Ankylosing Spondylitis Treatment Guidelines

Ankylosing spondylitis (SA) is a chronic inflammatory disease that primarily affects the spine, causing pain and stiffness. It can also affect other joints such as the hips and shoulders. While there is no cure for AS, there are various treatment options available to manage symptoms and improve quality of life.

These treatment recommendations are from the latest guidelines from the American College of Rheumatology (ACR)/ Spondylitis Association of America (SAA)/Spondyloarthritis Research and Treatment Network (SRTN).

Recommendations for adults with active AS

- 1. The ACR/SAA/SRTN strongly recommends treatment with NSAIDs over no treatment with NSAIDs.
- 2. The ACR/SAA/SRTN conditionally recommends continuous treatment with NSAIDs over ondemand treatment with NSAIDs.
- 3. The ACR/SAA/SRTN does not recommend any particular NSAID as the preferred choice.
- 4. In adults with active AS, despite treatment with NSAIDs, the ACR/SAA/SRTN conditionally recommends treatment with sulfasalazine, methotrexate, or tofacitinib over no treatment with these medications. Sulfasalazine or methotrexate should be considered only in patients with prominent peripheral arthritis or when TNFi are not available.
- 5. In adults with active AS, despite treatment with NSAIDs, the ACR/SAA/SRTN conditionally recommends treatment with TNFi over treatment with tofacitinib.
- 6. In adults with active AS, despite treatment with NSAIDs, the ACR/SAA/SRTN strongly recommends treatment with TNFi over no treatment with TNFi.
- 7. the ACR/SAA/SRTN does not recommend any particular TNFi as the preferred choice.
- 8. In adults with active AS, despite treatment with NSAIDs, the ACR/SAA/SRTN strongly recommends treatment with secukinumab or ixekizumab over no treatment with secukinumab or ixekizumab.
- 9. In adults with active AS, despite treatment with NSAIDs, the ACR/SAA/SRTN conditionally recommends treatment with TNFi over treatment with secukinumab or ixekizumab.
- 10. In adults with active AS, despite treatment with NSAIDs, the ACR/SAA/SRTN conditionally recommends treatment with secukinumab or ixekizumab over treatment with tofacitinib.
- 11. In adults with active AS despite treatment with NSAIDs and who have contraindications to TNFi, the ACR/SAA/SRTN conditionally recommends treatment with secukinumab or ixekizumab over treatment with sulfasalazine, methotrexate, or tofacitinib.
- 12. In adults with active AS despite treatment with the first TNFi used, the ACR/SAA/SRTN conditionally recommend treatment with secukinumab or ixekizumab over treatment with a different TNFi in patients with primary nonresponse to TNFi.
- 13. In adults with active AS, despite treatment with the first TNFi used, the ACR/SAA/SRTN conditionally recommends treatment with a different TNFi over treatment with a non-TNFi biologic in patients with secondary nonresponse to TNFi.
- 14. In adults with active AS, despite treatment with the first TNFi used, the ACR/SAA/SRTN strongly recommends against switching to treatment with a biosimilar of the first TNFi.
- 15. In adults with active AS, despite treatment with the first TNFi used, the ACR/SAA/SRTN conditionally recommends against the addition of sulfasalazine or methotrexate in favor of treatment with a new biologic.
- 16. The ACR/SAA/SRTN strongly recommends against treatment with systemic glucocorticoids.

- 17. In adults with isolated active sacroiliitis, despite treatment with NSAIDs, the ACR/SAA/SRTN conditionally recommends treatment with locally administered parenteral glucocorticoids over no treatment with local glucocorticoids.
- 18. In adults with stable axial disease and active enthesitis despite treatment with NSAIDs, the ACR/SAA/SRTN conditionally recommends using treatment with locally administered parenteral glucocorticoids over no treatment with local glucocorticoids. Peri-tendon injections of the Achilles, patellar, and quadriceps tendons should be avoided.
- 19. In adults with stable axial disease and active peripheral arthritis despite treatment with NSAIDs, the ACR/SAA/SRTN conditionally recommends using treatment with locally administered parenteral glucocorticoids over no treatment with local glucocorticoids.
- 20. The ACR/SAA/SRTN strongly recommends treatment with physical therapy over no treatment with physical therapy.
- 21. The ACR/SAA/SRTN conditionally recommends active physical therapy interventions (supervised exercise) over passive physical therapy interventions (massage, ultrasound, heat).
- 22. The ACR/SAA/SRTN conditionally recommends land-based physical therapy interventions over aquatic therapy interventions.

Recommendations for adults with stable AS

- 23. The ACR/SAA/SRTN conditionally recommends on-demand treatment with NSAIDs over continuous treatment with NSAIDs.
- 24. In adults receiving treatment with TNFi and NSAIDs, the ACR/SAA/SRTN conditionally recommends continuing treatment with TNFi alone compared to continuing both treatments.
- 25. In adults receiving treatment with TNFi and a conventional synthetic antirheumatic drug, the ACR/SAA/SRTN conditionally recommends continuing treatment with TNFi alone over continuing both treatments.
- 26. In adults receiving treatment with a biologic, the ACR/SAA/SRTN conditionally recommends against discontinuing the biologic.
- 27. In adults receiving treatment with a biologic, the ACR/SAA/SRTN conditionally recommends against tapering of the biologic dose as a standard approach.
- 28. In adults receiving treatment with an originator TNFi, the ACR/SAA/SRTN strongly recommends continuing treatment with the originator TNFi over mandated switching to its biosimilar.
- 29. The ACR/SAA/SRTN strongly recommends treatment with physical therapy over no treatment with physical therapy.

Recommendations for adults with active or stable AS

- 30. In adults receiving treatment with TNFi, the ACR/SAA/SRTN conditionally recommends against cotreatment with low-dose methotrexate.
- 31. The ACR/SAA/SRTN conditionally recommends advising unsupervised back exercises.
- 32. The ACR/SAA/SRTN conditionally recommends fall evaluation and counseling.
- 33. The ACR/SAA/SRTN conditionally recommends participation in formal group or individual self-management education.
- 34. In adults with spinal fusion or advanced spinal osteoporosis, the ACR/SAA/SRTN strongly recommends against treatment with spinal manipulation.
- 35. In adults with advanced hip arthritis, the ACR/SAA/SRTN strongly recommends treatment with total hip arthroplasty over no surgery.

36. In adults with severe kyphosis, the ACR/SAA/SRTN conditionally recommends against elective spinal osteotomy.

Recommendations for adults with AS-related comorbidities

- 37. In adults with acute iritis, the ACR/SAA/SRTN strongly recommends treatment by an ophthalmologist to decrease the severity, duration, or complications of episodes.
- 38. In adults with recurrent iritis, the ACR/SAA/SRTN conditionally recommends prescription of topical glucocorticoids over no prescription for prompt at-home use in the event of eye symptoms to decrease the severity or duration of iritis episodes.
- 39. In adults with recurrent iritis, the ACR/SAA/SRTN conditionally recommends treatment with TNFi monoclonal antibodies over other biologics.
- 40. In adults with inflammatory bothe ACR/SAA/SRTNI disease, the ACR/SAA/SRTN do not recommend any particular NSAID as the preferred choice to decrease the risk of worsening of inflammatory bothe ACR/SAA/SRTNI disease symptoms.
- 41. In adults with inflammatory bothe ACR/SAA/SRTNI disease, the ACR/SAA/SRTN conditionally recommends treatment with TNFi monoclonal antibodies over treatment with other biologics.

Disease activity assessment, imaging, and screening

- 42. of the ACR/SAA/SRTN conditionally recommend the regular-interval use and monitoring of a validated AS disease activity measure.
- 43. The ACR/SAA/SRTN conditionally recommends regular-interval use and monitoring of CRP concentrations or ESR over usual care without regular CRP or ESR monitoring.
- 44. In adults with active AS, the ACR/SAA/SRTN conditionally recommends against using a treat-to-target strategy using a target of ASDAS <1.3 (or 2.1) over a treatment strategy based on physician assessment.
- 45. The ACR/SAA/SRTN conditionally recommends screening for osteopenia/osteoporosis with a DXA scan over no screening.
- 46. In adults with syndesmophytes or spinal fusion, the ACR/SAA/SRTN conditionally recommends screening for osteoporosis/osteopenia with DXA scan of the spine as the ACR/SAA/SRTNII as the hips, compared to DXA scan solely of the hip or other non-spine sites.
- 47. The ACR/SAA/SRTN strongly recommends against screening for cardiac conduction defects with electrocardiograms.
- 48. The ACR/SAA/SRTN strongly recommends against screening for valvular heart disease with echocardiograms.
- 49. In adults with AS of unclear activity while on a biologic, the ACR/SAA/SRTN conditionally recommends obtaining a spinal or pelvis MRI to assess activity.
- 50. In adults with stable AS, the ACR/SAA/SRTN conditionally recommends against obtaining a spinal or pelvis MRI to confirm inactivity.
- 51. In adults with active or stable AS on any treatment, the ACR/SAA/SRTN conditionally recommends against obtaining repeat spine radiographs at a scheduled interval (e.g., every two years) as a standard approach.

Ward, M. M., Deodhar, A., Gensler, L. S., Dubreuil, M., Yu, D., Khan, M. A., Haroon, N., Borenstein, D., Wang, R., Biehl, A., Fang, M. A., Louie, G., Majithia, V., Ng, B., Bigham, R., Pianin, M., Shah, A. A., Sullivan, N., Turgunbaev, M., & Oristaglio, J. (2019). 2019 update of the American college of Rheumatology/Spondylitis Association of America/ Spondyloarthritis Research and Treatment Network recommendations for the treatment of ankylosing spondylitis and nonradiographic axial spondyloarthritis. *Arthritis Care & Research*, 71(10), 1285–1299. https://doi.org/10.1002/acr.24025