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Deadline for submission of abstracts: 24 June 2013 (Noon Eastern Time)

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Benefits of Early Onset of DAS28 (CRP) <2.6 on Physical Functioning, Quality of Life and Resource Use Among RA Patients in a Clinical Practice Setting

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Background/Purpose: Guidelines in RA recommend that treatment should be aimed at reaching a target of remission or low disease activity (LDA) as soon as possible, and that treatment should be adjusted frequently (every 3–6 months) in patients (pts) not at target. However, there are limited data from clinical practice on the benefits of attaining rapid remission/LDA. The objective of the current analysis was to compare the clinical and resource use benefits of attaining LDA (DAS28 [CRP] <2.6) within 1 yr in pts with RA in a clinical practice setting.

Methods: Pts enrolled in the Brigham and Women's Hospital Rheumatoid Arthritis Sequential Study (BRASS) Registry, established in 2003, were analyzed. The BRASS Registry mostly comprises pts with established RA who were evaluated semi-annually on multiple clinical patient-reported outcomes and resource utilization parameters. The current analysis is based on the first 5 yrs of pt follow-up in BRASS and includes pts who were not at DAS28 (CRP) <2.6 at baseline. Pts attaining DAS28 (CRP) <2.6 at 1-yr follow-up were considered as 'DAS <2.6 Soon' and those attaining DAS (CRP) <2.6 later than 1 yr were considered as 'DAS <2.6 Late'. Clinical (physical functioning measured by MHAQ), quality of life (QoL; measured by EQ-5D, SF-12 physical component summary [PCS], Patient Health Questionnaire-9 [PHQ-9]); and resource utilization (hospitalization, ER visits, durable

medical equipment [DME] use) outcomes up to 5 yrs were compared in univariate analysis between pts attaining 'DAS <2.6 Soon' vs 'DAS28 <2.6 Late'. To control for differences in baseline covariates, generalized linear models were used for continuous outcomes of HAQ, SF-12, EQ-5D and PHQ-9; logit models were used for categorical outcomes of resource use. Covariates in the multivariate analysis included baseline demographics, duration of RA disease, smoking status, baseline disease status, and treatment.

Results: 417 pts with RA were included in the current analysis: 151 (36.2%) were 'DAS <2.6 Soon' and 266 (63.8%) were 'DAS <2.6 Late'. At baseline, pts in the two groups were similar, respectively, in sex (83 vs 84% females), mean age (SD) (54.2 [12.7] vs 58.3 [13.0] yrs) and never smoked status (53.0 vs 48.9%). Fewer pts in the 'DAS <2.6 Soon' group were on biologic DMARDs than in the 'DAS <2.6 Late' group (31.1 vs 38.7%, respectively). Pts in the 'DAS <2.6 Soon' group had significantly better MHAQ and QoL, as well as fewer hospitalizations, DME use and ER visits in univariate analysis than the 'DAS28 <2.6 Late' group. Similar findings for all outcomes, except hospitalization/ER visits, were observed in multivariate analysis (see table).

Table: Difference in Outcomes at 1 year and 2 years in Patients Attaining DAS28 <2.6 Soon vs Late

Outcomes	**1-year post evaluation**		**2-year post evaluation**	
	Mean difference between DAS <2.6 Soon vs Late	**p-value**	**Mean difference between DAS <2.6 Soon vs Late**	**p-value**
HAQ	–0.127	0.003	–0.097	0.0213
SF-12 PCS	Not available	–	3.84	0.0034
PHQ-9	Not available	–	–1.16	0.0035
EQ-5D	0.057	0.0001	0.036	0.0234
	Odds ratio for DAS <2.6 Soon vs Late	95 % CI	Odds ratio for DAS <2.6 Soon vs Late	95 % CI
Hospitalization	0.57	0.29–1.12	0.58	0.24–1.42
DME use	0.55	0.32–0.92	0.49	0.26–0.92
ER	1.17	0.34–4.03	1.52	0.40–5.68

Conclusion: Pts achieving LDA within 1 year benefit more (i.e. more improvement in HAQ and QoL outcomes and lower DME use during follow-up) vs those attaining LDA later. Programs geared towards earlier achievement of guideline targets can improve overall clinical and economic outcomes in RA.

APPENDIX

Key words: Cardiovascular disease, risk management, rheumatoid arthritis

Submission category: Health Services Research, Quality Measures and Quality of Care

Preferred presentation format: No preference

Additional Information

Research Method:	Observational
Type of Trial:	Epidemiologic or Observational
Type of Trial Phase:	Other ->

Track: Clinical practice

Primary research method: Observational

Study sponsor statement: Bristol-Myers Squibb. The study sponsor provided funding for the completion of the study and the development of the abstract.

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