31 EFFICACY OF TNF SWITCH AFTER FAILURE OF ONE TNF INHIBITOR – RESULTS FROM A NATION-WIDE OBSERVATIONAL STUDY

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10.1136/annrheumdis-2011-201230.31

Background/purpose The purpose of this study was to determine whether patients who failed one anti-TNF benefit from switching to another anti-TNF and whether the specific order of agents and reason for switch is significant.

Methods Data from the ARTIS registry were used. Patients with RA, who received an anti-TNF (etanercept (ETA), adalimumab (ADA) or infliximab (INF)) as first biologic and subsequently switched to an alternative anti-TNF, were included in the analysis. Treatment segments were analysed according to DAS28 and HAQ reduction and EULAR response at 6 months after baseline. Treatment results were analysed for each biologic, by type of previous anti-TNF and reason for discontinuation (primary and secondary inefficacy or intolerance). Multiple treatment segments with the same anti-TNF were disregarded for this analysis.

Results A total of 1080 patients were included. Of these, 520 switched to ETA, 466 to ADA, and 94 to INF. Complete data were available for appr. 50% of patients and were evenly distributed between groups. At baseline (BL=start of 2nd anti-TNF) no differences in age, sex, disease duration, RF, HAQ and concomitant NSAIDs were observed between groups. BL

Table 1 Efficacy of the second anti-TNF assessed by DAS28 (mean±SD) and HAQ (mean±SD), reductions at 6 months from baseline, accordning to the type of previous antiTNF and reason for discontinuation. (Number of patients)

		DeltaDAS28 6m		DeltaHAQ 6m	
First anti-TNF	**Second anti-TNF**	**Mean±SD**	**p Value***	**Mean±SD**	**p Value***
ETA	ADA	0.93±1.21 (154)	0.34	0.12±0.43 (164)	0.70
	INF	1.24±1.40 (36)		0.18±0.44 (36)	
ADA	ETA	1.39±1.46 (121)	0.88	0.25±0.44 (127)	0.25
	INF	0.91±1.16 (10)		–0.02±0.67 (10)	
INF	ETA	1.75±1.47 (145)	0.30	0.26±0.57 (145)	0.82
	ADA	1.16±1.56 (63)		0.19±0.43 (68)	
Reason discontinuation first anti-TNF					
Intolerance	ETA	1.68±1.47 (62)	0.85	0.30±0.46 (61)	0.17
	INF	1.32±0.90 (6)		0.20±0.11 (5)	
	ADA	1.24±1.79 (46)		0.06±0.42 (53)	
Primary inefficacy	ETA	1.56±1.45 (82)	0.13	0.25±0.58 (87)	0.86
	INF	1.23±1.33 (17)		0.13±0.66 (19)	
	ADA	1.02±1.03 (63)		0.16±0.40 (65)	
Secondary inefficacy	ETA	1.65±1.41 (83)	0.02†	0.25±0.48 (86)	0.92
	INF	1.04±1.11 (12)		0.14±0.50 (10)	
	ADA	0.99±1.16 (59)		0.20±0.45 (62)	

*adjusted for BL age, sex, DAS28, conc DMARDs and glucocorticoids.
†ETA vs ADA p=0.005.

DAS28 (mean±SD) was significantly lower for ADA (4.79±1.32) than ETA (5.15±1.32, p<0.0001) and INF (5.13±1.22, p=0.04). INF was more often combined with DMARDs (81.9%) than ETA (69.3%, p=0.007) and ADA (65.7%, p=0.001), but less often with glucocorticoids (39.4%) than ETA (51.2%, p=0.02) and ADA (50.6%, p=0.03).

Significant clinical improvements were observed for the whole cohort of patients. DAS28 improvement at 6 months was 1.59±1.47 for ETA, 1.17±1.35 for INF and 1.00±1.32 for ADA (p=0.002 ETA vs ADA, p=0.29 ETA vs INF; p values adjusted for age, sex, BL DAS28, conc DMARDs and glucocorticoids). HAQ improvement at 6 months =0.26±0.52 for ETA, 0.14±0.50 for INF and 0.14±0.43 for ADA (adjusted p=0.42 ETA vs INF, p=0.23 ETA vs ADA). The percentages of EULAR Good/Moderate/Non-responders were 28/43/29% for ETA, 21/46/33% for INF and 17/45/38% for ADA (p=0.02 between groups). In table 1 the effectiveness of each anti-TNF by type and reason for discontinuation of the previous anti-TNF is summarised.

Conclusions In this large observational cohort, patients who failed anti-TNF therapy do benefit from switching to other TNF inhibitors. ETA as 2nd anti-TNF yielded significantly greater DAS28 reductions than INF and ADA, but due to the relatively large number of incomplete data this finding must be interpreted with caution. For patients who discontinued anti-TNF because of secondary inefficacy, switching to ETA appeared more effective than switching to ADA.