**Appendix A: List of excluded articles**

1. Abtahi J, Tengvall P, Aspenberg P: Bisphosphonate coating might improve fixation of dental implants in the maxilla: a pilot study. Int J Oral Maxillofac Surg. 2010; 39: 673-677. (Other bisphosphonates)
2. Abtahi J, Tengvall P, Aspenberg P: A bisphosphonate-coating improves the fixation of metal implants in human bone. A randomized trial of dental implants. Bone. 2012; 50: 1148-1151. (Other bisphosphonates)
3. Agholme F, Andersson T, Tengvall P, et al.: Local bisphosphonate release versus hydroxyapatite coating for stainless steel screw fixation in rat tibiae. J Mater Sci Mater Med. 2012; 23: 743-752. (Other bisphosphonates)
4. Baas J, Elmengaard B, Jensen TB, et al.: The effect of pretreating morselized allograft bone with rhBMP-2 and/or pamidronate on the fixation of porous Ti and HA-coated implants. Biomaterials. 2008; 29: 2915-2922. (Other bisphosphonates)
5. Bambini F, De Stefano CA, Giannotti L, et al.: [Influence of biphosphonates on the integration process of endosseous implants evaluated using single photon emission computerized tomography (SPECT)]. Minerva Stomatol. 2003; 52: 331-338. (Other bisphosphonates)
6. Blazsek J, Dobo Nagy C, Blazsek I, et al.: Aminobisphosphonate stimulates bone regeneration and enforces consolidation of titanium implant into a new rat caudal vertebrae model. Pathol Oncol Res. 2009; 15: 567-577. (Systemic delivery)
7. Bobyn JD, Thompson R, Lim L, et al.: Local alendronic acid elution increases net periimplant bone formation: a micro-CT analysis. Clin Orthop Relat Res. 2014; 472: 687-694. (Other bisphosphonates)
8. Chen B, Li Y, Yang X, et al.: Zoledronic acid enhances bone-implant osseointegration more than alendronate and strontium ranelate in ovariectomized rats. Osteoporosis Int. 2013; 24: 2115-2121. (Systemic delivery)
9. Ferguson SJ, Langhoff JD, Voelter K, et al.: Biomechanical comparison of different surface modifications for dental implants. Int J Oral Maxillofac Implants. 2008; 23: 1037-1046. (Other bisphosphonates)
10. Garbuz DS, Hu Y, Kim WY, et al.: Enhanced gap filling and osteoconduction associated with alendronate-calcium phosphate-coated porous tantalum. J Bone Joint Surg Am. 2008; 90: 1090-1100. (Other bisphosphonates)
11. Guimaraes MB, Bueno RS, Blaya MB, et al.: Influence of the local application of sodium alendronate gel on osseointegration of titanium implants. Int J Oral Maxillofac Surg. 2015; 44: 1423-1429. (Other bisphosphonates)
12. Harmankaya N, Karlsson J, Palmquist A, et al.: Raloxifene and alendronate containing thin mesoporous titanium oxide films improve implant fixation to bone. Acta Biomater. 2013; 9: 7064-7073. (Other bisphosphonates)
13. Jakobsen T, Kold S, Bechtold JE, et al.: Effect of topical alendronate treatment on fixation of implants inserted with bone compaction. Clin Orthop Relat Res. 2006; 444: 229-234. (Other bisphosphonates)
14. Jakobsen T, Baas J, Bechtold JE, et al.: Soaking morselized allograft in bisphosphonate can impair implant fixation. Clin Orthop Relat Res. 2007; 463: 195-201. (Other bisphosphonates)
15. Jakobsen T, Kold S, Bechtold JE, et al.: Local alendronate increases fixation of implants inserted with bone compaction: 12-week canine study. J Orthop Res. 2007; 25: 432-441. (Other bisphosphonates)
16. Jakobsen T, Baas J, Kold S, et al.: Local bisphosphonate treatment increases fixation of hydroxyapatite-coated implants inserted with bone compaction. J Orthop Res. 2009; 27: 189-194. (Other bisphosphonates)
17. Kajiwara H, Yamaza T, Yoshinari M, et al.: The bisphosphonate pamidronate on the surface of titanium stimulates bone formation around tibial implants in rats. Biomaterials. 2005; 26: 581-587. (Other bisphosphonates)
18. Karlsson J, Martinelli A, Fathali HM, et al.: The effect of alendronate on biomineralization at the bone/implant interface. J Biomed Mater Res A. 2015. (Other bisphosphonates)
19. Kellesarian SV, Abduljabbar T, Vohra F, et al.: Does Local Ibandronate and/or Pamidronate Delivery Enhance Osseointegration? A Systematic Review. J Prosthodont. 2016. (Review)
20. Kellesarian SV, Abduljabbar T, Vohra F, et al.: Role of local alendronate delivery on the osseointegration of implants: a systematic review and meta-analysis. Int J Oral Maxillofac Surg. 2017. (Review)
21. Kettenberger U, Ston J, Thein E, et al.: Does locally delivered Zoledronate influence peri-implant bone formation? - Spatio-temporal monitoring of bone remodeling in vivo. Biomaterials. 2014; 35: 9995-10006. (Focus question not answered)
22. Kettenberger U, Latypova A, Terrier A, et al.: Time course of bone screw fixation following a local delivery of Zoledronate in a rat femoral model - a micro-finite element analysis. J Mech Behav Biomed Mater. 2015; 45: 22-31. (Focus question not answered)
23. Kettenberger U, Luginbuehl V, Procter P, et al.: In vitro and in vivo investigation of bisphosphonate-loaded hydroxyapatite particles for peri-implant bone augmentation. J Tissue Eng Regen Med. 2015. (Focus question not answered)
24. Kim HS, Lee JI, Yang SS, et al.: The effect of alendronate soaking and ultraviolet treatment on bone-implant interface. Clin Oral Implants Res. 2016. (Other bisphosphonates)
25. Langhoff JD, Voelter K, Scharnweber D, et al.: Comparison of chemically and pharmaceutically modified titanium and zirconia implant surfaces in dentistry: a study in sheep. Int J Oral Maxillofac Surg. 2008; 37: 1125-1132. (Other bisphosphonates)
26. Lee SJ, Oh TJ, Bae TS, et al.: Effect of bisphosphonates on anodized and heat-treated titanium surfaces: an animal experimental study. J Periodontol. 2011; 82: 1035-1042. (Other bisphosphonates)
27. Linderback P, Areva S, Aspenberg P, et al.: Sol-gel derived titania coating with immobilized bisphosphonate enhances screw fixation in rat tibia. J Biomed Mater Res A. 2010; 94: 389-395. (Other bisphosphonates)
28. Meraw SJ, Reeve CM: Qualitative analysis of peripheral peri-implant bone and influence of alendronate sodium on early bone regeneration. J Periodontol. 1999; 70: 1228-1233. (Other bisphosphonates)
29. Meraw SJ, Reeve CM, Wollan PC: Use of alendronate in peri-implant defect regeneration. J Periodontol. 1999; 70: 151-158. (Other bisphosphonates)
30. Nepal M, Li L, Bae TS, et al.: Evaluation of Osseointegration around Tibial Implants in Rats by Ibandronate-Treated Nanotubular Ti-32Nb-5Zr Alloy. Biomol Ther. 2014; 22: 563-569. (Other bisphosphonates)
31. Niu S, Cao X, Zhang Y, et al.: The inhibitory effect of alendronate-hydroxyapatite composite coating on wear debris-induced peri-implant high bone turnover. J Surg Res. 2013; 179: e107-115. (Other bisphosphonates)
32. Niu S, Cao X, Zhang Y, et al.: Peri-implant and systemic effects of high-/low-affinity bisphosphonate-hydroxyapatite composite coatings in a rabbit model with peri-implant high bone turnover. BMC Musculoskelet Disord. 2012; 13: 97. (Other bisphosphonates)
33. Pura JA, Bobyn JD, Tanzer M: Implant-delivered Alendronate Causes a Dose-dependent Response on Net Bone Formation Around Porous Titanium Implants in Canines. Clin Orthop Relat Res. 2016; 474: 1224-1233. (Other bisphosphonates)
34. Stadelmann VA, Terrier A, Gauthier O, et al.: Prediction of bone density around orthopedic implants delivering bisphosphonate. J Biomech. 2009; 42: 1206-1211. (No control group)
35. Stadelmann VA, Bonnet N, Pioletti DP: Combined effects of zoledronate and mechanical stimulation on bone adaptation in an axially loaded mouse tibia. Clinical Biomech (Bristol, Avon). 2011; 26: 101-105. (Systemic delivery)
36. Skoglund B, Holmertz J, Aspenberg P: Systemic and local ibandronate enhance screw fixation. J Orthop Res. 2004; 22: 1108-1113. (Other bisphosphonates)
37. Tengvall P, Skoglund B, Askendal A, et al.: Surface immobilized bisphosphonate improves stainless-steel screw fixation in rats. Biomaterials. 2004; 25: 2133-2138. (Other bisphosphonates)
38. Wermelin K, Aspenberg P, Linderback P, et al.: Bisphosphonate coating on titanium screws increases mechanical fixation in rat tibia after two weeks. J Biomed Mater Res A. 2008; 86: 220-227. (Other bisphosphonates)
39. Wermelin K, Suska F, Tengvall P, et al.: Stainless steel screws coated with bisphosphonates gave stronger fixation and more surrounding bone. Histomorphometry in rats. Bone. 2008; 42: 365-371. (Other bisphosphonates)
40. Wermelin K, Tengvall P, Aspenberg P: Surface-bound bisphosphonates enhance screw fixation in rats--increasing effect up to 8 weeks after insertion. Acta Orthop. 2007; 78: 385-392. (Other bisphosphonates)
41. Yoshinari M, Oda Y, Inoue T, et al.: Bone response to calcium phosphate-coated and bisphosphonate-immobilized titanium implants. Biomaterials. 2002; 23: 2879-2885. (Other bisphosphonates)