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Deadline for submission of abstracts: 24 June 2014 (Noon Eastern Time)

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Comparisons of Quality of Life, Resource Use and Physical Functioning in RA Patients Classified as High, Moderate or Low Risk for Rapid Radiographic Progression

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Background/Purpose: We developed and validated a prognostic model to identify subjects with elevated risk of rapid radiographic progression (RRP). The objective of this study was to compare differences in quality of life (QoL), resource use and clinical outcomes at 12 months in patients classified with high, moderate and low baseline risk of RRP by the prognostic model.

Methods: In a longitudinal cohort of RA patients with clinical and radiographic data in an outpatient setting, we applied the prognostic model to calculate the baseline probability of RRP. Variables to determine the probability of RRP in the prognostic model included seropositivity, body weight, disease duration, DAS28 (CRP) and total Sharp score. Based on the calculated probability of RRP, patients were categorized into low risk (probability 0 to 0.25), moderate risk (0.25 to 0.75) and high risk (>0.75) of RRP. The categorization was based on visual inspection of probability plots. QoL outcome measured by EQ5D, healthcare resource use (nursing home visits, home healthcare visits, surgeries, durable medical

equipment use, hospitalization and ER visits) and clinical outcome of physical functioning measured by mHAQ at 12 months were compared by baseline RRP risk groups of low, moderate and high using analysis of variance for continuous variables and Chi-square test for categorical variables.

Results: In the RA cohort, 942 (72.6%) patients had adequate data to calculate RRP. Of these, 414 (43.9%) were classified as low, 477 (50.6%) as medium and 51 (5.4%) as high risk of RRP at baseline. Patients in the low-risk group when compared with those in the moderate- and high-risk groups tended to be younger, have a lower number of swollen or tender joints (mean [SD] 9.4 yrs [11.5], 19.8 [14.2], 33.1 [12.9], respectively), and less likely to be treated with a biologic DMARD. Patients in the low- versus high-risk groups had higher QoL, lower resource use and higher physical functioning at 12 months (Table).

Table: QoL, Resource Use and Physical Functioning at 12 Months in Patients at Low, Moderate and High Baseline Risk of RRP

Outcomes	Low Risk of RRP	Moderate Risk of RRP	High Risk of RRP
EQ5D, mean (SD)**	0.83 (0.14)	0.79 (0.15)	0.72 (0.19)
ER visits, % of pts*	23.4	25.1	38.2
Nursing home visits, % of pts*	2.4	2.7	14.6
Home healthcare visits, % of pts*	4.8	13.5	36.0
Surgeries, % of pts*	15.4	25.4	38.2
DME use, % of pts*	21.0	33.2	58.4
Hospital visits, % of pts*	13.3	20.4	37.1
mHAQ, mean (SD)**	0.39 (0.42)	0.65 (0.50)	0.72 (0.19)

*p<0.05 based on Chi-square test; **p<0.05 based on analysis of variance

Conclusion: Patients categorized as having high risk of future RRP at baseline (compared with moderate and low risk of RRP) had worse outcomes at 12 months for QoL, resource utilization and physical functioning. These findings suggest that therapies are needed to improve QoL and resource utilization in these high-risk patients.

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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