terms 'rheumatoid arthritis.mp' or 'arthritis, rheumatoid/' and 'pregnancy.mp' or 'pregnancy/' (limited to 'humans'). The Scottish Intercollegiate Guidelines Network observational study filter was applied. Included manuscript bibliographies were reviewed. Inclusion Criteria: 1) case-control/cohort studies; 2) examining relationships between pregnancy and RA risk; 3) reporting effect size data as OR/RR with 95% CIs in parous versus nulliparous females (or providing crude data allowing their calculation). Statistics: Due to the low prevalence of RA, ORs/RRs were used interchangeably. Due to heterogeneity a random effects model was used to estimate summary ORs/RRs. Crude and adjusted ORs/RRs were evaluated separately.

Results 248 citations were identified. 14 studies were included – 10 case-control (evaluating 1967 cases and 6113 controls) and four cohort studies (evaluating 8118 incident RA cases from 2 308 533 individuals). Crude and adjusted ORs/RRs were available for eight studies; three cohort studies reported adjusted and three case-control reported crude ORs/RRs only. Previous pregnancy was inversely associated with RA. The unadjusted summary OR for RA in parous versus nulliparous women was 0.76 (0.63–0.91). The adjusted summary OR for RA was also significant at 0.81 (0.68–0.96). Only a single study stratified risk by RF status- no significant relationship was identified with either subset. No studies evaluated risk by ACPA status.

Conclusions Our systematic review shows an inverse relationship between previous pregnancy and RA. Although this indicates a likely protective effect of parity on the risk of RA development caution is required because the largest risks were observed in case-control studies, which are open to recall bias and cannot prove causality. The authors consider that further prospective cohort studies are required, evaluating cases by ACPA status, to better discern what risk factors are important in RA subset pathogenesis.

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7 A SYSTEMATIC REVIEW AND META-ANALYSIS OF PREGNANCY AS A PROTECTIVE FACTOR AGAINST RHEUMATOID ARTHRITIS

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Background and objectives The female preponderance of rheumatoid arthritis (RA) implies that reproductive factors may play an important role in its pathogenesis. Although several studies have shown an inverse association between previous pregnancy and RA development this finding has not been consistently reproduced and the precise relationship remains uncertain. The authors therefore undertook a systematic review and meta-analysis of observational studies examining pregnancy as a risk factor for RA. Our primary aim was to establish if pregnancy is associated with the risk of RA. Our secondary aim was to evaluate if this risk varies by rheumatoid factor (RF)/anticyclic citrullinated peptide antibody (ACPA) status.

Materials and methods Search strategy: the authors searched Medline/EMBASE (1947 November 2011) using the search