

		Outcomes Accessed			
	(N of Pts)	Attachment Level mm $\bar{x}$ (SD)	Probing Depth mm $\bar{x}$ (SD)	Spirochetes $\bar{x}$% (SD)	Comments
Baseline:					Variations in the number of sites infected with the same microorganisms and the great dissimilarities in bacterial counts at initial exam did not allow for a statistical analysis for the evaluation of the effects of different treatment modalities on cultivated subgingival microbiota.
T:	5 (5sites)	8.79 (NR)	5.57 (NR)	NA	
C:	5 (5sites)	9.56 (NR)	5.19 (NR)	NA	
Final: 6 weeks					
T:	5 (5 sites)	7.54 (NR)	3.48 (NR)	NA	
C:	5 (5 sites)	8.97 (NR)	3.88 (NR)	NA	
Change:					
T:		1.25 (NR)	2.09 (NR)	NA	
C:		0.59 (NR)	1.31 (NR)	NA	
Test:		Kruskal-Wallis ANOVA	Kruskal-Wallis ANOVA		**Quality Score:** 23; 23
P value:		<0.01	NS		

Evidence Table 3b. Effectiveness of Local Metronidazole as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Palmer et al., 1998[76] **Study Period:** 24 weeks **Study/Treatment Site:** Hospital Dental Clinic; United Medical and Dental Schools of the Guys and St. Thomas Hospitals **Location:** London, UK **Patient Population:** Patients referred from dental practitioners with PD of = 5 mm with attachment loss = 2 mm and bone loss = 4 mm	**Design Type:** RCT **Subject/Site Allocation:** Random **Blinding:** Examiners blind **Placebo:** No **Split-mouth:** No	**Severity:** Advanced adult periodontitis **Types of Teeth:** NR **Widman flap:** NR	**Number:** NR **Trained:** NR **Assigned to Subjects:** Same examiner throughout study	**SRP performed:** Subgingival scaling by ultrasonic instrumentation under local anesthesia of all affected teeth **Time spent:** 2 appointments, 90 minutes each, 1 week apart, 2 contralateral quadrants done at each appointment

Evidence Table 3b. Effectiveness of Local Metronidazole as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Time Interval(s)
Subject/Site allocation: 90 subjects referred for full study 53 completed T: 26 subjects C: 27 subjects **Dose, Mode, Schedule:** T: SRP plus application of 25% metronidazole gel, on all PD = 4 mm sites; subgingival reapplication after 1 week in PD sites = 4 mm C: SRP only	**Age:** Mean: T: 48.1 (7.3) C: 50.5 (6.1) Range: 35 to 65 **Gender:** Male: 43 referred Female: 47 referred **Race/Ethnicity:** NR	NR	Before SRP	3 times (at baseline, and weeks 8, and 24)

Evidence Table 3b. Effectiveness of Local Metronidazole as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
Palmer et al., 1998[76] (continued)	**Clinical Measurement:** BOP/SBI PII PD CAL **Radiographic Techniques:** NR **Microbiological Methods:** Plaque microbiota; bacterial morphotype evaluated with dark field microscopy **Subject Self Report:** NR	NR	Failed to attend 2nd appointment or re-evaluation (6), not reported as to which treatment grp these subjects were assigned to	**Type of analysis reported:** Full participants only Only sites with baseline probing depths = 4 to 6 mm were evaluated

Evidence Table 3b. Effectiveness of Local Metronidazole as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

	Outcomes Accessed				
	(N of Pts)	Attachment Level mm $\bar{x}$ (SD)	Probing Depth mm $\bar{x}$ (SD)	Spirochetes $\bar{x}$% (SD)	Comments
Baseline:					Probing depth presented graphically, no statistical significance found between groups for PD, CAL and spirochetes
T:	NR	NR	NR	40.6 (14.6)	
C:	NR	NR	NR	47.2 (13.0)	
Final: 26 weeks (6 months)					
T:	26	NR	NR	23.5 (10.5)	**Quality Score:** 54; 46
C:	27	NR	NR	25.6 (10.9)	
Change:		Gain	Reduction		
T:		0.47 (0.65)	1.74 (NR)	NR	
C:		0.51 (0.43)	1.68 (NR)	NR	
Test:		ANOVA	ANOVA	ANOVA	
P value:		NS	NS	NS	

Evidence Table 3b. Effectiveness of Local Metronidazole as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Riep et al., 1999[78] **Study Period:** 13 weeks (3 months) **Study/Treatment Site:** Department of Periodontology, Humbolt University **Location:** Berlin, Germany **Patient Population:** Maintenance patients scheduled for SRP with PD = 6 mm in 2 non-adjacent sites in 2 different quadrants, and BOP in separate quadrants	**Design Type:** RCT **Subject/Site Allocation:** Random **Blinding:** Examiners blind **Placebo:** No **Split-mouth:** Yes	**Severity:** Local recurrent periodontitis **Types of Teeth:** Single root, teeth with furcation involvement were excluded **Widman flap:** NR	**Number:** 1 **Trained:** NA **Assigned to Subjects:** Same examiner throughout study, different person provided treatment	**SRP performed:** SRP under local anesthesia **Time spent:** NR

Evidence Table 3b. Effectiveness of Local Metronidazole as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Time Interval(s)
Subject/Site allocation: 30 subjects entered 29 completed T: 58 sites C: 58 sites **Dose, Mode, Schedule:** T: SRP plus 25% metronidazole gel applied 5x during 10 days C: SRP only	**Age:** Mean: 47 **Gender:** Male: 17 Female: 12 **Race/Ethnicity:** NR	NA	Before SRP	3 times (at baseline, day 21 and 3 months)

Evidence Table 3b. Effectiveness of Local Metronidazole as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
Riep et al., 1999[78] (continued)	**Clinical Measurement:** BOP/SBI PII PD CAL **Radiographic Techniques:** NR **Microbiological Methods:** Plaque microbiota (subgingival plaque samples); commercial kit analysis for *P.g., P.i., A.a.* **Subject Self Report:** NR	NR	Antibiotic treatment during course of study (1)	**Type of analysis reported:** Full participants only

Evidence Table 3b. Effectiveness of Local Metronidazole as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

		Outcomes Accessed			
	(N of Pts)	Attachment Level mm $\bar{x}$ (SD)	Probing Depth mm $\bar{x}$ (SD)	Spirochetes $\bar{x}$% (SD)	Comments
Baseline:					Microbial Outcomes Assessed:
T:	29 (58 sites)	NR	6.8 (NR)	NA	*P.g.* was statistically significantly reduced in both groups from baseline, but not significantly between groups
C:	29 (58 sites)	NR	6.6 (NR)	NA	
Final:	12 weeks				
T:	29 (58 sites)	NR	5.1 (NR)	NA	For *P.i.,* the values decreased significantly, but only after SRP
C:	29 (58 sites)	NR	4.9 (NR)	NA	
Change:		Gain	Reduction		*A.a.* was not significantly different from either treatment
T:		1.31 (0.8)	1.7 (NR)	NA	
C:		1.14 (0.8)	1.7 (NR)	NA	
Test:		Wilcoxen Signed-Ranks Test	Wilcoxen Signed-Ranks Test		**Quality Score:** 46; 38
P value:		NS	NS		

Evidence Table 3b. Effectiveness of Local Metronidazole as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Stelzel and Florès-de-Jacoby, 2000[36]	**Design Type:** RCT	**Severity:** Adult periodontitis	**Number:** NR	**SRP performed:** Subgingival SRP
Study Period: 37 weeks (9 months)	**Subject/Site Allocation:** Random	**Types of Teeth:** NR	**Trained:** NR	**Time spent:** NR
Study/Treatment Site: Health Department Clinic	**Blinding:** Patient blind	**Widman flap:** NR	**Assigned to Subjects:** NR	
Location: Helsinki, Germany	**Placebo:** No			
Patient Population: Patients with = 2 pockets with PD = 5 mm and BOP in each quadrant	**Split-mouth:** Yes			

Evidence Table 3b. Effectiveness of Local Metronidazole as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Time Interval(s)
Subject/Site allocation: 64 subjects enrolled 59 completed 21 with untreated periodontitis 10 had been pretreated 28 were recall T: 522 teeth (986 pockets) C: 506 teeth (945 pockets) Only 45 subjects were evaluated for microbiological samples **Dose, Mode, Schedule:** T: SRP plus 25% metronidazole gel applied 2xday at day 0 and 7 C: SRP only	**Age:** Average: 47 Range: 23 to 70 **Gender:** NR **Race/Ethnicity:** NR	NA	NR	4 times (at baseline and days 91, 175, and 259)

Evidence Table 3b. Effectiveness of Local Metronidazole as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
Stelzel and Florès-de-Jacoby, 2000[36] (continued)	**Clinical Measurement:** BOP/SBI PD CAL **Radiographic Techniques:** NR **Microbiological Methods:** Plaque microbiota, dark field microscopy **Subject Self Report:** NR	No clinically relevant side effects noted	Irregular participation or other reasons unrelated to study (5)	**Type of analysis reported:** Full participants only

Evidence Table 3b. Effectiveness of Local Metronidazole as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

		Outcomes Accessed			
	(N of Pts)	Attachment Level mm $\bar{x}$ (SD)	Probing Depth mm $\bar{x}$ (SD)	Spirochetes $\bar{x}$% (SD)	Comments
Baseline:					Spirochetes and motil rods were combined in analysis and no significant difference was found in them between treatments.
T:	NR	6.65 (1.13)	6.00 (0.62)	NR	
C:	NR	6.69 (1.22)	6.02 (0.62)	NR	
Final:	37 weeks				
T:	59 (522 teeth)	5.64 (0.96)	4.63 (0.75)	NR	**Quality Score:** 69; 62
C:	59 (506 teeth)	5.75 (1.03)	4.83 (0.92)	NR	
Change:					
T:		1.01* (NR)	1.37 (NR)	NR	
C:		0.94* (NR)	1.19 (NR)	NR	
Test:		Wilcoxen	Wilcoxen		
P value:		NS	<0.05		

Evidence Table 4. Effectiveness of Systemic Metronidazole and Amoxicillin as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Berglundh et al., 1998[81] **Study Period:** 104 weeks **Study/Treatment Site:** Department of Periodontology, Göteborg University **Location:** Göteborg, Sweden **Patient Population:** Patients were referred to the clinic	**Design Type:** RCT **Subject/Site Allocation:** Random **Blinding:** NR **Placebo:** Yes **Split-mouth:** No	**Severity:** Advanced periodontitis **Types of Teeth:** NR **Widman flap:** NR	**Number:** NR **Trained:** NR **Assigned to Subjects:** NR	**SRP performed:** Non-surgical subgingival scaling and root planing under local anesthesia; SRP in 2 quadrants (mandible, maxilla) **Time spent:** Required 3 to 5 sessions to complete

Evidence Table 4. Effectiveness of Systemic Metronidazole and Amoxicillin as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Time Interval(s)
Subject/Site allocation: 16 subjects T: 8 subjects C: 8 subjects **Dose, Mode, Schedule:** T: SRP plus 250 mg metronidazole 3xday and 375 mg amoxicillin 2xday for 2 weeks C: SRP with placebo 3xday for 2 weeks	**Age:** Range: 35 to 58 **Gender:** Male: 6 Female: 10 **Race/Ethnicity:** NR	NR	NR	4 times (at baseline and months 2, 12, and 24)

Evidence Table 4. Effectiveness of Systemic Metronidazole and Amoxicillin as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
Berglundh et al., 1998[81] (continued)	**Clinical Measurement:** BOP/SBI PII PD CAL Tooth Loss (# of remaining teeth) **Radiographic Techniques:** Bone Loss Regeneration **Microbiological Methods:** Plaque microbiota sampling (*A.a., P.g., P.i.*) **Subject Self Report:** NR	NR	NR	**Type of analysis reported:** Full participants only

Evidence Table 4. Effectiveness of Systemic Metronidazole and Amoxicillin as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

		Outcomes Accessed			
		Attachment Level mm	Probing Depth mm	Spirochetes	
	(N of Pts)	$\bar{x}$ (SD)	$\bar{x}$ (SD)	$\bar{x}$% (SD)	Comments
					Microbial Outcomes:
Baseline:					*P.g.:*
T:	8	NR	4.8 (0.7)	NA	Baseline Final
C:	8	NR	4.5 (0.8)	NA	T: 19.1 T: 0.0
					C: 9.8 C: 1.8
Final:	104 weeks				*A.a.:*
T:	8	2.1 (0.4)	2.7 (0.2)	NA	Baseline Final
C:	8	1.5 (0.5)	2.9 (0.6)	NA	T: 0.1 T: 0.0
					C: 0.5 C: 0.1
Change:					Using the study treatment resulting in an improvement of the periodontal conditions and elimination of *A.a.* and *P.g.*
T:		1.1 (0.3)	2.1* (NR)	NA	
C:		0.8 (0.4)	1.6* (NR)	NA	
Test:			NR	NR	
P value:			NR	NR	
					P.i.:
					Baseline Final
					T: 0.1 T: 0.0
					C: 0.5 T: 0.1
					Quality Score: 46; 54

Evidence Table 4. Effectiveness of Systemic Metronidazole and Amoxicillin as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Flemmig et al., 1998[82] **Study Period:** 52 weeks **Study/Treatment Site:** Department of Peridontology, Julius Maximilian University **Location:** Wurzburg, Germany **Patient Population:** Patients 30 yrs + with subgingival detection with *A.a.* and/or *P.g.* and = 4 pockets with PD = 6 mm	**Design Type:** RCT **Subject/Site Allocation:** Random **Blinding:** Subject blind **Placebo:** No **Split-mouth:** No	**Severity:** Untreated periodontitis **Types of Teeth:** NR **Widman flap:** NR	**Number:** 1 **Trained:** Dental students **Assigned to Subjects:** Same dentist throughout study	**SRP performed:** Supra and subgingival full mouth scaling under local anesthesia performed by dental students until no supragingival plaque or calculus visible and no pathological exposed and subgingival root surfaces felt hard and smooth **Time spent:** 2 hours per quadrant

Evidence Table 4. Effectiveness of Systemic Metronidazole and Amoxicillin as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Time Interval(s)
Subject/Site allocation: 48 subjects enrolled 38 completed T: 18 subjects C: 20 subjects **Dose, Mode, Schedule:** T: SRP plus 250 mg metronidazole 3xday and 375 mg amoxicillin 3xday plus 0.06% chlorhexidine subgingival irrigation 1xday, for 8 days C: SRP and oral hygiene instructions	**Age:** Mean: 51.8 ± 11.0 **Gender:** Male: 17 Female: 21 **Race/Ethnicity:** NR	At day 10, remaining tablets of prescribed medication were counted	NR	5 times (10 days, months 3, 6, 9, and 12)

Evidence Table 4. Effectiveness of Systemic Metronidazole and Amoxicillin as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
Flemmig et al., 1998[82] (continued)	**Clinical Measurement:** PD CAL **Radiographic Techniques:** NR **Microbiological Methods:** Plaque microbiota (*A.a., P.g.*) Swab samples (tongue, tonsils, and buccal mucosa) Polymerase Chain Reaction **Subject Self Report:** NR	Gastro-intestinal intolerance (4) (mainly diarrhea during or after taking prescribed medication)	Lost for gastro-intestinal intolerance (2); developed serious medical conditions not related to antibiotic therapy (2); concomitant dental therapy (1); relocation (3); inability to attend regular study appoint-ments (2)	**Type of analysis reported:** Full participants only Subject is the unit of analysis

Evidence Table 4. Effectiveness of Systemic Metronidazole and Amoxicillin as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

		Outcomes Accessed			
		Attachment Level mm	Probing Depth mm	Spirochetes	
	(N of Pts)	$\bar{x}$ (SD)	$\bar{x}$ (SD)	$\bar{x}$% (SD)	Comments
Baseline:					Data presented graphically. The highest CAL was found in sites with probing depths of = 7 mm at baseline followed by sites 4-6 mm deep at baseline. There were no sig differences btw groups.
T:	18	NR	NR	NA	
C:	20	NR	NR	NA	
Final: 52 weeks					
T:	18	NR	NR	NA	
C:	20	NR	NR	NA	
Change:					In subjects with *A.a.,* a significantly higher incidence of CAL gain of 2 mm or more was achieved in treatment group over control ($P < 0.05$). The adverse was true for *P.g.* where there was a loss ($P < 0.05$).
T:		NR	NR	NA	
C:		NR	NR	NA	
Test:					
P value:					**Quality Score:** 38; 31

Evidence Table 4. Effectiveness of Systemic Metronidazole and Amoxicillin as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Author and Year: Rooney et al., 2002[70] **Study Period:** 26 weeks (6 months) **Site of Study:** Department of Perodontology, Bristol Dental School and Hospital **Location:** UK **Patients Selected:** Patients <46 years old referred by practitioners who had failed to respond to non-surgical periodontal treatment with PD = 6 mm and BOP.	**Design Type:** RCT **Subject/Site Allocation:** Random **Blinding:** Examiners and patients blind **Placebo:** Yes **Split-mouth:** Yes, for microbiotic samples, 1 in each quadrant	**Severity:** Advanced chronic periodontal disease **Types of Teeth:** All but 3rd molars and severely malpositioned teeth **Widman flap:** NR	**Number:** 2 **Trained:** NR **Assigned to Patients:** Same clinician provided treatment throughout study	**SRP performed:** Quadrant root planings under local anesthesia with ultrasonic scaler and Gracey curettes. SRP done by 2 experienced periodontists. **Time spent on SRP:** 45 minutes for all teeth in quadrant; SRPs separated by maximum of 12 days, usually 7 days.

Evidence Table 4. Effectiveness of Systemic Metronidazole and Amoxicillin as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Assessment Time Interval(s)
Subject/Site allocation: 30 subjects T: 15 subjects C: 15 subjects **Dose, Mode, Schedule:** All received 0.2% chlorhexidine mouthrinse (10ml, 60s) 2xday until 1 week after non-surgical therapy T: SRP plus 250 mg amoxicillin + 200 mg metronidazole 3xday for 7 days C: SRP plus placebo (lactose capsules and calcium lactate tablets) 3xday for 7 days	**Age:** Range: 20 to 45 **Gender Distribution:** NR **Race/Ethnicity:** NR	NR	Before SRP	4 times (at baseline, and months 1, 3, and 6)

Evidence Table 4. Effectiveness of Systemic Metronidazole and Amoxicillin as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
Rooney et al., 2002[70] (continued)	**Clinical Measurement:** PD CAL BOP Presence of Suppuration Plaque deposits **Radiographic Techniques:** NR **Microbiological Methods:** Following incubation, anaerobic counts from agar plates for *P.g., P.i., A..a.*, and others **Patient Self Report:** NR	None	66 recruited for full study; 4 were lost: lacked one month data (1); lacked 3 month data (1); had no 6 month data (3); no 3 and 6 month data (2); unable to determine which treatment groups the 4 were assigned to	**Type of analysis reported:** Full participants only

Evidence Table 4. Effectiveness of Systemic Metronidazole and Amoxicillin as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

		Outcomes Accessed			
		Attachment Level mm	Probing Depth mm	Spirochetes	
	(N of Pts)	$\bar{x}$ (SD)	$\bar{x}$ (SD)	$\bar{x}$% (SD)	Comments
Baseline:					Presented as % of sites with low (0-3 mm) or high (= 6 mm), not in actual mm measurements or changes.
T:	NR	NR	NR	NA	
C:	NR	NR	NR	NA	
Final:	26 weeks				
T:	15 pts	NR	NR	NA	
C:	15 pts	NR	NR	NA	Differences in PD and CAL treatment effects were significantly greater in the treatment group than in the control.
Change:					
T:		NR	NR	NA	
C:		NR	NR	NA	
Test		ANCOVA	ANCOVA		Microbiological data showed significant difference for treatment group versus control only at 1 month and not at months 3 and 6.
P-value		=0.05	=0.001		
					Quality Score: 69; 54

Evidence Table 4. Effectiveness of Systemic Metronidazole and Amoxicillin as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Author and Year: Winkel et al., 2001[83] **Study Period:** 12 weeks (3 months) **Site of Study:** Clinics for Periodontology **Location:** Amsterdam and Utrecht, Netherlands **Patients Selected:** Patients referred to clinic for PD treatment = 1 sites in = 3 quadrants with PD > 6 mm and CAL = 3 mm plus BOP and radiographic evidence of bone loss	**Design Type:** RCT **Subject/Site Allocation:** Random **Blinding:** Examiners and patients blind **Placebo:** Yes **Split-mouth:** No	**Severity:** Generalized severe adult periodontitis **Types of Teeth:** NR **Widman flap:** NR	**Number:** 1 at each clinic **Trained:** NR **Assigned to Subjects:** One examiner for all clinical and biological samples at each clinic and throughout study	**SRP performed:** Full mouth scaling and root planing, under local anesthetic, if requested. Approximately 6 weeks later, subjects were recalled and SRP was readministered to pockets with PD > 3 mm and BOP **Time spent on SRP:** 3 to 6 sessions of 1 hour each over 6 week period

Evidence Table 4. Effectiveness of Systemic Metronidazole and Amoxicillin as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Assessment Time Interval(s)
Subject/Site allocation: 49 subjects completed T: 23 subjects C: 26 subjects **Dose, Mode, Schedule:** T: SRP plus 375 mg amoxicillin and 250 mg metronidazole tablets, 3xday for 7 days C: SRP plus identical placebos, 3xday for 7 days	**Age:** Mean: 42 T: 45 C: 40 Range: 28 to 63 **Gender Distribution:** Male: T: 11 C: 10 Female: T: 12 C: 16 **Race/Ethnicity:** NR	Subjects were asked to return unused meds after 7 days. No tablets were returned, though 1 subject complained about missing 1 tablet.	Before SRP	3 times (at baseline, 6 weeks and 3 months after medicine completion)

Evidence Table 4. Effectiveness of Systemic Metronidazole and Amoxicillin as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
Winkel et al., 2001[83] (continued)	**Clinical Measurement:** PII PD BI CAL **Radiographic Techniques:** NR **Microbiological Methods:** Plaque sampling (*P.m., P.g., B.f., B.i.*) Mowbell's et al., 1991, 1994 **Subject Self Report:** NR	Face rash (T:1, C:1); gastro-intestinal intolerance (T: 9); rash on neck (T: 1); nausea after alcohol (T: 1)	Severe headache, severe diarrhea, refused tablets because of size, unwilling to avoid alcohol (T: 4); pregnant (C: 1)	**Type of analysis reported:** Full participants only

Evidence Table 4. Effectiveness of Systemic Metronidazole and Amoxicillin as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

		Outcomes Accessed			
		Attachment Level mm	Probing Depth mm	Spirochetes	
	(N of Pts)	$\bar{x}$ (SD)	$\bar{x}$ (SD)	$\bar{x}$% (SD)	Comments
Baseline:					Sites with *P.g.* had significantly greater PD reduction with treatment (1.52mm) placebo (1.1mm) and there was difference in the group that had no *P.g.*
T:	23	7.7 (1.8)	7.81 (0.9)	NA	
C:	26	7.4 (1.1)	8.1 (1.2)	NA	
Final: 12 weeks					
T:	23	5.8 (1.5)	4.6 (0.9)	NA	The greatest PD reduction was found at sites with initial PD = 7 mm (T: 3.2 mm, C: 2.5 mm). These sites had most pronounced CAL gains (T: 2.0 mm, C: 1.5 mm)
C:	26	5.1 (1.4)	5.6 (1.3)	NA	
Change:		Gain	Reduction		
T:		2.3* (NR)	3.2* (NR)	NA	
C:		1.9* (NR)	2.5* (NR)	NA	
Test:		Mann Whitney	Mann Whitney		
P value:		NS	<0.05		**Quality Score:** 85; 77

Evidence Table 5. Effectiveness of Local Chlorhexidine Combinations as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Aziz-Gandour and Newman, 1986[77]	**Design Type:** RCT	**Severity:** Chronic peridontitis	**Number:** NR	**SRP performed:** Supra and subgingival scaling, root planing and sub-contact area debridement and polishing
Study Period: 12 weeks (84 days)	**Subject/Site Allocation:** Random	**Types of Teeth:** NR	**Trained:** NR	
Study/Treatment Site: Health Department Clinic	**Blinding:** Examiners and patients blind	**Widman flap:** NR	**Assigned to Subjects:** NR	**Time spent:** NR
Location: UK	**Placebo:** Yes			
Patient Population: Patients with approximal surface pockets and = 4 mm bone reabsorption as seen on radiographs	**Split-mouth:** No			

Evidence Table 5. Effectiveness of Local Chlorhexidine Combinations as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Time Interval(s)
Subject/Site allocation: 12 subjects T: 6 subjects (147 surfaces) C: 6 subjects (118 surfaces) **Dose, Mode, Schedule:** T: SRP plus 0.2% chlorhexidine irrigation 1xday for 28 days C: SRP plus 0.1% quinine sulphate irrigation	**Age:** Mean: T: 43 C: 48 Range: T: 32 to 53 C: 43 to 55 **Gender:** Male: T: 1 C: 2 Female: T: 5 C: 4 **Race/Ethnicity:** NR	Yes, with irrigation	Before SRP	5 times (at baseline and days 7, 28, 56, and 84)

Evidence Table 5. Effectiveness of Local Chlorhexidine Combinations as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
Aziz-Gandour and Newman, 1986[77] (continued)	**Clinical Measurement:** SBI PII PD GI Gingival recession **Radiographic Techniques:** NR **Microbiological Methods:** NR **Subject Self Report:** NR	NR	1 subject excluded from full study because of failure to attend all visits, but it is not clear which treatment group subject was assigned to	**Type of analysis reported:** Full participants only

Evidence Table 5. Effectiveness of Local Chlorhexidine Combinations as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

		Outcomes Accessed			
		Attachment Level mm	Probing Depth mm	Spirochetes	
	(N of Pts)	$\bar{x}$ (SD)	$\bar{x}$ (SD)	$\bar{x}$% (SD)	Comments
Baseline:					For chlorhexidine and control groups, there were significant differences in pocket depth only at day 56 visit.
T:	6 (147 sites)	NA	4.8 (NR)	NA	
C:	6 (118 sites)	NA	4.6 (NR)	NA	
Final:	12 weeks (84 days)				
T:	NR	NA	NR	NA	Clinically, the differences between groups was relatively small.
C:	NR	NA	NR	NA	
Change:					
T:		NA	NR	NA	**Quality Score:** 54; 46
C:		NA	NR	NA	
Test:			ChiSquare, Paired t-test		
P value:			NS		

Evidence Table 5. Effectiveness of Local Chlorhexidine as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Azmak et al., 2002[93] **Study Period:** 26 weeks (6 months) **Study/Treatment Site:** Ege University **Location:** Izmir, Turkey **Patient Population:** Patients with 2 interproximal sites selected from anterior teeth with PD 6 to 8 mm and BOP, = 4 sites with = 4 mm attachment loss, and at least 2 teeth between selected sites	**Design Type:** RCT **Subject/Site Allocation:** Random **Blinding:** Examiners blind **Placebo:** No **Split-mouth:** Yes	**Severity:** Moderate to severe chronic periodontitis **Types of Teeth:** NR **Widman flap:** NR	**Number:** NR **Trained:** NR **Assigned to Subjects:** Same examiner throughout study	**SRP performed:** Under local anesthesia **Time spent:** 5 minutes per tooth

Evidence Table 5. Effectiveness of Local Chlorhexidine as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Time Interval(s)
Subject/Site allocation: 22 subjects enrolled 20 completed 2 sites per mouth T: 20 sites C: 20 sites **Dose, Mode, Schedule:** T: SRP plus 2.5 mg chlorhexidine chip in isolated pockets C: SRP only	**Age:** Range: 36 to 62 **Gender:** Both **Race/Ethnicity:** NR	NA	Before SRP	4 times (at baseline and months 1, 3, and 6) GCF MMP measured at baseline, days 2 and 10, and months 1, 3, and 6

Evidence Table 5. Effectiveness of Local Chlorhexidine as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
Azmak et al., 2002[93] (continued)	**Clinical Measurement:** BOP/SBI PII PD CAL GCI GCF-MMP – 8 levels **Radiographic Techniques:** NR **Microbiological Methods:** NR **Subject Self Report:** NR	NR	Use of antibiotics (2)	**Type of analysis reported:** Full participants only

Evidence Table 5. Effectiveness of Local Chlorhexidine as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

		Outcomes Accessed			
	(N of Pts)	Attachment Level mm $\bar{x}$ (SD)	Probing Depth mm $\bar{x}$ (SD)	Spirochetes $\bar{x}$% (SD)	Comments
Baseline:					Outcome data presented graphically.
T:	20 sites	8.83 (1.34)	7.00 (0.69)	NA	
C:	20 sites	8.72 (0.84)	6.83 (0.86)	NA	Improvements were not statistically significant at 1, 3, and 6 months for PD and CAL.
Final: 26 weeks					
T:	20 sites	NR	NR	NA	
C:	20 sites	NR	NR	NA	**Quality Score:** 38; 31
Change:					
T:	20 sites	NR	NR	NA	
C:	20 sites	NR	NR	NA	
Test:		Repeated Measures ANCOVA	Repeated Measures ANCOVA		
P value:		0.574	0.138		

Evidence Table 5. Effectiveness of Local Chlorhexidine as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Braatz et al., 1985[30] **Study Period:** 24 weeks **Study/Treatment Site:** NR **Location:** USA **Patient Population:** Patients with at least 2 sites with PD = 7 mm on single-rooted teeth with BOP	**Design Type:** RCT **Subject/Site Allocation:** Random **Blinding:** NR **Placebo:** No **Split-mouth:** Yes	**Severity:** Generalized chronic periodontitis **Types of Teeth:** Single-rooted **Widman flap:** NR	**Number:** 1 **Trained:** NA **Assigned to Subjects:** Same examiner throughout study	**SRP performed:** Single episode of supra and subgingival instrumentation under local anesthesia **Time spent:** NR

Evidence Table 5. Effectiveness of Local Chlorhexidine as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Time Interval(s)
Subject/Site allocation: 14 subjects (2 to 25 sites per subject) T: 54 sites C: 52 sites **Dose, Mode, Schedule:** T: SRP plus irrigation with 0.2% chlorhexidine 1xday for 24 weeks on 1 side of maxillary and/or mandibular jaw C: SRP only	**Age:** Range: 40 to 70 **Gender:** Male: 8 Female: 6 **Race/Ethnicity:** NR	Yes, subjects were checked every 2 weeks for their ability to irrigate the experi-mental sites	Before SRP	3 times (at baseline and weeks 12 and 24)

Evidence Table 5. Effectiveness of Local Chlorhexidine as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
Braatz et al., 1985[30] (continued)	**Clinical Measurement:** BOP/SBI PD CAL **Radiographic Techniques:** NR **Microbiological Methods:** Spirochete analysis, dark field microscopy **Subject Self Report:** NR	NR	NR	**Type of analysis reported:** Full participants only

Evidence Table 5. Effectiveness of Local Chlorhexidine as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

		Outcomes Accessed			
	(N of Pts)	Attachment Level mm $\bar{x}$ (SD)	Probing Depth mm $\bar{x}$ (SD)	Spirochetes $\bar{x}$% (SD)	Comments
Baseline:					Chlorhexidine group and control group did not differ significantly in any of the studied parameters so treatment did not augment SRP
T:	54 sites	NR	7.6 (0.9)	6.8% (9.0)	
C:	52 sites	NR	7.5 (0.7)	9.2% (11.0)	
Final:	24 weeks				
T:	54 sites	NR	4.3 (1.4)	0.8% (3.0)	**Quality Score:** 46; 38
C:	52 sites	NR	4.5 (1.5)	1.2% (4.1)	
Change:		Gain			
T:	54 sites	1.4 (1.4)	3.3* (NR)	NR	
C:	52 sites	1.2 (1.1)	3.0* (NR)	NR	
Test:		ANOVA	ANOVA	ANOVA	
P value:		NS	NS	NS	

Evidence Table 5. Effectiveness of Local Chlorhexidine as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Author and Year: Grisi et al., 2002[94]	**Design Type:** RCT	**Severity:** Chronic periodontitis	**Number:** 1	**SRP performed:** Full mouth supragingival scaling under anesthesia with Gracey curets
Study Period: 39 weeks (9 months)	**Subject/Site Allocation:** Random	**Types of Teeth:** NR	**Trained:** NA	
Site of Study: NR	**Blinding:** Examiner blind	**Widman flap:** NR	**Assigned to Subjects:** NR	**Time spent on SRP:** NR
Location: Brazil	**Placebo:** No			
Patients Selected: Patients with PD = 5 mm in at least 4 sites and BOP	**Split-mouth:** No			

Evidence Table 5. Effectiveness of Local Chlorhexidine as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Assessment Time Interval(s)
Subject/Site allocation: 20 subjects invited 19 subjects enrolled and completed T: 10 (41 sites) C: 9 (43 sites) **Dose, Mode, Schedule:** T: SRP plus chlorhexidine chip at baseline and at 3 and 6 months in all pockets = 5 mm; chip position assessed at days 3 and 7 after placement C: SRP alone Note: Full mouth supragingival prophylaxis 1xmonth for both treatment and control groups.	**Age:** Mean: 41.8 ± 5.6 Range: 35 to 56 **Gender Distribution:** Male: 11 (T: 5, C: 3) Female: 9 (T: 5, C: 6) **Race/Ethnicity:** NR	NR	Before SRP	4 times (at baseline and months 3, 6, and 9)

Evidence Table 5. Effectiveness of Local Chlorhexidine as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
Grisi et al., 2002[94] (continued)	**Clinical Measurement:** PII GR PD BOP Suppuration CAL PBS **Radiographic Techniques:** NR **Microbiological Methods:** BANA Test; Microbes: *B.f., T.d., P.g.* **Subject Self Report:** NR	NR	Antibiotic use during test period (1)	**Type of analysis reported:** Full participants only

Evidence Table 5. Effectiveness of Local Chlorhexidine as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

		Outcomes Accessed			
	(N of Pts)	Attachment Level mm $\bar{x}$ (SD)	Probing Depth mm $\bar{x}$ (SD)	Spirochetes $\bar{x}$ (SD)	Comments
Baseline:					SRP produced a significant reduction in microorganisms. The addition of the chlorhexidine chip did not augment the results.
T:	10 (41 sites)	NR	5.2 (0.6)	NA	
C:	9 (39 sites)	NR	5.2 (0.6)	NA	
Final:	39 weeks (9 months)				
T:	10 (41 sites)	NR	3.0 (0.8)	NA	**Quality Score:** 46; 38
C:	9 (39 sites)	NR	2.9 (0.6)	NA	
Change:		Gain	Reduction		
T:	10 (41 sites)	0.6 (0.7)	2.2 (0.7)	NA	
C:	9 (39 sites)	1.0 (0.4)	2.4 (0.7)	NA	
Test:		Mann-Whitney	Mann-Whitney		
P value:		0.07	NS		

Evidence Table 5. Effectiveness of Local Chlorhexidine as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Heasman et al., 2001[92] **Study Period:** 26 weeks (6 months) **Study/Treatment Site:** Department of Periodontology of Newcastle Dental School and Hospital **Location:** UK **Patient Population:** Adults with = 10 natural uncrowned teeth; = 1 pocket per quadrant with PD = 5 mm and persistent BOP	**Design Type:** RCT **Subject/Site Allocation:** Random **Blinding:** Examiners blind **Placebo:** No **Split-mouth:** Yes (left side, right side)	**Severity:** Moderate to advanced chronic periodontitis **Types of Teeth:** Molars **Widman flap:** NR	**Number:** 2 **Trained:** Calibration (Gold standard) **Assigned to Subjects:** Same examiner throughout study. Clinician placed all periochips, always in the absence of examiner	**SRP performed:** At baseline, supragingival ultrasonic scaling and prophylaxis of all teeth. All target sites were root planed under local anesthesia **Time spent:** Maximum of 5 minutes per tooth for supragingival scaling

Evidence Table 5. Effectiveness of Local Chlorhexidine as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Time Interval(s)
Subject/Site allocation: 26 subjects recruited 24 completed T: 87 sites C: 165 sites **Dose, Mode, Schedule:** T: SRP plus 2.5 mg controlled release chlorhexidine chip inserted in pockets C: SRP only	**Age:** Mean: 42.6 Range: 34 to 59 **Gender:** Male: 8 Female:18 **Race/Ethnicity:** White: 100%	NA	Before SRP	4 times (at baseline and months 1, 3, and 6)

Evidence Table 5. Effectiveness of Local Chlorhexidine as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
Heasman et al., 2001[92] (continued)	**Clinical Measurement:** BOP/SBI PII PD CAL **Radiographic Techniques:** NR **Microbiological Methods:** NR **Subject Self Report:** NR	Only 1 subject reported any oral symptoms at any time during trial	Withdrew after 3 mos for non-treatment related reasons (2)	**Type of analysis reported:** Intent to treat

Evidence Table 5. Effectiveness of Local Chlorhexidine as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

		Outcomes Accessed			
	(N of Pts)	Attachment Level mm $\bar{x}$ (SD)	Probing Depth mm $\bar{x}$ (SD)	Spirochetes $\bar{x}$% (SD)	Comments
Baseline:					The results suggest that the chlorhexidine chip is beneficial for subjects on maintenance therapy although the benefit is not apparent until 6 months after placement
T:	87 sites	14.23 (0.19 se)	6.64 (0.12 se)	NA	
C:	165 sites	14.14 (0.16 se)	6.47 (0.11 se)	NA	
Final:	26 weeks				
T:	NR	NR	NR	NA	
C:	NR	NR	NR	NA	**Quality Score:** 54; 54
Change:		Gain	Reduction		
T:	NR	0.43 (0.15 se)	0.78 (0.12 se)	NA	
C:	NR	0.15 (0.09 se)	0.45 (0.13 se)	NA	
Test:		t-test	t-test		
P value:		0.048	0.05		

Evidence Table 5. Effectiveness of Local Chlorhexidine as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Jeffcoat et al., 1998[91] **Study Period:** 39 weeks (9 months) **Study/Treatment Site:** 10 centers at 10 different universities **Location:** USA **Patient Population:** Patients with = 10 natural teeth and = 4 teeth with PD of 5 to 8 mm and BOP	**Design Type:** RCT **Subject/Site Allocation:** Random **Blinding:** Examiners and patients blind **Placebo:** Yes **Split-mouth:** Yes	**Severity:** Adult periodontitis **Types of Teeth:** NR **Widman flap:** NR	**Number:** At least one at each center **Trained:** Calibration (gold standard) **Assigned to Subjects:** Same examiner throughout study	**SRP performed:** All subjects received scaling and root planing **Time spent:** 1 hour for all teeth for removal of supragingival calculus and 1 hour for SRP

Evidence Table 5. Effectiveness of Local Chlorhexidine as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Time Interval(s)
Subject/Site allocation: 447 subjects entered 419 subjects completed T: 211 sites C: 208 sites **Dose, Mode, Schedule:** T: SRP plus 2.5 mg controlled release chlorhexidine chips at baseline, 3 and 6 months if PD = 5 mm C: SRP with placebo chip	**Age:** Mean: 46.4 Range: 27 to 79 **Gender:** Male: 207 Female: 240 **Race/Ethnicity:** NH White: 336 (75.2%) NH Black: 85 (19%) Hispanic: 8 (1.8%) Asian/Pacific Islander: 12 (2.7%) Other: 6 (1.3%)	NA	Before SRP	6 times (at baseline, day 7, week 6, and months 3, 6, and 9)

Evidence Table 5. Effectiveness of Local Chlorhexidine as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
Jeffcoat et al., 1998[91] (continued)	**Clinical Measurement:** BOP/SBI PII PD CAL GI Staining examination **Radiographic Techniques:** NR **Microbiological Methods:** NR **Subject Self Report:** NR	Higher in treatment group: minor and transient toothache (including pain, tenderness, aching, throbbing, soreness, discomfort, or sensitivity)	Concurrent medical/ dental treatment; illness; lack of follow-up	**Type of analysis reported:** Intent to treat, analysis adjusted

Evidence Table 5. Effectiveness of Local Chlorhexidine as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

		Outcomes Accessed			
	(N of Pts)	Attachment Level mm $\bar{x}$ (SD)	Probing Depth mm $\bar{x}$ (SD)	Spirochetes $\bar{x}$% (SD)	Comments
					Quality Score: 85; 93
Baseline:					
T:	225	5.27 (1.34 se)	5.73 (0.59 se)	NA	
C:	222	5.14 (1.48 se)	5.64 (0.55 se)	NA	
Final: 39 weeks (9 months)					
T:		NR	NR	NA	
C:		NR	NR	NA	
Change:		Gain	Reduction		
T:	211	0.75 (0.06 se)	0.95 (0.05 se)	NA	
C:	208	0.55 (0.06 se)	0.69 (0.05 se)	NA	
Test:		NR	NR		
P value:		0.012	0.00056		

Evidence Table 5. Effectiveness of Local Chlorhexidine as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Author and Year: MacAlpine 1985[31] **Study Period:** 24 weeks **Site of Study:** NR **Location:** NR (Swedish and US authors) **Patients Selected:** Patients with PD = 6 mm demonstrated by attachment loss, BOP, and subgingival calculus	**Design Type:** Clinical trial **Subject/Site Allocation:** Assignment method not reported **Blinding:** NR **Placebo:** Yes **Split-mouth:** Yes	**Severity:** Generalized chronic periodontitis **Types of Teeth:** Single root **Widman flap:** No	**Number:** 1 **Trained:** NA **Assigned to Subjects:** Same investigator throughout study	**SRP performed:** Supra and subgingival instrumentation under local anesthesia until operator was confident that the tooth surfaces had been equately debrided **Time spent on SRP:** NR

Evidence Table 5. Effectiveness of Local Chlorhexidine as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Assessment Time Interval(s)
Subject/Site allocation: 11 subjects 4 or 8 sites per subject T: 16 sites C: 16 sites **Dose, Mode, Schedule:** T: SRP plus subgingival irrigation with 2% chlorhexidine solution every 2 weeks for 24 weeks C: SRP and saline irrigation, every 2 weeks for 24 weeks	**Age:** Range: 25-67 **Gender Distribution:** Males: 2 Females: 9 **Race/Ethnicity:** NR	NA	Before SRP	4 times (at baseline, and weeks 8, 16, and 24) Spirochetes were assessed at baseline and weeks 7, 15, and 23

Evidence Table 5. Effectiveness of Local Chlorhexidine as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
MacAlpine 1985[31] (continued)	**Clinical Measurement:** BOP Plaque scores PD CAL **Radiographic Techniques:** NR **Microbiological Methods:** Subgingival plaque samples (% spirochetes); dark field microscopy **Subject Self Report:** NR	NR	NR	**Type of analysis reported:** All who completed treatment

Evidence Table 5. Effectiveness of Local Chlorhexidine as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

		Outcomes Accessed			
	(N of Pts)	Attachment Level mm $\bar{x}$ (SD)	Probing Depth mm $\bar{x}$ (SD)	Spirochetes $\bar{x}$% (SD)	Comments
					Quality Score: 38; 38
Baseline:					
T:	16 sites	NR	7.7 (0.9)	32 (20)	
C:	16 sites	NR	7.4 (0.6)	39 (21)	
Final:	24 weeks				
T:	16 sites	NR	4.2 (1.0)	2 (3)	
C:	16 sites	NR	4.9 (1.8)	4 (7)	
Change:		Gain	Reduction		
T:		1.7 (1.3)	1.7 (1.3)	NR	
C:		0.8 (1.4)	0.8 (1.4)	NR	
Test:		ANOVA	ANOVA		
P value:		NS	NS		

Evidence Table 5. Effectiveness of Local Chlorhexidine as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Oosterwaal et al., 1991[89] **Study Period:** 36 weeks **Study/Treatment Site:** Department of Periodontology, University of Nijmegen **Location:** Netherlands **Patient Population:** Patients referred with 4 interdental pockets of 7 to 9 mm affecting single rooted teeth, BOP, alveolar bone and attachment loss	**Design Type:** RCT **Subject/Site Allocation:** Random **Blinding:** Examiners and patients blind **Placebo:** Yes **Split-mouth:** Yes	**Severity:** Advanced periodontitis **Types of Teeth:** Single-rooted **Widman flap:** NR	**Number:** 2 **Trained:** NR **Assigned to Subjects:** NR	**SRP performed:** Selected pockets got both hand and ultrasonic mechanical (Gracey curettes) debridement. Other pockets got SRP 4 weeks later **Time spent:** NR

Evidence Table 5. Effectiveness of Local Chlorhexidine as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Time Interval(s)
Subject/Site allocation: 10 subjects T: 10 sites C: 10 sites **Dose, Mode, Schedule:** T: SRP plus 2% chlorhexidine gel, applied 3 times within 10 minutes after SRP C: SRP with placebo gel applied 3 times with syringe within 10 minutes after SRP	**Age:** Mean: 48 Range: 33 to 62 **Gender:** Male: 4 Female: 6 **Race/Ethnicity:** NR	NA	Before SRP	4 times (at baseline and weeks 4, 12, and 36)

Evidence Table 5. Effectiveness of Local Chlorhexidine as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
Oosterwaal et al., 1991[89] (continued)	**Clinical Measurement:** BOP/SBI PII PD **Radiographic Techniques:** NR **Microbiological Methods:** Subgingival microflora by microscopic and culture studies of plaque samples (% spirochetes, motile rods, non-motile rods) **Subject Self Report:** NR	NR	NR	**Type of analysis reported:** Full participants only

Evidence Table 5. Effectiveness of Local Chlorhexidine as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

	Outcomes Accessed				
	(N of Pts)	Attachment Level mm $\bar{x}$ (SD)	Probing Depth mm $\bar{x}$ (SD)	Spirochetes $\bar{x}$% (SD)	Comments
Baseline:					Data on clinical outcomes presented graphically.
T:	10 (10 sites)	NA	7.6 (0.7)	NR	
C:	10 (10 sites)	NA	NR	NR	
Final:	36 weeks				Effect of SRP and chlorhexidine gel did not differ from SRP and placebo gel.
T:	10 (10 sites)	NA	4.7 (1.0)	NR	
C:	10 (10 sites)	NA	NR	NR	
Change:					No differences among groups in PD or % spirochetes after 36 weeks.
T:		NA	NR	NR	
C:		NA	NR	NR	
Test:			ANOVA	ANOVA	**Quality Score:** 63; 54
P value:			NS	NS	

Evidence Table 5. Effectiveness of Local Chlorhexidine as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Author and Year: Quirynen et al., 2000[95] **Study Period:** 35 weeks (8 months) **Site of Study:** Department of Peridontology of the University Hospital of Catholic University Leuven **Location:** Belgium **Patients Selected:** Patients referred by general dental practitioner with at least 2 multi-rooted teeth and 3 single-rooted teeth in the 1st quadrant and at least 6 sites with PD = 7mm	**Design Type:** NR **Subject/Site Allocation:** Unknown **Blinding:** NR **Placebo:** No **Split-mouth:** No	**Severity:** Advanced chronic adult periodontitis **Types of Teeth:** Single and multi-rooted third molars excluded **Widman flap:** NR	**Number:** 1 **Trained:** NA **Assigned to Subjects:** Same examiner throughout study	**SRP performed:** Under local anesthesia, using periodontal curettes, on all pockets within 24 hours. **Time spent on SRP:** Completed during 2 sessions within 24 hours, starting with the lower jaw.

Evidence Table 5. Effectiveness of Local Chlorhexidine as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Assessment Time Interval(s)
Subject/Site allocation: 24 subjects in relevant treatment groups T: 12 subjects C: 12 subjects **Dose, Mode, Schedule:** T: SRP plus 2x during first 24 hours: brush tongue with 1% chlorhexidine gel for 60 sec; rinse mouth 2x with 0.2% chlorhexidine solution for 1 min; spray tonsils 4x/tonsil with 0.2% chlorhexidine spray; subgingival irrigation of pockets 3x within 10 min with 1% chlorhexidine gel. All repeated a third time at day 8. At home for next 2 months: chlorhexidine rinse 2xday and tonsil spray C: SRP alone	**Age:** Range: 37 to 69 **Gender Distribution:** Male: 20 Female: 16 **Race/Ethnicity:** White: 100%	Via question-naire	Before SRP	5 times (at baseline, at end of months 1, 2, 4, and 8)

Evidence Table 5. Effectiveness of Local Chlorhexidine as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
Quirynen et al., 2000[95] (continued)	**Clinical Measurement:** GI PI PD Gingival recession or over growth CAL BOP **Radiographic Techniques:** NR **Microbiological Methods:** Differential phase-contrast microscopy (coccoid cells, motile rods, spirochetes and others) **Subject Self Report:** Questionnaire	Yes, subjects rated subjective outcomes (pain, swelling)	NR	**Type of analysis reported:** Full participants only

Evidence Table 5. Effectiveness of Local Chlorhexidine as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

		Outcomes Accessed			
	(N of Pts)	Attachment Level mm $\bar{x}$ (SD)	Probing Depth mm $\bar{x}$ (SD)	Spirochetes $\bar{x}$% (SD)	Comments
Single-rooted					At each follow-up visit a statistically significant ($P < 0.001$) improvement at end of baseline was recorded for PD in both groups. The difference between the Treatment and Control groups were never statistically significant.
Baseline:					
T:	12	NR	6.2 (2.0)	NR	
C:	12	NR	6.2 (1.8)	NR	
Final:	35 weeks (8 months)				
T:	12	NR	4.0 (1.0)	NR	
C:	12	NR	3.9 (1.5)	NR	
Change:		Gain	Reduction		All pockets showed a statistically significant gain in CAL over the entire experimental period. Differences between groups were small and insignificant
T:		NR	2.2 (1.8)	NR	
C:		NR	2.3 (1.3)	NR	
Test:			Mann Whitney U		
P value:			NS		
					For initial PD = 7 mm, the control group had a 0.3 greater gain in CAL for both single and multi-root teeth
Multi-rooted					Statistically significant differences in reduction of spirochetes at 8 months (data presented graphically)
Baseline:					
T:	12	NR	6.4 (1.9)	NR	
C:	12	NR	6.6 (1.6)	NR	
Final:	35 weeks (8 months)				**Quality Score:** 54; 54
T:	12	NR	4.5 (1.4)	NR	
C:	12	NR	4.2 (1.3)	NR	
Change:		Gain	Reduction		
T:		NR	1.9 (1.5)	NR	
C:		NR	2.4 (1.3)	NR	
Test:			Mann Whitney U		
P value:			NS		

Evidence Table 5. Effectiveness of Local Chlorhexidine as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Reynolds et al., 1992[88] **Study Period:** 4 weeks (28 days) **Study/Treatment Site:** Dental School, University of Maryland **Location:** USA **Patient Population:** New patients	**Design Type:** RCT **Subject/Site Allocation:** Random **Blinding:** Examiners and patients blind **Placebo:** Yes **Split-mouth:** No	**Severity:** Early to moderate adult periodontitis **Types of Teeth:** NR **Widman flap:** NR	**Number:** NR **Trained:** NR **Assigned to Subjects:** NR	**SRP performed:** Entire dentition ultrasonically scaled and irrigated until all supra and subgingival calculus was removed **Time spent:** 30 to 40 minutes for ultrasonic scaling per subject

Evidence Table 5. Effectiveness of Local Chlorhexidine as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Time Interval(s)
Subject/Site allocation: 60 subjects T: 30 subjects C: 30 subjects **Dose, Mode, Schedule:** T: SRP plus 200 ml subgingival irrigation with 0.12% chlorhexidine (single episode) C: SRP with placebo, subgingival irrigation with sterile water (single episode)	**Age:** Range: 28 to 58 **Gender:** Male: 28 Female: 32 **Race/Ethnicity:** NR	NA	Before SRP	3 times (at baseline and weeks 2 and 4)

Evidence Table 5. Effectiveness of Local Chlorhexidine as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
Reynolds et al., 1992[88] (continued)	**Clinical Measurement:** PII PD GI **Radiographic Techniques:** NR **Microbiological Methods:** Plaque microbiota on a subset of 15 subjects (spirochetes and mobile organisms) Cell morphology Dark field microscopy **Subject Self Report:** NR	NR	NR	**Type of analysis reported:** NR

Evidence Table 5. Effectiveness of Local Chlorhexidine as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

	Outcomes Accessed				
	(N of Pts)	Attachment Level mm $\bar{x}$ (SD)	Probing Depth mm $\bar{x}$ (SD)	Spirochetes $\bar{x}$ (%SD)	Comments
Baseline:					Data in graphic form only.
T:	NR	NA	NR	NR	
C:	NR	NA	NR	NR	PD changes were nonsignificantly greater in chlorhexidine 7-9 mm and 4-6 mm PD groups only.
Final: 4 weeks					
T:	NR	NA	NR	NR	
C:	NR	NA	NR	NR	No significant changes in the % spirochetes.
Change:					
T:	NR	NA	NR	NR	**Quality Score:** 69; 69
C:	NR	NA	NR	NR	
Test:					
P value:					

Evidence Table 5. Effectiveness of Local Chlorhexidine as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Shiloah and Patters 1994[54] **Study Period:** 4 weeks **Study/Treatment Site:** Graduate Program University Clinic **Location:** USA **Patient Population:** Volunteer adults with PD = 5 mm in non-adjacent sites with = 5 mm PD, attachment loss and presence of target organism	**Design Type:** RCT **Subject/Site Allocation:** Random sites within subjects **Blinding:** Examiner blind **Placebo:** Yes **Split-mouth:** Yes	**Severity:** Moderate to severe periodontitis **Types of Teeth:** Single and multi-rooted **Widman flap:** NR	**Number:** 1 **Trained:** Standardization Calibration (Gold standard) **Assigned to Subjects:** Same examiner throughout study	**SRP performed:** Thorough SRP of entire dentition performed with ultrasonic scaler and Gracey curets, under local anesthesia **Time spent:** 4 to 7 hours per subject over several visits

Evidence Table 5. Effectiveness of Local Chlorhexidine as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Time Interval(s)
Subject/Site allocation: 7 subjects, 1 or 2 teeth per subject T: 12 sites C: 12 sites **Dose, Mode, Schedule:** T: SRP plus irrigation with 0.12% chlorhexidine solution, 2cc/site, 1 aplication C: SRP plus irrigation of pockets with 0.85%, saline, 2cc/site	**Age:** Mean: 47.8 Range: 33 to 65 **Gender:** Male: 2 Female: 5 **Race/Ethnicity:** NR	NA	Before SRP	3 times (at baseline, week 1, and month 1)

Evidence Table 5. Effectiveness of Local Chlorhexidine as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
Shiloah and Patters 1994[54] (continued)	**Clinical Measurement:** PII PD CAL GI Gingival fluid flow **Radiographic Techniques:** NR **Microbiological Methods:** DNA/RNA probe for subgingival flora (*A.a., P.g., P.i.*) **Subject Self Report:** NR	NR	NR	**Type of analysis reported:** Full participants only

Evidence Table 5. Effectiveness of Local Chlorhexidine as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

		Outcomes Accessed			
	(N of Pts)	Attachment Level mm $\bar{x}$ (SD)	Probing Depth mm $\bar{x}$ (SD)	Spirochetes $\bar{x}$% (SD)	Comments
Baseline:					Data shown graphically.
T:	12 sites	NR	NR	NA	
C:	12 sites	NR	NR	NA	Although PD decreased significantly (*P* = 0.0001) no significant difference among the treatment groups was noted (*P* = 0.67).
Final: 4 weeks					
T:	12 sites	NR	NR	NA	
C:	12 sites	NR	NR	NA	
Change:					Attachment loss was reduced by an average 1 mm following therapy. Although CAL decreased significantly (*P* = 0.0001) no significant difference among treatment groups was noted (*P* = 0.06).
T:	12 sites	NR	NR	NA	
C:	12 sites	NR	NR	NA	
Test:		ANOVA	ANOVA		
P value:		NS	NS		
					Treatment resulted in reduction of 3 target species of 67% at month 1
					Quality Score: 54; 54

Evidence Table 5. Effectiveness of Local Chlorhexidine as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Soskolne et al., 1997[90] **Study Period:** 26 weeks (6 months) **Study/Treatment Site:** Royal Air Force Base at Halton, UK; Newcastle, UK; Jerusalem, Israel **Location:** UK and Israel **Patient Population:** Patients with = 1 PD 5 to 8 mm and BOP in each of 2 maxillary quadrants	**Design Type:** RCT **Subject/Site Allocation:** Random to 2 quadrants of the upper jaw **Blinding:** Examiners and patients blind **Placebo:** No **Split-mouth:** Yes	**Severity:** Moderate adult periodontitis **Types of Teeth:** NR **Widman flap:** NR	**Number:** 3 (1 at each center) **Trained:** Calibration (gold standard) **Assigned to Subjects:** Same examiner throughout study	**SRP performed:** Full mouth mechanical supra- and subgingival scaling **Time spent:** =1 hour

Evidence Table 5. Effectiveness of Local Chlorhexidine as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Time Interval(s)
Subject/Site allocation: 118 eligible subjects at baseline 94 completed T: 94 subjects (401 pockets) C: 94 subjects (412 pockets) **Dose, Mode, Schedule:** T: SRP plus 2.5 mg chlorhexidine chip inserted into each pocket of 5 to 8 mm in designated quadrant at baseline and 3 months if pocket was still 5 to 8mm C: SRP only	**Age:** Mean: 47.5 Range: 30 to 65 **Gender:** Male: 60 Female: 58 **Race/Ethnicity:** NR	NA	Before SRP	4 times (at baseline, 1, 3, and 6 months)

Evidence Table 5. Effectiveness of Local Chlorhexidine as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
Soskolne et al., 1997[90] (continued)	**Clinical Measurement:** BOP/SBI PII PD CAL GI Staining index **Radiographic Techniques:** NR **Microbiological Methods:** NR **Subject Self Report:** NR	NR	Antibiotic or anti-inflammatory drug use; loss to follow-up, or withdrawal of consent (24)	**Type of analysis reported:** All with any follow-up

Evidence Table 5. Effectiveness of Local Chlorhexidine as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

		Outcomes Accessed			
	(N of Pts)	Attachment Level mm $\bar{x}$ (SD)	Probing Depth mm $\bar{x}$ (SD)	Spirochetes $\bar{x}$% (SD)	Comments
Baseline:					Results show that the treatment of periodontal pockets with chlorhexidine as an adjunct to SRP provides a significantly greater improvement
T:		NR	5.99 (0.05 se)	NA	
C:		NR	6.01 (0.05 se)	NA	
Final:	26 weeks (6 months)				
T:	94 (401 pockets)	NR	NR	NA	For initial PD = 7 mm: Create CAL gain for treatment group of 0.65 mm, *P* < 0.001.
C:	94 (412 pockets)	NR	NR	NA	
Change:		Gain	Reduction		
T:	94 (401 pockets)	0.47 (0.062 se)	1.16 (0.058 se)	NA	
C:	94 (412 pockets)	0.31 (0.06 se)	0.70 (0.056 se)	NA	Create PD reduction in treatment group of 0.22, *P* = 0.0001
Test:		MANOVA	MANOVA		
P value:		< 0.05	= 0.0001		
					Quality Score: 62; 54

Evidence Table 5. Effectiveness of Local Chlorhexidine as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Southard et al., 1989[86] **Study Period:** 15 weeks **Study/Treatment Site:** Department of Periodontics, School of Dentistry, University of Missouri **Location:** Kansas City, MO **Patient Population:** Volunteer patients with at least 1 site with PD = 6 mm and BOP in each quadrant	**Design Type:** RCT **Subject/Site Allocation:** Randomized 4 quadrant design **Blinding:** Examiners and patients blind **Placebo:** No **Split-mouth:** Yes	**Severity:** Moderate periodontitis **Types of Teeth:** Posterior **Widman flap:** NR	**Number:** 2 **Trained:** NR **Assigned to Subjects:** Same clinician performed all treatments, while a 2nd examiner measured all clinical parameters	**SRP performed:** 2 assigned quadrants received SRP. Anesthesized by standard nerve blocks or local infiltration techniques. Areas were debrided by hand with a Gracey curette until the root was deemed smooth by tactile sensation with a periodontal probe **Time spent:** NR

Evidence Table 5. Effectiveness of Local Chlorhexidine as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Time Interval(s)
Subject/Site allocation: 8 subjects T: 16 sites C: 16 sites **Dose, Mode, Schedule:** T: SRP plus irrigation with 2% chlorhexidine at baseline and weeks 1, 2, and 3 on all teeth in quadrant C: SRP only	**Age:** Range: 35 to 65 **Gender:** Male: 4 Female: 4 **Race/Ethnicity:** NR	NA	Before SRP	5 times (at baseline and weeks 5, 7, 11, and 15)

Evidence Table 5. Effectiveness of Local Chlorhexidine as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
Southard et al., 1989[86] (continued)	**Clinical Measurement:** PII PD CAL GI Bleeding tendency **Radiographic Techniques:** NR **Microbiological Methods:** *B.g.* plaque sample, fluorescent antibody reagent, fluorescent microscope **Subject Self Report:** NR	NR	NR	**Type of analysis reported:** Full participants only

Evidence Table 5. Effectiveness of Local Chlorhexidine as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

		Outcomes Accessed			
	(N of Pts)	Attachment Level mm $\bar{x}$ (SD)	Probing Depth mm $\bar{x}$ (SD)	Spirochetes $\bar{x}$ % (SD)	Comments
Baseline:					No significant treatment effects
T:	8	14.4 (NR)	6.6 (NR)	NA	
C:	8	13.6 (NR)	6.3 (NR)	NA	*B.g.* was significantly reduced only in treatment group vs control ($P < 0.01$) but did not extend to the 15th week
Final:	15 weeks				
T:	8	12.7 (NR)	4.2 (NR)	NA	
C:	8	12.0 (NR)	3.8 (NR)	NA	
Change:		Gain	Reduction		**Quality Score:** 54; 38
T:		1.7 (NR)	2.4* (NR)	NA	
C:		1.6 (NR)	2.5* (NR)	NA	
Test:		Newman Keuls	Newman Keuls		
P value:		NS	NS		

Evidence Table 5. Effectiveness of Local Chlorhexidine as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Taggart et al., 1990[87] **Study Period:** 10 weeks **Study/Treatment Site:** Health Department Clinic (Department of Periodontology and Preventive Dentistry, United Medical and Dental schools of Guy's and St. Thomas' Hospitals **Location:** London, England **Patient Population:** Patients with with chronic PD involving both sides of the jaw to a similar extent; at least 1 pair of pockets 4 to 6-7 mm (or above) in contra-lateral quadrants and radiographic evidence of bone loss	**Design Type:** NR **Subject/Site Allocation:** Random assigned to upper quadrants **Blinding:** NR **Placebo:** Yes **Split-mouth:** Yes	**Severity:** Moderate to advanced chronic periodontitis **Types of Teeth:** Upper quadrants, no third molars or central incisors **Widman flap:** NR	**Number:** NR **Trained:** NR **Assigned to Subjects:** NR	**SRP performed:** Instrumentation on test and control quadrants with an ultrasonic handpiece scaler, under local anesthesia, until the subgingival root surfaces were considered sufficiently smooth **Time spent:** NR

Evidence Table 5. Effectiveness of Local Chlorhexidine as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Time Interval(s)
Subject/Site allocation: 10 subjects 2 sites per subject T: 10 sites C: 10 sites **Dose, Mode, Schedule:** T: SRP plus irrigation with 0.02% chlorhexidine once during scaling C: SRP with placebo (irrigation with water once during scaling)	**Age:** Range: 28 to 51 **Gender:** Male: 3 Female: 7 **Race/Ethnicity:** NR	NA	Before SRP	4 times (at baseline and weeks 2, 6, and 10)

Evidence Table 5. Effectiveness of Local Chlorhexidine as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
Taggart et al., 1990[87] (continued)	**Clinical Measurement:** SBI PII PD CAL **Radiographic Techniques:** NR **Microbiological Methods:** Plaque microbiota (cocci, spirochetes, motile rods and other rod forms), dark field microscopy **Subject Self Report:** NR	NR	NR	**Type of analysis reported:** Full participants only

Evidence Table 5. Effectiveness of Local Chlorhexidine as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

		Outcomes Accessed			
	(N of Pts)	Attachment Level mm $\bar{x}$ (SD)	Probing Depth mm $\bar{x}$ (SD)	Spirochetes $\bar{x}$ % (SD)	Comments
Baseline:					Chlorhexidine has a slight adjunctive effect in the reduction of pocket depth but not significant
T:	10 (10 sites)	NR	3.5 (0.6)	24.9 (12.4)	
C:	10 (10 sites)	NR	3.4 (0.5)	23.3 (14)	
Final:	10 weeks				**Quality Score:** 46; 46
T:	NR	NR	2.6 (0.3)	9.6 (14.7)	
C:	NR	NR	2.6 (0.7)	13.1 (15.3)	
Change:		Gain	Reduction		
T:	NR	0.5 (1.1 se)	0.9 (NR)	15.3* (NR)	
C:	NR	0.4 (1.0 se)	0.8 (NR)	16.2* (NR)	
Test:		NR	ANOVA	ANOVA	
P value:		NS	NS	NS	

Evidence Table 5. Effectiveness of Local Chlorhexidine as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Unsal et al., 1994[59] **Study Period:** 12 weeks **Study/Treatment Site:** Department of Peridontology, Faculty of Dentistry **Location:** University of Ankara, Turkey **Patient Population:** Adult patients with at least 3 teeth in each quadrant having 2 sites with a PD of = 4 mm and radiographic evidence of bone loss	**Design Type:** RCT **Subject/Site Allocation:** Random **Blinding:** NR **Placebo:** No **Split-mouth:** No	**Severity:** Moderate to advanced adult periodontitis **Types of Teeth:** NR **Widman flap:** NR	**Number:** NR **Trained:** NR **Assigned to Subjects:** NR	**SRP performed:** Mechanical debridement by hand with Gracey curettes and ultrasonic scaling and root planing in pockets > 4 mm **Time spent:** NR

Evidence Table 5. Effectiveness of Local Chlorhexidine as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Time Interval(s)
Subject/Site allocation: 22 subjects invited 15 enrolled T: 7 subjects (97 sites) C: 8 subjects (110 sites) **Dose, Mode, Schedule:** T: SRP plus 1% chlorhexidine gel applied once C: SRP only	**Age:** Mean: 42 Range: 30 to 57 **Gender:** Male: 10 Female: 12 **Race/Ethnicity:** NR	Yes	NR	2 times (at baseline and week 12)

Evidence Table 5. Effectiveness of Local Chlorhexidine as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
Unsal et al., 1994[59] (continued)	**Clinical Measurement:** Bleeding index PII PD CAL GI Position of gingival margin **Radiographic Techniques:** NR **Microbiological Methods:** NR **Subject Self Report:** NR	NR	NR	**Type of analysis reported:** Intent to treat

Evidence Table 5. Effectiveness of Local Chlorhexidine as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

		Outcomes Accessed			
	(N of Pts)	Attachment Level mm $\bar{x}$ (SD)	Probing Depth mm $\bar{x}$ (SD)	Spirochetes $\bar{x}$ % (SD)	Comments
Baseline:					No statistically significant differences were found in the reduction of the probing depths or gains in attachment level between the treatment groups
T:	7 (99 sites)	4.03 (1.50)	4.90 (1.11)	NA	
C:	8 (110 sites)	3.66 (1.22)	5.14 (1.45)	NA	
Final:	12 weeks				
T:	7	3.33 (1.76)	3.32 (1.01)	NA	
C:	8	2.62 (1.24)	3.32 (0.73)	NA	**Quality Score:** 46; 46
Change:					
T:		1.04 (0.16)	1.58 (0.96)	NA	
C:		0.70 (1.09)	1.83 (0.54)	NA	
Test:		ANOVA	ANOVA		
P value:		NS	NS		

Evidence Table 5. Effectiveness of Local Chlorhexidine as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Watts and Newman, 1986[84] **Study Period:** 12 weeks (84 days) **Study/Treatment Site:** Eastman Dental Hospital **Location:** UK **Patient Population:** Adult patients referred for periodontal treatment with PD = 5 mm and radiographic evidence of bone loss	**Design Type:** RCT **Subject/Site Allocation:** Random **Blinding:** Examiners and patients blind **Placebo:** Yes **Split-mouth:** No	**Severity:** Chronic periodontitis **Types of Teeth:** NR **Widman flap:** NR	**Number:** NR **Trained:** NR **Assigned to Subjects:** NR	**SRP performed:** Supra and subgingival scaling and root planing of the test sites, reduction of any overhanging restorations that were present and full mouth polishing using a rubber cup **Time spent:** NR

Evidence Table 5. Effectiveness of Local Chlorhexidine as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Time Interval(s)
Subject/Site allocation: 11 subjects 262 sites T: 5 pockets (128 sites) C: 6 pockets (134 sites) **Dose, Mode, Schedule:** T: SRP plus irrigation with 0.02% chlorhexidine 1xday for 28 days C: SRP with 0.01% quinine sulphate (placebo) irrigation 1xday for 28 days	**Age:** Mean: 39 Range: T: 26 to 49 C: 34 to 48 **Gender:** Male: T: 3 C: 1 Female: T: 2 C: 5 **Race/Ethnicity:** NR	NA	Before SRP	4 times (at baseline and days 28, 56, and 84)

Evidence Table 5. Effectiveness of Local Chlorhexidine as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
Watts and Newman, 1986[84] (continued)	**Clinical Measurement:** SBI PII PD **Radiographic Techniques:** NR **Microbiological Methods:** NR **Subject Self Report:** Found the procedure pleasant	No injuries or staining noted	NR	**Type of analysis reported:** Full participants only. Sites less than 5 mm PD were eliminated prior to the next visit.

Evidence Table 5. Effectiveness of Local Chlorhexidine as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

		Outcomes Accessed			
	(N of Pts)	Attachment Level mm $\bar{x}$ (SD)	Probing Depth mm $\bar{x}$ (SD)	Spirochetes $\bar{x}$ % (SD)	Comments
Baseline:					No significant added benefit with 0.02% chlorhexidine was apparent. Data presented graphically.
T:	5 (128 sites)	NA	6.1 (NR)	NA	
C:	6 (134 sites)	NA	5.9 (NR)	NA	
Final:	12 weeks				Chi Square of PD reduction = 4.9
T:	NR	NA	NR	NA	
C:	NR	NA	NR	NA	**Quality Score:** 46; 46
Change:					
T:		NA	NR	NA	
C:		NA	NR	NA	
Test:			Chi Square		
P value:			NS		

Evidence Table 5. Effectiveness of Local Chlorhexidine as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Wennström et al., 1987[85] **Study Period:** 52 weeks **Study/Treatment Site:** Graduate Program, Department of Periodontology, University Clinic **Location:** Sweden **Patient Population:** Patients with PD = 6 mm and BOP selected from the waiting list	**Design Type:** RCT **Subject/Site Allocation:** Random assignment of quadrants **Blinding:** Examiners blind **Placebo:** Yes **Split-mouth:** Yes	**Severity:** Moderate to severe periodontal disease **Types of Teeth:** NR **Widman flap:** NR	**Number:** 1 **Trained:** NA **Assigned to Subjects:** Same examiner throughout study	**SRP performed:** Subgingival mechanical debridement of entire dentition at week 32 of study **Time spent:** 6 visits during 6 weeks

Evidence Table 5. Effectiveness of Local Chlorhexidine as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Time Interval(s)
Subject/Site allocation: 10 subjects T: 28 sites C: 24 sites **Dose, Mode, Schedule:** All subjects received professional tooth cleaning every 4 weeks T: SRP plus irrigation with 0.2% chlorhexidine 3xweek C: SRP plus irrigation with saline 3xweek	**Age:** Mean: 43.1 Range: 22 to 61 **Gender:** NR **Race/Ethnicity:** NR	NA	Before SRP	3 times (at baseline and weeks 40 and 52) 52 week study, SRP and treatment at week 32

Evidence Table 5. Effectiveness of Local Chlorhexidine as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
Wennström et al., 1987[85] (continued)	**Clinical Measurement:** BOP/SBI PII PD CAL GI **Radiographic Techniques:** Bone Loss/Regeneration **Microbiological Methods:** Crevicular fluid microbiota **Subject Self Report:** NR	NR	NR	**Type of analysis reported:** Full participants only

Evidence Table 5. Effectiveness of Local Chlorhexidine as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

	Outcomes Accessed			
	Attachment Level mm	Probing Depth mm	Spirochetes	
(N of Pts)	$\bar{x}$ (SD)	$\bar{x}$ (SD)	$\bar{x}$% (SD)	Comments
Baseline:				Results are presented in terms of percentage of sites
T:	NR	6.7 (NR)	NA	
C:	NR	6.9 (NR)	NA	**Quality Score:** 46; 46
Final: 52 weeks				
T:	NR	4.8 (NR)	NA	
C:	NR	5.1 (NR)	NA	
Change:	Gain	Reduction		
T: 28 sites	0.6 (0.4)	1.9* (NR)	NA	
C: 24 sites	0.7 (0.5)	1.8* (NR)	NA	
Test:	Paired t-test	NR		
P value:	NS	NR		

Evidence Table 6a. Effectiveness of Other Systemic Antibiotics as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Bain et al., 1994[97] **Study Period:** 24 weeks (6 months) **Study/Treatment Site:** 7 dental faculties at Canadian Universities **Location:** Canada **Patient Population:** Patients = 15 teeth and = 2 sites in interproximal areas with PD = 7 mm and a contacting adjacent tooth; radiographic evidence of bone loss	**Design Type:** RCT **Subject/Site Allocation:** Random **Blinding:** Examiner and patients blind **Placebo:** Yes **Split-mouth:** No	**Severity:** Advanced chronic peridontitis **Types of Teeth:** NR **Widman flap:** NR	**Number:** 7 (1 per center) **Trained:** NR **Assigned to Subjects:** NR	**SRP performed:** Thorough scaling and root planing **Time spent:** 3 to 5 hours during the 2 weeks of drug therapy

Evidence Table 6a. Effectiveness of Other Systemic Antibiotics as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Time Interval(s)
Subject/Site allocation: 193 started 189 completed T: 93 subjects C: 96 subjects **Dose, Mode, Schedule:** T: SRP plus 1,500,000 IU of spiramycin (“500” capsules), 2xday, for 14 days C: SRP plus placebo 2xday for 14 days	**Age:** Mean: T: 47.3 ± 1.0 C: 48.5 ± 1.2 **Gender:** NR **Race/Ethnicity:** NR	Bottle check at 2 week visit for a count of unusued medication	Before SRP	5 times (at baseline and weeks 2, 8, 12, 24)

Evidence Table 6a. Effectiveness of Other Systemic Antibiotics as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
Bain et al., 1994[97] (continued)	**Clinical Measurement:** BOP/SBI PII PD CAL GCF **Radiographic Techniques:** NR **Microbiological Methods:** Crevicular fluid microbiota **Subject Self Report:** NR	Two subjects (1 from each group) terminated due to periodontal symptoms and 2 (both spiramycin subjects) due to emergent signs (gastro-intestinal upset, abdominal pain, diarrhea)	Adverse events (4)	**Type of analysis reported:** Full participants only

Evidence Table 6a. Effectiveness of Other Systemic Antibiotics as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

		Outcomes Accessed			
	(N of Pts)	Attachment Level mm $\bar{x}$ (SD)	Probing Depth mm $\bar{x}$ (SD)	Spirochetes $\bar{x}$% (SD)	Comments
Baseline:					Attachment level measurements were consistently slightly lower in the drug group, this was only statistically significant at the 12 week interval (*P* = 0.0146)
T:	93	10.72 (0.15 se)	7.6 (0.08 se)	NA	
C:	96	10.69 (0.16 se)	7.53 (0.08 se)	NA	
Final: 24 weeks					
T:	93	8.85 (0.16 se)	4.73 (0.11 se)	NA	
C:	96	9.11 (0.19 se)	5.13 (0.14 se)	NA	**Quality Score:** 85; 85
Change:					
T:		1.87* (NR)	2.87* (NR)	NA	
C:		1.58* (NR)	2.40* (NR)	NA	
Test:		ANOVA	ANOVA		
P value:		NS	< 0.0075		

Evidence Table 6a. Effectiveness of Other Systemic Antibiotics as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Haffajee et al., 1995[46] **Study Period:** 43 weeks (10 months) **Study/Treatment Site:** Hospital Dental Clinic **Location:** USA **Patients Selected:** Originally 98 patients aged 14-71 with evidence of prior attachment loss, at least 20 teeth and at least 4 pockets >4 mm and 4 sites of LOA >3mm, no localized JP, no rapidly progressing PD. From this pool, subjects exhibiting LOA >2.5 mm at = 1 sites anytime during 6 months observation period were admitted to study	**Design Type:** RCT **Subject/Site Allocation:** Random **Blinding:** Examiners and patients blind **Placebo:** Yes **Split-mouth:** No	**Severity:** NR **Types of Teeth:** All excluding third molars **Widman flap:** Yes, at active sites and where PD > 4mm	**Number:** 1 **Trained:** NA **Assigned to Subjects:** Same examiner throughout study	**SRP performed:** Scaling and root planing by quadrant, approximate 10 day intervals, repeated during course of study every 3 months for 1 yr **Time spent on SRP:** NR

Evidence Table 6a. Effectiveness of Other Systemic Antibiotics as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Time Interval(s)
Subject/Site allocation: 21 subjects, 6 sites per tooth T: 10 subjects C: 11 subjects **Dose, Mode, Schedule:** All rinsed with 0.12% chlorhexidine for 30 days T: SRP plus 250 mg amoxicillin and 125 mg clavulanic acid 3xday for 30 days C: SRP plus placebo (250 mg sucrose) 3xday for 30 days	**Age:** Mean All: 48 ± 12 Mean T: 44 ± 15 Mean C: 48 ± 11 **Gender:** All: 57% Male T: 62% Male C: 55% Male **Race/Ethnicity:** NR	NR	Before SRP	6 times (at baseline and 2, 4, 6, 8, and 10 months)

Evidence Table 6a. Effectiveness of Other Systemic Antibiotics as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
Haffajee et al., 1995[46] (continued)	**Clinical Measurement:** BOP/SBI PD CAL GI **Radiographic Techniques:** NR **Microbiological Methods:** DNA probes and colony lifts for 14 taxa in 29 of 40 subjects **Subject Self Report:** NR	NR	NR	**Type of analysis reported:** Mann-Whitney and Kruskal-Wallis, change by site, averaged for individual, then averaged for group Subject is unit of analysis

Evidence Table 6a. Effectiveness of Other Systemic Antibiotics as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

		Outcomes Accessed			
		Attachment Level mm	Probing Depth mm	Spirochetes	
	(N of Pts)	$\bar{x}$ (SD)	$\bar{x}$ (SD)	$\bar{x}$% (SD)	Comments
Baseline:					Only baseline values presented in table. Change score mostly presented in bar graphs. Text presents change scores for PD, but not the associated SDs.
T:	13	4.2 (1.3)	4.1 (0.8)	NA	
C:	11	3.5 (1.2)	3.6 (0.5)	NA	
Final: 43 weeks (10 months)					
T:	13	NR	NR	NA	
C:	11	NR	NR	NA	**Quality Score:** 62; 46
Change:		Gain	Reduction		
T:		0.68 (NR)	0.75 (NR)	NA	
C:		NR	0.46 (NR)	NA	
Test:		Mann Whitney Test	Mann Whitney Test		
P value:		< 0.01	NS		

Evidence Table 6a. Effectiveness of Other Systemic Antibiotics as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Ng and Bissada, 1998[98] **Study Period:** 24 weeks **Study/Treatment Site:** NR **Location:** USA **Patient Population:** Patients with generalized periodontitis and having at least 2 teeth with = 5 mm probing depth	**Design Type:** RCT **Subject/Site Allocation:** Random **Blinding:** Examiners blind **Placebo:** Yes **Split-mouth:** Yes	**Severity:** Generalized moderate adult periodontitis **Types of Teeth:** NR **Widman flap:** NR	**Number:** 1 **Trained:** NR **Assigned to Subjects:** Same examiner throughout study	**SRP performed:** Ultrasonic and hand SRP in 1 session, under local anesthesia, only half mouth received SRP **Time spent:** NR

Evidence Table 6a. Effectiveness of Other Systemic Antibiotics as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Time Interval(s)
Subject/Site allocation: 16 subjects T: 8 subjects C: 8 subjects **Dose, Mode, Schedule:** T: SRP plus 200 mg doxycycline first day then 100 mg 1xday for 6 weeks C: SRP with placebo (capsules orally 1 daily)	**Age: (For full study)** Range: 32 to 72 **Gender: (For full study)** Male: 18 Female: 14 **Race/Ethnicity:** NR	Compliance with drug intake was reinforced verbally at each appointment	Before SRP	5 times (at baseline and weeks 3, 6, 12, and 24)

Evidence Table 6a. Effectiveness of Other Systemic Antibiotics as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
Ng and Bissada, 1998[98] (continued)	**Clinical Measurement:** PII PD CAL GI **Radiographic Techniques:** Periapical radiographs using paralleling x-ray technique **Microbiological Methods:** NR **Subject Self Report:** NR	Adverse effects collected but none reported	None left study	**Type of analysis reported:** Full participants only

Evidence Table 6a. Effectiveness of Other Systemic Antibiotics as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

		Outcomes Accessed			
		Attachment Level mm	Probing Depth mm	Spirochetes	
	(N of Pts)	$\bar{x}$ (SD)	$\bar{x}$ (SD)	$\bar{x}$% (SD)	Comments
Baseline:					Doxycycline resulted in a statistically significant, yet modest, clinical improvement over placebo
T:	8	7.8 (1.2)	4.3 (0.9)	NA	
C:	8	9.0 (1.9)	4.3 (0.9)	NA	
Final:	24 weeks				**Quality Score:** 62; 77
T:	8	7.4 (0.5)	4.6 (0.4)	NA	
C:	8	9.9 (0.8)	4.0 (0.6)	NA	
Change:					
T:		0.4* (NR)	-0.3* (NR)	NA	
C:		-0.9* (NR)	0.3* (NR)	NA	
Test:		ANOVA	ANOVA		
P value:		= 0.05	NS		

Evidence Table 6a. Effectiveness of Other Systemic Antibiotics as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Al-Joburi et al., 1989[45] **Study Period:** 24 weeks **Study/Treatment Site:** Several Universities **Location:** Canada **Patient Population:** Patients at least 35 years old with at least = 2 sites with probing depth = 7 mm and at least 15 teeth	**Design Type:** RCT **Subject/Site Allocation:** Random **Blinding:** Examiners and patients blind **Placebo:** Yes **Split-mouth:** No	**Severity:** Advanced adult chronic **Types of Teeth:** NR **Widman flap:** NR	**Number:** 2 (1 at each site) **Trained:** NR **Assigned to Subjects:** Same examiner throughout study	**SRP performed:** Thorough scaling and root planing (intensive) completed in 2 visits, one week apart **Time spent:** 6 hours

Evidence Table 6a. Effectiveness of Other Systemic Antibiotics as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Time Interval(s)
Subject/Site allocation: 96 started full study 52 completed relevant treatments 2 interproximal sites per subject T: 28 subjects C: 24 subjects **Dose, Mode, Schedule:** T: SRP plus 500 mg spiramycin 2xday for 14 days C: SRP plus placebo, 1 capsule 2xday for 14 days	**Age:** Mean: 46 ± 0.9 **Gender:** NR **Race/Ethnicity:** NR	Yes	Before SRP	5 times (at baseline and weeks 2, 8, 12, and 24)

Evidence Table 6a. Effectiveness of Other Systemic Antibiotics as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
Al-Joburi et al., 1989[45] (continued)	**Clinical Measurement:** BOP/SBI PII PD CAL **Radiographic Techniques:** NR **Microbiological Methods:** Crevicular fluid microbiota Plaque microbiota **Subject Self Report:** NR	Yes, 1 subject excluded because of nausea	17 subjects excluded: intercurrent but unrelated illness during the study which required taking antibiotics other than study medication (1); loss to follow-up (3); failed to take medication as prescribed (6); developed severe diarrhea (1)	**Type of analysis reported:** Full participants only

Evidence Table 6a. Effectiveness of Other Systemic Antibiotics as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

	Outcomes Accessed			
(N of Pts)	Attachment Level mm $\bar{x}$ (SD)	Probing Depth mm $\bar{x}$ (SD)	Spirochetes $\bar{x}$% (SD)	Comments
PD 1 to 3 mm:				Despite intensive SRP, the additional use of an antibiotic resulted in a significantly greater reduction in spirochete level at the 2, 8 and 24 week visits
Baseline:				
T: 28	7.29 (0.57)	3.00 (0.00)	28 (NR)	
C: 24	7.50 (0.84)	3.00 (0.35)	30 (NR)	
Final: 24 weeks				
T:	6.67 (0.67)	2.58 (0.34)	3 (NR)	
C:	7.80 (0.82)	3:00 (0.16)	11 (NR)	There were no significant intergroup differences in CAL or PD at 24 weeks
Change:				
T:	0.62* (NR)	0.42* (NR)	NR	
C:	-0.30* (NR)	0.00* (NR)	NR	
Test:	NR	NR	NR	**Quality Score:** 69; 69
P value:	NS	NS	Sig	
PD 4 to 6 mm:				
Baseline:				
T:	9.11 (0.27)	5.26 (0.11)		
C:	9.11 (0.22)	5.25 (0.08)		
Final:				
T:	8.31 (0.30)	3.94 (0.20)		
C:	8.09 (0.21)	3.53 (0.12)		
Change:				
T:	0.80* (NR)	1.32* (NR)		
C:	1.02* (NR)	1.72* (NR)		
Test:	NR	NR		
P value:	NS	NS		
PD > 7 mm:				
Baseline:				
T:	10.60 (0.27)	7.49 (0.13)		
C:	10.75 (0.29)	7.60 (0.17)		
Final:				
T:	9.14 (0.26)	4.92 (0.21)		
C:	9.21 (0.34)	4.75 (0.24)		
Change:				
T:	0.46* (NR)	2.57* (NR)		
C:	1.54* (NR)	2.85* (NR)		
Test:	NR	NR		
P value:	NS	NS		

Evidence Table 6a. Effectiveness of Other Systemic Antibiotics as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Chin Quee et al., 1987[96] **Study Period:** 26 weeks (6 months) **Study/Treatment Site:** NR **Location:** NR **Patient Population:** Patients over 35 years old with = 2 sites with PD = 7mm and at least 15 teeth	**Design Type:** RCT **Subject/Site Allocation:** Random **Blinding:** Examiners and patients blind **Placebo:** Yes **Split-mouth:** No	**Severity:** Advanced periodontitis **Types of Teeth:** NR **Widman flap:** NR	**Number:** 2 **Trained:** Standardi-zation (practice on subjects before study began) **Assigned to Subjects:** Same examiner throughout study	**SRP performed:** Thorough SRP, 2 sessions of 3 hours each, one week apart **Time spent:** 6 hours

Evidence Table 6a. Effectiveness of Other Systemic Antibiotics as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Time Interval(s)
Subject/Site allocation: 56 subjects recruited (2 sites/person) 50 completed T: 26 subjects C: 24 subjects **Dose, Mode, Schedule:** T: SRP plus 3 tablets (750,000 IUs spiramycin and 125 mg metronidazole) 2xday for 14 days C: SRP and placebo, 3 tablets 2xday for 14 days	**Age:** Mean: 4 T: 42 ± 1.41 C: 46 ± 1.33 **Gender:** No sig difference between groups **Race/Ethnicity:** No sig difference between groups	NR	Before SRP	8 times (at baseline, 14 days, and months 1, 2, 3, 4, 5, and 6)

Evidence Table 6a. Effectiveness of Other Systemic Antibiotics as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
Chin Quee et al., 1987[96] (continued)	**Clinical Measurement:** PII GI PD CAL **Radiographic Techniques:** NR **Microbiological Methods:** Subgingival bacteria (cocoid cells, motile cells, spirochetes and other cells), dark field microscopy **Subject Self Report:** NR	Yes, only significant difference was 4 in treatment group had diarrhea in second week, did not mention others (by means of question-naire)	Lost to follow-up (6)	**Type of analysis reported:** Full participants only

Evidence Table 6a. Effectiveness of Other Systemic Antibiotics as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

	Outcomes Accessed				
	(N of Pts)	Attachment Level mm $\bar{x}$ (SD)	Probing Depth mm $\bar{x}$ (SD)	Spirochetes $\bar{x}$% (SD)	Comments
Baseline:					The adjunctive use of this treatment resulted in a significant increase in attachment level as well as a significant decrease in the proportion of spirochetes, and both of these changes were sustained until the end of the study. Data presented graphically
T:	26	NR	NR	40 (NR)	
C:	24	NR	NR	45 (NR)	
Final: 26 weeks					
T:	26	NR	NR	3.0 (NR)	
C:	24	NR	NR	15.0 (NR)	
Change:					No significant intergroup differences at any time interval for PD
T:		NR	NR	NR	
C:		NR	NR	NR	
Test:		ANOVA	ANOVA	ANOVA	
P value:		<0.05	NS	<0.05	
					Quality Score: 54; 54

Evidence Table 6a. Effectiveness of Other Systemic Antibiotics as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Rooney et al., 2002[70] **Study Period:** 26 weeks (6 months) **Site of Study:** Department of Perodontology, Bristol Dental School and Hospital **Location:** UK **Patients Selected:** Patients <46 years old referred by practitioners who had failed to respond to non-surgical periodontal treatment with PD = 6 mm and BOP.	**Design Type:** RCT **Subject/Site Allocation:** Random **Blinding:** Examiners and patients blind **Placebo:** Yes **Split-mouth:** Yes, for microbiotic samples, 1 in each quadrant	**Severity:** Advanced chronic periodontal disease **Types of Teeth:** All but 3rd molars and severely malpositioned teeth **Widman flap:** NR	**Number:** 2 **Trained:** NR **Assigned to Patients:** Same clinician provided treatment throughout study	**SRP performed:** Quadrant root planings under local anesthesia with ultrasonic scaler and Gracey curettes. SRP done by 2 experienced periodontists. **Time spent on SRP:** 45 minutes for all teeth in quadrant; SRPs separated by maximum of 12 days, usually 7 days.

Evidence Table 6a. Effectiveness of Other Systemic Antibiotics as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Assessment Time Interval(s)
Subject/Site allocation: 31 subjects T: 16 subjects C: 15 subjects **Dose, Mode, Schedule:** All received 0.2% chlorhexidine mouthrinse (10ml, 60s) 2xday until 1 week after non-surgical therapy T: SRP plus 250 mg amoxicillin + placebo (calcium lactate tablets) 3xday for 7 days C: SRP plus placebo (lactose capsules and calcium lactate tablets) 3xday for 7 days	**Age:** Range: 20 to 45 **Gender Distribution:** NR **Race/Ethnicity:** NR	NR	Before SRP	4 times (at baseline, and months 1, 3, and 6)

Evidence Table 6a. Effectiveness of Other Systemic Antibiotics as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
Rooney et al., 2002[70] (continued)	**Clinical Measurement:** PD CAL BOP Presence of Suppuration Plaque deposits **Radiographic Techniques:** NR **Microbiological Methods:** Following incubation, anaerobic counts from agar plates for *P.g., P.i., A..a.*, and others **Patient Self Report:** NR	None	66 recruited for full study; 4 were lost: lacked one month data (1); lacked 3 month data (1); had no 6 month data (3); no 3 and 6 month data (2); unable to determine which treatment groups the 4 were assigned to	**Type of analysis reported:** Full participants only

Evidence Table 6a. Effectiveness of Other Systemic Antibiotics as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

		Outcomes Accessed			
		Attachment Level mm	Probing Depth mm	Spirochetes	
	(N of Pts)	$\bar{x}$ (SD)	$\bar{x}$ (SD)	$\bar{x}$% (SD)	Comments
Baseline:					Presented as % of sites with low (0-3 mm) or high (= 6 mm), not in actual mm measurements or changes.
T:	NR	NR	NR	NA	
C:	NR	NR	NR	NA	
Final: 26 weeks					
T:	16	NR	NR	NA	
C:	15	NR	NR	NA	Differences in PD and CAL treatment effects were significantly greater in the treatment group than in the control.
Change:					
T:		NR	NR	NA	
C:		NR	NR	NA	
Test		ANCOVA	ANCOVA		Microbiological data showed significant difference for treatment group versus control only at 1 month and not at months 3 and 6.
P-value		=0.05	=0.001		
					Quality Score: 69; 54

Evidence Table 6a. Effectiveness of Other Systemic Antibiotics as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Smith et al., 2002[99] **Study Period:** 22 weeks **Study/Treatment Site:** The Royal London Hospital **Location:** London, UK **Patient Population:** Adult patients referred to clinic with = 2 sextants with CPITN scores of 4 and at least 20 remaining teeth	**Design Type:** RCT **Subject/Site Allocation:** Random **Blinding:** Examiners and patients blind **Placebo:** Yes **Split-mouth:** No	**Severity:** Periodontitis in adults **Types of Teeth:** Rumfjord teeth: 16, 21, 24, 36, 41, and 44 **Widman flap:** NR	**Number:** 1 **Trained:** NA **Assigned to Subjects:** Same examiner throughout study	**SRP performed:** By hand by one hygienist, minor scaling and polishing at weeks 6, 10, and 22 **Time spent:** NR

Evidence Table 6a. Effectiveness of Other Systemic Antibiotics as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Time Interval(s)
Subject/Site allocation: 44 subjects completed study T: 23 subjects C: 21 subjects **Dose, Mode, Schedule:** T: SRP plus 500 mg azithromycin 1xday for 3 days at week 2 C: SRP with placebo	**Age:** Mean: 42.68 **Gender:** Male: 21 Female: 23 **Race/Ethnicity:** NR	NR	Before SRP	7 times (at baseline and weeks 1, 2, 3, 6, 10, and 22)

Evidence Table 6a. Effectiveness of Other Systemic Antibiotics as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
Smith et al., 2002[99] (continued)	**Clinical Measurement:** BOP/SBI PII PD Calculus to bleeding Ind **Radiographic Techniques:** NR **Microbiological Methods:** Crevicular fluid microbiota **Subject Self Report:** NR	None reported	tooth extraction (1), and failure to take medication (1)	**Type of analysis reported:** Full participants only

Evidence Table 6a. Effectiveness of Other Systemic Antibiotics as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

	Outcomes Accessed			
(N of Pts)	Attachment Level mm $\bar{x}$ (SD)	Probing Depth mm $\bar{x}$ (SD)	Spirochetes $\bar{x}$% (SD)	Comments
PD = 6 mm				Deep pockets (6mm) showed statistical significant difference (*P* < 0.05) starting at week 6 Across all sites: Analysis of covariance test shows that the difference between 2 study groups is insignificant at baseline and it is significant (*P* < 0.02) at week 22
Baseline:				
T: 23	NA	6.76 (NR)	NA	
C: 21	NA	6.76 (NR)	NA	
Final: 22 weeks				
T:	NA	3.67 (NR)	NA	
C:	NA	4.54 (NR)	NA	
Change:				
T:	NA	3.09* (NR)	NA	
C:	NA	2.22* (NR)	NA	
Test:		ANCOVA		
P value:		< 0.05		
PD 4 - 5 mm				Moderate pockets (4-5mm) demonstrated significant difference between groups starting at week 6
Baseline:				
T: 23	NA	4.58 (NR)	NA	
C: 21	NA	4.58 (NR)	NA	
Final: 22 weeks				
T:	NA	2.79 (NR)	NA	
C:	NA	3.31 (NR)	NA	
Change:				
T:	NA	1.79* (NR)	NA	
C:	NA	1.27* (NR)	NA	
Test:		ANCOVA		
P value:		< 0.01		
PD 1 - 3 mm				Shallow pockets (1-3mm) was statistically different between 2 study groups at week 6 only **Quality Score:** 69; 54
Baseline:				
T: 23	NA	2.35 (NR)	NA	
C: 21	NA	2.35 (NR)	NA	
Final: 22 weeks				
T:	NA	1.94 (NR)	NA	
C:	NA	2.08 (NR)	NA	
Change:				
T:	NA	0.41* (NR)	NA	
C:	NA	0.27* (NR)	NA	
Test:		ANCOVA		
P value:		NS		

Evidence Table 6b. Effectiveness of Other Local Antibiotics as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Eickholz et al., 2002[101] **Study Period:** 26 weeks (6 months) **Study/Treatment Site:** 3 Graduate Program University Clinics and Centers **Location:** Heidelberg and Frankfurt, Germany and Njmegen, Netherlands **Patient Population:** Patients over 23 years old, scheduled for periodontal treatment, with at least 3 single rooted teeth with PD of 5 mm and BOP of PD = 6 mm	**Design Type:** RCT **Subject/Site Allocation:** Random **Blinding:** Examiners and patients blind **Placebo:** Yes **Split-mouth:** Yes	**Severity:** Untreated or recurrent moderate to severe periodontitis **Types of Teeth:** Both, non-adjacent teeth **Widman flap:** NR	**Number:** 6 **Trained:** NR **Assigned to Subjects:** One examiner for baseline; a different examiner for all of remaining assessment	**SRP performed:** On all test teeth and the respective neighboring teeth by hand under local anesthesia **Time spent:** 10 minutes per tooth

Evidence Table 6b. Effectiveness of Other Local Antibiotics as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Time Interval(s)
Subject/Site allocation: 111 started 108 completed T: 108 sites C: 108 sites **Dose, Mode, Schedule:** T: SRP plus 15% doxycycline gel, subgingival application C: SRP and placebo polymer gel	**Age:** Mean: 49 ± 9 Range: 23 to 71 **Gender:** Male: 42 Female: 69 **Race/Ethnicity:** NR	NA	Before SRP, but PD measured after scaling	3 times (at baseline and months 3 and 6)

Evidence Table 6b. Effectiveness of Other Local Antibiotics as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
Eickholz et al., 2002[101] (continued)	**Clinical Measurement:** BOP/SBI PII PD CAL (vertical relative attachment level) GI **Radiographic Techniques:** NR **Microbiological Methods:** Plaque microbiota tested (*A.a., P.g., B.f.,* and *T.d.*) but results were reported separately **Subject Self Report:** NR	Yes, "minor compli-cations"	One singular inflammation 2 months after application of treatment gel	**Type of analysis reported:** Intent to treat

Evidence Table 6b. Effectiveness of Other Local Antibiotics as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

		Outcomes Accessed			
	(N of Pts)	Attachment Level mm $\bar{x}$ (SD)	Probing Depth mm $\bar{x}$ (SD)	Spirochetes $\bar{x}$% (SD)	Comments
Baseline:					Adjunctive topical subgingival application of a biodegradable doxycycline gel provided more favorable CAL gain and PD reduction than SRP alone and placebo
T:	NR	9.15 (1.99 se)	7.33 (1.55 se)	NA	
C:	NR	9.13 (2.17 se)	7.33 (1.57 se)	NA	
Final: 26 weeks					
T:		NR	NR	NA	
C:		NR	NR	NA	
Change:		Gain	Reduction		Pairwise comparisons of PD at 6 months resulted in a 0.44 (1.67 se) greater reduction (*P* = 0.0066) in doxycycline group versus placebo. For CAL it was 0.37 (1.84 se) at 6 months in favor of doxycycline (*P* = 0.038)
T:		2.0 (1.7 se)	-3.1 (1.2 se)	NA	
C:		1.6 (2.2 se)	-2.7 (1.6 se)	NA	
Test:		ANOVA	ANOVA		
P value:		0.057	0.002		
					Quality Score: 92; 92

Evidence Table 6b. Effectiveness of Other Local Antibiotics as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Kimura et al., 1991[100] **Study Period:** 6 weeks **Study/Treatment Site:** Department of Periodontology, Osaka University Faculty of Dentistry **Location:** Osaka, Japan **Patient Population:** Patients with at least one site with deep PD = 5 mm on the premolars and bone loss on radiography	**Design Type:** NR **Subject/Site Allocation:** Random **Blinding:** NR **Placebo:** Yes **Split-mouth:** NR	**Severity:** Severe chronic periodontitis **Types of Teeth:** Premolars on the first molar in each jaw quadrant **Widman flap:** NR	**Number:** NR **Trained:** NR **Assigned to Subjects:** NR	**SRP performed:** Supragingival scaling followed by subgingival mechanical debridement consisting of root planing and scaling without local anesthesia **Time spent:** NR

Evidence Table 6b. Effectiveness of Other Local Antibiotics as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Time Interval(s)
Subject/Site allocation: 31 subjects started 27 completed T: 27 sites C: 27 sites **Dose, Mode, Schedule:** T: SRP plus controlled release ofloxacin inserts applied in 5+ mm pockets around test tooth and adjacent teeth weekly from days 0-35 C: SRP plus placebo strips	**Age:** Mean: 43.9 Range: 29 to 53 **Gender:** Male: 14 Female: 13 **Race/Ethnicity:** NR	NA	Before	4 times (at baseline and visits 0, 1, and 4) Microbiota sampling at days 0, 14, 21, and 42

Evidence Table 6b. Effectiveness of Other Local Antibiotics as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
Kimura et al., 1991[100] (continued)	**Clinical Measurement:** NR **Radiographic Techniques:** NR **Microbiological Methods:** Plaque microbiota and anaerobic culture studies of spirochetes, motile rods, coccoid cells, using dark field microscopy **Subject Self Report:** NR	Yes, none reported	Protocol violation consisting of the usage of other agents (3); deviated from the experimental schedule (1)	**Type of analysis reported:** Full participants only

Evidence Table 6b. Effectiveness of Other Local Antibiotics as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

		Outcomes Accessed			
	(N of Pts)	Attachment Level mm $\bar{x}$ (SD)	Probing Depth mm $\bar{x}$ (SD)	Spirochetes $\bar{x}$% (SD)	Comments
Baseline:					No statistical significant differences in microbiological results between groups.
T:	NR	NA	NA	9.5 (10.4)	
C:	NR	NA	NA	20.2 (11.7)	SRP was effective in and of itself.
Final: 4 weeks					
T:		NA	NA	3.7 (6.1)	**Quality Score:** 38; 38
C:		NA	NA	5.5 (7.3)	
Change:					
T:		NA	NA	NR	
C:		NA	NA	NR	
Test:					
P value:					

Evidence Table 7. Effectiveness of Other Antimicrobials as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Furuichi et al., 1997[102] **Study Period:** 8 weeks **Study/Treatment Site:** Specialist Clinic for Periodontitis, Göteborg University **Location:** Sweden **Patient Population:** Patients referred to clinic with = 2 sites, at single rooted teeth in each of 2 contralateral quadrants with PD = 5 mm and BOP	**Design Type:** RCT **Subject/Site Allocation:** Random **Blinding:** Examiner and patients blind **Placebo:** Yes **Split-mouth:** Yes	**Severity:** Moderate periodontitis **Types of Teeth:** Single-rooted **Widman flap:** NR	**Number:** 1 **Trained:** NA **Assigned to Subjects:** Same examiner throughout study	**SRP performed:** Mechanical meticulous scaling and root planing performed until root surface was hard and smooth Assigned quadrant was anaesthesized **Time spent:** NR

Evidence Table 7. Effectiveness of Other Antimicrobials as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Time Interval(s)
Subject/Site allocation: 16 subjects T: 32 sites C: 32 sites **Dose, Mode, Schedule:** T: SRP plus supragingival and subgingival 0.6% tricolsan gel and 0.3% tricolsan dentifrice 2xday for 2 weeks, repeated again after 1 week washout period C: SRP plus placebo gel and a dentifrice both without triclosan	**Age:** Mean: 49.2 **Gender:** Male: 10 Female: 6 **Race/Ethnicity:** NR	NA	NR	4 times (at baseline and days 2, 7, and 14)

Evidence Table 7. Effectiveness of Other Antimicrobials as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
Furuichi et al., 1997[102] (continued)	**Clinical Measurement:** BOP/SBI PII PD GI **Radiographic Techniques:** NR **Microbiological Methods:** Plaque microbiota (coccoid cells, non-motile rods, spirochetes and motile rods, filaments, and fusiforms) and dark field microscopy **Subject Self Report:** NR	NR	NR	**Type of analysis reported:** Full participants only

Evidence Table 7. Effectiveness of Other Antimicrobials as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

		Outcomes Accessed			
	(N of Pts)	Attachment Level mm $\bar{x}$ (SD)	Probing Depth mm $\bar{x}$ (SD)	Spirochetes $\bar{x}$% (SD)	Comments
Baseline:					No significant differences were observed between the 2 groups regarding composition of the subgingival microbiota
T:	32 sites	NA	5.6 (0.89)	46.3 (18.9)	
C:	32 sites	NA	5.8 (0.86)	36.9 (14.0)	
Final: 8 weeks					
T:		NA	3.8 (0.81)	12.5 (7.5)	**Quality Score:** 77; 69
C:		NA	3.9 (0.72)	13.7 (7.7)	
Change:			Reduction	Reduction	
T:		NA	1.8 (0.68)	38.4 (17.4)	
C:		NA	1.9 (0.69)	21.6 (17.7)	
Test:			ANOVA	ANOVA	
P value:			0.589	0.371	

Evidence Table 7. Effectiveness of Other Antimicrobials as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Listgarten et al., 1989[103] **Study Period:** 8 weeks **Study/Treatment Site:** Clinics of the School of Dental Medicine **Location:** USA **Patient Population:** Adult patients attending clinics with a pair of similar contralateral 5-10 mm pockets, not continuous with furcation involvement	**Design Type:** RCT **Subject/Site Allocation:** Random **Blinding:** Examiner and provider blind **Placebo:** Yes **Split-mouth:** Yes	**Severity:** Moderate to deep pockets **Types of Teeth:** No furcation involvement **Widman flap:** NR	**Number:** NR **Trained:** NR **Assigned to Subjects:** NR	**SRP performed:** Thorough subgingival scaling by hand of test sites **Time spent:** NR

Evidence Table 7. Effectiveness of Other Antimicrobials as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Time Interval(s)
Subject/Site allocation: 56 subjects recruited 40 completed T: 20 subjects C: 20 subjects **Dose, Mode, Schedule:** T: SRP plus irrigation with 7% tetra potassium peroxydiphosphate solution applied subgingivally to each test site for a 5 second period twice a day for 8 weeks C: SRP with placebo	**Age:** Mean: 49 Range: 19 to 78 **Gender:** Male: 20 Female: 20 **Race/Ethnicity:** NR	Yes	Before SRP	4 times (at 4 weeks prior to baseline, baseline, and weeks 4 and 8)

Evidence Table 7. Effectiveness of Other Antimicrobials as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
Listgarten et al., 1989[103] (continued)	**Clinical Measurement:** PlI PD CAL GI **Radiographic Techniques:** NR **Microbiological Methods:** Subgingival microbial samples (coccoid cells, motile rods, spirochetes, others), dark field microscopy **Subject Self Report:** Compliance with protocol was checked by inspection of volume of residual rinse in irrigation at the 2nd and 3rd visit, and by questioning the subjects	Yes, mucosal irritation	Never start (2); mucosal irritation associated with use of test rinse (2); medication taken during course of study (2); and failed to complete all examinations or failed to comply with protocol (10)	**Type of analysis reported:** Full participants only

Evidence Table 7. Effectiveness of Other Antimicrobials as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

		Outcomes Accessed			
	(N of Pts)	Attachment Level mm $\bar{x}$ (SD)	Probing Depth mm $\bar{x}$ (SD)	Spirochetes $\bar{x}$% (SD)	Comments
Baseline:					No between group differences reported.
T:	20	6.65 (0.34 se)	6.35 (0.25 se)	35.45 (4.13 se)	
C:	20	6.45 (0.36 se)	6.20 (0.34 se)	37.25 (4.30 se)	**Quality Score:** 69; 54
Final: 8 weeks					
T:	20	5.15 (0.44 se)	4.30 (0.33 se)	11.40 (3.48 se)	
C:	20	5.20 (0.47 se)	4.80 (0.42 se)	16.80 (5.14 se)	
Change:					
T:		1.50* (NR)	2.05* (NR)	NR	
C:		1.25* (NR)	1.40* (NR)	NR	
Test:		NR	NR		
P value:		NS	NS		

Evidence Table 7. Effectiveness of Other Antimicrobials as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Oosterwaal et al., 1991[89] **Study Period:** 36 weeks **Study/Treatment Site:** Program University Clinic, Department of Periodontology of Nijmegen **Location:** Netherlands **Patient Population:** Patients with = 4 interdental pockets of 7 mm to 9 mm affecting single rooted teeth referred to clinic	**Design Type:** RCT **Subject/Site Allocation:** Random **Blinding:** Examiners and patients blind **Placebo:** Yes **Split-mouth:** Yes	**Severity:** Advanced periodontitis **Types of Teeth:** Single-rooted **Widman flap:** NR	**Number:** 2 **Trained:** NR **Assigned to Subjects:** NR	**SRP performed:** Mechanical debridement with Gracey curettes or ultrasonic instruments **Time spent:** NR

Evidence Table 7. Effectiveness of Other Antimicrobials as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Time Interval(s)
Subject/Site allocation: 10 subjects T1: 10 sites T2: 10 sites C: 10 sites **Dose, Mode, Schedule:** T1: 1.25% amine fluoride gel (applied 3 times with syringe within 10 minutes after SRP) T2: 4% stannous fluoride gel 3x within 10 minutes C: SRP with placebo gel (applied 3 times with syringe within 10 minutes after SRP)	**Age:** Mean: 48 Range: 33 to 62 **Gender:** Male: 4 Female: 6 **Race/Ethnicity:** NR	NA	Before SRP	4 times (at baseline and weeks 4, 12, and 36)

Evidence Table 7. Effectiveness of Other Antimicrobials as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
Oosterwaal et al., 1991[89] (continued)	**Clinical Measurement:** BOP/SBI PII PD **Radiographic Techniques:** NR **Microbiological Methods:** Subgingival plaque microbiota (anaerobic gram-positive bacteria), agar plates, dark field microscopy **Subject Self Report:** NR	NR	NR	**Type of analysis reported:** Full participants only

Evidence Table 7. Effectiveness of Other Antimicrobials as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

	Outcomes Accessed				
	(N of Pts)	Attachment Level mm $\bar{x}$ (SD)	Probing Depth mm $\bar{x}$ (SD)	Spirochetes $\bar{x}$% (SD)	Comments
T1: Amine Fluoride:					Statistical analysis of the bacteriological and clinical examinations failed to demonstrate any significant differences between the groups
Baseline:					
T:	10	NA	NR	NA	
C:	10	NA	NR	NA	
Final: 36 weeks					
T:	10	NA	NR	NA	SRP in pockets not in trial within 4 weeks of baseline.
C:	10	NA	NR	NA	
Change:			Reduction		**Quality Score:** 62; 54
T:		NA	NR	NA	
C:		NA	NR	NA	
Test:			ANOVA		
P value:			NS		
T2: Stannous Fluoride:					
Baseline:					
T:	10	NA	NR	NA	
C:	10	NA	NR	NA	
Final: 36 weeks					
T:	10	NA	NR	NA	
C:	10	NA	NR	NA	
Change:			Reduction		
T:		NA	NR	NA	
C:		NA	NR	NA	
Test:			ANOVA		
P value:			NS		

Evidence Table 7. Effectiveness of Other Antimicrobials as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Rosling et al., 2001[104] **Study Period:** 676 weeks (13 years) **Study/Treatment Site:** Department of Periodontology **Location:** Helsingborg, Sweden **Patient Population:** Patients referred for treatment with = 8 non-molar teeth, and periodontal lesions with PD = 6 mm at = 2 teeth in each quadrant	**Design Type:** Non-RCT **Subject/Site Allocation:** Unknown **Blinding:** NR **Placebo:** Yes **Split-mouth:** No	**Severity:** Advanced destructive periodontitis **Types of Teeth:** Single-rooted teeth – "non-molar teeth" **Wideman flap:** NR	**Number:** 3 **Trained:** Calibration (Gold standard) **Assigned to Subjects:** NR	**SRP performed:** Non-surgical supra- and subgingival ultrasonic instrumentation under local anesthesia **Time spent:** 1 hour for 4 to 6 sessions, then interval between sessions never exceeded 1 week

Evidence Table 7. Effectiveness of Other Antimicrobials as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Time Interval(s)
Subject/Site allocation: 223 subjects enrolled 150 completed T: 75 enrolled, 58 completed C: 148 enrolled, 92 completed **Dose, Mode, Schedule:** T: SRP plus irrigation with ultrasound device using povidone-iodine solution C: SRP plus ultrasound device using tap water	**Age:** NR **Gender:** NR **Race/Ethnicity:** NR	NA	Before SRP	14 times (complete re-examination at 12 months, years 3, 5, and 12; and yearly CAL)

Evidence Table 7. Effectiveness of Other Antimicrobials as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
Rosling et al., 2001[104] (continued)	**Clinical Measurement:** BOP PD CAL Number of teeth **Radiographic Techniques:** Bone Loss/Regeneration **Microbiological Methods:** NR **Subject Self Report:** NR	NR	Withdrew for reasons unrelated to study (9); major systemic disease, moved and not appreciate treatment provided (24)	**Type of analysis reported:** Full participants only

Evidence Table 7. Effectiveness of Other Antimicrobials as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

	Outcomes Accessed			
	Attachment Level mm	Probing Depth mm	Spirochetes	
(N of Pts)	$\bar{x}$ (SD)	$\bar{x}$ (SD)	$\bar{x}$% (SD)	Comments
Baseline:				The mean PD decreased between baseline and 3 months but tended to increase in both groups during 12 months to 13 years
T: 58	NR	3.9 (0.9)	NA	
C: 92	NR	3.7 (0.9)	NA	
Final: 676 weeks				
T:	NR	2.9 (0.5)	NA	**Quality Score:** 31; 23
C:	NR	3.3 (0.6)	NA	
Change:	Gain			
T:	0.28 (NR)	1.0 *(NR)	NA	
C:	0.87 (NR)	0.4* (NR)	NA	
Test:	NR	NR		
P value:	NR	NR		

Evidence Table 7. Effectiveness of Other Antimicrobials as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis

Study Description	Study Design Characteristics	Disease Characteristics	Examiner Characteristics	Description of Scaling and Root Planing
Wennström et al., 1987[85] **Study Period:** 52 weeks **Study/Treatment Site:** Department of Periodontology School of Dentistry, University of Goteberg **Location:** Sweden **Patient Population:** Patients with 2-3 interproximal sites in each quadrant with PD = 6 mm and BOP selected from waiting list	**Design Type:** RCT **Subject/Site Allocation:** Random **Blinding:** Examiner blind **Placebo:** Yes **Split-mouth:** Yes	**Severity:** Moderate to severe periodontal disease **Types of Teeth:** NR **Widman flap:** NR	**Number:** 1 **Trained:** Specially trained dental hygienists **Assigned to Subjects:** Same examiner throughout study	**SRP performed:** Subgingival debridement of entire dentition **Time spent:** 6 visits over about 6 weeks

Evidence Table 7. Effectiveness of Other Antimicrobials as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Eligible Study Groups and How Defined:	Study Group Characteristics	Compliance Monitoring	Baseline Measures	Time Interval(s)
Subject/Site allocation: 10 subjects T: 10 (28 sites) C: 10 (24 sites) **Dose, Mode, Schedule:** All patients received professional tooth cleaning once every 4 weeks. T: SRP plus irrigation with 3% hydrogen peroxide for 2 minutes 3xweek for 2 weeks intervals prior to baseline, then professional irrigation with hydrogen peroxide for 6 weeks C: SRP plus irrigation with saline 3xweek at same schedule as treatment group	**Age:** Mean: 43.1 Range: 22 to 61 **Gender:** NR **Race/Ethnicity:** NR	NR	Before SRP	3 times (at baseline and weeks 10 and 52) 52 week study, SRP and treatment at week 32

Evidence Table 7. Effectiveness of Other Antimicrobials as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

Study Description	Outcomes Assessed	Adverse Effects	Study Group Attrition and Reasons	Type of Analysis
Wennström et al., 1987[85] (continued)	**Clinical Measurement:** BOP/SBI PII PD CAL GI **Radiographic Techniques:** Bone Loss/Regeneration **Microbiological Methods:** Crevicular fluid microbiota **Subject Self Report:** NR	NR	NR	**Type of analysis reported:** Full participants only

Evidence Table 7. Effectiveness of Other Antimicrobials as an Adjunct to Scaling and Root Planing to Treat Chronic Periodontitis (continued)

		Outcomes Accessed			
	(N of Pts)	Attachment Level mm $\bar{x}$ (SD)	Probing Depth mm $\bar{x}$ (SD)	Spirochetes $\bar{x}$% (SD)	Comments
Baseline:					In the comparison between the different treatment groups, the hydrogen peroxide group showed a smaller residual probing depth than the non-irrigated of the saline irrigated groups
T:	10	NR	7.1 (NR)	NA	
C:	10	NR	6.9 (NR)	NA	
Final:	52 weeks				
T:	10	NR	4.5 (NR)	NA	
C:	10	NR	5.1(NR)	NA	
Change:		Gain	Reduction		Microbiological and radiological results presented in a different paper
T:		0.8 (0.8)	2.6* (NR)	NA	
C:		0.7 (0.5)	1.8* (NR)	NA	
Test:		t-test	t-test		**Quality Score:** 46; 46
P value:		NS	< 0.05		

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