

**Additional File 2**

Database	Search number	Search terms
PubMed	#1	Periodontal Diseases[mh] OR "periodontal disease*" [tiab]
	#2	periodontal [tiab] AND ("bone defect*" [tiab] OR "bony defect*" [tiab] OR "bone loss" [tiab] OR "attachment loss" [tiab] OR "bone resorpt*" [tiab] OR "osseous defect*" [tiab])
	#3	alveolar [tiab] AND ("bone defect*" [tiab] OR "bony defect*" [tiab] OR "bone loss" [tiab] OR "bone resorpt*" [tiab] OR "osseous defect*" [tiab])
	#4	periodontitis [tiab] OR pericementitis [tiab] OR "periodontal pocket*" [tiab]
	#5	"gingival disease*" [tiab] OR gingivitis* [tiab] OR "gingival pocket*" [tiab]
	#6	"tooth loss*" [tiab] OR "teeth loss*" [tiab]
	#7	#1 OR #2 OR #3 OR #4 OR #5 OR #6
	#8	Diphosphonates [mh] OR diphosphonate* [tw] OR bisphosphonate* [tw]
	#9	alendronate* [tw] OR fosamax [tw] OR MK-217 [tw] OR MK217 [tw]
	#10	"clodronic acid" [tw] OR bonefos [tw] OR Cl2MDP [tw] OR Cl2-MDP [tw] OR clodronate [tw] OR dichloromethanediphosphon* [tw] OR dichloromethylenebisphosphonate [tw]
	#11	"etidronic acid" [tw] OR etidronate [tw] OR EHDP [tw] OR HEDP [tw] OR HEDSPA [tw]
	#12	"ibandronic acid" [tw] OR ibandronate [tw] OR BM-210955 [tw] OR boniva [tw] OR bonviva [tw] OR RPR-102289A [tw]
	#13	pamidronate [tw] OR AHPrBP [tw] OR aredia [tw] OR "pamidronic acid" [tw]
	#14	"risedronic acid" [tw] OR risedronate [tw]
	#15	"Technetium Tc 99m Medronate" [tw] OR 99mTc-MDP [tw] OR 99mTcMDP [tw] OR Tc-99-mdp [tw] OR "TC 99m mdp" [tw] OR "Tc 99m methylene diphosphonate" [tw] OR "technetium methylene diphosphonate" [tw] OR "Tc99m mdp" [tw] OR Tc99mmdp [tw] OR Tc99mdp [tw]
	#16	"zoledronic acid" [tw] OR zoledronate [tw] OR CGP-42446 [tw] OR CGP42446 [tw] OR zometa [tw]
	#17	"neridronic acid" [tw] OR neridronate [tw]
	#18	#8 OR #9 OR #10 OR #11 OR #12 OR #13 OR #14 OR #15 OR #16 OR #17
	#19	#7 AND #18
	#20	(controlled clinical trial [pt] OR randomized [tiab] OR randomised [tiab] OR clinical trials as topic [mesh:noexp] OR randomly [tiab] OR trial [ti] OR placebo [tiab]) NOT (animals [mh] NOT humans [mh])
	#21	#19 AND #20

- CENTRAL #1 [mh "Periodontal Diseases"] OR ((periodontal NEXT disease?) OR (periodontal NEAR ((bone NEXT defect\*) OR (bony NEXT defect\*" OR bone NEXT loss) OR (attachment NEXT loss) OR (bone NEXT resorpt\*) OR (osseous NEXT defect\*))) OR (alveolar NEAR ((bone NEXT defect\*) OR (bony NEXT defect\*) OR (bone NEXT loss) OR (bone NEXT resorpt\*) OR (osseous NEXT defect\*))) OR periodontitis\* OR (gingival NEXT disease?) OR gingivitis\* OR (gingival NEXT pocket?) OR (periodontal NEXT pocket?) OR pericementitis\* OR (tooth NEXT loss\*) OR (teeth NEXT loss\*)):ti,ab,kw
- #2 [mh Diphosphonates] OR (diphosphonate? OR bisphosphonate? OR alendronate? OR fosamax?? OR MK?217 OR "clodronic acid" OR bonefos?? OR Cl2?MDP OR clodronate OR dichloromethanediphosphon\* OR dichloromethylenebisphosphonate OR "etidronic acid" OR etidronate OR EHDP OR HEDP OR HEDSPA OR "ibandronic acid" OR ibandronate OR BM?210955 OR boniva OR bonviva OR RPR?102289A OR pamidronate OR AHPrBP OR aredia OR "pamidronic acid" OR "risedronic acid" OR risedronate OR "Technetium Tc 99m Medronate" OR 99mTc?MDP OR Tc?99?mdp OR "TC?99m mdp" OR "Tc 99m methylene diphosphonate" OR "technetium methylene diphosphonate" OR Tc99mmdp OR Tc99mdp OR "zoledronic Acid" OR zoledronate OR CGP?42446 OR zometa OR "neridronic acid" OR neridronate):ti,ab,kw
- #3 #1 AND #2
- Scopus #1 TITLE-ABS-KEY("periodontal disease\*" OR (periodontal W/3 ("bone defect\*" OR "bony defect\*" OR "bone loss" OR "attachment loss" OR "bone resorpt\*" OR "osseous defect\*")) OR (alveolar W/3 ("bone defect\*" OR "bony defect\*" OR "bone loss" OR "bone resorpt\*" OR "osseous defect\*")) OR periodontitis\* OR "gingival disease\*" OR gingivitis\* OR "gingival pocket\*" OR "periodontal pocket\*" OR pericementitis\* OR "tooth loss\*" OR "teeth loss\*")
- #2 TITLE-ABS-KEY(diphosphonate\* OR bisphosphonate\* OR alendronate\* OR fosamax\* OR mk217 OR "mk 217" OR "clodronic acid" OR bonefos\* OR cl2mdp OR "cl2 mdp" OR clodronate OR dichloromethanediphosphon\* OR dichloromethylenebisphosphonate OR "etidronic acid" OR etidronate OR ehdp OR hedp OR hedspa OR "ibandronic acid" OR ibandronate OR bm210955 OR "bm 210955" OR boniva OR bonviva OR "rpr 102289a" OR pamidronate OR ahprbp OR aredia OR "pamidronic acid" OR "risedronic acid" OR risedronate OR "technetium tc 99m medronate" OR "99mtc-mdp" OR 99mtcmdp OR "tc 99 mdp" OR "tc 99m mdp" OR "tc 99m methylene diphosphonate" OR "technetium methylene diphosphonate" OR "tc99m mdp" OR tc99mmdp OR tc99mdp OR "zoledronic acid" OR zoledronate OR "cgp-42446" OR cgp42446 OR zometa OR "neridronic acid" OR neridronate)
- #3 #1 AND #2

- #4 (INDEXTERMS("clinical trials" OR "clinical trials as a topic" OR "randomized controlled trial" OR "randomized controlled trials as topic" OR "controlled clinical trial" OR "controlled clinical trials" OR "random allocation" OR "double-blind method" OR "single-blind method" OR "cross-over studies" OR "placebos" OR "multicenter study" OR "double blind procedure" OR "single blind procedure" OR "crossover procedure" OR "clinical trial" OR "controlled study" OR "randomization" OR "placebo")) OR (TITLE-ABS-KEY(("clinical trials" OR "clinical trials as a topic" OR "randomized controlled trial" OR "randomized controlled trials as topic" OR "controlled clinical trial" OR "controlled clinical trials as topic" OR "random allocation" OR "randomly allocated" OR "allocated randomly" OR "double-blind method" OR "single-blind method" OR "cross-over studies" OR "placebos" OR "cross-over trial" OR "single blind" OR "double blind" OR "factorial design" OR "factorial trial"))) OR (TITLE-ABS(clinical AND trial\* OR trial\* OR rct\* OR random\* OR blind\*))
- #5 #3 AND #4
- EMBASE #1 'periodontal disease'/exp OR 'periodontal disease' OR 'alveolar bone loss'/exp OR 'alveolar bone loss' OR 'periodontitis'/exp OR 'periodontitis' OR 'periodontitis'/exp OR periodontitis OR 'gingiva disease'/exp OR 'gingiva disease' OR 'gingivitis'/exp OR 'gingivitis' OR 'gingivitis'/exp OR gingivitis OR 'gingival pocket'/exp OR 'gingival pocket' OR 'periodontal pocket'/exp OR 'periodontal pocket' OR pericementitis OR 'tooth loss'/exp OR 'tooth loss' OR 'teeth loss'
- #2 periodontal AND ('bone defect'/exp OR 'bone defect' OR 'bony defect' OR (bony AND defect) OR 'osteolysis'/exp OR osteolysis OR 'bone loss' OR 'attachment loss' OR 'bone resorption'/exp OR 'bone resorption' OR 'osseous defect')
- #3 alveolar AND ('bone defect'/exp OR 'bone defect' OR 'bony defect' OR (bony AND defect) OR 'osteolysis'/exp OR osteolysis OR 'bone loss' OR 'bone resorption'/exp OR 'bone resorption' OR 'osseous defect')
- #4 #1 OR #2 OR #3

- #5 'diphosphonates'/exp OR diphosphonates OR bisphosphonate OR 'alendronic acid'/exp OR 'alendronic acid' OR alendronate OR fosamax OR 'mk-217' OR mk217 OR 'clodronic acid'/exp OR 'clodronic acid' OR bonefos OR cl2mdp OR 'cl2-mdp' OR clodronate OR dichloromethanediphosphonate OR dichloromethylenebisphosphonate OR 'etidronic acid'/exp OR 'etidronic acid' OR etidronate OR ehdp OR hedp OR hedspa OR 'ibandronic acid'/exp OR 'ibandronic acid' OR ibandronate OR 'bm-210955' OR boniva OR bonviva OR 'rpr-102289a' OR 'pamidronic acid'/exp OR 'pamidronic acid' OR pamidronate OR ahprbp OR aredia OR 'risedronic acid'/exp OR 'risedronic acid' OR risedronate OR 'medronate technetium tc 99m'/exp OR 'medronate technetium tc 99m' OR '99mtc mdp' OR '99mtcmdp' OR 'tc-99-mdp' OR 'tc 99m mdp' OR 'tc 99m methylene diphosphonate' OR 'technetium methylene diphosphonate' OR 'tc99m mdp' OR 'tc99mmdp' OR 'tc99mdp' OR 'zoledronic acid'/exp OR 'zoledronic acid' OR 'zoledronate' OR 'cgp-42446' OR 'cgp42446' OR 'zometa' OR 'neridronic acid'/exp OR 'neridronic acid' OR 'neridronate'
- #6 #4 AND #5
- #7 'clinical trial'/de OR 'randomized controlled trial'/de OR 'randomization'/de OR 'single blind procedure'/de OR 'double blind procedure'/de OR 'crossover procedure'/de OR 'placebo'/de OR 'prospective study'/de OR ('randomi?ed controlled' NEXT/1 trial\*) OR rct OR 'randomly allocated' OR 'allocated randomly' OR 'random allocation' OR (allocated NEAR/2 random) OR (single NEXT/1 blind\*) OR (double NEXT/1 blind\*) OR ((treble OR triple) NEAR/1 blind\*) OR placebo\*
- #8 #6 AND #7
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