

Conclusions

In all treatment groups health-related quality of life (HRQoL) improved in patients with long-standing rheumatoid arthritis beyond control of disease activity and physical function.

Since patients maintained the level of improvement between months 12 and 24, the benefit in HRQoL can be considered as a sustainable effect of treatment.

Background

Health-related quality of life (HRQoL) has been identified as a key indicator of disease burden in chronic diseases such as rheumatoid arthritis (RA).

Objectives

To measure the effectiveness of biologic and non-biologic DMARDs on physical and mental health as two main dimensions of HRQoL in patients with long-standing RA.

Results

Patients' baseline characteristics

	nbDMARDs	ABA	Anti-TNF*	RTX	TOC
N	254	109	1 040	461	268
Female (%)	75	80	75	80	80
RF positive (%)	71	74	77	84	77
Age	62	55	57	59	58
Disease duration	10.5	13.1	10.6	14.1	11.8
No. previous DMARDs	2.2	3.2	2.8	2.9	2.8
Disease activity (DAS28)	5.0	5.6	5.2	5.5	5.6
% of full physical function	63	55	64	53	59

IF not indicated otherwise, mean values are presented; standard deviations are similar in all groups. *Abbreviations:* nbDMARDs non-biologic DMARDs, ABA abatacept, RTX rituximab, TOC tocilizumab, RF rheumatoid factor. *Anti-TNF: adalimumab, certolizumab pegol, etanercept, golimumab, infliximab.

1. Physical and mental health improved in RA patients considerably within the first 12 months after treatment onset.
2. The degree of improvement was higher in patients treated with biologics compared to patients treated with non-biologic DMARDs.
3. Patients adhered to the level of improvement between months 12 and 24, irrespective of the therapy variant.

Two-year course of SF36 physical and mental health scores

		Baseline	95% CI	At month 12	95% CI	At month 24	95% CI
Physical health scores	nbDMARDs	35.1	[32.2 - 38.0]	44.0	[40.6 - 47.3]	43.1	[39.0 - 47.2]
	ABA	33.3	[28.9 - 37.7]	42.4	[36.6 - 48.3]	41.3	[33.7 - 48.9]
	Anti-TNF*	32.0	[30.4 - 33.5]	45.2	[43.5 - 47.0]	46.6	[44.3 - 48.9]
	RTX	33.6	[31.3 - 35.9]	45.8	[43.1 - 48.6]	46.1	[43.1 - 49.2]
	TOC	31.8	[29.0 - 34.7]	48.4	[45.0 - 51.7]	51.6	[47.1 - 56.0]
Mental health scores	nbDMARDs	51.7	[48.4 - 55.0]	58.0	[54.2 - 61.7]	55.8	[51.2 - 60.4]
	ABA	48.7	[43.7 - 53.7]	57.5	[51.1 - 64.0]	53.9	[45.5 - 62.2]
	Anti-TNF*	49.7	[47.9 - 51.5]	58.8	[56.7 - 60.8]	59.2	[56.6 - 61.8]
	RTX	50.6	[47.9 - 53.3]	60.0	[56.8 - 63.1]	58.7	[55.2 - 62.1]
	TOC	51.5	[48.2 - 54.8]	61.9	[58.1 - 65.7]	63.3	[58.4 - 68.3]

Methods

The German biologics register RABBIT observes RA patients starting newly a treatment with a biologic or a non-biologic DMARD after at least one DMARD failure. Patients with a minimal observation time of 12 months were included in the present analysis. Patient-reported HRQoL was captured by the SF-36 health survey.

Propensity score matching was used to adjust for baseline differences between the intention-to-treat groups. Missing data due to therapy switching or drop out processes were considered by multiple imputation.

The two-year course of HRQoL was predicted by multi-level modelling adjusted for the baseline variables sex, rheumatoid factor, disease duration, joint erosions, disease activity (DAS28), and physical function (FFbH).

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