**The Prevalence and Determinants of Sleep Problems in Patients Across Rheumatic Diseases and Their Correlation with Disease Indices Using the Routine Assessment of Patient Index Data 3 (RAPID3) Questionnaire.**

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**Background:**
Sleep problems are common in rheumatology patients. RAPID3 is a patient reported outcome measure (PROM) that efficiently screens for problems with sleep, anxiety or depression in routine care.

**Objectives:**
To study prevalence and determinants of self-reported sleep problems across rheumatic diseases in Rheumatology clinics in Singapore, and its correlation with disease indices.

**Methods:** RAPID3 questionnaire was filled electronically over 6 months. Demographic data and SNOWMED diagnoses codes were matched through hospital electronic medical records. RAPID3 comprised of 3 questions measuring the extent of difficulty getting a good night's sleep and dealing with anxiety or depression. Significant problems were considered if they had "much difficulty" or were "unable to do" the component. The relationship of sleep with anxiety, depression, physical function (measured by modified health assessment questionnaire, mdHAQ), pain and global patient assessment (using visual analogue scale, VAS), was evaluated using Pearson's correlation. Factors associated with significant sleep problems were evaluated by logistic regression.

**Results:**
4078 patients [mean (SD) age 55.8 (16.3) years, 67.9% female, 70.6% Chinese] were invited to participate, of which 2625 (64.4%) responded. SNOMED diagnosis codes were available for 1570 (53.7%) patients-majority had inflammatory arthritis (n= 843, 53.7%) (Figure 1).

Mean mdHAQ was 0.3 (0.5), pain VAS was 2.4 (2.3) and global VAS was 2.6 (2.2). Data on disease duration, clinical features and medications were not available. 39.3%, 27.5% and 23.8% had problems with sleep, anxiety and depression respectively; and 73.4, 4.5% and 4.3% had significant problems respectively. Sleep moderately correlated with anxiety (r=0.463, p<0.001) and depression (r=0.436, p<0.001) and weakly correlated with mdHAQ (r=0.289, p<0.001), global (r=0.339, p<0.001) and pain VAS (r= 0.314, p<0.001).

In multivariable logistic regression, significant sleep problems were associated with anxiety (OR 4.733, CI 2.172-10.310, p<0.001), mdHAQ score ≥ 1 (OR 3.247 , p=0.023). Patients with osteoarthritis and fibromyalgia were more likely than those with inflammatory arthritides to have significant sleep problems, though we were unable to adjust for body mass index as data were unavailable (Table 1).

**Conclusions:**
Sleep problems are common in rheumatology patients and correlate significantly with disease indices and psychological distress. Rheumatologists should routinely screen for sleep difficulties, especially in patients with osteoarthritis and fibromyalgia.

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**Disclosure of Interests:**
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