Abrocitinib, tralokinumab and upadacitinib for treating moderate-to-severe atopic dermatitis

Steven J Edwards,[1*] Charlotta Karner,[2] Tracey Jhita,[3] Samantha Barton,[4] Gemma Marceniuk,[5] Zenas Z N Yiu[6] and Miriam Wittmann[7]

[1]Director of Health Technology Assessment, BMJ-TAG, BMJ, BMA House, Tavistock Square, London, UK
[2]Clinical Evidence Manager, BMJ-TAG, BMJ, BMA House, Tavistock Square, London, UK
[3]Health Economics Manager, BMJ-TAG, BMJ, BMA House, Tavistock Square, London, UK
[4]Principal Clinical Evidence Analyst, BMJ-TAG, BMJ, BMA House, Tavistock Square, London, UK
[5]Senior Health Economist, BMJ-TAG, BMJ, BMA House, Tavistock Square, London, UK
[6]NIHR Clinical Lecturer in Dermatology, University of Manchester, Manchester, UK
[7]Associate Professor in Inflammatory Skin Diseases, University of Leeds, Leeds, UK

[*]Corresponding author sedwards@bmj.com

Disclosure of interests

Full disclosure of interests: Completed ICMJE forms for all authors, including all related interests, are available in the toolkit on the NIHR Journals Library report publication page at https://doi.org/10.3310/LEXB9006.

Primary conflicts of interest: No competing interests were declared by Steven J Edwards, Charlotte Karner, Tracey Jhita, Samantha Barton, Gemma Marceniuk or Zenas Z N Yiu which affect the impartiality of this report. BMJ Technology Assessment Group (BMJ-TAG) and the editorial team of the BMJ work independently to one another. The views and opinions expressed in this report are those of the BMJ-TAG. In the past 36 months, Miriam Wittmann has received research grants from AbbVie, the British Skin Foundation, Janssen, Lupus UK, Novartis, Pfizer Global and UCB. MW has received a consultancy fee from UCB for acting on an advisory board, and remuneration from various companies for carrying out educational lectures.

Rider on responsibility for report: The views expressed in this report are those of the authors and not necessarily those of the NIHR Evidence Synthesis Programme. Any errors are the responsibility of the authors.

Report reference: Edwards SJ, Karner C, Jhita T, Barton S, Marceniuk G, Yiu Z, Wittmann M. Abrocitinib, tralokinumab and upadacitinib for treating moderate-to-severe atopic dermatitis. BMJ Technology Assessment Group; 2021.

Published January 2024
DOI: 10.3310/LEXB9006

Plain language summary

Abrocitinib, tralokinumab and upadacitinib for treating moderate-to-severe atopic dermatitis

Health Technology Assessment 2024; Vol. 28: No. 4
DOI: 10.3310/LEXB9006

NIHR Journals Library www.journalslibrary.nihr.ac.uk

Plain language summary

Atopic dermatitis is one of the most common skin conditions in children but can also develop in adulthood. People with atopic dermatitis have dry, red (inflamed) skin that is also extremely itchy (pruritus). There is no cure for atopic dermatitis. Therapy starts with topical treatments that are applied to the skin, such as emollients. Severe forms of atopic dermatitis are often treated with systemic treatments, which are drugs that are provided as tablets or an injection. Ciclosporin A is often the first systemic therapy given. If atopic dermatitis does not get better with ciclosporin A, options available in the National Health Service are dupilumab and baricitinib. New therapies that have been evaluated in clinical trials for atopic dermatitis but have not been assessed for use in the National Health Service are abrocitinib, tralokinumab and upadacitinib.

The aim of this project is to review the medical benefits, risks and value for money for the National Health Service of abrocitinib, tralokinumab and upadacitinib for the treatment of moderate-to-severe atopic dermatitis in a multiple technology appraisal.

Our review found that:

- For children aged between 12 and 18 years, abrocitinib and a low dose of upadacitinib (15 mg) are good value for money for the National Health Service.
- For adults who need a first systemic treatment, upadacitinib is unlikely to be good value for money for the National Health Service.
- For adults who are still suffering from their atopic dermatitis after having a systemic treatment and need a different drug, upadacitinib 15 mg and tralokinumab could be good value for money for the National Health Service if they are used on their own.
- For adults who are still suffering from their atopic dermatitis after having a systemic treatment and need a different drug, but need to take it with steroid cream, abrocitinib 100 mg, upadacitinib 15 mg and tralokinumab could all be good value for money for the National Health Service.

Health Technology Assessment

HTA TAR

ISSN 1366-5278 (Print)

ISSN 2046-4924 (Online)

Impact factor: 3.6

Launched in 1997, *Health Technology Assessment* (HTA) has an impact factor of 3.6 and is ranked 32nd (out of 105 titles) in the 'Health Care Sciences & Services' category of the Clarivate 2021 Journal Citation Reports (Science Edition). It is also indexed by MEDLINE, CINAHL (EBSCO Information Services, Ipswich, MA, USA), Embase (Elsevier, Amsterdam, the Netherlands), NCBI Bookshelf, DOAJ, Europe PMC, the Cochrane Library (John Wiley & Sons, Inc., Hoboken, NJ, USA), INAHTA, the British Nursing Index (ProQuest LLC, Ann Arbor, MI, USA), Ulrichsweb™ (ProQuest LLC, Ann Arbor, MI, USA) and the Science Citation Index Expanded™ (Clarivate™, Philadelphia, PA, USA).

This journal is a member of and subscribes to the principles of the Committee on Publication Ethics (COPE) (www.publicationethics.org/).

Editorial contact: journals.library@nihr.ac.uk

The full HTA archive is freely available to view online at www.journalslibrary.nihr.ac.uk/hta.

Criteria for inclusion in the *Health Technology Assessment* journal
Reports are published in *Health Technology Assessment* (HTA) if (1) they have resulted from work for the HTA programme, and (2) they are of a sufficiently high scientific quality as assessed by the reviewers and editors.

Reviews in *Health Technology Assessment* are termed 'systematic' when the account of the search appraisal and synthesis methods (to minimise biases and random errors) would, in theory, permit the replication of the review by others.

HTA programme

Health Technology Assessment (HTA) research is undertaken where some evidence already exists to show that a technology can be effective and this needs to be compared to the current standard intervention to see which works best. Research can evaluate any intervention used in the treatment, prevention or diagnosis of disease, provided the study outcomes lead to findings that have the potential to be of direct benefit to NHS patients. Technologies in this context mean any method used to promote health; prevent and treat disease; and improve rehabilitation or long-term care. They are not confined to new drugs and include any intervention used in the treatment, prevention or diagnosis of disease.

The journal is indexed in NHS Evidence via its abstracts included in MEDLINE and its Technology Assessment Reports inform National Institute for Health and Care Excellence (NICE) guidance. HTA research is also an important source of evidence for National Screening Committee (NSC) policy decisions.

This report

The research reported in this issue of the journal was commissioned and funded by the Evidence Synthesis Programme on behalf of NICE as project number NIHR135138. The contractual start date was in August 2021. The draft report began editorial review in February 2022 and was accepted for publication in February 2023. The authors have been wholly responsible for all data collection, analysis and interpretation, and for writing up their work. The HTA editors and publisher have tried to ensure the accuracy of the authors' report and would like to thank the reviewers for their constructive comments on the draft document. However, they do not accept liability for damages or losses arising from material published in this report.

This report presents independent research funded by the National Institute for Health and Care Research (NIHR). The views and opinions expressed by authors in this publication are those of the authors and do not necessarily reflect those of the NHS, the NIHR, the HTA programme or the Department of Health and Social Care. If there are verbatim quotations included in this publication the views and opinions expressed by the interviewees are those of the interviewees and do not necessarily reflect those of the authors, those of the NHS, the NIHR, the HTA programme or the Department of Health and Social Care.

Published by the NIHR Journals Library (www.journalslibrary.nihr.ac.uk), produced by Newgen Digitalworks Pvt Ltd, Chennai, India (www.newgen.co).