

NATIONAL INSTITUTE FOR HEALTH AND CARE EXCELLENCE

Health Technology Evaluation

Upadacitinib for treating active non-radiographic axial spondyloarthritis

Final scope

Remit/evaluation objective

To appraise the clinical and cost effectiveness of upadacitinib within its marketing authorisation for treatment of active non-radiographic axial spondyloarthritis.

Background

Axial spondyloarthritis belongs to a clinically heterogeneous group of inflammatory rheumatologic diseases which share common genetic, histological and clinical features (also including psoriatic arthritis, arthritis associated with inflammatory bowel disease, reactive arthritis and undifferentiated spondylarthritis). Axial spondyloarthritis involves inflammation of the sacroiliac joints and spine. If inflammation is visible on x-ray (as erosions, thickening of the bone, or fusion of joints), the disease is classified as radiographic axial spondyloarthritis (also known as ankylosing spondylitis). If x-rays of the sacroiliac joints and spine are normal, but there are other objective signs of inflammation (elevated C-reactive protein or evidence on magnetic resonance imaging) the disease is classified as non-radiographic axial spondyloarthritis.

The clinical symptoms of axial spondyloarthritis can vary from person to person, but usually develop slowly over several months or years. The main symptoms can include back pain, which will be inflammatory in nature, peripheral arthritis (inflammation in the joints in other parts of the body), enthesitis (inflammation where a bone is joined to a tendon), and fatigue. Extra-articular manifestations include uveitis, inflammatory bowel disease and psoriasis. The average age of onset of symptoms is 24 years, with an average of 8.5 years before a diagnosis is made, by which time damage to the spine which can be irreversible may have occurred.¹

Around 220,000 adults have been diagnosed as having axial spondyloarthritis and an estimated 1 in 200 of the adult population in the UK is affected.¹ Non-radiographic axial spondyloarthritis affects approximately equal numbers of men and women, but there are limited data on the prevalence of the condition.

Conventional therapy for non-radiographic axial spondyloarthritis includes anti-inflammatory treatment with non-steroidal anti-inflammatory drugs (NSAIDs) and physiotherapy. NICE technology appraisal guidance [383](#) and [497](#) recommend tumour necrosis factor-alpha inhibitors adalimumab, certolizumab pegol, etanercept and golimumab as treatment options in people with disease that does not respond adequately to or cannot tolerate NSAIDs. Biosimilar versions of adalimumab, etanercept and golimumab are now available.

[NICE technology appraisals 719](#) and [718](#) recommend secukinumab and ixekizumab as options for treating active non-radiographic axial spondyloarthritis with objective signs of inflammation (shown by elevated C-reactive protein or MRI) that is not controlled well enough with non-steroidal anti-inflammatory drugs (NSAIDs) only if

tumour necrosis factor (TNF)-alpha inhibitors are not suitable or do not control the condition well enough.

The technology

Upadacitinib (Rinvoq, AbbVie) is a selective and reversible Janus kinase-1 (JAK-1) inhibitor, which is administered orally.

Upadacitinib does not currently have a marketing authorisation in the UK for treating non-radiographic axial spondyloarthritis. It has been studied in a clinical trial compared with placebo in adults with non-radiographic axial spondyloarthritis with objective signs of inflammation.

Upadacitinib has a marketing authorisation for treating active ankylosing spondylitis in adult patients who have responded inadequately to conventional therapy.

Intervention(s)	Upadacitinib
Population(s)	Adults with active non-radiographic axial spondyloarthritis
Subgroups	If the evidence allows consideration will be given to subgroups who have not received TNF-alpha inhibitors, and those for whom TNF-alpha inhibitors are not suitable or do not control the condition well enough
Comparators	<ul style="list-style-type: none"> • Secukinumab • Ixekizumab • TNF-alpha inhibitors including: <ul style="list-style-type: none"> ○ Adalimumab ○ Certolizumab pegol ○ Etanercept ○ Golimumab • Established clinical management without biological treatments

Outcomes	<p>The outcome measures to be considered include:</p> <ul style="list-style-type: none"> • disease activity • functional capacity • disease progression • pain • peripheral symptoms (including enthesitis, peripheral arthritis and dactylitis) • symptoms of extra-articular manifestations (including uveitis, inflammatory bowel disease and psoriasis) • adverse effects of treatment • health-related quality of life.
Economic analysis	<p>The reference case stipulates that the cost effectiveness of treatments should be expressed in terms of incremental cost per quality-adjusted life year.</p> <p>If the technology is likely to provide similar or greater health benefits at similar or lower cost than technologies recommended in published NICE technology appraisal guidance for the same indication, a cost-comparison may be carried out.</p> <p>The reference case stipulates that the time horizon for estimating clinical and cost effectiveness should be sufficiently long to reflect any differences in costs or outcomes between the technologies being compared.</p> <p>Costs will be considered from an NHS and Personal Social Services perspective.</p> <p>The availability of any commercial arrangements for the intervention, comparator and subsequent treatment technologies will be taken into account. The availability of any managed access arrangement for the intervention will be taken into account.</p>
Other considerations	<p>The availability and cost of biosimilar and generic products should be taken into account.</p> <p>Guidance will only be issued in accordance with the marketing authorisation. Where the wording of the therapeutic indication does not include specific treatment combinations, guidance will be issued only in the context of the evidence that has underpinned the marketing authorisation granted by the regulator.</p>
Related NICE recommendations	<p>Related Technology Appraisals:</p> <p>‘Ixekizumab for treating axial spondyloarthritis’ (2021) NICE technology appraisal 718</p> <p>‘Secukinumab for treating non-radiographic axial</p>

	<p>spondyloarthritis' (2021) NICE technology appraisal 719</p> <p>'Golimumab for treating non-radiographic axial spondyloarthritis' (2018) NICE technology appraisal 497. Review date December 2020.</p> <p>'TNF-alpha inhibitors for ankylosing spondylitis and non-radiographic axial spondyloarthritis' (2016) NICE technology appraisal 383. Review date June 2021.</p> <p>'Secukinumab for active ankylosing spondylitis after treatment with non-steroidal anti-inflammatory drugs or TNF-alpha inhibitors' (2016) NICE technology appraisal 407. Review date September 2019.</p> <p>Related Guidelines:</p> <p>'Spondyloarthritis in over 16s: diagnosis and management' (2017) NICE guideline 65. Review date to be confirmed.</p> <p>Related Quality Standards:</p> <p>'Spondyloarthritis'. NICE quality standard 170. Review date August 2019.</p>
<p>Related National Policy</p>	<p>The NHS Long Term Plan, 2019. NHS Long Term Plan</p> <p>NHS England (2018/2019) NHS manual for prescribed specialist services (2018/2019). Chapter 5. Adult highly specialised rheumatology services</p> <p>NHS England (2018) NHS England Funding and Resource 2018/19: Supporting 'Next Steps for the NHS Five Year Forward View'</p> <p>Department of Health and Social Care, NHS Outcomes Framework 2016-2017: Domain 1, 2, 4 and 5 https://www.gov.uk/government/publications/nhs-outcomes-framework-2016-to-2017</p>

References

¹ National Axial Spondyloarthritis Society. *What are the issues in axial SpA (AS)?*
Available from: <https://nass.co.uk/about-as/as-facts-and-figures/>