

Supplementary Figure 1A.

Rheumatoid Arthritis:

("Arthritis, Rheumatoid"[Mesh:noexp] OR "Rheumatoid Arthritis"[tiab] OR rheumarthrit[tiab] OR rheumatic arthritis[tiab] OR rheumatic polyarthritis[tiab])

Health Assessment Questionnaire:

AND (Questionnaires[mesh] OR Severity of Illness Index[mesh] OR Disability Evaluation[mesh] OR questionnaire\*[tiab] OR haq[tiab])

Biologics:

AND (("Tumor Necrosis Factor-alpha/therapeutic use"[Mesh] OR Anti-TNF agent\*[All Fields] OR Anti-TNF inhibitor\*[All Fields] OR "adalimumab" OR "humira" OR "TNFR-Fc fusion protein" OR "TNFR-Fc fusion protein"[Mesh] OR "etanercept" OR "enbrel" OR "infliximab" OR "remicade" OR "golimumab" OR "simponi" OR "certolizumab" OR "cimzia" OR ("Antigens, CD20/therapeutic use"[Mesh] OR "rituximab" OR "rituxan" OR "abatacept" OR "orencia") OR ("Interleukin-6/therapeutic use"[Mesh] OR "tocilizumab" OR "Actemra" OR "roactemra"))

Supplementary Figure 1B:

Rheumatoid Arthritis:

'rheumatoid arthritis' OR 'rheumatoid arthritis':ab,ti OR 'rheumarthrit':ab,ti OR 'rheumatic arthritis':ab,ti OR 'rheumatic polyarthritis':ab,ti

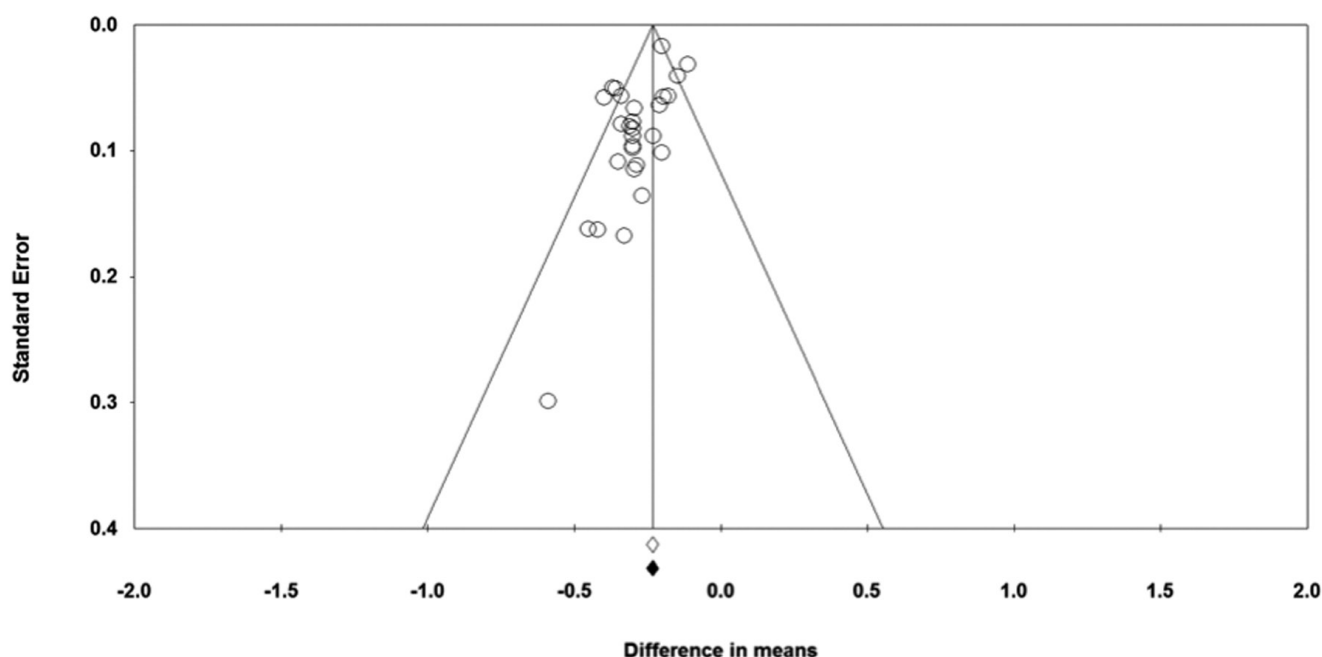
Health Assessment Questionnaire:

AND 'health assessment questionnaire' OR 'health assessment questionnaire':ti,ab OR 'HAQ' OR 'HAQ':ti,ab OR "assessment questionnaire" OR "assessment questionnaire":ti,ab

Biologics:

AND 'Tumor Necrosis Factor-alpha/therapeutic use':ab,ti OR Anti-TNF agent\*:ab,ti OR Anti-TNF inhibitor\*:ab,ti OR 'adalimumab':ab,ti OR 'humira':ab,ti OR 'TNFR-Fc fusion protein':ab,ti OR 'TNFR-Fc fusion protein':ab,ti OR 'etanercept':ab,ti OR 'enbrel':ab,ti OR 'infliximab':ab,ti OR 'remicade':ab,ti OR 'golimumab':ab,ti OR 'simponi':ab,ti OR 'certolizumab':ab,ti OR 'cimzia':ab,ti OR 'Antigens, CD20/therapeutic use':ab,ti OR 'rituximab':ab,ti OR 'rituxan':ab,ti OR 'ocrelizumab':ab,ti OR 'abatacept':ab,ti OR 'Interleukin-6/therapeutic use':ab,ti OR 'tocilizumab':ab,ti OR 'Actemra':ab,ti OR 'roactemra':ab,ti

Suppl. Fig. 1. Search strategy. A. PubMed and Cochrane Library. B. EMBASE.



Suppl. Fig. 2. Publication bias using Funnel plots and the Trim and Fill method for trials; observed studies (open circles); observed mean difference in change in HAQ (open diamond); imputed studies (filled circles); imputed mean difference in change in HAQ (filled diamond).