

Quality of Primary Care Management of Patients with and without Rheumatoid Arthritis (RA)

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Abstract:

Background/Purpose: Little is known about the quality of care received by patients with multiple chronic conditions in primary care and whether quality care is different for those with RA. Our aims were to evaluate the burden of specific types of co-morbidity and compare quality of care by primary care physicians for patients with and without RA.

Methods: We used the Electronic Medical Record Administrative data Linked Database (EMRALD), comprised of 163,039 adult patients from 271 primary care physicians in Ontario, Canada. We used a validated EMR-based algorithm with a 74.4% sensitivity, 99.9% specificity, 90.0% PPV, and 99.7% NPV for identifying patients with RA. All patients not identified by the algorithm were classified as non-RA patients. Validated diseasespecific EMR-based algorithms were also used to identify patients with hypertension (HTN), diabetes mellitus (DM), and ischemic heart disease (IHD). Quality measures were adapted from published guidelines and expert opinion for each specific comorbidity. They include preventative (eg. vaccinations), screening (eg. cardiovascular risk control) and comorbidity management and treatment measures. Stratified analyses were performed among patients with vs without RA to identify the frequency of comorbidity and to assess performance of key process and outcome measures. Process measures indicating whether tests or assessments have been performed (eg. patients with DM whose HbA1c level were performed) were determined. Outcome measures reflect the results of the assessments (eg. patients with DM and HbA1c < 7.0%). Logistic regression was used to adjust for age and sex for comparison between RA and non-RA patients.

Results: We identified 1,427 RA patients (prevalence 0.9%) and 74% were female. The average age of the RA and non-RA patient groups were 62 years and 51 years, respectively. Unadjusted for age and sex, RA patients had a higher documentation of influenza vaccinations and bone mineral density (BMD) tests than non-RA patients (table). RA patients also had significantly higher prevalence of HTN (39% vs 25%), DM (14% vs 10%), and IHD (10% vs 5%). Process measures in terms of the numbers of patients who were routinely monitored and treated for the management of these chronic conditions were similar in patients with and without RA. After adjusting for age and sex, no differences were observed between the groups on all measures except that RA patients were more likely to receive pneumococcal vaccinations and undergo BMD tests.

Conclusion: Ontario primary care physicians provide similar quality of care for patients with and without RA. Pneumococcal vaccination and BMD tests were more frequent among RA patients, likely due to corticosteroid/immunosuppressant use. Further research is required to evaluate how 'shared care' between primary care physicians and rheumatologists can optimize prevention and screening measures to help decrease the development of comorbidity in RA.