However, the approach based on interfering with TNF exceeds simple neutralisation of inflammatory cytokine and, possibly, this is why the prediction of response remains elusive. High costs of the treatment and irreversible tissue damage in non-responders have forced multiple attempts to predict response to anti TNF treatment using clinical, laboratory and molecular markers. There are several issues related to this type of studies that may include genetically heterogeneous groups of patients, different types of anti-TNF treatment, multiple types of response measures and are typically underpowered. Nowadays, an enormous amount of genetic, epigenetic and genomic data revived new expectations and stimulates producing of models for prediction of anti TNF response. We performed several studies based on different omics data in genetically homogeneous Swedish population that raises importance of disease subgrouping and interference of environmental factors on prediction values.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.7745

SATURDAY, 16 JUNE 2018

How do you sleep?

SP0170 RE-EVALUATE LIFE WHEN BROKEN SLEEP HAS A NEGATIVE EFFECT ON INFLAMMATORY ARTHRITIS

B.A. Esbensen. Rigshospitalet – Glostrup, Copecare, Centre for Rheumatology and Spine Diseases and Research Unit, Glostrup, Denmark

Despite improved possibilities for early diagnosis and medical treatment rheumatoid arthritis (RA) still causes stiffness and swelling in the joints. Poor sleep, chronic pain, fatigue, reduced physical function, depression and reduced quality of life are consequences of these symptoms and the inflammation is.¹⁻³ About 60%–80% of patients with RA report poor sleep compared to 10%–30% in the background population.⁴⁻⁶ Patients with RA indicate sleep as one of the most important parameters evaluating their medical treatment with anti-rheumatics, which indicate the impact sleep can have on physical and mental well-being.⁷ Common meanings of good and bad sleep in a healthy population is characterised by subjective satisfaction, appropriate timing, adequate duration, high efficiency, and sustained alertness during waking hours.⁸ Thereby, sleep health is seen as a multidimensional pattern of sleep-wake-fulness, adapted to individual, social, and environmental demands, that promotes physical and mental well-being. Initially, this lecture will focus on “state of the art” regarding sleep and inflammatory joint diseases. Also different suggestions of non-pharmacological treatments targeting improved sleep quality will be presented.

Subsequently, experiences from a nurse-led sleep outpatient clinic which was established in 2016 in the Department of Rheumatology and Spine diseases, Rigshospitalet – Glostrup, will be presented focusing on how the clinic is organised and how specialised nurses are meeting patients with poor sleep with non-pharmacological interventions. We have systematically collected data about the patients sleep when included in the clinic for treatment and when discharged from the clinic. We will present results from these patients.

REFERENCES:

- [1] Uhlig, T., et al., *Rheumatoid arthritis is milder in the new millennium: health status in patients with rheumatoid arthritis 1994–2004*. Ann Rheum Dis, 2008. **67**(12): p. 1710–5.
- [2] Hewlett, S., et al., *‘I’m hurting, I want to kill myself’: rheumatoid arthritis flare is more than a high joint count—an international patient perspective on flare where medical help is sought*. Rheumatology (Oxford), 2012. **51**(1): p. 69–76.
- [3] Carr, A., et al., *Rheumatology outcomes: the patient’s perspective*. J Rheumatol, 2003. **30**(4): p. 880–3.
- [4] Loppenthin, K., et al., *Sleep quality and correlates of poor sleep in patients with rheumatoid arthritis*. Clin Rheumatol, 2015. **34**(12): p. 2029–39.
- [5] Goes, A.C.J., et al., *Rheumatoid arthritis and sleep quality*. Rev Bras Reumatol Engl Ed, 2017. **57**(4): p. 294–298.
- [6] Abbasi, M., Z. Yazdi, and N. Rezaie, *Sleep disturbances in patients with rheumatoid arthritis*. Niger J Med, 2013. **22**(3): p. 181–6.
- [7] Kirwan, J.R., et al., *Incorporating the patient perspective into outcome assessment in rheumatoid arthritis—progress at OMERACT 7*. J Rheumatol, 2005. **32**(11): p. 2250–6.
- [8] Dickerson, S.S., K.J. K.J. Klingman, and C.R. C.R. Jungquist, *Common meanings of good and bad sleep in a healthy population sample*. Sleep Health, 2016. **2**(3): p. 253–259.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.7675

SP0171 SLEEP DISTURBANCES IN PRIMARY SJÖGREN'S SYNDROME: EVIDENCE FROM THE LITERATURE, PATIENT SLEEP DIARIES AND A QUALITATIVE FOCUS GROUP STUDY

K.L. Hackett^{1,2,3}. ¹Department of Social Work, Education and Community Wellbeing, Northumbria University; ²CRESTA Fatigue Clinic, Newcastle upon Tyne NHS Foundation Trust; ³Musculoskeletal Research Group, Institute of Cellular Medicine, Newcastle University, Newcastle upon Tyne, UK

Primary Sjögren's syndrome is a systemic autoimmune disease which targets secretory glands resulting in dryness. Extra-glandular features include fatigue, pain and sleep disturbances. There are few studies exploring the specific sleep disturbances experienced by PSS patients; the impact of these disturbances or the potential acceptability of interventions to address some of these problems. In this talk, I will present work which begins to map the landscape of sleep disturbances in PSS:

Firstly, a systematic review of the literature explores sleep disturbances in PSS patients and identifies particular sleep symptoms which are problematic in these patients.¹

Secondly, I will explore the relationship between daytime sleepiness (hyper-somnolence) and other clinical parameters in patients recruited to the UK Primary Sjögren's Syndrome Registry.

Thirdly, I will report on sleep diary data from 30 patients attending a multidisciplinary fatigue clinic in the North East of England.

Finally, I will present findings from focus groups conducted with PSS patients and their partners. In this qualitative study, we explored the impact of sleep disturbances on patients and their families and potential acceptability of a non-pharmacological intervention (cognitive behavioural therapy for insomnia) to address specific sleep disturbances.²

REFERENCES:

- [1] Hackett KL, Gotts ZM, Ellis J, Deary V, Rapley T, Ng W-F, Newton JL, Deane KHO. An investigation into the prevalence of sleep disturbances in primary Sjögren's syndrome: a systematic review of the literature. Rheumatology (Oxford). 2017;56(4):570–80.
- [2] Hackett KL, Deary V, Deane KHO, Newton JL, Ng W-F, Rapley T. Experience of sleep disruption in primary Sjögren's syndrome: A focus group study. British Journal of Occupational Therapy. 2018;0(0):0308022617745006.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.7724

SP0172 WHAT EFFECT DOES EXERCISE HAVE ON SLEEP IN RMD?

S.G. McKenna. Discipline of Physiotherapy, School of Allied Health, University of Limerick, Limerick, Ireland

Circadian rhythms are physical, mental and behavioural changes that follow a daily cycle. Sleep is an essential aspect in maintaining the body's circadian rhythm and maintain health-related quality of life (HQoL) therefore, sleep disturbances can have a detrimental impact on same. The Outcome Measures in Rheumatology (OMERACT) has identified sleep as one of the key outcomes important to RMD patients.¹ Patients with various immune-mediated inflammatory diseases, including rheumatoid arthritis, have reported disturbed sleep and reduced sleep duration, further adding to their disease burden.^{2,3} It has been well established that being physically active and taking regular exercise are important for those who have been diagnosed with RMD's.⁴ Exercise has been identified as an important part of the nonpharmacological management of poor sleep duration and in improving sleep quality however, in a 2013 Cochrane review that examined exercise and fatigue in RA, it was noted by the authors that sleep quality was yet to be examined in this population.⁵ Moreover, it is known that in general exercise improves mood state, which can also be an additional factor in improving sleep duration and sleep quality.⁶

Exercise offers a potentially attractive alternative or adjuvant treatment for those people with RMD who have sleep issues. The position stand from the American College of Sports Medicine (ACSM) regarding exercise for those with chronic conditions is categorised by cardio-respiratory exercise, resistance exercise, flexibility exercise and neuro-motor exercise. This presentation will consider the evidence regarding the effect exercise has on sleep in general and how the examination of a participants exercise habits prior to any study might be important, as it may have an impact on its effectiveness. A key message from the talk will be the presentation of evidence of exercise programmes in people with RMD, according to the Frequency, Intensity, Time and Type (FITT) principle will be presented.⁸