TREATMENT PATHWAY FOR AXIAL SPONDYLOARTHRITIS (ANKYLOSING SPONDYLITIS) & NON RADIOGRAPHIC AXIAL SPONYLOARTHRITIS

(FOR SPECIALIST INITIATION ONLY)

TARGET AUDIENCE	All clinical staff working within Rheumatology in secondary care.
PATIENT GROUP	Adults with severe and active axial spondyloarthritis (ankylosing spondylitis) and non radiographic axial spondyloarthritis who have responded inadequately or are intolerant to non-steroidal anti-inflammatory drugs (NSAIDs).

Treatment Pathway for Axial Spondyloarthritis (Ankylosing Spondylitis) & Non Radiographic Axial Spondyloarthritis

NHS Lanarkshire

NICE criteria for biologic therapy fulfilled (mNew York criteria or ASAS criteria) Inadequate response / intolerance to NSAIDs & BASDAI ≥4 & Spinal VAS ≥4

Biologic Choice: Consider most effective treatment for the individual with respect to:

- Patient – comorbidities / dosing schedule / ease v's complexity of monitoring & administration
- Cost – Use most cost effective product that is clinically indicated & biosimilar product if available
- Extra-articular manifestations e.g. enthesitis, dactylitis, uveitis, inflammatory bowel disease, psoriasis

	Axial Spondyloarthritis (Ankylosing Spondylitis)	**Non-Radiographic Axial Spondyloarthritis**
1st line biologic	Anti-TNF (adalimumab) (If contraindicated consider bimekizumab, secukinumab)	Anti-TNF (adalimumab) (If contraindicated consider bimekizumab, secukinumab)

First review at 12 weeks (bimekizumab, secukinumab, upadacitinib and tofacitinib 16 weeks)

Is there adequate response to treatment?

(Defined as ≥2 points or 50% improvement from baseline BASDAI and ≥ 2cm improvement in Spinal Pain VAS)

Yes → **Continue & reassess 6-monthly**

No

2nd line biologic	Consider trial of 2nd anti-TNF with a different mode of action if discontinued due to side effects or IL 17 A/F i-Bimekizumab or IL 17Ai-Secukinumab or JAK inhibitor-Upadacitinib, Tofacitinib	Consider trial of 2nd anti-TNF with a different mode of action, if discontinued due to side effects Or IL17 A/F i-Bimekizumab, IL17Ai-Secukinumab Or JAK inhibitor -Upadicitinib

Review at 12 weeks (bimekizumab, secukinumab, upadacitinib 16 weeks) - **Responded**?

No → Stop biologic drug & consider switch

Yes → Continue & reassess 6-monthly

Lead Author	**Sanjiv Nandwani**	**Date approved**	**May 2025**
Version	**1.0**	**Review Date**	**May 2028**

Modified New York Criteria (1 clinical & x-ray change)

- Inflammatory lower back pain > 3/12
- Reduced lumbar movement in saggital and frontal planes
- Limitation of chest expansion
- Sacroilitis on x-ray≥grade 2 bilaterally ≥grade 3 unilaterally

ASAS Criteria

- Back pain 3/12
- <45 years of age
- And either
- •Sacroilitis on MRI/x-ray & 1 SPA feature
- HLAB27 positive & 2 SPA features

Extra-musculoskeletal Manifestations

- For peripheral disease consider: Anti-TNF, IL17A, IL 17A/F and JAKi (upadacitinib)
- For psoriasis consider: Monoclonal anti-TNF, IL17A, IL 17A/F
- If moderate/severe or recurrent uveitis consider: Adalimumab, certolizumab, infliximab
- If Crohn's disease consider: Adalimumab, infliximab, certolizumab, upadacitinib
- If ulcerative colitis consider: Adalimumab, infliximab, golimumab, upadacitinib

Therapeutic drug monitoring (adalimumab)
• Target adalimumab drug trough level ≥ 5 mcg/mL (suggest aim: 5-10 mcg/mL)

Drug levels low /undetectable and ADAb –ve	**Drug levels low /undetectable and ADAb +ve**	**Drug level within or above range/ ADAb +/-ve and clinical loss of response**
• Check adherence • Increase drug dose or frequency • Add in cDMARD	Potential loss of response. • Add in cDMARD • Switch to another anti-TNF • Swap to IL 17A;A/F inhibitor or JAK inhibitor	Likely non-TNF driven disease. Switch to: • IL 17 A; A/F inhibitor • JAK inhibitor

Anti-TNF drug level & antibodies undetectable -assess adherence, increase drug dose and frequency if appropriate. Consider BMI: Is dose weight-adjusted? If adjustments do not result in adequate response, consider switching to alternative bDMARD or JAK inhibitor.

Abbreviations:
BASDAI: Bath Ankylosing Spondylitis Disease Activity Index.
ASAS criteria: Assessment of SpondyloArthritis International Society criteria
ADAb: Adalimumab antibodies.
BMI: Body Mass Index.
cDMARDs: classical Disease modifying antirheumatic drugs.
bDMARDs: biological Disease modifying antirheumatic drugs.

Lead Author	**Sanjiv Nandwani**	**Date approved**	**May 2025**
Version	**1.0**	**Review Date**	**May 2028**

Criteria for discontinuing a drug but remaining at current line of therapy:

- **Primary non-response** i.e. lack of improvement of clinical signs and symptoms after 12 weeks of anti TNF or 16 weeks for bimekizumab, secukinumab, tofacitinib and upadacitinib, or,

  Drug withdrawn because of adverse event or intolerance.

- **Secondary non-response:** For people whose disease has stopped responding after an initial response. **Discontinue drug and move on to next line of therapy.**
- There may be other reasons for treatment discontinuation, including:
  - adverse effects resulting in reduced tolerability
  - newly identified drug safety issue during successful treatment resulting in a newly identified relative or absolute contraindication
  - patient becoming pregnant

Tapering of targeted therapies should be considered for individuals who have achieved sustained remission.

Withdrawal of a targeted therapy in the context of sustained remission is not recommended

NICE approved for both Axial Spondyloarthritis and Non-Radiographic Axial Spondyloarthritis						
Mode of Action	**SMC/ NICE**	**Drug & route of administration**	**First line**	**Initial review**	**Standard maintenance dose**	**Alternative regimes/Additional Information**
Anti-TNF inhibitor	858/13 TA383	Adalimumab (SC)	Yes	12 weeks	40mg every two weeks	Not specified in the marketing authorisation
	960/14 TA383	Certolizumab pegol (SC)	Yes	12 weeks	200mg every 2 weeks	400mg every 4 weeks once clinical response is confirmed. After at least 1 year of treatment, in patients with sustained remission, a reduced maintenance dose of 200mg every 4 weeks may be considered
	212/05 TA383	Etanercept (SC)	Yes	12 weeks	50mg once weekly	25mg twice weekly
	721/11 TA383	Golimumab (SC)	Yes	12 weeks	50mg monthly	100mg monthly, in patients >100kg who do not achieve an adequate response on 50mg monthly after 3-4 doses
IL 17 A/F inhibitor	2616 TA918	Bimekizumab (SC)	Yes	16 weeks	160mg every 4 weeks	Not specified in the marketing authorisation
IL 17 A inhibitor	1159/16 TA 407	Secukinumab (SC)	Yes	16 weeks	150mg monthly	For radiographic ankylosing spondylitis only, based on clinical response the dose can be increased to 300mg monthly
JAK inhibitor	2480 TA 829	Upadacitinib (PO)	2nd	16 weeks	15mg once daily	Not specified in the marketing authorisation
	2463 TA920	Tofacitinib (PO)	2nd	16 weeks	5mg orally twice daily	Not specified in the marketing authorisation
NICE approved for Axial Spondyloarthritis (Ankylosing Spondylitis)						
Anti-TNF inhibitor	TA383	Infliximab (IV)*	Yes	12 weeks	5mg/kg every 8 weeks	5mg/kg every 6 weeks if response not achieved on 5mg/kg every 8 weeks, based on adequate response with drug and/or antibody levels if available and appropriate

IV – intravenous; PO - oral; SC – subcutaneous

- Infliximab is not recommended for AS by SMC 101/04, however, this has been superseded by NICE Technology Appraisal TA383 TNF-alpha inhibitors for AS and nr-axSpa which states infliximab is recommended only if treatment is started with the least expensive infliximab product.
- SMC guidance for adalimumab, certolizumab, etanercept and golimumab has also been superseded by NICE Technology Appraisal TA383

Vaccinations:

- Annual flu/Covid vaccines recommended.
- Pneumococcal vaccination 2- 4 weeks before initiation. Only repeat after 5 years if asplenic/splenic dysfunction or Chronic Kidney Disease 4 or 5 (will also require Hep B vaccination).
- Check VZV serology prior to commencing and refer for vaccination if required.

Pre-screening Checks

- Complete pre-screening checklist with patient.
- Screen for TB, viral hepatitis, HIV and VZV serology prior to commencing biologic.
- Baseline U&Es, LFTs, FBC should be checked and then 6 monthly.

CXR/BBV screen/QF Gold to be repeated if switching and >1 year since last screened

Prescribing Notes:

Anti-TNFs:

- Avoid anti-TNF if demyelination disease/latent or active Tuberculosis/moderate or severe heart failure.
- Etanercept – has lower comparative efficacy for all extra musculoskeletal manifestations compared with monoclonal TNFi. It should be avoided in patients with inflammatory eye disease and inflammatory bowel disease.

IL-17 Inhibitors:

- Caution with IL-17 inhibitors in the presence of inflammatory bowel disease/recurrent candida.

- IL-17 inhibitors as a class are considered to have a relatively fast onset of action compared to other agents.
- In pooled data from BE MOBILE 1 (nr-axSpA) and BE MOBILE 2 (AS), at Week 16, the proportion of patients developing a uveitis event was lower with bimekizumab (0.6%) compared to placebo (4.6%). The incidence of uveitis remained low with long-term treatment with bimekizumab (1.2/100 patient years in the pooled phase 2/3 studies).

Janus kinase (JAK) inhibitors:

- An increased incidence of malignancy, major adverse cardiovascular events (MACE), serious infections, venous thromboembolism (VTE) and mortality, was observed in patients treated with some JAK inhibitors, particularly tofacitinib, when compared to those treated with anti-TNFs.
- It is advised to avoid prescribing JAK inhibitors unless there are no suitable alternatives in patients with the following risk factors: age 65 or older, current, or past long-time smoking and other factors for cardiovascular disease or malignancy.
- Avoid in Pregnancy and breastfeeding.

Transfer of Information to Primary Care:

Drug name (Biosimilar or equivalent) and dosing schedule documented “as per rheumatology” must be detailed in clinic letter, along with an ask of primary care to add to repeat prescription as a medication prescribed elsewhere. This allows the ECS to update.

References/Evidence

The 2025 British Society for Rheumatology guideline for the treatment of axial spondyloarthritis with biologic and targeted synthetic DMARDs. Sizheng, Z., et al.: Rheumatology,2025, 00. 1-8 doi.org/10.1093/rheumatology/keaf090

BSR and BHPR guideline for the treatment of axial spondyloarthritis (including ankylosing spondylitis) with biologics. Hamilton, L., et al. 313, s.l. : Rheumatology, 2017, Vol. 56

ASAS-EULAR recommendations for the management of axial spondyloarthritis: 2022 update. Ramiro S. 2022. Ramiro S, et al. Ann Rheum Dis 2022;0:1–16. doi:10.1136/ard-2022-223296.

British Society for Rheumatology guideline on prescribing drugs in pregnancy and breastfeeding: immunomodulatory anti-rheumatic drugs and corticosteroids. Russell M, et al: Rheumatology, 2023, Vol.62

Appendices

1.Governance information for Guidance document

Lead Author(s):	Dr Sanjiv Nandwani, Consultant Rheumatology NHS Lanarkshire
Endorsing Body:	ADTC
Version Number:	1.0
Approval date	May 2025
Review Date:	May 2028
Responsible Person (if different from lead author)	

CONSULTATION AND DISTRIBUTION RECORD	
Contributing Author / Authors	
Consultation Process / Stakeholders:	Rheumatology Consultants NHSL Rheumatology Pharmacist NHSL
Distribution	Consultant Rheumatologists UHH, UHM and UHW Rheumatology Nurse Specialists UHH, UHM and UHW Rheumatology Pharmacist Heads of Pharmacy UHH, UHM and UHW Homecare Medicines Service, NHSL Aseptic Pharmacy Department, NHSL

CHANGE RECORD

Date	Lead Author	Change	Version No.
March 2025	Sanjiv Nandwani	Initial version	1
			2
			3

2.You can include additional appendices with complimentary information that doesn't fit into the main text of your guideline, but is crucial and supports its understanding.

e.g. supporting documents for implementation of guideline, patient information, specific monitoring requirements for secondary and primary care clinicians, dosing regimen/considerations according to weight and/or creatinine clearance