NATIONAL INSTITUTE FOR HEALTH AND CARE EXCELLENCE

SingleTechnology Appraisal

Secukinumab for treating ankylosing spondylitis after inadequate response to non-steroidal anti-inflammatory drugs or TNF-alpha inhibitors

Final scope

Remit/appraisal objective

To appraise the clinical and cost effectiveness of secukinumab within its marketing authorisation for treating ankylosing spondylitis after inadequate response to non-steroidal anti-inflammatory drugs or TNF-alpha inhibitors.

Background

Ankylosing spondylitis 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 spondyloarthritis). People with these diseases often have the genetic marker human leukocyte antigen (HLA)-B27.

The clinical symptoms can vary from person to person, but usually develop slowly over several months or years. The main symptoms can include back pain, usually inflammatory in nature, arthritis (inflammation of the joints in other parts of the body), enthesitis (inflammation where a bone is joined to a tendon), and fatigue.

In the early stages of disease, radiographs of the sacroiliac joints and spine can be normal (so-called ‘non-radiographic’ disease) although sacroiliitis (inflammation of the sacroiliac joints) or inflammation of the spine may be visible on MRI before structural damage occurs. If definite radiographic sacroiliitis (abnormalities seen in plain x-rays of the sacroiliac joints, such as erosions, sclerosis, and partial or total ankylosis) is present, the disease can be classified as ankylosing spondylitis. Radiographic changes to the spine are not part of the classification criteria, but new bone formation (such as syndesmophytes and ankylosis of the vertebral column) is characteristic of ankylosing spondylitis.

Around 200,000 people have been diagnosed as having ankylosing spondylitis in the UK. The prevalence is thought to range from 0.05% to 0.23%, representing approximately 2,300 new diagnoses each year in England and Wales. Ankylosing spondylitis is about 3 times more common in men than in women.

Conventional therapy for ankylosing spondylitis includes anti-inflammatory treatment with non-steroidal anti-inflammatory drugs (NSAIDs) and

physiotherapy. Tumour necrosis factor-alpha (TNF-alpha) inhibitors (adalimumab, certolizumab pegol, etanercept, golimumab and infliximab) are typically used when the disease has not responded adequately to conventional therapy. NICE technology appraisals 143 and 233 recommend, adalimumab, etanercept and golimumab as treatment options for adults with severe active ankylosing spondylitis for people who have active spinal disease as assessed on two separate occasions 12 weeks apart and have tried at least two non-steroidal anti-inflammatory drugs but they have not worked, Infliximab is not recommended for people with ankylosing spondylitis. (NICE technology appraisal 143). Biosimilar versions of infliximab (Remsima, Celltrion Healthcare; Inflectra, Hospira) have been licensed for the same indications. A review of TA143 and TA233 is currently underway.

The technology

Secukinumab (Cosentyx, Novartis) is a human monoclonal antibody which specifically inhibits the interleukin 17A (IL-17A) receptor. Secukinumab is administered by subcutaneous injection.

Secukinumab does not have a marketing authorisation in the UK for ankylosing spondylitis. It has been studied in clinical trials compared with placebo in adults with radiologic evidence (X-ray) of moderate to severe ankylosing spondylitis whose disease had responded inadequately to or who are intolerant to non-steroidal anti-inflammatory drugs or TNF alpha inhibitors.

Intervention(s)	Secukinumab
Population(s)	Adults with active ankylosing spondylitis for whom non-steroidal anti-inflammatory drugs, or TNF-alpha inhibitors have been inadequately effective or not tolerated.
Comparators	• TNF-alpha inhibitors For people whose disease has responded inadequately to, or who are intolerant to TNF-alpha inhibitors: • Established clinical management without secukinumab

Outcomes	The outcome measures to be considered include: • 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	The reference case stipulates that the cost effectiveness of treatments should be expressed in terms of incremental cost per quality-adjusted life year. 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. Costs will be considered from an NHS and Personal Social Services perspective. The availability of any patient access schemes for the intervention or comparator technologies should be taken into account.
Other considerations	If evidence allows, the appraisal should consider people who have or have not had TNF-alpha inhibitors 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.
Related NICE recommendations and NICE Pathways	Related Technology Appraisals: Technology Appraisal No. 233, August 2011, 'Golimumab for the treatment of ankylosing spondylitis'. Ongoing review with TA143. Technology Appraisal No. 143, May 2008, 'Adalimumab, etanercept and infliximab for ankylosing spondylitis'. Ongoing review with TA233.

	Technology appraisal in preparation, 'TNF-alpha inhibitors for ankylosing spondylitis and axial spondyloarthritis without radiographic evidence of ankylosing spondylitis (including a review of technology appraisal 143 and technology appraisal 233)', Earliest anticipated date of publication TBC. Related NICE Pathways: NICE pathway on musculoskeletal conditions, available at: http://pathways.nice.org.uk/pathways/musculoskeletal-conditions
Related National Policy	Department of Health, NHS Outcomes Framework 2013-2014, Nov 2013. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/256456/NHS_outcomes.pdf