PHYSICIAN VARIATION IN DOCUMENTATION OF RHEUMATOID ARTHRITIS QUALITY MEASURES AND EVALUATION OF RELATIONSHIP WITH RADIOGRAPHIC PROGRESSION

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BACKGROUND

Documentation of quality measures (QMs) in rheumatoid arthritis (RA) has been proposed as a way to demonstrate quality of care.

Data linking appropriate documentation to improved clinical outcomes are lacking.

We examined the variation in physician documentation of RA QMs on disease activity and functional status and the association with radiographic outcomes.

METHODS

We studied a subset of 286 patients participating in a longitudinal RA cohort followed from 2003-2008 at an academic medical center with complete data on total sharp score (TSS) (2 hand x-rays approximately 2 years apart).

All clinical notes from 18 different rheumatologists during a 24-month period preceding the date of the second hand x-ray were examined for the presence or absence of the RA QMs on disease activity and functional status.

Disease activity QM documentation was defined as mention of disease activity assessment in the medical record, with details categorizing disease activity into low, medium or high.

Functional status QM documentation was defined as mention of how RA impacted activities of daily living.

Change in TSS was defined as an annualized progression rate anddichotomized as progression (≥ 1U per year) or no progression (<1U per year).

We examined: patient visits per MD per year; RA QM documentation as either disease activity, functional status or both; and mean % of visits with RA QM documentation.

We compared the mean change in TSS across patients grouped by percentage of visits meeting a QM, i.e., none or some documentation of disease activity and functional status.

RESULTS

Table 1: . Baseline characteristics (with p-value) for QM study patients (N=286) with/without QM measurements

Variable	Patients with at least 1 QM n=222 (77.6%)	Patients with no QM n=64 (22.4%)	P-value
Age	56.02±14.01	59.22±12.95	0.10
Gender (FEMALE)	185(83.3%)	49 (76.6%)	0.21
Disease duration	9.61±10.61	13.06±11.31	**0.02**
Disease activity score (DAS28)	3.64±1.56	4.12±1.44	**0.03**
Functional status score (MDHAQ)	0.59±0.49	0.52±0.44	0.30
Rheumatoid factor (RF) positive	127 (57.9%)	34 (55.7%)	0.75
Cyclic citrillunated peptide (CCP) antibody positive	120 (55.6%)	36 (56.3%)	0.92
Seropositive (either RF or CCP positive)	148 (67.3%)	39 (60.9%)	0.34
Steroid use- (Present taking steroid)	70 (31.5%)	16 (25.0%)	0.31
Non-biologic DMARD	163 (73.4%)	56 (87.5%)	**0.01**
Biologic DMARD	67 (30.2%)	23 (35.9%)	0.38

Table 2: Table. Differences in RA visits and QM documentation by rheumatologist

MD	Study sample patients N (%)	Patient visits per year Mean (min-max)	Disease activity at least once N (%)	Functional status at least once N (%)	Both QMs at least once N (%)	% of visit with QM (mean)	
N=7*	N=242	24-month follow-up	24-month follow-up	24-month follow-up	24-month follow-up	Disease activity	Functional status
A	50 (20.7)	8.6 (3-14)	4 (8)	27 (54)	1 (2)	1.6	22.0
B	20 (8.3)	9 (6-12)	0	12 (60)	0	0.0	11.0
C	28 (11.6)	8.9 (4-15)	9 (32.1)	18 (64.3)	3 (10.7)	8.8	19.2
D	10 (4.1)	6.9 (4-12)	3 (30)	4 (40)	1 (10)	11.3	11.2
E	10 (4.1)	9.4 (5-16)	3 (30)	7 (70)	1 (10)	5.0	18.3
F	21 (8.7)	8 (4-19)	3 (14.3)	21 (100)	1 (4.8)	2.5	46.8
G	103 (42.6)	7.8 (3-18)	42 (40.8)	90 (87.4)	22 (21.4)	8.5	53.7

** The 7 rheumatologists represented in this table contributed at least 10 patients to the study sample*

RESULTS

The mean age of our patients was 57.0 (±14.0) years, 82.0% were female, mean disease duration was 10.4 (±10.9) years, baseline DAS28 score was 3.7 (±1.5) and 65.9% were either RF or CCP positive.

76.6% of patients were on a non-biologic and 31.5% were on a biologic DMARD. Radiographic progression of RA was reported in 27.0% of patients.

There was at least one chart note with documentation of disease activity for 26.0% of patients and functional status for 75.0%, during the 24-month period.

For the seven rheumatologists with at least 10 patients in the study, there was variation in the number of visits per patient per year and documentation of disease activity and functional status in chart notes (Table).

In unadjusted analyses, there was no relationship between performance on either disease activity (p=0.6) or functional status (p=0.5) and change in TSS.

CONCLUSION

Among this cohort of RA patients with established disease, overall documentation of RA QMs on disease activity and functional status was inconsistent across rheumatologists.

We did not find an association between the % of visits with an RA QM documented and radiographic outcome over a 24-month follow-up period.