Table 2. Comparison between etanercept group and biological naïve groups

	Etanercept group (n=10)	Non-etanercept group (n=30)	Non parametric tests of significance
Age at presentation (years)	27(17.2-34.2)	25(19-34.2)	NS
Males	10 (100%)	22 (55%)	NS
Follow-up (months)	27(15-71.7)	27(15-79.5)	NS
Preceding infection	Diarrhoea= 6 UTI= 4	Diarrhoea= 23 UTI= 7	NS
Inflammatory backache	3	11	NS
Small joint involvement	4	11	NS
Monoarticular/ oligoarticular/ polyarticular	3/3/4	10/8/12	NS
Average intra-articular injections	1.9	0.3	NS
Sulfasalazine	9	22	NS
Methotrexate	1	1	NS
Disease outcome	Resolved = 7 Relapsing = 2 Persistent = 1	Resolved = 19 Relapsing = 9 Persistent = 2	NS
Drug free remission	4 (40%)	12(40%)	NS
BASDAI at last follow-up	0.3(0-0.8)	0(0-1.4)	NS
HAQ-DI at last follow-up	0(0-0.15)	0.05(0-0.3)	NS

BASDAI: Bath Ankylosing Spondylitis Disease Activity Index; HAQ-DI: Health Assessment Questionnaire Disability Index; NS: not significant

Conclusion: All 10 patients responded. 40% achieved drug free remission. Thus, ETN-b appear safe and effective for ReA refractory to conventional therapy.

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AB0633

REAL WORLD EXPERIENCE OF THE IMPACT OF SECUKINUMAB ON DISEASE ACTIVITY AND FATIGUE IN PATIENTS WITH ANKYLOSING SPONDYLITIS

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Background: Fatigue is one of the most commonly reported symptom of ankylosing spondylitis (AS). It impacts functional ability, quality of life, and ability to maintain employment¹. Secukinumab, a fully human monoclonal IgG1 antibody that neutralizes IL-17A, has shown significant and sustained improvement in the signs and symptoms of active AS in the MEASURE 2 study². It has also shown to improve fatigue scores. Despite this, the published literature on real life experience is scarce. We report our experience of Secukinumab use at Gartnavel General Hospital, Glasgow, UK.

Objectives: We performed a retrospective review to assess the response of our AS patients to Secukinumab. We also reviewed the impact of treatment on fatigue.

Methods: AS patients commenced on Secukinumab 150mg subcutaneously from mid-2016 to September 2019 were identified using the clinical records on our database. Response using Bath AS disease activity index (BASDAI) and Bath AS function index (BASFI) were recorded. Impact on fatigue and pain was measured using single-item fatigue and pain visual analogue scale (VAS) within the BASDAI questionnaire.

Results: 30 AS patients, 11 anti-TNF naïve and 19 anti-TNF inadequate responders (IR), on Secukinumab were identified. Retention rate was 76.66% (23/30). Sustained improvement was observed across all outcome measures over 3.5 years. Fatigue and pain improvement were somewhat lower than expected but did show slow improvement. Responses were greater in anti-TNF naïve patients. There was no significant difference in response between smokers (33.34%, 10/30) and non-smokers (36.67%, 11/30). There were 4 patients

with inflammatory bowel disease, none of whom flared. No new safety signals were identified.

Table. Clinical response to Secukinumab in patients with active AS

Time	BASADI		BASFI		Fatigue		AS pain	
	Mean	%change	Mean	%change	Mean	%change	Mean	%change
Baseline	7.09		7.3		7.6		7.99	
3M	6.71	-5%	7.24	-8%	6.9	-9%	6.89	-14%
6M	5.4	-24%	5.8	-20%	6.29	-17%	6.06	-24%
9M	6.01	-15%	6.56	-10%	6.41	-16%	6.1	-24%
12M	5.04	-29%	5.42	-26%	6.35	-16%	5.55	-30%
18M	4.98	-30%	3.73	-49%	6.38	-16%	4.91	-38%
24M	5.52	-22%	5.72	-22%	6.79	-11%	5.6	-30%
%Change from baseline	Anti-TNF naïve	IR	Anti-TNF naïve	IR	Anti-TNF naïve	IR	Anti-TNF naïve	IR
3M	-37%	-9%	-44%	6%	-10%	-14%	-53%	-14%
6M	-34%	-27%	-38%	-29%	-28%	-6%	-43%	-6%
9M	-27%	-4%	-30%	1%	-23%	-6%	-41%	-6%
12M	-41%	-22%	-31%	-29%	-31%	0%	-44%	0%
18M	-32%	-11%	-57%	-22%	-35%	5%	-34%	5%
24M	-26%	-12%	-32%	-1%	-16%	3%	-32%	3%

There were <3 patients in >2 years follow up group therefore results were omitted from analysis

Conclusion: In our real-life cohort of AS patients, significant improvement was seen over 3.5 years in both BASDAI and BASFI. Fatigue was significantly improved in anti-TNF naïve group, but results were disappointing in anti-TNF IR group. This may be explained by the fact that there are older patients with established disease and background degenerative changes in anti-TNF IR group. Although fatigue data had slightly discordant results compared with the MEASURE 2 study², considering the use of single item VAS rather than multi-dimensional measures such as FACEIT fatigue scale, clear improvement has been observed.

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AB0634

BUDGET IMPACT ANALYSIS OF BIOLOGICAL THERAPY COMPARED TO CONVENTIONAL SPONDYLOARTHRITIS TREATMENT, IN A FOURTH LEVEL HOSPITAL IN BOGOTÁ COLOMBIA

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Background: Spondyloarthritis refers to a family of diseases, of which ankylosing spondylitis and non-radiographic axial spondyloarthritis are responsible for axial impairment. Previously, the only treatment available were NSAIDs, which control activity and stop radiological progression, but at the expense of increased adverse effects, such as cardiovascular risk, dyspepsia and chronic renal failure. For the past 2 decades, biological therapy has been available, which means an increase in care costs.

Objectives: The objective of this study is to perform a budget impact analysis of biologic therapy.

Methods: To do a budget impact analysis from the perspective of the payer, comparing biological therapy with conventional therapy for the treatment of spondyloarthritis. Demographic characterization of the population attended at the Central Military Hospital. Time horizon from 2012 to 2018, taking the activity count according to the hospital's billing and the prices of the activities of the state body SIMED. Exchange rates at the end of 2018.

Results: The patients attended were 117, mostly men (63, 25%), average age 46, 4 years (SD 13), with disease diagnosis time of 9, 8 years (SD 9, 6). In the budget impact analysis, it is observed that 25% of patients were on DMARDs

therapy, 22% with NSAIDs and 96% with biologic therapy. The average year/patient cost with NSAIDs alone would be EUR 381, with DMARDs only EUR 9,318 and, if only biological therapy was used, EUR 423. Within the total number of patients, the average annual cost, including the possibility of combining these drugs, amounted to EUR 5,403

Conclusion: Including biological therapy in the care of patients with spondyloarthritis can increase up to 24 times the annual cost per patient. This increase is not only due to higher market value, it also relates to the need for more medical procedures and diagnostic follow-up tests.

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Table 1

Distribution by therapy		Cost monotherapy treatments (EUR)	
NSAIDs	66%	Patient with NSAIDs	\$381
Biological Therapy	57%	Patient with biological therapy	\$9,318
DMARDs	33%	Patient with DMARDs	\$423

Average patient cost year \$5,403 EUR

Table 2

Distribution of average annual cost per patient	
Analgesic	0,72%
Biological	94,2%
Procedures	1,32%
Diagnosis	3,12%
For osteoporosis	0,64%

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AB0635

HOW ARE NON STEROIDAL ANTI-INFLAMMATORY DRUGS (NSAID) PRESCRIBED IN AXIAL SPONDYLOARTHRITIS?

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Background: For decades, NSAID have been used as the first-line drugs to treat axial spondyloarthritis (ax-SpA). However, the NSAID prescription strategy is not clearly detailed and it varies from one clinician to another.

Objectives: The aim of this study was to assess the NSAID prescription modalities adopted in ax-SpA and the differences between these modalities.

Methods: This is a descriptive study including 200 cases of ax-SpA fulfilling the ASAS 2009 criteria and diagnosed between January 2000 and October 2019. The demographic and clinical features of the ax-SpA were collected and the modalities of prescription of NSAID were retrospectively assessed.

Results: Our population consists of 138 men and 62 women with a mean age of 43,3 ± 11,2 years. The HLA B-27 antigen was present in 50,8% of cases. The ax-SpA was a pure axial form in 67% of patients, associated with peripheral arthritis, enthesitis and dactylitis in 19%, 21,5% and 1,5% respectively. One hundred eighty patients (90%) had been treated with NSAIDs. The NSAIDs used were: the Diclofenac (57,5%), Indomethacin (37,5%), Piroxicam (36%), celecoxib (34%), Naproxen (29,5%) and ketoprofen (13%). Seventy-three patients (36,5%) had used at least 3 NSAIDs.

Among the 180 patients treated with NSAID, 88 patients (48,8%) were treated with conventional synthetic DMARDs (csDMARDs) in association with NSAID: Salazopyrine (43,3%) and Methotrexate (13,3%). Seventy-one patients (39,4%) had necessitated the use of anti-TNF alpha.

NSAIDs were used continuously in 115 patients (63,8%) and the maximum dose of NSAIDs was used in 78 patients (43,3%). By comparing patients who used maximum doses of NSAIDs and those who used NSAID continuously with other patients, we noticed that the use of biological treatments was more frequent in those groups ($p = 0,01$ and $p = 0,004$ respectively).

In addition, while comparing the group of patients co-treated with csDMARDs with other patients treated with NSAID on monotherapy, we noted that this group of patients had more arthritis ($p < 0,0001$), enthesitis ($p = 0,02$), psoriasis ($p = 0,04$) and necessitated more biological treatments ($p = 0,01$).

Conclusion: Our results suggest that maximal doses and/or continuous prescription of NSAID were mainly used if there was no response to that treatment. The csDMARDs were more prescribed if there were peripheral manifestations

or psoriatic arthritis and those forms were also more candidates to biological treatments.

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AB0636

MODALITIES OF PRESCRIPTION OF ANTI-TNF ALPHA IN AXIAL SPONDYLOARTHRITIS: ON MONOTHERAPY OR COMBINED WITH CONVENTIONAL SYNTHETIC DMARDs

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Background: The advent of biologics targeting tumor necrosis factor-alpha (anti-TNF alpha) has revolutionized the treatment of spondyloarthritis (SpA). Their association with conventional synthetic disease-modifying antirheumatic drugs (cs-DMARD), although effective and used in clinical practice for the treatment of peripheral rheumatic diseases, is not clearly assessed in axial spondyloarthritis (ax-SpA).

Objectives: The aim of this study was to assess the strategy of prescription of anti-TNF alpha in a population of ax-SpA and to compare patients treated with anti-TNF alpha on monotherapy with those who had combined therapy with cs-DMARDs.

Methods: This is a retrospective descriptive study including 85 cases of ax-SpA diagnosed between January 2000 and October 2019 and treated with anti-TNF alpha.

The clinical features, the erythrocyte sedimentation rate (ESR), the C-reactive protein (CRP), Bath ankylosing spondylitis disease activity index (BASDAI) and Bath ankylosing spondylitis functional index (BASFI) were compared between groups of anti-TNF alpha on monotherapy or combined therapy with csDMARDs.

Results: Of 85 ax-SpA, 67 were males (78,8%) and the mean age was 44,4 ± 10,9 years. The mean period of evolution was 12,3 ± 9,1 years and 52,2% of patients were HLA-B27 positive. The ax-SpA was a pure axial form in 74,1% of patients, associated with peripheral arthritis, enthesitis and dactylitis in 17,6%, 17,6% and 1,2% respectively.

The anti-TNFs were administrated with a mean delay of 78 ± 70,8 months. The anti-TNFs used were: Infliximab (41,1%), Etanercept (32,9%), Adalimumab (23,5%) and Golimumab (2,3%). Fifty-nine patients (69,4%) were treated with anti-TNF alpha on monotherapy and 26 patients (30,6%) had combined therapy. The csDMARDs prescribed were the Salazopyrine (22,4%) and the Methotrexate (7,1%).

While comparing the groups of anti-TNFs combined therapy and monotherapy, we noticed that the arthritis was present in 30,7% of patients from the group of combined therapy versus 11,8% of patients from the group of monotherapy ($p = 0,03$). The psoriasis also was more present in the group of combined therapy (11,5% vs 1,6%; $p = 0,04$).

There was no statically significant difference between the two groups in the following parameters: age, gender, HLA B27, enthesitis, dactylitis, uveitis, inflammatory bowel diseases, ESR, CRP, BASDAI and BASFI.

Conclusion: Our results suggest that the concomitant use of csDMARDs with anti-TNFs is frequent in clinical practice in ax-SpA, but mainly justified by the presence of arthritis or psoriasis.

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AB0637

EFFICACY OF COMEDICATION OF CONVENTIONAL SYNTHETIC DMARDs WITH TNF BLOCKERS IN PATIENTS WITH AXIAL SPONDYLOARTHRITIS

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Background: Tumour necrosis factor blockers (anti-TNFs) are typically used in axial spondyloarthritis (ax-SpA) when the disease has not responded adequately to conventional therapy. However, the effects of the comedication conventional synthetic disease modifying antirheumatic drugs (csDMARDs) with anti-TNFs are inconclusive.