safety profile consisting of events occurring in unexposed infants of similar age. **Conclusions:** CZP was below the lower limit of quantification in 56% of the milk samples. When detectable, CZP concentrations were less than 3x LLOQ (<1% of expected plasma concentration of a therapeutic dose⁴), indicating no to minimal transfer of CZP from plasma to breast milk. RID was below 0.5% of maternal dose; <10% is unlikely to be of clinical concern.³ CZP absorption via breast milk is unlikely, due to low bioavailability and its Fc-free molecular structure. These findings support continuation of CZP treatment during breastfeeding.

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FRI0180 MULTIPLE SCLEROSIS RISK-ALLELES STUDY IN PATIENTS WITH DEMYELINATING SIDE EFFECTS ON ANTI TNF ALPHA THERAPY

S. Bitoun¹, C. Verstuyft², C. Miceli-Richard¹, J.-M. Berthelot³, C. Richez⁴, C. Cauquil⁵, C. Sordet⁶, S. Melac-Ducamp⁷, L. Gossec⁸, B. Beatrice⁹, E. Darnis¹⁰, E. Houvenagel¹¹, M.-A. Boutry-Bacle¹², X. Mariette¹, R. Seror¹.
¹ Université Paris-Sud, Hôpitaux Universitaires Paris-Sud, INSERM U1184, le Kremlin Bicêtre; ² Department of Pharmacogenetics, Hôpitaux Universitaires Paris-Sud, le Kremlin Bicêtre; ³ C.H.U. Hôtel Dieu, Nantes; ⁴ C.H.U. Pellegrin, Bordeaux; ⁵ Hôpitaux Universitaires Paris-Sud, le Kremlin Bicêtre; ⁶ Hôpitaux Universitaires Strasbourg, Strasbourg; ⁷ C.H.I. Nevers; ⁸ Pitié-Salpêtrière Hospital, Paris; ⁹ CHU, Angers; ¹⁰ Centre Hospitalier du Mans, le Mans; ¹¹ Hôpital Saint Philibert, Lomme; ¹² C.H., Abbeville, France

Background: Tumor Necrosis Factor alpha (TNF α) is a key cytokine in inflammatory rheumatic diseases. TNF inhibitors (TNFi) has revolutionized treatment of rheumatic diseases, but may cause flares of multiple sclerosis (MS). Two Single Nucleotide Polymorphisms, (SNPs) *rs1800693* and *rs4149584*, located within *TNFRSF1A* superfamily 1 (*TNFRSF1A*) locus have been shown to increase the risk of developing MS [1]. The *rs1800693**G allele leads to a dysfunctional TNF α soluble receptor that inhibits TNF α signaling while *rs4149584* is involved in TNF receptor associated periodic syndrome.

Objectives: The aim of this study was to look for a possible the association between *TNFRSF1A* polymorphisms and demyelinating complications occurring during TNFi therapy.

Methods: Patients who presented with a demyelinating disorder (central or peripheral involvement) while treated with TNFi (cases), were recruited between March 2013 and December 2015, through the physicians involved in the CRI ("Club Rhumatismes et Inflammation") a nationwide network of the French Society of Rheumatology. Rheumatoid arthritis patients treated with TNFi, from the French ReAct cohort, and who did not develop demyelinating complication constituted the control population (n=294). The frequency of *rs1800693* and *rs4149584* *TNFRSF1A* SNPs were compared between cases and controls.

Results: Twenty-four cases with demyelinating disorders, recruited from 11 centers with a median age of 39.7 years (range 30.4–75.8); of which 16 (67%) were females were included in the study. Neurological symptoms occurred after a median of 18.3 (1–66) months of anti TNFi; 15 (62.5%) had central neurologic involvement and 9 (37.5%) had peripheral involvement. The median follow-up was 26 (4–54) Months. No significant difference in the frequency of the *rs1800693* MS risk-alleles (39.5% for cases vs 38.6% for controls) was observed. Similarly no difference was observed between cases (2%) and controls (4%) for *rs4149584*.

Conclusions: This study was unable to show an association between MS-associated SNPs within *TNFRSF1A* locus and the occurrence of demyelination while taking TNFi, suggesting that demyelination might be linked to other genetic factors or other pathways.

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FRI0181 TAPERING OR CESSATION OF ANTIVIRAL AGENT IN HEPATITIS B VIRUS-INFECTED PATIENTS CONCOMITANTLY TREATED WITH BIOLOGIC AGENTS

B. Ghang¹, D.-H. Lim², W.J. Seo³, Y.-G. Kim¹, B. Yoo¹. ¹ Rheumatology, Asan Medical Center, Seoul; ² Rheumatology, Ulsan University Hospital, Ulsan; ³ Rheumatology, Seoul Veterans Hospital, Seoul, Korea, Republic Of

Background: Clinicians generally prescribe antiviral agents to patients with chronic hepatitis B (CHB) or to inactive carriers of the virus until 6–12 months after the cessation of biologic agents. However, the current antiviral prophylaxis regimen, in addition to biological therapy, is expensive and poses an economic burden to both patients and societies. We have had patients in our medical center quit or reduce antiviral prophylaxis due to economic reasons.

Objectives: To assess the outcome of tapering or discontinuation of antiviral agents in patients who were infected with hepatitis B virus (HBV) during biologic therapy.

Methods: We identified 45 patients who were infected with HBV and treated with biologic agents concomitantly from January 2005 to December 2016. They were diagnosed with rheumatoid arthritis (n=20), Crohn's disease (n=13), ankylosing spondylitis (n=8), ulcerative colitis (n=3), and psoriatic arthritis (n=1). The criteria of HBV reactivation was a 10-fold rise in HBV DNA compared with previous HBV DNA titers, resulting in HBV DNA of greater than 20,000 IU/ml (HBeAg-positive patients) or 2,000 IU/ml (HBeAg-negative patients), and an increase in AST or ALT to more than twice the upper normal limit (40 IU/l).

Results: Sixteen CHB patients and 29 inactive carriers were treated with biologic agent for 4.1 $\pm$ 2.7 years. No reactivation case was observed in 23 patients (10 of CHB and 13 of inactive carrier) who maintained antiviral prophylaxis for 4.0 $\pm$ 2.3 years. Among them, 4 patients (3 treated with infliximab and 1 with adalimumab) taking antiviral prophylaxis regimen on alternate days did not experience HBV reactivation for 28–42 months of follow-up period. In the discontinuation group (n=9), no reactivation case was observed in all inactive carrier patients (2 treated with etanercept, 1 with infliximab, and 1 with rituximab) after discontinuation of antiviral prophylaxis for 6–33 months of follow-up period. In contrast, 3 patients (2 treated with etanercept and 1 with adalimumab) among the 5 patients with CHB experienced reactivation after discontinuation of antiviral prophylaxis for 3–29 months of follow-up period.

Conclusions: During biologic therapy, HBV reactivations were frequently found in CHB patients who ceased to take antiviral prophylaxis. However, no reactivation after the cessation of prophylaxis was found in inactive carrier patients who were previously treated with prophylaxis. Based on our experience, tapering or discontinuation of antiviral agent in inactive carriers with economic problem undergoing concomitant biologic agent therapy could be considered viable, albeit with caution.

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FRI0182 DISEASE WORSENING AND SAFETY IN PATIENTS SWITCHING FROM ORIGINATOR INFLIXIMAB TO BIOSIMILAR INFLIXIMAB (CT-P13) IN THE NOR-SWITCH STUDY: EXPLORATIVE ANALYSIS OF RA PATIENTS

G.L. Goll¹, I.C. Olsen¹, N. Bolstad², K.K. Jørgensen³, M. Lorentzen⁴, C. Mørk⁵, J. Jahnson⁵, E.A. Haavardsholm¹, T.K. Kvien¹ on behalf of The NOR-SWITCH study group. ¹ Dept of Rheumatology, Diakonhjemmet Hospital; ² Biochemistry DNR, Oslo University Hospital, Oslo; ³ Gastroenterology, Akershus University Hospital, Lørenskog; ⁴ Dermatology, Oslo University Hospital, Oslo; ⁵ Dermatology, St Olav University Hospital, Trondheim, Norway

Background: The NOR-SWITCH study was a 52-week randomized, double-blind, non-inferiority, phase IV switch trial in patients with Crohn's disease (CD), ulcerative colitis (UC), spondyloarthritis (SpA), rheumatoid arthritis (RA), psoriatic arthritis (PsA) and plaque psoriasis (Ps) on stable treatment with originator infliximab (Remicade[®], INX) and was funded by the Norwegian government. Previously, the primary analyses of the pooled indications have been published¹.

Objectives: To investigate efficacy, safety and immunogenicity in RA patients treated with continuous INX vs patients switched to CT-P13 (biosimilar infliximab, Remsima[®]) in the NOR-SWITCH study (explorative analyses).

Methods: Patients were randomized 1:1 to continued INX or switch to CT-P13. Serum drug levels were analysed in automated in-house assay. The primary

Abstract FRI0182 – Table 1. Demographic and baseline characteristics (FAS), percentage of RA patients with disease worsening and change in disease measures during 52 weeks follow-up (PPS)

Demographics and baseline characteristics	INX	CT-P13	
Total number of RA patients PPS/FAS	30/39	30/38	
Age (years) mean (SD)	59.9 (11.5)	60.4 (11.4)	
Females	31 (79%)	25 (66%)	
Duration of ongoing infliximab treatment (years) mean (SD)	8.2 (3.7)	9.9 (3.4)	
Concomitant immunosuppressive medication	27 (69%)	34 (89%)	
ACPA pos	25 (83%)	20 (74%)	
Disease worsening			95% CI of group difference after 52 weeks
All study patients	53 (26.2%)	61 (29.6%)	-12.7–3.9%
RA	11 (36.7%)	9 (30.0%)	-20.3–29.3%
Change in disease measures from baseline			
Physician Global Assessment of Disease Activity (0–10)	-0.1 (1.3)	0.1 (1.4)	-0.58–0.68
Patient Global Assessment of Disease Activity (0–10)	1.1 (1.4)	0.4 (1.9)	0.21–1.91
Log ₁₀ erythrocyte sedimentation rate (mm/h)	0.0 (0.3)	0.0 (0.3)	-0.08–0.16
Log ₁₀ C-reactive protein (mg/L)	0.1 (0.3)	0.0 (0.5)	-0.11–0.22
DAS28	0.2 (0.9)	0.2 (0.9)	-0.30–0.50
TEAE (FAS)	94	62	

Data are n (%), mean (SD) or median (25–75 percentiles). 95% CI, 95% confidence interval of the adjusted treatment difference. DAS28, Disease Activity Score in 28 joints. FAS, Full Analysis Set. PPS, Per Protocol Set. TEAE, treatment emergent adverse events.

endpoint was disease worsening according to disease-specific composite measures and/or consensus between investigator/patient leading to major treatment change. Exploratory subgroup analyses examined disease worsening and safety in RA. The primary endpoint was analysed using logistic regression, adjusted for diagnosis and disease duration.

Results: Demographics, occurrence of disease worsening, change in disease measures and treatment-emergent adverse events (TEAE) were similar (Table). Serum drug levels for INX and CT-P13 were similar throughout the study (Figure)

Conclusions: Explorative analyses in the NOR-SWITCH study showed similar efficacy, serum drug levels and safety in RA patients switched to CT-P13 as those on continuous INX. The study was not powered to show non-inferiority within each diagnosis.

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FRI0183 ASSESSING ADHERENCE OF RA PATIENTS TREATED WITH ETANERCEPT USING ETANERCEPT SERUM TROUGH CONCENTRATIONS AND PATIENT SELF-REPORT

E. Vogelzang¹, R. Hebing², M. Nurmohamed¹, M. L'Ami¹, C. Kriekaert¹, G. Wolbink^{1,3}. ¹Rheumatology; ²Rheumatology, Pharmacy, Amsterdam Rheumatology and Immunology Center | Reade; ³Immunopathology, Sanquin Research and Landsteiner Laboratory, Amsterdam, Netherlands

Background: The EULAR recommendations for the management of rheumatoid arthritis (RA) update 2013 contained the following research question: "How good is patient adherence to biological agents and can lack of adherence be related to loss of efficacy?" [1]. Limited studies are published in which adherence of RA patients treated with biological disease-modifying anti rheumatic drugs (bDMARDs) has been assessed. Previous studies regarding adherence of RA patients treated with etanercept did not take into account that patients are instructed to temporarily discontinue bDMARDs therapy during e.g. a serious

infection. In addition, etanercept concentrations have never been utilized in determining adherence to etanercept in RA patients.

Objectives: The aim of our study was to determine the percentage of non-adherent RA patients treated with etanercept, using etanercept concentrations and patient self-report, and to assess the relationship between adherence and clinical outcome during 52 weeks.

Methods: Non-adherence was defined as an etanercept trough concentration <0.1ug/mL at least once and no valid/medical reason to miss an etanercept dose. In this retrospective cohort study patients visited our clinic at baseline and 4, 16, 28, 40 and 52 weeks after initiation of etanercept treatment. At baseline and following visits disease activity score of 28 joints (DAS28) was calculated and blood was drawn to measure etanercept concentrations. During each visit patients were asked if they missed an etanercept dose, at which date and for which reason. Remission was defined as DAS28 <2.6 at least for two consecutive visits. Low disease activity (LDA) was defined as DAS28 <3.2 during a minimal of two consecutive visits.

Results: In total 292 patients were included. Mean age was 53 years (SD 12.7), 82% was women and median disease duration was 8 years (IQR 3–16). In total 24 patients had an etanercept concentration <0.1ug/mL. Most patients had a medical reason to miss an etanercept dose, see table 1.

Table 1. Reasons for patients to miss an etanercept dose

Reason	Number of patients
Medical	10
Did not start	3
Logistical problem	1
Stopped due to inefficacy	1
Unknown	9

Only ten patients (3.4%) were non-adherent during the follow-up of 52 weeks. Of the adherent patients 82 out of 282 (29%) reached LDA versus 1 out of 10 non-adherent patients. A total of 127 of 282 (45%) adherent patients achieved MDA versus 3 out of 10 non-adherent patients.

Conclusions: Most patients had a medical reason to miss an etanercept dose. The percentage of patients who are non-adherent to etanercept therapy is very low (3.4%).

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FRI0184 THE PROFILES OF PATIENTS WITH RHEUMATOID ARTHRITIS ACCORDING TO THEIR BELIEFS IN THEIR BIOLOGICAL DRUGS. ARCO STUDY

E. Raya¹, I. Monteagudo², J. Calvo-Alén³, G. Salvador⁴, T. Vázquez-Rodríguez⁵, J. Tovar⁶, T. Salman-Monte⁷, V. Torrente-Segarra⁸, P. Vela⁹, C. Díaz-Miguel¹⁰, E. Giner¹¹, L. Cea-Calvo¹², N. Lozano-Rivas¹³, C. Marras¹³. ¹HU San Cecilio, Granada; ²HGU Gregorio Marañón, Madrid; ³HU Araba, Vitoria; ⁴HU Mútua Terrassa, Barcelona; ⁵HU Lucus Augusti, Lugo; ⁶HGU, Elche; ⁷H del Mar, Barcelona; ⁸H Moisès Broggi-General, Barcelona; ⁹HGU, Alicante; ¹⁰HU Ramón y Cajal, Madrid; ¹¹H Obispo Polanco, Teruel; ¹²Medical Affairs, Merck Sharp & Dohme, Madrid; ¹³HCUV Arrixaca, Murcia, Spain

Objectives: To describe profiles of rheumatoid arthritis (RA) patients according to their beliefs in their subcutaneous biological medication (SC).