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Dr. Gunderson et al reply

To the Editor:

We thank Drs. Liao, Liao, and Liaw for their interest in our article on multimorbidity burden in patients with rheumatoid arthritis (RA). We agree that not all morbidities were included in the assessment of multimorbidity in our article, and further research is warranted to more comprehensively assess multimorbidity in patients with RA.

We agree that extraarticular manifestations are important and that Felty syndrome (FS) contributes to multimorbidity in patients with RA. However, in our past work, we have found that FS occurs in only 0.5% of patients with RA within the first 10 years of RA disease duration.² Thus inclusion of FS would have little effect on our estimates of the overall burden of multimorbidity in patients with RA.

We also agree with the inclusion of osteoporosis as a multimorbidity. In fact, we did include spine, hip, and leg fractures from the Rheumatic Disease Comorbidity Index in our article. While inclusion of fractures rather than a diagnosis of osteoporosis will exclude some of the patients with bone loss, the patients with fractures have more severe osteoporosis that is more likely to be symptomatic and have an effect on quality of life.

We also agree that data on alcohol intake could be helpful in understanding the relationship between RA and multimorbidity. Unfortunately, these data are not available in our retrospective cohort study. We did include alcohol abuse as a morbidity in our analysis. Alcohol abuse occurred in 3% of patients with RA within the first 10 years of RA disease duration and was not more common in patients with RA than in comparators. 1

We are currently working on additional research that involves a more comprehensive assessment of multimorbidity in patients with RA and hope to publish it soon.

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REFERENCES

- Gunderson TM, Myasoedova E, Davis JM 3rd, Crowson CS. Multimorbidity burden in rheumatoid arthritis: a population-based cohort study. J Rheumatol 2021;48:1648-54.
- Myasoedova E, Crowson CS, Turesson C, Gabriel SE, Matteson EL. Incidence of extraarticular rheumatoid arthritis in Olmsted County, Minnesota, in 1995-2007 versus 1985-1994: a population-based study. J Rheumatol 2011;38:983-9.
- England BR, Sayles H, Mikuls TR, Johnson DS, Michaud K. Validation of the rheumatic disease comorbidity index. Arthritis Care Res 2015;67:865-72.

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