SAT0287

WHAT ARE THE ECONOMIC IMPLICATIONS OF ANTI-TNF THERAPY IN PATIENTS WITH AXIAL SPONDYLOARTHRITIS? – RESULTS OF A HEALTH INSURANCE CLAIMS DATA ANALYSIS

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Background: Tumour necrosis factor (TNF)- α inhibitors are an effective but rather expensive treatment option in axial spondyloarthritis (axSpA) patients who fail conventional treatment.

Objectives: The aim of this study was to analyse the changes in healthcare costs and resource utilisation after initiation of TNF- α inhibitors in patients with axSpA.

Methods: Data of patients with axSpA newly exposed to TNF- α inhibitors between January 1, 2011 and December 31, 2015 were studied by using health insurance claims data in Germany. Resource utilisation, direct healthcare costs and productivity costs were assessed. Direct healthcare costs comprised costs for outpatient care (i.e., visits to physicians, laboratory visits, non-physician visits [e.g., visits to physical therapists], emergency department visits, outpatient hospital services, and aids [e.g., walkers]), costs for inpatient care (i.e., inpatient admissions) and costs for pharmacotherapy. Productivity costs comprised costs due to absence from paid work and were calculated using the friction cost method (FCM) and the human capital approach (HCA). Costs and resource utilisation were analysed the year before (baseline period) and the year after (follow-up period) initiation of TNF- α inhibitors.

Results: Data from 1452 persons were included in the analyses; mean age was 44.6 years and 47.9% were female. AxSpA-related pharmacotherapy use (non-steroidal anti-inflammatory drugs [NSAIDs], non-opioid analgesics, opioid analgesics, systemic steroids, local steroids and conventional synthetic disease-modifying anti-rheumatic drugs [csDMARDs]) and admissions to hospital decreased significantly in the follow-up period compared to the baseline period. However, due to anti TNF- α therapy, mean direct healthcare costs increased from € 4494 per patient in the baseline period to € 26 473 per patient in the follow-up period. Mean total costs increased from € 8072 to € 29 959 using the HCA and from € 6377 to € 28 162 using the FCM (Table). Excluding costs for anti-TNF therapy, total costs decreased by 15% to € 6876 or by 20% to € 5080 based on whether the HCA or the FCA was used.

Abstract SAT0287 – Table 1. Mean costs per patient before and after initiation of TNF- α inhibitors in axial spondyloarthritis (n=1,452).

	Baseline period mean $\pm$ SD	Follow-up period mean $\pm$ SD	P-value
Outpatient care*, €	1,402 $\pm$ 1,008	1,381 $\pm$ 1,054	0.0285
Hospital admissions*, €	1,890 $\pm$ 3,681	1,134 $\pm$ 3,558	<0.0001
with diagnosis of axSpA*	612 $\pm$ 1582	136 $\pm$ 714	<0.0001
Pharmacotherapy, €	1,201 $\pm$ 2,939	23,957 $\pm$ 5,480	<0.0001
excluding anti-TNF therapy	1,201 $\pm$ 2,939	875 $\pm$ 1,721	<0.0001
NSAIDs	130 $\pm$ 159	83 $\pm$ 151	<0.0001
non-opioid analgesics	21 $\pm$ 77	12 $\pm$ 46	<0.0001
opioid analgesics	118 $\pm$ 517	123 $\pm$ 564	0.3352
systemic steroids	23 $\pm$ 52	17 $\pm$ 54	<0.0001
local steroids	1 $\pm$ 6	1 $\pm$ 4	0.0091
csDMARDs	159 $\pm$ 366	97 $\pm$ 278	<0.0001
Absence at work, HCA, €	3,578 $\pm$ 7,211	3,486 $\pm$ 7,896	0.0458
Absence at work, FCM, €	1,883 $\pm$ 2,943	1,690 $\pm$ 2,934	0.0021
Total costs, HCA, €	8,072 $\pm$ 9,734	29,959 $\pm$ 10,679	<0.0001
excluding anti-TNF therapy	8,072 $\pm$ 9,734	6,876 $\pm$ 9,626	<0.0001
Total costs, FCM, €	6,377 $\pm$ 6,401	28,162 $\pm$ 7,609	<0.0001
excluding anti-TNF therapy	6,377 $\pm$ 6,401	5,080 $\pm$ 5,813	<0.0001

Values are presented as mean $\pm$ standard deviation. P-values were assessed using Wilcoxon signed-rank tests. Total costs per patient were calculated as the sum of the domains outpatient care, hospital admissions, pharmacotherapy and absence at work.

TNF, Tumour Necrosis Factor; NSAIDs, Nonsteroidal Anti-Inflammatory Drugs; csDMARDs, conventional synthetic Disease-Modifying Anti-Rheumatic Drugs; HCA, Human Capital Approach; FCM, Friction Cost Method; SD, standard deviation.

* excluding costs for pharmacotherapy.

Conclusions: Overall resource utilisation decreased after initiation of TNF- α inhibitors. The rise in pharmacotherapy costs driven by anti-TNF agents is accompanied by significantly lower costs for outpatient and inpatient care, as well as significantly lower productivity costs. However, the effect of TNF-blocker therapy on

the patient's disease activity, function or quality of life could not be assessed in this analysis.

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SAT0288

SECUKINUMAB DEMONSTRATES RAPID AND SUSTAINED EFFICACY IN ANKYLOSING SPONDYLITIS PATIENTS WITH NORMAL OR ELEVATED BASELINE CRP LEVELS: POOLED ANALYSIS OF TWO PHASE 3 STUDIES

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Background: Elevated baseline (BL) CRP levels is one of the predictors of treatment response in patients (pts) with active AS.¹ The relationship between BL CRP levels and the treatment response to IL-17A inhibition has not been assessed in AS pts thus far.

Objectives: This *post-hoc* analysis assessed the response to secukinumab (SEC) treatment in AS pts with normal or elevated BL CRP from the phase 3 MEASURE 1 and MEASURE 2 studies over 3 years.

Methods: The study designs of MEASURE 1 and 2 have been reported.² This analysis pooled data from all pts with available BL CRP levels who received subcutaneous (s.c.) SEC 150 mg (approved dose; n=197) or placebo (PBO; n=195). Efficacy endpoints included ASAS20/40, BASDAI, BASDAI50, ASDAS inactive disease, and ASAS partial remission (PR) stratified by normal (<5 mg/L) and elevated ($\geq$ 5 mg/L) BL CRP; elevated BL CRP group was further subdivided into a range of elevated CRP levels: >5–10, >10–15, >15 mg/L. Data are presented as non-responder imputation (NRI) at Week (Wk)16 and multiple imputation (MI) at Wk156 for binary variables and mixed-effect model repeated measure (MMRM) at Wks 16 and 156 for continuous variables.

Results: Overall, 36.5% (143/392) of pts with normal CRP and 63.5% (249/392) of pts with elevated BL CRP were included in the pooled analysis. BL characteristics were balanced across normal and elevated BL CRP groups.³ At Wk16, efficacy endpoints were improved with SEC 150 mg vs PBO in pts with normal or elevated BL CRP.³ Results were consistent across all levels of elevated BL CRP with a trend for greater improvement in pts with more elevated CRP (Table). Improvements were sustained or further improved at Wk156 in all groups (Table).

Abstract SAT0288 – Table 1. Summary of Clinical Efficacy

Clinical outcomes	Wk	Normal BL CRP (<5mg/L)		Elevated BL CRP					
		SEC (N=72)	PBO (N=71)	SEC (N=38)	PBO (N=31)	SEC (N=19)	PBO (N=31)	SEC (N=68)	PBO (N=62)
ASAS20, %	16	56.9 ^b	28.2	42.1	32.3	68.4 ^b	29.0	73.5*	27.4
	156	61.3	–	65.0	–	82.8	–	85.0	–
ASAS40, %	16	34.7 ^c	7.0	31.6	16.1	42.1	22.6	48.5*	11.3
	156	42.4	–	50.0	–	76.4	–	67.9	–
BASDAI, LS mean change from BL	16	-2.2 ^c	-1.0	-1.5	-0.7	-2.8 ^c	-0.6	-2.8*	-0.6
	156	-2.7	–	-2.8	–	-3.6	–	-3.7	–
BASDAI50, %	16	27.8 ^b	7.0	34.2	19.4	42.1 ^b	6.5	41.2*	8.1
	156	40.4	–	56.1	–	75.5	–	58.5	–
ASDAS inactive disease, %	16	19.4 ^c	4.2	21.1	6.5	26.3	0	8.8	1.6
	156	28.9	–	28.5	–	16.9	–	15.1	–
ASAS PR, %	16	12.5	2.8	23.7 ^c	3.2	15.8	3.2	11.8	4.8
	156	14.4	–	34.6	–	33.4	–	30.2	–

*P<0.0001, ^bP<0.001, ^cP<0.01, ^dP<0.05 vs PBO; NRI/MMRM data presented at Wk16. MI and MMRM presented at Wk156 included n=56 in normal and n=32, 18, and 53 in >5 to 10, >10 to 15, and >15mg/L elevated CRP groups, respectively. Data included pts (87/125) continuing in the extension trial for MEASURE 1 and all pts for MEASURE 2 at Wk156. LS, least squares; N, number of pts with available BL CRP at Wk16; n, number of pts at Wk156.

Conclusions: SEC 150 mg demonstrated sustained efficacy through 3 years in AS patients with both normal and elevated CRP levels, with an increased effect in elevated CRP patients.

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