NATIONAL INSTITUTE FOR HEALTH AND CARE EXCELLENCE

Health Technology Evaluation

Spesolimab for treating acute generalised pustular psoriasis

Draft scope

Draft remit/evaluation objective

To appraise the clinical and cost effectiveness of spesolimab within its marketing authorisation for treating acute generalised pustular psoriasis.

Background

Psoriasis is an inflammatory skin disease that typically follows a relapsing and remitting course. The most common form of psoriasis is plaque psoriasis which is characterised by raised plaques on the skin. Generalised pustular psoriasis, also known as von Zumbusch psoriasis, is a rare form of psoriasis characterised by overly active signalling pathways that promote inflammation. This leads to large surface areas of the skin becoming inflamed, red, and developing pustules accompanied by systemic upset. Generalised pustular psoriasis can be life threatening if left untreated as it can lead to organ failure. Although it is a chronic and persistent 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 Generalized Pustular Psoriasis Physician Global Assessment (GPPGA) is an assessment of disease severity and takes into account the redness, pustules and scaling of all psoriatic lesions. 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 the United Kingdom is estimated to be between 1.3% and 2.2%.[1] The prevalence of generalised pustular psoriasis in England is not yet known.[2] However, based on estimates from a 2006 French study, it is estimated there are 100 prevalent and 36 annual incident cases in England.[3]

There are no specific NICE guidelines for generalised pustular psoriasis. Suspected generalized pustular psoriasis flares should be managed as a medical emergency and immediate same-day specialist dermatology assessment must be arranged. NICE clinical guideline 153 on general 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) for plaque or guttate-pattern psoriasis and psoralen with ultraviolet A phototherapy (PUVA) for plaque or localised palmoplantar pustulosis. The guideline recommends systemic non-biological therapies (such as ciclosporin, methotrexate and acitretin) 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.

The technology

Spesolimab (brand name unknown, Boehringer Ingelheim Ltd) is a humanised monoclonal antibody that inhibits the action of the interleukin-36 receptor (IL-36R). It is administered intravenously.

Spesolimab does not currently have a marketing authorisation in the UK for treating acute generalised pustular psoriasis. It has been studied in a clinical trial compared with placebo in adults with generalised pustular psoriasis presenting with an acute flare of moderate to severe intensity.

Intervention(s)	Spesolimab
Population(s)	Adult patients with generalised pustular psoriasis presenting with an acute flare
Subgroups	If the evidence allows, the following subgroup will be considered: • severity of psoriasis (moderate, severe) • severity of psoriasis flare

Comparators	First line therapies: • corticosteroids • vitamin D • vitamin D analogues • Dithranol Second line therapies: • Systemic non-biological therapies (including methotrexate, ciclosporin and acitretin) • Phototherapy with or without acitretin Third line therapies (the following do not currently have a marketing authorisation in the UK for this indication): • TNF-alpha inhibitors (adalimumab, etanercept, infliximab and certolizumab pegol) • IL-17 family inhibitors or receptor inhibitors (brodalumab, ixekizumab, secukinumab and bimekizumab) • IL-23 inhibitors (guselkumab, tildrakizumab and risankizumab) • IL-12/IL-23 inhibitors (ustekinumab) • JAK inhibitors (upadacitinib) • Apremilast • Dimethyl fumarate • Best supportive care (does not require a marketing authorisation).
Outcomes	The outcome measures to be considered include: • severity of psoriasis • psoriasis symptoms, such as itch and pain, and symptoms on the following areas: flexures, genital regions and fingertips • 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 commercial arrangements for the intervention, comparator and subsequent treatment technologies will be taken into account.
Other considerations	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	**Related Technology Appraisals** 'Guselkumab for treating active psoriatic arthritis after inadequate response to DMARDs' NICE technology appraisals guidance 815. 'Risankizumab for treating active psoriatic arthritis after inadequate response to DMARDs' NICE technology appraisals guidance 803. 'Upadacitinib for treating active psoriatic arthritis after inadequate response to DMARDs' NICE technology appraisals guidance 768. 'Risankizumab for treating moderate to severe plaque psoriasis' NICE technology appraisals guidance 596. Review date: 2022. 'Tildrakizumab for treating moderate to severe plaque psoriasis' NICE technology appraisals guidance 575. Review date: 2022. 'Certolizumab pegol for treating moderate to severe plaque psoriasis' NICE technology appraisals guidance 574. Review date: 2022. 'Bimekizumab for treating moderate to severe plaque psoriasis' (2021) NICE technology appraisals guidance 723. Reviewdate: September 2024. 'Guselkumab for treating moderate to severe plaque psoriasis' (2018) NICE Technology Appraisal 521. Review date: TBC. 'Brodalumab for treating moderate to severe plaque psoriasis' (2018) NICE Technology Appraisal 511. Review date: TBC.

	'Dimethyl fumarate for treating moderate to severe plaque psoriasis' (2017) NICE Technology Appraisal 475. Review date: TBC. 'Ixekizumab for treating moderate to severe plaque psoriasis' (2017) NICE Technology Appraisal 442. Review date: TBC. 'Apremilast for treating moderate to severe psoriasis [rapid review of technology appraisal guidance 368' (2016) NICE Technology Appraisal 419. Review date: TBC. 'Secukinumab for treating moderate to severe plaque psoriasis' (2015) NICE Technology Appraisal 350. Static list. '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** 'Deucravacitnib for treating moderate to severe plaque psoriasis' NICE Technology Appraisal Guidance [ID3859]. Expected publication date: TBC. **Related Guidelines** 'Psoriasis: assessment and management' (2012) NICE guideline 153. No new evidence identified in June 2017. Review date to be confirmed. **Related Interventional Procedures** 'Grenz rays therapy for inflammatory skin conditions' (2007) NICE interventional procedures guidance 236. **Related Quality Standards** 'Psoriasis' (2013) NICE quality standard 40.
Related National Policy	The NHS Long Term Plan, 2019. NHS Long Term Plan NHS England (2018/2019) NHS manual for prescribed specialist services (2018/2019) Chapter 61: Highly specialist dermatology services. Department of Health and Social Care, NHS Outcomes Framework 2016-2017: Domains 1 - 5. https://www.gov.uk/government/publications/nhs-outcomes-framework-2016-to-2017

Questions for consultation

Are there any statistics for the prevalence of generalised pustular psoriasis in England or the UK?

Are there any statistics for the prevalence of acute flares of generalised pustular psoriasis in the England or the UK?

How many people would be expected to be eligible for spesolimab in England?

How often do people experience a generalised pustular psoriasis flare up?

Where do you consider spesolimab will fit into the existing treatment pathway for acute generalised pustular psoriasis?

Are the following treatments for severe or very severe plaque psoriasis used off license for acute flares of generalised pustular psoriasis?

- TNF-alpha inhibitors (adalimumab, etanercept, infliximab and certolizumab pegol)
- IL-17 family inhibitors or receptor inhibitors (brodalumab, ixekizumab, secukinumab and bimekizumab)
- IL-23 inhibitors (guselkumab, tildrakizumab and risankizumab)
- IL-12/IL-23 inhibitors (ustekinumab)
- JAK inhibitors (upadacitinib)
- Apremilast
- Dimethyl fumarate

How should best supportive care be defined?

Is spesolimab expected to be of significant additional benefit compared to current treatment?

Does generalised pustular psoriasis significantly shorten life or severely impair its quality?

Would spesolimab be a candidate for managed access?

Do you consider that the use of spesolimab can result in any potential 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 committee to take account of these benefits.

In people with darker skin is the appearance of pustular psoriasis less obvious, and may severity may be underestimated?

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 spesolimab 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.

NICE intends to evaluate this technology through its Single Technology Evaluation Process. We welcome comments on the appropriateness of appraising this topic through this process. (Information on NICE's health technology evaluation processes is available at https://www.nice.org.uk/about/what-we-do/our-programmes/nice-guidance/nice-technology-appraisal-guidance/changes-to-health-technology-evaluation).

NICE's health technology evaluations: the manual states the methods to be used where a cost comparison case is made.

- Would it be appropriate to use the cost-comparison methodology for 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. Parisi R, Griffiths CEM, Ashcroft DM (2011) Systematic review of the incidence and prevalence of psoriasis. British Journal of Dermatology 165: e5.

2. Specialist Pharmacy Service NHS. Spesolimab. 2019. Available from: https://www.sps.nhs.uk/medicines/spesolimab/ [Accessed August 2022]

3. Augey F, Renaudier P, Nicolas J (2006) Generlaized pustular psoriasis (Zumbusch): a French epidemiological survey. European Journal of Dermatology 16(6):669-73.