DMARDs may be less efficient in patients with psoriatic arthritis, it is uncertain whether a decline of the same magnitude can be expected among these patients.

Objectives: We wished to investigate trends in the incidence of orthopaedic procedures in patients with psoriatic arthritis, and to explore how patient characteristics, time of diagnosis and treatment affect the need for surgery.

Methods: We reviewed the medical history of 1432 patients with possible psoriatic arthritis at Haukeland University Hospital in Bergen, Norway from 1954–2011, of which 590 (mean age 49, 52% women) had a confirmed diagnosis of psoriatic arthritis, and sufficient journal information, and were included in the present study. Relevant orthopaedic procedures were obtained from the Norwegian Arthroplasty Register and the hospital's administrative patient records. 171 procedures (25% joint synovectomies, 15% arthrodeses and 53% prostheses) were performed in 117 patients. Survival analyses were completed to evaluate the impact of different factors such as year of diagnosis, age, sex, radiographic changes, disease activity and treatment, on the risk of undergoing surgery.

Results: Female sex, older age (≥ 70) and maximum ESR 30–59 significantly increased the risk of surgery whereas time period of diagnosis had no effect on the outcome. Anti-rheumatic treatment changed significantly over time.

Abstract THU0286 – Figure 1. Cumulative percent operated depending three separate time periods of diagnosis

Conclusions: 20% of patients with psoriatic arthritis needed surgery during disease course. In our material, the prognosis of patients with psoriatic arthritis has not changed, with regard to the risk of orthopaedic surgery, despite significant changes in treatment. This is contrary to what is seen for patients with rheumatoid arthritis.

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THU0287 THE PREVALENCE OF REMISSION IN A REAL-LIFE COHORT OF PSORIATIC ARTHRITIS PATIENTS TREATED WITH SYNTHETIC OR BIOLOGIC DISEASE MODIFYING DRUGS

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Background: The treat-to-target (T2T) strategy for the management of psoriatic arthritis (PsA) recently proposed by EULAR recommendations suggests to ideally achieve remission/Low Disease Activity (LDA) in all treated patients, but nowadays data on remission/LDA rate in a real-world setting are still lacking.

Objectives: To evaluate the disease activity state in a real-life cohort of PsA patients treated with synthetic and/or biologic disease modifying drugs (DMARDs).

Methods: We undertook a cross-sectional analysis of all PsA consecutive patients enrolled in a large Italian multicentric registry including 7 Italian tertiary rheumatology centres. Disease activity defined as number of swollen (SJ) and

tender (TJ) joints, Leeds Enthesitis Index (LEI), number of dactylitis, Body Surface Area (BSA), patient global assessment (PGA), patient pain (PP), Health Assessment Questionnaire Disability Index (HAQ-DI), and C-reactive protein (CRP, mg/L) were computed and the rates of patients achieving Disease Activity in Psoriatic Arthritis (DAPSA) remission/LDA and Minimal Disease Activity (MDA) were calculated. Subanalysis after stratification according to ongoing treatment (sDMARDs or bDMARDs) were also performed.

Results: The study population included 362 PsA patients (56.6% men; mean $\pm$ standard deviation, SD) age 53.3 ± 12.4 years; mean $\pm$ SD) disease duration 9.4 ± 8.2 years), treated with sDMARDs (15.8%, mainly methotrexate [66.6%]) or bDMARDs (79.6%, mainly anti-TNF agents [72.9%], as monotherapy [78.1%] or in combination with sDMARDs [21.9%]). Oligoarthritis (32%), polyarthritis (42%), axial involvement (11.9%), enthesitis (10.5%), and dactylitis (3.6%) were the reported predominant subsets of PsA. In the overall population the mean values $\pm$ SD) of disease activity measures were: SJ count 1.4 ± 2.6 , TJ count 1.9 ± 3 , LEI 0.5 ± 1.1 , number of dactylitis 0.1 ± 0.3 , BSA 2.6 ± 6.9 , PGA 1.4 ± 2.6 , PP 3 ± 2.6 , HAQ-DI 0.4 ± 0.5 , CRP level 3.4 ± 8 , and DAPSA 9.3 ± 9.2 . The rates of DAPSA LDA and remission were 46.9% and 31.7%, respectively. We found 51.6% of patients achieving MDA, without significant difference according to ongoing treatment (53.4% and 51% in bDMARD versus sDMARD treated patients, respectively; $p=0.87$).

Conclusions: In our real-life cross-sectional analysis, an acceptable comprehensive disease control was reported only in half of patients, irrespectively of ongoing therapy. These findings suggest the need to further improve the real-world application of T2T strategy for the management of PsA.

Disclosure of Interest: None declared

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THU0288 IMPLEMENTATION OF THE TREAT TO TARGET CONCEPT IN EVALUATION OF PSORIATIC ARTHRITIS PATIENTS

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Background: Minimal disease activity (MDA) in psoriatic arthritis (PsA) is a composite outcome measure that represents the multifaceted domains of psoriatic disease including the joints, enthesitis and skin, as well as patient's reported outcomes (PRO). MDA is currently used as a goal of treatment in the "treat-to-target" (T2T) approach in PsA management.

Objectives: To assess the implementation of the T2T concept in PsA patients.

Methods: A retrospective analysis of all the patients included in a PsA registry during 2016–2017 was performed. Medical charts were reviewed by an independent rheumatologist and the following data were collected: patient demographics, duration of PsA and psoriasis, alcohol and tobacco use, treatment changes, as well as items that constitute the MDA including the tender and swollen joint count, enthesitis, psoriasis area skin score (PASI), physician and patient evaluation of disease activity and pain and the health assessment questionnaire (HAQ) score. Medical records were reviewed to assess whether T2T concept was indeed followed by the treating rheumatologist to determine whether MDA was achieved and medication changes were made. The associations between T2T concept implementation and categorical and continuous variables were assessed by Chi square test, or t-test as appropriate. The association between the physician's assessment at each visit with each of the MDA parameters (active versus inactive) was assessed by Chi square test.

Results: The records of 117 consecutive patients were evaluated, one patient was excluded due to lack of data. The mean age was 58.4 ± 13 years, of whom 76 (65.5%) were women. The T2T approach was implemented in 76 (65.5%) patients. There was no correlation between the T2T implementation and patient age, gender, alcohol and tobacco use, disease activity parameters at the patient's visit and the various treatment regimens. The physician assessment of disease activity did not correlate with the MDA score in 40 (34.5%) patients. In most cases 30 (75%), this discrepancy occurred because physicians labelled patients as having inactive disease while disregarding the PRO category of the MDA score, including 29 patients who reported a high VAS pain score, 22 patients reporting a high patient global disease activity and 25 patients reporting a high HAQ score. In the other 10 (25%) of cases, the treating rheumatologists made treatment changes because they considered patients as having active disease based on one tender or swollen joint or enthesitis, despite these patients actually meeting MDA criteria.

Conclusions: In our cohort, the T2T concept was implemented in 65.5% of the visits in accordance with other PsA studies. The main obstacle that we encountered in implementation of MDA concept was in physicians' overlooking the PRO components of the score. Efforts are needed to increase the accurate use of the MDA score and treat to target concept in daily practice.

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THU0289

BURDEN OF PSORIATIC ARTHRITIS IN DIFFERENT DEFINITIONS OF DISEASE ACTIVITY: COMPARING MINIMAL DISEASE ACTIVITY AND DISEASE ACTIVITY INDEX FOR PSORIATIC ARTHRITIS

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Background: Treat-to-target strategies have improved outcomes in rheumatic diseases. In psoriatic arthritis (PsA), the proposed targets are the multidimensional target Minimal Disease Activity (MDA) and the articular target Disease Activity index for PsA (DAPSA).

Objectives: We aimed to compare burden of PsA in patients with low disease activity according to the two definitions MDA and DAPSA-Low Disease Activity (DAPSA-LDA), one year after diagnosis.

Methods: We obtained data on MDA, DAPSA-LDA and disease burden one year after diagnosis from patients included in the Dutch southwest early PsA cohort. Disease burden was assessed in two domains: 'Body Functions', including Short Form 36 Bodily Pain (SF36-BP), and 'Activity', including Health Assessment Questionnaire (HAQ).

Results: Of the 292 patients included, 48% achieved MDA and 64% DAPSA-LDA. Average 'Body Functions' and 'Activity' were similar in patients in MDA and patients in DAPSA-LDA. However the scores were significantly better in the 44% of patients in both MDA and DAPSA-LDA than in the 20% of patients only in DAPSA-LDA. The average SF36-BP was higher in patients achieving both targets (74.7, 95% CI 72.0–77.4) than in patients only in DAPSA-LDA (58.7, 95% CI 54.8–62.6). Similarly, mean HAQ scores measuring 'Activity' were 0.19 (95%CI 0.14–0.25) and 0.61 (95%CI 0.48–0.73) respectively.

SF36-BP: Short Form 36 Bodily Pain, HAQ: Health Assessment Questionnaire, MDA: Minimal Disease Activity, DAPSA: Disease Activity Index for Psoriatic Arthritis, MDA -: not in MDA, MDA +: in MDA, DAPSA -: not in DAPSA-Low Disease Activity (DAPSA-LDA), DAPSA +: in DAPSA-LDA

Abstract THU0289 – Figure 1. SF36-BP and HAQ scores in MDA and DAPSA subgroups.

Conclusions: Of patients newly diagnosed with PsA, 48% achieved MDA and 64% DAPSA-LDA after one year receiving usual care. Average disease burden was similar in patients in MDA and in patients in DAPSA-LDA. However, those that only achieved DAPSA-LDA reported worse outcomes than those also achieving MDA.

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THU0290

EFFECTS OF BIOLOGIC DMARDS ON PHYSICAL FUNCTION IN PATIENTS WITH ACTIVE PSORIATIC ARTHRITIS: RESULTS OF NETWORK META-ANALYSES

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Background: Psoriatic arthritis (PsA) is a chronic inflammatory rheumatic disease associated with psoriasis and characterised by pain, stiffness, swelling of joints, joints ankylosing and low patient quality of life.¹ The economic burden of PsA is substantial², and biologic treatments for PsA are increasingly scrutinised in health technology assessments. The most commonly used economic model framework for assessing biologics in PsA is the York Assessment Group model developed as part of a NICE appraisal (the "York model").³ In this model improvement in Health Assessment Questionnaire- Disability Index (HAQ-DI) reflects physical function, and is linked to initial treatment response measured by joint improvement assessed by PsARC.

Objectives: To assess the effectiveness of biologic DMARDs on HAQ-DI among active biologic-naïve PsA patients through Bayesian network meta-analyses (NMAs) and to understand the relationship to PsARC response.

Methods: Data for the NMA was identified through a systematic literature review of published and grey literature (1990-May 2017) in EMBASE/MEDLINE. Bayesian NMAs were conducted in line with NICE guidelines⁴ to assess the mean HAQ-DI scores change from baseline for ixekizumab, adalimumab, ustekinumab, etanercept, golimumab, infliximab, apremilast, secukinumab, certolizumab pegol, and placebo in the biologic-naïve overall population as well as in PsARC responders and non-responders. Results were expressed as absolute mean change from baseline and associated standard deviations, and 95% credibility intervals.

Results: Overall, 42 publications reporting 19 randomised clinical trials were included for the NMAs, most of these evaluated outcomes at 12 and 24 weeks. Mean changes in HAQ-DI score (overall and by PsARC response) from baseline are shown in figure 1. Among PsARC responders, the greatest mean changes were observed for infliximab, etanercept, ixekizumab, and secukinumab. Among PsARC non-responders, those values were greatest for infliximab, etanercept, ixekizumab Q2W, secukinumab, and adalimumab. The relatively wide 95% credibility intervals reflect the scarcity of available evidence.

Abstract THU0290 – Figure 1. Mean changes in HAQ-DI in patients on different biologic DMARD treatments

Conclusions: The results of the NMAs suggest that among the biologic DMARDs infliximab, etanercept, ixekizumab Q2W, secukinumab 150 mg, and certolizumab had the highest HAQ-DI improvements in biologic-naïve patients with active PsA. Changes in HAQ-DI were strongly associated with PsARC response for each treatment.

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