(year 1) and 85.4% (year 2), (insufficient number of cases to assess persistence at year 3 or further). As second biological drug, it was 89.8% (year 1), 75.2% (year 2), 67.4% (year 3) and 59.2% (year 4) and as third biological drug the figures were, respectively, 69.6%, 58.4%, 54.5% and 46.1%. Cox-regression analysis (table 1) showed that the probability of persistence on GOL therapy was higher in first vs second or third biological line patients (Hazard Ratio for discontinuation [HR]: 2.30 [95% CI: 1.16–4.55] for second and 3.92 [2.07–7.39] for third line), and in patients with concomitant MTX (HR discontinuation=0.55 [0.33–0.91]), and lower in those needing CS (HR discontinuation=2.83 [1.72–4.66]).

Abstract AB1332 – Table 1. Factors related to persistence of golimumab treatment

	Hazard Ratio of Discontinuation	95% Confidence Interval	p
Initial Model			
Gender (women vs men)	1.23	(0.62-2.44)	0.56
Age at golimumab initiation	1.01	(0.99-1.04)	0.25
Disease duration	0.99	(0.96-1.02)	0.38
Smoking habit	1.67	(0.85-3.26)	0.13
Overweight (vs normal)	1.61	(0.74-3.52)	0.23
Obesity (vs normal)	1.53	(0.64-3.66)	0.33
Second vs first biological drug	3.06	(1.28-7.32)	0.01
Third vs first biological drug	5.22	(2.18-12.49)	<0.01
Axial SpA vs RA	0.79	(0.36-1.73)	0.55
PsA vs RA	0.59	(0.27-1.29)	0.19
Methotrexate	0.41	(0.21-0.80)	0.01
Steroids	4.26	(2.26-8.04)	<0.01
Final Model			
Gender (women vs men)	1.38	(0.84-2.27)	0.21
Age at golimumab initiation	1.01	(1.00-1.03)	0.14
Second vs first biological drug	2.30	(1.16-4.55)	0.02
Third vs first biological drug	3.92	(2.07-7.39)	<0.01
Methotrexate	0.55	(0.33-0.91)	0.02
Steroids	2.83	(1.72-4.66)	<0.01

Conclusions: In patients with RA, axial SpA or PsA, the probability of persistence on GOL after initiation was high. The retention rate was higher both in patients with GOL as first biological drug and in those with concomitant therapy with MTX, and lower in those needing CS.

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AB1333 RETENTION RATES OF ADALIMUMAB, ETANERCEPT, AND INFLIXIMAB AS BIOTHERAPIES FOR RHEUMATOID ARTHRITIS, SPONDYLOARTHRITIS, OR PSORIATIC ARTHRITIS PATIENTS IN DAILY PRACTICE IN AUVERGNE (FRANCE)

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Background: The use of TNF- α inhibitors, has considerably improved the treatment of rheumatoid arthritis (RA), spondyloarthritis (SpA), and psoriatic arthritis (PsA). The most widely used anti-TNFs are infliximab (IFX), adalimumab (ADA), and etanercept (ETN). Their efficacy and safety have been demonstrated in randomised controlled trials, though of short duration and involving a selected patient population differing from those seen in daily practice.

Objectives: To compare, in real-life settings, the retention rates of anti-TNF treatments (ETN, ADA, or IFX) initiated as first-line bioterapy following their approval in the three clinical indications.

Methods: Monocentre retrospective cohort involving patients on initial anti-TNF therapy for RA, SpA, or PsA since 2006.

Results: Anti-TNF treatment was initiated on 228 RA (ETN 160, ADA 45, or IFX 23), 208 SpA (ETN 91, ADA 62, or IFX 55), and 81 PsA (ETN 40, ADA 26, or IFX 15) patients. Treatment retention rates at 1, 3, and 5 years were 82%, 53%, and 44% in PR; 75%, 57%, and 49% in SpA; 75%, 64%, and 51% in PsA, with no differences detected among the pathologies ($p=0.96$). Retention rates at 1, 3, and 5 years did not differ among the 3 anti-TNFs either for all pathologies included (ETN: 80%, 57%, and 43%; ADA: 80%, 58%, and 51%; IFX 72%, 56%, and 52%; $p=0.75$) or each pathology alone (RA: ETN: 83%, 55%, and 41%; ADA: 83%, 51%, and 51%; IFX: 76%, 44%, and 44%, $p=0.84$; SpA: ETN: 78%, 57%, and 48%; ADA: 78%, 59%, and 46%; IFX: 68%, 55%, and 52%, $p=0.81$; PsA: ETN: 70%, 60%, and 36%; ADA: 79%, 69%, and 69%; IFX: 80%, 66%, and 53%, $p=0.65$). Overall, 89 RA, 85 SpA, and 28 PsA patients discontinued treatment for inefficacy (32%) or side effects (SE, 9%). In RA, predictors for treatment discontinuation were: Disease activity (DAS 28 ESR HR: 1.27 [1.05–1.55]; DAS28-CRP HR: 1.27 [1.03–1.60]), (CRP HR: 1.01 [1.01–1.02]), and corticosteroid intake (HR: 2.05 [1.027–3.32]). Concomitant methotrexate intake tended to decrease the

treatment discontinuation risk (HR: 0.64 [0.41–1.01]). Predictors for treatment discontinuation due to inefficacy were similar (DAS28 ESR, HR: 1.31 [1.05–1.63]; DAS28 CRP, HR: 1.33 [1.04–1.72], CRP HR: 1.02 [1.01–1.03]), corticosteroid intake HR: 3.79 [2.02–7.11]). We were unable to identify any predictors for treatment discontinuation due to SE, though corticosteroid intake was found to be protective (HR: 0.23 [0.07–0.71]). In SpA, the sole predictor for treatment discontinuation identified was increased BASDAI score (HR: 1.02 [1.01–1.04]), while the sole predictor for treatment maintenance was inflammatory syndrome (CRP HR: 0.97 [0.95–0.99]). Similar findings were seen for treatment discontinuation due to inefficacy (BASDAI HR: 1.03 [1.01–1.05]); CRP HR: 0.98 [0.96–0.99]). We were unable to identify any predictors for treatment discontinuation due to SE. In PsA, active smoking was revealed to be a predictor for treatment discontinuation due to inefficacy (HR: 2.234 [1.02–4.91]).

Conclusions: ETN, ADA, and IFX display similar treatment retention rates in RA, SpA, or PsA without between-agent differences.

Disclosure of Interest: None declared

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AB1334 EVALUATION OF DYNAMICS OF MORTALITY FROM DISEASES OF THE BONE-MUSCULAR SYSTEM IN KARAKALPAKSTAN

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Background: Karakalpakstan is now mostly desert and is located in western Uzbekistan near the Aral Sea, in the lowest part of the Amu Darya basin. The desertification of the Aral Sea has brought a lot of dust in the air, and respiratory diseases – bone-muscular diseases – have become the largest local health problem among the population of Karakalpakstan, a region in the North Western part of Uzbekistan.

Objectives: To assess the dynamics of mortality trends from diseases of bone-muscular system (BMS) in the Karakalpakstan region in 2010–2015

Methods: To study mortality from BMS, databases on mortality of residents in Karakalpakstan for 2010–2015, obtained with the help of an automated mortality registration system, were used to automatically code and select the original cause of death in accordance with the rules of ICD-10.

Results: In the Karakalpakstan region, there has been a trend of a significant increase in mortality from BMS from 3.0 in 2010 to 5.6 per 1 000 000 in 2015 (1.9 times), with a slight decrease in the death rate from the BMS in Uzbekistan from 1.7 in 2010 to 1.6 in 2015 per 100 thousand people (the rate of decline is 5.9%). So that Decrease in the mortality rate from diseases of the musculoskeletal system in Uzbekistan from 1.7 to 1.6 per 100 thousand of population (the rate of decrease is 5.9%) and the growth of mortality rates from diseases of the musculoskeletal system was 1.9 times from 2001 to 2015

Conclusions: The growth of mortality rates from musculoskeletal system diseases in the Karakalpakstan region is not related to the rates of overall mortality of the population, but is more reliable due to the use of the automated system for recording mortality, as well as training physicians to codify medical and statistical diagnoses.

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AB1335 SERUM MMP-3 IS CLOSELY RELATED TO KNEE JOINT SYMPTOMS IN RHEUMATOID ARTHRITIS PATIENTS: A CROSS-SECTIONAL STUDY FROM KURAMA COHORT

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Background: Joint damage progression occurs within the first 2 years of rheumatoid arthritis (RA).¹ Large joints are often involved in RA patients. The knee joint, in particular, is affected in about 30% of RA patients.² Knee joint disability in RA is thought to be one of the most important prognostic factors decreasing quality of life. However, few studies have focused on what would influence knee joint function in RA patients. Therefore, a cross-sectional study on this subject was

conducted using a RA patient cohort: the Kyoto University Rheumatoid Arthritis Management Alliance (KURAMA) cohort.

Objectives: The purpose of this study is to clarify risk factors related to functional disability in knee joint from a RA cohort.

Methods: A total of 447 female RA patients (mean age; 63.7 years) were recruited in KURAMA cohort. Clinical data included age, disease duration (DD), Steinbrocker stage and class, anti-cyclic citrullinated peptide antibody (anti-CCP), rheumatoid factor (RF), C-reactive protein (CRP), matrix metalloproteinase-3 (MMP-3), Disease Activity Score 28 using CRP (DAS28-CRP), and visual analogue scale for pain (Pain-VAS). Knee function was assessed by the scores of the Japanese Knee Osteoarthritis Measure (JKOM) questionnaire.³ The correlations between the total JKOM score and each factor were evaluated by univariate and multivariate regression analyses.

Results: A total score of JKOM had a median value of 17 points, an interquartile range of 5.5 to 43.5 points. Univariate analyses showed that age, DD, stage, class, anti-CCP titer, CRP, MMP-3, DAS28-CRP, and Pain-VAS were significantly correlated with total JKOM score (table 1). Multivariate regression analysis with JKOM as the objective variable revealed that Pain-VAS ($\beta=0.63$, $p<0.01$), age ($\beta=0.23$, $p<0.01$), and MMP-3 ($\beta=0.16$, $p<0.01$) were extracted as significant factors (table 2).

Abstract AB1335 – Table 1. Pearson's correlation coefficients (r) between each risk factor for knee disability and total JKOM score.

Parameter	r	p
Age	0.32	< 0.01
Disease duration	0.22	< 0.01
Steinbrocker stage	0.24	< 0.01
Steinbrocker class	0.29	< 0.01
Anti-CCP	0.13	0.01
CRP	0.20	< 0.01
MMP-3	0.33	< 0.01
DAS28-CRP	0.54	< 0.01
Pain-VAS	0.66	< 0.01

Parameter	β	p
Age	0.23	< 0.01
MMP-3	0.16	< 0.01
Pain-VAS	0.63	< 0.01

Abstract AB1335 – Table 2. Multivariate regression analyses of risk factors for knee disability and total JKOM scores.

Conclusions: Pain has the most significant influence on knee joint symptoms in RA patients. Serum MMP-3 is closely related to knee joint disability, and attention should be paid to knee joint dysfunction in RA patients with high serum MMP-3.

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AB1336

MUSCULOSKELETAL DISORDERS IN HEMODIALYSIS PATIENTS: DIFFERENT DISEASE CLUSTERING ACCORDING TO AGE AND DIALYSIS VINTAGE

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Background: The number of patients suffering from stage 5 Chronic Kidney Disease is constantly increasing and their life expectancy has improved due to the hemodialysis technique. Musculoskeletal disorders remain a major problem in long term hemodialysis patients. Frequency and severity of these manifestations increase with the length of the dialysis.

Objectives: To identify diseases clustering profiles of musculoskeletal disorders in hemodialysis patients.

Methods: All adult patients in the hemodialysis centre were included in this cross-sectional study. For each patient, we filled a data collection sheet including basic demographic characteristics, musculoskeletal symptoms, biologic parameters and treatments. Musculoskeletal disorders were classified by a rheumatologist into pre-defined diagnostic categories: Osteoarthritis, Fractures, Tendinopathies, Carpal Tunnel Syndrome, Crystal deposition disease and Others. Prevalences were presented and a cluster analysis was performed.

Results: Eighty-nine patients were included (table 1). Mean age was 67.5±12 years. 43.8% were female. Dialysis vintage was 5.7±5.37 years. Musculoskeletal symptoms were reported by 76.4% of the patients. Pain was the most frequent symptom (44.9%). The main disorders were osteoarthritis (53.9%), fracture (27%), tendinopathy (22.5%), carpal tunnel syndrome (18%), and chondrocalcinosis (9%). Musculoskeletal symptoms were significantly related to the dialysis vintage and age ($p=0.044$, $p=0.035$ respectively). All disorders categories were significantly associated with dialysis vintage, particularly increasing after the seventh year of dialysis. Cluster analysis identified three patient profiles: younger with low calcium levels, younger but long dialysis vintage with osteoarthritis and carpal tunnel syndrome, older and long dialysis vintage with fractures (figure 1).

Abstract AB1336 – Table 1

Population characteristics	
N	89
Age (years±SD)	67.5±12.6
Sex ratio (M/F)	49/39
Age at the start of hemodialysis year(±SD)	61.5±14.6
Dialysis vintage (years±SD)	5.7±5.37
Diagnostic nephropathy	
Diabetes	27 (30.3%)
Hypertension	26 (29.2%)
Chronic glomerulonephritis	13 (14.6%)
Polycystic kidney disease	10 (11.2%)
Chronic interstitial nephropathy	7 (7.9%)
Others	6 (6.7%)

Abstract AB1336 – Figure 1