Background: Standardization of clinical practice has been proven to be effective in management of chronic diseases. This is particularly true at the time where the concept of treat to target is becoming more and more important in the field of axial spondyloarthritis (axSpA).

Methods: The process comprised (1) the evaluation of the interest of 51 variables proposed for the assessment of axSpA via a systematic literature review, (2) a consensus process involving 78 hospital-based or office-based rheumatologists, considering the collection of the variable in a 4 grade scale from "potentially useful" to "mandatory," (3) a consensus on optimal timeline for periodic review of variables to collect in the period of follow-up.

Results: The systematic literature research retrieved a total of 14,133 abstracts, of which 213 were included in the final qualitative synthesis. Concerning the data to be collected at the time of the diagnosis and during follow-up, we proposed to differentiate the results based on a) the way of collection of the variables (e.g. questionnaires by the patient, interview by the physician, physical examination, investigations) b) the usefulness these variables in daily practice based on the opinion of the rheumatologists c) the optimal timeline between 2 evaluations of the variable based on the opinion of the rheumatologists. In the initial systematic review, symptoms of heart failure history of inflammatory bowel disease, psoriasis or uveitis, patient global visual analog scale, spine radiographs, modified Schöber test, coxofemoral rotations, swollen joint count, urine strip test, BASDAI and ASDAS global scores were considered very useful and nocturnal back pain/morning stiffness, sacro-iliac joints radiographs and CRP were considered mandatory (Figure 1). Timeline between 2 evaluations of variables to collect in the period of follow-up are summarized in Figure 2.

Conclusion: Using an evidence-based and an expert consensus approaches, this initiative defined a core set of variables to be collected and reported at the time of the diagnosis and during follow-up of patients with axSpA in daily practice.

Disclosure of Interests: Athan Bailel Consultant of: Athan BAILLET has received honorarium fees from Abbvie for his participation as the coordinator of the systematic literature review, Xavier Romand Consultant of: Xavier ROMAND has received honorarium fees from Abbvie, Mickael Dalecky Consultant of: Mickael DALEYCKY has received honorarium fees from Abbvie, Maxime Dougados Consultant of: Maxime DOUGADOS has received honorarium fees from Abbvie, Arnaud Pfimlin Consultant of: Arnaud PFIMLIN has received honorarium fees from Abbvie, Michael Leboy Consultant of: Michael LEBOY has participated as the coordinator of the systematic literature review, Karine Hermann Consultant of: Karine HERMANN has received honorarium fees from Abbvie, Eli Lilly, Merck, Novartis, Pfizer and UCB Pharma, Speakers bureau: Abbvie, Eli Lilly, Merck, Novartis, Pfizer and UCB Pharma, Receipt of funding from: Association de Recherche Clinique en Rhumatologie.

Disclosure of Interests: The clinical efficacy of tumor necrosis factor inhibitors (TNFi) in patients with axial spondyloarthritis (axSpA) is well established but its effect on new bone formation is still unclear. Position emission tomography (PET) using bone-seeking 18F-Fluoride [18F]F/MRI in combination with magnetic resonance imaging ([18F]F/MRI) has been shown to depict not only bone marrow edema (BME) but also shows the quantity of tracer uptake in the late phase of perfusion suggestive of remodeling and osteoblastic activity, not only in radiographic axSpA (r-axSpA) (2).

Objectives: Assess the effect of TNFi on bone remodeling processes in the axial skeleton of r-axSpA patients using [18F]F/MRI prior (baseline, BL) and 4 months after (follow-up, FU) treatment.

Figure 1. Core sets of items to collect and report in the systematic review in axial spondyloarthritis management in daily practice ASDAS-Ankylosing Spondylitis Disease Activity Score, BASDAI=Bath Ankylosing Spondylitis Disease Activity Index, BASFI=Bath Ankylosing Spondylitis Functional Index, BASHI=Bath Ankylosing Spondylitis Hand Function Index, CRP=C Reactive Protein, CT=computed tomography, FIRST=Fibromyalgia Rapid Screening Tool, HLA=Human Leukocyte Antigen, MRI=Magnetic resonance imaging, PET=position emission tomography.

Figure 2. Periodic review timeline of variables to collect, ASDAS=Ankylosing Spondylitis Disease Activity Score, BASDAI=Bath Ankylosing Spondylitis Disease Activity Index, Spondylitis Metabolism Index, CRP=C Reactive Protein, IB+ = inflammatory bowel diseases, PRO= Patient Reported Outcomes.
Methods: Patients (11 male, 5 female, mean age 38.6±12.0 years) with clinically active r-axSpA (BASDAI>4, failure of NSAIDs, no previous biologics) prospectively underwent 3-Tesla and 18F-PET/MRI (40 minutes after injection of a mean activity of 121 MBq [18F]) images of the SIJ (n=16 patients) and the whole spine (n=10 patients) were performed at BL and FU. Three readers (1 for [18F]MRI and 2 for conventional MRI) evaluated all images independently and blinded to timepoint allocation. Only lesions on which all readers agreed on were used for further analyses. Inflammation (bone marrow edema, BME), structural lesions (fat deposition (FD), sclerosis, erosions and ankylosis) and focal [18F] uptake were recorded on the level of SIJ (SIJ-Q) and vertebral quadrants (V-Q), with each SIJ or vertebral body consisting of 4 V-Os (superior and inferior sacral and iliac for the SIJ, and superior and inferior, anterior and posterior for the vertebral bodies).

Results: A total of 128 SIJ-Q and 920 V-Qs were analyzed at both BL and FU. In the SIJs, 75 (56.6%), 120 (93.8%), 69 (53.9%), 99 (77.3%) and 16 (12.5%) SIJ-Q showed BME, FD, sclerosis, erosions and ankylosis, while 111 (86.7%) SIJ-Q showed focal [18F] uptake at BL. Association with increased [18F] F-uptake was found most frequently in SIJ-Q with BME (70/75 SIJ-Q, 93.3%), sclerosis (65/69 SIJ-Q, 94.2%) and FD (105/120 SIJ-Q, 8.7%). At FU, 37 SIJ-Q still showed BME (improvement by 50.7%), while almost no changes were observed in chronic lesions. In comparison, improvement of focal [18F] F-uptake was found in all lesion combinations, with improvement of focal [18F] F-lesions associated with BME by 62.9%, with sclerosis by 33.6% and with FD by 22.9% of SIJ-Q.

Conclusion: In this first prospective study on whole spine and SIJ [18F]PET/MRI in patients with r-axSpA, a significant decrease of osteoblastic activity was observed over 4 months of continuous anti-TNF treatment. The effect of treatment was observed not only at sites with inflammatory lesions (BME) but also at sites with pre-existing chronic structural lesions, while some osteoblastic activity remained visible at 4 months. These data support a short-term effect of anti-TNF treatment on osteoblastic activity, while the long-term effects need to be further studied.

References:

This work was supported by an unrestricted Grant by MSD GmbH, Germany

Disclosure of Interests: Xenofon Baraliakos Grant/research support from: Grant/research support from: AbbVie, BMS, Celgene, Chugai, Merck, Novartis, Pfizer, UCB and Werfen, Consultant of: AbbVie, BMS, Celgene, Chugai, Merck, Novartis, Pfizer, UCB and Werfen, Speakers bureau: AbbVie, BMS, Celgene, Chugai, Merck, Novartis, Pfizer, UCB and Werfen, Stylianos Tsiamis: None declared, Christoph Rischpler: None declared, Nils-Martin Bruckmann: None declared, Wolfgang Fendler: None declared, Julian Kirchner: None declared, Ken Hermann: None declared, Lino Sawicki: None declared, Juergen Braun: None declared, Alejandro Balsa Grant/research support from: BMS, Roche, Consultant of: AbbVie, Gilead, Lilly, Pfizer, UCB, Sanofi, Sandoz, Speakers bureau: AbbVie, Lilly, Sanofi, Novartis, Pfizer, UCB, Roche, Sanoﬁ‐Aventis, and UCB Pharma, Consultant of: AbbVie (Abbott), AstraZeneca, BMS, Boehringer, Celgene, Celltrion, Centocor, Chugai, Eli Lilly and Company, Medac, MSD (Schering-Plough), MunichPharma, Novartis, Pfizer (Wyeth), Roche, Sanofi-Aventis, and UCB Pharma, Consultant of: AbbVie (Abbott), AstraZeneca, BMS, Boehringer, Celgene, Celltrion, Centocor, Chugai, Eli Lilly and Company, Medac, MSD (Schering-Plough), MunichPharma, Novartis, Pfizer (Wyeth), Roche, Sanofi-Aventis, and UCB Pharma, Consultant of: AbbVie (Abbott), AstraZeneca, BMS, Boehringer, Celgene, Celltrion, Centocor, Chugai, Eli Lilly and Company, Medac, MSD (Schering-Plough), MunichPharma, Novartis, Pfizer (Wyeth), Roche, Sanofi-Aventis, and UCB Pharma, Consultant of: AbbVie (Abbott), AstraZeneca, BMS, Boehringer, Celgene, Celltrion, Centocor, Chugai, Eli Lilly and Company, Medac, MSD (Schering-Plough), MunichPharma, Novartis, Pfizer (Wyeth), Roche, Sanofi-Aventis, and UCB Pharma, Consultant of: AbbVie (Abbott), AstraZeneca, BMS, Boehringer, Celgene, Celltrion, Centocor, Chugai, Eli Lilly and Company, Medac, MSD (Schering-Plough), MunichPharma, Novartis, Pfizer (Wyeth), Roche, Sanofi-Aventis, and UCB Pharma, Consultant of: AbbVie (Abbott), AstraZeneca, BMS, Boehringer, Celgene, Celltrion, Centocor, Chugai, Eli Lilly and Company, Medac, MSD (Schering-Plough), MunichPharma, Novartis, Pfizer (Wyeth), Roche, Sanofi-Aventis, and UCB Pharma, Consultant of: AbbVie (Abbott), AstraZeneca, BMS, Boehringer, Celgene, Celltrion, Centocor, Chugai, Eli Lilly and Company, Medac, MSD (Schering-Plough), MunichPharma, Novartis, Pfizer (Wyeth), Roche, Sanofi-Aventis, and UCB Pharma

DOI: 10.1136/annrheumdis-2020-eular.5573

Figure 1. Response rates (in percentage) by ASDAS at 6m and 12m in axSpA and PsA

In the group of axSpA, the univariate analysis observed that LDA (by ASDAS) at 12m was associated with BASDAI (OR=0.67, p=0.02), male gender (OR=2.8, p=0.001) and HLA B27 positive (OR=2.3, p=0.01). In the multivariable analysis, these variables remained significantly associated with LDA (bASDAS: OR=0.67; p<0.05; male gender: OR=2.7, p=0.01; and HLA B27 positivity OR=2.6, p=0.01). In the group of axPsA, the univariate analysis showed a trend that male pts achieved LDA more frequently at 6m (OR=3.0, p=0.05) and at 12m (OR=2.75, p=0.09). In the multivariable analyses, none of the factors was significantly associated neither with clinical improvement nor with LDA in pts with axPsA.

Conclusion: In clinical practice, pts with axSpA and axPsA present a similar clinical response to biological therapy within the first year of treatment. Male pts seem to have better medium-term outcomes in both diseases, and HLA B27 pts respond better in axSpA.

Disclosure of Interests: Diego Benavent: None declared, Chaimada Plasencia: None declared, Karen Nathalie Franco Gomez: None declared, Laura Nuño: None declared, Alejandro Balsa Grant/research support from: BMS, Roche, Consultant of: AbbVie, Gilead, Lilly, Pfizer, UCB, Sanofi, Sandoz, Speakers bureau: AbbVie, Lilly, Sanofi, Novartis, Pfizer, UCB, Roche, Nordic, Sandoz, Victoria Navarro-Compán Consultant of: AbbVie, Lilly, Novartis, Pfizer, UCB, Speakers bureau: AbbVie, MSD, Lilly, Novartis, Pfizer, UCB

DOI: 10.1136/annrheumdis-2020-eular.3095

SAT0366

CLINICAL RESPONSE TO BIOLOGIC DMARDS IN AXIAL SPONDYLOARTHRITIS AND AXIAL PSORIATIC ARTHRITIS: DIFFERENT DISEASES, SAME OUTCOMES?

D. Benavent1, C. Plasencia1, K. N. Franco Gomez2, L. Nuño2, A. Balsa1, V. Navarro-Compañ1, 1Hospital La Paz, Idipaz, Rheumatology, Madrid, Spain

Background: Patients with psoriatic arthritis may present predominant axial involvement. Currently, it is unclear whether these patients should be considered as axial spondyloarthritis (axSpA) with psoriasis or psoriatic arthritis with axial involvement –also known as axial PsA (axPsA). Data comparing medium-term treatment response to biological drugs in axSpA and axPsA would add relevant information to answer this question.

Objectives: To compare the clinical response and predictor factors after one year of biological therapy in patients with axSpA and axPsA.

SAT0367

EXTRA-ARTICULAR MANIFESTATIONS IN EARLY AXIAL SPONDYLOARTHRITIS: WHAT IS THEIR FREQUENCY? A SYSTEMATIC LITERATURE REVIEW INCLUDING 2854 PATIENTS

E. Bilgen1, U. Kalyoncu1, L. Gossec2, 1Hasettepe University, Ankara, Turkey; 2Sorbonne Universite, Paris, France