outcome, HLA-B27 and imaging positivity were associated with a diagnosis of axSpA in both sexes (male patients: HLA-B27+: OR 3.8, 95% CI: 1.7 to 8.8; MRI-SIJ+: OR 24.3, 95% CI: 9.7 to 60.6; X-SIJ+: OR 2.7, 95% CI: 0.7 to 9.4 and female patients: HLA-B27+: OR 6.7 95% CI: 3.2 to 14.0; MRI-SIJ+: OR 32.6 95% CI: 14.2 to 75.0; X-SIJ+: OR 6.9 95% CI: 1.4 to 32.7). In models with imaging positivity as the outcome, male gender and HLA-B27 positivity were both independently associated with MRI+and/or X-SI+ (OR 1.8, 95% CI: 1.0 to 3.1 and OR 1.8 (1.0–3.3).

Abstract OP0323 – Table 1 Characteristics of patients with a definite diagnosis of axial spondyloarthritis (level of confidence $\geq 7/10$), comparison between genders (n=301)

	Male N=146	Female N=155	p-value
Age at CBP onset (years), mean (SD)	27.4 (7.5)	29.5 (7.8)	0.021
Duration BP (months), mean (SD)	13.3 (7.1)	13.4 (7.0)	0.49
Alternating buttock pain	65 (60)	64 (51)	0.15
IBP	123 (84)	129 (84)	0.98
Response to NSAIDs	92 (64)	98 (66)	0.79
Family history of SpA	68 (47)	69 (45)	0.79
Peripheral arthritis	37 (25)	34 (22)	0.52
Heel enthesitis	46 (31)	51 (33)	0.73
Dactylitis	16 (11)	16 (10)	0.87
Uveitis	19 (13)	20 (13)	0.98
Psoriasis	22 (15)	37 (24)	0.051
IBD	10 (7)	12 (8)	0.75
HLA-B27 positive	114 (80)	92 (60)	<0.001
Elevated CRP/ESR	71 (49)	64 (42)	0.23
SpA features without imaging or HLA-B27, mean (SD)	3.5 (1.7)	3.5 (1.6)	0.99
MRI-SIJ+/X-SIJ-,	65 (45)	68 (44)	0.91
MRI-SIJ-/X-SIJ+	5 (3)	5 (3)	0.92
MRI-SIJ+/X-SIJ+	44 (30)	26 (17)	0.006
Any positive imaging	114 (78)	99 (64)	0.007

Results are presented as n (%) unless otherwise indicated. AxSpA= axial spondyloarthritis; CBP=chronic back pain; HLA=human leukocyte antigen; IBP=inflammatory back pain; IBD=inflammatory bowel disease; NSAIDs=non-steroidal anti-inflammatory drugs; CRP= C reactive protein; ESR=erythrocyte sedimentation rate; MRI=magnetic resonance imaging; SIJ= sacroiliac joints; X=X rays; any positive imaging= MRI-SIJ + and/or X-SIJ +. All features were complete in at least 95% of patients unless specified otherwise. Bold indicates significant results.

Conclusions: Although our data show clear gender differences in early axSpA, they highlight that in both genders HLA-B27 and imaging are key elements for a diagnosis of axSpA. Therefore, our study does not suggest that separate diagnostic strategies are required for men and women.

Disclosure of Interest: None declared

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Understanding the language of basic research, epidemiology and health services articles

OP0324

RISK OF SERIOUS INFECTIONS IN RHEUMATOID ARTHRITIS PATIENTS TREATED WITH ABATACEPT, RITUXIMAB AND TOCILIZUMAB IN DENMARK AND SWEDEN

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Background: Safety concerns have been raised regarding the risk of serious infections (SI) with the different available biologic disease-modifying anti-rheumatic drugs (bDMARDs). Little is known about the risk of SI in patients with rheumatoid arthritis (RA) treated with non-tumor-necrosis-factor-inhibitors (non-TNFi) bDMARDs.

Objectives: In RA patients treated in routine care with the three non-TNFi, abatacept, rituximab and tocilizumab 1) to compare crude as well as adjusted incidence

rates (IR) of SI after the first year of treatment, and 2) to estimate the relative risk (RR) of SI across these drugs after 1 year of treatment.

Methods: Collaborative observational cohort study conducted in Denmark (DK) and Sweden (SE) in parallel. RA patients in DANBIO (DK) and ARTIS/SRQ (SE) who started a non-TNFi treatment Jan 2010-Dec 2015 were included and their clinical characteristics at baseline were identified. Baseline comorbidities, reimbursed antibiotic prescriptions and incident SI (hospitalisation listing infection as major cause of admission) were identified through linkage to National Patient Registries and Prescription Drug Registries. IR of SI per 100 patient years (adjusted for age and sex) and rate ratios (as estimates of RR, adjusted for additional covariates) during 1 year treatment were assessed via Poisson regression.

Results: 8987 treatment episodes were identified (abatacept 2,725/rituximab 3,363/tocilizumab 2,899). Differences in baseline characteristics between the three drugs were observed (table 1). During the first year of treatment, 456 SI were identified. Across all three non-TNFi there was a non-significant tendency towards higher IRs in DK than in SE. Age/sex-adjusted IRs for SI were similar across treatments in each country (abatacept/rituximab/tocilizumab for SE 6.0/6.4/4.7 and for DK 7.1/8.1/6.1, respectively). The 1 year adjusted between-drug comparisons (=RR) were formally non-significant (table 1).

Abstract OP0324 – Table 1 Baseline characteristics, IR and RR of RA patients starting non-TNFi stratified by drug and country

Variable	ABA, N=2725		RTX, N=3363		TCZ, N=2899	
Country	DK	SE	DK	SE	DK	SE
Treatment episodes, n	830	1895	718	2645	1098	1801
Female gender, %	78	81	78	76	78	79
Age, years	59(50-67)	61(51-69)	61(52-69)	64(54-71)	59(50-67)	59(49-67)
Disease duration, yrs	7(3-16)	11(6-21)	11(6-19)	13(6-22)	8(3-16)	11(5-20)
DA528	4.7(3.9-5.5)	4.9(4.1-5.7)	4.9(4.0-5.6)	5.0(4.1-5.8)	5.0(4.1-5.8)	5.1(4.2-6.0)
HAQ	1.4(0.8-1.9)	1.3(0.9-1.8)	1.5(1-2)	1.3(0.9-1.8)	1.4(1-2)	1.3(0.9-1.8)
CRP, mg/L	8(3-20)	8(4-21)	10(4-25)	10(4-25)	11(4-30)	11(4-30)
Previous cancer, %	1	4	9	11	1.7	4
Incidence rates (IR) of serious infections, 0-12 months						
Person years	568	1477	571	2189	906	1426
Infections, n	40	90	50	156	55	65
IR (95%CI)*	7.1(5.1, 9.9)	6.0(4.8, 7.5)	8.1(5.9, 11.0)	6.4(5.3, 7.7)	6.1(4.6, 8.1)	4.7(3.7, 6.1)
Risk Ratios (RR) for serious infections, 0-12 months**						
ABA vs TCZ (ref)						
Adjusted RR (95%CI)	1.15	1.13	0.94	0.86	0.82	0.77
	(0.69, 1.90)	(0.83, 1.54)	(0.55, 1.60)	(0.65, 1.13)	(0.50, 1.36)	(0.57, 1.03)
ABA vs RTX (ref)						
Adjusted RR (95%CI)	1.15	1.13	0.94	0.86	0.82	0.77
	(0.69, 1.90)	(0.83, 1.54)	(0.55, 1.60)	(0.65, 1.13)	(0.50, 1.36)	(0.57, 1.03)
TCZ vs RTX (ref)						
Adjusted RR (95%CI)	1.15	1.13	0.94	0.86	0.82	0.77
	(0.69, 1.90)	(0.83, 1.54)	(0.55, 1.60)	(0.65, 1.13)	(0.50, 1.36)	(0.57, 1.03)

DK=Denmark, SE=Sweden
*adjusted for age and gender, ** Adjusted for age, sex, DAS28, smoking, disease duration, HAQ, previous serious infection, previous cancer, previous chronic obstructive pulmonary disease and tertiles of antibiotic prescriptions. Numbers are medians (IQR) unless otherwise stated. End of follow-up was July 2015 in DK and December 2015 in SE

Conclusions: The risk of SI across treatment with non-TNFiS ranged between 4.7 and 8.1/100 patient years after 1 year, but no significant differences were observed between specific drugs. The numerical between-drug differences may partly be explained by differences in baseline characteristics.

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OP0325

EFFECT OF THREE HEALTH IT INTERVENTIONS ON RA DISEASE ACTIVITY SCORE DOCUMENTATION IN AN ACADEMIC RHEUMATOLOGY CLINIC

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Background: Routine assessments of disease activity are a key part of high quality rheumatoid arthritis (RA) care. Recommendations published in 2012 detailed the preferred disease activity measures, but little has been published about how to best implement these measures to guide routine clinical practice.