



systematic review and meta-analysis of cohort studies.



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Trends in cardiovascular mortality in patients with rheumatoid arthritis over 50 years: a systematic review and meta-analysis of cohort studies FREE

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Abstract

Objectives. RA is known to be associated with a high cardiovascular (CV) risk. Longitudinal data suggest that RA disease course may have become milder over the past decades. Thus, we set out to estimate the magnitude of the overall increase in CV mortality associated with RA and to determine whether it has decreased over the past 50 years.

Methods. We performed a systematic review and a meta-analysis of literature in MEDLINE and EMBASE databases from January 1960 to November 2008. All cohort studies reporting CV mortality risk were included. We then calculated pooled standardized mortality ratios (SMRs) of CV mortality, and determined their evolution with time using meta-regression analysis.

Results. Seventeen studies were analysed, corresponding to a total of 91 916 patients. The overall pooled SMR was 1.6 (95% CI 1.5, 1.8; $I^2 = 93\%$; $P(\text{het}) < 0.0001$). Mid-cohort year ranged from 1945 to 1995 (<1980, seven studies; 1980–90, five studies; >1990, five studies). Meta-regression analyses revealed neither any trend in SMR over time ($P = 0.784$) nor any relation with disease duration at the time of inclusion ($P = 0.513$).

Conclusions. Our results show that RA is associated with a 60% increase in risk of CV death compared with general population. Despite changes in RA course over the past decades, SMR for CV death has not changed. This suggests that targeting a reduction in CV mortality should still be

considered as a major issue in RA.

Keywords: [Rheumatoid arthritis](#), [Cardiovascular mortality](#)

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