Final reimit/appraisal objective
To appraise the clinical and cost effectiveness of tralokinumab within its marketing authorisation for treating moderate to severe atopic dermatitis.

Background
Atopic dermatitis (also known as atopic eczema) is a long-term condition that affects the skin. It is characterised by a red blotchy rash, dry, itchy and inflamed skin. The skin can also ooze and weep. Constant scratching can cause the skin to split and bleed, which can cause skin infections. Severe eczema can be physically disabling or incapacitating and can cause anxiety or depression.

Estimates of the prevalence of atopic dermatitis vary. It is more common in childhood (affecting 1 in 5 children in the UK) and affects 1 in 12 adults in the UK.\(^1\) Of the people who need treatment for atopic dermatitis 7% will have moderate to severe disease and around a third of these people will need a systemic treatment rather than an ointment.\(^2\)

Atopic dermatitis is usually managed in primary care. Treatment strategies include advice on the avoidance of factors that can provoke dermatitis, such as soap, and the use of emollients to moisturise and relieve symptoms. For flares, or dermatitis that does not respond to these measures, topical corticosteroids are normally prescribed once or twice daily in conjunction with continued use of emollients (TA81). Tacrolimus ointment (calcineurin inhibitor) is recommended when moderate to severe atopic dermatitis has not been adequately controlled by use of topical steroids at the maximum strength and potency or where there is a serious risk of important adverse effects from further topical corticosteroid use, particularly irreversible skin atrophy (TA82). Alitretinoin is recommended as a possible treatment for people with severe chronic hand dermatitis affecting their quality of life and not responding to potent topical corticosteroids (TA177).

People with moderate or severe dermatitis not responding to topical treatments may be referred to secondary care and treated with stronger oral medications such as oral steroids, systemic immunosuppressants (azathioprine, ciclosporin, mycophenolate mofetil, and methotrexate). In addition, phototherapy and photochemotherapy (psoralen–ultraviolet A; PUVA) can be used to manage chronic severe atopic dermatitis.\(^3\)

Dupilumab is recommended as an option for treating moderate to severe atopic dermatitis in adults whose disease has not responded to at least 1 other systemic therapy, such as ciclosporin, methotrexate, azathioprine and mycophenolate mofetil, or these are contraindicated or not tolerated (TA534)
The technology
Tralokinumab (brand name unknown, Leo Pharma UK) is an anti-interleukin (IL)-13 human immunoglobulin- G4 monoclonal antibody. It binds to the type 2 cytokine interleukin-13 IL-13 inhibiting its action. It is administered by subcutaneous injection.

Tralokinumab does not currently have a marketing authorisation for treating people with moderate to severe atopic dermatitis and who are candidates for systemic therapy. It has been studied the following in clinical trials:

- In combination with topical corticosteroids compared with placebo in adults with severe atopic dermatitis that is not adequately controlled with cyclosporin A or for whom oral cyclosporin A is contraindicated
- In combination with topical corticosteroids compared with placebo in adults with moderate to severe atopic dermatitis
- As a monotherapy compared with placebo in adults with moderate to severe atopic dermatitis that is not adequately controlled with topical medications or for whom topical treatments are not appropriate.

<table>
<thead>
<tr>
<th>Intervention(s)</th>
<th>Tralokinumab</th>
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<td>Population(s)</td>
<td>Adults with moderate to severe atopic dermatitis and who are candidates for systemic therapy</td>
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</table>
| Comparators     | • Phototherapy including with ultraviolet (UVB) radiation or psoralen-ultraviolet A (PUVA)  
|                 | • Immunosuppressive therapies (azathioprine, ciclosporin, methotrexate and mycophenolate mofetil)  
|                 | • Oral corticosteroids  
|                 | • Alitretinoin (in people with atopic dermatitis affecting the hands)  
|                 | • Dupilumab  
|                 | • Baricitinib (subject to ongoing appraisal)  
|                 | • Best supportive care (combination of emollients, low to mid potency topical corticosteroids, and rescue therapy including higher potency topical or oral corticosteroids or topical calcineurin inhibitors) |
| Outcomes        | The outcome measures to be considered include:  
|                 | • measures of disease severity  
|                 | • measures of symptom control  
|                 | • disease free period/maintenance of remission  
|                 | • time to relapse/prevention of relapse  
|                 | • 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.

### Other considerations

If the evidence allows the following subgroups will be considered:

- people with atopic dermatitis affecting the hands
- people for whom systemic therapies have been inadequately effective, not tolerated or contraindicated
- skin colour subgroups.

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:**

- [Dupilumab for treating moderate to severe atopic dermatitis](http://www.nice.org.uk/guidance/534) (2018) NICE technology appraisal guidance 534
- [Alitretinoin for the treatment of severe chronic hand eczema](http://www.nice.org.uk/guidance/177) (2009) NICE technology appraisal guidance 177
- [Tacrolimus and pimecrolimus for atopic eczema](http://www.nice.org.uk/guidance/82) (2004) NICE technology appraisal guidance 82
- [Frequency of application of topical corticosteroids for atopic eczema](http://www.nice.org.uk/guidance/81) (2004) NICE technology appraisal guidance 81

**Appraisals in development (including suspended appraisals):**

- [Crisaborole for treating mild to moderate atopic dermatitis in people aged 2 years and older (ID1195)](http://www.nice.org.uk/guidance) NICE technology appraisal guidance. Expected publication date to be confirmed.


- [Upadacitinib for treating moderate to severe atopic dermatitis](http://www.nice.org.uk/guidance)
Appendix B

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<th>Related National Policy</th>
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<td>The NHS Long Term Plan, 2019. <a href="#">NHS Long Term Plan</a></td>
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References


2 Resource impact report: Dupilumab for treating moderate to severe atopic dermatitis (2018), NICE technology appraisal 534