

Table S1. Used algorithms to identify of rheumatoid arthritis cases in the E3N-EPIC cohort

Identification algorithm

Algorithm 1: using the IRD questionnaire

Self-report of RA (Q1) + at least one of the following criteria:

1. diagnosis confirmed by a rheumatologist or physician (Q2)
2. current or past use of csDMARDs and/or bDMARDs (Q34)
3. positive RF and/or ACPA and/or anti-illagrin and/or anti-keratin antibody (Q16, Q17 and Q18)
4. sum of the following questions ≥ 4 (1 point per positive answer at each question)
 - Symmetrically affected joints (Q8)
 - Affected hands (Q9)
 - More than three joints affected (Q11)
 - Stiff joints in the morning > 1 hour (Q14)
 - Nodules under the skin on elbows or hands (Q15)
 - Positive RF, or ACPA, or anti-illagrin antibody or anti-keratin antibody (Q16, Q17, or Q18).

Algorithm 2: using the drug reimbursement database

Self-report of RA in the three follow-up questionnaires (2007, 2011, 2014) + at least one reimbursement of csDMARDs and/or bDMARDs among methotrexate, leflunomide, all sub-cutaneous TNF- α inhibitors, sub-cutaneous abatacept and sub-cutaneous tocilizumab

IRD: inflammatory rheumatic diseases; RA: rheumatoid arthritis; csDMARDs: conventional synthetic disease modifying anti-rheumatic drugs; bDMARDs: conventional synthetic disease modifying anti-rheumatic drugs; TNF- α : tumor necrosis factor alpha.