**Supplemental file 1**

Searches RCTs on vitamin B12 and folic acid (carried out 25-03-2016)

*PubMed (2.824 hits)*

("Vitamin B 12"[MeSH] OR "vitamin B12"[ti] OR "vitamin B 12"[ti] OR "vitamin B(12)" OR cobalamin\*[ti] OR cyanocobalamin\*[ti] OR hydroxocobalamin\*[ti] OR hydroxycobalamin\*[ti] OR "Folic Acid"[mesh] OR "Vitamin M"[ti] OR "Pteroylglutamic Acid"[ti] OR Folic acid[ti] OR "Folic Acid"[ti] OR Folvite[ti] OR Folacin[ti] OR "Folic Acids"[ti] OR Tetrahydrofolic acids[ti] OR Formyltetrahydrofolic acids[ti] OR Tetrahydrofolic acid[ti] OR Formyltetrahydrofolic acid[ti] OR Leucovorin[ti] OR Levoleucovorin[ti] OR "Pteroylpolyglutamic Acids"[ti] OR (Pteroylpolyglutamic[ti] AND Acid[ti])) AND ("randomized controlled trial"[Publication Type] OR "randomized controlled trials as topic"[mesh] OR "randomized controlled trial" OR "randomised controlled trial" OR "randomized controlled trials" OR "randomised controlled trials" OR "random allocation"[mesh] OR "double-blind method"[mesh] OR "double-blind method" OR "single-blind method"[mesh] OR "single-blind method" OR "placebos"[mesh] OR placebos OR placebo OR placebo\* OR random\*[ti] OR RCT OR RCTs) *NOT (animal NOT human)* **NOT** ("case reports"[Publication Type] OR "letter"[Publication Type])

*EMBASE (2.475 hits)*

(\*cyanocobalamin/ OR \*folic acid/ OR ("vitamin B12" OR "vitamin B 12" OR "vitamin B(12)" OR cobalamin\* OR cyanocobalamin\* OR hydroxocobalamin\* OR hydroxycobalamin\* OR "Vitamin M" OR "Pteroylglutamic Acid" OR Folic acid OR "Folic Acid" OR Folvite OR Folacin OR "Folic Acids" OR Tetrahydrofolic acids OR Formyltetrahydrofolic acids OR Tetrahydrofolic acid OR Formyltetrahydrofolic acid OR Leucovorin OR Levoleucovorin OR "Pteroylpolyglutamic Acids" OR "Pteroylpolyglutamic Acid").ti) AND (randomized controlled trial/ OR placebo/ OR double blind procedure/ or single blind procedure/ or triple blind procedure/ OR ("randomized controlled trial\*" OR "randomised controlled trial\*" OR "double blind\*" OR "single blind\*" OR "triple blind\*" OR placebo\* OR random\* OR RCT OR RCTs).ti,ab) AND exp human/ **NOT** (exp case report/ OR exp letter/) AND (201220 OR 201221 OR 201222 OR 201223 OR 201224 OR 201225 OR 201226 OR 201227 OR 201228 OR 201229 OR 201230 OR 201231 OR 201232 OR 201233 OR 201234 OR 201235 OR 201236 OR 201237 OR 201238 OR 201239 OR 201240 OR 201241 OR 201242 OR 201243 OR 201244 OR 201245 OR 201246 OR 201247 OR 201248 OR 201249 OR 201250 OR 201251 OR 201252 OR 201253 OR 2013\* OR 2014\*).ew

*Web of Science (1.101 hits)*

TI=("vitamin B12" OR "vitamin B 12" OR "vitamin B(12)" OR cobalamin\* OR cyanocobalamin\* OR hydroxocobalamin\* OR hydroxycobalamin\* OR "Vitamin M" OR "Pteroylglutamic Acid" OR Folic acid OR "Folic Acid" OR Folvite OR Folacin OR "Folic Acids" OR Tetrahydrofolic acids OR Formyltetrahydrofolic acids OR Tetrahydrofolic acid OR Formyltetrahydrofolic acid OR Leucovorin OR Levoleucovorin OR "Pteroylpolyglutamic Acids" OR "Pteroylpolyglutamic Acid") AND (TS=(randomized controlled trial\* OR placebo\* OR "double blind\*" OR "single blind\*" OR "triple blind\*" OR randomised controlled trial\* OR RCT OR RCTs) OR TI=random\*)

*Cochrane (46 CRs and 1.829 RCTs)*

("vitamin B12" OR "vitamin B 12" OR "vitamin B(12)" OR cobalamin\* OR cyanocobalamin\* OR hydroxocobalamin\* OR hydroxycobalamin\* OR "Vitamin M" OR "Pteroylglutamic Acid" OR Folic acid OR "Folic Acid" OR Folvite OR Folacin OR "Folic Acids" OR Tetrahydrofolic acids OR Formyltetrahydrofolic acids OR Tetrahydrofolic acid OR Formyltetrahydrofolic acid OR Leucovorin OR Levoleucovorin OR "Pteroylpolyglutamic Acids" OR "Pteroylpolyglutamic Acid")

*CENTRAL (1.841 hits)*

("vitamin B12" OR "vitamin B 12" OR "vitamin B(12)" OR cobalamin\* OR cyanocobalamin\* OR hydroxocobalamin\* OR hydroxycobalamin\* OR "Vitamin M" OR "Pteroylglutamic Acid" OR Folic acid OR "Folic Acid" OR Folvite OR Folacin OR "Folic Acids" OR Tetrahydrofolic acids OR Formyltetrahydrofolic acids OR Tetrahydrofolic acid OR Formyltetrahydrofolic acid OR Leucovorin OR Levoleucovorin OR "Pteroylpolyglutamic Acids" OR "Pteroylpolyglutamic Acid")