

SUPPLEMENTARY APPENDIX 3: Outcomes Framework

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 Non-radiographic Axial Spondyloarthritis

The guideline will consider the following outcomes:

- Mortality
- Health status
 - Symptoms (pain, stiffness, fatigue, sleep disturbance, swelling)
 - Measures: e.g., BASDAI, pain scales, SF-36 subscales, fatigue questionnaires
 - Surrogates: physical exam, ASDAS, acute phase reactants, inflammation on imaging
 - Mental health (depression, anxiety)
 - Measures: e.g., SF-36 subscales, CES-Depression scale
 - Quality of life (social interaction, sexual health, body image)
 - Measures: e.g., SF-36 subscales, ASQOL
- Functional status
 - Physical function
 - Measures: e.g., BASFI, HAQ-S, Dougados Functional Index, SF-36 subscales
 - Surrogates: range of motion, BASMI, structural damage on imaging
 - Work ability or school performance
- Serious adverse events
- AS-related morbidities
 - Morbidities include aortic valve disease, pulmonary fibrosis and cavitation, amyloidosis, anemia, IgA nephropathy, NSAID nephropathy, iritis, inflammatory

bowel disease, osteoporosis, vertebral fractures, ischemic heart disease and cauda equina syndrome.

Relevant data will primarily be based on data on the measures. When insufficient data on an outcome are available for measures, data on surrogates will be used to inform guideline development.

These outcomes are ordered in descending priority. Not all outcomes will be considered for each intervention. The matrix below indicates the relevant outcomes to be studied for each type of intervention.

Outcomes Matrix

	Pharmacological therapy	Rehabilitation/physical therapy	Surgical therapy	Preventive care
Mortality	X		X	X
Health Status	X	X	X	X
Functional Status	X	X	X	X
Significant Adverse Events	X		X	X
AS-Related Morbidities	X			X