continued long-term, barring toxicities. Discontinuation might be considered in patients in sustained remission (i.e., several years), with the anticipation that only one-third of patients would not experience relapse. Patient preferences should help guide this decision.

Tapering of TNFi could entail a change in either the dose or frequency of administration. Two controlled unblinded trials of tapering etanercept to 25 mg weekly versus maintaining the dose at 50 mg weekly in patients with stable AS showed that remission or partial remission was somewhat less likely among those in whom etanercept was tapered (34,35). In small observational studies, 53–70% of patients were still receiving their reduced dose at 2 years, but there is little evidence regarding maintenance of long-term remission after tapering of TNFi (see Supplementary Appendix 6, available at http://onlinelibrary.wiley.com/doi/10.1002/art.41042/abstract). Therefore, the panel recommended against tapering of biologics as a standard approach. One condition in which tapering could be considered would be in patients with prolonged stable AS, if the patient and provider engage in shared decision-making.

In adults with stable AS receiving an originator TNFi, we strongly recommend continuing treatment with the originator TNFi over mandated switching to its biosimilar (new, PICO 63).

While the efficacy of originator and biosimilar TNFi is comparable, and although either could be chosen to initiate new courses of TNFi treatment, it was the opinion of the panel to recommend against mandated switching to a biosimilar during the course of treatment, in the absence of evidence of interchangability. Medication changes can increase the risk of destabilizing a patient's condition, and the panel judged that additional data were needed to understand the frequency of potential problems and concerns associated with switching patients who were stable on an originator TNFi to its biosimilar. Given these concerns, the panel judged that there should be a compelling rationale for switching medications, particularly in light of the marginal cost savings apparent for US patients (36).

C. Recommendations for adults with AS-related comorbidities

In adults with AS and recurrent uveitis, we conditionally recommend treatment with TNFi monoclonal antibodies over treatment with other biologics (PICO 29).

Evidence for this recommendation is limited to indirect comparisons of the rates of acute uveitis episodes in clinical trials or observational studies, rather than from direct comparisons (see Supplementary Appendix 6, available at http://onlinelibrary.wiley.com/doi/10.1002/art.41042/abstract). Many reports showed overall rates of uveitis without separately reporting recurrences as opposed to incident episodes (37). The rates were generally lower for adalimumab and infliximab compared to etanercept. For example, a large observational study demonstrated rates of uveitis (per 100 patient-years) in patients receiving adalimumab, infliximab, and etanercept of 13.6, 27.5, and 60.3, respectively, compared to pretreatment rates of 36.8, 45.5, and 41.6, respectively (38). Adalimumab or infliximab are preferred over etanercept for the treatment of AS in patients with recurrent uveitis. Certolizumab or golimumab may also be considered, although supporting data are less substantial (39,40). Data from clinical trials suggest that rates of uveitis flares were not different between patients with AS treated with secukinumab and those treated with placebo, but more evidence is needed. Secukinumab was not efficacious in the treatment of panuveitis or posterior uveitis (41). Rates of uveitis flares among patients treated with ixekizumab have not been well-defined.

In adults with AS and IBD, we conditionally recommend treatment with TNFi monoclonal antibodies over treatment with other biologics (PICO 32).

This recommendation was based on limited indirect evidence on the risks of flares or new onset of IBD among patients with AS during treatment with biologics, and the much larger literature on the treatment of IBD in general. Patients with AS treated with infliximab or adalimumab have lower risks of IBD exacerbations than those treated with etanercept (see Supplementary Appendix 6, on the *Arthritis & Rheumatology* web site at http://onlinelibrary.wiley.com/doi/10.1002/art.41042/abstract). Infliximab, adalimumab, and certolizumab are approved for the treatment of Crohn's disease, and infliximab, adalimumab, and golimumab are approved for the treatment of ulcerative colitis, while etanercept is not approved for either condition (42,43). This evidence is the basis for the recommendation favoring TNFi monoclonal antibody use in patients with AS and coexisting IBD. The choice of the particular TNFi monoclonal antibody should be made in consultation with the patient's gastroenterologist. Secukinumab has been associated with the new onset, or exacerbation, of Crohn's disease (44–46). Increased risks of IBD exacerbation appear to also occur with ixekizumab (47).

D. Recommendations for the treatment of patients with either active or stable nonradiographic axial spondyloarthritis

Parallel questions on pharmacologic treatment were investigated for patients with nonradiographic axial SpA. There were no relevant published data for 19 questions. There was high-quality evidence only for the use of TNFi in nonradiographic axial SpA, which was examined in several clinical trials. Low-quality or very low-quality evidence from single studies suggested no differences in outcomes among different TNFi in nonradiographic axial SpA, high likelihood of relapse following discontinuation of TNFi, and no association between co-treatment with nonbiologics and TNFi persistence (see Supplementary Appendix 6, available at http://onlinelibrary.wiley.com/doi/10.1002/art.41042/abstract).