We determined rates and predictors of future development of fibromyalgia in patients with rheumatoid arthritis (RA). After excluding patients with fibromyalgia and those with high levels of fibromyalgia symptoms (fibromyalgianess score > 10) at baseline, we studied fibromyalgia development in 9739 RA patients during 42,591 patient-years of follow-up. We defined fibromyalgia using a modification of the ACR 2010 fibromyalgia criteria. We used Cox regression to predict future fibromyalgia, and examined the accuracy of predictions using Harrell's C concordance coefficient. At the last observation, 7.4% of patients satisfied criteria, although 19.8% satisfied criteria at some point during follow-up, an incidence rate of 5.3 (95% CI 5.1, 5.6) per 100 patients years, and at rates that were similar in men (7.0%) and women (8.1%). Among those satisfying criteria, during 11,363 years of follow-up from the time of first fibromyalgia diagnosis, half of follow-up time was fibromyalgia+ and was associated with markedly abnormal RA variable and FM variable scores. Demographic factors were weak predictors of fibromyalgia (C=0.604). Demographic plus RA variables (C=0.720) and demographic plus fibromyalgia variables (C=0.765), and all predictors (C=0.782) increased accuracy. Clinically important hazard ratios were noted for cognition, depression, comorbidity, and high levels of RA and FM continuous variables. Overall, study results
indicate that multiple, inter-correlated factors that include social disadvantage, psychological distress, comorbidity, RA severity, and fibromyalgia variables predict future development of fibromyalgia, but there is little evidence of the effect of underlying causes. After diagnosis, patients move in both directions across the diagnostic criteria cut points.