NATIONAL INSTITUTE FOR HEALTH AND CARE EXCELLENCE

Proposed Health Technology Appraisal

Certolizumab pegol for treating moderate to severe plaque psoriasis

Draft scope (pre-referral)

Draft remit/appraisal objective

To appraise the clinical and cost effectiveness of certolizumab pegol within its marketing authorisation for treating moderate to severe plaque psoriasis.

Background

Plaque psoriasis is an inflammatory skin condition characterised by an accelerated rate of turnover of the upper layer of the skin (epidermis). This leads to an accumulation of skin cells forming raised plaques on the skin. These plaques can be flaky, scaly, itchy and red or a darker colour to the surrounding skin. Plaque psoriasis may affect the scalp, elbows, knees and lower back and sometimes the face, groin, armpits or behind the knees. Although it is a chronic, persistent, severe condition, its course may be unpredictable, with flare-ups and remissions.

Psoriasis is generally graded as mild, moderate or severe and takes into account the location, surface area of skin affected and the impact of the psoriasis on the person. The Psoriasis Area and Severity Index (PASI) is an index of disease severity in adults and takes into account the size of the area covered with psoriasis as well as redness, thickness and scaling. In addition, the Dermatology Life Quality Index (DLQI) is a validated tool that can be used to assess the impact of psoriasis on physical, psychological and social wellbeing.

The prevalence of psoriasis in England is estimated to be 1.75% in adults[1], which is about 959,000 people, of whom about 20% have moderate to severe psoriasis (15% moderate, 5% severe)[2], equating to approximately 192,000 people. About 90% of people with the condition have plaque psoriasis[2].

There is no cure for psoriasis but there is a wide range of topical and systemic treatments that can manage the condition. Most treatments reduce the severity of psoriasis flares rather than prevent episodes. Psoriasis has to be treated continually and on a long-term basis. NICE clinical guideline 153 on psoriasis recommends that people with psoriasis should be offered topical therapies such as corticosteroids, vitamin D and vitamin D analogues. For people in whom topical therapy does not alleviate symptoms, the guideline recommends phototherapy (broad- or narrow band ultraviolet B light), UVA phototherapy with psoralen (PUVA). Systemic non-biological therapies are recommended for people whose psoriasis:

- cannot be controlled with topical therapy **and**

- has a significant impact on physical, psychological or social wellbeing **and**

- one or more of the following apply:

    - psoriasis is extensive **or**

    - psoriasis is localised and associated with significant functional impairment and/or high levels of distress **or**

    - phototherapy has been ineffective, cannot be used or has resulted in rapid relapse.

NICE technology appraisal guidance 146, 103,180, 350, 419, and 442 recommend adalimumab, etanercept, ustekinumab, secukinumab, apremilast and ixekizumab, respectively, as treatment options for adults with severe psoriasis (as defined by a total PASI score of 10 or more and a DLQI score of more than 10) who have not responded to, are intolerant to or contraindicated to standard systemic therapies such as ciclosporin, methotrexate and PUVA.

Technology appraisal guidance 134 recommends infliximab as a treatment option for adults with very severe psoriasis (as defined by a total PASI score of 20 or more and a DLQI score of more than 18) who have not responded to, are intolerant to or are contraindicated to standard systemic therapies. Biosimilar products of the biological therapies are available for use in the NHS.

The technology

Certolizumab pegol (Cimzia, UCB Pharma) is an anti-tumour necrosis factor (anti-TNF) drug that reduces inflammation by blocking the action of TNF protein. Certolizumab pegol is administered by subcutaneous injection.

Certolizumab pegol does not currently have a marketing authorisation in the UK for treating moderate to severe plaque psoriasis. It has been studied in clinical trials compared with placebo or etanercept, in adults with moderate to severe plaque psoriasis.

Intervention(s)	Certolizumab pegol
Population(s)	People with moderate to severe plaque psoriasis

Comparators	If systemic non-biological treatment or phototherapy is suitable: • Systemic non-biological therapies including methotrexate, ciclosporin, acitretin and fumaric acid esters (including dimethyl fumarate, subject to ongoing NICE appraisal) • Phototherapy with or without psoralen If systemic non-biological treatment or phototherapy is inadequately effective, not tolerated or contraindicated: • TNF-alpha inhibitors (adalimumab, etanercept) • Ixekizumab • Secukinumab • Ustekinumab • Apremilast • Best supportive care
Outcomes	The outcome measures to be considered include: • severity of psoriasis • improvement in psoriasis symptoms on the face, scalp, nails and joints • mortality • response rate • duration of response • relapse rate • 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 will be taken into account. For the comparators, the availability and cost of biosimilars should be taken into account.
Other considerations	Where the evidence allows, the following subgroups will be considered: • previous use of phototherapy and systemic non-biological therapy • previous use of biological therapy • severity of psoriasis (moderate, severe). Where the evidence allows, sequencing of different drugs and the place of certolizumab pegol in such a sequence in fully incremental analysis will be considered. 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** Certolizumab pegol and secukinumab for treating active psoriatic arthritis after inadequate response to DMARDs (2017) NICE Technology Appraisal 445. Review date: May 2020. Ixekizumab for treating moderate to severe plaque psoriasis (2017). NICE Technology Appraisal 442. Review date: April 2020. Apremilast for treating moderate to severe psoriasis [rapid review of technology appraisal guidance 368] (2016) NICE Technology Appraisal 419. Review date: November 2019.

	Certolizumab pegol for treating rheumatoid arthritis after inadequate response to a TNF-alpha inhibitor (2016) NICE Technology Appraisal 415. Review date: October 2019. TNF-alpha inhibitors for ankylosing spondylitis and non-radiographic axial spondyloarthritis (2016) NICE Technology Appraisal 383. Review date: February 2019. Adalimumab, etanercept, infliximab, certolizumab pegol, golimumab, tocilizumab and abatacept for rheumatoid arthritis not previously treated with DMARDs or after conventional DMARDs only have failed (2016) NICE Technology Appraisal 375. Review date: January 2019. Secukinumab for treating moderate to severe plaque psoriasis (2015) NICE Technology Appraisal 350. Review date: July 2018. Ustekinumab for the treatment of adults with moderate to severe psoriasis (2009) NICE Technology Appraisal 180. Static list. Adalimumab for the treatment of adults with psoriasis (2008) NICE Technology Appraisal 146. Static list. Infliximab for the treatment of adults with psoriasis (2008) NICE Technology Appraisal 134. Static list. Etanercept and efalizumab for the treatment of adults with psoriasis (2006) NICE Technology Appraisal 103. Static list. Note: guidance for efalizumab has now been withdrawn. **Appraisals In Development** Dimethyl fumarate for treating moderate to severe plaque psoriasis. NICE technology appraisal guidance [ID776]. Publication expected August 2017. **Proposed Technology Appraisals** Brodalumab for treating moderate to severe plaque psoriasis. Proposed NICE technology appraisal [ID878]. Publication date to be confirmed. Guselkumab for treating moderate to severe plaque psoriasis. Proposed NICE technology appraisal [ID1075]. Publication date to be confirmed. Tildrakizumab for treating moderate to severe plaque psoriasis. Proposed NICE technology appraisal [ID1060]. Publication date to be confirmed. **Related Guidelines** Psoriasis: assessment and management (2012) NICE

	guideline 153. Review date to be confirmed. **Related Interventional Procedures** Grenz rays therapy for inflammatory skin conditions (2007) NICE interventional procedures guidance 236. **Related Quality Standards** Quality Standard No. 40, August 2013, Psoriasis. http://www.nice.org.uk/guidance/qualitystandards/qualitystandards.jsp **Related NICE Pathways** Psoriasis (2012) NICE Pathway http://pathways.nice.org.uk/pathways/psoriasis
Related National Policy	NHS England Manual for Prescribed Specialised Services 2016/17. Chapter 61, Highly specialist dermatology services. https://www.england.nhs.uk/commissioning/wp-content/uploads/sites/12/2016/06/pss-manual-may16.pdf NHS England standard contract for specialised dermatology services, 2013/14. https://www.england.nhs.uk/wp-content/uploads/2013/06/a12-spec-dermatology.pdf

Questions for consultation

Is certolizumab pegol expected to be an alternative treatment in the non-biological, or biological therapy part of the psoriasis treatment pathway, or both?

Have all relevant comparators for certolizumab pegol been included in the scope?

- Is phototherapy with or without psoralen an appropriate comparator for certolizumab pegol?
- Is best supportive care an appropriate comparator for certolizumab pegol?

Are the outcomes listed appropriate?

Are the subgroups suggested in 'other considerations appropriate? Are there any other subgroups of people in whom certolizumab pegol is expected to be more clinically effective and cost effective or other groups that should be examined separately?

Where do you consider certolizumab pegol will fit into the existing NICE pathway for psoriasis?

NICE is committed to promoting equality of opportunity, eliminating unlawful discrimination and fostering good relations between people with particular protected characteristics and others. Please let us know if you think that the proposed remit and scope may need changing in order to meet these aims. In particular, please tell us if the proposed remit and scope:

- could exclude from full consideration any people protected by the equality legislation who fall within the patient population for which certolizumab pegol will be licensed;

- could lead to recommendations that have a different impact on people protected by the equality legislation than on the wider population, e.g. by making it more difficult in practice for a specific group to access the technology;

- could have any adverse impact on people with a particular disability or disabilities.

Please tell us what evidence should be obtained to enable the Committee to identify and consider such impacts.

Do you consider certolizumab pegol to be innovative in its potential to make a significant and substantial impact on health-related benefits and how it might improve the way that current need is met (is this a 'step-change' in the management of the condition)?

Do you consider that the use of certolizumab pegol can result in any potential significant and substantial health-related benefits that are unlikely to be included in the QALY calculation?

Please identify the nature of the data which you understand to be available to enable the Appraisal Committee to take account of these benefits.

To help NICE prioritise topics for additional adoption support, do you consider that there will be any barriers to adoption of this technology into practice? If yes, please describe briefly.

NICE intends to appraise this technology through its Single Technology Appraisal (STA) Process. We welcome comments on the appropriateness of appraising this topic through this process. (Information on the Institute's Technology Appraisal processes is available at http://www.nice.org.uk/article/pmg19/chapter/1-Introduction).

NICE has published an addendum to its guide to the methods of technology appraisal (available at https://www.nice.org.uk/Media/Default/About/what-we-do/NICE-guidance/NICE-technology-appraisals/methods-guide-addendum-cost-comparison.pdf), which states the methods to be used where a cost comparison case is made. We welcome comments on the appropriateness and suitability of the cost comparison methodology to this topic.

- Is the new technology likely to be similar in its clinical efficacy and resource use to any of the comparators?

- Is the primary outcome that was measured in the trial or used to drive the model for the comparator(s) still clinically relevant?

- Is there any substantial new evidence for the comparator technology/ies that has not been considered? Are there any important ongoing trials reporting in the next year?

References

1. NICE (2015) Psoriasis: assessment and management – costing template. Accessed July 2017.

2. Menter A, Korman NJ, Elmets CA et al. Guidelines of care for the management of psoriasis and psoriatic arthritis. Section 6. Guidelines of care for the treatment of psoriasis and psoriatic arthritis: case-based presentations and evidence-based conclusions. J Am Acad Dermatol 2011; 65:137–74.