ONLINE SUPPLEMENT

Algorithms and codes for selection criteria

**Inclusion criteria**

Patients with at least one rheumatoid arthritis (RA)-related event between 1 January 2013 and 31 December 2017. RA-related events are hospitalisations (PMSI-MCO*) or long-duration disease (LDD**) with a 10th Revision of the International Classification of Diseases (ICD-10) RA-related code:

- **M05** – Seropositive rheumatoid arthritis
  - M05.0 – Felty syndrome
  - M05.1 – Rheumatoid lung disease
  - M05.2 – Rheumatoid vasculitis
  - M05.3 – Rheumatoid arthritis with involvement of other organs and systems
  - M05.8 – Other seropositive rheumatoid arthritis
  - M05.9 – Seropositive rheumatoid arthritis, unspecified
- **M06** – Other rheumatoid arthritis
  - M06.0 – Seronegative rheumatoid arthritis
  - M06.2 – Rheumatoid bursitis
  - M06.3 – Rheumatoid nodule
  - M06.8 – Other specified rheumatoid arthritis
  - M06.9 – Rheumatoid arthritis, unspecified

**Exclusion criteria**

Patients with at least one event for lupus erythematosus, scleroderma or myositis identified between 1 January 2010 and 31 December 2017.

- **Lupus erythematosus**: Patients with at least one event
  - Hospitalisation (PMSI-MCO*) or LDD** with ICD-10 codes L93 or M32
  - OR a reimbursement for Benlysta® (belimumab) Anatomical Therapeutic Chemical (ATC) code L04AA26
- **Scleroderma**: Patients with at least one hospitalisation (PMSI-MCO*) or LDD** with ICD-10 codes M34, L94.0 or L94.1
- **Myositis**: Patients with at least one hospitalisation (PMSI-MCO*) or LDD** with ICD-10 codes M33 or M60

Patients with at least one event for ankylosing spondylitis and other systemic inflammatory diseases with no LDD for RA between 1 January 2010 and 31 December 2017.

- **Ankylosing spondylitis**: At least one hospitalisation (PMSI-MCO*) or LDD** with ICD-10 codes M45, M46, M47, M48, M49
- **Other arthritis**: At least one hospitalisation (PMSI-MCO*) or LDD** with ICD-10 codes L40.5 or M07 to M19
- **Connective tissue diseases**: At least one hospitalisation (PMSI-MCO*) with ICD-10 codes M35.1, M35.2, M35.8, M35.9
- **Primary systemic vasculitis**: At least one hospitalisation (PMSI-MCO*) with ICD-10 codes D69.0, M30.0, M31.0, M31.3, M31.4, M31.5, M31.6, M31.7, M31.8, M31.9

*PMSI-MCO: French hospital database for medicine, surgery and obstetrics stays.
**LDD: Corresponding to an administrative status of patients with chronic diseases with a complete coverage of healthcare resources.
**Supplementary Figure 1.** Study design and treatment-related outcomes assessment. (A) Overall study design. (B) Assessment of treatment sequences. (C) Assessment of treatment initiations.

DMARD, disease-modifying antirheumatic drug; LDD, long-duration disease; MTX, methotrexate; RA, rheumatoid arthritis; tDMARD, targeted DMARD; y, years.