Crude employment rates were 82% in SpA, 56% in RA and 63% in SSc. Age- and sex-adjusted employment rates (indirect standardization) were respectively 75%, 68%, and 66%, corresponding to a standardized employment rate of 1.00 (95% CI 0.87 – 1.14) for SpA, 0.89 (0.64 – 1.24) for RA, and 0.88 (CI 0.67 – 1.15) for SSc.

SpA patients worked 39.5±10.9h/week, compared to 40.9±16.9h in RA and 33.0±12.4h in SSc (p=0.003). Flemish employees worked on average 39.7h (full-time) and 25.7h (part-time) per week.

In the working population, 46% of SpA patients, 53% RA and 78% SSc reported sick leave in the previous year, compared to 42% in Flanders. Long-term work disability was reported by respectively 10%, 17% and 20% of patients (p=0.03) compared to 9% in the reference population.

The median retention time on the labour market was not significantly different between SpA (42.1 years), RA (42.1 years) and SSc (41.2 years) (p=0.94, Figure 1).

Figure 1. retention time on the labour market since start of patient’s professional career.

Conclusion: Our data refute the common perception that patients with RMDs, especially inflammatory joint diseases, have significantly worse work outcomes compared to the general population. In an era of early diagnosis and treatment, more recent datasets could be used to realistically estimate the odds of these important health economic outcomes.

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POS0162 HOW ACCURATELY CAN WE IDENTIFY RHEUMATOID ARTHRITIS BY ICD-10 CODES? A LINKAGE OF CROSS-SECTIONAL SURVEY DATA WITH CLAIMS DATA

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Background: Claims data from health insurance companies are a valuable source in health services research to provide insights on health care provision for an unselected patient collective. However, the available ICD-10 diagnoses have been collected for billing purposes and their validity is not clear.

Objectives: The aim of this analysis was to assess the positive predictive values (PPV) of a ICD-10 diagnosis of rheumatoid arthritis (RA) and additional criteria (specific medication, measurement of inflammatory markers, contact to a rheumatologist) in German claims data using patient-reported confirmed diagnosis as reference/gold standard.

Methods: Within the PROCLAIR project (Linking Patient-Reported Outcomes with CLAims data for health services research In Rheumatology), data from a large German statutory health insurance with 6.6 million persons aged 18 to 79 were used. We identified a random sample of persons for which an ICD-10 code for RA (M05/M06) was available at least two quarters in outpatient care. The sample was stratified for age (18 to 49, 50 to 64, 65 to 79 years), sex and seropositive (M05)/ seronegative RA (M06). Persons were asked to confirm their RA diagnosis (“What does your attending physician call the disease you are suffering from?”) with answer options “chronic polyarthritis”, “rheumatoid arthritis”, “rheumatism of the joints” “other (please specify)”. The answer was used as the gold standard for RA diagnosis. Analyses were weighted to represent the total RA population of the database. Patient-reported information was linked to the claims data given patient consent. PPVs (% of confirmed RA diagnosis) were calculated for ICD-10-diagnosis or additional examination of inflammatory markers (erythrocyte sedimentation rate/C-reactive protein), prescription of specific medication (disease-modifying anti-rheumatic drugs, non-steroidal anti-rheumatic drugs and glucocorticoids) and contact to a rheumatologist, in the respective year.

Results: We contacted 6,193 persons with a claims diagnosis of RA. Of these 3,184 responding (51%), N=2,553 (81%) confirmed that they had RA. PPVs were 81% for ICD-10 only, 94% in M05 and 76% in M06. When additional criteria were taken into account, PPVs increased to 82% (measure of inflammatory markers), 85% (rheumatologist) and 89% (medication), respectively (Figure 1). However, PPVs ranged from 72% to 76% even if the additional criteria were not fulfilled. PPVs were lowest in men aged 18-49 years and relatively stable among women of all age groups.

Figure 1.

Conclusion: The ICD-10 codes M05 and (less optimal) M06 have high PPVs and are therefore feasible to identify RA in claims data. The prerequisite of specific medication seems to be the most useful one in identifying RA.

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POS0163 USEFULNESS OF WEARABLE DEVICES TO ASSESS PHYSICAL ACTIVITY IN NON-INFLAMMATORY AND INFLAMMATORY RHEUMATIC DISEASES: A SYSTEMATIC REVIEW AND META-ANALYSIS

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Background: In the last years, the rise of personalized medicine has grown up. So, patient-oriented wearable technologies have been developed. Wearable devices (WD) are useful to collect objective data related to physical activity. In the management of rheumatic musculoskeletal disorders (RMDs) a regular physical activity is an important recognized non-pharmaceutical intervention [1].

Objectives: This systematic review aims at evaluating how the use of WDs impacts physical activity in patients with non-inflammatory and inflammatory rheumatic diseases.

Methods: A systematic review and meta-analysis were performed. A comprehensive search of articles was performed in the following databases: MEDLINE via PubMed, EMBASE, CINAHL, and Scopus. A random-effect meta-analysis has been carried out on the number of steps and moderate to vigorous physical activity (MVPA). Unvariable meta-regression models have been computed to assess the possibility that the study characteristics may act as effect modifiers on the final meta-analysis estimate. The primary outcome is the level of physical activity evaluated with a wearable device as a number of daily steps and MVPA. The secondary outcome is the comparison of both a number of steps and MVPA on the final meta-analysis estimate. The primary outcome is the level of physical activity evaluated with a wearable device as a number of daily steps and MVPA.

Results: Between SpA (42.1 years), RA (42.1 years) and SSc (41.2 years) (p=0.94, Figure 1).