discontinuation. However, low complexed TNF levels in the early phase of treatment (wk 4) are strongly associated with ADA formation and can be used to identify non-responders in the early phase of treatment.

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SAT0190

RISK FOR OPPORTUNISTIC INFECTIONS IN RHEUMATOID ARTHRITIS TREATED WITH bDMARDs IN CLINICAL PRACTICE, 10 YEARS OF FOLLOW UP

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Background: Biologic disease-modifying anti-rheumatic drugs (bDMARDs) may be associated with opportunistic infections (OI).

Objectives: Our purposes were to describe the incidence of OI in Rheumatoid Arthritis (RA) taking bDMARDs, and compare the risk of OI between TNF-targeted and non-TNF-targeted biologics.

Methods: Retrospective longitudinal observational study from 2007 to 2017. We included RA patients, diagnosed and followed in our outpatient clinic, whom started treatment with a TNF-targeted bDMARD [etanercept (ETN), golimumab (GOLI), certolizumab (CTZ), infliximab (IFX), adalimumab (ADA)], or non-TNF-targeted bDMARD [rituximab (RTX), abatacept (ABA), or tocilizumab (TCZ)]. According to microbiologist criteria, we consider OI when there was a positive culture (virus, fungus, bacterial, parasitary) or compatible symptoms that respond to specific treatment. The independent variable was the Type of targeted bDMARD: TNF-targeted vs non-TNF-targeted. Secondary variables: sociodemographic; clinical and other therapies. We used survival techniques to estimate the incidence of OI, expressed per 1000 patient-year [CI 95 %]. The exposure time was defined from the start date of each bDMARD to the development of an OI, loss of follow up or end of study (01/02/2017). We performed Cox multivariate regression models to compare the risk of OI between the types of bDMARD used. Results were expressed in Hazard ratio (HR).

Results: 441 RA patients were included, starting 761 different courses of bDMARD treatment. 81% were women with a mean age at first bDMARD of 57.3 ± 14 years. The median time from onset of bDMARD until onset of OI was 3.1 years [0.5–4.6]. More than 90% of patients were on steroids. 71.3% of the courses were TNF-targeted bDMARD (ADA 39%, ETN 33%, CTZ 15%, IFX 9%, GOLI 2%), and 28.7% non-TNF-targeted bDMARD (RTX 60%, ABA 21%, TCZ 18%). There were 38 OI [26 Virus (18 Herpes Zoster, 2 virus B reactivation, 3 virus C reactivation, 1 Epstein Barr, 1 Avian flu, 1 CMV), 6 Fungus (5 Candida, 1 Trichophyton), 5 Bacterian (1 Legionella, 1 Salmonella, 3 TB)] and 1 parasitary (Leishmania). 9 of them required hospitalization and one died (Candida). The global incidence of OI was 23.1 [16.8–31.8]. TNF-targeted bDMARD had 26 OI, with an incidence of 20.8 [14.1–30.6], and non-TNF-targeted bDMARD with 12 OI, incidence 30.4 [17.3–53.6]. We not find statistical differences in the rate of OI between TNF-targeted vs non-TNF-targeted in the multivariate model, adjusted by age, sex and calendar-time (HR 1.37, p=0.4). Male sex was found a predictor of OI in the multivariate analysis (HR 2.17, p=0.04). Age (HR 1.02, p=0.08), concomitant treatment with corticosteroids (HR 6.61, p=0.05) and leukopenia (HR 2.7, p=0.08) showed a tendency to increase the risk of OI.

Conclusions: Incidence of OI due to bDMARDs was near 23 cases per 1000 patients-year. Crude incidence was higher for non-TNF-targeted bDMARD compared to TNF-targeted bDMARD. Nevertheless this difference was not maintained in the multivariate model, reflecting that many of the variability in patients' risk of OI development were driven by factors other than biological agent exposure. Close monitoring should be taken in those RA patients taking bDMARD, corticosteroids, and with leukopenia.

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SAT0191

THE PATIENT PERSPECTIVE ON bDMARD DOSE REDUCTION: A MIXED METHODS STUDY

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Background: Dose reduction of bDMARDs, after low disease activity is reached, is safe and effective.(1) To date, few studies have focused on bDMARD dose reduction from the patient perspective.

Objectives: The aim of this study was to identify the factors that play a role for patients with RA when considering bDMARD dose reduction, and to determine their relative importance.

Methods: A mixed methods design was used in which we 1) identified influencing factors with interviews and 2) ranked these factors using a Maximum Difference Scaling (MaxDiff) survey.

Sub study 1: We performed semi-structured interviews with 22 RA patients. Interviews were transcribed verbatim and two researchers analyzed the transcriptions by inductive thematic analysis.

Sub study 2: The influencing factors were derived from the interviews and used in a MaxDiff survey with RA patients from 3 different centers in the Netherlands (N=192; an academic hospital, a specialized hospital and a large general hospital). Besides questions about patient characteristics, the survey included 18 MaxDiff questions in which patients were asked to choose the most and least important factor from a subset of 5 factors. A relative importance score for each factor was calculated using hierarchical Bayes modeling.

Results: Thirty factors were identified from the interviews and used in the survey. Most respondents had a positive attitude towards bDMARD dose reduction (table 1). The top-10 of factors (table 2) shows that patients are concerned that dose reduction will lead to a disease flare that affects their daily life (pain, function). It is important for them to know that it is possible to increase the dose if (further) reduction is not possible and that the bDMARD will be effective again. Patients value the opinion of their rheumatologist, and being involved in the decision to start tapering is highly ranked as well.

Table 1 Patient characteristics (mean (sd) or n (%))

Characteristic	Sub study 1 (n=22)	Sub study 2 (n=192)
Female	15 (68%)	125 (65%)
Age (years)	62 (7.6)	59 (12.1)
Disease duration (years)	13 (9.4)	16 (10.0)
Experience with bDMARD dose reduction	Yes: 16 (73%) No: 6 (27%)	Yes: 117 (61%) No: 71 (37%) I don't know: 4 (2%)
Attitude towards bDMARD dose reduction	Not applicable	Very positive: 64 (33%) Positive: 78 (41%) Neutral: 27 (14%) Negative: 11 (6%) Very negative: 2 (1%) I don't know: 10 (5%)

Table 2 Top-10 factors

Rank	Factor
1	The possibility to increase the dose when disease symptoms worsen
2	The risk that my disease activity will increase
3	My current disease activity
4	The risk that my physical function will deteriorate (e.g. I won't be able to work)
5	The confidence I have in my rheumatologist
6	To what extent I'm involved in the decision on bDMARD dose reduction
7	Whether the bDMARD is (still) necessary for the RA
8	The advice of my rheumatologist regarding bDMARD dose reduction
9	The risk that I will experience more pain
10	The efficacy of the bDMARD after increasing the dose

Conclusions: The results from this study could facilitate implementation of bDMARD dose reduction by informing care providers on what is important for patients and providing a basis for shared decision making.

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