Bacteremia following different oral procedures: systematic review and meta-analysis

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Appendix Table 1. Search strategies used according to electronic databases (from interception to: October 12, 2022)

Medline through Ovid

1. exp Bacteremia/ or bacteremia*.mp.
2. bacteraemia*.mp.
3. 1 or 2
4. dental anesthesia.mp. or exp Anesthesia, Dental/
5. exp Oral Surgical Procedures/ or oral procedure*.mp.
6. dental extract*.mp. or exp Tooth Extraction/
7. tooth extract*.mp.
8. teeth extract*.mp.
9. exp Dental Scaling/ or dental scal*.mp.
10. exp Dental Polishing/ or dental polish*.mp.
11. teeth polish*.mp.
12. tooth polish*.mp.
13. dental prophylaxis.mp. or exp Dental Prophylaxis/ or exp Dental Care/
14. dental care.mp.
15. exp Oral Hygiene/ or dental clean*.mp.
16. oral hygiene.mp. or exp Oral Hygiene/
17. teeth clean*.mp.
18. tooth clean*.mp.
19. dental hygiene.mp.
20. teeth prophylaxis.mp.
21. tooth prophylaxis.mp.
22. exp Toothbrushing/ or toothbrush*.mp.
23. tooth brush*.mp.
24. exp Dental Devices, Home Care/ or floss*.mp.
25. dental restoration*.mp.
26. dental procedure*.mp.
27. exp Mastication/ or chew*.mp.
28. oral surgery.mp. or exp Surgery, Oral/
29. oral health.mp. or exp Oral Health/
30. dental treatment*.mp.
31. root planing*.mp.
32. root scal*.mp.
33. teeth scal*.mp.
34. periodontal debridement.mp. or exp Periodontal Debridement/

35. interdental brush*.mp.
36. water pik.mp.
37. waterpik.mp.
38. water flosser.mp.
39. 4 or 5 or 6 or 7 or 8 or 9 or 10 or 11 or 12 or 13 or 14 or 15 or 16 or 17 or 18 or 19 or 20 or 21 or 22 or 23 or 24 or 25 or 26 or 27 or 28 or 29 or 30 or 31 or 32 or 33 or 34 or 35 or 36 or 37 or 38
40. 3 and 39

Embase through Ovid

1. exp Bacteremia/ or bacteremia*.mp.
2. bacteraemia*.mp.
3. 1 or 2
4. dental anesthesia.mp. or exp Anesthesia, Dental/
5. exp Oral Surgical Procedures/ or oral procedure*.mp.
6. dental extract*.mp. or exp Tooth Extraction/
7. tooth extract*.mp.
8. teeth extract*.mp.
9. exp Dental Scaling/ or dental scal*.mp.
10. exp Dental Polishing/ or dental polish*.mp.
11. teeth polish*.mp.
12. tooth polish*.mp.
13. dental prophylaxis.mp. or exp Dental Prophylaxis/ or exp Dental Care/
14. dental care.mp.
15. exp Oral Hygiene/ or dental clean*.mp.
16. oral hygiene.mp. or exp Oral Hygiene/
17. teeth clean*.mp.
18. tooth clean*.mp.
19. dental hygiene.mp.
20. teeth prophylaxis.mp.
21. tooth prophylaxis.mp.
22. exp Toothbrushing/ or toothbrush*.mp.
23. tooth brush*.mp.
24. dental restoration*.mp.
25. dental procedure*.mp.
26. exp Mastication/ or chew*.mp.
27. oral surgery.mp. or exp Surgery, Oral/
28. oral health.mp. or exp Oral Health/
29. dental treatment*.mp.
30. root planing*.mp.

31. root scal*.mp.
32. teeth scal*.mp.
33. periodontal debridement.mp. or exp Periodontal Debridement/
34. interdental brush*.mp.
35. water pik.mp.
36. waterpik.mp.
37. water flosser.mp.
38. exp dental device/ or dental floss*.mp. or exp dental floss/
39. 4 or 5 or 6 or 7 or 8 or 9 or 10 or 11 or 12 or 13 or 14 or 15 or 16 or 17 or 18 or 19 or 20 or 21 or 22 or 23 or 24 or 25 or 26 or 27 or 28 or 29 or 30 or 31 or 32 or 33 or 34 or 35 or 36 or 37 or 38
40. 3 and 39

ISI Web of Science

TS=((Bacteremia or bacteraemia) and (“dental anesthesia” or “oral surgical procedure*” or “oral procedure*” or “dental extract*” or “tooth extract*” or “teeth extract*” or “dental scaling” or “tooth scaling” or “teeth scaling” or “dental polish*” or “teeth polish*” or “tooth polish*” or “dental prophylaxis” or “teeth prophylaxis” or “tooth prophylaxis” or “dental care” or “oral hygiene” or “oral clean*” or “teeth clean*” or “tooth clean*” or “dental hygiene” or “toothbrush*” or “tooth brush*” or “dental restoration*” or “dental procedure*” or chew* or mastication or “oral surgery” or “oral health” or “dental treatment*” or “root plan*” or “root scaling” or “teeth scaling” or “periodontal debridement” or “interdental brush*” or “water pik” or waterpik or “water flosser” or “dental floss*”))

Cochrane Library

#1 bacteremia
#2 MeSH descriptor: [Bacteremia] explode all trees
#3 bacteraemia
#4 #1 or #2 or #3
#5 MeSH descriptor: [Anesthesia, Dental] explode all trees
#6 dental anesthesia
#7 MeSH descriptor: [Oral Surgical Procedures] explode all trees
#8 oral surgical procedure*
#9 MeSH descriptor: [Tooth Extraction] explode all trees
#10 tooth extraction*
#11 dental extraction*
#12 teeth extraction*
#13 MeSH descriptor: [Dental Scaling] explode all trees
#14 dental scaling
#15 tooth scaling
#16 MeSH descriptor: [Dental Polishing] explode all trees
#17 dental polish*

#18 teeth polish*
#19 MeSH descriptor: [Dental Prophylaxis] explode all trees
#20 dental prophylaxis
#21 teeth prophylaxis
#22 MeSH descriptor: [Dental Care] explode all trees
#23 dental care
#24 MeSH descriptor: [Oral Hygiene] explode all trees
#25 oral hygiene
#26 dental clean*
#27 teeth clean*
#28 dental hygiene
#29 MeSH descriptor: [Toothbrushing] explode all trees
#30 toothbrush*
#31 tooth brush*
#32 dental restoration*
#33 dental procedure*
#34 MeSH descriptor: [Mastication] explode all trees
#35 chew*
#36 mastication
#37 MeSH descriptor: [Surgery, Oral] explode all trees
#38 oral surger*
#39 MeSH descriptor: [Oral Health] explode all trees
#40 oral health
#41 dental treatment
#42 MeSH descriptor: [Root Planing] explode all trees
#43 root scaling
#44 root planing
#45 MeSH descriptor: [Dental Scaling] explode all trees
#46 MeSH descriptor: [Periodontal Debridement] explode all trees
#47 periodontal debridement
#48 MeSH descriptor: [Dental Devices, Home Care] explode all trees
#49 dental floss*
#50 interdental brush*
#51 dental device
#52 water pik
#53 waterpik
#54 water floss*
#55 #5 or #6 or #7 or #8 or #9 or #10 or #11 or #12 or #13 or #14 or #15 or #16 or #17 or #18 or #19 or #20 or #21 or #22 or #23 or #24 or #25 or #26 or #27 or #28 or #29 or #30 or #31 or #32 or #33 or #34 or #35 or #36 or #37 or #38 or #39 or #40 or #41 or #42 or #43 or #44 or #45 or #46 or #47 or #48 or #49 or #50 or #51 or #52 or #53 or #54
#56 #4 and #55

World Health Organization (WHO) International Clinical Trials Registry Platform (ICTRP) (http://www.who.int/ictrp/search/en/)

(Bacteremia or bacteraemia) in the condition

and

(dental anesthesia or oral surgical procedure* or oral procedure* or dental extract* or tooth extract* or teeth extract* or dental scaling or tooth scaling or teeth scaling or dental polish* or teeth polish* or tooth polish*) in the intervention

or

(dental prophylaxis or teeth prophylaxis or tooth prophylaxis or dental care or oral hygiene or oral clean* or teeth clean* or tooth clean* or dental hygiene or toothbrush* or tooth brush* or dental restoration*) in the intervention

or

(dental procedure* or chew* or mastigation or oral surgery or oral health or dental treatment* or root planing* or root scaling or teeth scaling or periodontal debridement or interdental brush* or water pik or waterpik or water flosser or dental floss*) in the intervention

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ClinicalTrials.gov (http://clinicaltrials.gov)

(Bacteremia or bacteraemia) in the condition

and

dental anesthesia or

dental procedure or

dental or

dentistry or

oral health or

oral care or

toothbrushing or

water pik or

waterpik or

periodontal debridement or

root planing or

root scaling or

tooth or

teeth

Current Controlled Trials (http://www.controlled-trials.com)

Bacteremia or bacteraemia

Proquest Dissertation & Theses A&I

((Bacteremia or bacteraemia) and (dental anestesia or oral surgical procedure* or oral procedure* or dental extract* or tooth extract* or teeth extract* or dental scaling or tooth scaling or teeth scaling or dental polish* or teeth polish* or tooth polish* or dental prophylaxis or teeth prophylaxis or tooth prophylaxis or dental care or oral hygiene or oral clean* or teeth clean* or tooth clean* or dental hygiene or toothbrush* or tooth brush* or dental restoration* or dental procedure* or chew* or mastigation or oral surgery or oral health or dental treatment* or root planing* or root scaling or teeth scaling or periodontal debridement or interdental brush* or water pik or waterpik or water flosser or dental floss*))

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89. Zhang W, Daly CG, Mitchell D, Curtis B. 2013. Incidence and magnitude of bacteraemia caused by flossing and by scaling and root planing. J Clin Periodontol. 40(1):41-52. doi: 10.1111/jcpe.12029.

Appendix Table 2. List of excluded studies and reasons for exclusion

Study	Reason for exclusion
Acil Y, Heitzer MA, Gülses A, Naujokat H, Podschun R, Wiltfang J, et al. The correlation between periodontal health status and suspectibility to infections associated with craniomaxillofacial osteosynthesis plates. J Cranio-Maxillofac Surg. 2017; 45(11): 1868-1874.	It is not a bacteremia study.
Aguada E, Olona IL, Salazar MB. Gingival degerming by povidone-iodine irrigation: bacteremia reduction in extraction procedures. J Philipp Dent Assoc. 1997; 49(1): 42-50.	The sample was taken from the dental sulcus.
Ahmed S, Kashif M, Butt AI, Faisal SS. Pattern of Bacteraemia After Non-Surgical Extraction of Tooth. Ann.Abbasi Shaheed Hosp. Karachi e KMDC. 2015; 20(1): 29-33.	Abstract with only a single post-extraction time point at 1 minute.
Aitken C, Cannell H, Sefton AM, Kerawala C, Seymour A, Murphy M, et al. Comparative efficacy of oral doses of clindamycin. Br Dent J. 1995; 178(11): 418-22.	All patients received antibiotics.
Allison C, Simor AE, Mock D, Tenenbaum HC. Prosol-chlorhexidine irrigation reduces the incidence of bacteremia during ultrasonic scaling with the Cavi-Med: a pilot investigation. J Can Dent Assoc. 1993; 59(8): 673, 676-682.	The study does not report baseline data of bacteremia.
Ambrosio N, Marín MJ, Laguna E, Herrera D, Sanz M, Figuero E. Detection and quantification of Porphyromonas gingivalis and Aggregatibacter actinomycetemcomitans in bacteremia induced by interdental brushing in periodontally healthy and periodontitis patients. Arch Oral Biol. 2019; 98:213-219. doi: 10.1016/j.archoralbio.2018.11.025.	They results are not reported as bacteremia but as types of bacteria.
Andersen L, Larsen T, Holmstrup P. Bacteremia after chewing, toothbrushing, and scaling in persons with various degrees of periodontal inflammation. J Dent Res. 2003; 82: B157-B157.	Abstract.
Anonymous. Bacteremia due to tooth extraction. J Med Chir Prat. 1951; 122(2): 38.	The review cites two other studies.
Akbulut Y. The effect of different mouthwashes on bacteremia after debonding. Niger J Clin Pract. 2020;23(7):900-905.	Part of the same sample reported in "Akbulut Y, Goymen M, Zer Y, Buyuktas Manay A. Investigation of bacteremia after debonding procedures. Acta Odontol Scand. 2018 Jul;76(5):314-319."
Antunes HS, De Sa Ferreira EM, De Faria LMD, Schirmer M, Rodrigues PC, Small IA, et al. Streptococcal bacteremia in patients submitted to hematopoietic stem cell transplantation: The role of tooth brushing and use of chlorhexidine. Med Oral Patol Oral Cir Bucal. 2010; 15(2): e303-e309.	Patients submitted to hematopoietic stem cell transplantation.
Aoki T, Kobayashi I. Blood cultura positiva rate to 3 media (Bactec®, FAN®, and VITAL ANA®) after tooth extraction using imipenem. Oral Ther Phamacol. 1996; 15(3): 179-183.	Methodological study.
Aoki T, Sakamoto H, Busujima Y, Ohta Y, Sasaki. MICs of oral streptococci isolated from tooth extraction bacteremia. Oral Ther Phamacol. 1996; 15(3): 159-163.	The study is about antibiotics.

Archard, Manipoud, Boudon. Bacteremia and dental extraction. Ann Odontostomatol. 1967; 24(3): 81-87.	Full paper not assessed (report not retrieved).
Arisan V, Bolukbasi N, Oksuz L, Ozdemir T. Computer-assisted flapless implant placement may prevent surgery-related bacteraemia: a randomised controlled clinical trial on 64 edentulous patients. International journal of oral and maxillofacial surgery. 2011; 40(10): 1053-1054.	Abstract.
Auckenthaler R. The bacteremias post-dental extraction. Gazette Medicale. 1987; 94(23): 33.	Full paper not assessed (report not retrieved).
Azad A, Modaresi F, Zahed M, Zarei M, Ranjbaran A, Jahrom ZK. Multiplex polymerase chain reaction for detection of bacteremia during dental extraction. J Investig Clin Dent. 2019;10(4):e12425.	The study reports a sample of bacteria, not number of patients with bacteremia.
Bahrani-Mougeot FK, Paster BJ, Coleman S, Ashar J, Barbuto S, Lockhart PB. Diverse and novel oral bacterial species species in blood following dental procedures. J Clin Microbiol. 2008; 46(6): 2129-2132.	This study reports changes in inflammatory markers before and after dental procedures but does not quantify changes in bacteremia before and after these procedures.
Bahrani-Mougeot FK, Thornhill M, Sasser H, Marriott I, Brennan MT, Papagerakis S, et al. Systemic host immuno-inflammatory response to dental extractions and periodontitis. Oral Surg Oral Med Oral Pathol Oral Radiol Endod. 2008; 106(4): 534-541.	The outcome is cytokines.
Bahrani-Mougeot FK, Paster BJ, Coleman S, Ashar J, Knost S, Sautter RL, et al. Identification of oral bacteria in blood cultures by conventional versus molecular methods. Oral Surg Oral Surg Oral Med Oral Pathol Oral Radiol Endod. 2008; 105(6): 720-724.	The paper does not report the percentage of patients with bacteremia, only the microbiology data.
Baker M, Alderson P. Risk of infective endocarditis after dental procedures is extremely low. BMJ. 2017; 16: 359.	Editorial or commentary.
Balejo RDP, Cortelli JR, Costa FO, Cyrino RM, Aquino DR, Cogo-Müller K, et al. Effects of chlorhexidine preprocedural rinse on bacteremia in periodontal patients: a randomized clinical trial. J Appl Oral Sci. 2017; 25(6): 586-595.	The study is not about bacteremia.
Baltch AL, Pressman HL, Hammer MC. Bacteremia following dental extractions in patients with and without penicillin prophylaxis. Am J Med Sci. 1982; 283(3): 129-140.	The study does not report baseline data of bacteremia.
Baltch AL, Pressman HL, Schaffer C, Smith RP, Hammer MC, Shayegani M, et al. Bacteremia in patients undergoing oral procedures. Study following parenteral antimicrobial prophylaxis as recommended by the American Heart Association, 1977. Arch Intern Med. 1988; 148(5): 1084-1088.	There are no pre-treatment blood samples. Also, all patients received one of several antibiotic regimens; there was no group without antibiotics.
Barros VMR, Ito IY, Azevedo RVP, Morello D, Rosateli PA, Filipecki LCB. Bacteremia following dental extraction and two methods of intra-oral antisepsis. Pesqui Odontol Bras. 2000; 14(1): 19-24.	All patients received a topical agent.
Barros VMR, Ito IY, Filipecki LC, Morello D, Azevedo RVP, Rosateli PA. Bacteremia following dental extraction and two methods of anti-sepsis. J Dent Res. 1998; 77(5): 1182-1182.	All patients received a topical agent.
Bender IB. Post-treatment bacteremia. J Am Dental Assoc. 1965; 126(11): 1474.	Editorial or commentary.

Bender IB, Barkan MJ. Dental bacteremia and its relationship to bacterial endocarditis: preventive measures. Compendium. 1989; 10(9): 472, 475-477, 480-482.	Review.
Bender IB, Pressman RS. Antibiotic treatment of the gingival sulcus in prevention of postextraction bacteremia. J Oral Surg. 1956; 14(1): 20-28.	All patients received antibiotics.
Benitez-Paéz A, Alvarez M, Belda-Ferre P, Rubido S, Mira A, Tomas I. Detection of Transient Bacteraemia following Dental Extractions by 16S rDNA Pyrosequencing: A Pilot Study. PLoS One. 2013; 8.	Patients with autism, cerebral palsy, learning disabilities, hyperactivity, and fobias.
Berry FA, Yarbrough S, Yarbrough N, Russell CM, Carpenter MA, Hendley JO. Transient bacteremia during dental manipulation in children. Pediatrics. 1973; 51 (3): 476-479.	Patients were not healthy.
Bhanji S, Williams B, Sheller B, Elwood T, Mancl L. Transient bacteremia induced by toothbrushing a comparison of the Sonicare toothbrush with a conventional toothbrush. Pediatr Dent. 2002; 24(4): 295-299.	Three patients had bactermia before the procedure and were excluded from the analysis. The study did not mention the group of patients.
Bortoluzzi MC, Santos FA. Amoxicillin and 0.12% chlorhexidine mouthwash may not be better than placebo for reducing bacteremia in third molar extractions. J Evid Based Dent Pract. 2014; 14(1): 34-35.	Editorial or commentary.
Brachmann F. Bacteremia after tooth extraction. MMW Munch Med Wochenschr. 1958; 100(33): 1211-1215.	Review.
Brenman HS, Randall E. Local Degerming with Povidone-iodine II. Prior to Gingivectomy. J Periodontal. 1974; 45(12): 870-872.	The study does not report baseline data of bacteremia.
Brignardello-Petersen R. Antibiotic prophylaxis probably reduces the risk of developing bacteremia in patients at risk of developing infective endocarditis who are undergoing dental extractions. J Am Dental Assoc. 2017; 148(11): e169.	Editorial or commentary.
Brodbeck-Stoll K, Faehling M, Leschke M. Is there a connection between tooth diseases and diseases in a healthy heart? Dtsch Med Wochenschr. 2003; 128(49): 2612.	Editorial or commentary.
Brown AR, Papasian CJ, Shultz P, Theisen FC, Shultz RE. Bacteremia and intraoral suture removal: Can an antimicrobial rinse help? J Am Dental Assoc. 1998; 129(10): 1455-1461.	The study compares topical agents (e.g. chlorhexidine).
Cahill TJ, Harrison JL, Jewell P, Onakpoya I, Chambers JB, Dayer M, et al. Antibiotic prophylaxis for infective endocarditis: a systematic review and meta-analysis. Heart. 2017; 103(12): 937-944.	Systematic review.
Cannon PD, Black HJ, Kitson K, Ward CS. Serum amoxycillin levels following oral loading dose prior to outpatient general anaesthesia for dental extractions. J Antimicrob Chemother. 1984; 13(3): 285-289.	All patients received antibiotics.
Carroll GC, Sebor RJ. Dental flossing and its relationship to transient bacteremia. J Periodontol. 1980; 51(12): 691-692.	Case series.
Chambers J, Thornhill M, Shanson D, Prendergast B. Antibiotic prophylaxis of endocarditis - Authors' reply. Lancet Infect Dis. 2016; 16(7): 774-775.	Editorial.

Chaiyasut C. et al. Effect of Dextranase and Dextranase-and-Nisin-Containing Mouthwashes on Oral Microbial Community of Healthy Adults-A Pilot Study.Appl Scie-Basel. 2022. **12**(3).	There are no results of bacteremia in patients.
Chitra N. Moraxella catarrhalis bacteremia associated with third molar surgery. Int J Pharm Bio Sci. 2014; 5(1): 609-615.	The study is not related to oral bacteria.
Chitra N, Mangayarkarasi V. Isolation of aerobic and anaerobic bacteria in transient bacteremia. Int J Pharm Bio Sci. 2015; 6(1): 245-251.	Full paper not assessed (report not retrieved).
Chung A, Kudlick EM, Russell DM. Toothbrushing and transient bacteremia in patients undergoing orthodontic treatment. Journal of Dental Research. 1986; 65: 348-348.	Editorial or commentary.
Chung A, Kudlick EM, Gregory JE, Royal GC, Reindorf CA. Toothbrushing and transient bacteremia in patients undergoing orthodontic treatment. Am J Orthod Dentofacial Orthop. 1986; 90(3): 181-186.	The study does not report bacteremia pre and post-procedure, although it was reported on methods.
Cobe HM. Transitory bacteremia. Oral Surg Oral Med Oral Pathol. 1954; 7(6): 609-615.	The study does not report baseline data of bacteremia.
Coffin F, Thompson RE. Factors influencing bacteraemia following dental extraction. Lancet. 1956; 271(6944): 654-666.	The study does not report baseline data of bacteremia.
Conner HD, Haberman S, Collings CK, Winford TE. Bacteremias following periodontal scaling in patients with healthy appearing gingiva. J Periodontol. 1967; 38(6): 466-472.	The study does not report baseline data of bacteremia.
Conner HD. Study of Bacteremias and C-Reactive Protein Following Subgingival Scaling and Root Planing. (Thesis). Ann Arbor: Baylor University; 1964.	The study is a Ph.D. dissertation, and the results were subsequently published in an included paper by Conner in J. Perio in 1967.
Cooley FH, Haberman S. The use of antibiotics for the prevention of Bacteremia following oral surgery. J Dent Res. 1957; 36(2): 294-303.	The study does not report baseline data of bacteremia.
Cooley FH. Bacteremia Following Oral Surgery and the Use of Terramycin as a Premedication. J Am Dent Assoc. 1960; 60(1): 125-135.	The study is a Ph.D. dissertation, and the results were subsequently elsewhere.
Cooley FH. Bacteremia Following Oral Surgery and the Use of Terramycin as a Premedication. (Thesis). Ann Arbor: Baylor University; 1954.	Full paper not assessed (report not retrieved).
Coulter WA, Coffey A, Emmerson AM. Bacteremia in children following dental extractions. J Dent Res. 1988; 67(4): 644-644.	The study does not report baseline data of bacteremia.
Coulter WA, Coffey A, Saunders ID, Emmerson AM. Bacteremia in children following dental extractions. J Dent Res. 1990; 69(10): 1691-1695.	Abstract.
Crasta K, Daly CG, Mitchell D, Curtis B, Stewart D, Heitz-Mayfield LJ. Bacteraemia due to flossing: a cohort study. Ann Royal Australas Coll Dent Surg. 2008; 19: 175.	The study is a Ph.D. dissertation abstract, and the same data (with a few more patients) was subsequently published in an included paper by Crest in J. Clin Perio in 2009.
Crawford JJ, Sconyers JR, Moriarty JD, King RC, West JF. Bacteremia after tooth extractions studied with the aid of prereduced anaerobically sterilized culture media. Appl Microbiol. 1974; 28(2): 330.	Editorial or commentary.

Crawford JJ, Sconyers JR, Moriarty JD, King RC, West JF. Bacteremia After Tooth Extractions Studied with the Aid of Prereduced Anaerobically Sterilized Culture Media. Appl Microbiol. 1974; 27(5): 927-932.	The study does not report bacteremia as the outcome.
Cutcher JL, Goldberg JR, Lilly GE, Jones JC. Control of bacteremia associated with extraction of teeth. II. Oral Surg Oral Med Oral Pathol. 1971; 31(5): 602-605.	The study does not report baseline data of bacteremia.
Cybulska J, Tarlowska W, Jeljaszewicz J. Bacteremia following oral surgery. Med Dosw Mikrobiol. 1972; 24(4): 314-322.	The study does not report baseline data of bacteremia.
De Paola G, Calpicchio A, Mandolini C, Lucidi M, Borgia MC. The antibiotic prophylaxis of endocarditis in the dental patient at risk. Cardiologia. 1999; 44(1): 33-38.	Full paper not assessed (report not retrieved).
Degling TE. Orthodontics, bacteremia, and the heart damaged patient. Angle Orthod. 1972; 42(4): 399-402.	The study does not report baseline data of bacteremia.
deVries J, Francis LE, Lang D. Control of post-extraction bacteraemias in the penicillin-hypersensitive patient. J Can Dent Assoc. 1972; 38(2): 63-66.	All patients received antibiotics.
Dhiwakar M, Clement WA, Supriya M, McKerrow W. Antibiotics to reduce post-tonsillectomy morbidity. Cochrane Database Syst Rev. 2012; (12).	Systematic review.
Diniz Freitas M, Álvarez Fernández M, Vasallo Vidal FJ, Limeres Posse J, Diz Dios P, Fernández Feijoo J. Oral amoxicillin/clavulanate for the prevention of bacteremia following dental extractions. Oral Dis. 2022; 25. doi: 10.1111/odi.14221.	A previous study used the same sample of patients.
Diz P, Tomas I, Barbosa M, Amaral B, Cerqueira C, Limeres J, et al. A chlorhexidine mouthwash reduces the risk of bacteraemia following dental extractions performed unter either general or local anaesthesia. Clin Res Cardiol. 2007; 96(6): 443.	Abstract.
Diz P, Alvarez J, Limeres J, Feijoo JF, Castro M, Vazquez E, et al. A New Antibiotic Prophylaxis Regimen to Prevent Bacteremia Following Dental Procedures. Eur Heart J. 2013; 34(1): P4766-P4766.	Clinical trial registry with published study identified during the screening process.
Diz DP, Tomas CI, Limeres PJ, Medina HJ, Fernandez FJ, Alvarez FM. Comparative effecacies of amoxicilin, clindamycin, and moxifloxacin in prevention of bacteremia following dental extractions. Antimicrob Agents Chemother. 2006; 50(9): 2996-3002.	The patients had autism.
Djais A. Effect of mouthwash on bacteremia cases of S. viridans post extraction. J Dent Res. 1997; 76(5): 1217.	Abstract.
Donley TG, Donley KB. Systemic bacteremia following toothbrushing: a protocol for the management of patients susceptible to infective endocarditis. Gen Dent. 1988; 36(6): 482-484.	Methodological study.
Driak F. Bacterial dissemination following dental surgery. Wien. Klin. Wochenschr. 1950; 62(35-37): 620-622.	Editorial.
Drks. Detection of transient bacteremia after daily brushing by 16S rDNA Pyrosequencing: a pilot study for method optimization. WHO International Clinical Trials Registry. 2019; 3. ICTRP DRKS00012397. <	Clinical registry.

https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01889159/full >	
Dubey R, Jalili VP, Jain S, Dubey A. Transient bacteremia consequent to tooth brushing in orthodontic patients. Prog Orthod. 2012; 13(3): 237-245.	The study does not report bacteremia before and after the procedure, although it collected data.
DuVall NB, Fisher TD, Hensley D, Hancock RH, Vandewalle KS. The comparative efficacy of 0.12% chlorexidine and amoxicilin to reduce the incidence and magnitude of bacteremia during third molar extractions: A prospective, blind, randomized clinical trial. Oral Surg Oral Med Oral Pathol Oral Radiol Endod. 2013; 115(6): 752-763.	The study does not report bacteremia before and after the procedure, although it collected data.
Eldirini AH. Effectiveness of epinephrine in local anesthetic solutions on the bacteremia following dental extraction. J Oral Ther Pharmacol. 1968; 4(4): 317-326.	Full paper not assessed (report not retrieved).
Elin RJ, Sweet JB, Gill VJ, Chusid MJ. Bacteremia, NBT and limulus assays following dental extractions: effect of topical antiseptics. Clin Res. 1976; 24(3): 343A.	Methodological study.
Elliott RH, Dunbar JM. Streptococcal bacteraemia in children following dental extractions. Arch Dis Child. 1968; 43(230): 451-454.	The study does not report baseline data of bacteremia.
Enabulele OI, Aluyi HSA, Omokao O. Incidence of bacteraemia following teeth extraction at the dental clinic of the University of Benin Teaching Hospital, Benin city, Nigeria. Afr. J. Biotechnol. 2008; 7(10): 1390-1393.	The study does not report baseline data of bacteremia.
Erverdi N, Acar A, Işgüden B, Kadir T. Investigation of bacteremia after orthodontic banding and debanding following chlorhexidine mouth wash application. Angle Orthod. 2001; 71(3): 190-194.	The patients mouthrinsed with chlorhexidine.
Faigel HC, Gaskill WF. Bacteremia in pediatric patients following dental manipulations. Clin Pediatr. 1975; 14(6): 562-565.	The study describes only 10 cases (of 53) with pre-procedure blood samples taken.
Fanning RJ. The effect of penicillin upon bacteremia following tooth extraction. Hawaii Med J. 1951; 10(6): 432-436.	Full paper not assessed (report not retrieved).
Fernandes LD, Torres MCB, Maiolino A, Garnica M, Cavalcanti W, Torres S. Influence of oral and socio-demographic characteristics on patients undergoing autologous hematopoietic stem cells transplant. Support Care Cancer. 2010; 3: S131.	Abstract, stem cell transplant patients and the study did not report bacteremia before and after the procedure.
Fernández E, Reyes C, Benavides C, Irarrázaval T, Padilla P. Antimicrobial prophylaxis for transient bacteremia during dental procedures. [Spanish]. Rev Med Chil. 2018; 146(7): 899-906.	Review.
Fine DH, Korik I, Furgang D, Myers R, Olshan A, Barnett ML, et al. Assessing pre-procedural subgingival irrigation and rinsing with an antiseptic mouthrinse to reduce bacteremia. J Am Dent Assoc. 1996; 127(5): 641-642, 645-646.	The study is and RCT comparing two topical rinses, and the control group is hydro alcohol.
Fine DH, Furgang D, McKiernan M, Tereski-Bischio D, Ricci-Nittel D, Zhang P, et al. An investigation of the effect of an essential oil mouthrinse on induced bacteraemia: A pilot study. J Clin Periodontol. 2010; 37(9): 840-847.	The study is and RCT comparing two topical rinses, and the control group is hydro alcohol.
Font Buxo J. Bacteremia. Rev Actual Estomatol Esp. 1985; 45(343): 58-60.	Editorial.

Francis LE, DeVries J, Lang D. An oral antiseptic for the control of post-extraction bacteraemia. J Can Dent Assoc. 1973; 39(1): 55-57.	Full paper not assessed (report not retrieved).
Forner L, Nielsen CH, Bendtzen K, Larsen T, Holmstrup P. Increased plasma levels of IL-6 in bacteremic periodontis patients after scaling. J Clin Periodontol. 2006;33(10):724-9.	Same sample as the study of Forner L, Larsen T, Kilian M, Holmstrup P. Incidence of bacteremia after chewing, tooth brushing and scaling in individuals with periodontal inflammation. J Clin Periodontol. 2006;33(6):401-7.
Fumarola D. Transient bacteremia after dental procedures. Transfusion. 1981; 21(1): 130-130.	Editorial or commentary.
Fumarola D, Laforgia PD, Laterza C, Marcuccio L. Transient enterotoxemia following tooth extraction: observations on the Limulus test. G Batteriol Virol Immunol. 1979; 71(1-6): 85-89.	All patients received antibiotics.
Garrod LP. Effects of pre-medication on bacteremia following dental extraction. J Clin Path. 1967; 20(3): 304.	Editorial or commentary.
Garwood D. Oral care: (2) Dental procedures. Pharm J. 2003; 270(7245): 551-553.	Review.
Gayotto MV, dos Santos MA, Gregori C. Transient bacteremia from anaerobic microorganisms after suture removal. [Portuguese]. Rev Odontol Univ Sao Paulo. 1987; 1(3): 52-62.	The patients used chetilpiridine chloride.
Genco RJ, Grossi SG, Zambon JJ, Reynolds H, Ho A, Garret S. Frequency of bacteremia following different modalities of periodontal treatment. J Dent Res. 2001; 80: 141.	Abstract.
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Gismondo MR, Nicoletti G. Prophylaxis of dental bacteremia. J Chemother. 1989; 1(4): 973.	Review.
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Goldberg MH. Gram-negative bacteremia after dental extraction. J Oral Surg. 1968; 26(3): 180-181.	Case report.
Goldie MP. New evidence on bacteraemia. Int J Dent Hyg. 2010; 8(4): 317-318.	Review.
Grant A, Hoddinott C. Joint replacement, dental surgery, and antibiotic prophylaxis. BMJ. 1992; 304(6832): 959.	The study is a survey with questionnaires to dentists; it is not related to bacteremia.
Grimard M, Auger P, Joly J. Antibioprophylaxy of bacterial endocarditis following dental procedure. [French]. Med Mal Infect. 1986; 16(10): 543-547.	Bacteremia is not the outcome.
Gutverg M, Haberman S. Studies on bacteremia following oral surgery: some prophylactic approaches to bacteremia and the results of tissue examination of excised gingiva. J Periodontol. 1962; 33(2): 105-115.	The study is not prospective, only one sample of blood was taken from all patients.

Haddad A, Kentros G, Singh J. Prevention of bacteremias of dental origin. A clinical study. J Dent Res. 1974. 53(636): 636.	Conference abstract.
Hall G, Nord CE, Heimdahl A. Elimination of bacteraemia after dental extraction: Comparison of erythromycin and clindamycin for prophylaxis of infective endocarditis. J Antimicrob Chemother. 1996; 37(4): 783-795.	The patients received antibiotics.
Hall G, Heimdahl A, Nord KE. Bacteremia after oral surgery and antibiotic prophylaxis for endocarditis. Clin Infect Dis. 1999; 29(1): 1-8.	Review.
Hanamura N, Fukuo A, Mochizuki I, Ninomiya K, Ueno K, Suzuki S. Studies on the bacteremia of the oral post operation procedures. I. The transitory bacteremia after teeth extraction (author's transl). [Japanese]. Rinsho Byori. 1977; 25(12): 1035-1040.	Full paper not assessed (report not retrieved).
Hannah VE. Molecular analysis of prosthetic joint infection and post-extraction bacteraemia. (Thesis). Ann Arbor: University of Glasgow; 2004.	The study is a Ph.D. dissertation. Full paper not assessed (report not retrieved).
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Hatzifotiadis D, Tsamis J, Szpirglas H. Study of the streptococci isolated in the blood after teeth extractions. [French]. Rev Stomatol Chir Maxillofac Chir Orale. 1977; 78(4): 283-286.	This is a methodological study.
Head TW, Bentley KC, Millar EP, deVries JA. A comparative study of the effectiveness of metronidazole and penicillin V in eliminating anaerobes from postextraction bacteremias. Oral Surg Oral Med Oral Pathol. 1984; 58(2): 152-155.	The study is not prospective; blood samples were taken after the extractions.
Hess J, Holloway Y, Dankert J. Incidence of postextraction bacteremia under penicillin cover children with cardiac disease. Pediatrics. 1983; 71(4): 554-558.	The patients received antibiotics.
Hess J, Holloway Y, Dankert J. Penicillin prophylaxis in children with cardiac disease: Postextraction bacteremia and penicillin-resistant strains of viridans streptococci. J Infect Dis. 1983; 147(1): 133-136.	The patients received antibiotics.
Hirsh HL, Vivino JJ, Merril A, Dowling HF. Effect of prophylactically administered penicillin on incidence of bacteremia following extraction of teeth; Results in patients with healed rheumatic and bacterial endocarditis. Arch Intern Med. 1948; 81(6): 868-878.	The study does not report baseline data of bacteremia; blood samples were taken after the extractions.
Hockett RN, Loesche WJ, Sodeman TM. Bacteraemia in asymptomatic human subjects. Arch Oral Biol. 1977; 22(2): 91-98.	It is a methodological study of different methods of blood process for bacteremia, but it does not evaluate bacteremia per patient.
Höfer K, Turnowsky A, Ehren R, Taylan C, Plum G, Witte H, Noack MJ, Weber LT. The impact of a needs-oriented dental prophylaxis program on bacteremia after toothbrushing and systemic inflammation in children, adolescents, and young adults with chronic kidney disease. Pediatr Nephrol. 2022;37(2):403-414. doi: 10.1007/s00467-021-05153-1.	Systematic review.

Hopkins JA. Postextraction bacteriemia prevented by sulfanilamide. Dent Surv. 1945; 22: 1986-1991.	Full paper not assessed (report not retrieved).
Hutchinson NA, Thomas FD, Shanson DC. The clinical comparison of Oxoid Signal with Bactec blood culture systems for the detection of streptococcal and anaerobic bacteraemias. J Med Microbiol. 1992; 37(6): 410-412.	There was no bacteremia reported before the procedure. It is a methodological paper.
Isaacs D. Antibiotic prophylaxis for infective endocarditis: A systematic review and meta-analysis. J Paediatr Child Health. 2017; 53(9): 921-922.	Editorial or commentary.
ISRCTN Registry. An investigation of odontogenic bacteraemia associated with orthodontic treatment procedures. 2003. (#CN-01821710). < http://www.who.int/trialsearch/trial2.aspx>	Trial registry. Full paper not assessed (report not retrieved).
ICTRP Registry. Effect of professional mechanical tooth-cleaning by dental hygienist before implant surgery on transient bacteremia. 2020. < https://trialsearch.who.int/Trial2.aspx?TrialID=JPRN-UMIN000039716 >	Trial registry. Recruiting patients.
ICTRP. Prevention of bacteremia following impacted lower third molar surgery: a randomized triple-blind controlled trial of 0.3% chlorhexidine mouthrinse and 2-g amoxicillin. 2021. < https://www.cochranelibrary.com/central/doi/10.1002/central/CN-02280916/full >	Trial registry. Ongoing trial.
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Johnson D. Antibiotic prophylaxis for transient bacteremia. Am J Orthod Dentofacial Orthop. 2009; 135(6): 689.	Editorial or commentary.
Jokinen MA. Bacteremia following dental extraction and its prophylaxis. Suom Hammaslaak Toim. 1970; 66(3): 69-100.	Full paper not assessed (report not retrieved).
Jones DJ, Munro CL. Risk reduction: Oral care, bacteremia and critical care. (Thesis). Ann Arbor, Virginia Commonwealth University; 2007.	Thesis.
Jones DJ, Munro CL, Grap MJ, Kitten T, Edmond M. Oral care and bacteremia risk in mechanically ventilated adults. Heart Lung. 2010; 39(6): S57-S65.	The patients were mechanically ventilated in the intensive care unit.
Jones JC, Cutcher JL, Goldberg JR, Lilly GE. Control of bacteremia associated with extraction of teeth. Oral Surg Oral Med Oral Pathol. 1970; 30(4): 454-459.	The study does not report baseline data of bacteremia.
Josefsson K, Heimdahl A, von Konow L, Nord CE. Effect of phenoxymethylpenicillin and erythromycin prophylaxis on anaerobic bacteraemia after oral surgery. J Antimicrob Chemother. 1985; 16(2): 243-251.	The study does not report baseline data of bacteremia.
Kaneko A, Sasaki J, Yamazaki J, Kobayashi I. Intravenous administration of vancomycin is ineffective against bacteremia following tooth extraction. Tokai J Exp Clin Med. 1995; 20(1): 65-66.	Full paper not assessed (report not retrieved).
Kaneko A, Kurabayashi H, Sasaki T, Izawa K. Transient bacteremia after the tooth extraction using cefditren pivoxil. [Japanese]. Oral Ther Pharmacol. 2004; 23(3): 79-82.	Full paper not assessed (report not retrieved)..
Kaplan EL. Transient bacteremia after dental manipulation. Am J Dis Child. 1971; 122(6): 549-550.	Editorial or commentary.

Karthikesalingam A, Turner W, Wiseman O, Dutka D. Antimicrobial prophylaxis against infective endocarditis before urological surgery. BJU Int. 2009; 103(1): 4-6.	Editorial or commentary.
Katoh H. Incidence of transient bacteremia following dental surgery. Prophylactic use of cefuroxime, ceftraixone or clindamycin. Tokai J Exp Clin Med. 1992; 17(3): 109-113.	Full paper not assessed (report not retrieved).
Keosian J, Rafel S, Weinman I. The effect of aqueous diatomic iodine mouth washes on the incidence of postextraction bacteremia. Oral Surg Oral Med Oral Pathol. 1956; 9(12): 1337-1341.	The study does not report baseline data of bacteremia.
Kerr V. Bacteraemia. Br Dent J. 2000; 188(7): 355-356.	Editorial or commentary.
Khairat O. An effective antibiotic cover for the prevention of endocarditis following dental and other post-operative bacteraemias. J Clin Pathol. 1966; 19(6): 561-566.	The study included the same 100 patients from another study: Khairat et al. The non-aerobes of post-extraction bacteremia. J Dent Res 1966; 45(4): 1191-1197.
Kraal JH. Bacteremia due to dental intervention. Ned Tijdschr Tandheelkd. 1970; 77(1): 5-14.	Full paper not assessed (report not retrieved).
Kraus FW, Casey DW, Johnson V. The classification of nonhemolytic streptococci recovered from bacteremia of dental origin. J Dent Res. 1953; 32(5): 613-622.	The study does not report baseline data of bacteremia.
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Lafaurie GI, Noriega LA, Torres CC, Castillo Y, Moscoso SB, Mosquera S, et al. Impact of antibiotic prophylaxis on the incidence, nature, magnitude, and duration of bacteremia associated with dental procedures: A systematic review. J Am Dent Assoc. 2019; 150(11): 948-959.	Systematic review.
Lee JG, Kim KS. A microbiologic study on anaerobic bacteremia after dental extraction. [Korean]. Taehan Chikkwa Uisa Hyophoe Chi. 1990; 28(3): 299-301.	Full paper not assessed (report not retrieved).
Lee JJ, Hahn LJ, Kao TP, Liu CH, Cheng SJ, Cheng SL, et al. Post-tooth extraction sepsis without locoregional infection - A population-based study in Taiwan. Oral Dis. 2009; 15(8): 602-607.	Editorial or commentary.
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Lockhart PB. An analysis of bacteremias during dental extractions - A double-blind, placebo-controlled study of chlorhexidine. Arch Intern Med. 1996; 156(5): 513-520.	The study does not report baseline data of bacteremia.

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Lockhart PB, Brennan MT, Thornhill M, Michalowicz BS, Noll J, Bahrani-Mougeot FK, et al. Poor oral hygiene as a risk factor for infective endocarditis-related bacteremia. J Am Dent Assoc. 2009; 140(10): 1238-1244.	The study does not report baseline data of bacteremia.
Lodi G, Figini L, Sardella A, Carrassi A, Del Fabbro M, Furness S. Antibiotics to prevent complications following tooth extractions. Cochrane Database Syst Rev. 2012; (11): 1-72.	The study is a methodological paper not related to bacteremia.
Longman LP, Pearce PK, McGowan P, Hardy P, Martin MV. Antibiotic-resistant oral streptococci in dental patients susceptible to infective endocarditis. J Med Microbiol. 1991; 34(1): 33-37.	The outcome is not bacteremia.
Louis JD. The influence of epinephrine on the incidence of bacteremia. J Oral Surg Anesth Hosp Dent Serv. 1960; 18: 122-127.	Full paper not assessed (report not retrieved).
Lucartorto FM, Franker CK, Maza J. Postscaling bacteremia in HIV-associated gingivitis and periodontitis. Oral Surg Oral Med Oral Pathol. 1992; 73(5): 550-554.	The patients were not healthy or had special disabilities.
Lucas V, Roberts GJ. Odontogenic bacteremia following tooth cleaning procedures in children. Pediatr Dent. 2000; 22(2): 96-100.	The study does not report baseline data of bacteremia.
Lucas VS, Lytra V, Hassan T, Tatham H, Wilson M, Roberts GJ. Comparison of lysis filtration and an automated blood culture system (BACTEC) for detection, quantification, and identification of odontogenic bacteremia in children. J Clin Microbiol. 2002; 40(9): 3416-3420.	The study is a methodological paper.
Madachi S, Takematsu K, Tamai K. Studies on anaerobic organisms in the oral cavity. X. Bacteremia following oral surgical operation (author's transl). Nippon Koku Geka Gakkai zasshi. 1976; 22(3): 269-275.	Full paper not assessed (report not retrieved).
Maharaj B, Coovadia Y, Vayej AC. A comparative study of amoxicillin, clindamycinand chlorhexidine in the prevention of post-extraction bacteraemia. Cardiovasc J Afr. 2012; 23(9): 491-494.	The study does not report baseline data of bacteremia.
Martin WJ, Schirger A. Prevention of Bacteremia after Oral Surgery. Minn Med. 1964; 47: 1519-1523.	The study does not report baseline data of bacteremia.
Martinez LA, De Vries J, Platanow M. Cephalexin in the control of post dental extraction bacteremia. Can J Public Health. 1975; 66(1): 41.	Editorial or commentary.
Marttila E, Grönholm L, Saloniemi M, Rautemaa-Richardson R. Prevalence of bacteraemia following dental extraction - efficacy of the prophylactic use of amoxicillin and clindamycin. Acta Odontol Scand. 2021; 79(1):25-30. doi: 10.1080/00016357.2020.1768285.	The results are reported as the number of cultures, but not as the number of individuals with bacteremia.
Maskell JP, Carter JL, Boyd RB, Williams RJ. Teicoplanin as a prophylactic antibiotic for dental bacteraemia. J Antimicrob Chemother. 1986; 17(5): 651-659.	The study does not report baseline data of bacteremia.
McGowan DA. Antibiotic prophylaxis. Aust Prescr. 1998; 21(4): 91.	Editorial or commentary.

Merril A, Vivino JJ, Dowling HF, Hirsh HL. Penicillin in the prevention of postextraction bacteremia. J Am Dent Assoc. 1951; 42(4): 395-400.	The study does not report baseline data of bacteremia.
Messini M, Skourti I, Markopulos E, Koutsia-Carouzou C, Kyriakopoulou E, Kostaki S, et al. Bacteremia after dental treatment in mentally handicapped people. J Clin Periodontol. 1999; 26(7): 469-473.	The study does not report baseline data of bacteremia.
Million M, Grisoli D, Griffiths K, Raoult D. Antibiotic prophylaxis of endocarditis. Lancet Infect Dis. 2016; 16(7): 773-774.	Editorial or commentary.
Morayta M, Brenes M. [Not Available]. Arch. Inst. Cardiol. Mex. 1948; 18(1): 73-85.	Full paper not assessed (report not retrieved).
Morishima T, Sasaki J. Transient bacteremia after tooth extraction. Oral Ther Pharmacol. 1994; 13(1): 48-58.	The study does not report baseline data of bacteremia.
Mougeot FKB, Saunders SE, Brennan MT, Lockhart PB. Associations Between Bacteremia from Oral Sources and Distant-Site Infections: Tooth Brushing vs. Single Tooth Extraction. Oral Surg Oral Med Oral Pathol Oral Radiol. 2015; 119(4): 430-435.	Clinical trial registry about chlorhexidine.
Mulgrew CJ, MacFarlane TW, Ferguson MM, McGowan DA. The reduction of post-extraction bacteraemia using 1% aqueous povidone iodine. J Dent Res. 1979; 58: 1241.	Editorial or commentary.
Muller EI, Kohler W, Klingenfeld U, Baumbach E, Kunze M. Investigations concerning the question of bacteremia after tooth extraction. Deutsche Gesundheitswesen-Zeitschrift Fur Klinische Medizin. 1980; 35(9): 349-351.	Full paper not assessed (report not retrieved).
Nasif AS. The incidence of post-extraction bacteremia after irrigation of the gingival sulcus with hydrogen peroxide solution. Egypt Dent J. 1977; 23(3): 51-55.	Full paper not assessed (report not retrieved).
Navarro BG, Salas EJ, Devesa AE, López JL, Viñas M. Bacteremia associated with oral surgery: a review. J Evid Based Dent Pract. 2017; 17(3): 190-204.	Editorial or commentary.
Trials, C. Bacteremia in Periodontal Patients. Clinical Trials. 2014. NCT: 02215473. <https://clinicaltrials.gov/show/nct02215473. >	Clinical trial published as: Balejo, R. D., et al. (2017). Effects of chlorhexidine pre-procedural rinse on bacteremia in periodontal patients: a randomized clinical trial. J Appl Oral Sci 25(6): 586-595.
Limeres J, Diaz P. An Oral Amoxicillin-Clavulanate Regimen to Prevent Bacteremia Following Dental Procedures. Clinical Trials. 2016. NCT: 02783404. < https://clinicaltrials.gov/ct2/show/nct02783404 >	Clinical trial registry published as: Valdés C, Tomás I, Alvarez M, Limerez J, Medina J, Diz P. The incidence of bacteraemia associated with tracheal intubation. Anaesthesia. 2008; 63(6): 588-592.
Nohara T, Kobayashi I. Transient bacteremia after tooth extraction with intravenous cefuroxime prophylaxis. Tokai J. Exp. Clin. Med. 1995; 20(4): 257-259.	Full paper not assessed (report not retrieved).
Nusrath MA, Avery CM. Povidone iodine as a haemostatic agent. Int J Oral Maxillofac Surg. 2007; 36(1): 97.	Bacteremia is not the outcome.
Oakley CM, Perez G, Darrell JA. Single dose oral amoxycillin for prophylaxis of bacteremia associated with dental surgery. Br Heart J. 1981; 45(3): 343-343.	Editorial or commentary.

Onçağ O, Aydemir S, Ersin N, Koca H. Bacteremia incidence in pediatric patients under dental general anesthesia. Congenit Heart Dis. 2006; 1(5): 224-228.	The patients had mental disabilities.
Osborn R, Nicholls D, Rogers P, Hoover CI, Beirne OR. Comparison of penicillin and erythromycin for prophylaxis of dental bacteremia. J Dent Res. 1984; 63: 327-327.	Abstract.
Padilla EC, Lobos GO, Jure OG, Matus FS, Descouvieres CC, Hasbún AS, et al. Isolation of periodontal bacteria from blood samples and atheromas in patients with atherosclerosis and periodontitis [Spanish]. Rev Med Chil. 2007; 135(9): 1118-1124.	The patients received chlorhexidine.
Panknin HT, Chlorhexidine mouthwash before tooth extractions: Traditional ritual or evidence-based preventive measure? [German]. Krankenhauspharmazie. 2009; 30(3): 140-141.	Full paper not assessed (report not retrieved).
Parahitiyawa NB, Jin LJ, Leung WK, Yam WC, Samaranayake LP. Microbiology of odontogenic bacteremia: Beyond endocarditis. Clin Microbiol Rev. 2009; 22(1): 46-64.	Systematic review.
Pavek V, Broukal Z. The clinical significance of bacteremia following tooth extraction. [German]. Zahn Mund Kieferheilkd Zentralbl. 1990; 78(5): 403-406.	Full paper not assessed (report not retrieved).
Perez M, Assad D, Miller G. Incidence of systemic bacteremia with e-PTFE membrane use in periodontal surgery- a pilot study. J Dent Res. 1994; 73.	Abstract. The blood samples were collected 10 days before the procedure, not immediately.
Peterson LJ, Peacock R. The incidence of bacteremia in pediatric patients following tooth extraction. Circulation. 1976; 53(4): 676-679.	The study did not collect blood before the procedure.
Pfister W, Zinner R, Sprossig M. Bacteremias in root tip resection. Stomatol DDR. 1984; 34(4): 204-206.	Full paper not assessed (report not retrieved).
Prabhuji MLV. Effect of the Diode Laser on Bacteremia Associated With Periodontal Flap Surgery: a Clinico-Microbiological Study. 2019. < https://clinicaltrials.gov/show/NCT04207034 >	Trial registry. Both intervention groups were treated with chlorhexidine.
Radford P, Holt RJ, Roberts GJ. Amoxycillin in the prevention of bacteraemia from dental extractions in children. (IADR Divisional Abstracts 1984). J Dent Res. 1984; 63(4): 503-503.	Abstract.
Rahn R, Frenkel G, Atamni F, Shah PM, Schafer V. Bacteremia due to intraligamental anesthesia. Zahnarztl Mitt. 1986; 76(19): 2121-2129.	Full paper not assessed (report not retrieved).
Rahn R, Shah PM, Schafer V, Frenkel G, Halbherr K. Bacteremia following tooth extraction--effect of the method and the duration of surgery. ZWR. 1986; 95(10): 1056-1063.	Full paper not assessed (report not retrieved).
Rahn R, Shah PM, Schafer V, Frenkel G, Halbherr K. Bacteremia following tooth extraction--effect of various factors. [German]. ZWR. 1986; 95(10): 822-826.	Full paper not assessed (report not retrieved).
Rahn R, Frenkel G, Atamni F, Shah PM, Schafer V. Bacteremia after intraligamental anesthesia. Schweiz Monatsschr Zahnmed. 1987; 97(7): 859-863.	Full paper not assessed (report not retrieved).
Rahn R, Shah PM, Schafer V, Nikfariam M, Frenkel G, Stille W. Germ count and determination of germ elimination kinetics in bacteremia following extraction of teeth. [German]. Dtsch Zahnarztl Z. 1987; 42(11): 964-969.	Full paper not assessed (report not retrieved)..

Rahn R, Frenkel G, Shah PM, Schafer V. Bacteremia following intraligament anesthesia. Dtsch Z Mund Kiefer Gesichtschir. 1988; 12(4): 272-275.	Full paper not assessed (report not retrieved).
Rahn R, Shah PM, Schäfer V, Grabbert U. Endocarditis risk in use of dental irrigators. [German]. ZWR. 1990; 99(4): 266-270.	Full paper not assessed (report not retrieved).
Rahn R, Schafer V, Grabbert U, Dahm N. Bacteremia following toothbrushing and dental irrigation. Z Stomatol. 1994; 91(6).	Full paper not assessed (report not retrieved).
Rahn Ral, Diehl O, Schafer V, Shah PM, Fleischer W, Reimer K. The effect of topical Povidone-Iodine and Chlorhexidine on the incidence of bacteremia following dental treatment procedures. Hyg + Medizin. 1994; 19(3): 128-131.	Full paper not assessed (report not retrieved).
Rahn R, Schäfer V, Shah PM, Diehi O, Reimer K, Fleischer W. Effect of antiseptics in the incidence of bacteraemia after dental treatment. (Abstract - Hong Kong Congress). Int J Dent. 1995; 45.	Full paper not assessed (report not retrieved).
Raja A. Bacteraemia. Br Dent J. 2000; 188(7): 355-356.	Editorial.
Rajasuo A, Nyfors S, Kanervo A, Jousimies-Somer H, Lindqvist C, Suuronen R. Bacteremia after plate removal and tooth extraction. Int J Oral Maxillofac Surg. 2004; 33(4): 356-360.	The first blood sample was taken after the incision (after the procedure).
Rajasuo A, Perkki K, Nyfors S, Jousimies-Somer H, Meurman JH. Bacteremia following surgical dental extraction with an emphasis on anaerobic strains. J Dent Res. 2004; 83(2): 170-174.	The first blood sample was after the incision (after the procedure).
Rajchert-Trzpil M, Wanyura H, Kryst L, Osowiecki H, Ciepielewska B. Frequency of occurrence of postextraction bacteremia. [Polish]. Czas Stomatol. 1980; 33(12): 1077-1086.	Full paper not assessed (report not retrieved).
Rajchert-Trzpil M, Wanyura H, Kryst L, Osowiecki H. Antibiotic sensitivity of microorganisms isolated from the blood in postextraction bacteremia. [Polish]. Czas Stomatol. 1981; 34(3): 263-269.	Full paper not assessed (report not retrieved).
Ramadan AE, Saki SA, Nour ZM. A study of transient bacteremia following the use of dental floss silk and interdental stimulators. Egyptian Dent J. 1975, 21(4): 19-28.	Full paper not assessed (report not retrieved).
Ramer JP, Graham GS, Lindell KA, Fatone MA. Incidence of Serum Bacteremia Following Treatment with the Cavi-Med 200 System (IADR Abstract 1991). J Dent Res. 1991; 70.	Abstract.
Ratto-Tespestini AC, Perez-Chaparro PJ, Romito GA, Figueiredo LC, Faveri M, Carillo HP, et al. Comparison of independent and dependent culture methods for the detection of transient bacteremia in diabetic subjects with chronic periodontitis. Biomedica. 2016; 36(1): 156-161.	The patients have diabetes.
Rechmann P, Seewald M, Thomas L, Horstkotte D. Examinations for bacteremia following dental treatment. Dtsch Zahnarztl Z. 1986; 41(10): 996-999.	The study is about topical agents.
Rechmann P, Seewald M, Strassburg M, Naumann P. Incidence of bacteremia following extractions--a double blind study on local disinfection using chlorhexidine. [German]. Dtsch Zahnarztl Z. 1989; 44(8): 622-624.	Full paper not assessed (report not retrieved).
Reis LC, Rôças IN, Siqueira JF Jr, de Uzeda M, Lacerda VS, Domingues RMCP, et al. Bacteremia after Endodontic Procedures	The patients had heart disease, although 11 patients did not receive antibiotics. It

in Patients with Heart Disease: Culture and Molecular Analyses. J Endod. 2016; 42(8): 1181-1185.	is not clear if 11 or 9 patients of "no risk group" did not receive antibiotics.
Reis LC, Rôças IN, Siqueira JF Jr, de Uzeda M, Lacerda VS, Domingues RMCP, et al. Bacteremia after supragingival scaling and dental extraction: Culture and molecular analyses. Oral Dis. 2018; 24(4): 657-663.	The patients have heart disease, although 51 patients were at risk of infective endocarditis but did not take antibiotics. All patients rinsed with chlorhexidine 1 minute before the procedure.
Rhoads PS, Schram WR, Bacteremia following tooth extraction; prevention with penicillin and 3,4-dimethyl-5-sulfanilamide-isoxazole. J Lab Clin Med. 1948; 33(11): 1461.	Full paper not assessed (report not retrieved).
Rhoads OS, Schram WR, Adair D. Bacteremia following tooth extraction: prevention with penicillin and N U 445. J Am Dent Assoc. 1950; 41(1): 55-61.	The study did not collect blood before the procedure.
Riechmann P, Seewald M, Thomas L, Horstkotte D. Bacteremia during dental treatment. Dtsch Zahnarztl Z. 1986; 41(10): 996-999.	Full paper not assessed (report not retrieved).
Rise E, Smith JF, Bell J. Reduction of bacteremia after oral manipulations. Arch Otolaryngol 1969; 90:106-109.	There is no separate data for each intervention.
Roberts G, Holzel H. Intravenous antibiotic regimens and prophylaxis of odontogenic bacteraemia. Br Dent J. 2002; 193(9): 525-527.	All children were taking antibiotics.
Roberts GJ, Gardner P, Simmons NA. Optimum sampling time for detection of dental bacteremia in children. Int. J. Cardiol. 1992; 35(3): 311-315.	The first blood sample was taken 10 seconds after the start of dislocation of teeth.
Roberts GJ, Holzel HS, Sury MR, Simmons NA, Gardner P, Longhurst P. Dental bacteremia in children. Pediatr Cardiol. 1997; 18(1): 24-27.	The study collected only one blood sample from each child. The study is not prospective.
Roberts GJ, Simmons NB, Longhurst P, Hewitt PB. Bacteraemia following local anaesthetic injections in children. Br Dent J. 1998; 185(6): 295-298.	The study collected only one blood sample from each child. They did not collect blood samples after the procedure in the "baseline group".
Roberts GJ, Watts R, Longhurst P, Gardner P. Bacteremia of dental origin and antimicrobial sensitivity following oral surgical procedures in children. Pediatr Dent. 1998; 20(1): 28-36.	The study collected only one blood sample from each child. There is no baseline bacteremia reported.
Roberts GJ, Gardner P, Longhurst P, Black AE, Lucas VS. Intensity of bacteraemia associated with conservative dental procedures in children. Br Dent J. 2000; 188(2): 95-98.	The study collected only one blood sample from each child. There is no baseline bacteremia reported.
Roberts GJ, Jaffray EC, Spratt DA, Petrie A, Greville C, Wilson M, et al. Duration, prevalence and intensity of bacteraemia after dental extractions in children. Heart. 2006; 92(9): 1274-1277.	The study collected only one blood sample from each child. There is no baseline bacteremia reported.
Rogosa M, Hampp EG, Nevin TA, Wagner HN Jr, Driscoll EJ, Baer PN. Blood sampling and cultural studies in the detection of postoperative bacteremias. J Am Dent Assoc. 1960; 60: 171-180.	The study does not report baseline data of bacteremia.
Roth O, Cavallaro AL, Parrott RH, Celentano R. Aureomycin in prevention of bacteremia following tooth extraction. AMA Arch Intern Med. 1950; 86(4): 498-504.	Although they collected pre-blood sample, the study does not report data.
Roth O, Montano GM, Piccolo JA, Cavallaro AL, Sharkey DC, Celentano R. Chlortetracycline (aureomycin) in prevention of bacteremia following oral surgery; attempt to prevent subacute	All patients were taking antibiotics.

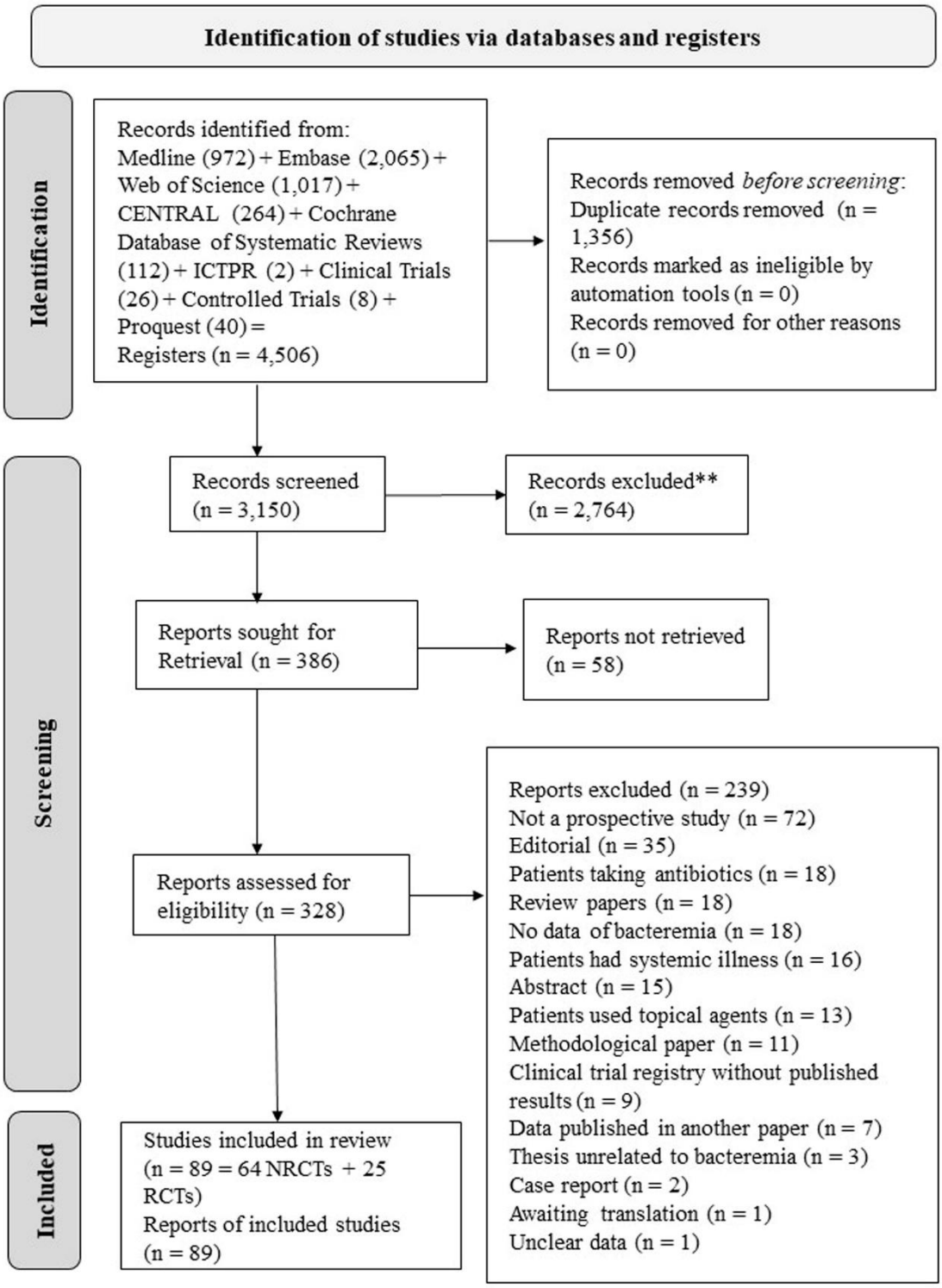
bacterial endocarditis in patients with heart disease. AMA Arch Intern Med. 1953; 92(4): 485-489.	
Rottgers AS, Camison L, Mai R, Shakir S, Grunwaldt L, Nowalk A, et al. Antibiotic use in primary palatoplasty: A survey of practice patterns, assessment of efficacy, and proposed guidelines for use. Cleft Palate Craniofac J. 2015; 52: e157-e158.	The study is a survey with clinicians through a questionnaire.
Sasaki J, Kaneko A. Prevention of endocarditis caused by transient bacteremia after tooth extraction. [Japanese]. Japanese J Chemother. 2001; 49(1): 1-9.	The study does not report baseline data of bacteremia.
Sasaki J, Kaneko A, Oota Y, Shiiki K, Sakamoto H, Naitoh H, et al. Basic and clinical studies on FK037 in oral surgery. [Japanese]. Chemotherapy. 1994; 42: 409-423.	Full paper not assessed (report not retrieved).
Sasaki J, Inouei T, Yamazaki J, Kobaya I. The transient bacteremia after tooth extraction using 3 carbapenems, imipenem/cilastatin, panipenem/betamipron and meropenem, intravenously. [Japanese]. J Oral Ther Pharmacol. 1998; 17(1): 1-5.	The study is not prospective; there is no preprocedural blood sample.
Savarrio L, Saunders Bill. Bacteraemia and non-surgical root canal treatment. (Thesis). Ann Arbor: University of Glasgow. 2005.	Full paper not assessed (report not retrieved).
Savarrio L, Mackenzie D, Riggio M, Saunders WP, Bagg J. Detection of bacteraemias during non-surgicalroot canal treatment. J Dent. 2005; 33(4): 293-303.	All patients rinsed with chlorhexidine.
Schmidlin PR, Attin T, Wegehaupt FJ. Bacteremia risk in preventive and restorative dentistry – prevalence of bacteremia and systemic antibiotics: a review focusing on preventive and restorative dentistry. [German]. Swiss Dent J. 2019; 129: 1047-1053.	Systematic review.
Schwartz AB, Larson EL. Antibiotic prophylaxis and postoperative complications after tooth extraction and implant placement: A review of the literature. J Dent. 2007; 35(12): 881-888.	Systematic review.
Sconyers JR, Crawford JJ, Moriarty JD. Relationship of bacteremia to toothbrushing in patients with periodontitis. J Am Dent Assoc. 1973; 87(3): 616-622.	There is no data of bacteremia before the procedure. For toothbrushing, the first blood sample was taken 4 minutes after the start of toothbrushing. The first blood sample was taken during toothbrushing for tooth extraction, so it was considered the sample "before dental extraction".
Sconyers JR, Albers DD, Kelly R. Relationship of bacteremia to toothbrushing in clinically healthy patients. Gen Dent. 1979; 27(3): 51-52.	Full paper not assessed (report not retrieved).
Sconyers J, Crawford J, Mourty J. Relationship of bacteremia to toothbrushing in patients with periodontitis (author's transl). [Greek]. Odontiatrike. 1974; 7(1): 43-49.	Full paper not assessed (report not retrieved).
Scopp IW, Transient bacteremia following dental manipulation. AJDC. 1973; 126(2): 270-271.	Editorial.
Seewald M, Rosin H, Rechmann P, Mullermatthesis V, Horstkotte D. Incidence of bacteremia during dental, urological and gastroenterological procedures - investigation using 2 blood	Abstract.

culture systems. Zentralbl Bakteriol Mikrobiol Hyg A. 1988; 268(4): 530-530.	
Sefton AM. Antibiotic prophylaxis of endocarditis following dental procedures. (Thesis). Ann Arbor: University of London; 1993.	Thesis. Full paper not assessed (report not retrieved).
Sefton AM, Maskell JP, Kerawala C, Cannell H, Seymour A, Sun ZM, et al. Comparative efficacy and tolerance of erythromycin and josamycin in the prevention of bacteraemia following dental extraction. J Antimicrob Chemother. 1990; 25(6): 975-984.	The study did not collect blood samples from all patients (they collected blood samples from 55 of 60 patients), and bacteremia data is not reported in results.
Seldin EB. Significance of bacteremias of dental origin. J Am Dent Assoc. 1986; 112(3): 306-308.	Editorial.
Shah PM, Schafer V, Finke HJ, Rahn R. Comparison of two blood culture systems by diagnosis of bacteraemia after tooth extraction. Lab. Medizin. 1989; 13(6): 209-212.	Full paper not assessed (report not retrieved).
Shahid Z, Usmani SZ, Choquette L, Lalla R, Bona RD. Pilot study on transient bacteremia and blood stream infections after invasive dental procedures in patients with cancer and central venous catheters. J Clin Oncol. 2010; 28(15).	Abstract. The patients had cancer.
Shanson DC, Cannon P, Wilks M. Amoxycillin compared with penicillin-v for prophylaxis of dental bacteremia. J Antimicrob Chemother. 1978; 4(5): 431-436.	The study does not report baseline data of bacteremia.
Shanson DC, Thomas F, Wilson D. Effect of volume of blood cultured on detection of Streptococcus viridans bacteraemia. J Clin Pathol. 1984; 37(5): 568-570.	The study does not report baseline data of bacteremia.
Shanson DC, Akash S, Harris M, Tadayon M. Erythromycin stearate, 1.5 g, for the oral prophylaxis of streptococcal bacteraemia in patients undergoing dental extraction: Efficacy and tolerance. J Antimicrob Chemother. 1985; 15(1): 83-90.	The study does not report baseline data of bacteremia.
Shanson DC, Thomas FD, Johnstone D. Improving detection of 'Viridans streptococcus' bacteraemia by adding sodium polyanethol sulphonate to blood cultures. J Clin Pathol. 1985; 38(12): 1346-1348.	The study does not report baseline data of bacteremia.
Shanson DC, Shehata A, Tadayon M, Harris M. Comparison of intravenous teicoplanin with intramuscular amoxycillin for the prophylaxis of streptococcal bacteraemia in dental patients. J Antimicrob Chemother. 1987; 20(1): 85-93.	The study does not report baseline data of bacteremia.
Shirai T, Kobayashi I. Transient bacteremia after tooth extraction using ceftriaxone intravenously. Oral Ther Pharmacol. 1995; 14(3): 156-159.	The study does not report baseline data of bacteremia.
Silver JG, Martin AW, McBride BC. Experimental transient bacteraemias in human subjects with varying degrees of plaque accumulation and gingival inflammation. J Clin Periodontol. 1977; 4(2): 92-99.	The study collected one blood sample before the procedure, and there was no blood sample after the procedure. It is not a prospective study.
Silver JG, Martin AW, McBride BC. Experimental transient bacteraemias in human subjects with clinically healthy gingivae. J Clin Periodontol. 1979; 6(1): 33-36.	The study collected blood samples before the procedure, but it is not reported in the results.
Simon GL. Transient bacteremia and endocarditis prophylaxis. Arch Intern Med. 1984; 144(1): 34-35.	Editorial.

Sonbol H. Prevalence and intensity of bacteraemia following conservative dento-gingival manipulative procedures in children. (Thesis). Ann Arbor: University of London, University College London; 2005.	Full thesis (report not retrieved).
Springer BD. et al. Antibiotic Prophylaxis for Prosthetic Joint Patients Undergoing Invasive Dental Procedures: Time for a Rethink? J Arthroplasty. 2022; 37(7): 1223-1226.	Editorial.
Speck WT, Hurwitz GA, Keller GB. Transient bacteremia in pediatric patients following dental manipulatin. Am J Dis Child. 1971; 121(4): 286-288.	It is a prevalence study, not a prospective (there is no bacteremia measured before the procedure).
Sreenivasan PK, Tischio-Bereski D, Fine DH. Reduction in bacteremia after brushing with a triclosan/copolymer dentifrice-A randomized clinical study. J Clin Periodontol. 2017; 44(10): 1020-1028.	The study tests a fluoride and a triclosan toothpates and chewing an apple in sequential moments. It is not possible to separate data on toothbrushing from chewing.
Sweet JB, Gill VJ, Chusid MJ, Elin RJ. Nitroblue tetrazolium and Limulus assays for bacteremia after dental extraction: effect of topical antiseptics. J Am Dent Assoc. 1978; 96(2): 276-281.	Although the study collected blood samples before and after the procedure, there is no report of baseline values.
Symington JM. Streptococci isolated from post extraction bacteraemias. Br J Oral Surg. 1975; 13(1): 91-94.	Although the study collected blood samples before and after the procedure, there is no report of incidence.
Szontagh E, Meray J, Nagy E, Fuzesi H. Incidence of transient bacteremia following tooth extraction and antibiotic sensitivity of isolated bacteria. Fogorv Sz. 1994; 87(6): 165-171.	Full paper not assessed (report not retrieved).
Taieb A, Rocca JP, Bauer D, Meyere P, Peloux Y. Demonstration of transient postextraction bacteremia. [French]. Actual Odontostomatol (Paris). 1984; 146: 311-318.	Full paper not assessed (report not retrieved).
Takematsu K, Tamai K. Studies of anaerobic organisms in the oral cavity VII. Incidence of bacteremia following oral surgical operation and drug sensitivity test of the isolated organisms. [Japanese]. Nippon Koku Geka Gakkai zasshi. 1974; 20(2): 92-99.	Full paper not assessed (report not retrieved).
Thornhill MH, Crum A, Rex S, Campbell R, Stone T, Bradburn M, Fibisan V, Dayer MJ, Prendergast BD, Lockhart PB, Baddour LM, Nicholl J. Infective endocarditis following invasive dental procedures: IDEA case-crossover study. Health Technol Assess. 2022; 26(28):1-86. doi: 10.3310/NEZW6709.	There is no data on bacteremia in patients.
Tamimi HA, Thomassen PR, Moser EH Jr. Bacteremia study using a water irrigation device. J Periodontol. 1969; 40(7): 4-6.	The first blood sample was taken one to three days before the procedure, not immediately before.
Timosca S, Coman G. Aspects of post-extraction bacteremia after use of local anesthesia with or without addition of adrenaline. Rev Med Chir Soc Med Nat Iasi. 1975; 79(3): 447-450.	Full paper not assessed (report not retrieved).
Timosca S, Colman G, Timosca G, Vicol C. Incidence and nature of postextraction bacteremia. Rev Chir Oncol Radiol O R L Oftalmol Stomatol Ser Oftalmol. 1975; 22(3): 231-236.	Full paper not assessed (report not retrieved).
Timosca S, Colman G, Timosca G, Vicol C. Bacteriemia after extractions under local anaesthesia with or without adrenalin	Full paper not assessed (report not retrieved).

(Rumanian). [Romanian]. Rev Med Chir Soc Med Nat Iasi. 1975; 79(3): 447-450.	
Timosca S, Timosca G, Coman G, Vicol C. Bacteremia following tooth extractions. Rev Stomatol Chir Maxillofac. 1976; 77(6): 849-856.	The patientes were taking antibiotics.
Timosca S, Timosca G, Coman G, Vical C. Reflections on bacteremia after extractions. [French] Revue de Stomatologie et de Chirurgie Maxillo-Faciale; 1976; **77**(6): 849-856	The patientes were taking antibiotics.
Tohya A, Kohjitani A, Ohno S, Yamashita K, Manabe Y, Sugimura M. Effects of glucose-insulin infusion during major oral and maxillofacial surgery on postoperative complications and outcomes. JA Clin Rep. 2018; 4(9).	It is not a bacteremia study. Also, patients received either insuline or Ringe's solution during the procedures.
Tomás I, Alvarez M, Limeres J, Tomás M, Medina J, Otero JL, et al. Effect of a chlorexidine mouthwash on the risk of postextraction bacteremia. Infect Control Hosp Epidemiol. 2007; 28(5): 557-582.	The patients were not healthy or had special disabilities and were treated with chlorhexidine.
Tomas I, Limeres J, Diz P. Antibiotic prophylaxis. Br Dent J. 2005; 198(2): 60-61.	Editorial.
Tomas I, Barbosa M, Amaral B, Cerqueira C, Alvarez M, Limeres J. Diz P. Prevalence and duration of bacteraemias following dental extractions: influence of the anaesthetic technique. Clin Res Cardiol. 2007; 96(6): 445-445.	Abstract.
Tomas I, Diz P, Tobias A, Scully C, Donos N. Periodontal health status and bacteraemia from daily oral activities: Systematic review/meta-analysis. J Clin Periodontol. 2012; 39(3): 213-228.	Systematic review.
Trials, C. A New Antibiotic Prophylaxis Regimen to Prevent Bacteremia Following Dental Procedures. Clinical Trials. 2015; NCT02115776. <https://clinicaltrials.gov/ct2/show/NCT02115776 >	Clinical trial registry with published study identified by the screening process.
Trials, C. Bacteria Entering the Blood Stream From Tooth Extractions and Tooth Brushing. Clinical Trials. 2009; NCT00454285. <https://clinicaltrials.gov/ct2/show/NCT00454285 >	Clinical trial registry about chlorhexidine.
Trials, C. Bacteraemia Secondary to Tooth Extraction: Chlorhexidine Prophylaxis Protocols. Clinical Trials. 2014; NCT02150031.	Clinical trial registry with published study identified by the screening process.
Trivedi DN. Bacteraemia due to operative procedure. J All India Dent Assoc. 1984; 56(12): 447-452.	Full paper not assessed (report not retrieved).
Umeh OD, Sanu OO, Utomi IL, Nwaokorie FO. Factors Associated with Odontogenic Bacteraemia in Orthodontic Patients. J West Afr Coll Surg. 2016; 6(2): 52-77.	Duplicated results in Umeh OD, Sanu OO, Utomi IL, Nwaokorie FO. Prevalence and intensity of bacteraemia following orthodontic procedures. Int Orthod. 2016; 14(1): 80-94.
Usmani S, Choquette L, Bona R, Feinn R, Shahid Z, Lalla RV. Transient bacteremia induced by dental cleaning is not associated with infection of central venous catheters in patients with cancer. Oral Surg Oral Med Oral Pathol Oral Radiol. 2018; 125(4): 286-294.	Patients had cancer.

Uysal T, Yagci A, Esel D, Ramoglu SI, Kilinc A. Investigation of bacteremia following insertion of orthodontic mini-implants. World J Orthod. 2010 Winter;11(4):357-61.	Full paper not assessed (report not retrieved).
Valdés C, Tomás I, Alvarez M, Limeres J, Medina J, Diz P. The incidence of bacteraemia associated with tracheal intubation. Anaesthesia. 2008; 63(6): 588-592.	The study is about medical intervention (tracheal intubation).
Vergis EN, Demas PN, Vaccarello SJ, Yu VL. Topical antibiotic prophylaxis for bacteremia after dental extractions. Oral Surg Oral Med Oral Pathol Oral Radiol Endod. 2001; 91(2): 162-165.	The study is not prospective; it did not collect blood samples before the procedures.
Wahlmann U, Al-Nawas B, Jutte M, Wagner W. Clinical and microbiological efficacy of single dose cefuroxime prophylaxis for dental surgical procedures. Int J Antimicrob Agents. 1999; 12(3): 253-256.	Patients had cancer.
Waki MY, Jolkovsky DL, Otomo-Corgel J, Lofthus JE, Nachnani S, Newman MG, et al. Effects of subgingival irrigation on bacteremia following scaling and root planing. J Periodontol. 1990; 61(7): 405-411.	Abstract.
Waki M, Lofthus J, Jolkovsky D, Nachnani S. Bacteremia after irrigation and scaling and root planing. J Dent Res. 1981; 68(4): 969.	Baseline blood samples were taken 3 months before the procedure, not immediately.
Walker KF. The Effects of Various Periodontal Procedures on the Detection of Bacteria in the Bloodstream. (Tese de Mestrado). Ann Arbor: University of Glasgow; 2000.	It is about topical agents.
Wanyura H, Rajchert-Trzpil M. Various aspects of postextraction bacteremia. Czas Stomatol. 1980; 33(11): 1001-1004.	Full paper not assessed (report not retrieved).
Wanyura H, Rajchert-Trzpil M, Kryst L, Osowiecki H. Factors affecting the intensity of postextraction bacteremia [Polish]. Czas Stomatol. 1981; 34(2): 169-174.	Full paper not assessed (report not retrieved).
Wanyura H, Rajchert-Trzpil M, Kryst L, Osowiecki H. Factors intensifying postextraction bacteremia. [Polish]. Czas Stomatol. 1981; 34(2): 169-174.	Full paper not assessed (report not retrieved).
Wanyura H, Rajchert-Trzpil M, Kryst L, Osowiecki H. Nature and dynamics of postextraction bacteremia. [Polish]. Czas Stomatol. 1981; 34(1): 21-26.	Full paper not assessed (report not retrieved).
Weikel DS, Peterson DE, Rubinstein LE, Metzger-Samuels C, Overholser CD Jr. Incidence of fever following invasive oral interventions in the myelosuppressed cancer patient. Cancer Nurs. 1989; 12(5): 265-270.	Patients had cancer.
Winslow MB, Millstone SH. Bacteremia after prophylaxis. J Periodontol. 1965; 36(5): 371-374.	The study collected baseline blood samples but did not report the results. Also, it is unclear if there is a control group without iodine irrigation.
Witzenberger T, O'Leary TJ, Gillette WB. Effect of a local germicide on the occurrence of bacteremia during subgingival scaling. J Periodontol. 1982; 53(3): 172-179.	All patients rinsed with povidone-iodine.
Wynn RL. Endocarditis-causing bacteria in the bloodstream after toothbrushing. Gen Dent 2009; 57(1): 7-9.	Full paper not assessed (report not retrieved).
Zimmerli W, Sendi P. Antibiotics for prevention of periprosthetic joint infection following dentistry: Time to focus on data. Clin Infect Dis. 2010; 50(1): 17-19.	Editorial.



Appendix Figure 1. PRISMA 2020 flowchart showing study selection.

Table 3. Study characteristics.

	Study design		
Characteristics	**nRCT 64 (100%)**	**RCT 25 (100%)**	**Total 89 (100%)**
Decade of publication			
Before 1979	11 (17.2)	2 (8.0)	13 (14.6)
1980-1989	9 (14.1)	2 (8.0)	11 (12.4)
1990-1999	8 (12.5)	4 (16.0)	12 (13.5)
2000-2009	18 (28.1)	8 (32.0)	26 (29.2)
2010-2021	18 (28.1)	9 (36.0)	27 (30.3)
Continent of the authors			
Europe	16 (25.0)	8 (32.0)	24 (27.0)
North America	17 (26.6)	4 (16.0)	21 (23.6)
Middle East	10 (15.6)	1 (4.0)	11 (12.4)
Oceania	5 (7.8)	2 (8.0)	7 (7.9)
Asia	4 (6.3)	2 (8.0)	6 (6.7)
Latin-America	3 (4.7)	1 (4.0)	4 (4.5)
Africa	1 (1.6)	2 (8.0)	3 (3.4)
More than one country	8 (12.5)	5 (20.0)	13 (14.6)
Continent of the population			
Europe	19 (29.7)	11 (44.0)	30 (33.7)
North America	18 (28.1)	5 (20.0)	23 (25.8)
Middle East	11 (17.2)	2 (8.0)	13 (14.6)
Oceania	5 (7.8)	2 (8.0)	7 (7.9)
Asia	4 (6.3)	2 (8.0)	6 (6.7)
Latin-America	5 (7.8)	1 (4.0)	6 (6.7)
Africa	2 (3.1)	2 (8.0)	4 (4.5)
Conflict of interests			
Yes	1 (1.6)	0 (0.0)	1 (1.1)
No	14 (21.9)	8 (32.0)	22 (24.7)
Not reported	49 (76.6)	17 (68.0)	66 (74.2)
Funding			
University grant or	24 (37.5)	10 (40.0)	34 (38.2)
government	0 (0.0)	1 (4.0)	1 (1.1)
Industry	2 (3.1)	1 (4.0)	3 (3.4)
No funding	38 (59.4)	13 (52.0)	51 (57.3)
Not reported			
Setting of data collection			
Dental school or hospital	41 (64.1)	18 (72.0)	59 (66.3)
US Army or Airforce clinic	1 (1.6)	1 (4.0)	2 (2.2)
Medical center	0 (0.0)	1 (4.0)	1 (1.1)
Not reported	22 (34.4)	5 (20.0)	27 (30.3)
Language of publication			
English	62 (96.9)	25 (100.0)	87 (97.8)
Spanish	2 (3.1)	0 (0.0)	2 (2.2)
Anesthesia or sedation			
Local anesthesia	15 (23.4)	10 (40.0)	25 (28.1)
General anesthesia	11 (17.2)	7 (28.0)	17 (20.2)
No anesthesia	12 (18.8)	2 (8.0)	14 (15.7)

Sedation and general	0 (0.0)	1 (4.0)	1 (1.1)
anesthesia	26 (40.6)	5 (20.0)	31 (34.8)
Not reported			
Skin disinfection before venipuncture			
Yes	43 (67.2)	18 (72.0)	61 (68.5)
Not reported	21 (32.8)	7 (28.0)	28 (31.5)
Population group			
Children	1 (1.6)	3 (12.0)	4 (4.5)
Children and adolescents	1 (1.6)	2 (8.0)	3 (3.4)
Adolescents	2 (3.1)	0 (0.0)	2 (2.2)
Adolescents and adults	11 (17.2)	1 (4.0)	12 (13.5)
Adults	36 (56.3)	12 (48.0)	48 (53.9)
Children, adolescents and	4 (6.3)	2 (8.0)	6 (6.7)
adults	9 (14.1)	5 (20.0)	14 (15.7)
Not reported			
Age			
Mean (SD)	31.4 (13.4)	29.6 (16.2)	30.4 (14.0)
Initial sample			
Mean (SD)	51.2 (45.2)	64.8 (66.4)	55.1 (52.0)
Minimum-Maximum	8 – 214	10 – 247	8 – 247
Sum	3,279	1,621	4,900
Drop outs			
Mean (SD)	1.1 (4.8)	4.8 (12.3)	2.2 (7.8)
Minimum-Maximum	0 – 35	0 – 42	0 – 42
Sum	71	121	192
Final sample			
Mean (SD)	48.6 (45.9)	51.8 (49.3)	49.7 (46.8)
Minimum-Maximum	0 – 214	0 – 169	0 – 214
Sum	3,111	1,295	4,406
Number of males			
Mean (SD)	24.7 (23.6)	39.7 (35.0)	28.8 (27.7)
Minimum-Maximum	4- 119	5 – 106	4 – 119
Sum	1,110	674	1,784
Number of females			
Mean (SD)	25.6 (22.8)	37 (31.6)	28.8 (25.7)
Minimum-Maximum	0 – 112	2 – 103	0 – 112
Sum	1,153	629	1,782
Number of interventions			
1	46 (71.9)	15 (60.0)	61 (68.5)
2	11 (17.2)	5 (20.0)	16 (18.0)
3	6 (9.4)	1 (4.0)	7 (7.9)
4	1 (1.6)	4 (16.0)	5 (5.6)

nRCTs: non-randomized clinical trials; RCTs: randomized clinical trials; SD: Standard deviation.

Appendix Table 4. Frequency of procedures per study design

Type of Procedure	**Study design nRCT 93 (100%)**	**RCT 44 (100%)**	**Total 137 (100%)**
ADL-toothbrushing[1]	9 (9.7)	7 (15.9)	16 (11.7)
Other ADL[2]	12 (12.9)	0 (0.0)	12 (8.8)
Dental extraction[3]	28 (30.1)	14 (31.8)	42 (30.7)
Oral surgery[4]	12 (12.9)	1 (2.3)	13 (9.5)
SRP[5]	15 (16.1)	5 (11.4)	20 (14.6)
Orthodontic procedure[6]	10 (10.8)	6 (13.6)	16 (11.7)
OHP[7]	5 (5.4)	4 (9.1)	9 (6.6)
Other procedures[8]	2 (2.2)	7 (15.9)	9 (6.6)

ADL: activities of daily living. SRP: scaling and root planning. OHP: oral hygiene procedure. [1]With manual or powered toothbrush; [2]Dental floss, stimudents, tootpicks, oral irrigation device, chewing apple or paraffin; [3]Includes all extractions: single or multiple teeth, third molar; [4]Cleft palate, piezolic surgery, periodontal surgery, osteosynthesis plates removal; implant surgery; [5] Manual scaling and root planning (SRP) or using ultrasonic device; [6] Banding or debanding orthodontic fixed or removable appliances, archwire orthodontic adjustment, mini-implant removal due to orthodontic reasons, separator placement; [7] Dental prophylaxis using rubber cup and handpiece without gingival scaling, periodontal probing; [8] Restorative procedures with the use of slow and fast drill for dentine removal; endodontic treatment; suture removal, anesthetic injection; impression taking, minor dental procedures used before restorations or during orthodontic procedures with risk of gingival bleeding such as rubber dam clamp, placement of matrix band wedge between posterior teeth before the restoration, separator placement for orthodontic purposes.

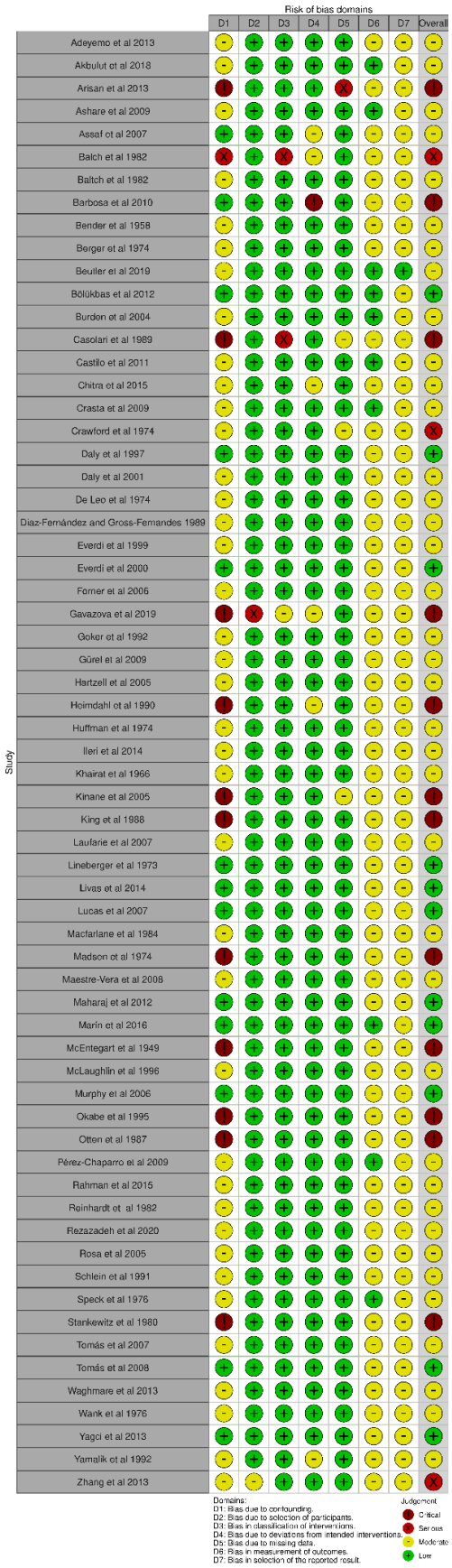
Appendix Table 5. Meta-analysis showing the timing and duration of bacteremia, i.e., the incidence of bacteremia at different time points following procedures in nRCTs and RCTs.

nRCT	**Presence of bacteremia at different time points** *Number of studies* **% Blood samples positive for bacteremia i.e. *Effect Size (ES) (95%CI)*** *I^2, p-value*					
Procedure Type	**Baseline**	**Immediately after the procedure**	**From 6 to 20 minutes**	**From 30 to 60 minutes**	**After 2 hours**	**Overall bacteremia***
1. ADL-toothbrushing [1]	*9* ***0% (0 to 1)*** *0%; 1.00*	*9* ***8% (1 to 19)*** *87.2%; <0.001*	*3* ***1% (0 to 4)*** *31.3%; 0.23*	*1* ***2% (0 to 7)*** *Not estimated*	-	*6* ***18% (6 to 36)*** *85.0%; <0.001*
2. Other ADL [2]	*9* ***0% (0 to 2)*** *27.9%; 0.20*	*9* ***16% (7 to 29)*** *88.0%; <0.001*	*3* ***9% (0 to 31)*** *91.3%; <0.001*	*1* ***2% (0 to 7)*** *Not estimated*	-	*5* ***18% (6 to 32)*** *81.4%;<0.001*
3. Dental extractions [3]	*24* ***0% (0 to 1)*** *46.6%, 0.01*	*23* ***66% (57 to 74)*** *90.9%; <0.001*	*7* ***34% (13 to 59)*** *97.6%; <0.001*	*6* ***17% (5 to 33)*** *93.6%; <0.001*	*1* ***8% (0 to 23)*** *Not estimated*	*11* ***67% (55 to 78)*** *90.2%; <0.001*
4. Oral surgery [4]	*8* ***0% (0 to 1)*** *0%; 0.55*	*5* ***22% (8 to 39)*** *80.6%; <0.001*	*2* ***20% (14 to 27)*** *0%; not estimated*	*3* ***25% (1 to 64)*** *92.1%; <0.001*	*2* ***1% (0 to 9)*** *0%; not estimated*	*3* ***36% (24 to 49)*** *48.1%; 0.15*
5. SRP [5]	*12* ***0% (0 to 2)*** *3.9%; 0.41*	*11* ***44% (31 to 58)*** *86.5%; <0.001*	*5* ***21% (10 to 35)*** *71.9%; 0.01*	*6* ***14% (7 to 23)*** *60.9%; 0.03*	-	*8* ***49% (33 to 64)*** *85.1%; <0.001*
6. Orthodontic procedures[6]	*10* ***2% (0 to 6)*** *55.2%; 0.02*	*10* ***14% (6 to 24)*** *76.9%; <0.001*	-	-	-	*6* ***12% (3 to 25)*** *80.7%; <0.001*
7. OHP [7]	*4* ***2% (0 to 6)*** *49.8%; 0.11*	*3* ***27% (19 to 36)*** *0%; 0.52*	*1* ***10% (3 to 20)*** *Not estimated*	-	-	*2* ***30% (20 to 40)*** *0%; not estimated*

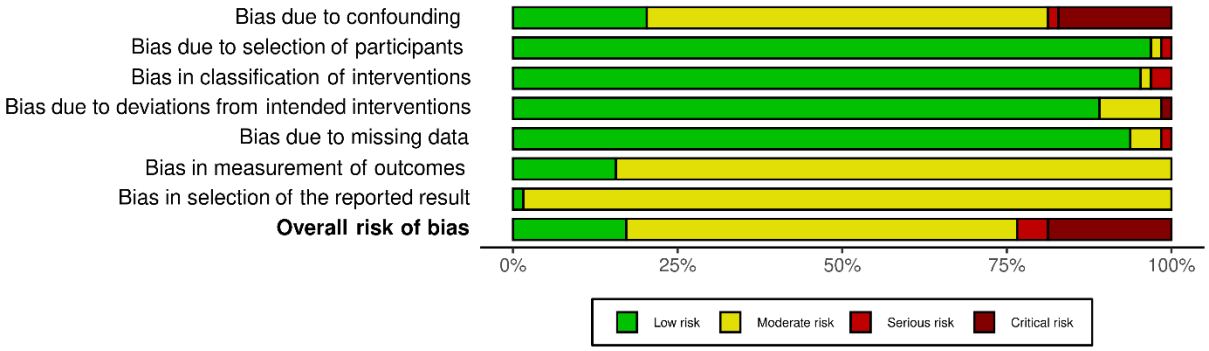
8. Other procedures [8]	*4* ***1% (0 to 7)*** *43.3%; 0.15*	*3* ***4% (0 to 17)*** *62.6%; 0.07*	*1* ***5% (0 to 20)*** *Not estimated*	-	-	*1* ***5% (0 to 20)*** *Not estimated*
RCT	**Presence of bacteremia at different time points** *Number of studies* **% Blood samples positive for bacteremia i.e. *Effect Size (ES) (95%CI)*** *I^2, p-value*					
Procedure Type	**Baseline**	**Procedure Type**	**Baseline**	**Procedure Type**	**Baseline**	**Procedure Type**
1. ADL-toothbrushing [1]	*4* ***3% (0 to 18)*** *93.9%; <0.001*	*3* ***26% (13 to 41)*** *80.3; ,0.01*	-	-	-	*3* ***26% (13 to 41)*** *80.3%; 0.01*
2. Other ADL [2]	-	-	-	-	-	-
3. Dental extractions [3]	*12* ***1% (0 to 5)*** *68.1%; <0.001*	*6* ***63% (38 to 85)*** *91.8%; <0.001*	*5* ***51% (29 to 72)*** *87.0%; <0.001*	*2* ***31% (22 to 41)*** *0%; not estimated*	*1* ***65% (43 to 85)*** *Not estimated*	*8* ***56% (42 to 70)*** *74.7%; <0.001*
4. Oral surgery [4]	*1* ***3% (0 to 14)*** *Not estimated*	-	*1* ***3% (0 to 14)*** *Not estimated*	-	-	*1* ***3% (0 to 14)*** *Not estimated*
5. SRP [5]	*4* ***0% (0 to 1)*** *0%; 0.96*	*3* ***36% (27 to 46)*** *0%; 0.68*	*1* ***90% (62 to 100)*** *Not estimated*	-	-	*4* ***47% (27 to 67)*** *73.8%; 0.01*
6. Orthodontic procedures[6]	*2* ***18% (12 to 24)*** *0%; not estimated*	*2* ***26% (20 to 33)*** *0%; not estimated*	-	-	-	*2* ***26% (20 to 33)*** *0%; not estimated*
7. OHP [7]	*3* ***2% (0 to 14)*** *84.2%; <0.001*	*3* ***28% (21 to 36)*** *0%; 0.40*	-	-	-	*3* ***28% (21 to 36)*** *0%; 0.40*
8. Other procedures [8]	*4* *14% **(5 to 26)*** *78.3%; <0.001*	*4* ***25% (12 to 41)*** *83.2%; <0.001*	*1* ***12% (4 to 22%)*** *Not estimated*	-	-	*3* ***27% (11 to 47)*** *84.7%; <0.001*

ES: effect size (% blood sample positive for bacteremia). ADL: activities of daily living. SRP: scaling and root planning. OHP: oral hygiene procedure.

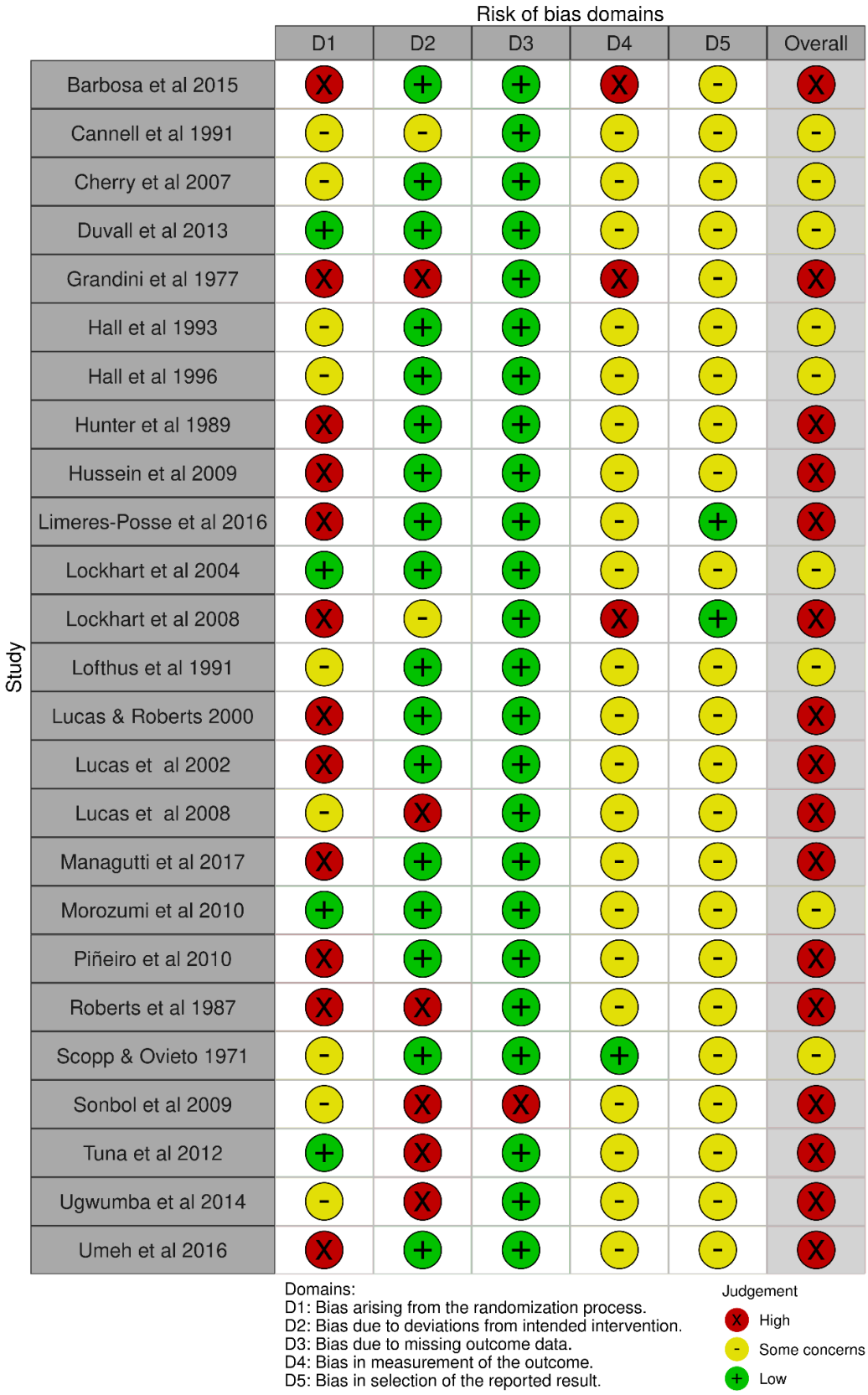
[1] With manual or powered toothbrush; [2]Dental floss, stimudents, toothpicks, oral irrigation devices, chewing apple or paraffin; [3]Includes all extractions: single or multiple teeth, third molar; [4]Cleft palate, piezoeletric surgery, periodontal surgery, osteosynthesis plate removal; implant surgery; [5] Manual scaling and/or root planning (SRP) or using ultrasonic device; [6] Banding or debanding orthodontic fixed or removable appliances, orthodontic archwire adjustment, orthodontic mini-implant removal, separator placement; [7] Dental prophylaxis using rubber cup and handpiece (without scaling), periodontal probing; [8] Restorative procedures with the use of slow or fast drill for dentine removal; endodontic treatment; suture removal, anesthetic injection; impression taking, minor dental procedures used before restorations or during orthodontic procedures with risk of gingival bleeding such as placement of rubber dam clamp or matrix band wedge.



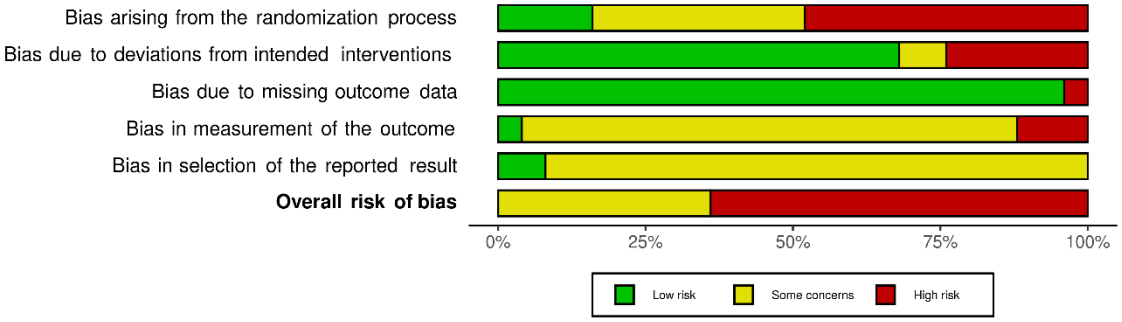
Appendix Figure 2. Traffic light plot of risk of bias assessment of nRCTs using ROBINS-I.



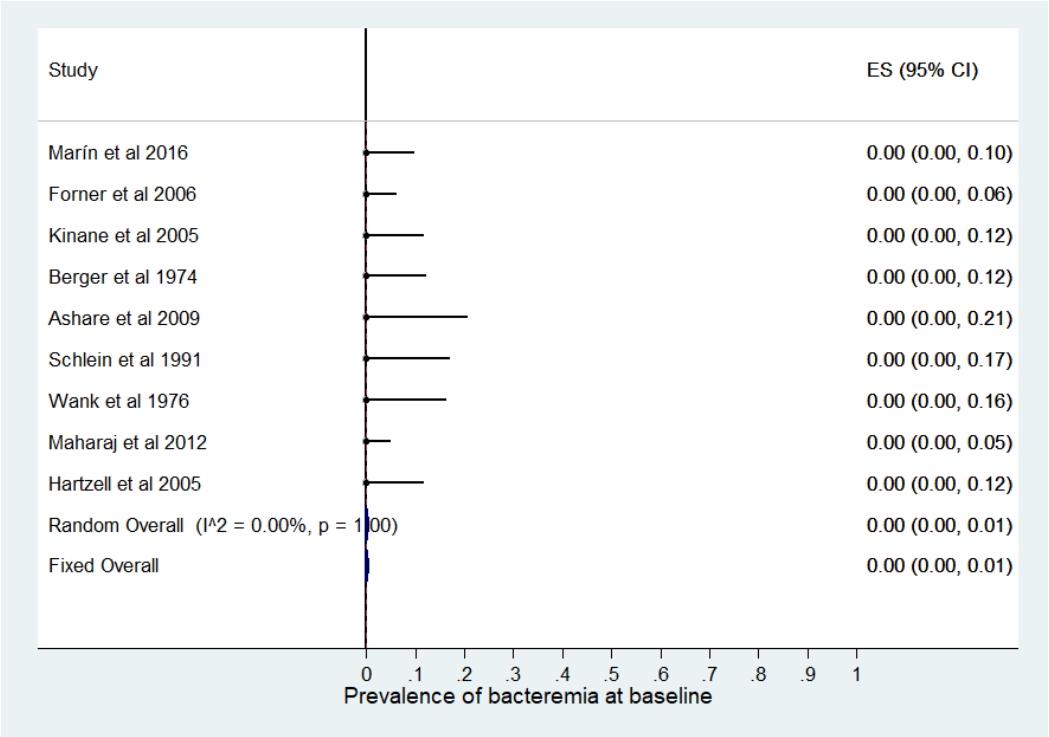
Appendix Figure 3. Summary plot of risk of bias assessment of nRCTs using ROBINS-I.



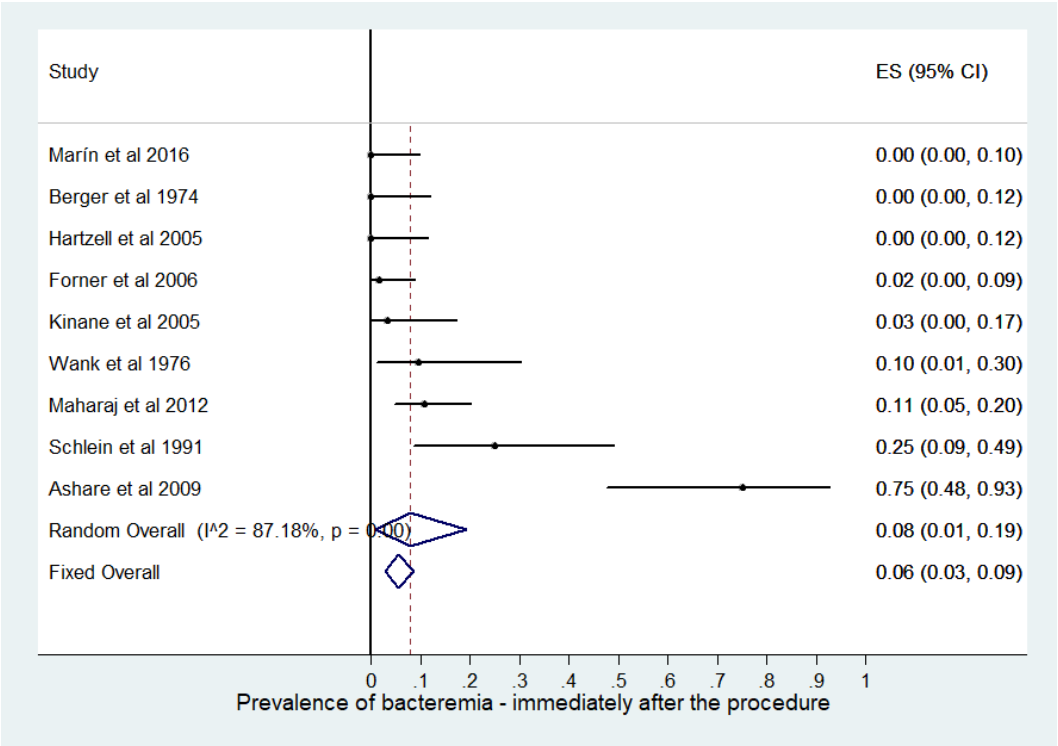
Appendix Figure 4. Traffic light plot of risk of bias assessment of RCTs using RoB 2.0.



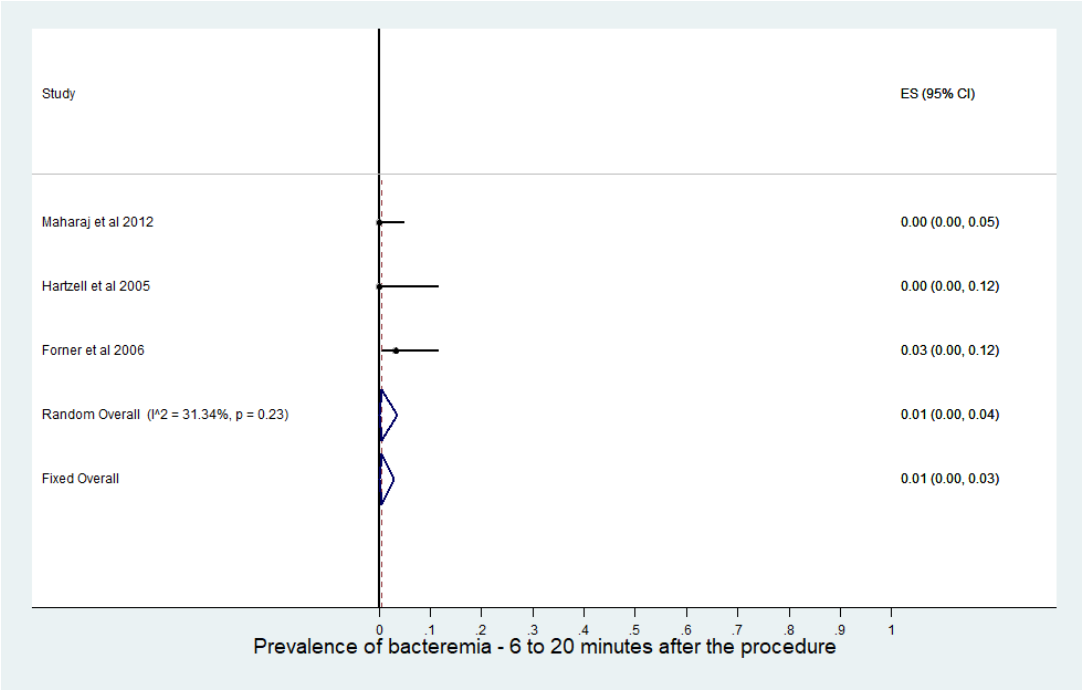
Appendix Figure 5. Summary plot of risk of bias assessment of RCTs using RoB 2.0.



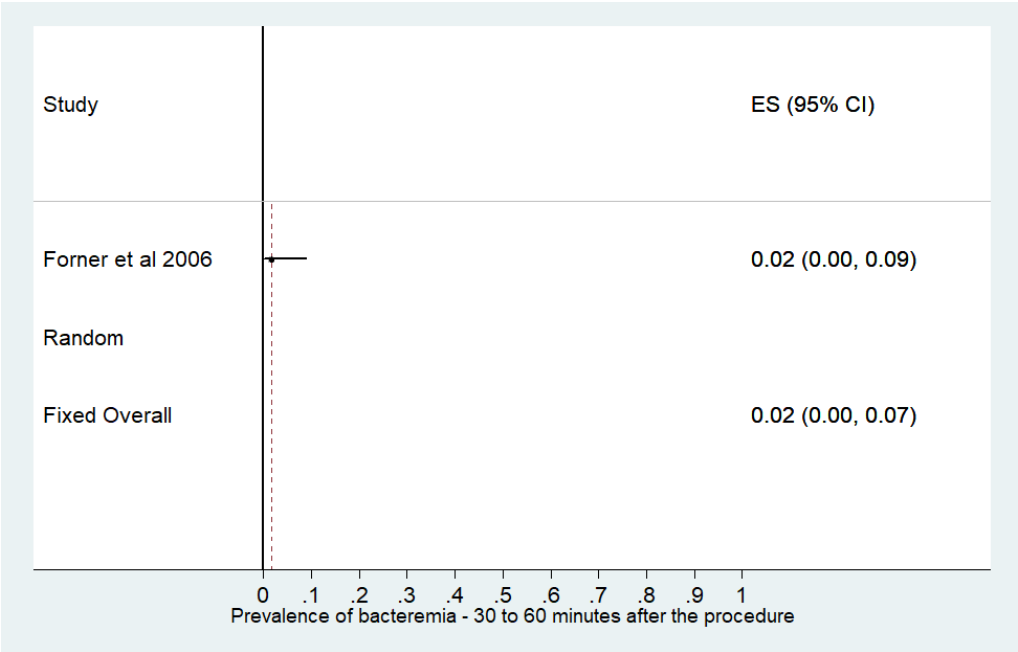
Forest Plot 1P. Meta-analysis of proportion showing the prevalence of bacteremia for toothbrushing (nRCTs) - baseline.



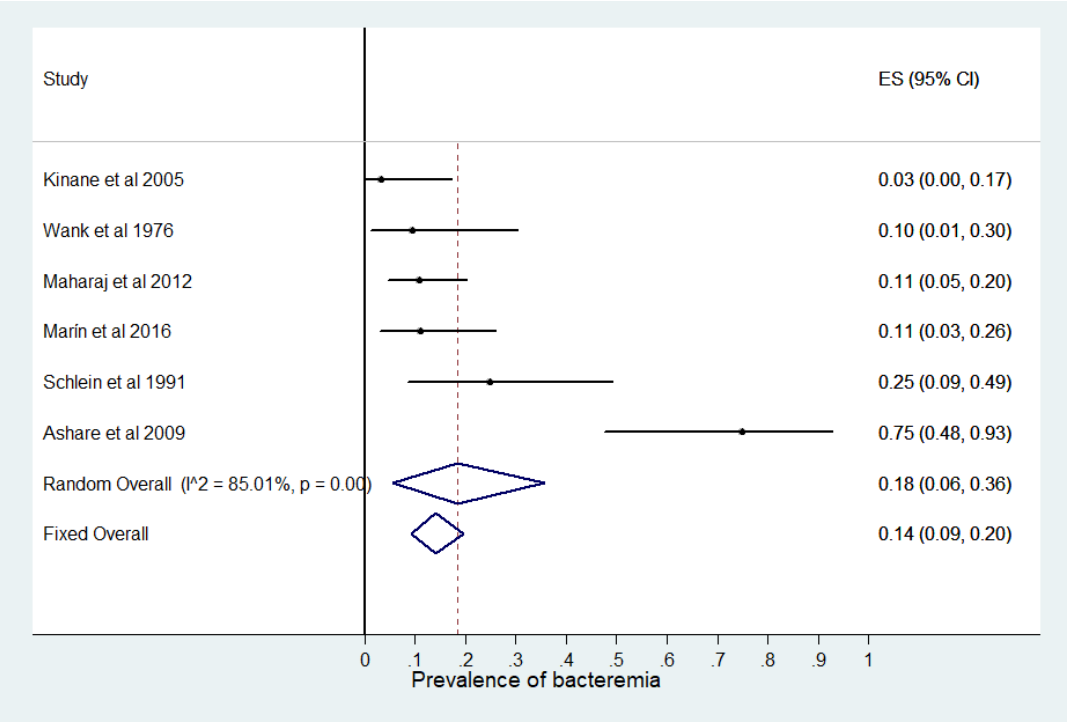
Forest Plot 2P. Meta-analysis of proportion showing the prevalence of bacteremia for toothbrushing (nRCTs) – within 5 minutes after the procedure



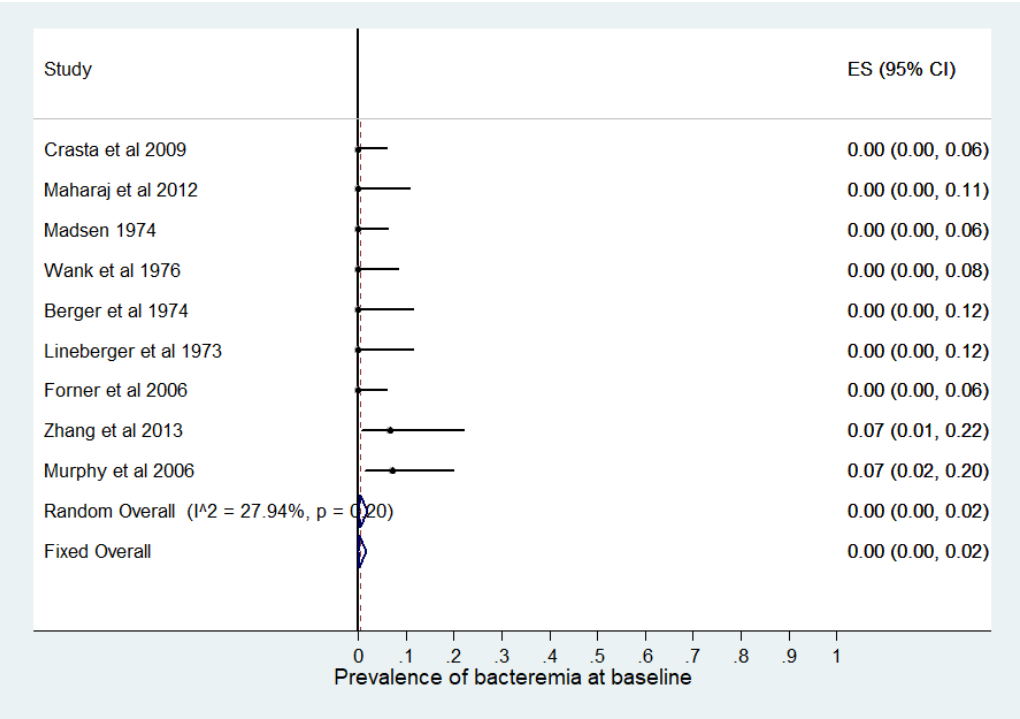
Forest Plot 3P. Meta-analysis of proportion showing the prevalence of bacteremia for toothbrushing (nRCTs) – 6 to 20 minutes after the procedure.



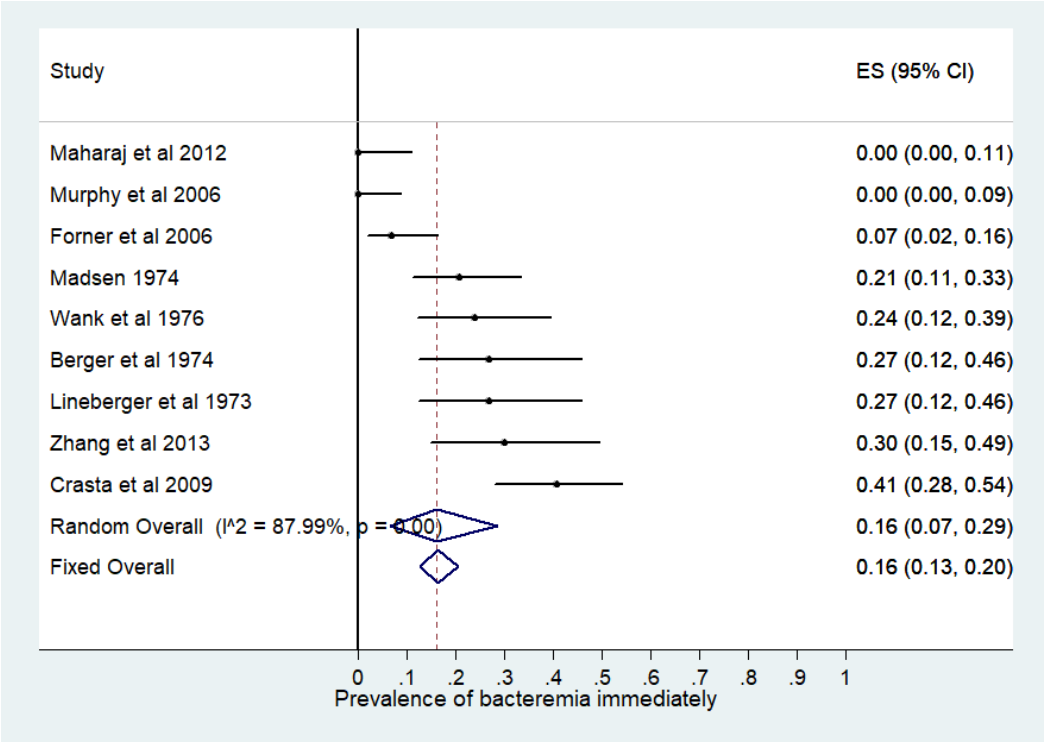
Forest Plot 4P. Meta-analysis of proportion showing the prevalence of bacteremia for toothbrushing (nRCTs) – 30 to 60 minutes after the procedure.



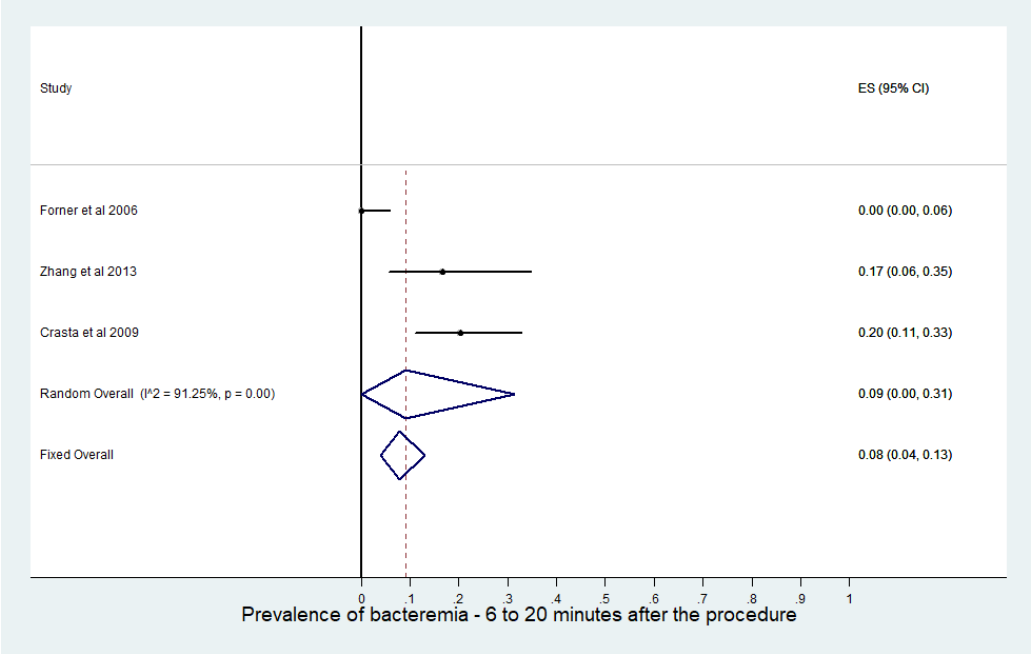
Forest Plot 5P. Meta-analysis of proportion showing the prevalence of bacteremia for toothbrushing (nRCTs).



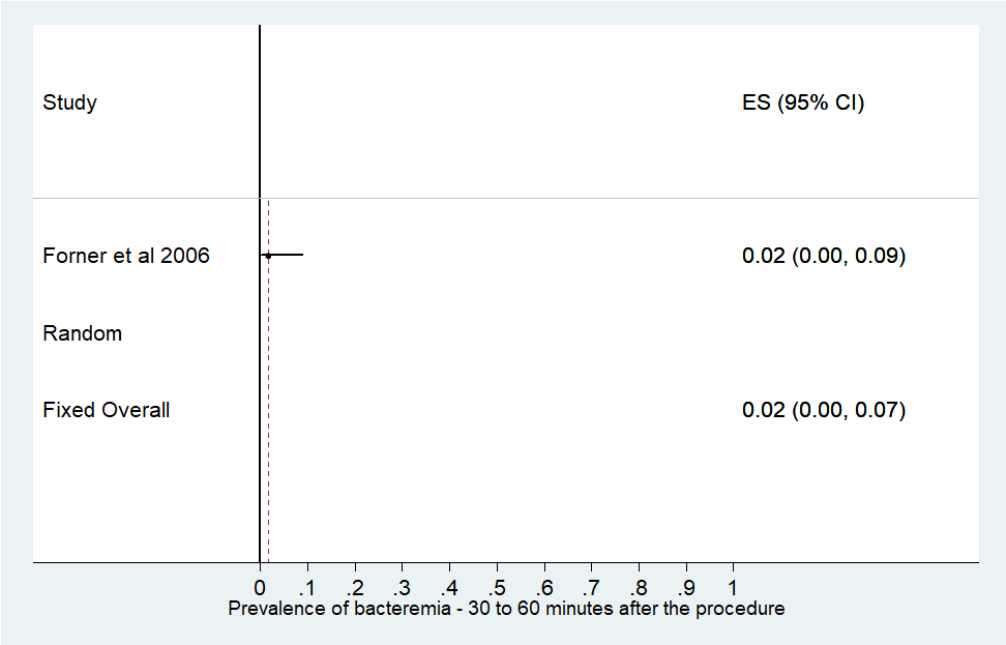
Forest Plot 6P. Meta-analysis of proportion showing the prevalence of bacteremia for other ADL (nRCTs) – baseline.



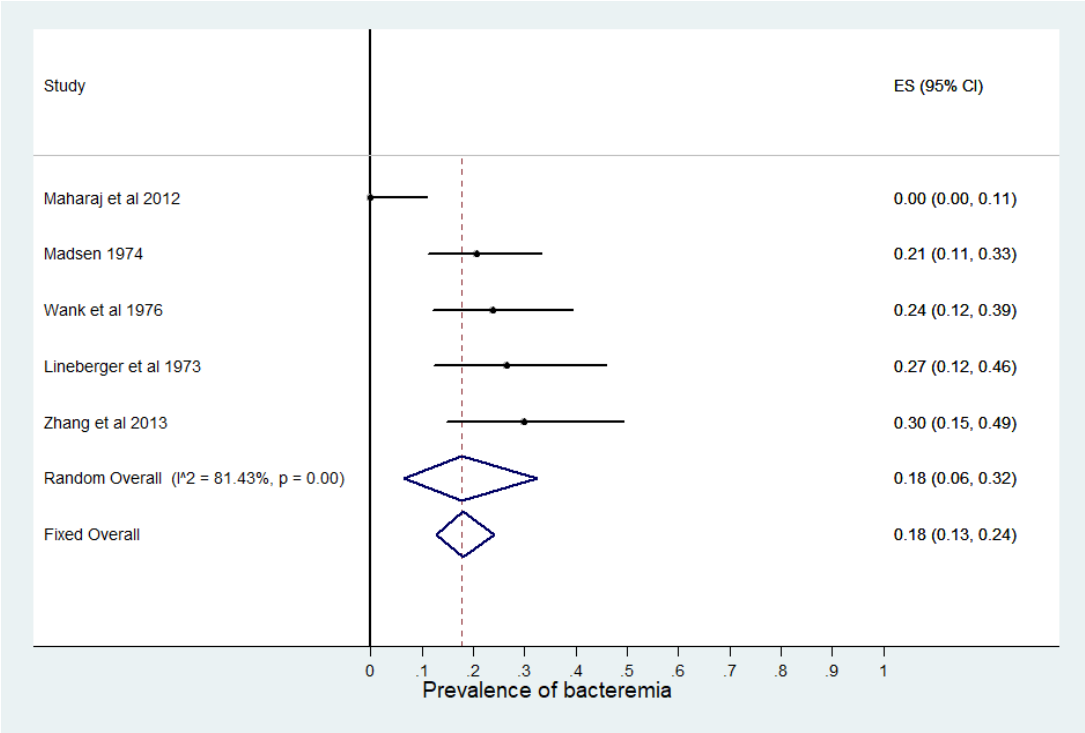
Forest Plot 7P. Meta-analysis of proportion showing the prevalence of bacteremia for other ADL (nRCTs) – within 5 minutes after the procedure.



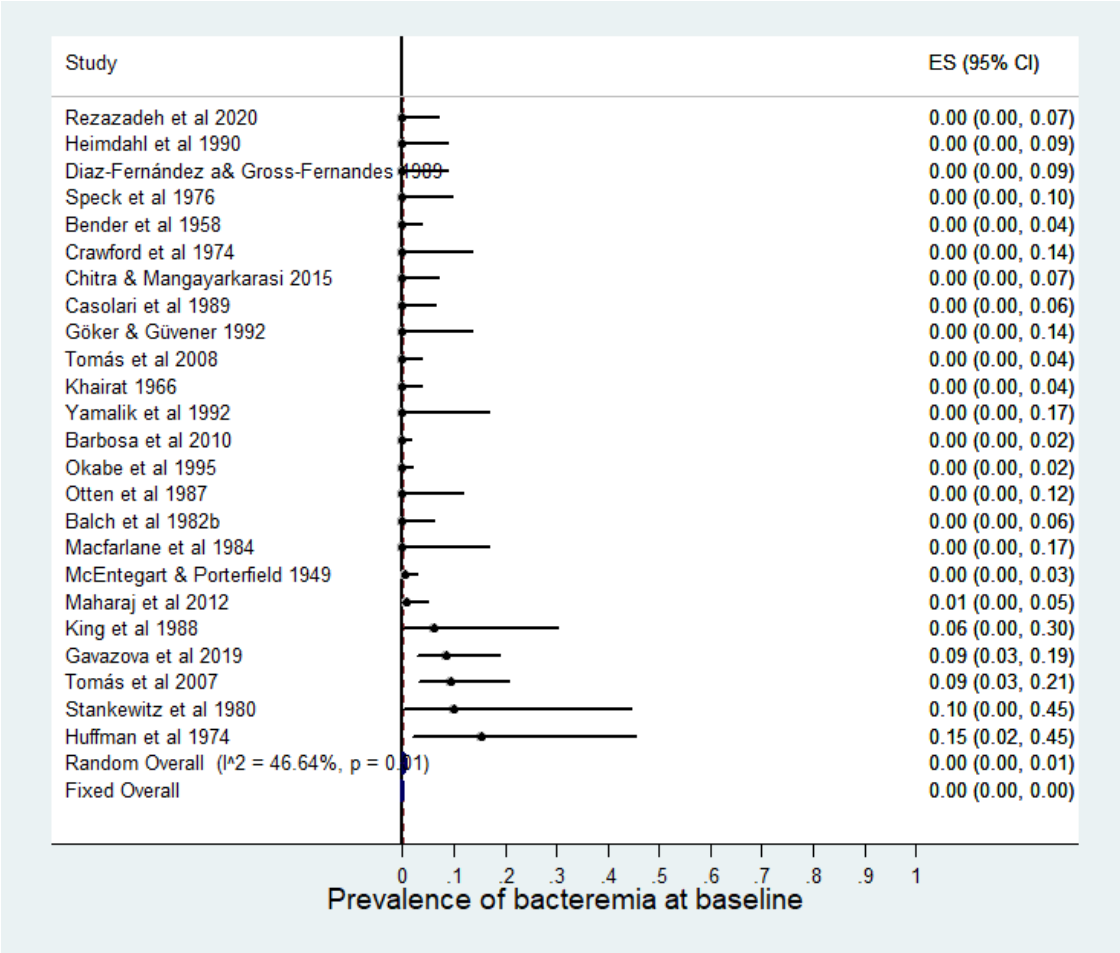
Forest Plot 8P. Meta-analysis of proportion showing the prevalence of bacteremia for other ADL (nRCTs) – 6 to 20 minutes after the procedure.



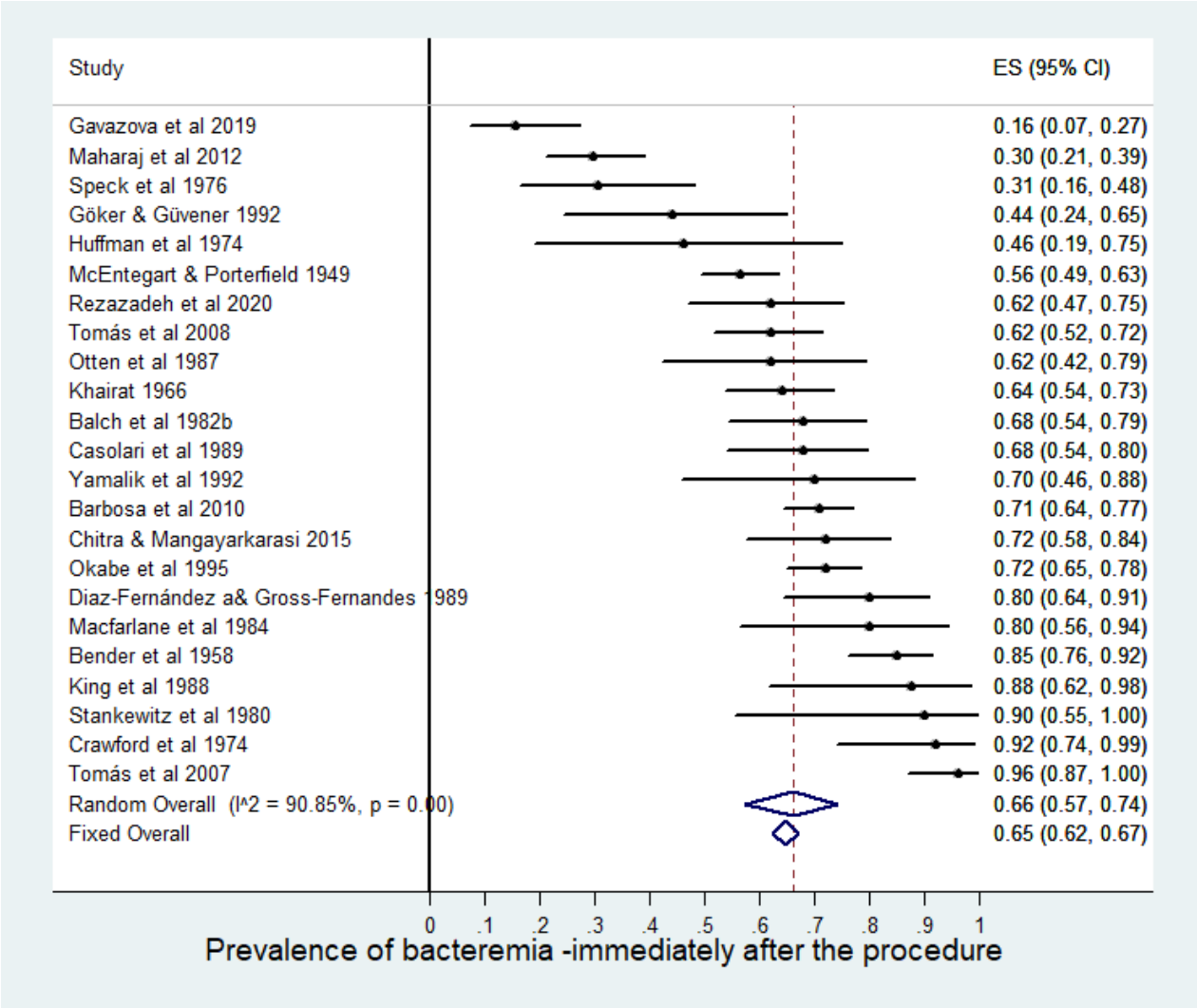
Forest Plot 9P. Meta-analysis of proportion showing the prevalence of bacteremia for other ADL (nRCTs) – 30 to 60 minutes after the procedure.



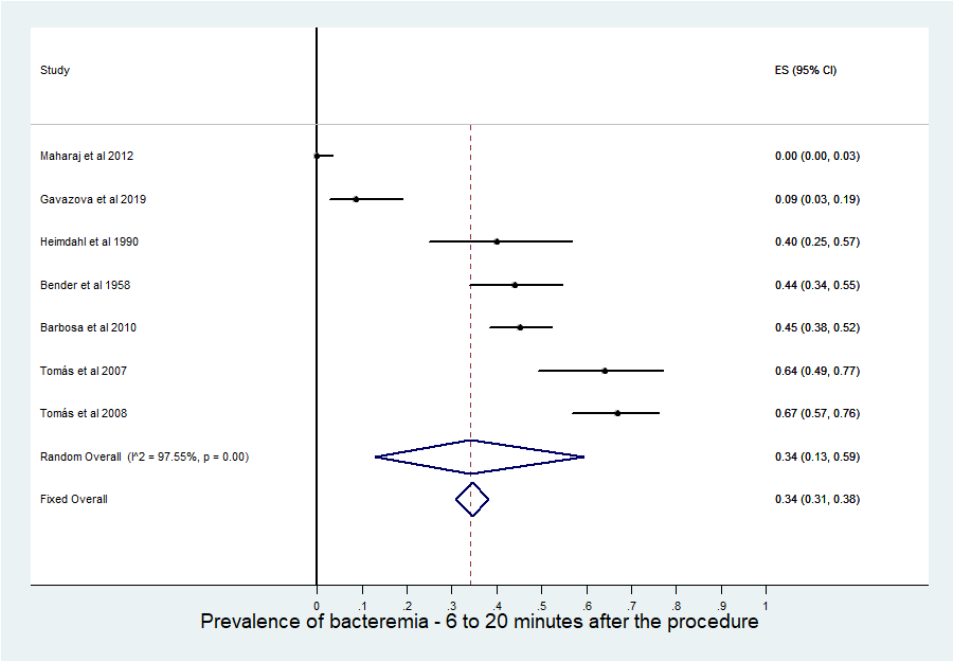
Forest Plot 10P. Meta-analysis of proportion showing the prevalence of bacteremia for other ADL (nRCTs).



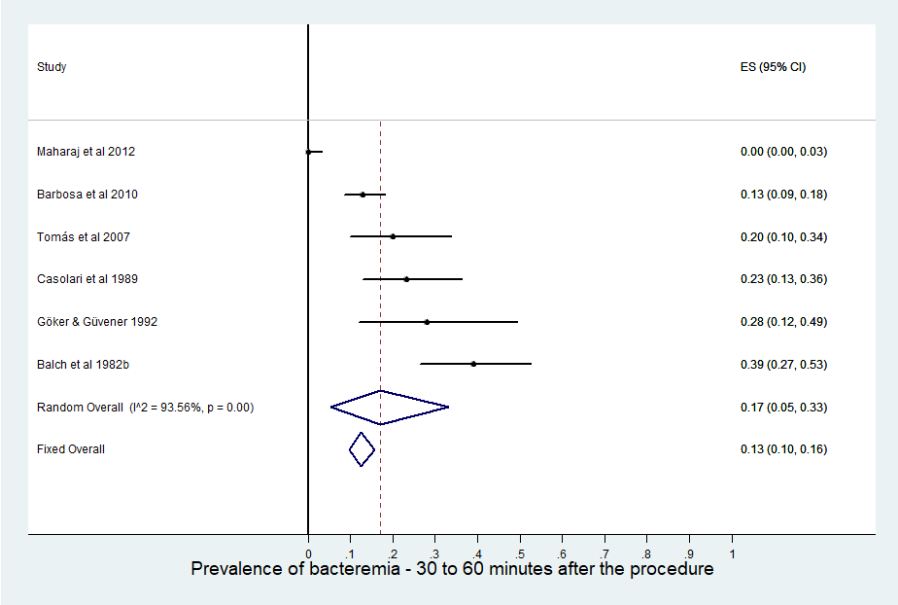
Forest Plot 11P. Meta-analysis of proportion showing the prevalence of bacteremia for dental extraction (nRCTs) – at baseline



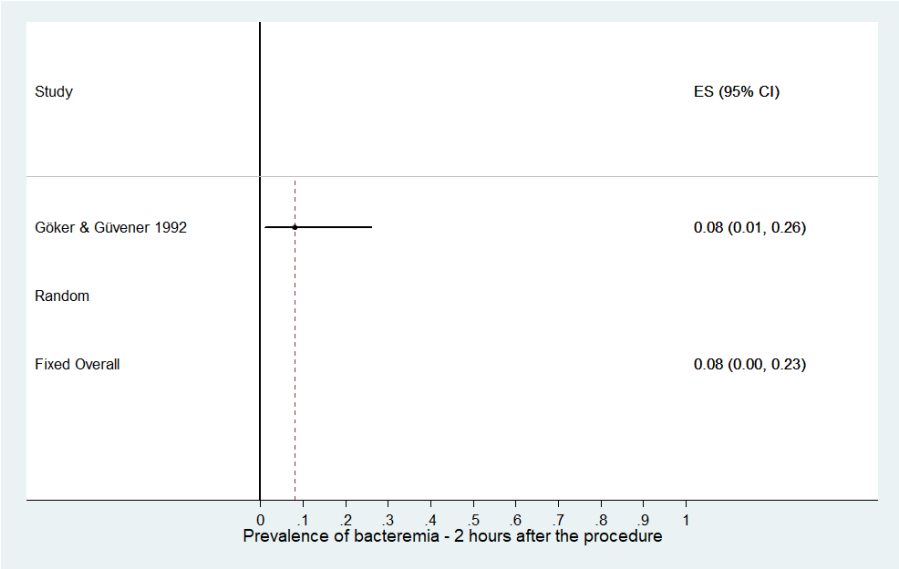
Forest Plot 12P. Meta-analysis of proportion showing the prevalence of bacteremia for dental extraction (nRCTs) – within 5 minutes after the procedure.



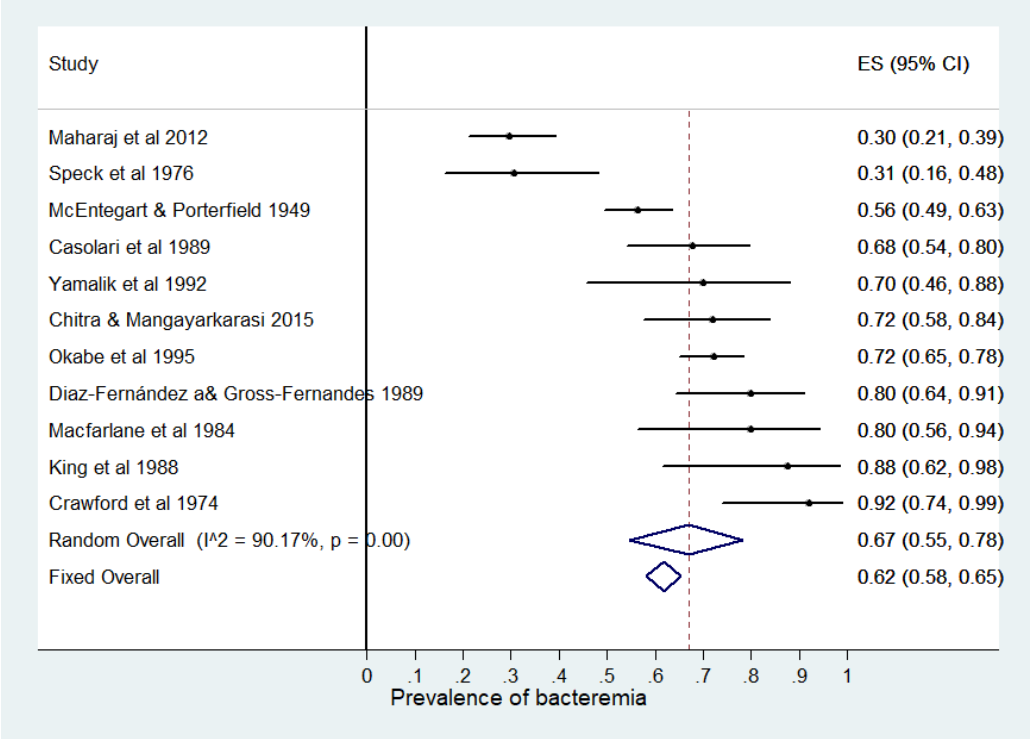
Forest Plot 13P. Meta-analysis of proportion showing the prevalence of bacteremia for dental extraction (nRCTs) – 6 to 20 minutes after the procedure.



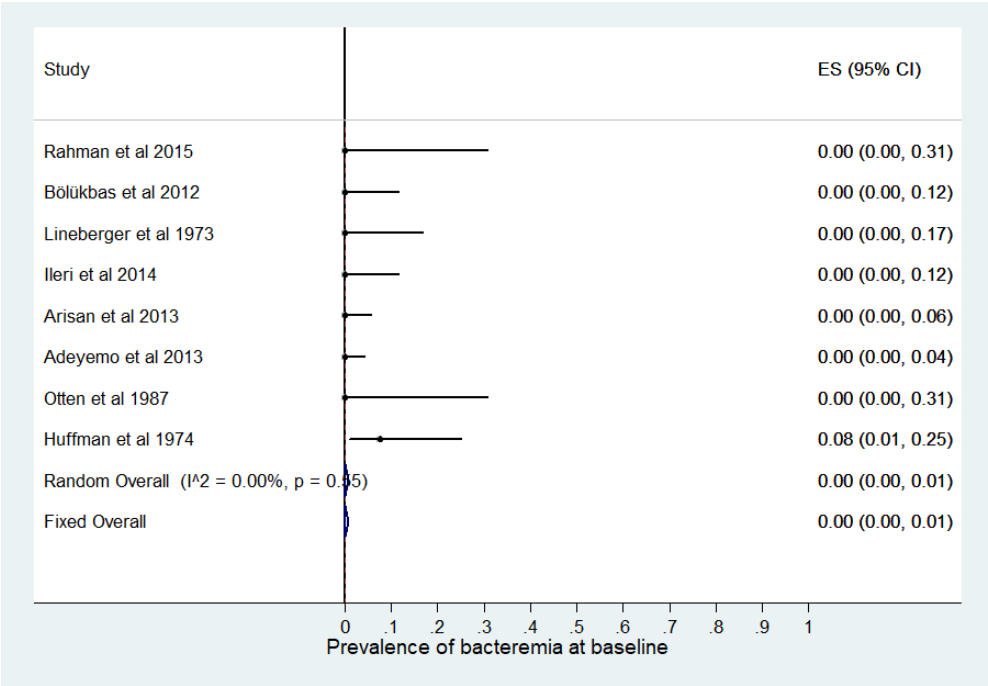
Forest Plot 14P. Meta-analysis of proportion showing the prevalence of bacteremia for dental extraction (nRCTs) – 30 to 60 minutes after the procedure.



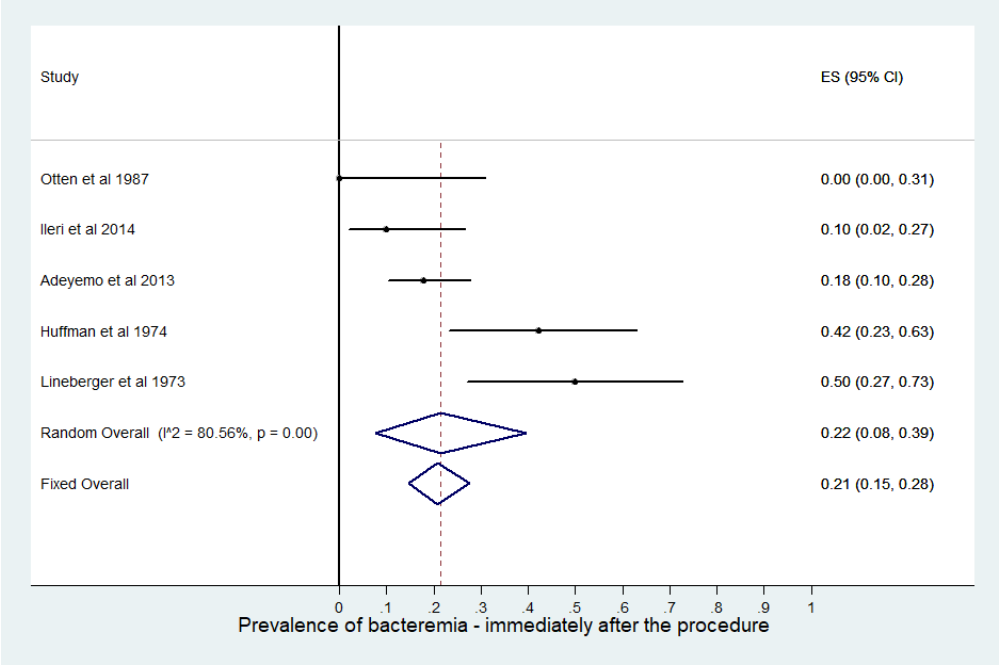
Forest Plot 15P. Meta-analysis of proportion showing the prevalence of bacteremia for dental extraction (nRCTs) – 2 hours after the procedure.



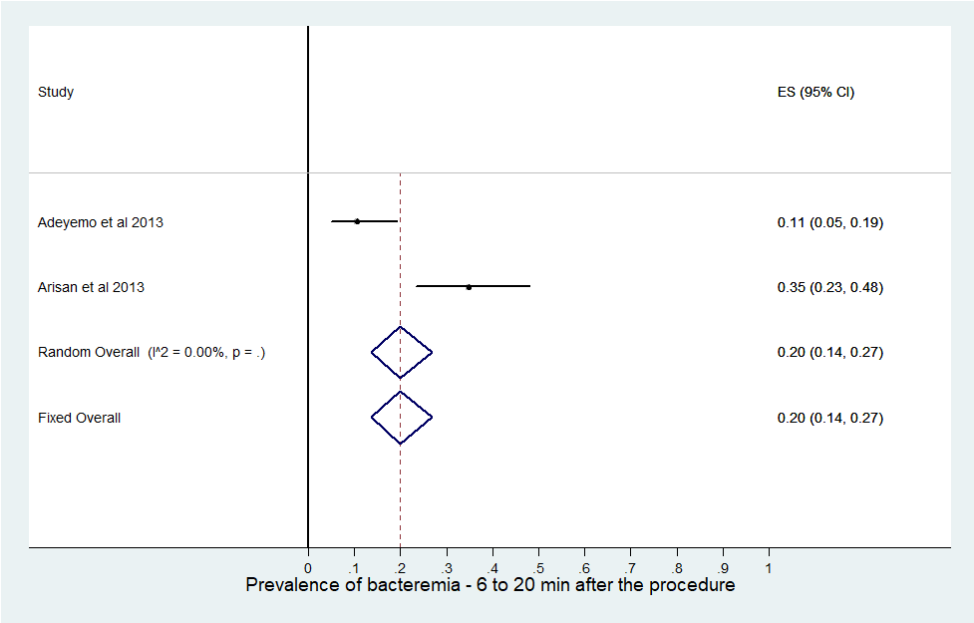
Forest Plot 16P. Meta-analysis of proportion showing the prevalence of bacteremia for dental extraction (nRCTs).



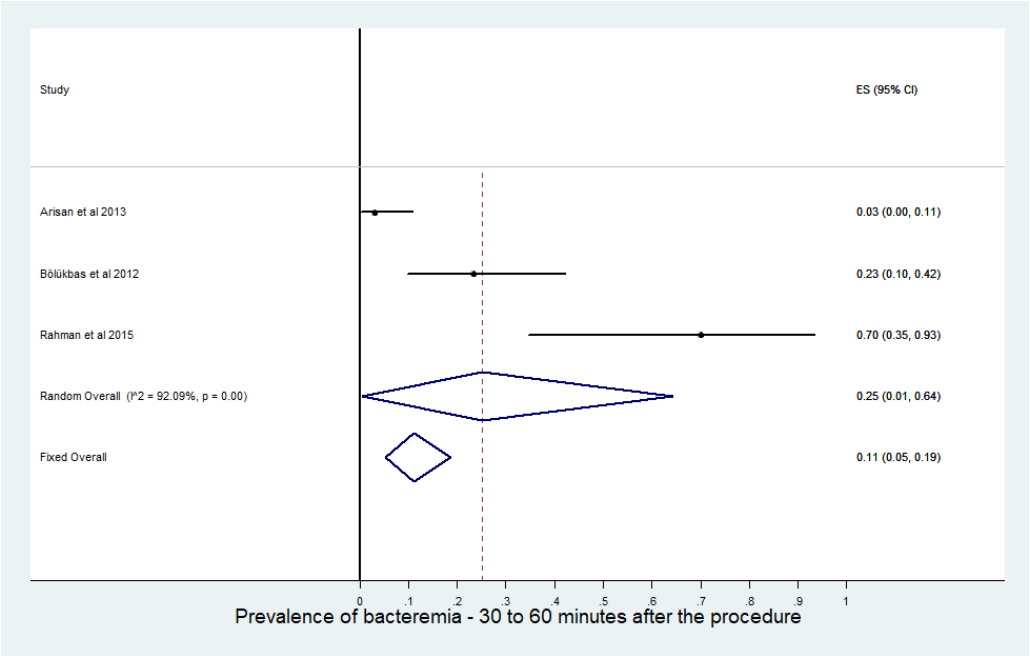
Forest Plot 17P. Meta-analysis of proportion showing the prevalence of bacteremia for oral surgery (nRCTs) – baseline.



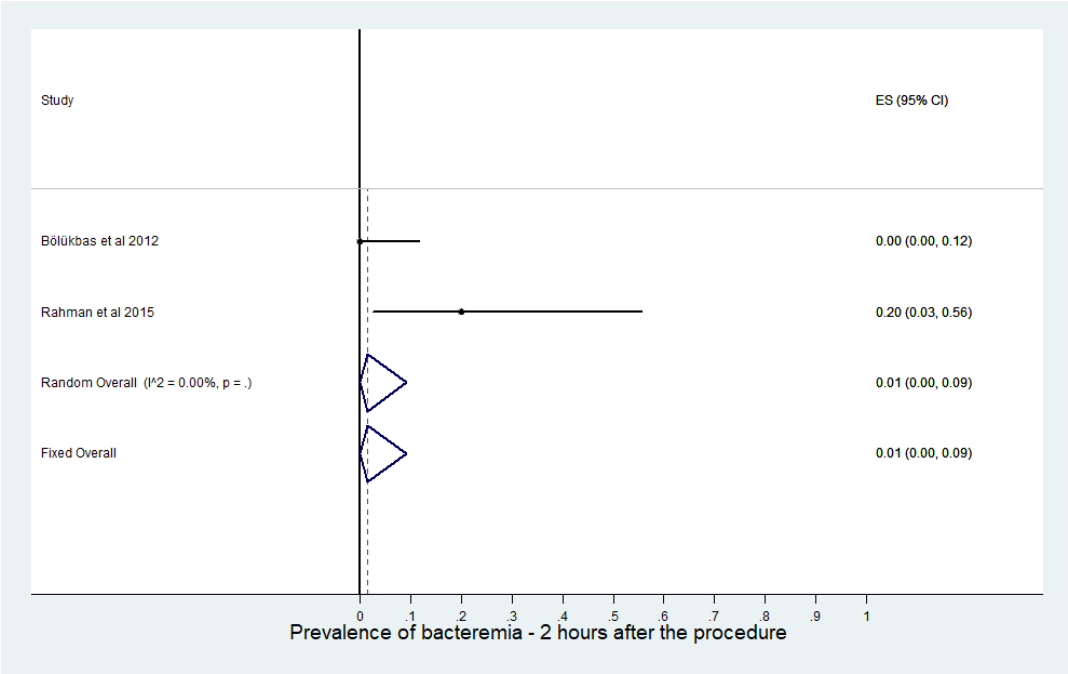
Forest Plot 18P. Meta-analysis of proportion showing the prevalence of bacteremia for oral surgery (nRCTs) – within 5 minutes after the procedure.



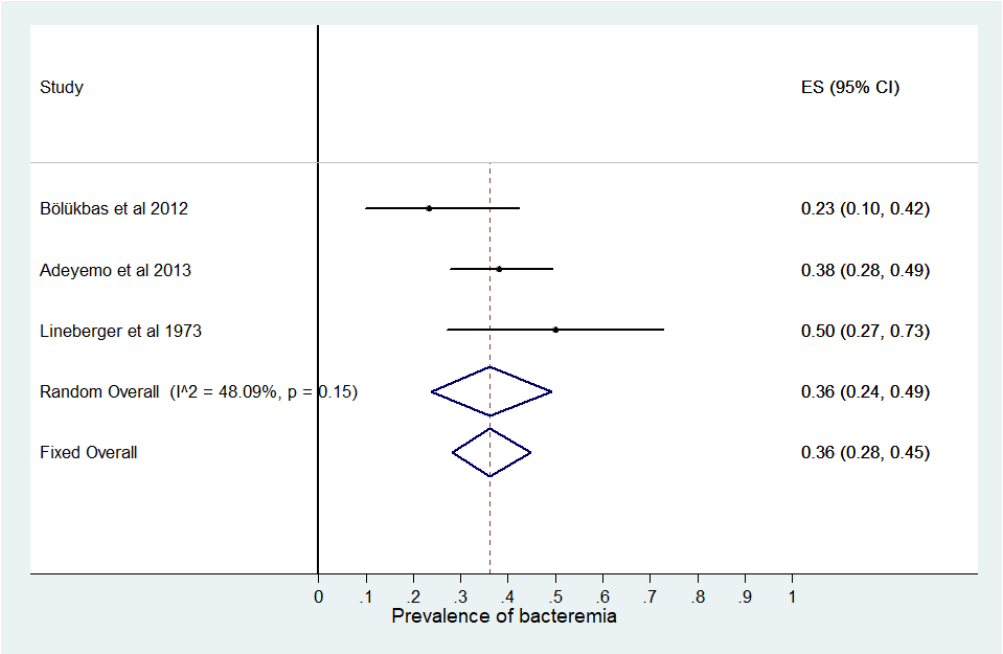
Forest Plot 19P. Meta-analysis of proportion showing the prevalence of bacteremia for oral surgery (nRCTs) – 6 to 20 minutes after the procedure.



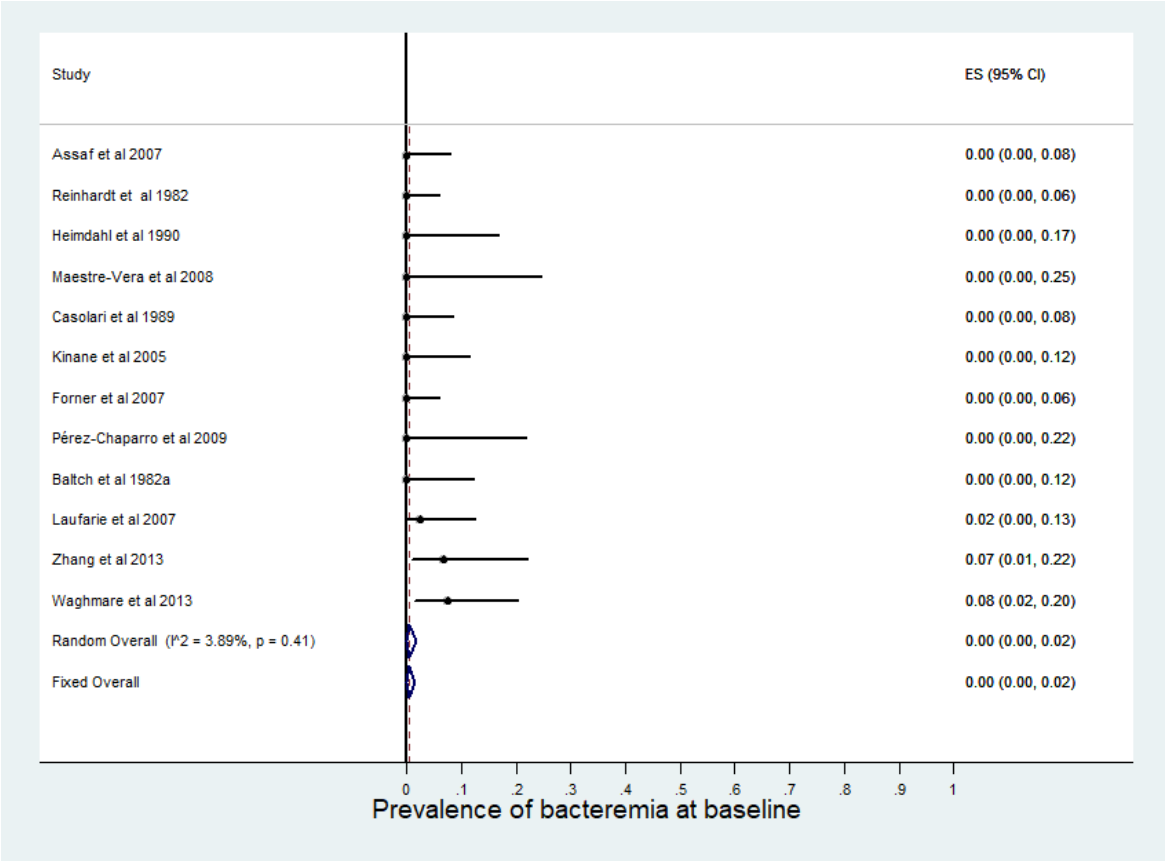
Forest Plot 20P. Meta-analysis of proportion showing the prevalence of bacteremia for oral surgery (nRCTs) – 30 to 60 minutes after the procedure.



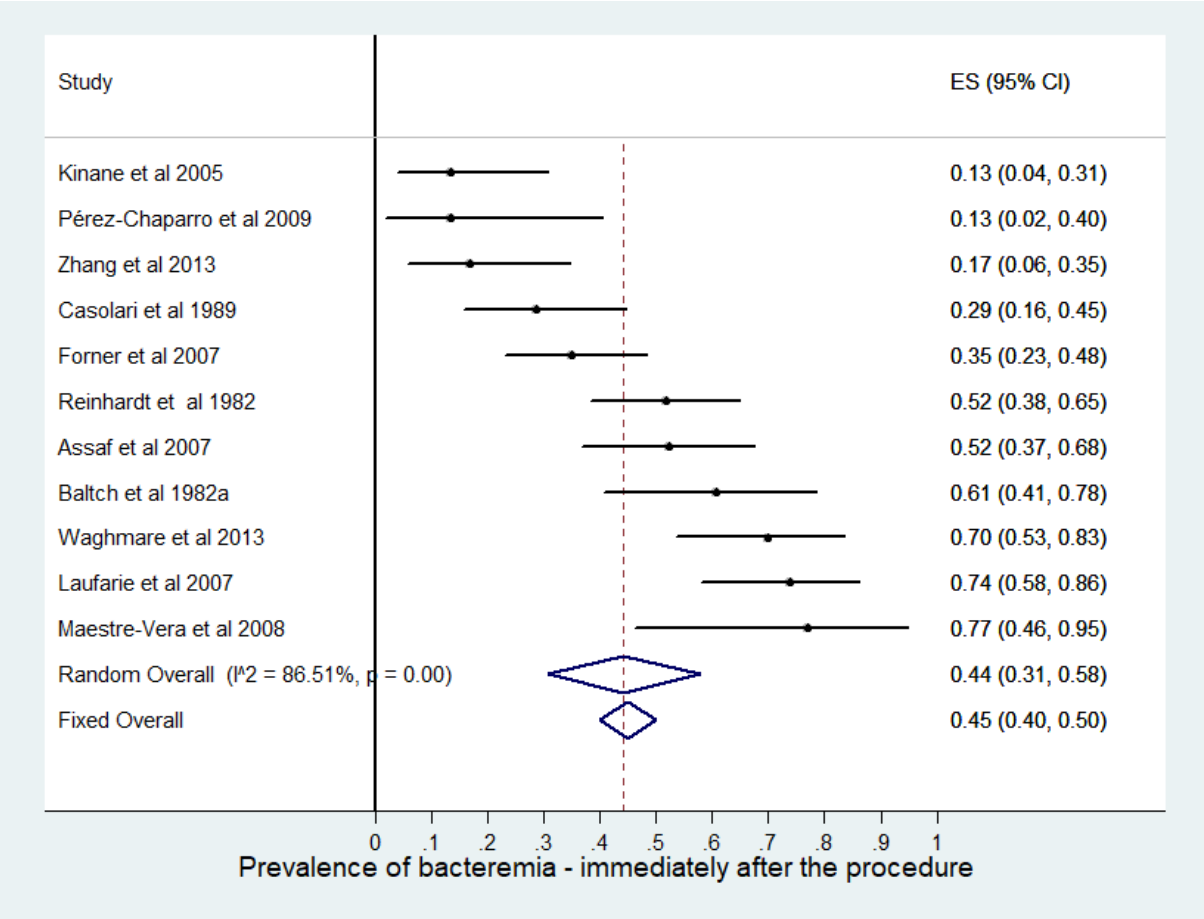
Forest Plot 21P. Meta-analysis of proportion showing the prevalence of bacteremia for oral surgery (nRCTs) – 2 hours after the procedure.



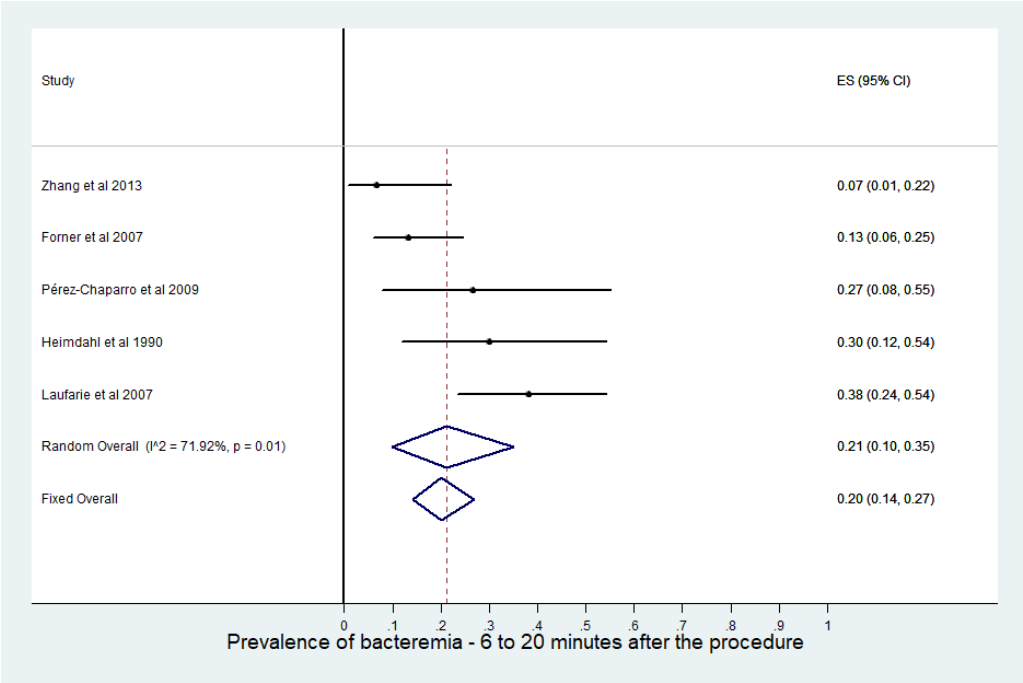
Forest Plot 22P. Meta-analysis of proportion showing the prevalence of bacteremia for oral surgery (nRCTs).



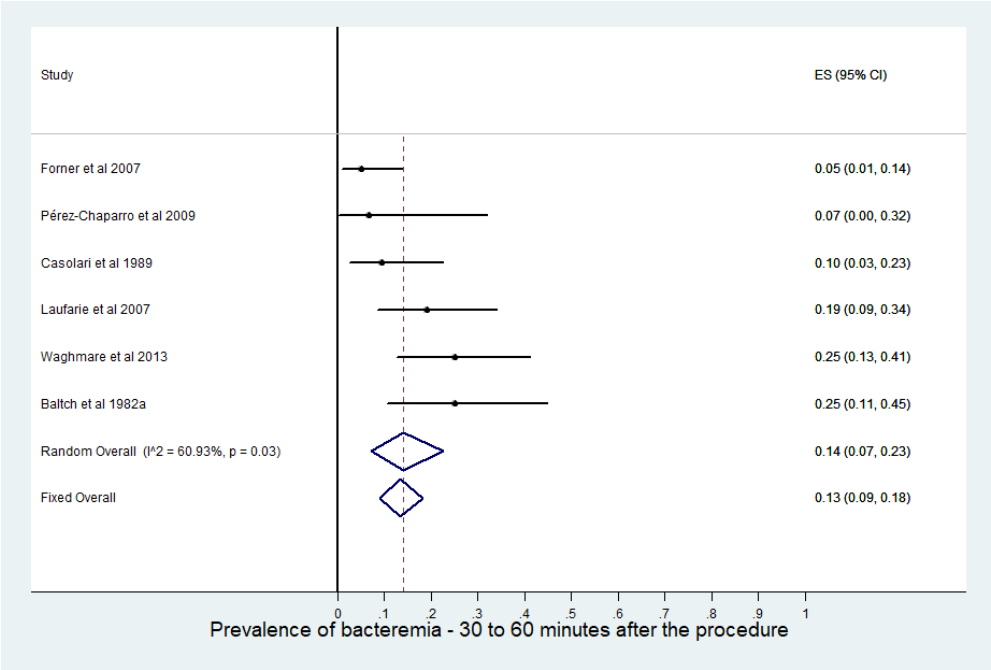
Forest Plot 23P. Meta-analysis of proportion showing the prevalence of bacteremia for SRP (nRCTs) – baseline.



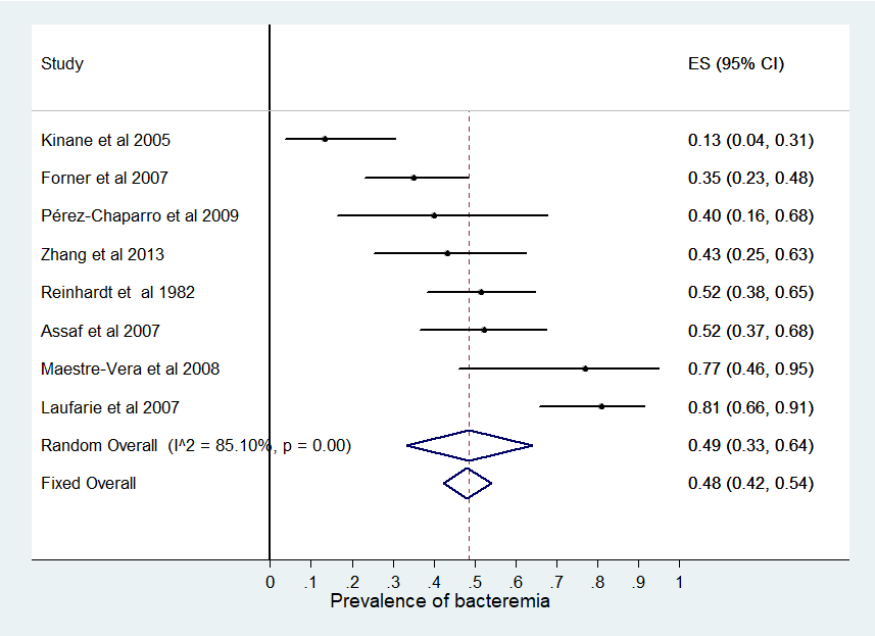
Forest Plot 25P. Meta-analysis of proportion showing the prevalence of bacteremia for SRP (nRCTs) – within 5 minutes after the procedure.



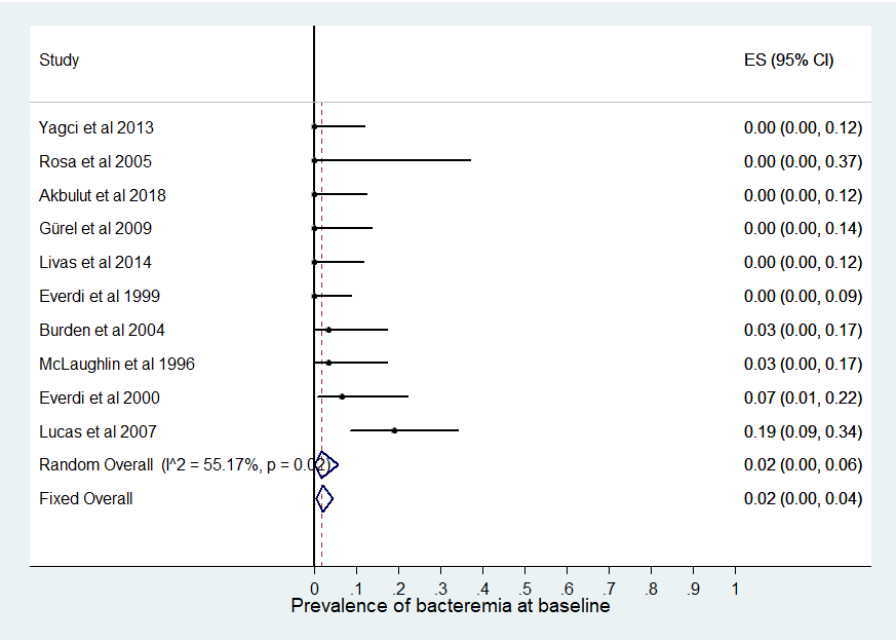
Forest Plot 26P. Meta-analysis of proportion showing the prevalence of bacteremia for SRP (nRCTs) – 6 to 20 minutes after the procedure.



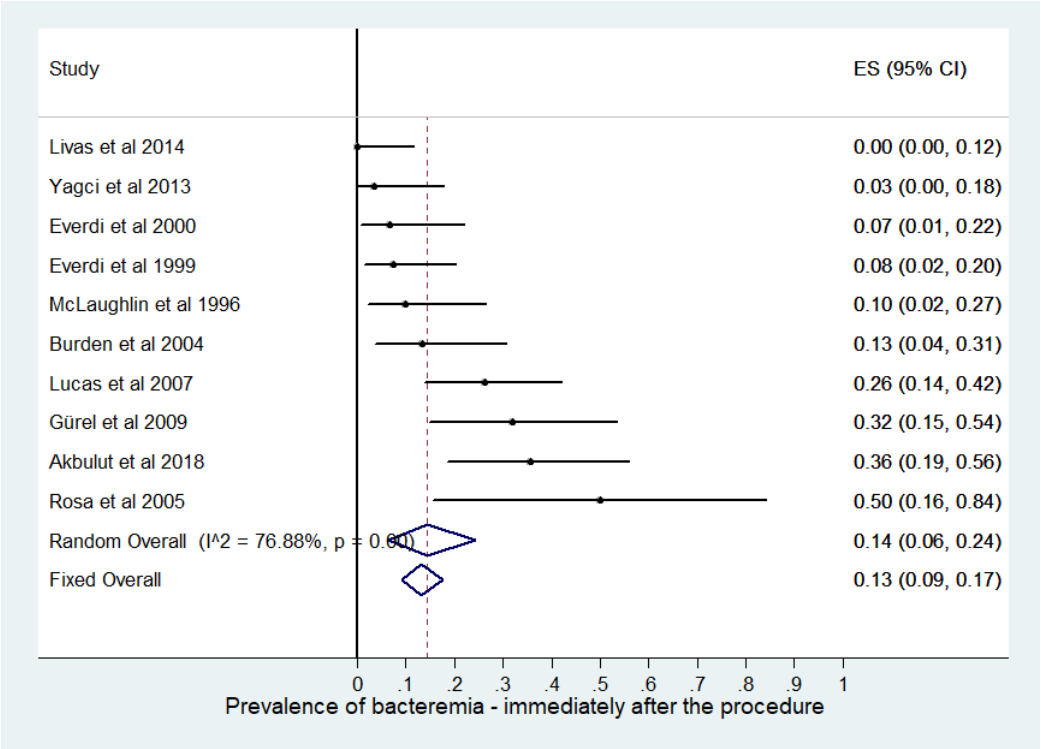
Forest Plot 26P. Meta-analysis of proportion showing the prevalence of bacteremia for SRP (nRCTs) – 30 to 60 minutes after the procedure.



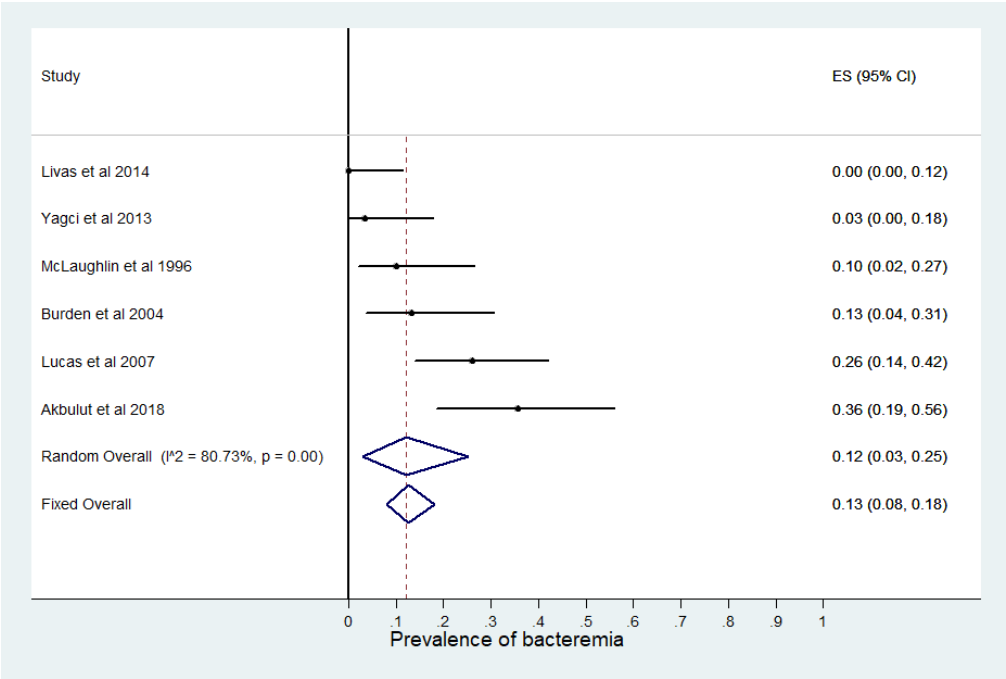
Forest Plot 27P. Meta-analysis of proportion showing the prevalence of bacteremia for SRP (nRCTs).



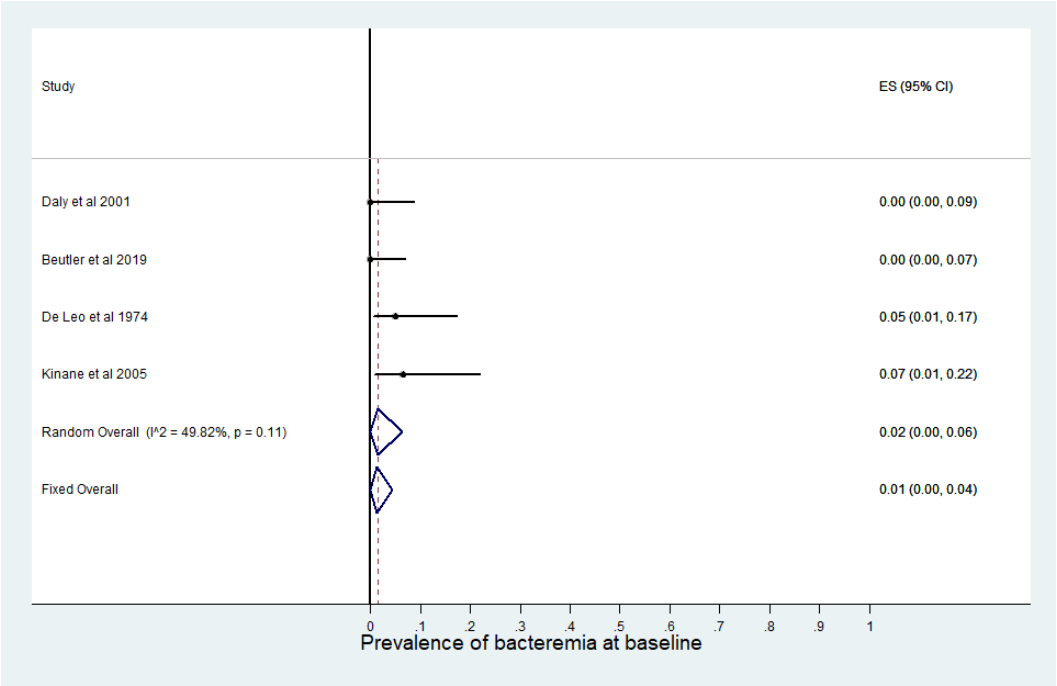
Forest Plot 28P. Meta-analysis of proportion showing the prevalence of bacteremia for orthodontic procedure - baseline



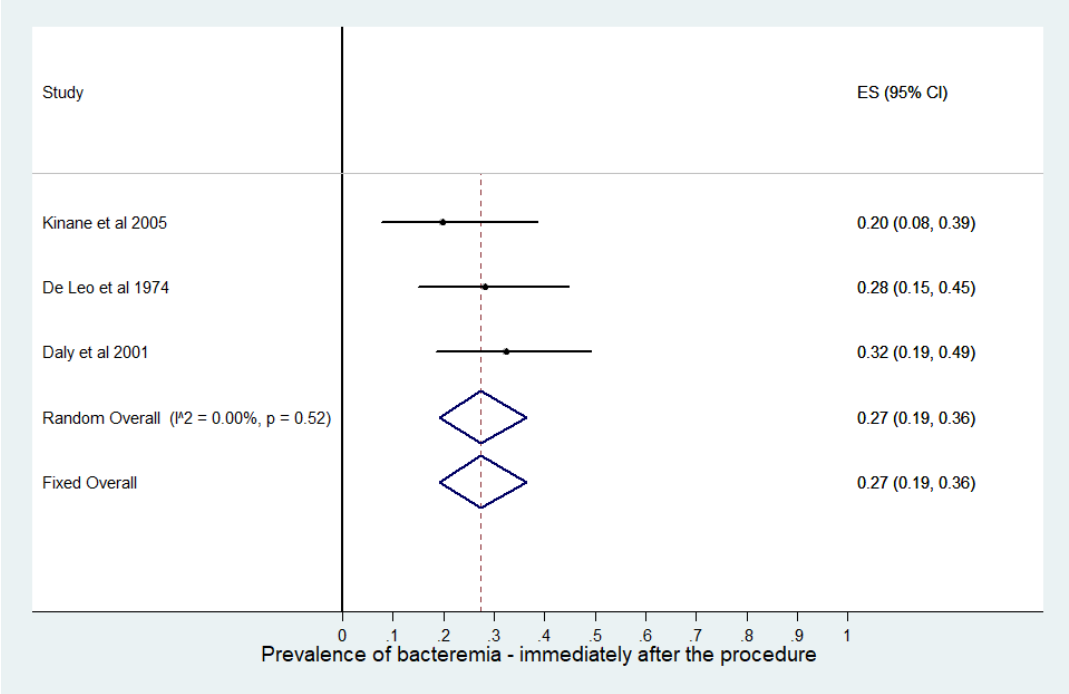
Forest Plot P29. Meta-analysis of proportion showing the prevalence of bacteremia for orthodontic procedure - within 5 minutes after the procedure



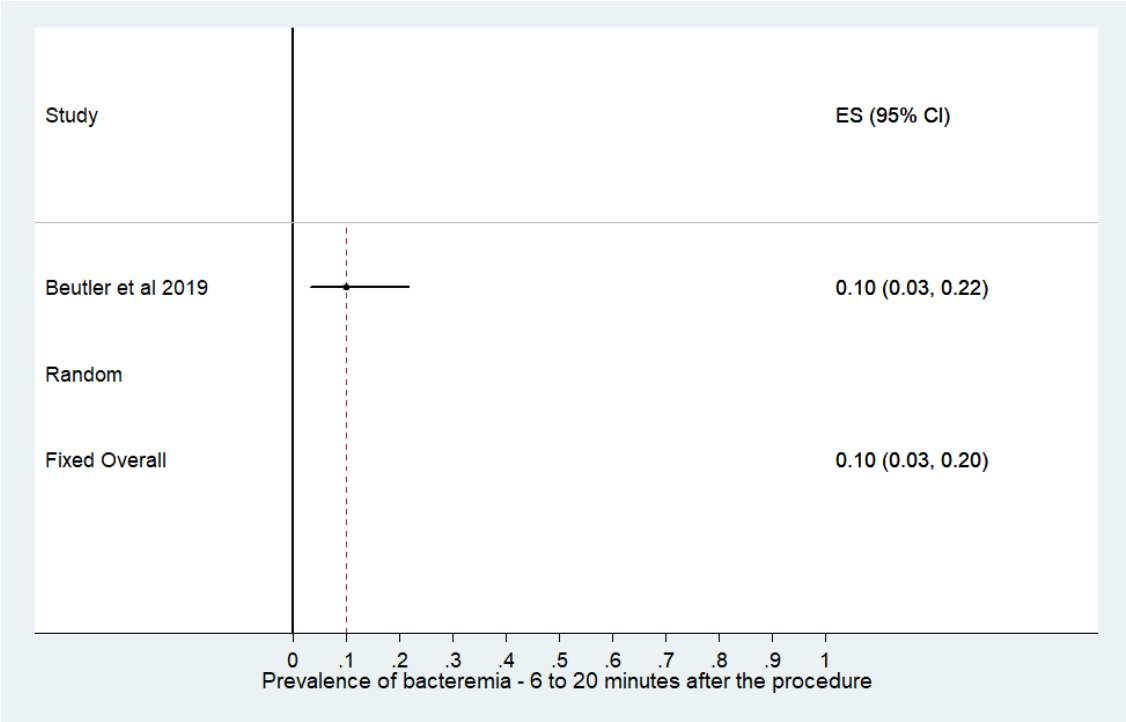
Forest Plot 30P. Meta-analysis of proportion showing the prevalence of bacteremia for orthodontic procedure.



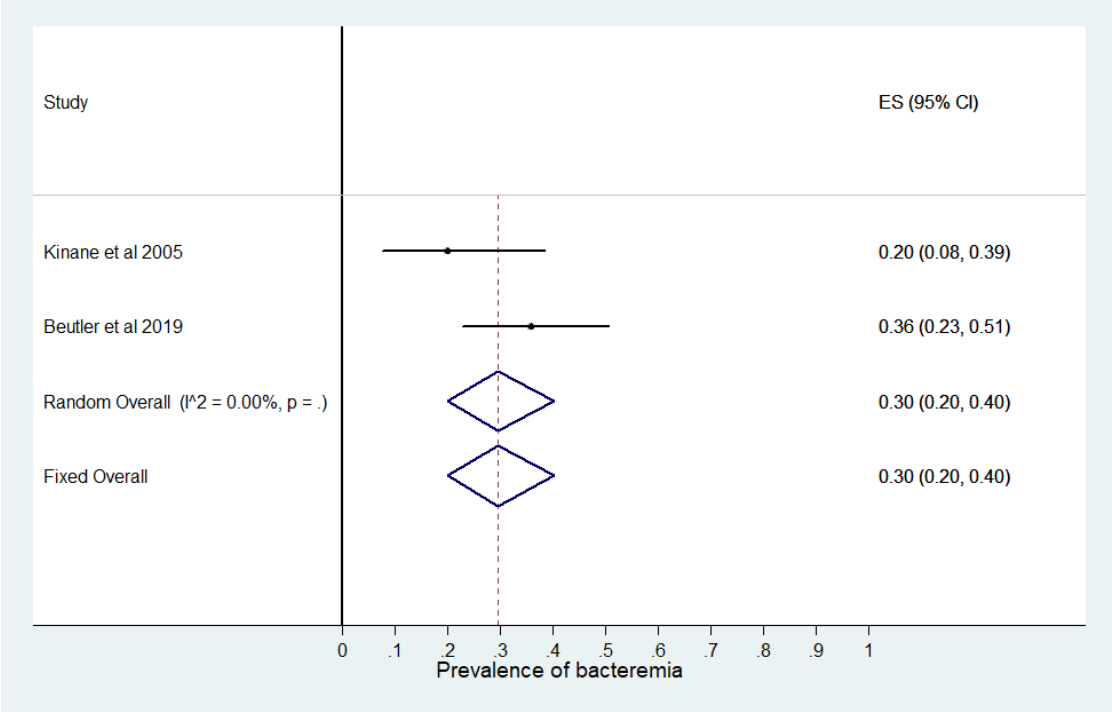
Forest Plot 31P. Meta-analysis of proportion showing the prevalence of bacteremia for OHP (nRCTs) – baseline.



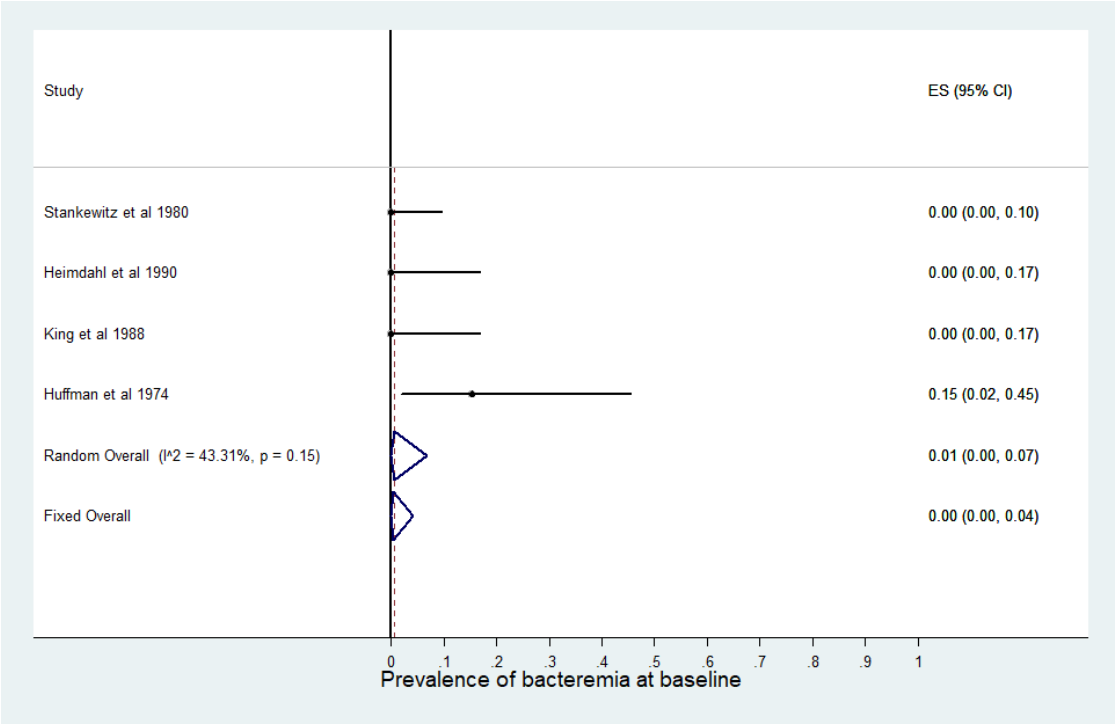
Forest Plot 32P. Meta-analysis of proportion showing the prevalence of bacteremia for OHP (nRCTs) – within 5 minutes after the procedure.



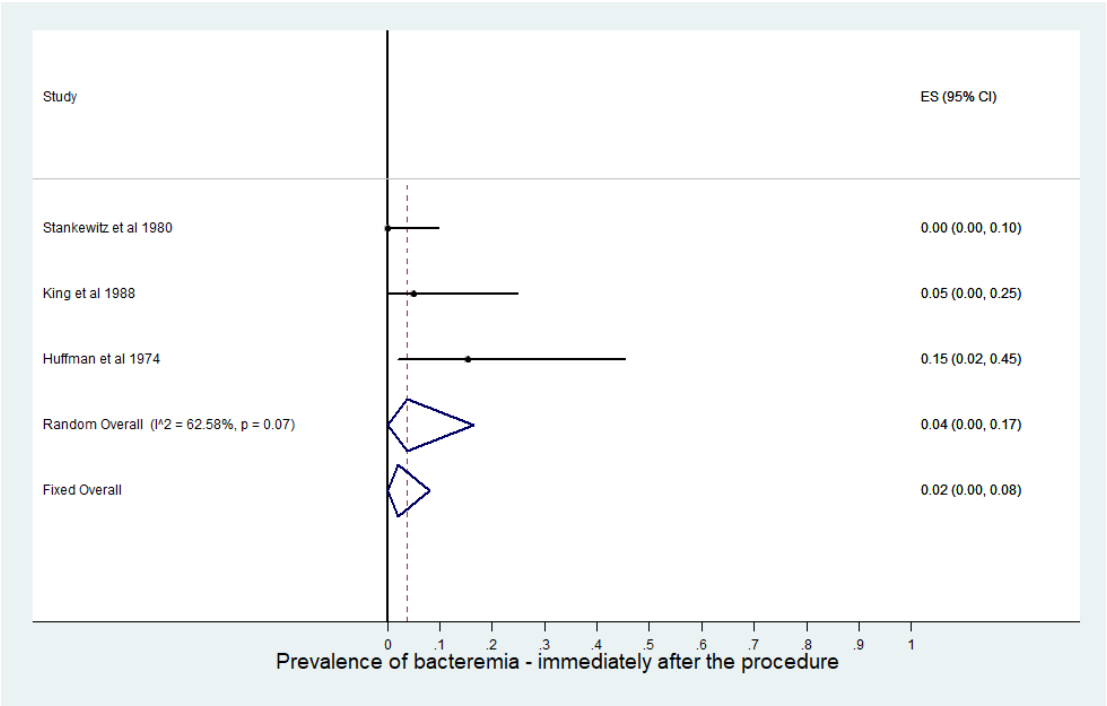
Forest Plot 33P. Meta-analysis of proportion showing the prevalence of bacteremia for OHP (nRCTs) – 6 to 20 minutes after the procedure.



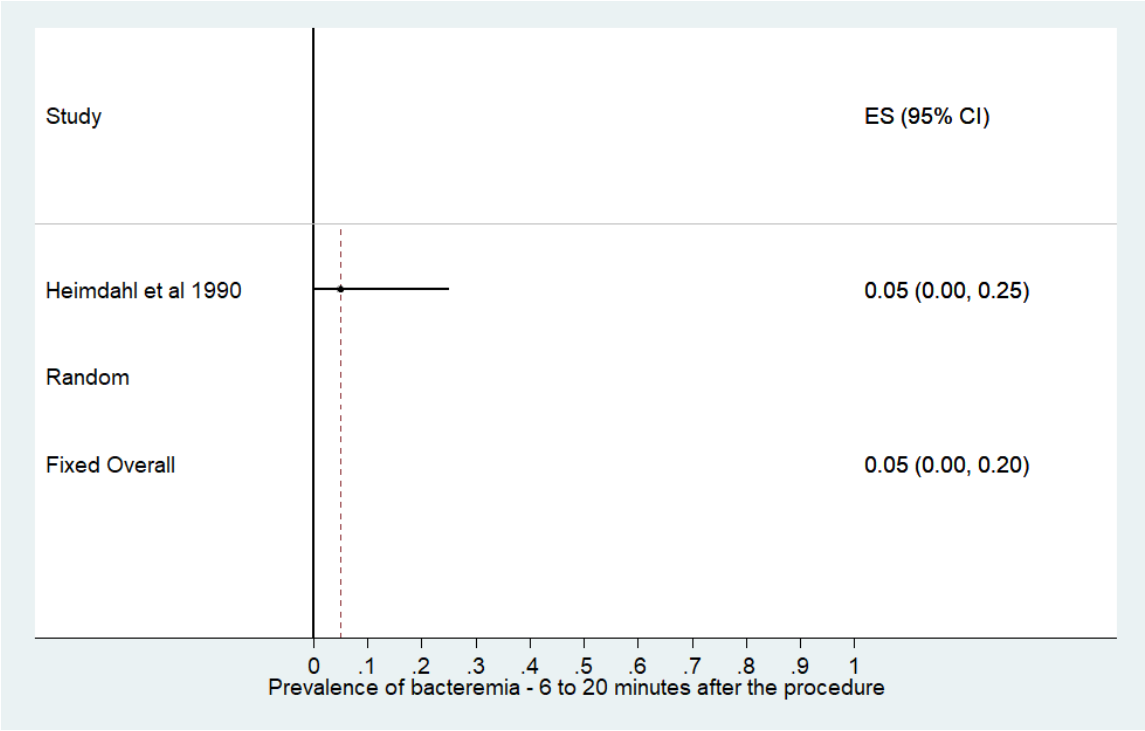
Forest Plot 34P. Meta-analysis of proportion showing the prevalence of bacteremia for OHP (nRCTs).



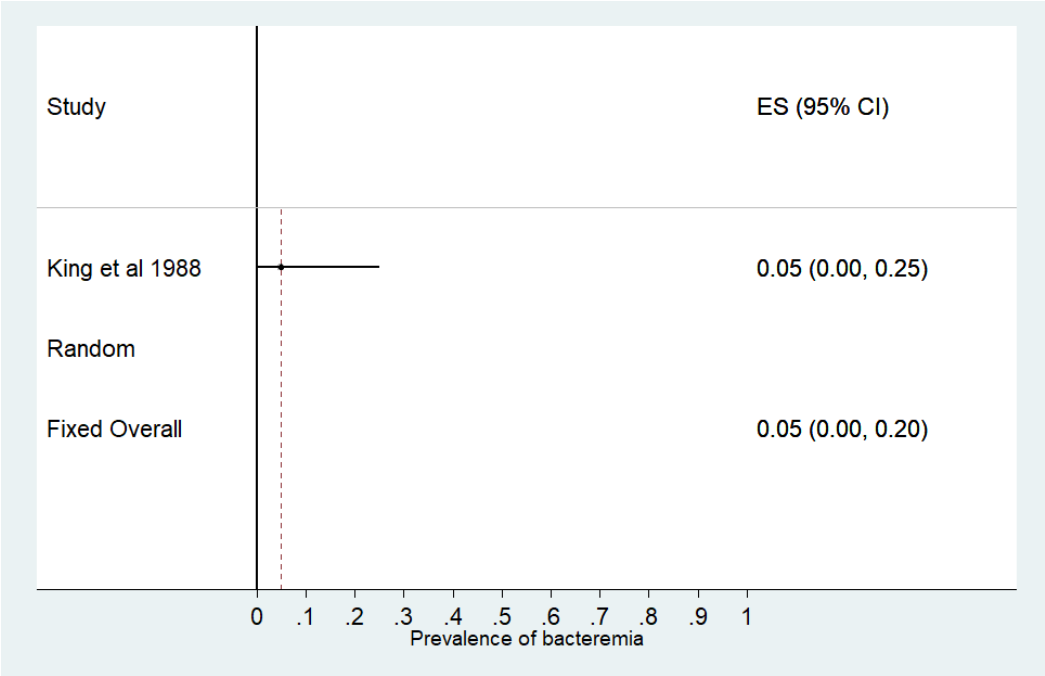
Forest Plot 35P. Meta-analysis of proportion showing the prevalence of bacteremia for other procedure (nRCTs) - baseline.



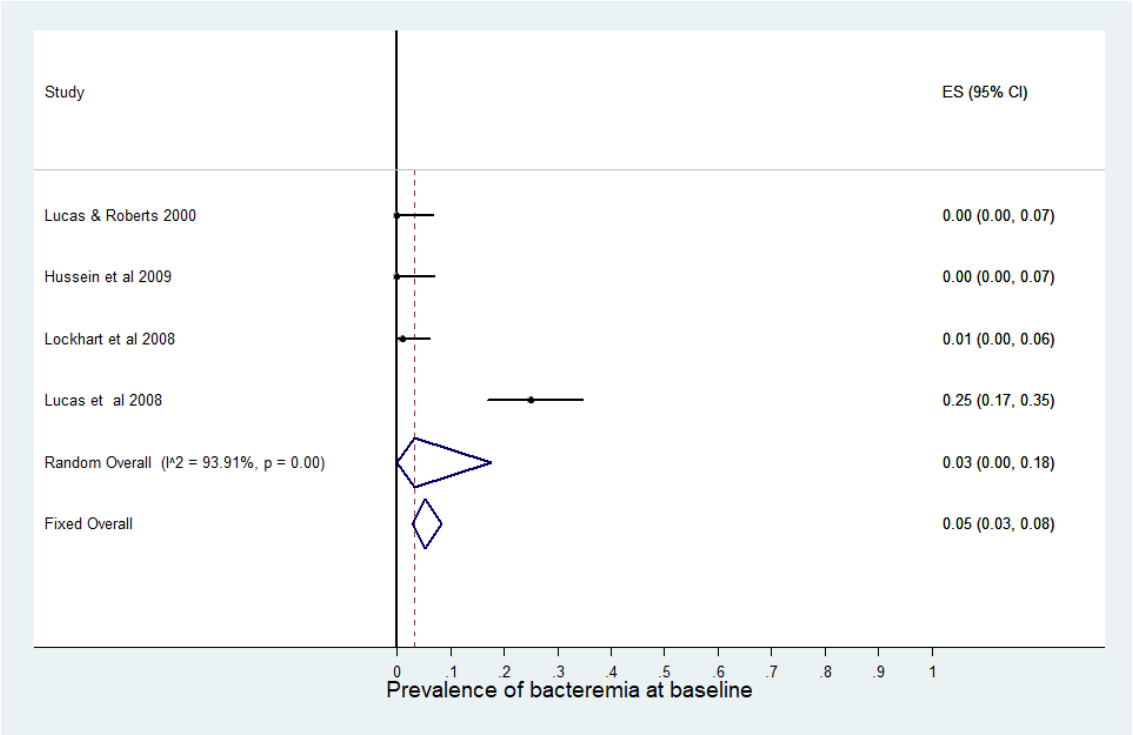
Forest Plot 36P. Meta-analysis of proportion showing the prevalence of bacteremia for other procedure (nRCTs) – within 5 minutes after the procedure.



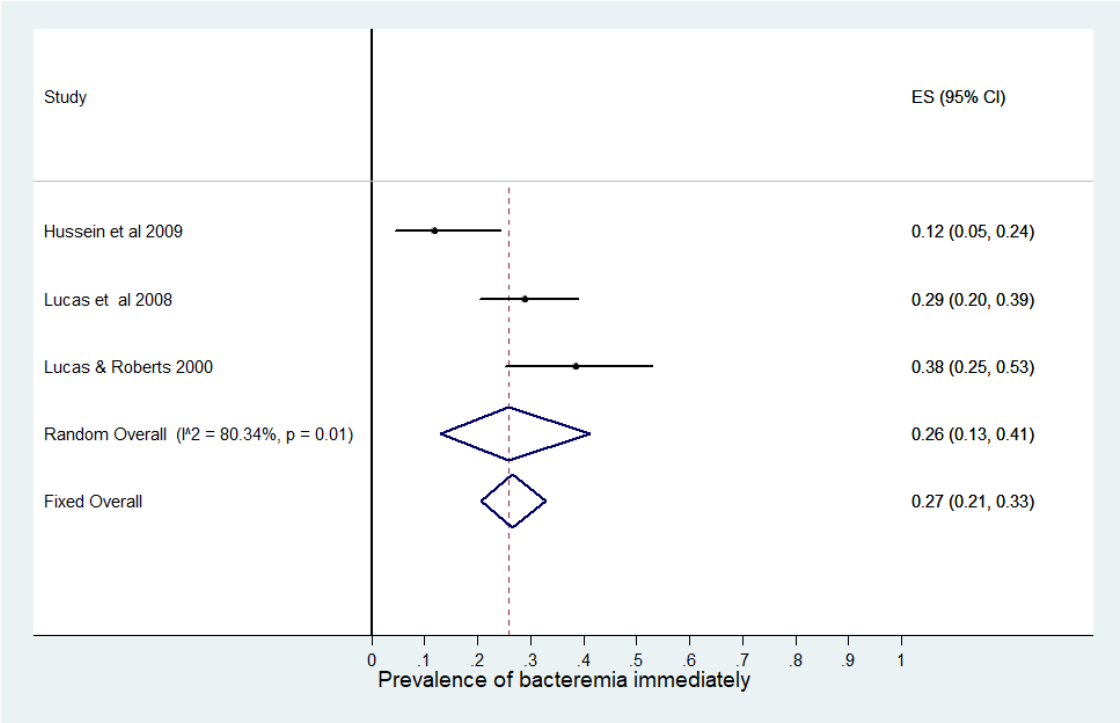
Forest Plot 37P. Meta-analysis of proportion showing the prevalence of bacteremia for other procedure (nRCTs) – 6 to 20 minutes after the procedure.



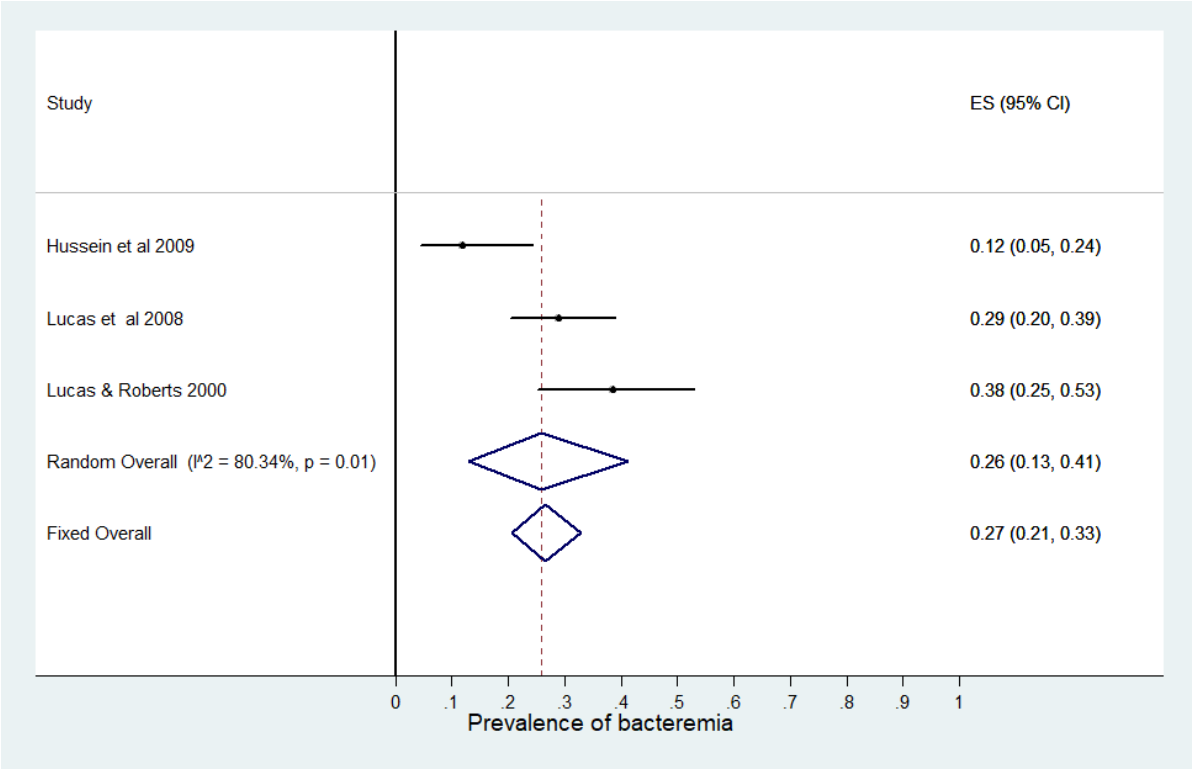
Forest Plot 38P. Meta-analysis of proportion showing the prevalence of bacteremia for other procedure (nRCTs).



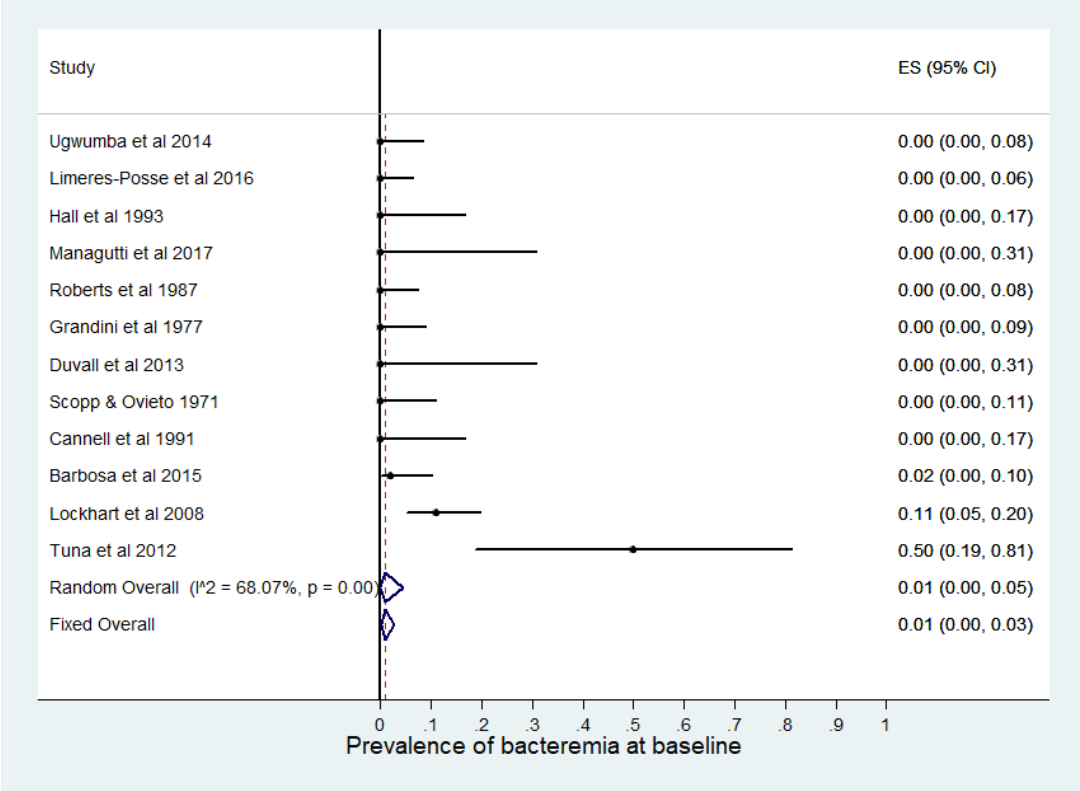
Forest Plot 39P. Meta-analysis of proportion showing the prevalence of bacteremia for toothbrushing (RCTs) - baseline.



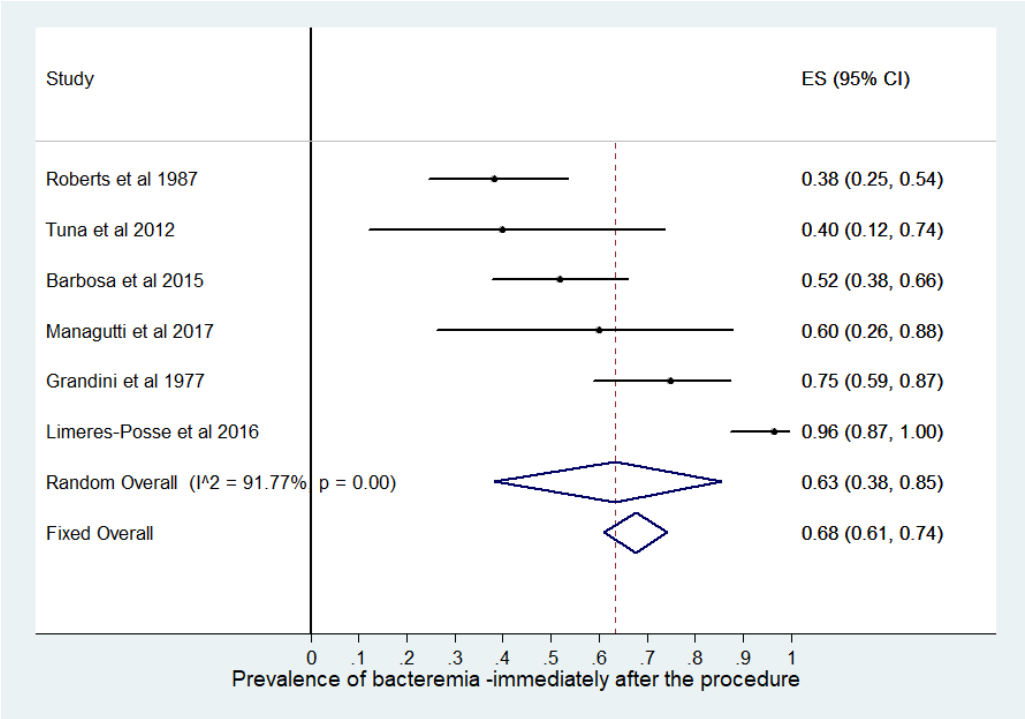
Forest Plot 40P. Meta-analysis of proportion showing the prevalence of bacteremia for toothbrushing (RCTs) – within 5 minutes after the procedure.



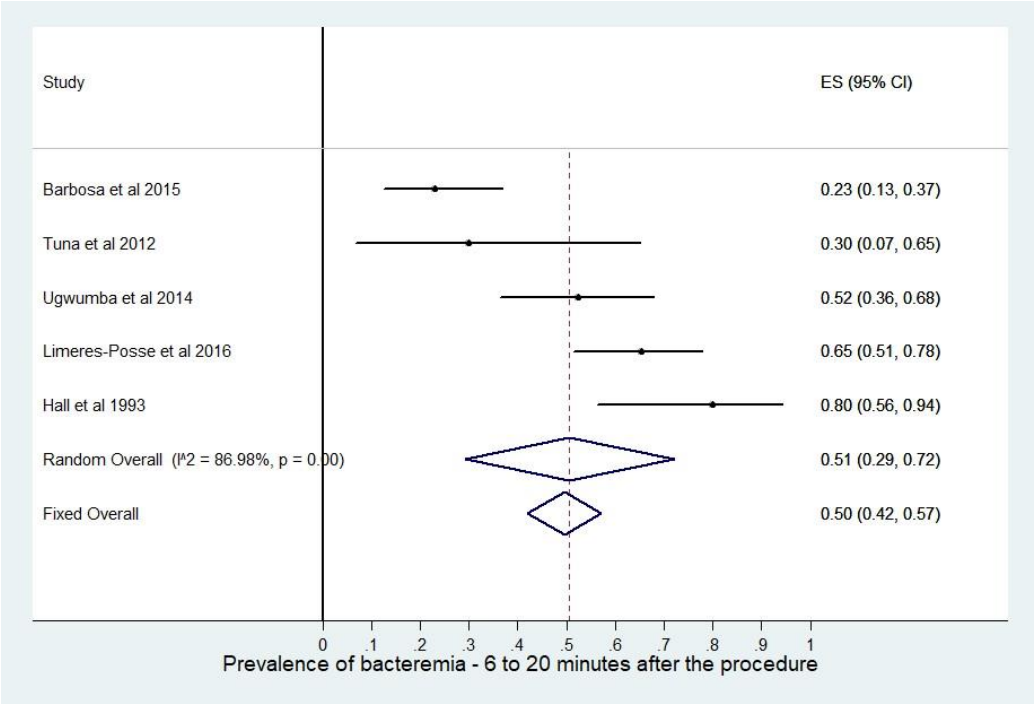
Forest Plot 41P. Meta-analysis of proportion showing the prevalence of bacteremia for toothbrushing (RCTs).



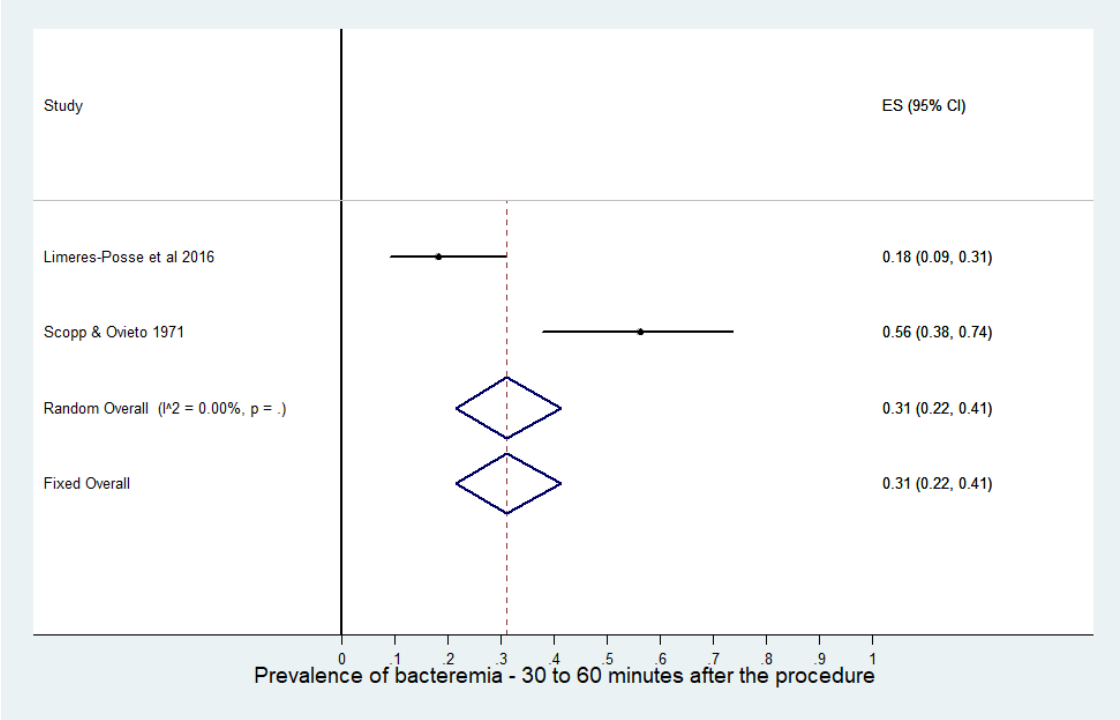
Forest Plot 42P. Meta-analysis of proportion showing the prevalence of bacteremia for dental extraction (RCTs) – baseline.



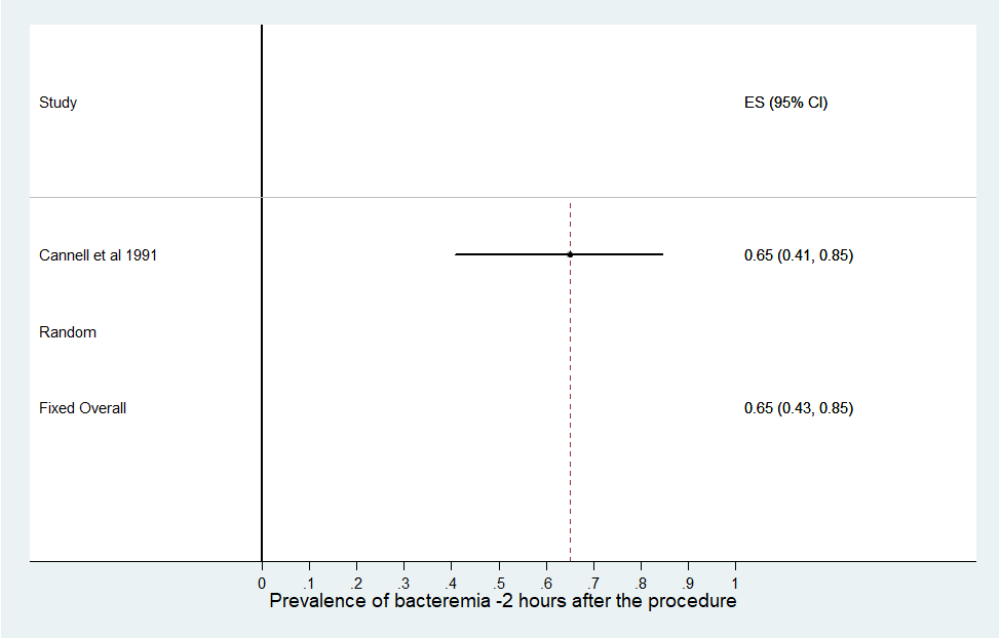
Forest Plot 43P. Meta-analysis of proportion showing the prevalence of bacteremia for dental extraction (RCTs) – within 5 minutes after the procedure.



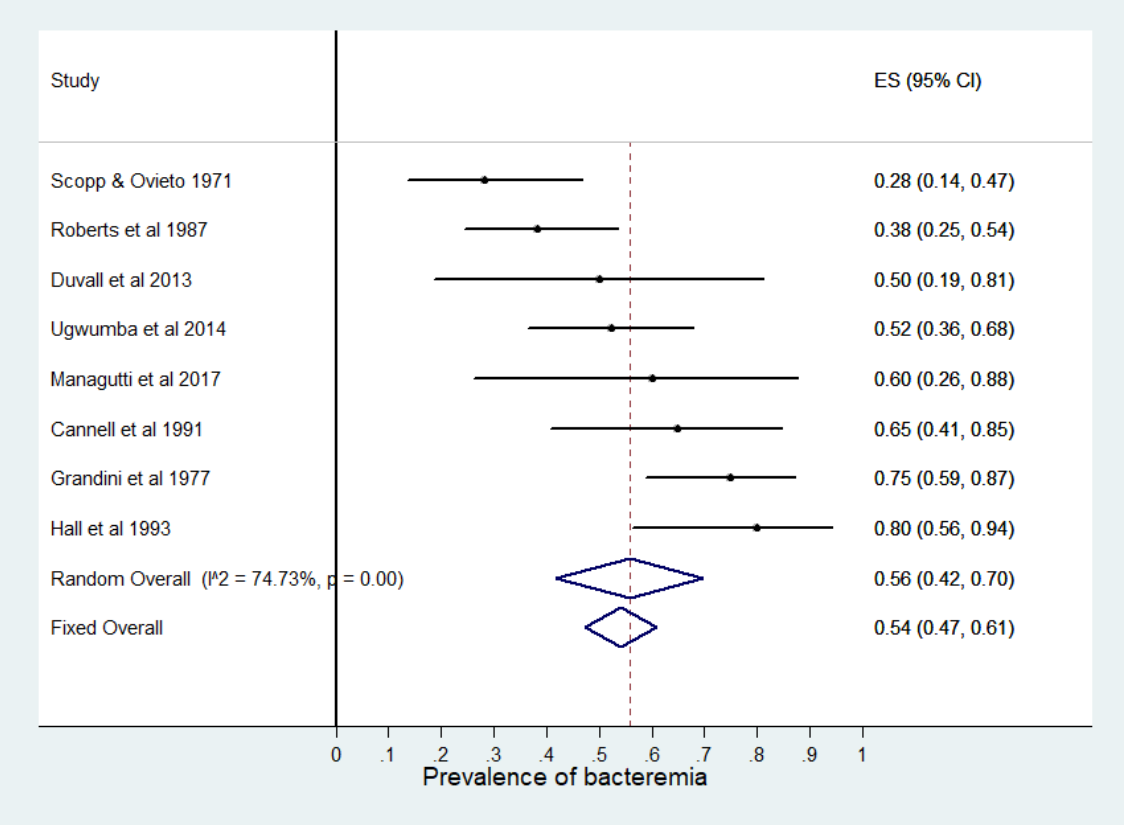
Forest Plot 44P. Meta-analysis of proportion showing the prevalence of bacteremia for dental extraction (RCTs) – 6 to 20 minutes after the procedure.



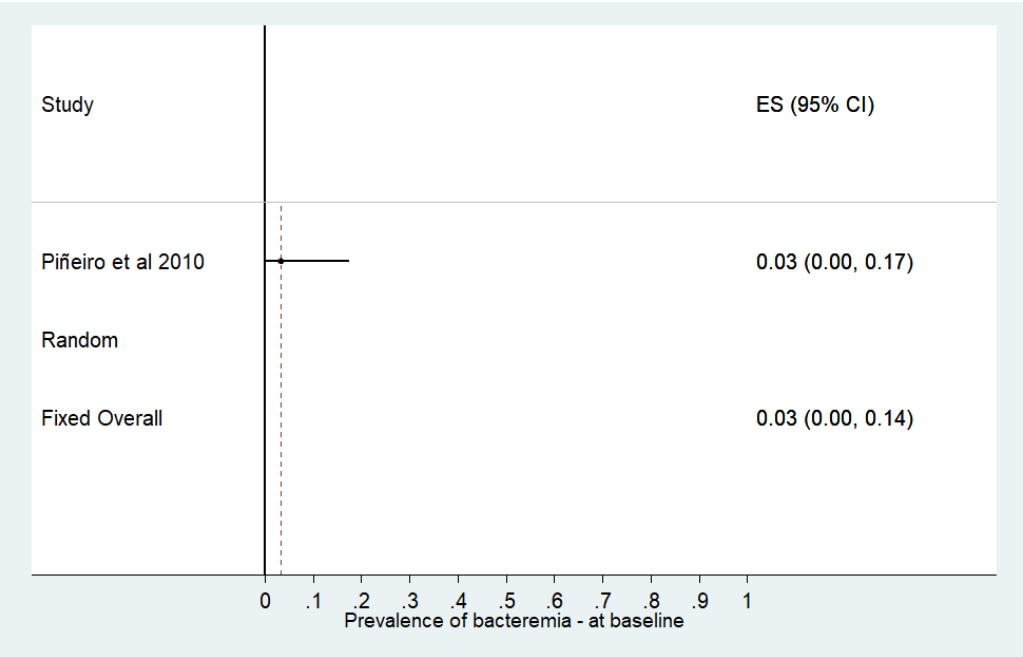
Forest Plot 45P. Meta-analysis of proportion showing the prevalence of bacteremia for dental extraction (RCTs) – 30 to 60 minutes after the procedure.



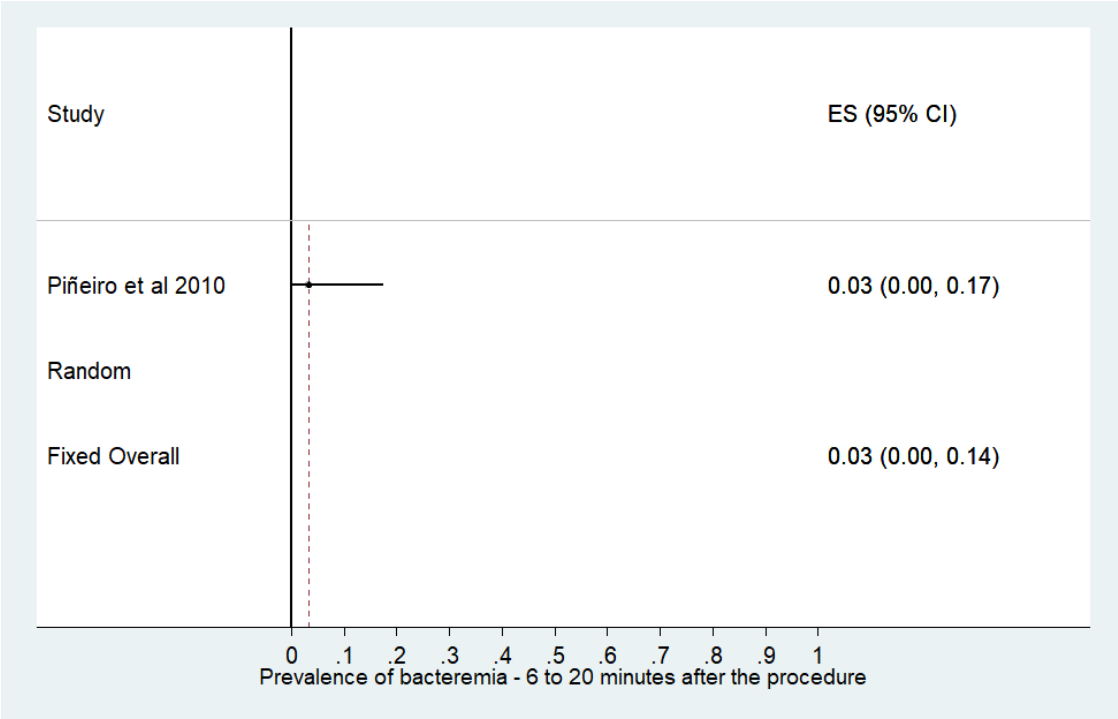
Forest Plot 46P. Meta-analysis of proportion showing the prevalence of bacteremia for dental extraction (RCTs) – 2 hours after the procedure.



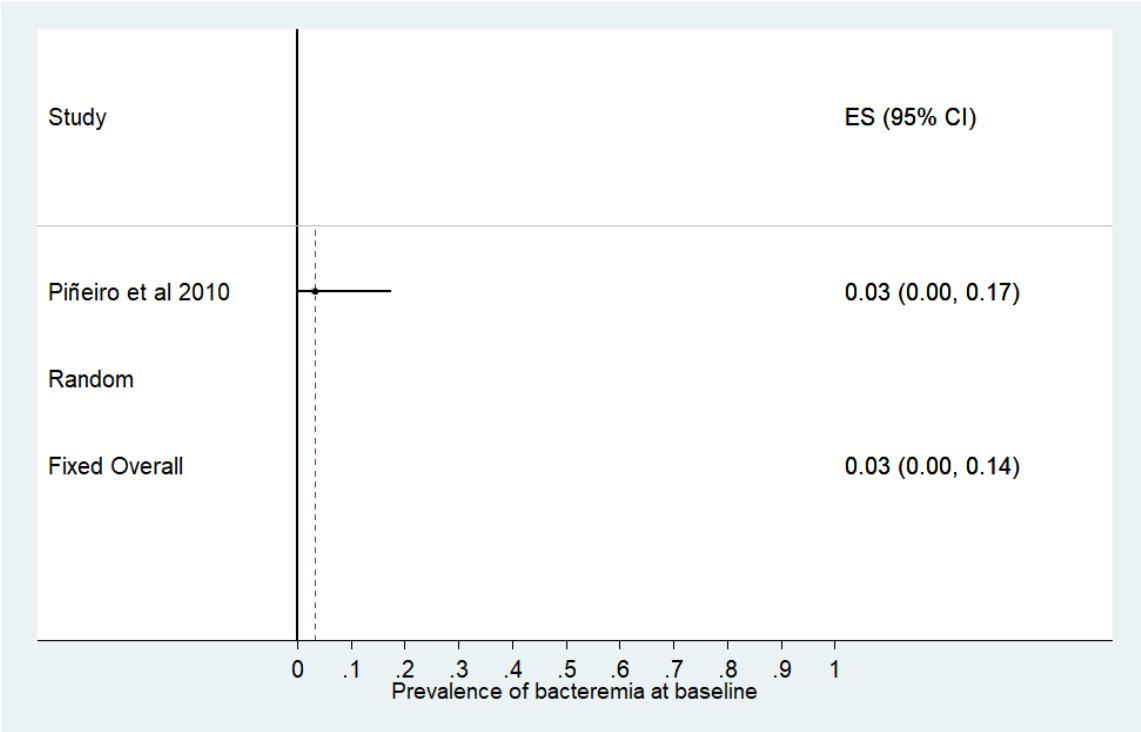
Forest Plot 47P. Meta-analysis of proportion showing the prevalence of bacteremia for dental extraction (RCTs).



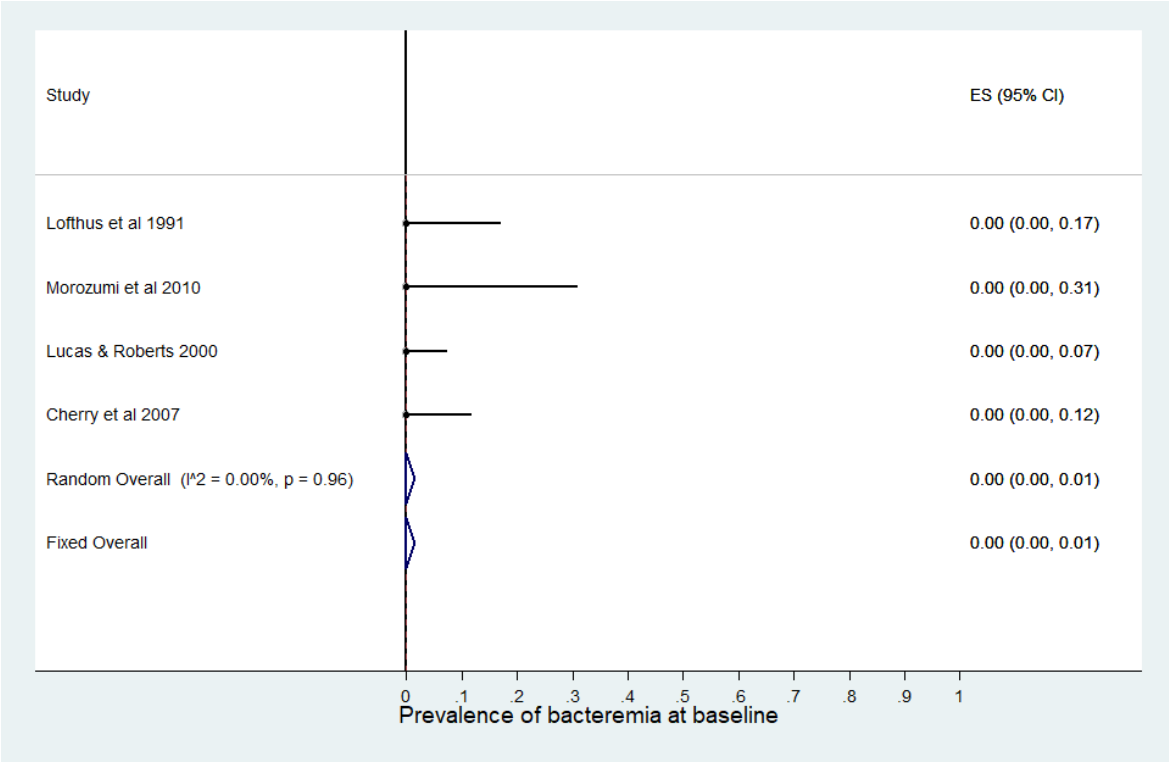
Forest Plot 48P. Meta-analysis of proportion showing the prevalence of bacteremia for oral surgery (RCTs) – baseline.



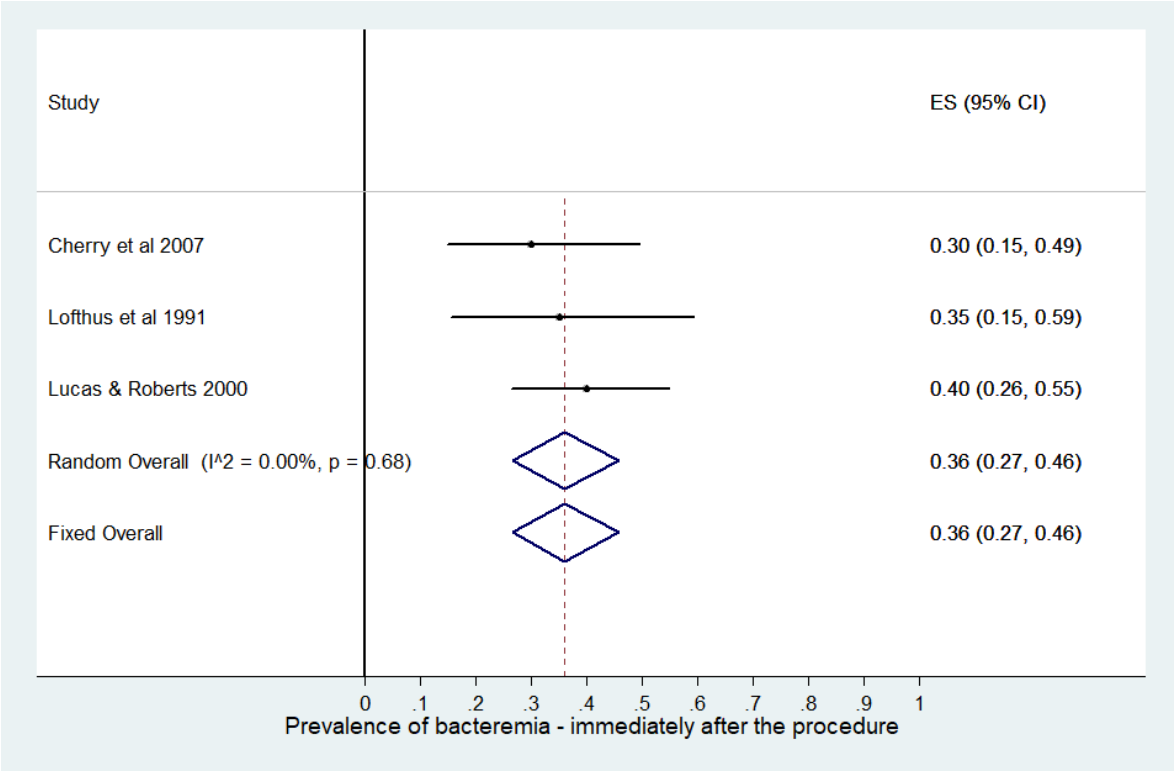
Forest Plot 49P. Meta-analysis of proportion showing the prevalence of bacteremia for oral surgery (RCTs) – 6 to 20 minutes after the procedure.



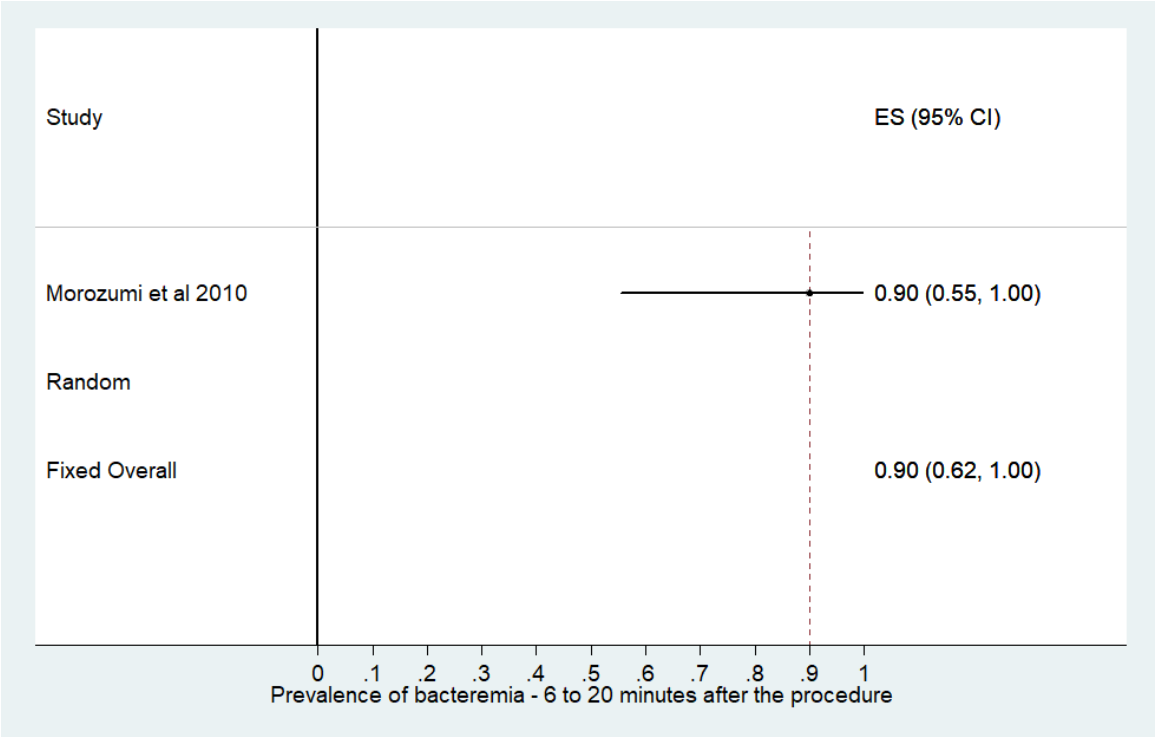
Forest Plot 50P. Meta-analysis of proportion showing the prevalence of bacteremia for oral surgery (RCTs).



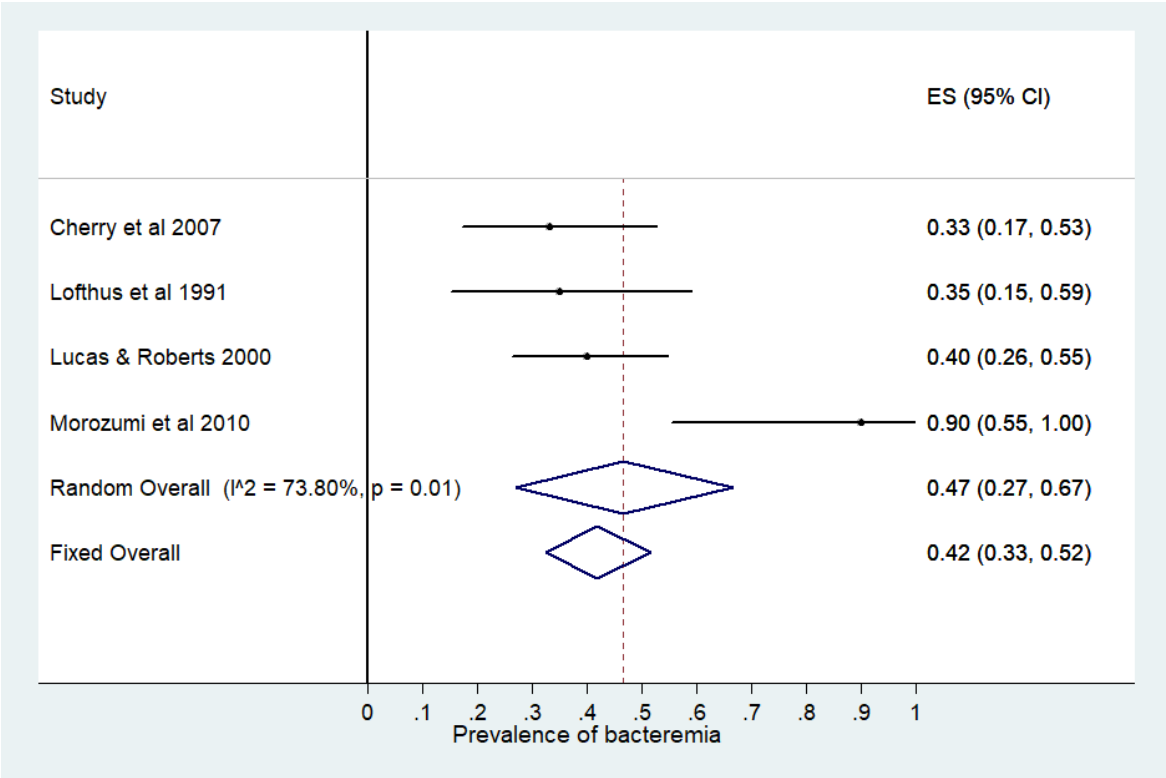
Forest Plot 51P. Meta-analysis of proportion showing the prevalence of bacteremia for SRP (RCTs) – at baseline.



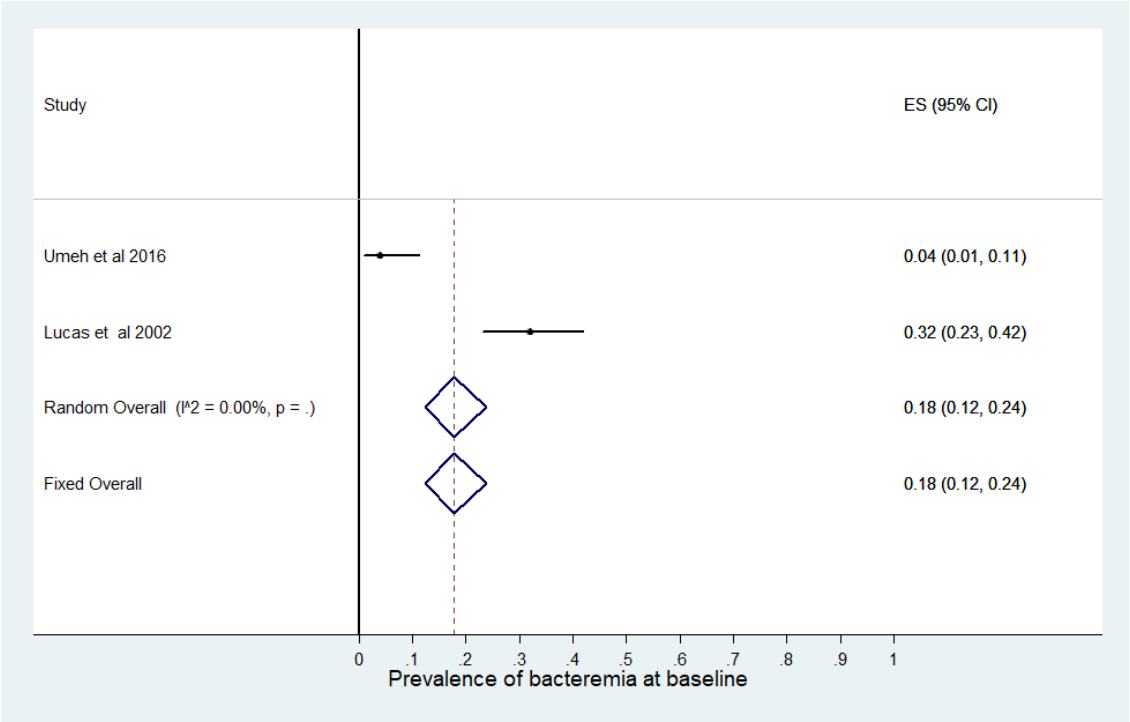
Forest Plot 52P. Meta-analysis of proportion showing the prevalence of bacteremia for SRP (RCTs) – within 5 minutes after the procedure.



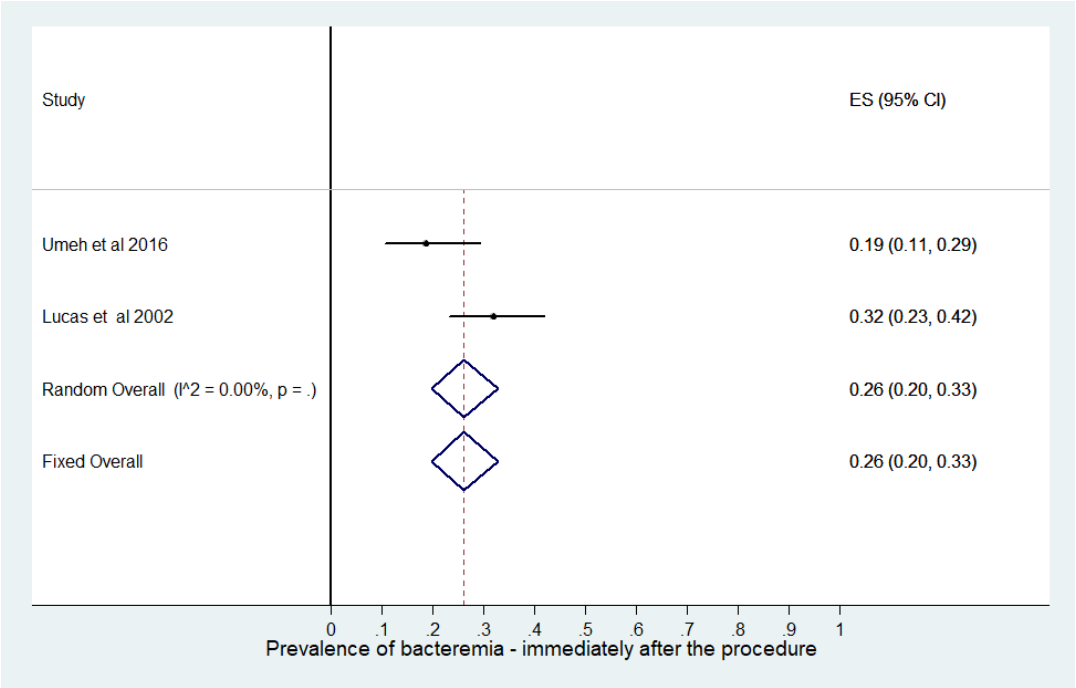
Forest Plot 53P. Meta-analysis of proportion showing the prevalence of bacteremia for SRP (RCTs) – 6 to 20 minutes after the procedure.



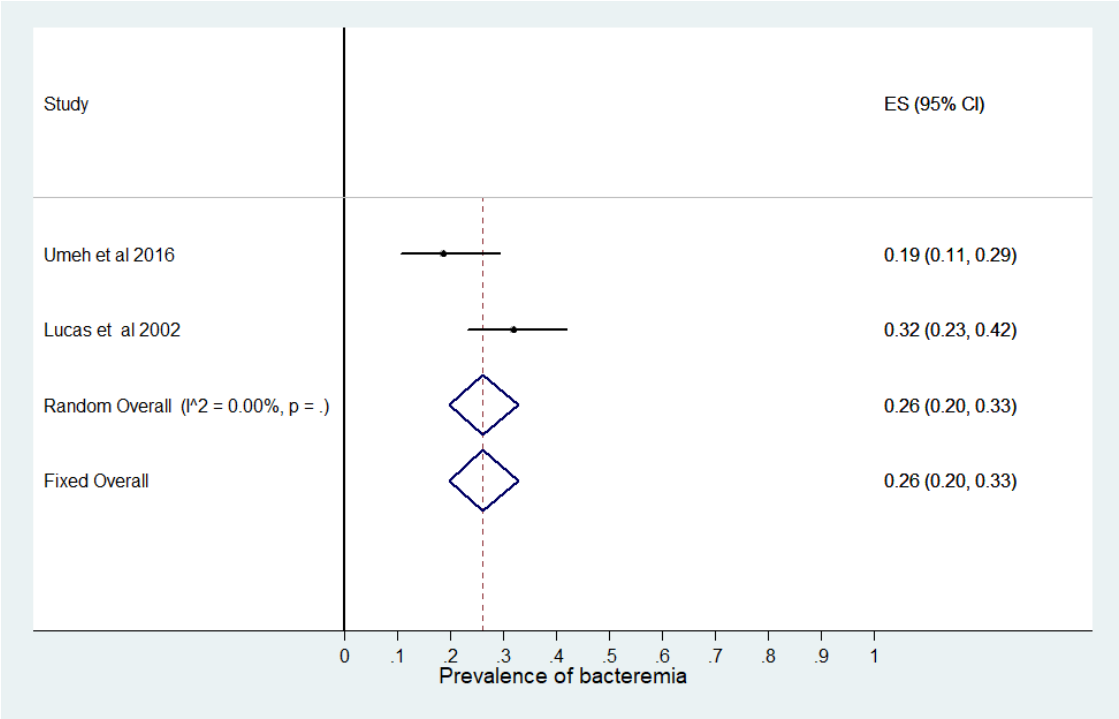
Forest Plot 54P. Meta-analysis of proportion showing the prevalence of bacteremia for SRP (RCTs).



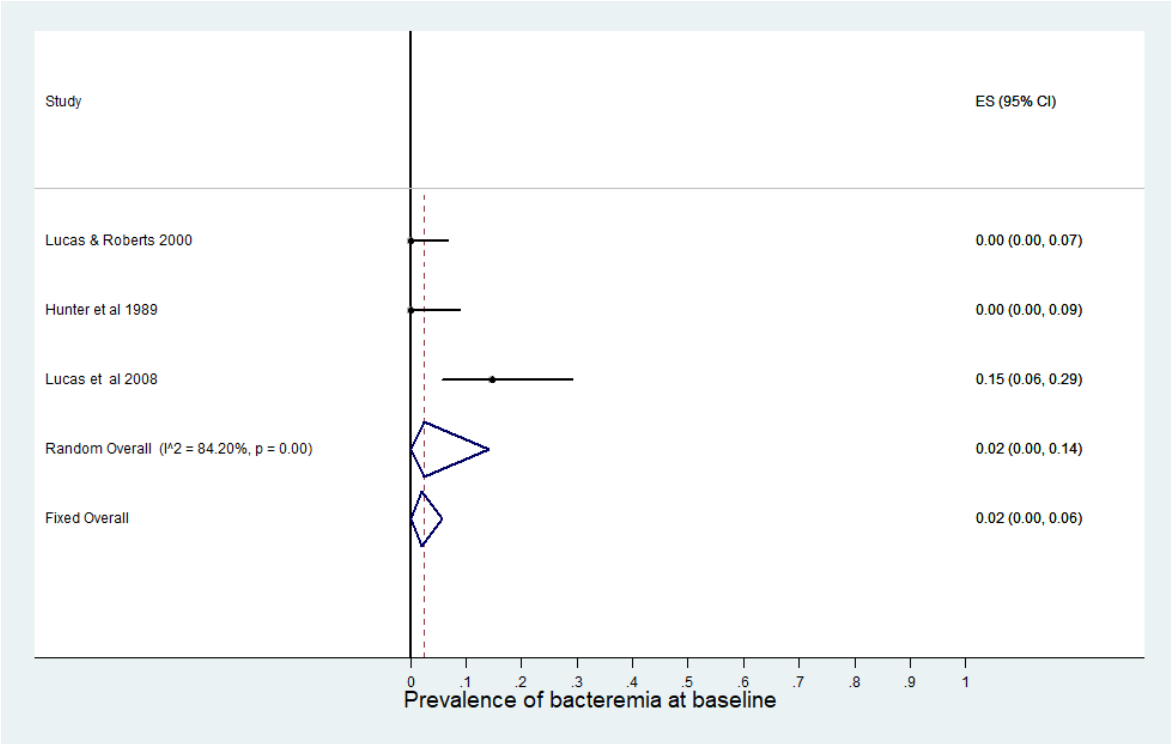
Forest Plot 55P. Meta-analysis of proportion showing the prevalence of bacteremia for orthodontic procedure (RCTs) – baseline.



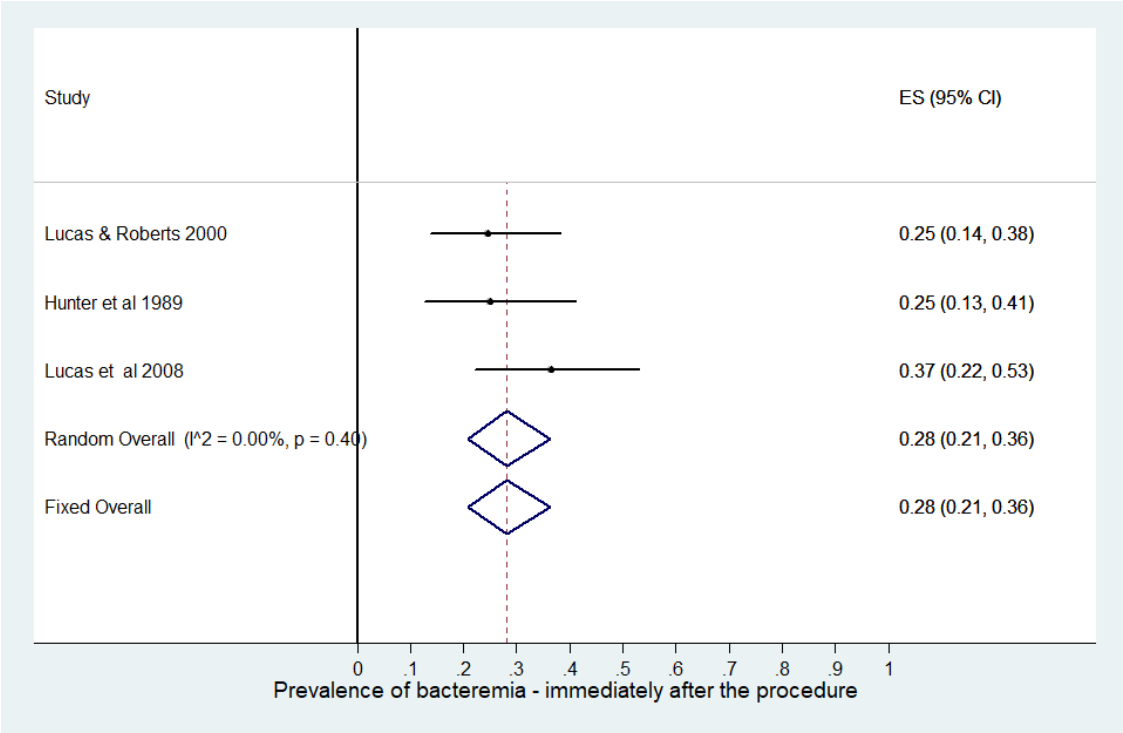
Forest Plot 56P. Meta-analysis of proportion showing the prevalence of bacteremia for orthodontic procedure (RCTs) – within 5 minutes after the procedure.



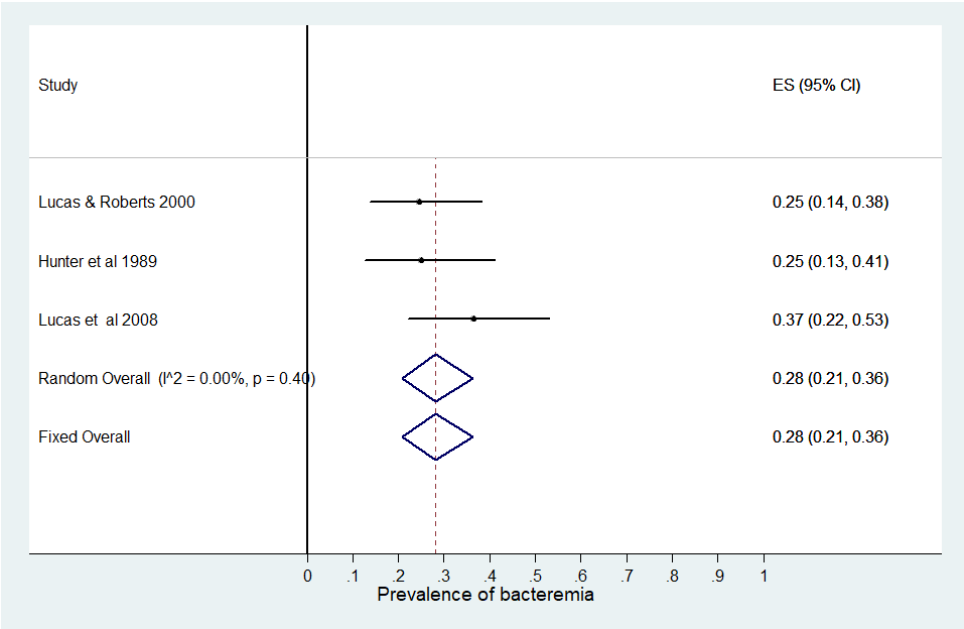
Forest Plot 57P. Meta-analysis of proportion showing the prevalence of bacteremia for orthodontic procedure (RCTs).



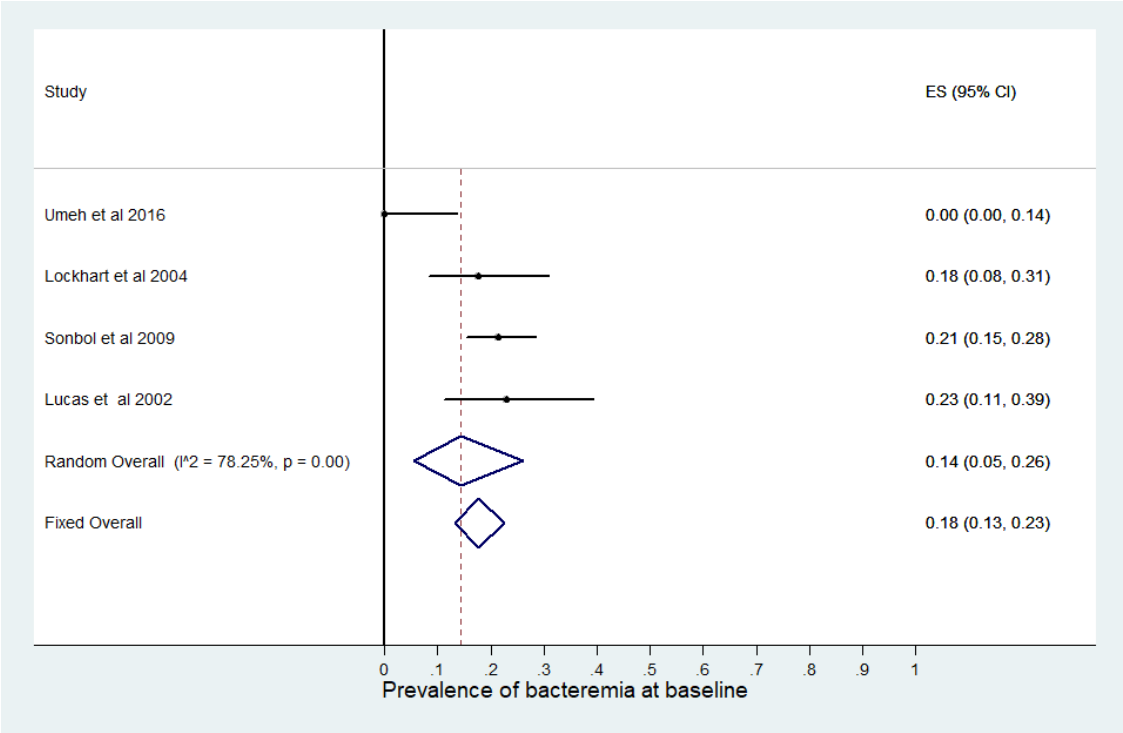
Forest Plot 58P. Meta-analysis of proportion showing the prevalence of bacteremia for OHP (RCTs) – baseline.



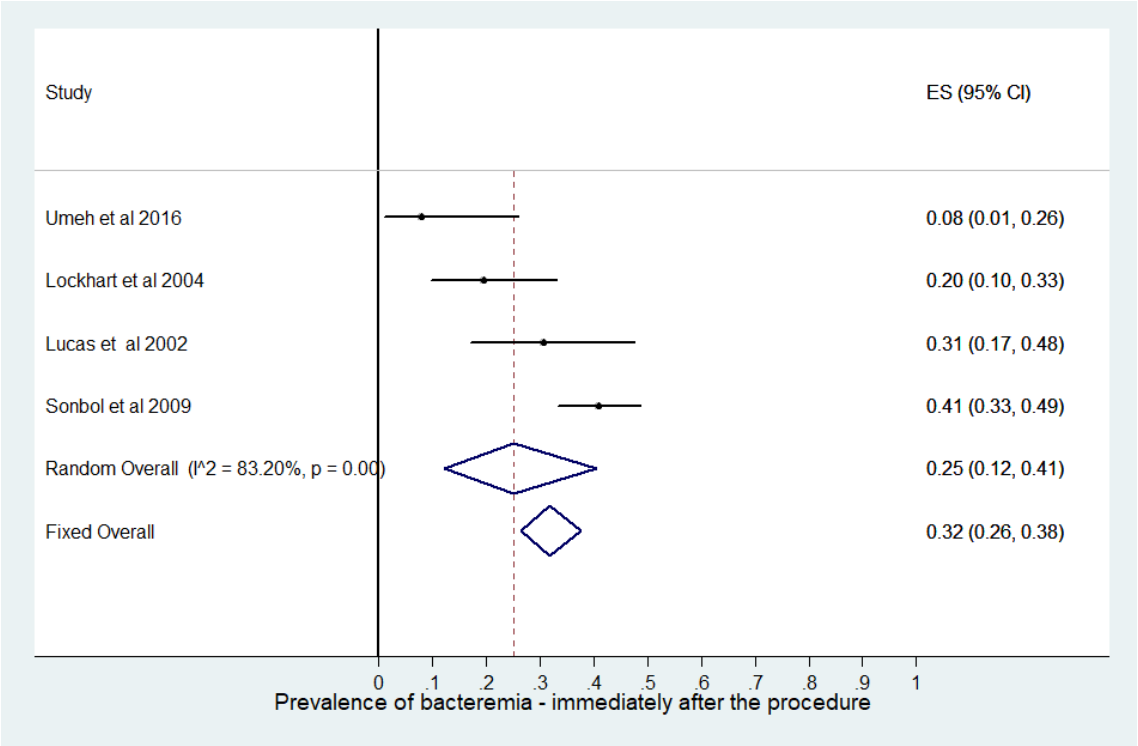
Forest Plot 59P. Meta-analysis of proportion showing the prevalence of bacteremia for OHP (RCTs) – within 5 minutes after the procedure.



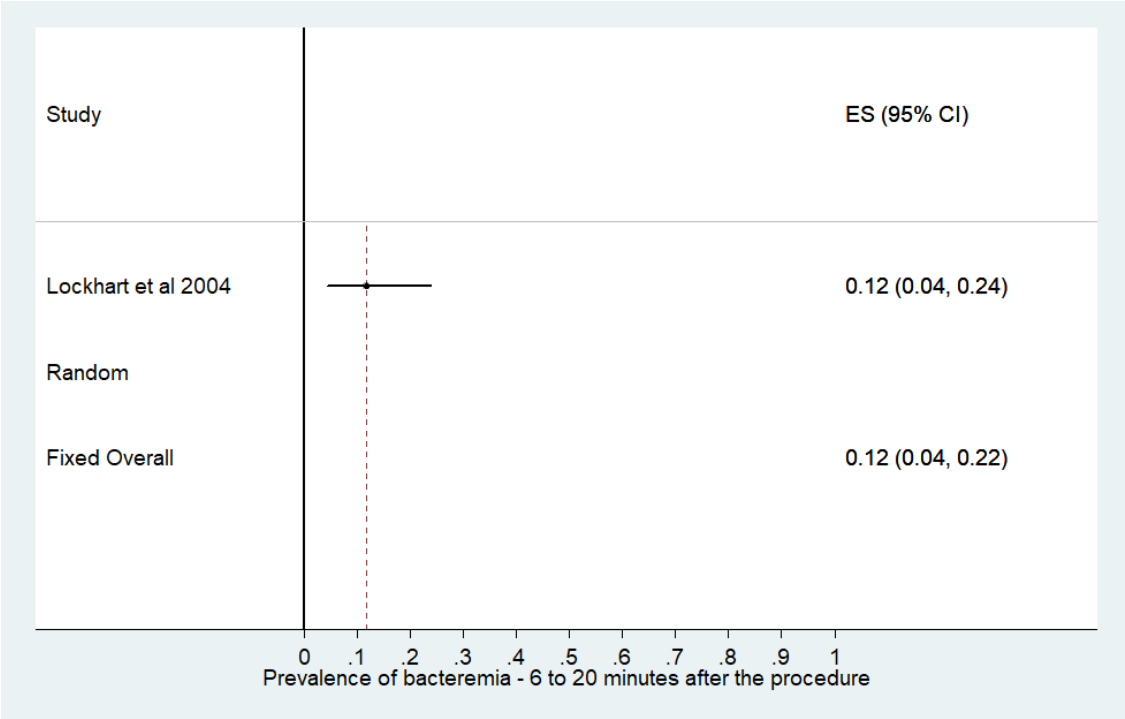
Forest Plot 60P. Meta-analysis of proportion showing the prevalence of bacteremia for OHP (RCTs).



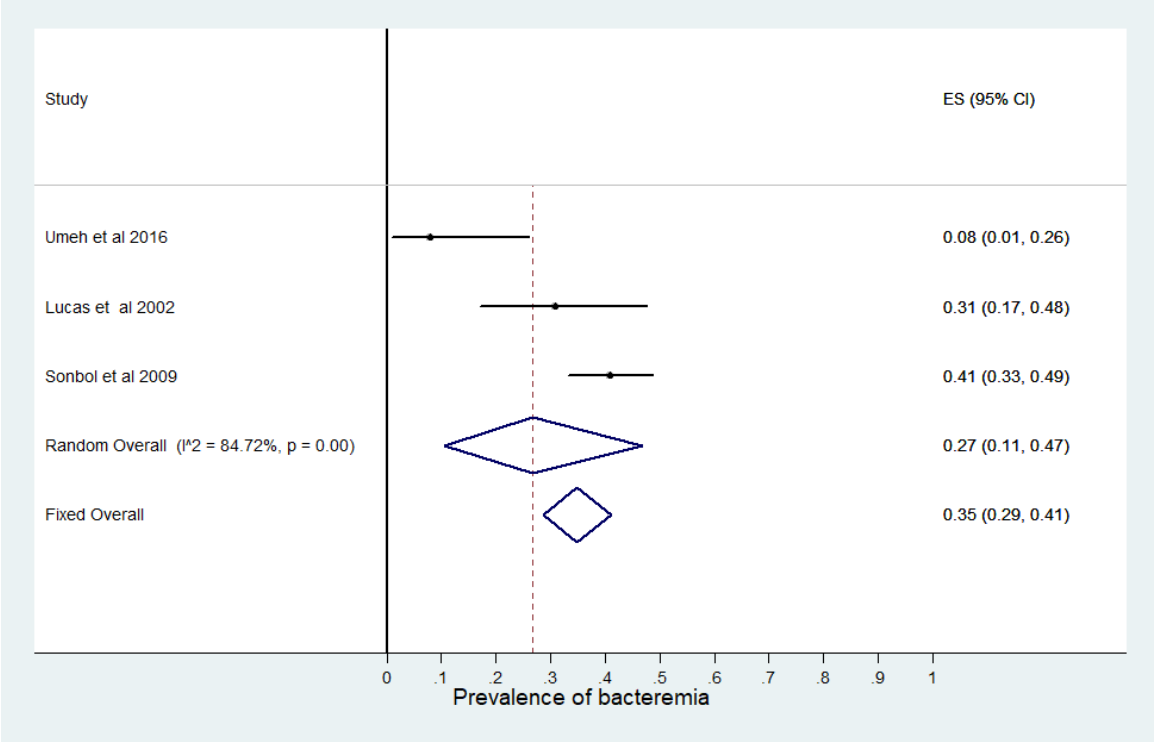
Forest Plot 61P. Meta-analysis of proportion showing the prevalence of bacteremia for other procedure (RCTs) – baseline.



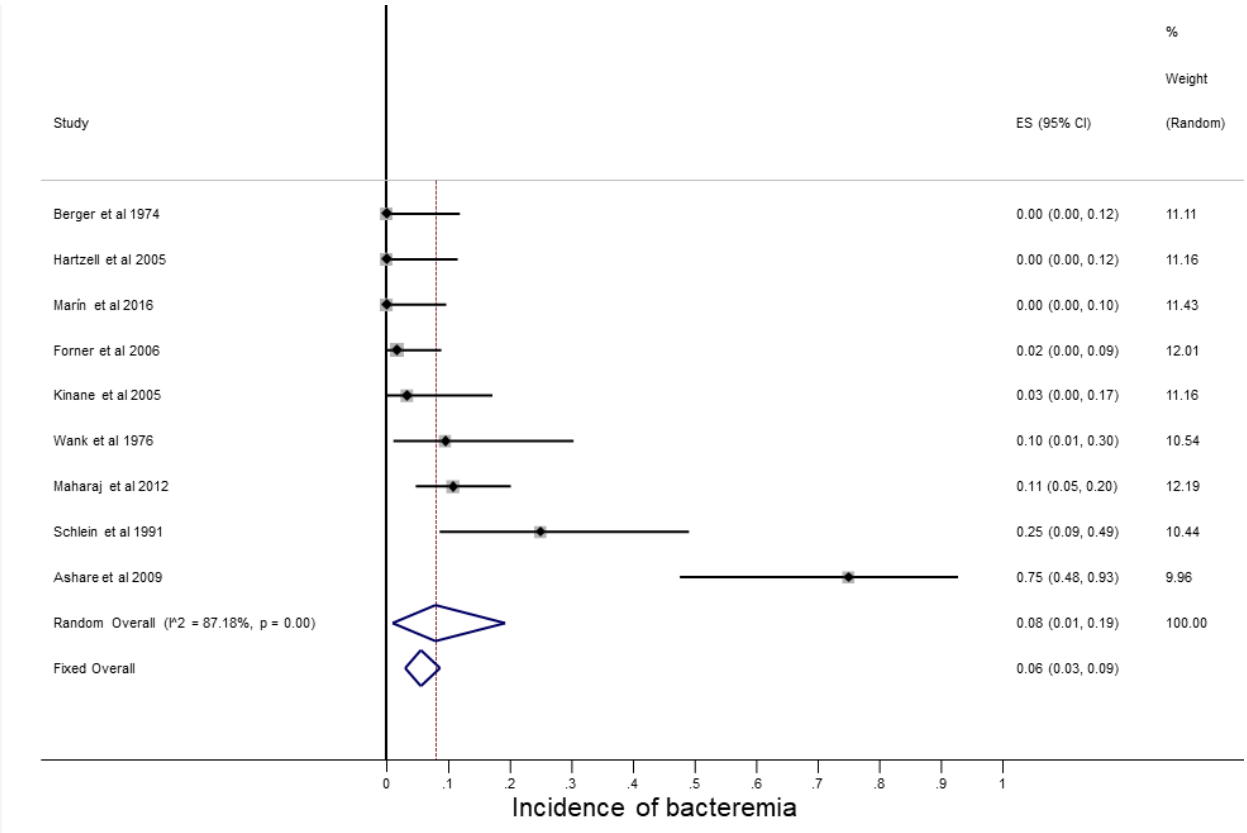
Forest Plot 62P. Meta-analysis of proportion showing the prevalence of bacteremia for other procedure (RCTs) – within 5 minutes after the procedure.



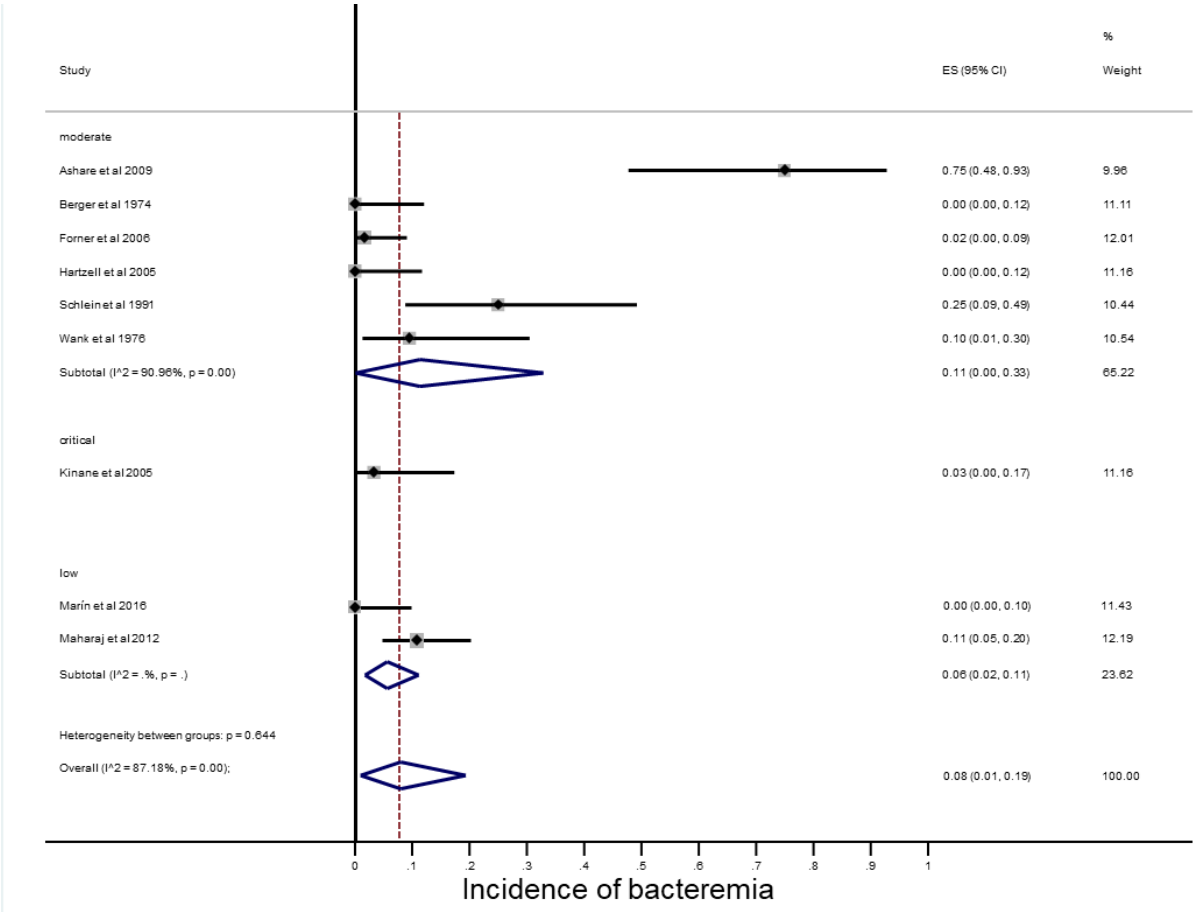
Forest Plot 63P. Meta-analysis of proportion showing the prevalence of bacteremia for other procedure (RCTs) – 6 to 20 minutes after the procedure



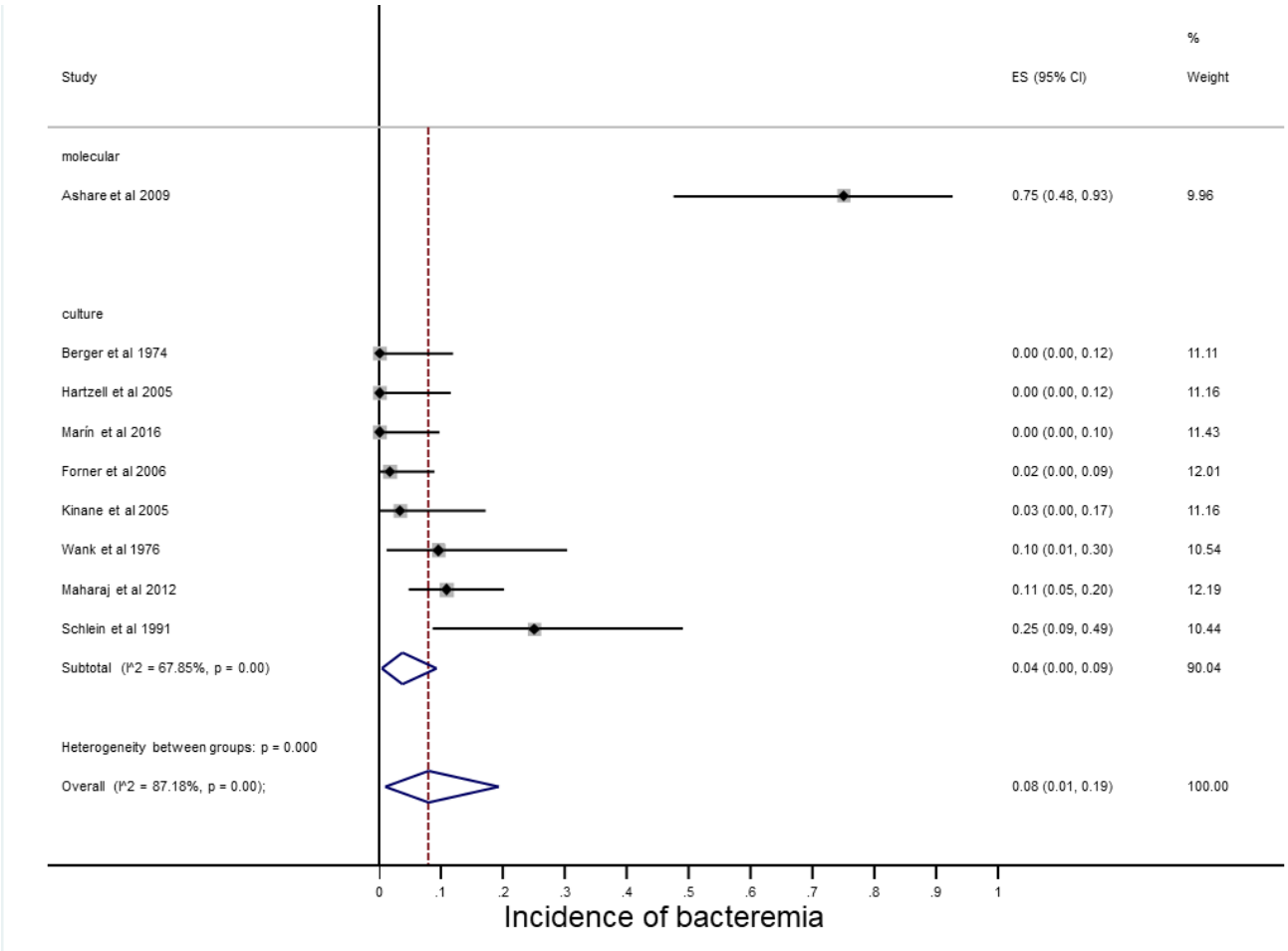
Forest Plot 64P. Meta-analysis of proportion showing the prevalence of bacteremia for other procedure (RCTs).



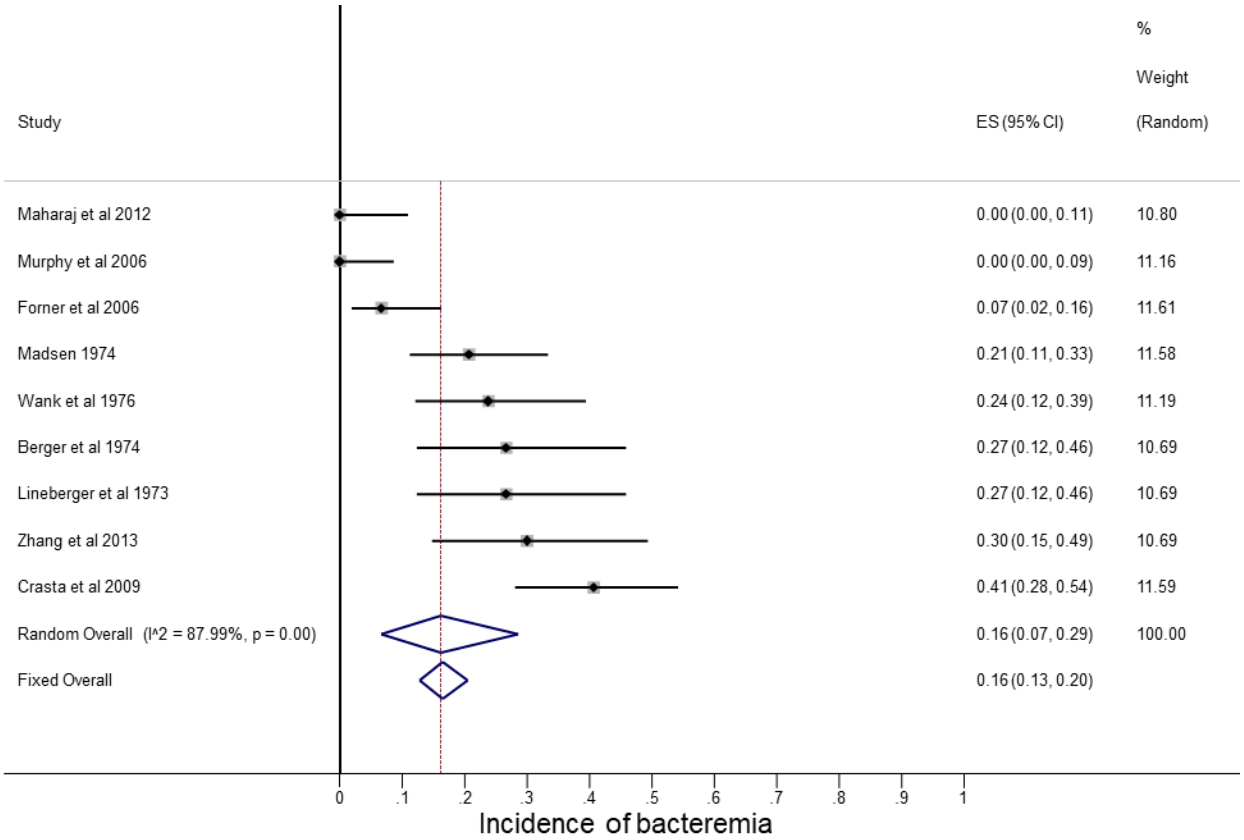
Forest Plot 1I. Meta-analysis of proportion showing the incidence of bacteremia for ADL toothbrushing (nRCTs).



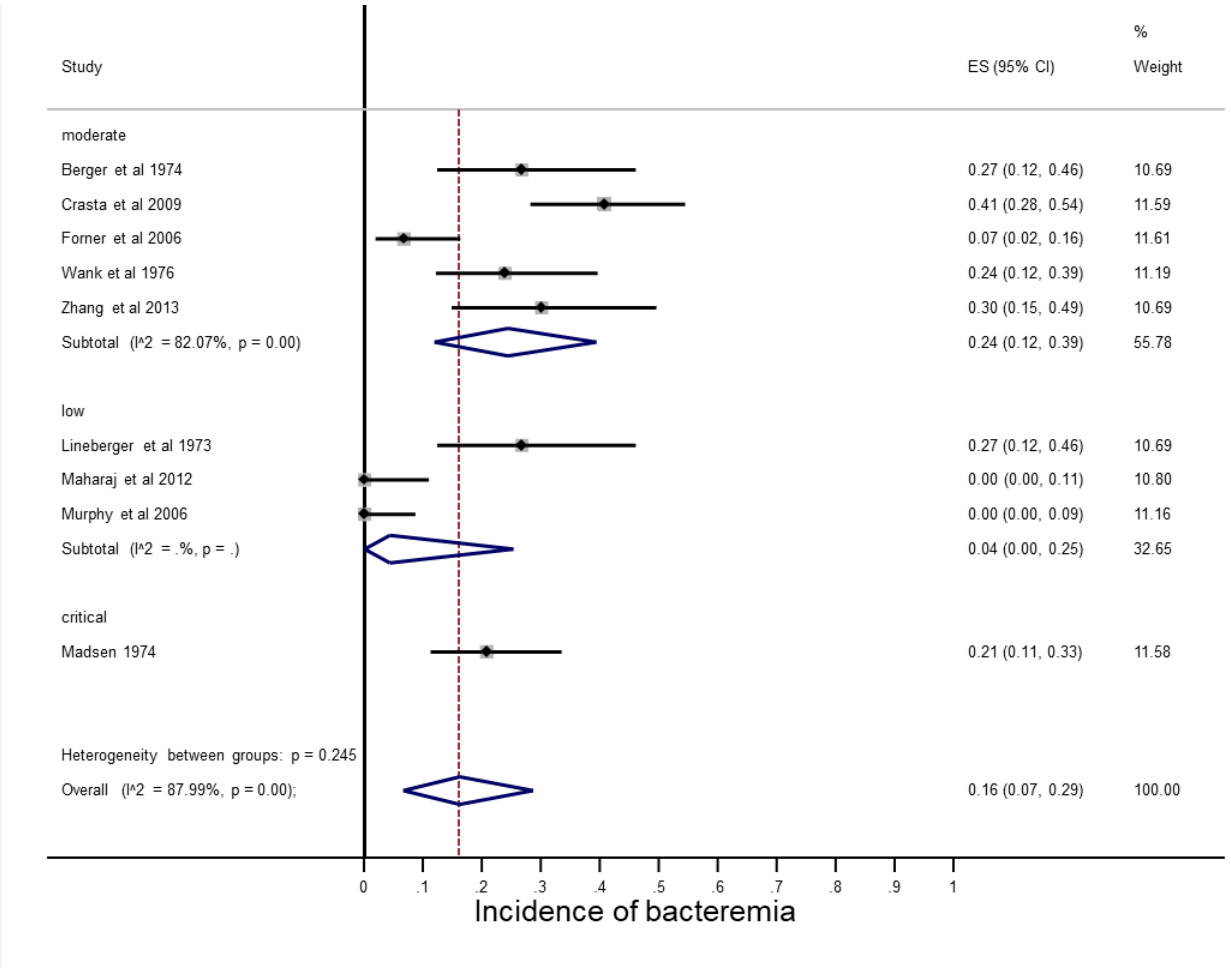
Forest Plot 2I. Meta-analysis of proportion showing the incidence of bacteremia for ADL toothbrushing subgrouped by risk of bias (nRCTs).



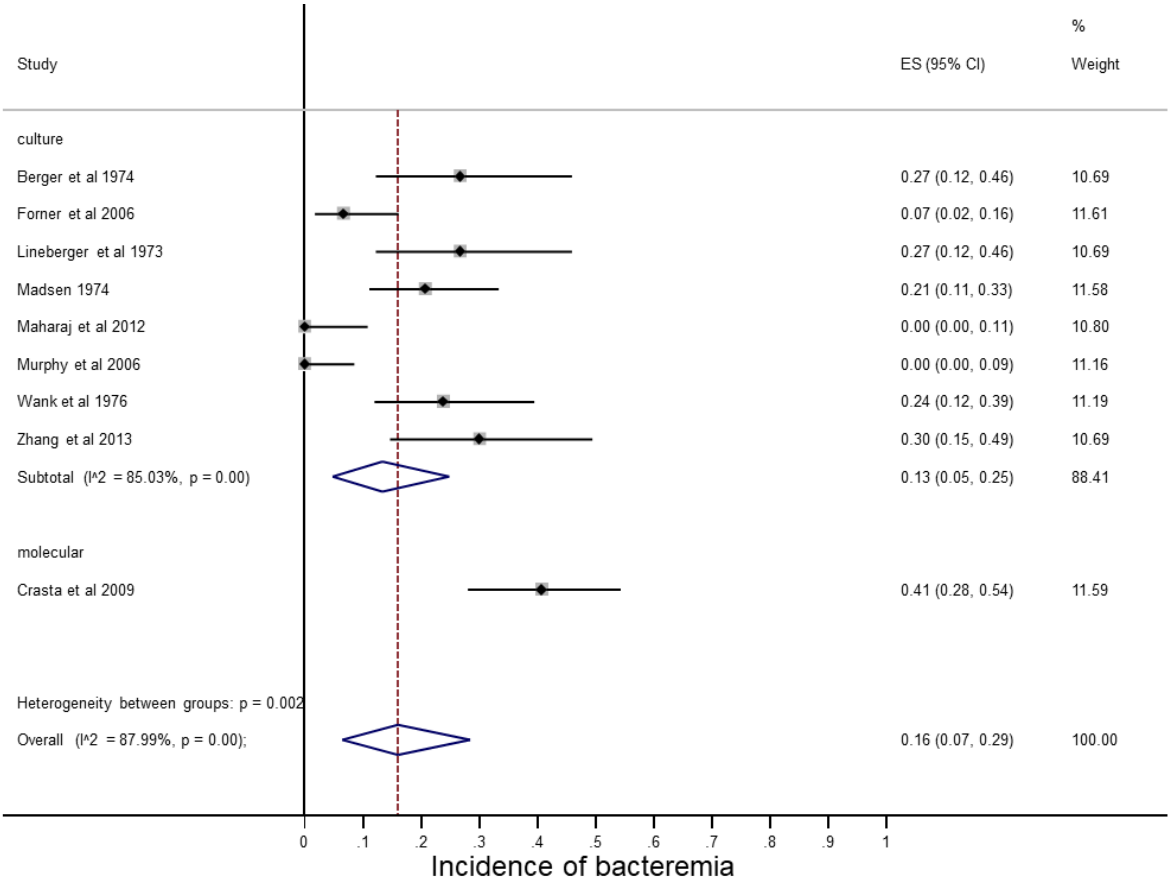
Forest Plot 3I. Meta-analysis of proportion showing the incidence of bacteremia for ADL toothbrushing subgrouped by method for detecting bacteria (nRCTs).



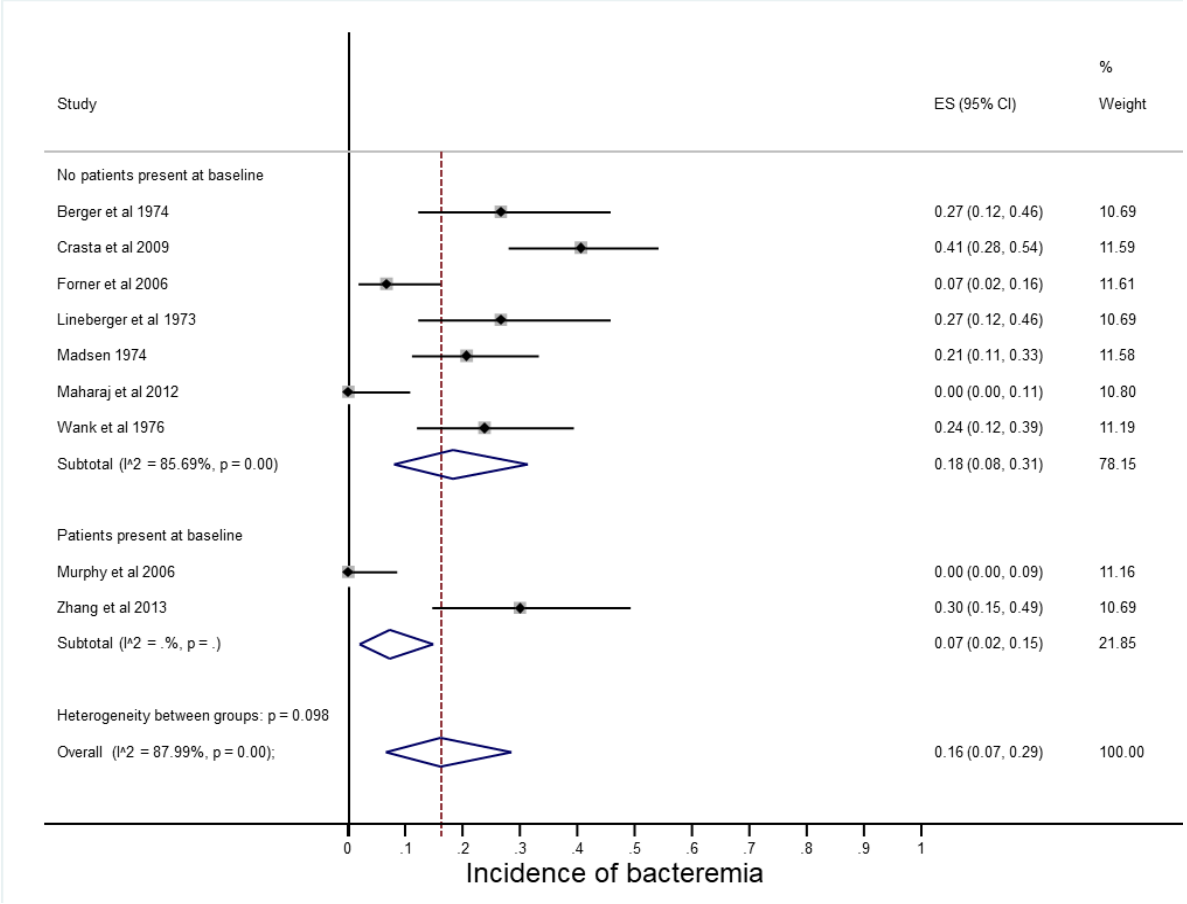
Forest Plot 4I. Meta-analysis of proportion showing the incidence of bacteremia for other ADL (nRCTs).



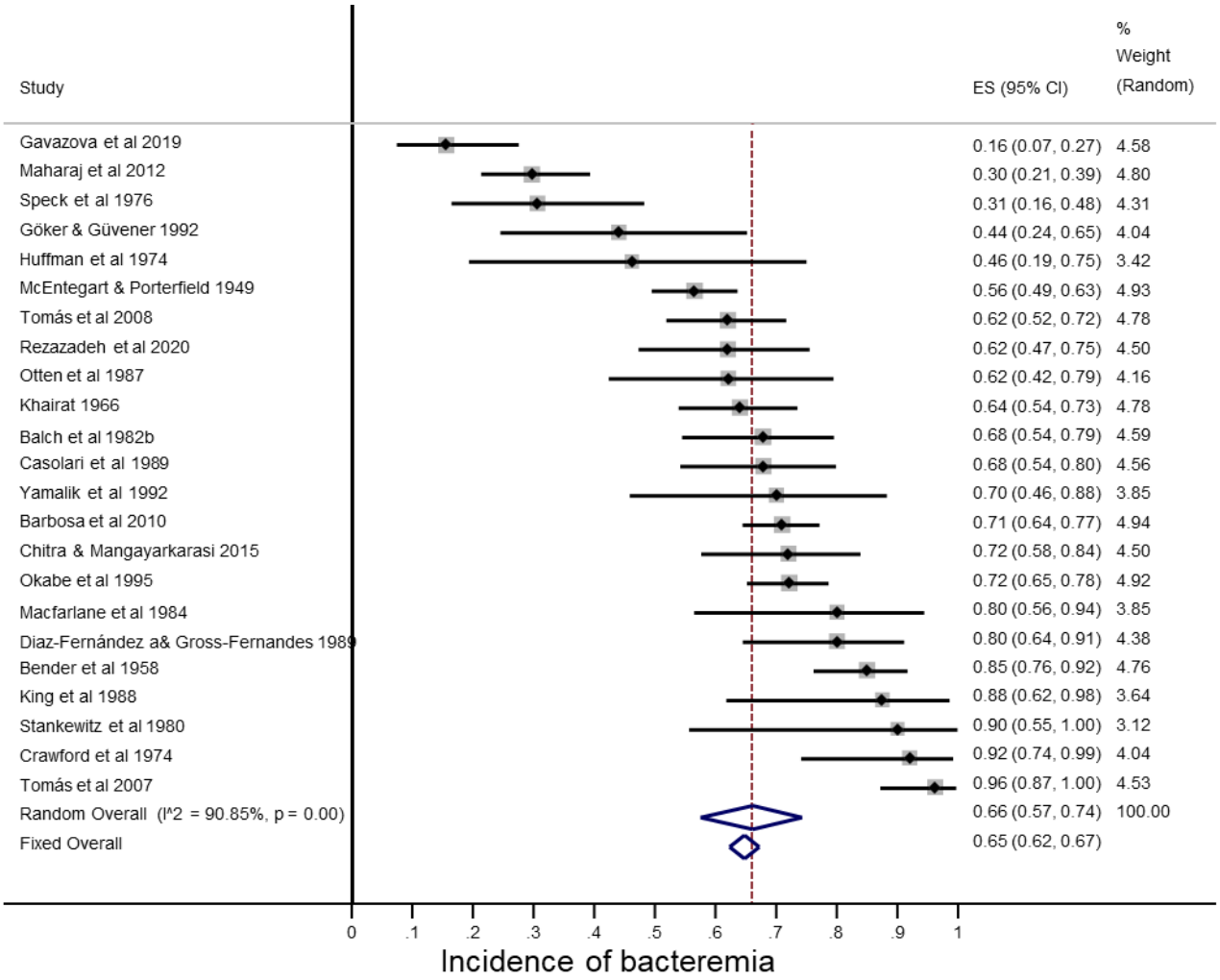
Forest Plot 5I. Meta-analysis of proportion showing the incidence of bacteremia for other ADL subgrouped by risk of bias (nRCTs).



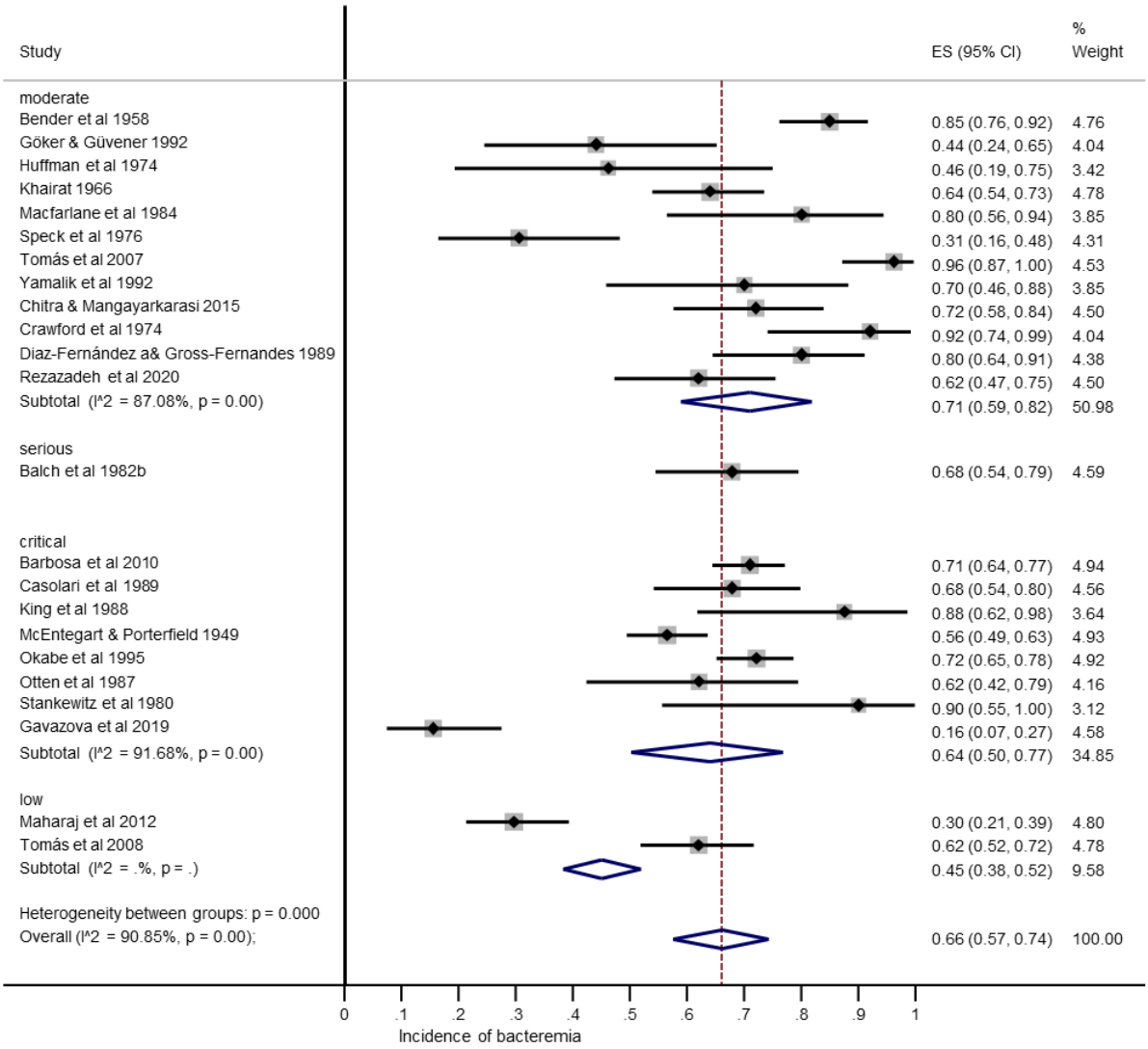
Forest Plot 6I. Meta-analysis of proportion showing the incidence of bacteremia for other ADL subgrouped by rmethod for detecting bacteremia (nRCTs).



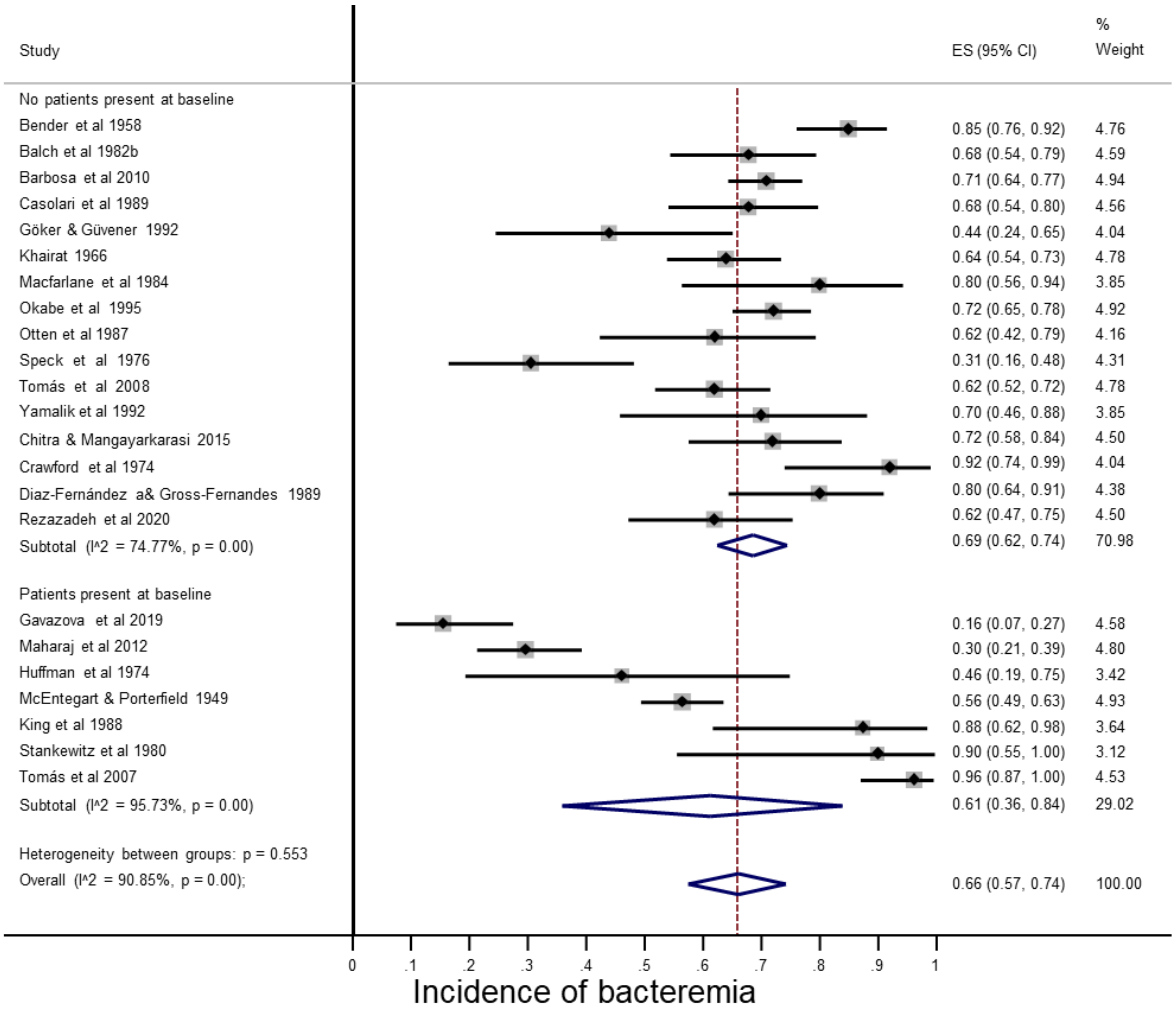
Forest Plot 7I. Meta-analysis of proportion showing the incidence of bacteremia for other ADL subgrouped by presence/ absence of bacteremia at baseline (nRCTs).



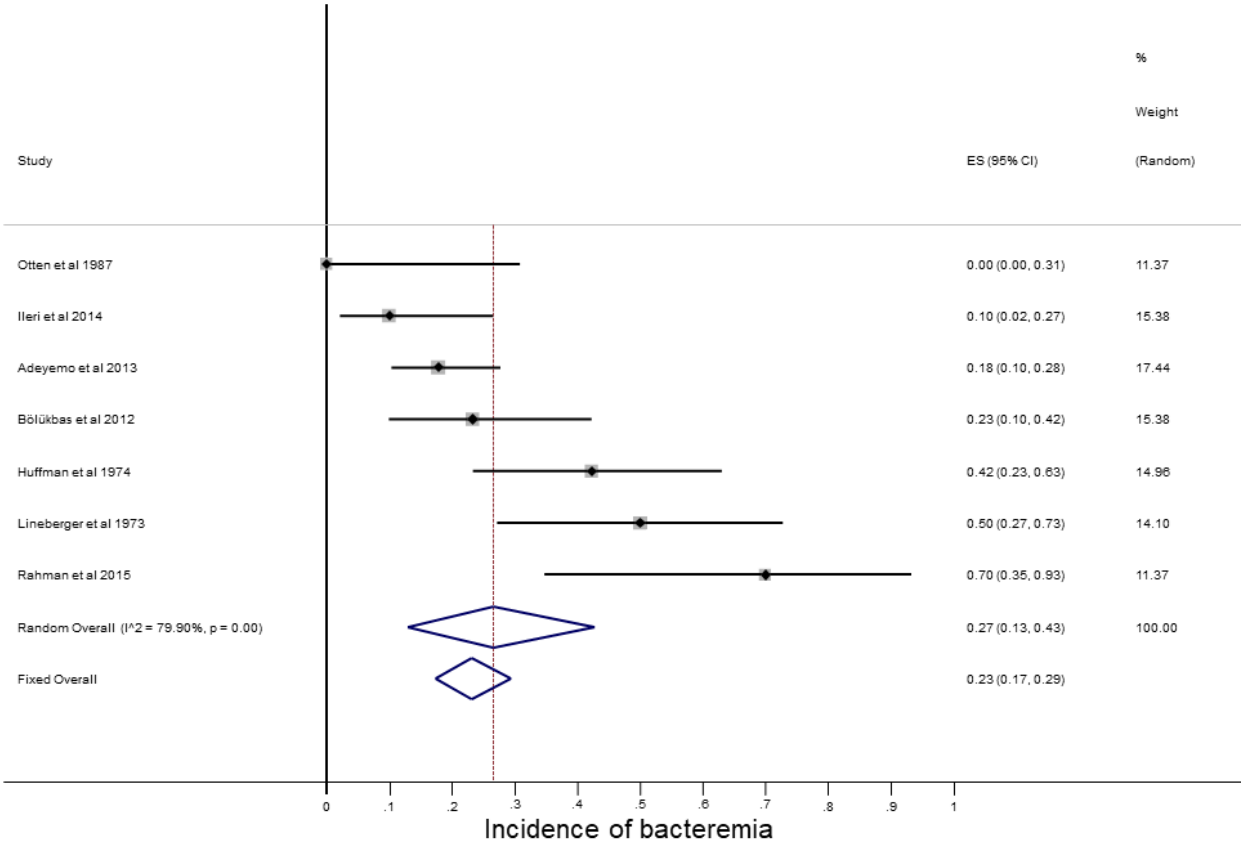
Forest Plot 8I. Meta-analysis of proportion showing the incidence of bacteremia for dental extraction (nRCTs).



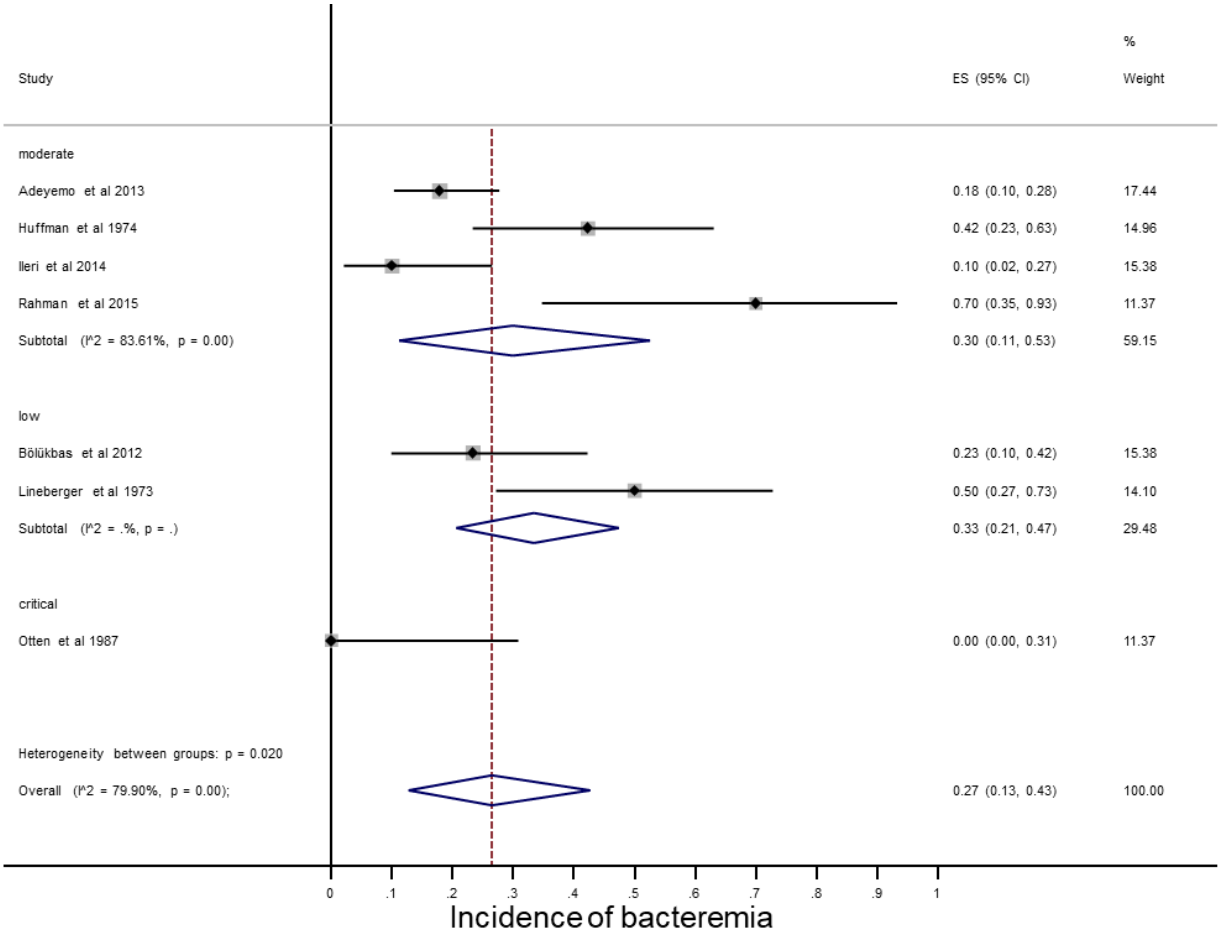
Forest Plot 9I. Meta-analysis of proportion showing the incidence of bacteremia for dental extraction subgrouped by risk of bias (nRCTs).



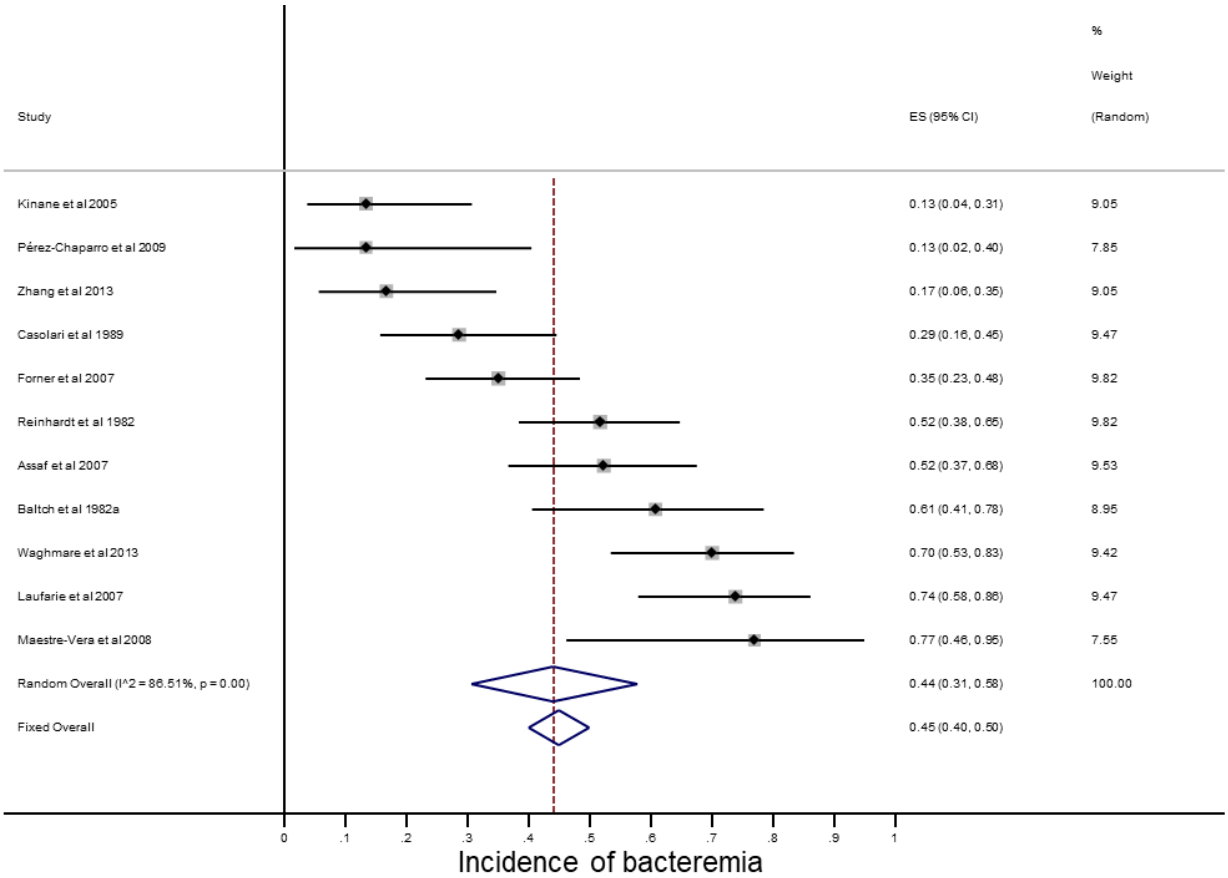
Forest Plot 10I. Meta-analysis of proportion showing the incidence of bacteremia for dental extraction subgrouped by presence/ absence of bacteremia at baseline (nRCTs).



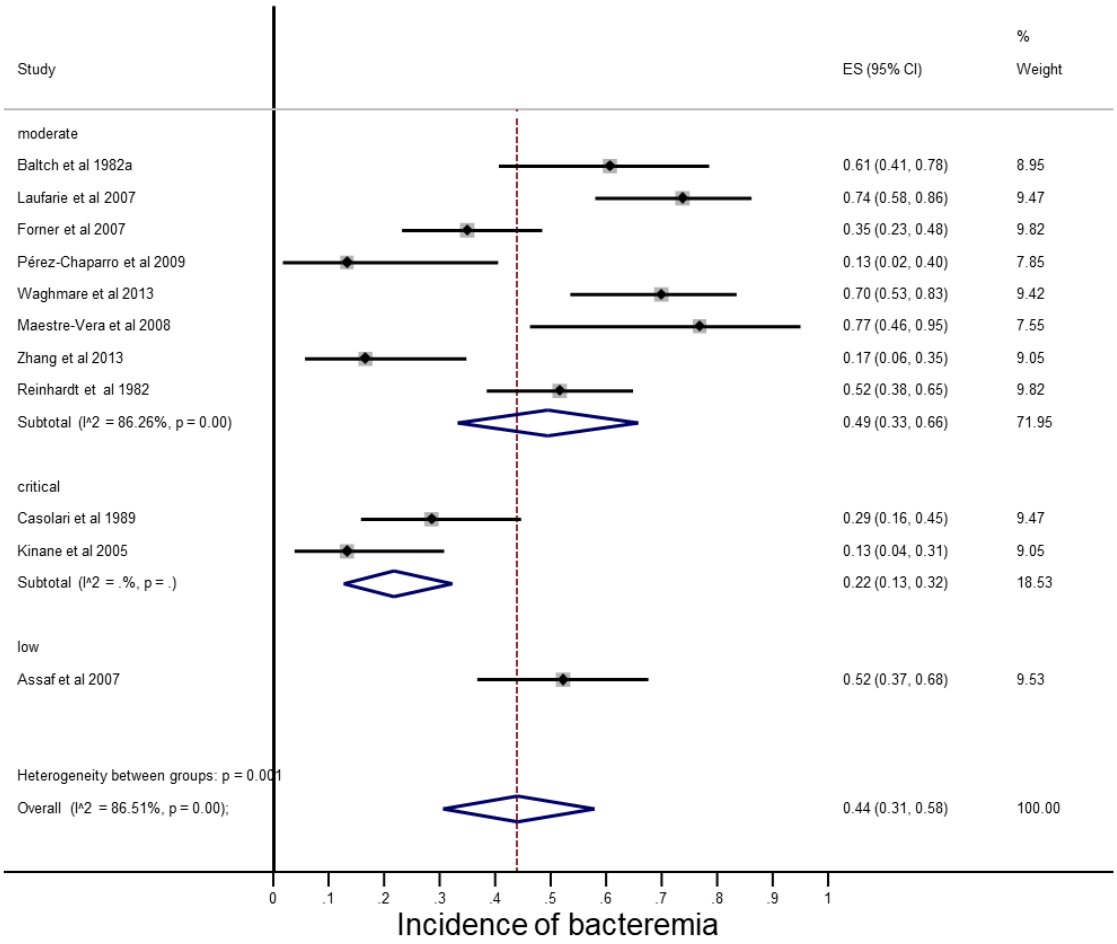
Forest Plot 11I. Meta-analysis of proportion showing the incidence of bacteremia for oral surgery (nRCTs).



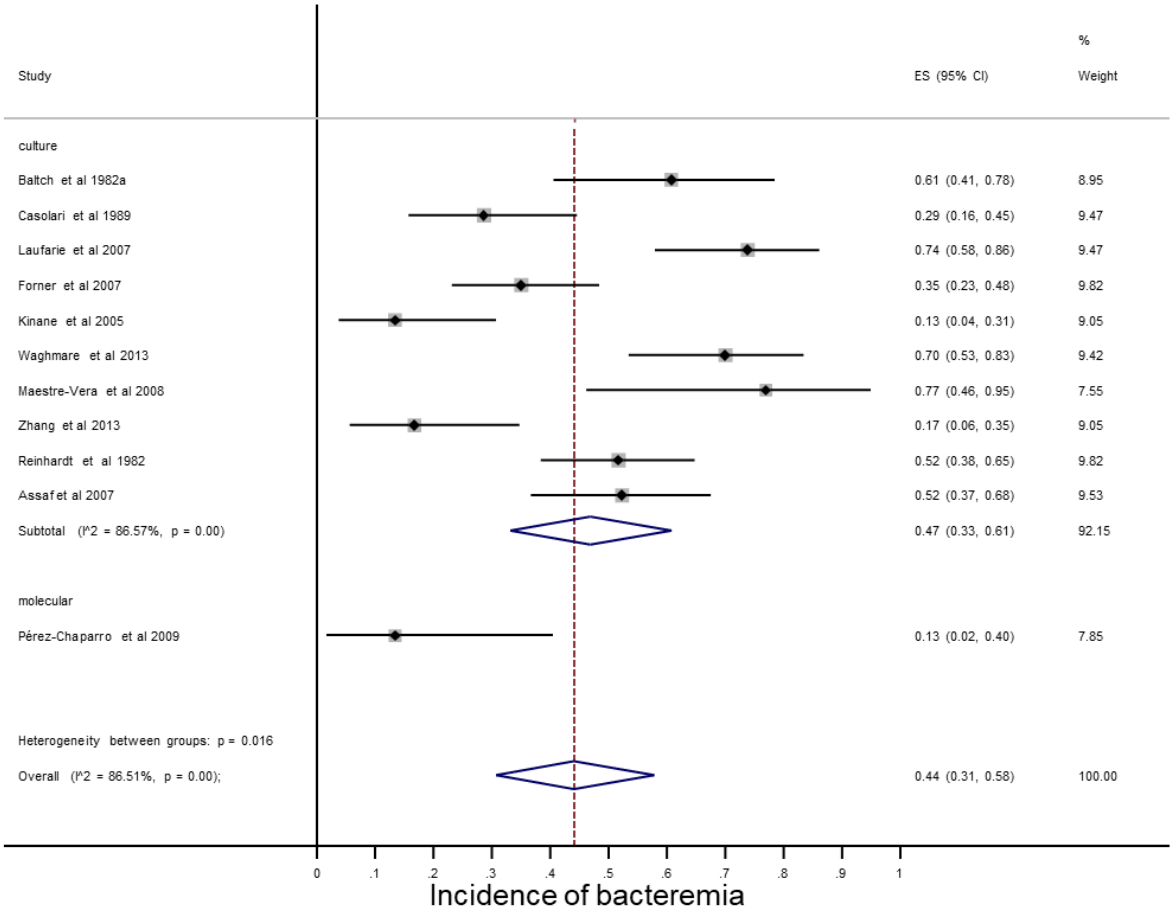
Forest Plot 12I. Meta-analysis of proportion showing the incidence of bacteremia for oral surgery subgrouped by risk of bias (nRCTs).



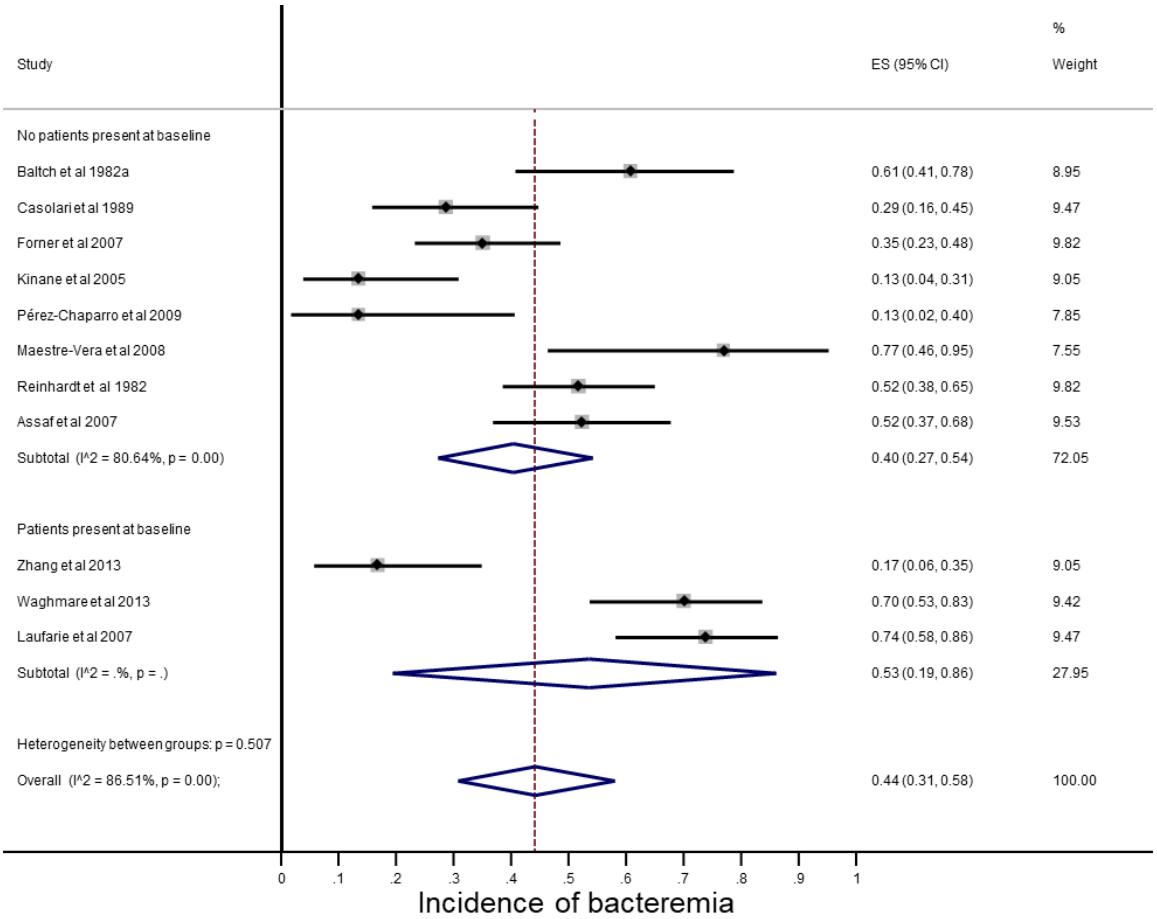
Forest Plot 13I. Meta-analysis of proportion showing the incidence of bacteremia for SRP (nRCTs).



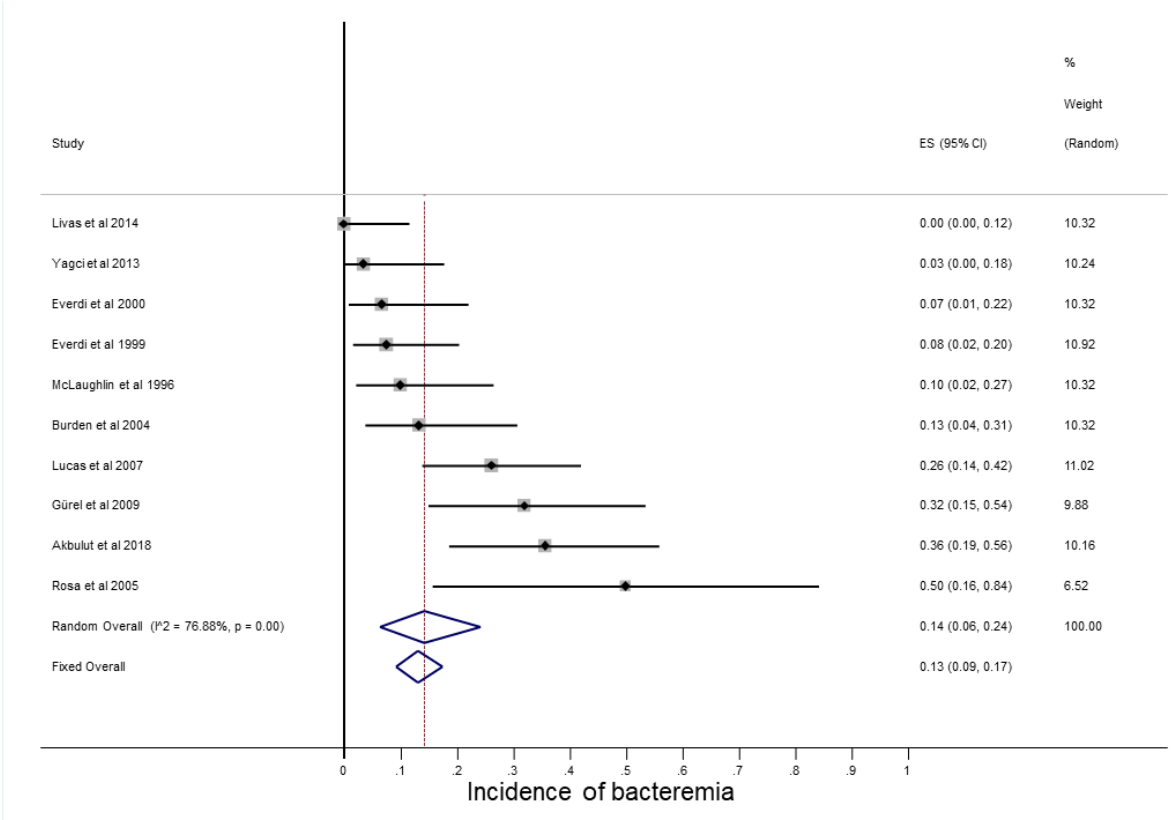
Forest Plot 14I. Meta-analysis of proportion showing the incidence of bacteremia for SRP subgrouped by risk of bias (nRCTs).



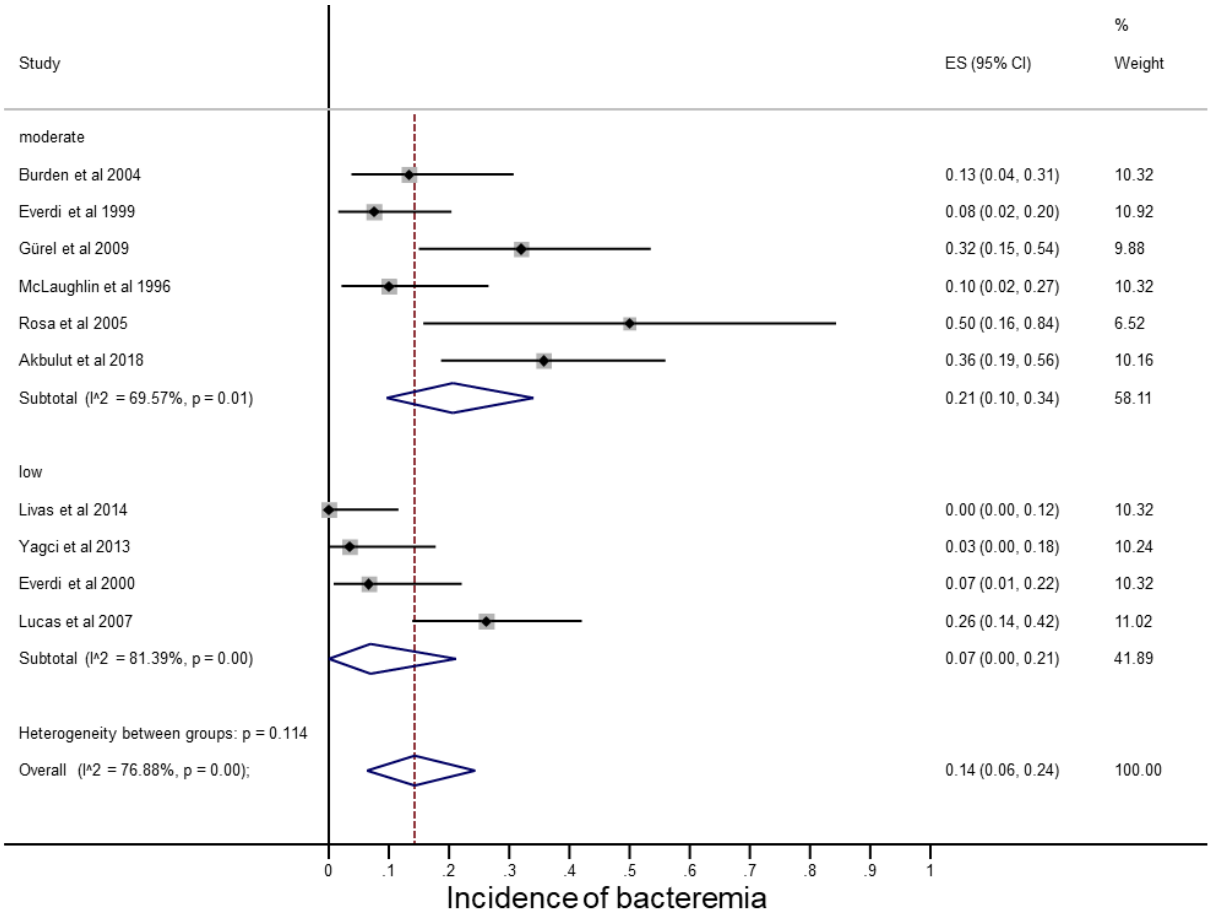
Forest Plot 15I. Meta-analysis of proportion showing the incidence of bacteremia for SRP subgrouped by method for detecting bacteremia (nRCTs).



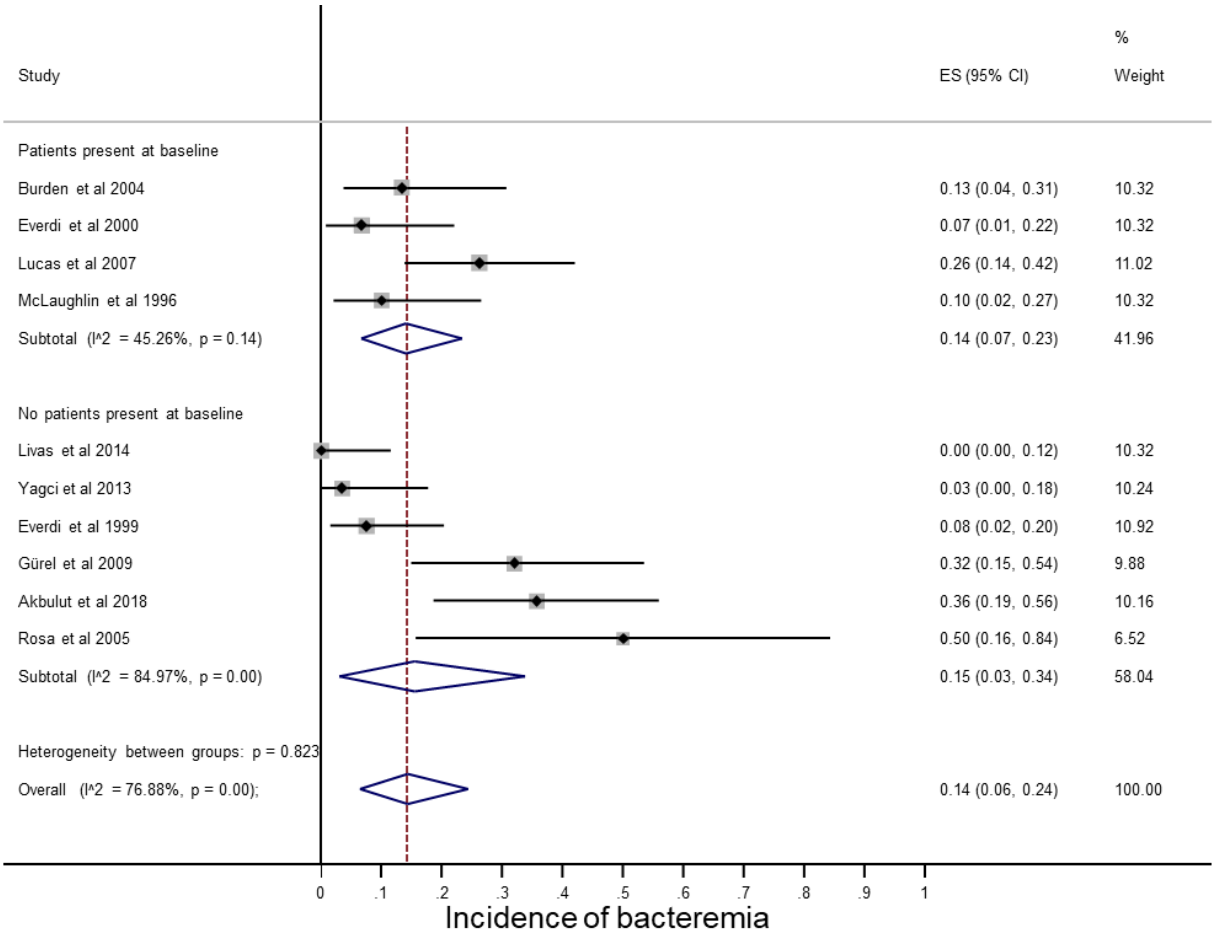
Forest Plot 16I. Meta-analysis of proportion showing the incidence of bacteremia for SRP subgrouped by presence/ absence of bacteremia at baseline (nRCTs).



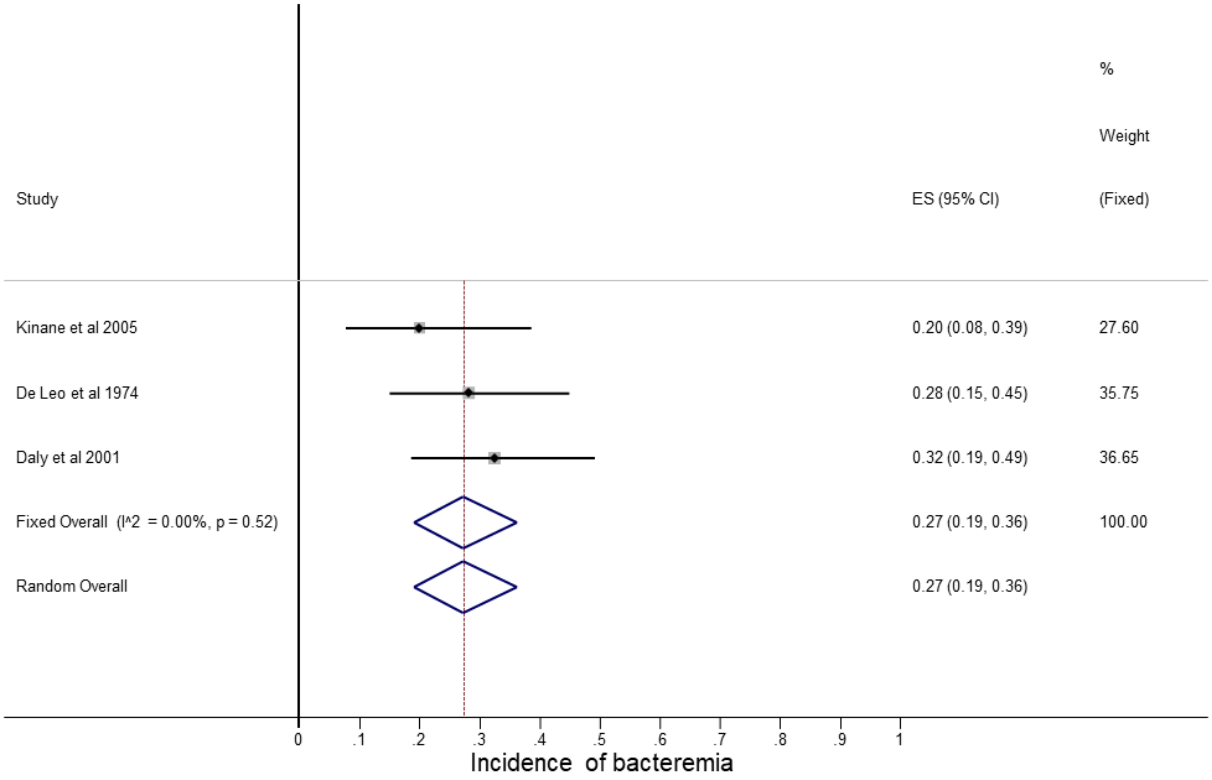
Forest Plot 17I. Meta-analysis of proportion showing the incidence of bacteremia for orthodontic procedure (nRCTs).



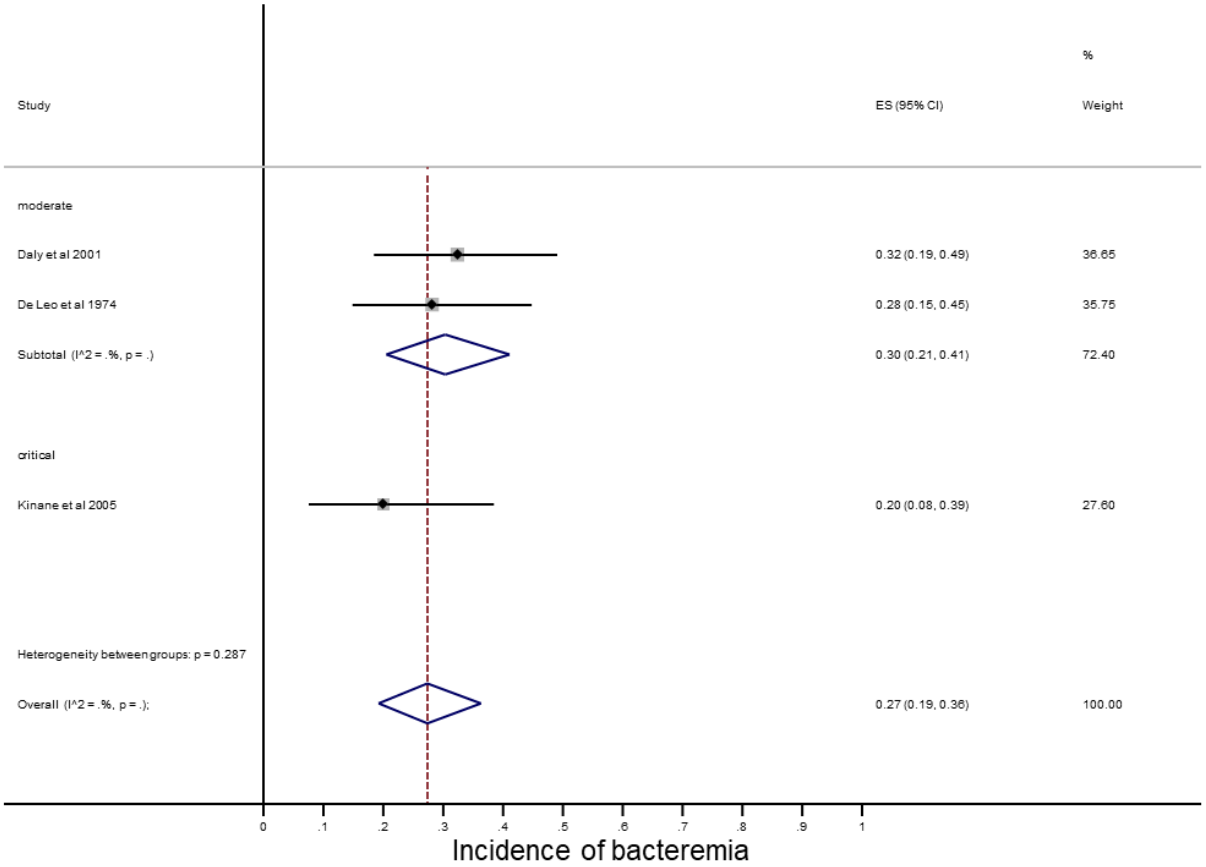
Forest Plot 18I. Meta-analysis of proportion showing the incidence of bacteremia for orthodontic procedure subgrouped by risk of bias (nRCTs).



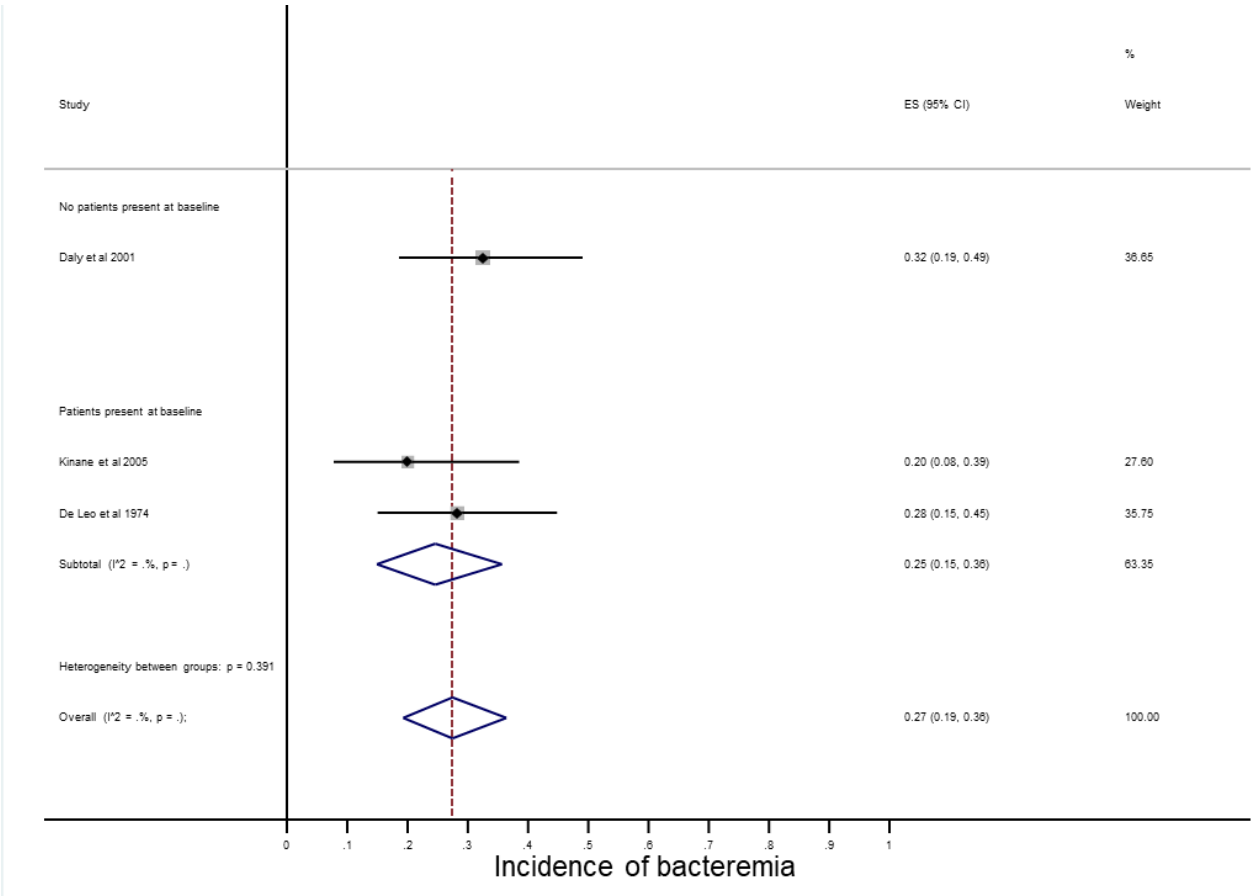
Forest Plot 19I. Meta-analysis of proportion showing the incidence of bacteremia for orthodontic procedure subgrouped by presence/ absence of bacteremia at baseline (nRCTs).



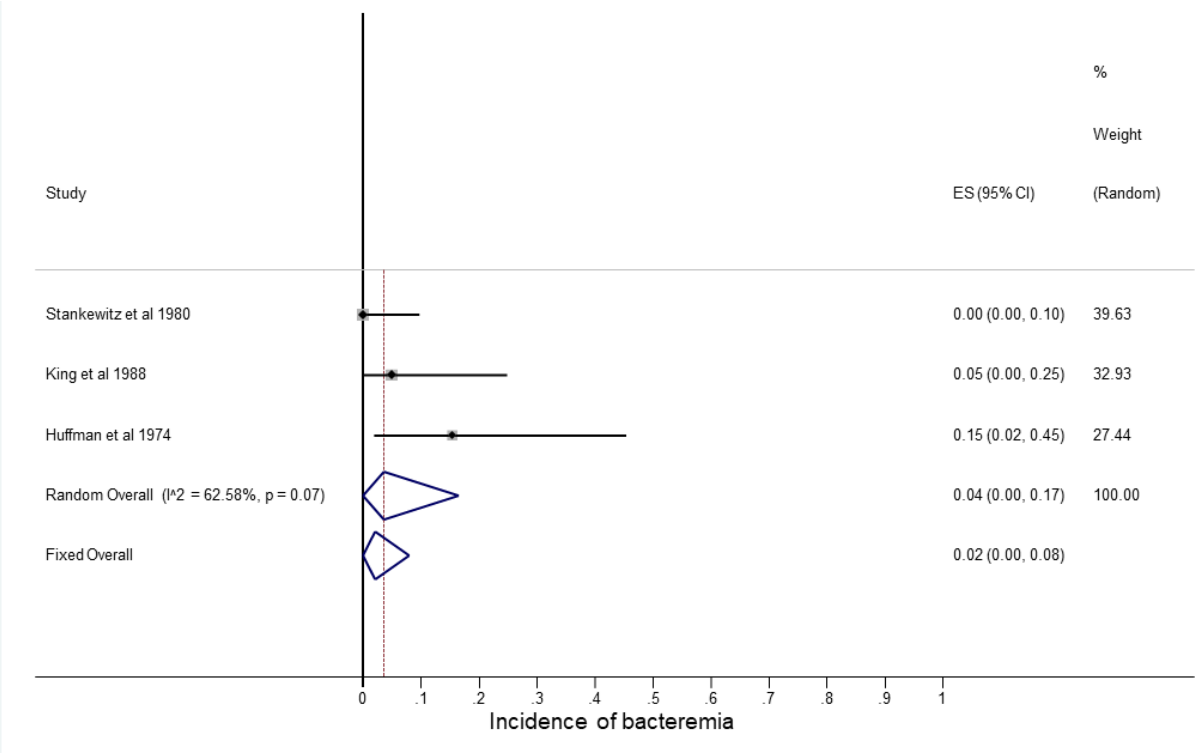
Forest Plot 20I. Meta-analysis of proportion showing the incidence of bacteremia for OHP (nRCTs).



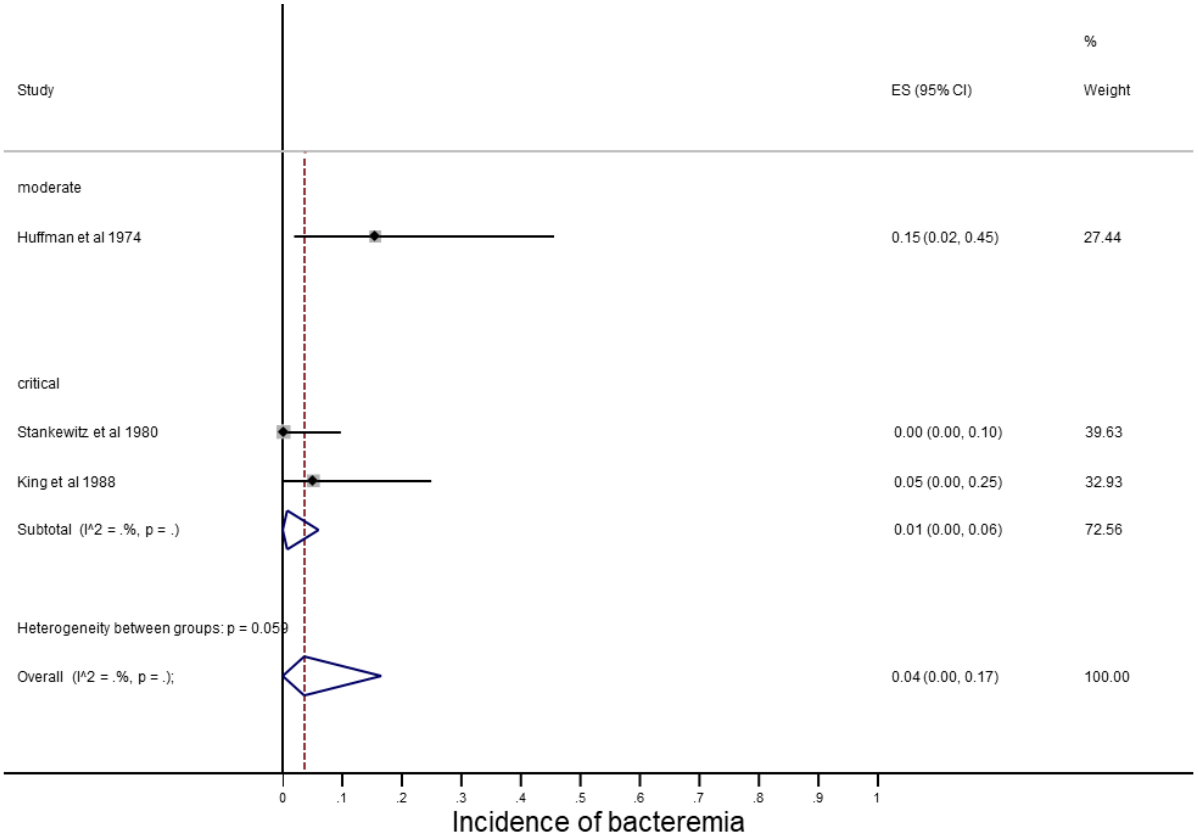
Forest Plot 21I. Meta-analysis of proportion showing the incidence of bacteremia for OHP subgrouped by risk of bias (nRCTs).



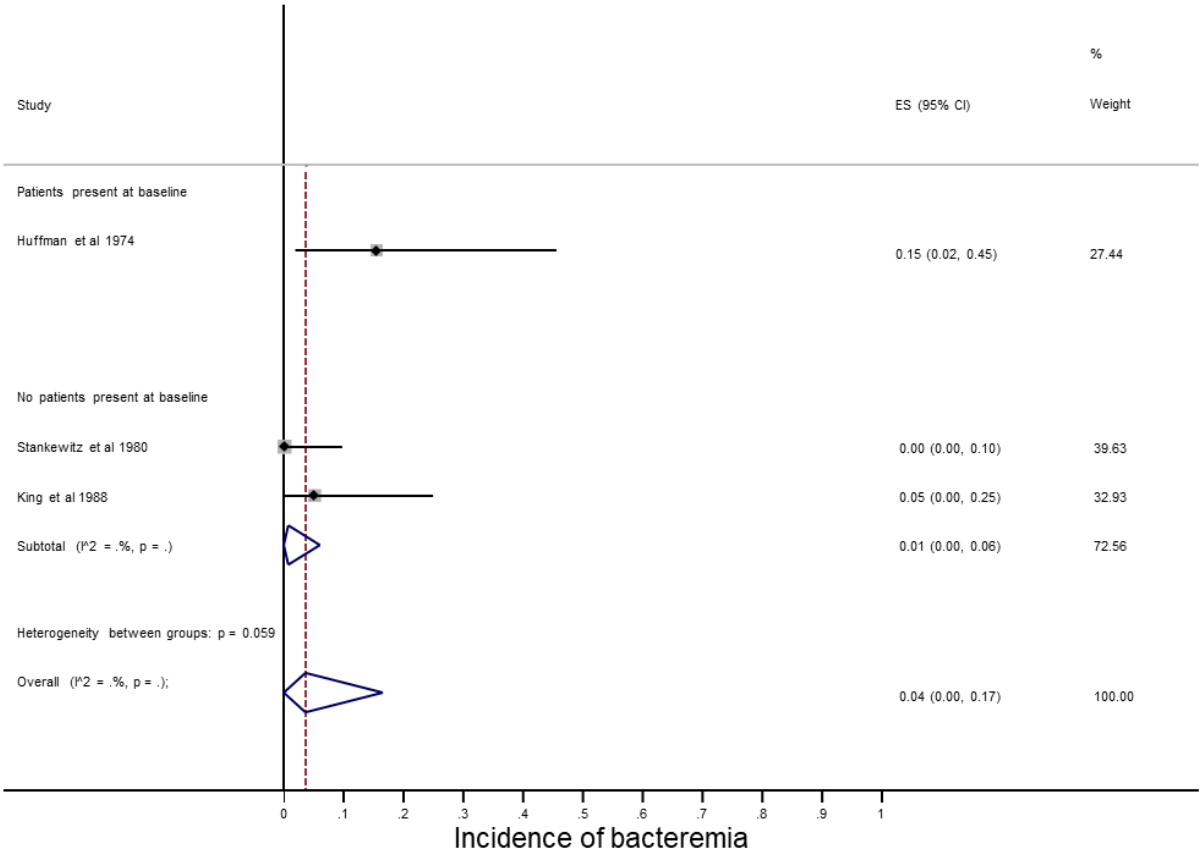
Forest Plot 22I. Meta-analysis of proportion showing the incidence of bacteremia for OHP subgrouped by presence/ absence of bacteremia at baseline (nRCTs).



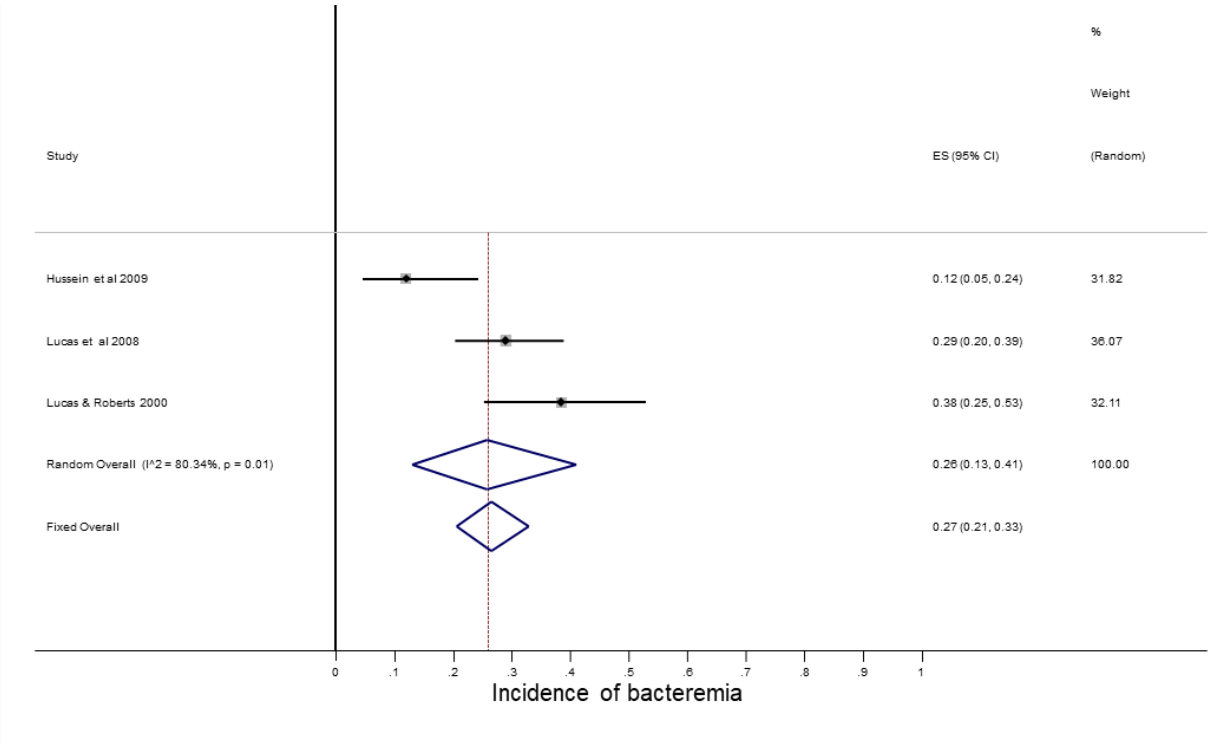
Forest Plot 23I. Meta-analysis of proportion showing the incidence of bacteremia for other procedure (nRCTs).



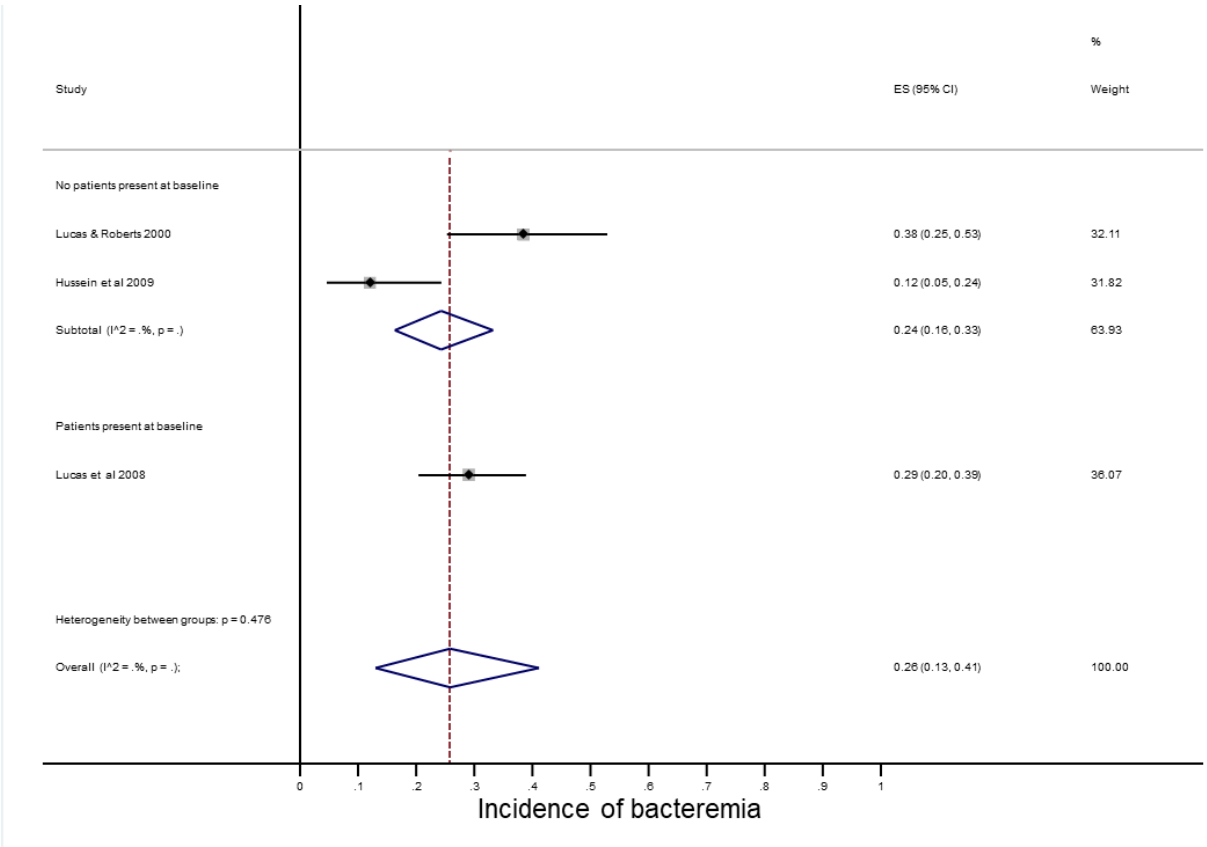
Forest Plot 24I. Meta-analysis of proportion showing the incidence of bacteremia for other procedure subgrouped by risk of bias (nRCTs).



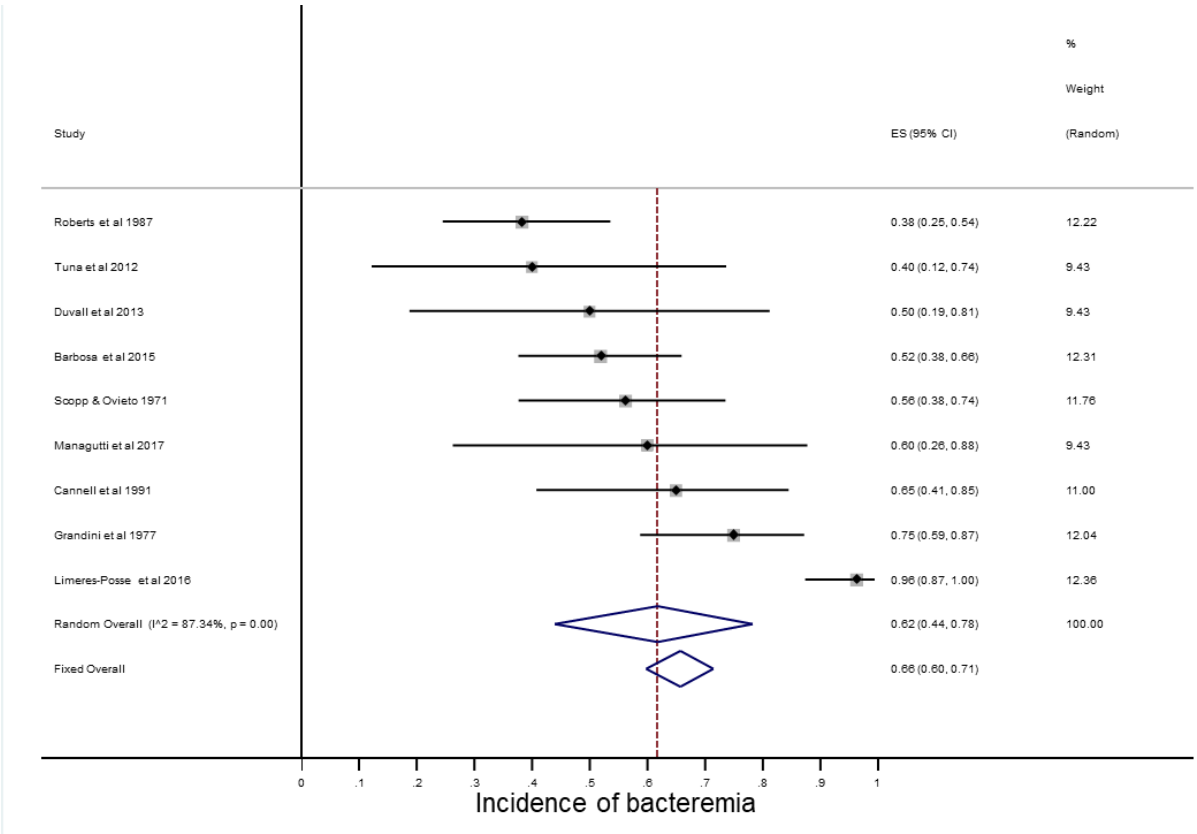
Forest Plot 25I. Meta-analysis of proportion showing the incidence of bacteremia for other procedure subgrouped by presence/ absence of bacteremia at baseline (nRCTs).



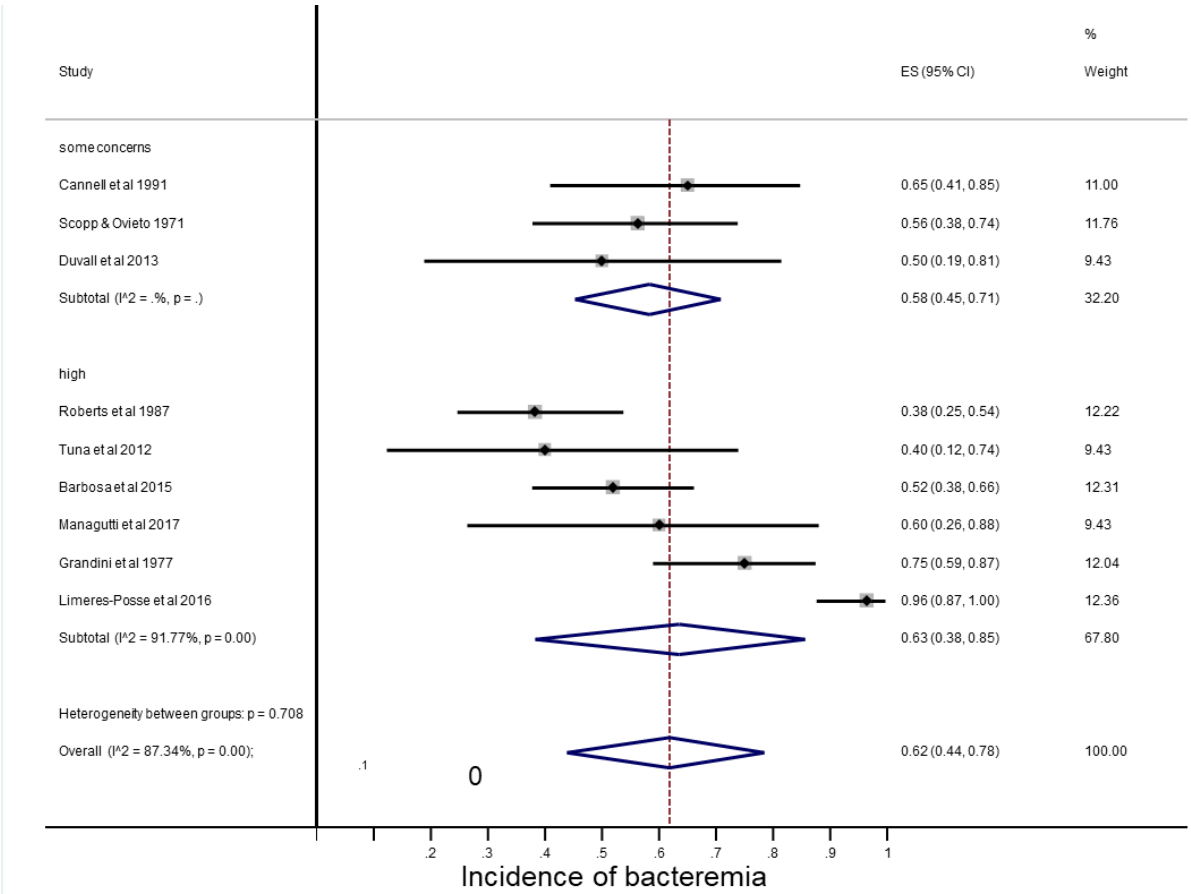
Forest Plot 26I. Meta-analysis of proportion showing the incidence of bacteremia for ADL-toothbrushing (RCTs).



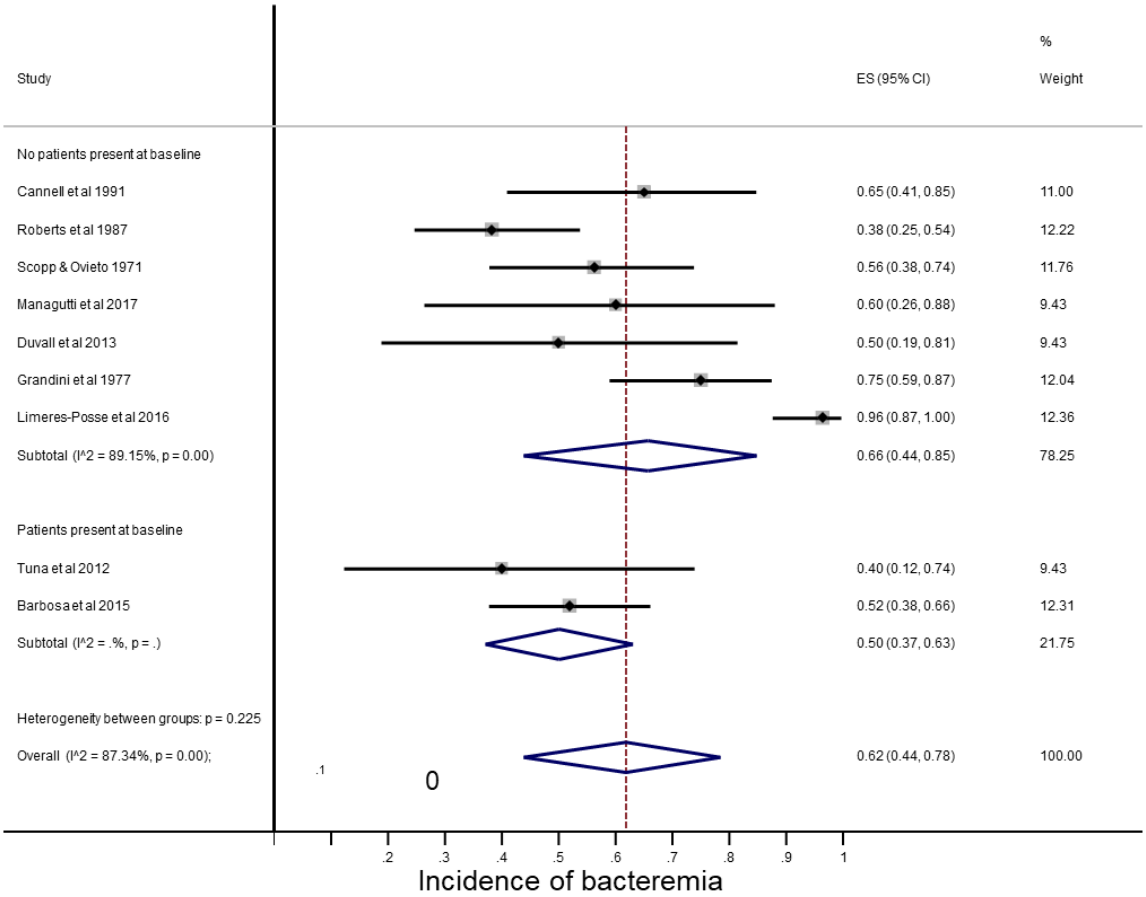
Forest Plot 27I. Meta-analysis of proportion showing the incidence of bacteremia for ALD-toothbrushing subgrouped presence/ absence of bacteremia at baseline (RCTs).



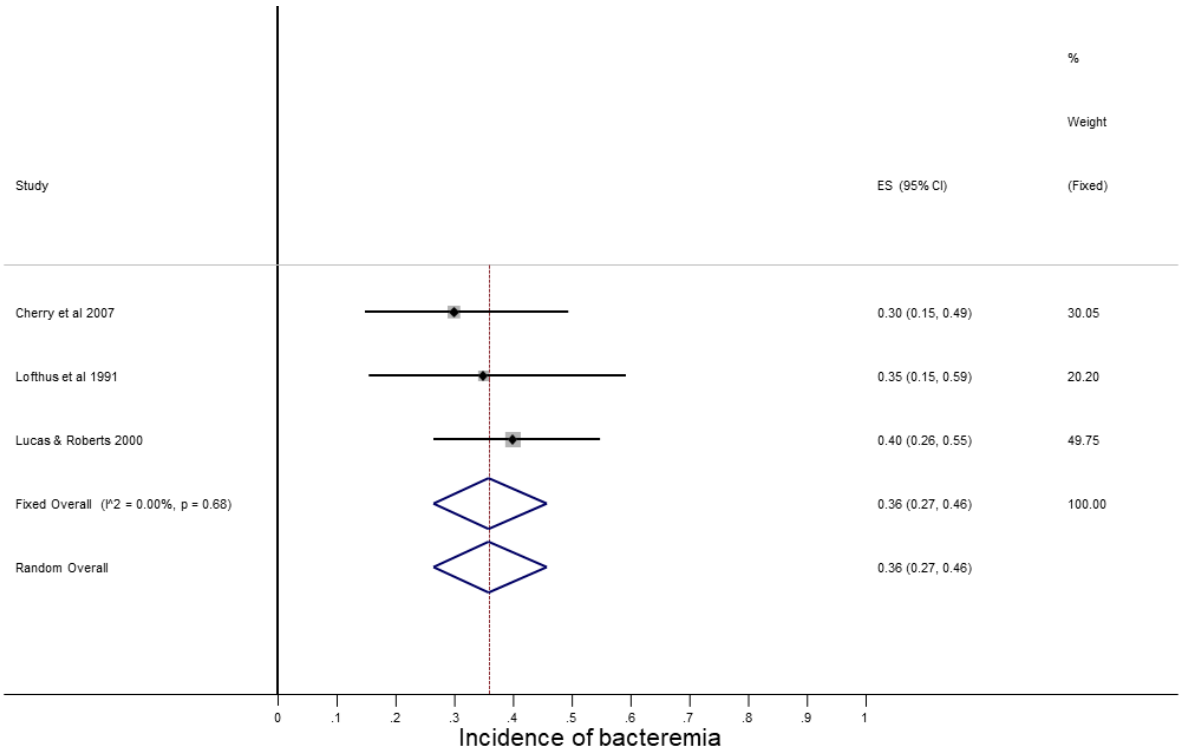
Forest Plot 28I. Meta-analysis of proportion showing the incidence of bacteremia for dental extraction (RCTs).



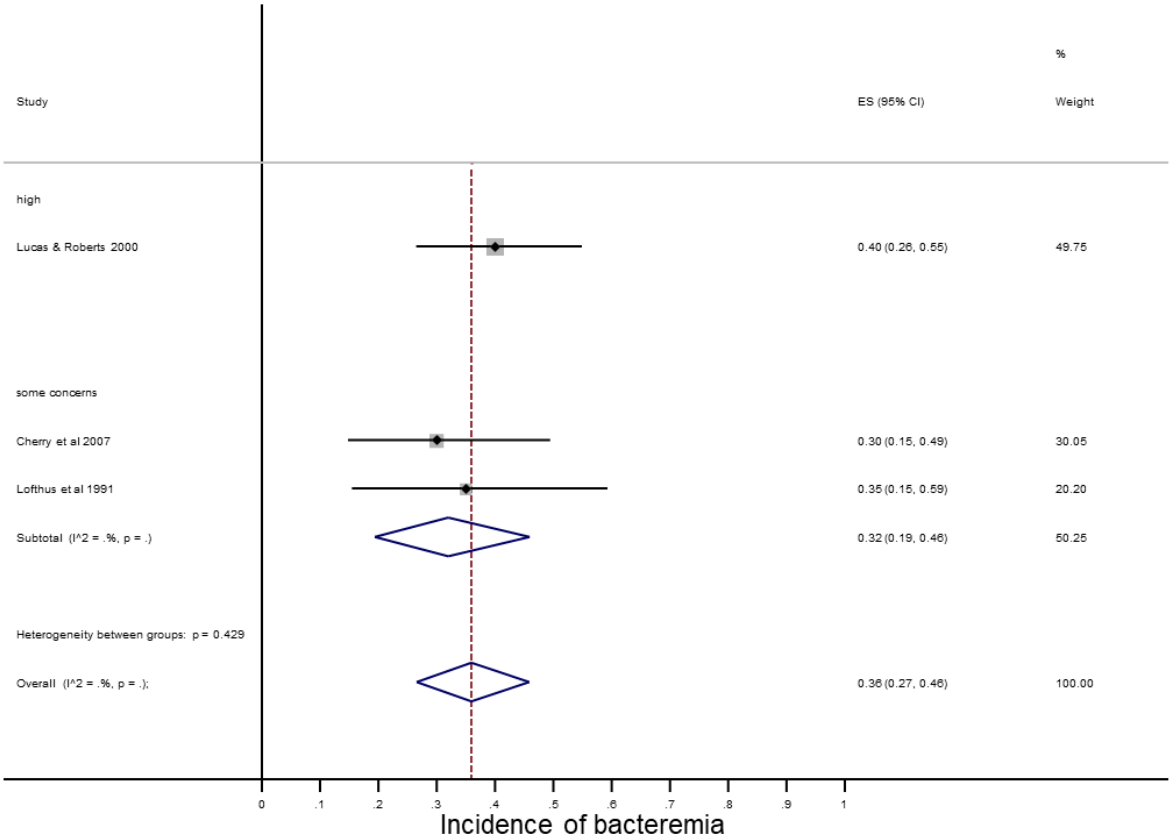
Forest Plot 29I. Meta-analysis of proportion showing the incidence of bacteremia for dental extraction subgrouped by risk of bias (RCTs).



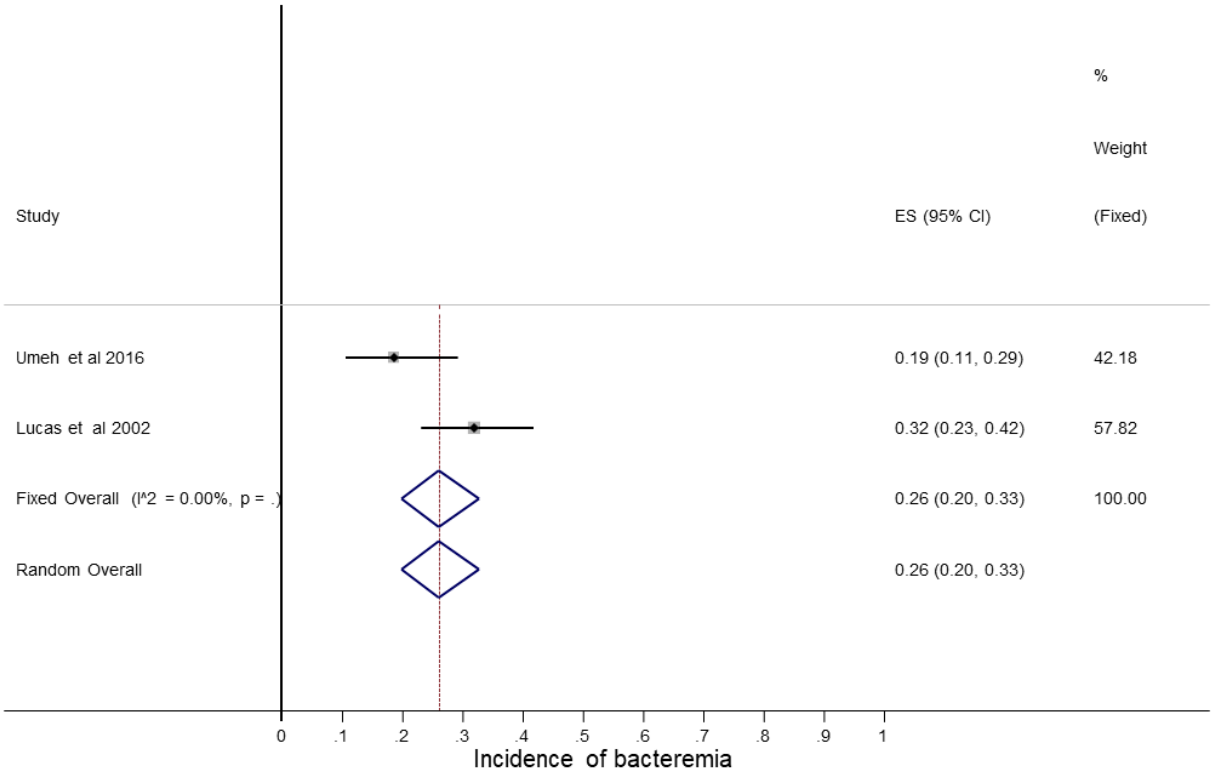
Forest Plot 30I. Meta-analysis of proportion showing the incidence of bacteremia for dental extraction subgrouped by presence/ absence of bacteremia at baseline (RCTs).



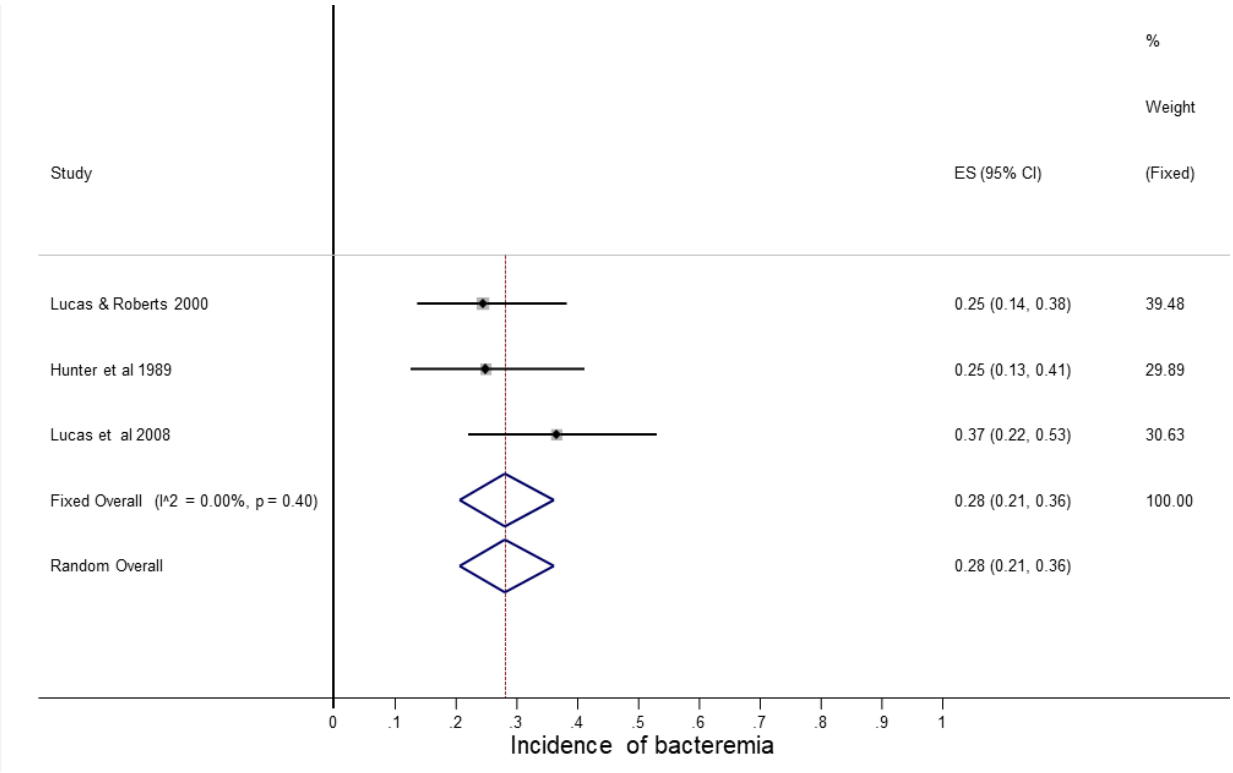
Forest Plot 31I. Meta-analysis of proportion showing the incidence of bacteremia for SRP (RCTs).



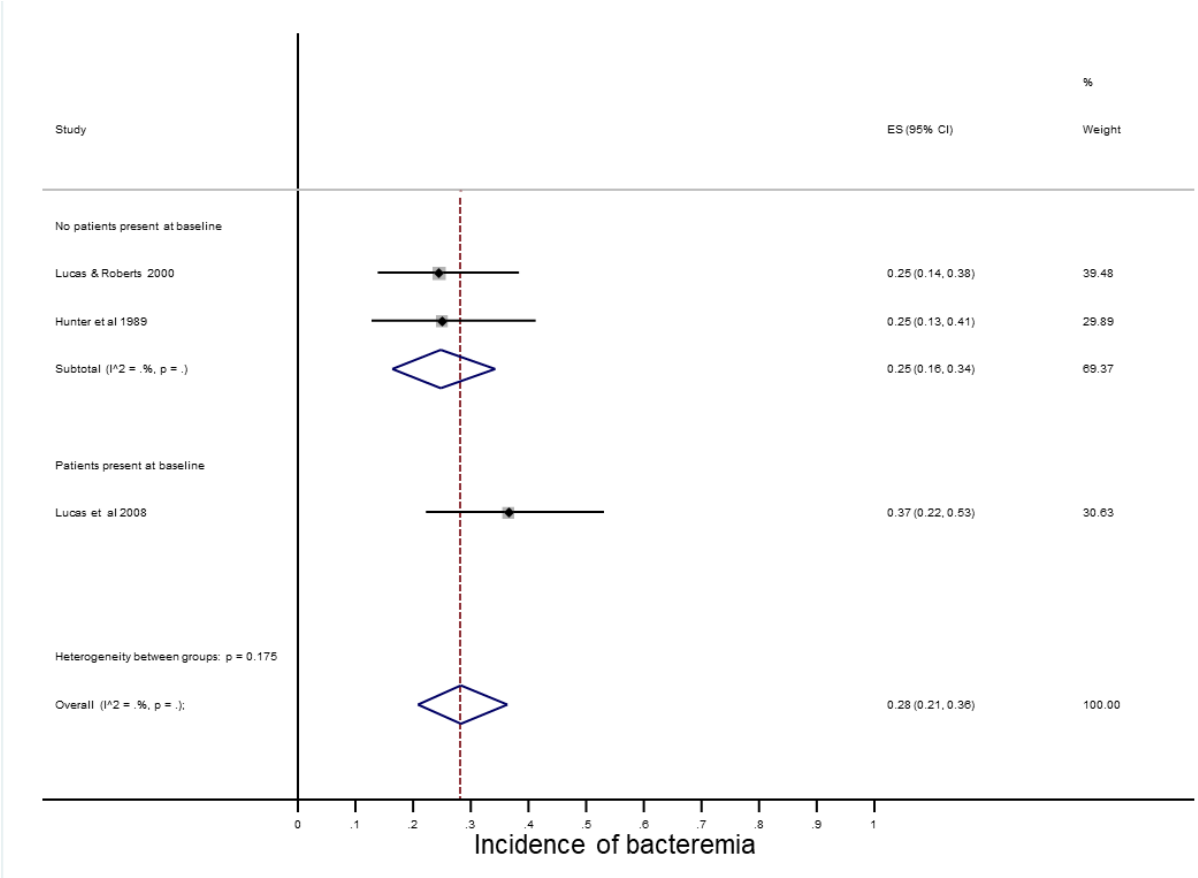
Forest Plot 32I. Meta-analysis of proportion showing the incidence of bacteremia for SRP subgrouped by risk of bias (RCTs).



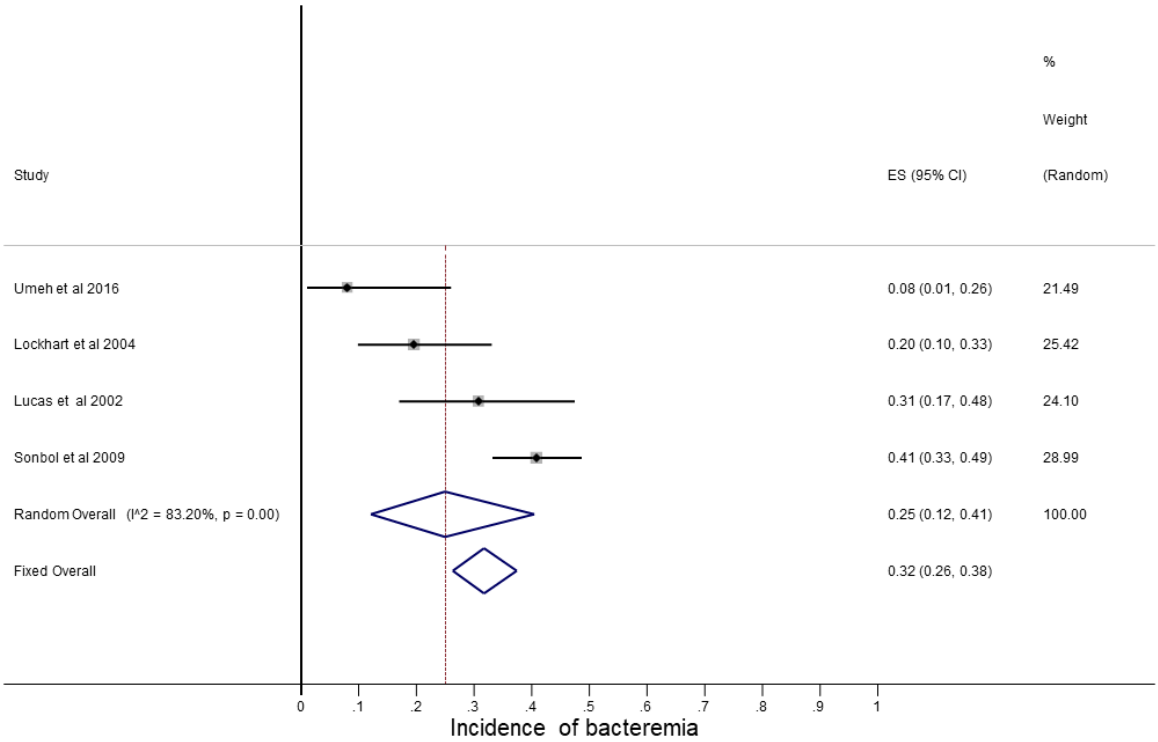
Forest Plot 33I. Meta-analysis of proportion showing the incidence of bacteremia for orthodontic procedure (RCTs).



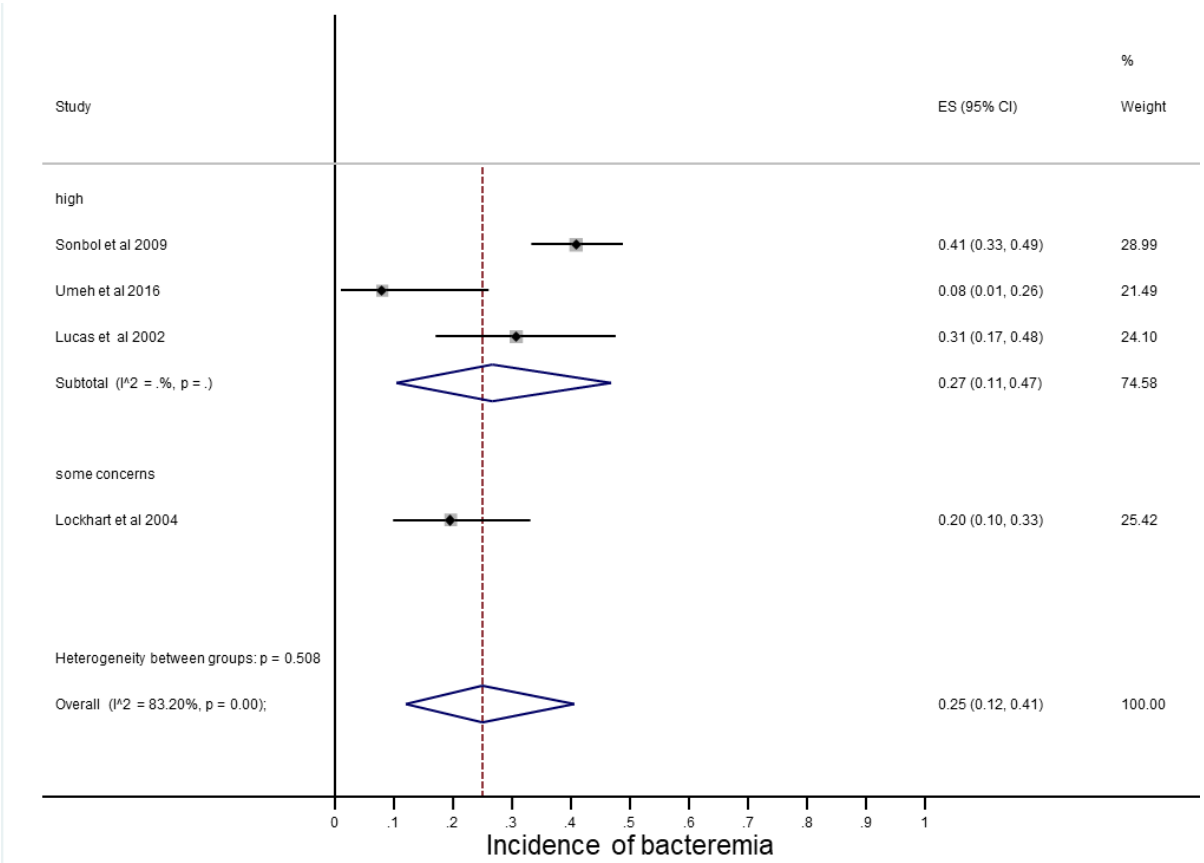
Forest Plot 34I. Meta-analysis of proportion showing the incidence of bacteremia for OHP (RCTs).



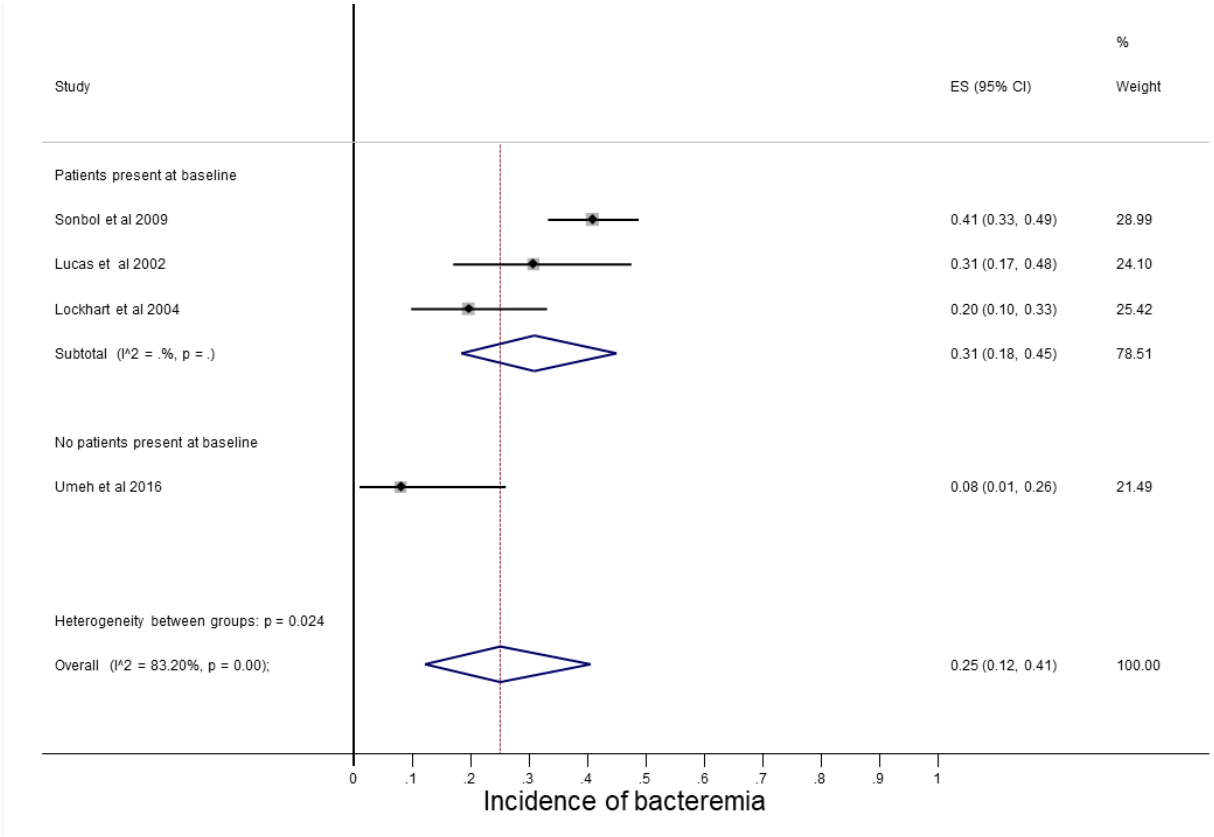
Forest Plot 35I. Meta-analysis of proportion showing the incidence of bacteremia for OHP subgrouped by presence/ absence of bacteremia at baseline (RCTs).



Forest Plot 36I. Meta-analysis of proportion showing the incidence of bacteremia for other procedure (RCTs).



Forest Plot 37I. Meta-analysis of proportion showing the incidence of bacteremia for other procedure subgrouped by risk of bias (RCTs).



Forest Plot 38I. Meta-analysis of proportion showing the incidence of bacteremia for other procedure subgrouped by presence/ absence of bacteremia at baseline (RCTs).