Grant/research support from: MSD, R. Roque Grant/research support from: MSD, J. Rovisco Grant/research support from: MSD, M. Marques Grant/research support from: MSD, J. Silva Grant/research support from: MSD, H. Santos Grant/research support from: MSD, N. Madeira Grant/research support from: MSD, E. Vieira-Sousa Grant/research support from: MSD, R. Machado Grant/research support from: MSD, M. Bernardes Grant/research support from: MSD, R. Ferreira Grant/research support from: MSD, S. Ramiro Grant/research support from: MSD, E. Strand Consultant for: Pfizer, T. Kvien Consultant for: Boehringer Ingelheim, Orion Pharma, Eli Lilly, Novartis, Pfizer, MSD, Roche, J. Sexton: None declared, E. Strand Consultant for: Pfizer, T. Kvien Consultant for: Roche, D. Warren: None declared, G. Goll Consultant for: Abbvie, Biogen, Boehringer Ingelheim, Celgene, Celtrion, Eli Lilly, Epirus, Hospira, Merck-Serono, MSD, Mundipharma, Novartis, Oktai, Orion Pharma, Hospira/Pfizer, Roche, Sandoz, UCB, N. Bolstad Consultant for: Pfizer, Orion Pharma, Napp pharmaceuticals, Takeda, Roche, E. Lie: None declared

**doi:** 10.1136/annrheumdis-2018-eular.2558

**SAT0262**

**CERTOLIZUMAB PEGOL SERUM LEVELS < 20 mg/L ARE ASSOCIATED WITH TREATMENT RESPONSE IN PATIENTS WITH AXIAL SPONDYLOARTHRITIS. DATA FROM THE NOR-DMARD STUDY**

**J.E. Gehin1,2, S.W. Syversen2, D.J. Warren3, E.G. Goll2, J. Sexton2, E.K. Strand2, T.K. Kvien2, N. Bolstad, E. Lie2.1 Department of Medical Biochemistry, Oslo University Hospital, 2Department of Rheumatology, Diakonhjemmet Hospital, Oslo, 3Lillehammer Hospital for Rheumatic Diseases, Lillehammer, Norway**

**Background:** Measurement of serum drug levels can help clinicians tailor treatment with TNF-inhibitors. An association between certolizumab pegol (CP) serum levels and response has previously been found in patients (pts) with rheumatoid arthritis.1 Data for pts with axial spondyloarthritides (axSpA) are lacking.

**Objectives:** To examine the association between serum CP levels and treatment response in pts with axSpA and to identify a therapeutic target level.

**Methods:** Patients with a clinical diagnosis of axSpA starting standard treatment with CP included in the NOR-DMARD study with biobank sample at 3 months follow-up, were included in the present analyses. Serum drug levels (non-trough) were analysed with an in-house immunofluorometric assay automated on the AutoDELFIA immunoassay platform. Associations between CP level and improvement in ASDAS-CRP and response (defined as ASDAS clinically important improvement (CI)) were assessed by multivariable linear and logistic regression (adjusting for age, sex and prior bDMARD (Y/N)), respectively.

**Results:** Median serum drug level at 3 month follow up was 35.0 mg/L (IQR 21.3–45.3) in 116 pts. Response data were available in 110/116 patients. Serum CP level >20 mg/L was associated with improvement in ASDAS at 3 months (p=0.055, 95% CI 0.12–1.98, p=0.01). Serum CP level >20 mg/L was associated with ASDAS CII at 3 months (OR 3.4 (95% CI 1.0–10.1), p=0.045). Only 18.2% of pts with CP level <20 mg/L achieved ASDAS CII at 3 months, while 53.2% of pts with CP level 20–40 mg/L and 36.6% with >40 mg/L were responders.

**Conclusions:** Serum CP level was associated with clinical response after 3 months of treatment in pts with axSpA. We suggest 20 mg/L as a lower target level for non-trough samples. No additional benefit of having a certolizumab level over 40 mg/L was observed. These results suggest that a therapeutic level of 20–40 mg/L can be implemented in clinical practice for non-trough serum samples in pts with axSpA.

**REFERENCE:**


**Disclosure of Interest:** J. E. Gehin Consultant for: Roche, S. Syversen Consultant for: Roche, D. Warren: None declared, G. Goll Consultant for: Abbvie, Biogen, Boehringer Ingelheim, Orion Pharma, Eli Lilly, Novartis, Pfizer, MSD, Roche, UCB, J. Sexton: None declared, E. Strand Consultant for: Pfizer, T. Kvien Consultant for: Abbvie, Biogen, BMS, Boehringer Ingelheim, Celgene, Celtrion, Eli Lilly, Epirus, Hospira, Merck-Serono, MSD, Mundipharma, Novartis, Oktai, Orion Pharma, Hospira/Pfizer, Roche, Sandoz, UCB, N. Bolstad Consultant for: Pfizer, Orion Pharma, Napp pharmaceuticals, Takeda, Roche, E. Lie: None declared

**doi:** 10.1136/annrheumdis-2018-eular.2552

---

**SAT0262**

**3-YEAR FOLLOW-UP OF A DOSE TAPERING PROTOCOL OF ANTI-TNF THERAPY IN A COHORT OF PATIENTS WITH SPONDYLOARTHRITIS (SPA) IN CLINICAL REMISSION UNDER CONDITIONS OF CLINICAL PRACTICE**

**M.D.C. Castro Villagómez1, E.-L. Saldañaraga2, P. Font Ugale3, M. Romero Gómez1, J. Calvo Gutiérrez1, R. Ortega Castro1, E.C. López-Medina1, R.A. Altamirano1, A. Escudero-Conteras1, E. Collantes Estevez1. 1Department of Rheumatology, Hospital Reina Sofia. IMIBIC, Cordoba, Spain, 2Department of Rheumatology, Universidad de La Sabana, Bogota, Colombia, 3Department of Rheumatology, Hospital Reina Sofia. IMIBIC.Medicine Faculty Cordoba University,**

**Background:** The dose tapering of biological therapy in patients in clinical remission is a strategy used in recent years in Rheumatology, consists in the reduction of the dose administered or in the extension of the interval between two doses, some studies suggest the possibility that patients with sustained remission could obtain the same benefit with a lower dose.

**Objectives:** Evaluate the effectiveness of 3 year follow-up of a dose tapering in patients with SpA in maintained clinical remission and detect possible predictors of maintenance of the response.

**Methods:** Retrospective observational study, all patients with SpA were included, according to ASAS criteria, treated with antiTNF, with dose tapering, from October 2014-December 2017. Clinical remission defined by BASDAI ≤2 and/or CRP ≤5 mg/L. 40 mg/L were responders.

**Results:** 149 patients with SpA in treatment with antiTNF, 38/149 (25.5%) included in the dose tapering protocol, 84.4% men and the mean age 47±10 years. The antecedents 25% uveitis, 6.3% psoriasis and 6.3% inflammatory bowel disease. Regarding the type of optimisation strategy, 32 patients (84.37%) followed the protocol for increasing the interval between doses, compared to the rest (15.62%) who used reduced doses. We found 27/38 patients (71.05%, CI: 55.2–83) maintained clinical remission with tapering, 9 (33.3%) infliximab, 7 (25.9%) golimumab, 6 (22.2%) etanercept and 5 (18.5%) adalimumab, at a time of drug follow-up of 57.9±29.7 months. The demographic factors analysed sex, age, time of evolution and clinical remission, were not found as possible predictors of greater maintenance of dose tapering in the dose tapering.

**Conclusions:** The monitoring of dose tapering of biological therapy in patients with SpA is possible and allows more than 70% of patients to maintain the clinical remission of the disease. However, a greater number of patients and longer follow-up are necessary for a solid conclusion. Additionally, our results do not show possible predictors of a longer survival in tapering protocol.

**REFERENCE:**


**Disclosure of Interest:** None declared

**doi:** 10.1136/annrheumdis-2018-eular.2964

---

**Image:**

![Graph showing the relationship between CP level and ASDAS-CRP](image-url)
Background: Sustained remission is an important treatment goal in patients (pts) with non-radiographic axial SpA (nr-axSpA). Factors predicting successful remission maintenance are unknown.

Objectives: We sought to identify predictors of remission maintenance in nr-axSpA pts who achieved remission after open-label (OL) adalimumab (ADA) treatment in the ABILITY-3 trial (NCT01808118) and were subsequently randomized to continuation or withdrawal of ADA therapy.

Methods: ABILITY-3 enrolled adult pts with nr-axSpA with objective evidence of inactive disease at screening, active disease at baseline (ASDAS ICAS inactive disease (ID) ≤ 2.1), and pts with Spondyloarthritis Research Canada Consensus Criteria (SACCC) for nr-axSpA who achieved remission after 28 wk of OL ADA therapy. Pts who achieved sustained remission, defined as ASDAS inactive disease for ≥5 of 10 visits, were randomized to double-blind withdrawal (placebo; PBO) or continued ADA for 40 wks during period 2 of the lead-in period. Preliminary analyses reported 54% achieved ASDAS ID for ≥5 of 10 visits after 28 wk ADA treatment in the ABILITY-3 trial. Stepwise logistic regression was used to identify predictors of sustained remission in those in the continued ADA and withdrawal (PBO) groups. Remission maintenance in period 2 was assessed with the following: ASAS partial remission (PR; score ≤2.0) and ASDAS ID at wk 68, ASAS PR and ASDAS ID at every visit, and ASDAS ID for ≥5 of 10 visits.

Results: By wk 68, 100/145 (69%) ADA pts who had not flared, 41% achieved ASAS PR and 56% ASDAS ID at wk 68; 23% achieved ASAS PR and 29% ASDAS ID at every visit, while 70% achieved ASDAS ID for ≥5 of 10 visits. By wk 68, 70/148 (47%) PBO pts who had not flared, 28% achieved ASAS PR and 33% ASDAS ID at wk 68; 14% achieved ASAS PR and 15% ASDAS ID at every visit, while 52% achieved ASDAS ID for ≥5 of 10 visits. Shorter symptom duration, lower wk 28 disease activity scores, and incomplete concomitant sDMARD use were predictors of continued ADA therapy. Lower wk 28 ASDAS was associated with absence of flares in the continued ADA group. Lower wk 28 ASDAS was associated with absence of flares with ADA withdrawal. Lower wk 28 ASDAS consistently predicted ASAS PR and ASDAS ID at wk 68, ASAS PR and ASDAS ID at every visit, and ASDAS ID for ≥5 of 10 visits in pts who continued or withdrew ADA.

Conclusions: In nr-axSpA pts who achieved remission after 28-wk OL ADA therapy, lower wk 28 ASDAS is a consistent predictor of remission maintenance using all definitions in both the adalimumab continuation and withdrawal groups, except absence of flare in the adalimumab continuation group, suggesting early aggressive treatment may be beneficial in achieving sustained remission.

Acknowledgements: AbbVie funded the study, contributed to its design and participated in data collection, analysis and interpretation of the data, and in writing, review, and approval of the publication. Medical writing support was provided by Maria Havenden, PhD, and Janet E. Matsuura, PhD, of Complete Publication Solutions, LLC (North Wales, PA) and was funded by AbbVie.

Disclosure of Interest: J. Sieper Consultant for: AbbVie, Janssen, Lilly, Merck, Novartis, Pfizer, Sun Pharma, and UCB; Speakers bureau: AbbVie, Janssen, Lilly, Merck, Novartis, and Pfizer; R. Landewé Grand research support from: Abbott, Amgen, Astra-Zenecca, Bristol Myorts Squibb, Celgene, Janssen (formerly Centocor), Galapagos, GlaxoSmithKline, Novartis, Novo-Nordisk, Merck, Pfizer, Roche, Schering-Plough, TioGenix, UCB, and Wyeth, Employee of: he is director of Rheumatology Consultancy BV, a registered Dutch company., Speakers bureau: Abbott/AbbVie, Amgen, Bristol Myort Squibb, Janssen (formerly Centocor), Merck, Pfizer, Roche, Schering-Plough, UCB, Wyeth, M. Magrey Grant/ research support from: Amgen, AbbVie, and UCB Pharma, Consultant for: UCB and Jannsen, J. Anderson Shareholder of: AbbVie, Employee of: AbbVie, S. Zhong Shareholder of: AbbVie, Employee of: AbbVie, X. Wang Shareholder of: AbbVie, A. Lertratanakul Employee of: AbbVie.

DOI: 10.1136/annrheumdis-2018-eular.2632