Linkage to the Prescribed Drugs Register

The Prescribed Drug Register (PDR) is a nationwide public register with complete coverage that gathers data on prescription medicines dispensed at pharmacies. The register is held by the National Board of Health and Welfare, and registration started on 1 July 2005. The PDR includes data on drug (ATC-code), quantity, dose, date, and the personal identification number of the patient.

For the current study, data on conventional synthetic disease modifying anti-rheumatic drug (csDMARD) use before TNF inhibitor (TNFi) start were retrieved through linkage to the PDR since these data were not available elsewhere for patients with ankylosing spondylitis (AS) and undifferentiated spondyloarthritis (uSpA). To be able to include as many patients as possible in this sensitivity analysis and at the same time allow for some irregularity in dispensing of csDMARD prescriptions, we chose to study the 6-month period before TNFi start. Consequently, patients starting TNFi treatment from 1 January 2006 onwards were eligible for the analyses. In total, 1902 patients (1049 with AS and 853 patients with uSpA) were eligible (1448 patients when those with at least one swollen joint at baseline were excluded).

Four groups were defined as follows:

1. **csDMARD starters:** Patients registered with csDMARD use in the period after TNFi start ± csDMARD dispensed during the 30-day period before TNFi, but not elsewhere in the 6-month window before TNFi start
2. **csDMARD continued users:** Patients registered with csDMARD use in the period after TNFi start + csDMARD dispensed at least once during the 6-month window before TNFi start (but not only during the 30-day period before TNFi start)
3. **csDMARD stoppers:** Patients not registered with csDMARD use in the period after TNFi start, but with csDMARD dispensed at least once during the 6-month period before TNFi start
4. **csDMARD non-users:** Patients not registered with csDMARD use in the period after TNFi start and with no csDMARD dispensed during the 6-month period before TNFi start

Among patients with AS, there were 108 “starters”, 288 “continued users”, 148 “stoppers” and 505 “non-users”. The corresponding numbers for uSpA were 90 “starters”, 325 “continued users”, 152 “stoppers” and 286 “non-users”.
For AS and uSpA combined, but excluding patients with ≥1 swollen joint at baseline, there were 168 “starters”, 390 “continued users”, 224 “stoppers” and 666 “non-users”.