rehospitalization in the following year in the non-screened group ($p < 0.001$), but not in the screened group ($p = 0.750$ and $p = 0.066$ respectively).

Conclusion: Our screening and prevention program was associated with a reduction in hospitalizations in the following year and a decrease in the risk of re-hospitalization compared to unscreened patients with IRD. This suggests a positive impact of performing systematic screening for multi-morbidities in IRD patients.

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OP0215

MENTAL HEALTH, SLEEP AND COGNITION CHARACTERISTICS IN RHEUMATOID ARTHRITIS AND ASSOCIATIONS WITH RHEUMATOID FACTOR STATUS IN THE UK BIOBANK

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Background: There are significant gaps in the literature regarding sleep, mental health, and cognition for people with rheumatoid arthritis (RA) despite being important aspects of patients' overall quality of life. Similarly, there is a lack of understanding about the role of rheumatoid factor (RF) on these domains.

Objectives: The aim of the current study was to characterize mental health, cognition, and sleep variables in people with RA and to compare these associations in people with positive RF (RF+) and negative RF (RF-) in a large population cohort.

Methods: This cross-sectional study used baseline data from the UK Biobank cohort ($n = 502,506$) to compare people with and without RA and people that are RF+ versus RF- on a variety of sociodemographic, lifestyle, illness-related factors and depression, neuroticism, performance on cognitive tests and sleep-related factors. Logistic regression analyses were also performed to determine whether RF seropositivity was associated with mental health, cognition, and sleep variables. We adjusted for the covariates of age, sex, ethnicity, deprivation index, smoking status, BMI and alcohol intake.

Results: In this sample 5,907 people self-reported having RA (1.17%), of which 74% were RF- and 26% were RF+. There were significant differences ($p < 0.05$) between people with and without RA for depression, neuroticism, nap during the day, getting up in the morning, insomnia, reaction time, fluid intelligence and prospective memory. There were significant differences ($p < 0.05$) between RF+ and RF- people for depression, neuroticism, sleep duration, nap during the day, getting up in the morning, insomnia, and reaction time. In the unadjusted regression analyses neuroticism ($B = -0.06$, $SE = 0.01$, $p < 0.001$), sleep duration ($B = 0.02$, $SE = 0.005$, $p < 0.001$), nap during the day ($OR = 1.28$, 95% CI: 1.02-1.65, $p < 0.05$) and reaction time ($B = 4.55$, $SE = 0.53$, $p < 0.001$) were significantly associated with RF status. After adjusting for covariates, only sleep duration ($B = 0.01$, $SE = 0.005$, $p < 0.01$) remained significant.

Conclusion: The current study suggests that RA diagnosis and RF status are associated with differences in mental health, sleep, and cognition, highlighting the importance of addressing these aspects in clinical settings and future research.

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OP0216

TRENDS IN OCCURRENCE OF DEMENTIA IN PATIENTS WITH RHEUMATOID ARTHRITIS: A POPULATION-BASED COHORT STUDY, 1980-2009

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Background: Some cross-sectional studies show increased odds of cognitive impairment and dementia in patients with rheumatoid arthritis (RA) compared to

the general population, while others show the reverse. Furthermore, existing studies have not evaluated trends in incidence of dementia on a longitudinal basis.

Objectives: We aimed to assess the incidence of dementia over time in patients with incident RA and to compare it to those of population-based comparators.

Methods: This population-based, retrospective cohort study included Olmsted County residents with incident RA and non-RA individuals matched on age, sex, and calendar year. All RA cases met 1987 ACR criteria for RA between 1980 and 2009. Index date was the date of RA criteria fulfillment or a corresponding date for referents. All individuals were followed until death, migration, or 12/31/2019. For sensitivity analyses, follow-up of each decade was truncated at eleven years to make the length of follow-up comparable (e.g., the 1980-89 cohort was truncated at 12/31/1999). Incident dementia was defined as an ICD-9/10 code for dementia. Patients with dementia prior to RA incidence/index date were excluded. Cox proportional hazards models calculated hazard ratios (HR) with 95% confidence intervals (CI) for incident dementia by decade, adjusting for age and sex. The cumulative incidence of dementia was assessed, adjusting for the competing risk of death.

Results: The study included 895 persons with RA (mean age 55.3 years; 69% female) followed up for a median of 15.2 years. The 10-year cumulative incidence of dementia in these individuals during the 1980s was 12.7% (95%CI 7.9-15.7%), 1990s was 7.2% (95%CI 3.7-9.4%), and 2000s was 6.2% (95%CI 3.6-7.8%). Patients with incident RA in 2000-09 had markedly lower cumulative incidence of dementia than patients diagnosed in the 1980s (HR 0.57; 95%CI 0.33-0.98). Patients with incident RA were then compared to population-based comparators without RA ($N = 880$, mean age 55.2 years; 68% female) followed up for a median of 16.4 years. The 10-year cumulative incidence of dementia in these individuals in the 1980s was 9.3% (95%CI 4.6-11.9%), in the 1990s was 5.0% (95%CI 2.2-6.3%) and in the 2000s was 7.1% (95%CI 4.3-8.9%). Overall, the risk of dementia in RA patients was significantly higher than in the non-RA persons (HR 1.38; 95%CI 1.04-1.83). When subdivided by decade, the risk of dementia in patients diagnosed with RA was higher than non-RA comparators in the 1980s and 1990s but not 2000s (Figure 1). Sensitivity analysis with truncated follow-up yielded similar results.

Figure 1. Cumulative incidence of dementia (based on ICD 9/10 codes) versus age-and sex-matched non-RA comparators by decade of RA incidence/index.