NICE National Institute for Health and Care Excellence

NICE guidance

Adalimumab for treating moderate to severe plaque psoriasis

Technology appraisal guidance
Published: 25 June 2008

www.nice.org.uk/guidance/ta146

Your responsibility

The recommendations in this guidance represent the view of NICE, arrived at after careful consideration of the evidence available. When exercising their judgement, health professionals are expected to take this guidance fully into account, alongside the individual needs, preferences and values of their patients. The application of the recommendations in this guidance is at the discretion of health professionals and their individual patients and do not override the responsibility of healthcare professionals to make decisions appropriate to the circumstances of the individual patient, in consultation with the patient and/or their carer or guardian.

All problems (adverse events) related to a medicine or medical device used for treatment or in a procedure should be reported to the Medicines and Healthcare products Regulatory Agency using the Yellow Card Scheme.

Commissioners and/or providers have a responsibility to provide the funding required to enable the guidance to be applied when individual health professionals and their patients wish to use it, in accordance with the NHS Constitution. They should do so in light of their duties to have due regard to the need to eliminate unlawful discrimination, to advance equality of opportunity and to reduce health inequalities.

Commissioners and providers have a responsibility to promote an environmentally sustainable health and care system and should assess and reduce the environmental impact of implementing NICE recommendations wherever possible.

Contents

1 Recommendations

1.1 Adalimumab is recommended as an option for treating plaque psoriasis in adults when antitumour necrosis factor (TNF) treatment is being considered, only when the condition:

- is severe as defined by a total Psoriasis Area Severity Index (PASI) of 10 or more and a Dermatology Life Quality Index (DLQI) of more than 10, and
- has not responded to conventional systemic treatments and phototherapy, or these options are contraindicated or not tolerated.

1.2 Adalimumab should be discontinued in people whose psoriasis has not responded adequately at 16 weeks. An adequate response is defined as either:

- a 75% reduction in the PASI score (PASI 75) from when treatment started **or**
- a 50% reduction in the PASI score (PASI 50) and a 5-point reduction in DLQI from start of treatment.

1.3 When using the DLQI, healthcare professionals should ensure that when reaching conclusions on the severity of plaque psoriasis they take into account a person's disabilities (such as physical impairments) and linguistic or other communication difficulties. In such cases, healthcare professionals should ensure that their use of the DLQI continues to be a sufficiently accurate measure. The same approach should apply in the context of a decision about whether to continue the use of adalimumab in accordance with section 1.2.

2 The technology

2.1 Adalimumab (Humira, Abbott Laboratories) is a recombinant human monoclonal antibody that binds specifically to tumour necrosis factor alpha (TNF-α), blocking interaction with its cell-surface receptors and thereby limiting the promotion of inflammatory pathways. It has a marketing authorisation for the treatment of moderate to severe chronic plaque psoriasis in adult patients who failed to respond to or who have a contraindication to, or are intolerant to, other systemic therapy including ciclosporin, methotrexate or PUVA. The recommended dosage for adalimumab is an initial 80 mg dose administered by subcutaneous injection, followed by 40 mg given subcutaneously every other week starting 1 week after the initial dose. Adalimumab is available in 2 presentations: a prefilled syringe and an autoinjection pen. For further information, see the summary of product characteristics (SPC).

2.2 Common adverse events associated with adalimumab, as reported in the SPC, include injection-site reactions, infections, dizziness, headache, diarrhoea, abdominal pain, stomatitis and mouth ulceration, nausea, increased hepatic enzymes, musculoskeletal pain and fatigue. Contraindications listed in the SPC include active tuberculosis or other severe infections such as sepsis, opportunistic infections and moderate to severe heart failure. For full details of side effects and contraindications, see the SPC.

2.3 Adalimumab costs £357.50 per 40-mg prefilled syringe or prefilled autoinjection pen (excluding VAT; BNF, edition 55). The average annual cost per patient of adalimumab is estimated by the manufacturer to be £10,010 in the first year and £9,295 in subsequent years. Costs may vary in different settings because of negotiated procurement discounts.

3 The manufacturer's submission

The Appraisal Committee considered evidence submitted by the manufacturer of adalimumab and a review of this submission by the Evidence Review Group (ERG).

3.1 In its submission, the manufacturer compared adalimumab with etanercept, efalizumab, infliximab, methotrexate, ciclosporin and supportive care. Results are not presented below for comparisons with methotrexate or ciclosporin, to reflect the licensed use of adalimumab.

3.2 The major clinical outcome examined was improvement in Psoriasis Area Severity Index (PASI) score – a measure of disease severity based on body surface area affected and the extent, scaliness, thickness and redness of plaques, with scores ranging from 0 to 72. The Dermatology Life Quality Index (DLQI) score was also used in the manufacturer's submission. This is a disease-specific quality-of-life measure with scores ranging from 0 to 30.

3.3 The main evidence on efficacy in the manufacturer's submission was derived from 3 randomised controlled trials (RCTs).

- M02-528 (n=147, 12-week duration), a phase II, multicentre, randomised, double-blind, placebo-controlled, dose-ranging trial based in the USA and Canada.
- REVEAL (n=1,212, 52-week duration), a phase III, multicentre, randomised trial based in the USA and Canada, consisting of a 16-week double-blind, placebo-controlled period, a 17-week open-label period and a 19-week double-blind, placebo-controlled period.
- CHAMPION (n=271, 16-week duration), a phase III, multicentre, randomised, double-blind, placebo-controlled trial based in Europe and Canada, which also compared adalimumab with methotrexate.

3.4 The results of the 3 RCTs showed that a statistically significantly greater proportion of people treated with adalimumab at its licensed dose experienced a 75% or greater reduction in PASI score (PASI 75; a primary endpoint in the trials) compared with those who received placebo. The proportions of people with at

least a PASI 75 response, relative to baseline, for adalimumab compared with placebo were: 53% versus 4% (M02-528, 12 weeks); 71% versus 7% (REVEAL, 16 weeks); and 80% versus 19% (CHAMPION, 16 weeks); respectively ($p<0.001$ in all comparisons).

3.5 Longer-term data from the REVEAL trial showed that PASI response was maintained and continued to favour adalimumab over placebo. During the open-label period of the trial, 89% of people originally randomised to adalimumab, who achieved at least a PASI 75 response at week 16, had at least a PASI 75 response at week 33. In people originally randomly assigned to placebo, PASI 90 response rates increased from week 16 to weeks 24 and 33. During the re-randomisation period of the trial (week 33 to week 52), the proportion of people for whom an adequate response was lost (a primary outcome of the trial) was statistically significantly higher for people randomly reassigned to placebo (28%) compared with people re-randomised to adalimumab (5%; between-group difference -23.5%; 95% confidence interval [CI] -16.9 to -30.2; $p<0.001$). Loss of adequate response was defined as less than a PASI 50 response relative to week 0 and at least a 6-point increase in the PASI score relative to week 33.

3.6 For secondary outcomes recorded in the trials, such as the physician's global assessment (PGA) score, the DLQI score and other health-related quality of life scores, adalimumab showed statistically significant improvements compared with placebo.

3.7 Adalimumab was generally safe and well tolerated. Data from the placebo-controlled study set (n=1,469) show that the incidence of adverse events that might be related to the study drug was statistically significantly higher in the adalimumab treatment group than in the placebo treatment group. The most commonly reported adverse effects in people treated with adalimumab were nasopharyngitis, upper respiratory tract infection and headache. The incidence of severe adverse events was low and comparable in the adalimumab and placebo treatment groups.

3.8 The manufacturer carried out an indirect comparison of adalimumab with etanercept, efalizumab, infliximab, ciclosporin and methotrexate using a mixed-treatment comparison approach within a Bayesian evidence synthesis framework. The approach compared each treatment through common links to placebo, either

by means of direct comparison or through comparison with any other active agent compared with placebo. The manufacturer included data from the 3 adalimumab RCTs described in section 3.3, 4 RCTs comparing etanercept with placebo, 4 comparing infliximab with placebo, 5 comparing efalizumab with placebo, 1 comparing ciclosporin with placebo and 1 comparing methotrexate with ciclosporin. The results from the evidence synthesis showed that the mean probability of achieving a PASI 75 response was 67% for adalimumab (95% CI 57 to 74), 81% for infliximab (95% CI 75 to 87), 38% for etanercept 25 mg (the dose recommended by NICE; 95% CI 29 to 47), 52% for etanercept 50 mg (not recommended by NICE, 95% CI 43 to 60), 29% for efalizumab (95% CI 24 to 35) and 5% for supportive care (95% CI 4 to 6).

3.9 The manufacturer based its cost-effectiveness analysis on the York model used in NICE's technology appraisal guidance on etanercept and efalizumab for the treatment of adults with psoriasis. The model was adapted by the manufacturer of adalimumab to incorporate additional evidence, including the results of the mixed-treatment comparison described in section 3.8. The updated model also included new utility data derived from empirical estimates of the relationship between PASI response rates and changes in EQ-5D from the CHAMPION study and study M02-528.

3.10 Within the model, each person underwent a preliminary period of treatment after which initial response was assessed (this was referred to as the trial period). Continuation of therapy into the next phase (referred to as the treatment period) only occurred if a PASI 75 response was achieved in the trial period. The relevant European marketing authorisations defined the time at which response was measured. These time points were 12 weeks (etanercept, efalizumab), 14 weeks (infliximab) and 16 weeks (adalimumab). The treatment period for each therapy (following a response) was taken from the York model, estimated using an annual drop-out rate of 20% for all patients. The cost and resource use data were taken from the York model, NHS Reference Costs and National Tariff and the BNF edition 53. The Personal Social Services Research Unit (PSSRU) inflation index was used to update costs from 2005 to 2006 if current costs were not available.

3.11 In the manufacturer's base-case analysis, the incremental cost per quality-adjusted life year (QALY) gained for adalimumab compared with supportive care was £30,500. Etanercept given continuously was dominated by adalimumab (that

is, adalimumab had greater effectiveness and lower costs than etanercept), and etanercept given intermittently (assumed to be 88% of the cost of continuous etanercept) and efalizumab were ruled out on the grounds of extended domination (that is, the incremental costs per QALY gained were higher than for adalimumab even though either the cost or effectiveness was more favourable).

3.12 The manufacturer's base-case analysis included only people whose psoriasis had a substantial effect on their quality of life, as indicated by a baseline DLQI score greater than 10. The manufacturer conducted a sensitivity analysis for people with milder forms of psoriasis (baseline DLQI less than or equal to 10) and this increased the incremental cost per QALY gained for adalimumab compared with supportive care from £30,500 (baseline DLQI greater than 10) to £80,100 (baseline DLQI less than or equal to 10).

3.13 The manufacturer carried out further sensitivity analyses to test key assumptions in the model. Changing the number of hospital inpatient days assumed to be avoided by using a biological therapy instead of supportive care had a large impact on the results. Changing the assumption used in the base-case analysis (21 hospital inpatient days avoided per year) to 0 days and 39 days was associated with incremental costs per QALY gained of £60,600 and £4,800, respectively, compared with supportive care.

3.14 Changing the assumption regarding the cost of intermittent etanercept from 88% of the cost of continuous etanercept to 74% (the figure used in the York model) reduced the incremental cost per QALY gained for intermittent etanercept compared with supportive care from £37,300 to £27,600.

3.15 The manufacturer also carried out a probabilistic sensitivity analysis. This estimated that adalimumab had a 46% probability of being cost effective at a threshold of £30,000 per QALY gained.

3.16 The ERG considered there to be a number of limitations with the evidence in the manufacturer's submission. It noted that very limited descriptions of the comparator trials and the methodological assumptions used in the mixed-treatment comparison were provided by the manufacturer. It was also uncertain about the appropriateness of the mixed-treatment comparison because the manufacturer did not discuss the issue of possible heterogeneity across the

trials. The ERG did, however, state that the results for most of the included treatments were broadly similar to those published by the York Assessment Group in their analysis of NICE's technology appraisal guidance on etanercept and efalizumab.

3.17 The ERG also commented that it is uncertain to what extent the trial populations included in the adalimumab and comparator trials match the population specified in the decision problem, in terms of prior treatment with systemic therapy.

3.18 The ERG identified a number of limitations with the manufacturer's model. Because of the limited information provided, the ERG was unclear about the appropriateness of the approach used by the manufacturer to relate changes in PASI scores to EQ-5D data.

3.19 The ERG pointed out the lack of information available on the number of hospital inpatient days that are avoided by use of biological therapy instead of supportive care and that changes to the assumption used in the manufacturer's model (21 days per year) had a large impact on the results for all the biological drugs. The ERG also commented that the baseline DLQI was important in determining the cost-effectiveness results (see section 3.12).

3.20 The ERG was concerned that the manufacturer's base-case assumptions for intermittent etanercept did not seem appropriate and that the dose of intermittent therapy used in the model (88% of continuous therapy) to calculate costs was inconsistent with the dose used to calculate utility gains (68%).

3.21 The ERG ran the manufacturer's model, changing the assumption for the cost of intermittent etanercept to the value used in the York model (74% of the continuous etanercept cost); this resulted in £27,300 per QALY gained for intermittent etanercept compared with supportive care and £36,700 per QALY gained for adalimumab compared with intermittent etanercept. Changing the assumption for the cost of intermittent etanercept did not alter the cost effectiveness results for adalimumab compared with continuous etanercept; adalimumab continued to have greater effectiveness and lower costs than etanercept.

3.22 The ERG performed a probabilistic sensitivity analysis, re-running the

manufacturer's model using different assumptions for treatment with intermittent etanercept (74% of the continuous etanercept dose used to calculate costs rather than 88%) and infliximab (3 infusions in the trial period rather than 4). The ERG found that adalimumab had a 16% probability of being cost effective at a threshold of £30,000 per QALY, compared with 46% estimated by the manufacturer (see section 3.15).

3.23 Full details of all the evidence are in the manufacturer's submission and the ERG report.

4 Consideration of the evidence

4.1 The Appraisal Committee reviewed the data available on the clinical and cost effectiveness of adalimumab for the treatment of psoriasis in adults, having considered evidence on the nature of the condition and the value placed on the benefits of adalimumab by people with psoriasis, those who represent them, and clinical specialists. It was also mindful of the need to take account of the effective use of NHS resources.

4.2 The Committee considered that the randomised controlled trials (RCTs) identified in the manufacturer's submission showed the clinical effectiveness of adalimumab compared with placebo in people with moderate to severe plaque psoriasis. The Committee, however, also noted that the inclusion criteria for the studies did not fully reflect the population for which this technology is licensed because the psoriasis of the participants in the trials had not necessarily failed to respond to systemic therapies. However, the Committee was reassured by the views of the clinical experts that adalimumab is as effective for people who have not responded to other available treatments as for those who are otherwise treatment naive.

4.3 The Committee noted that there are no head-to-head studies comparing adalimumab with the current standard treatment for people who have not responded to systemic therapies, in particular other biological treatments that are used in UK clinical practice as recommended in NICE's technology appraisal guidance on etanercept and efalizumab for the treatment of adults with psoriasis. The Committee heard from the clinical experts that, from clinical experience, when anti-tumour necrosis factor (TNF) is considered an appropriate treatment for a person with severe psoriasis, adalimumab could provide greater clinical benefit than etanercept. The Committee also noted the results of the mixed-treatment comparison conducted by the manufacturer, which suggested a higher probability of response after treatment with adalimumab than with etanercept. It was aware, however, that the Evidence Review Group (ERG) had expressed concerns about this analysis and that the robustness of the results was uncertain. For example, very limited descriptions of the comparator trials and the methodological assumptions used in the mixed-treatment comparison were provided by the manufacturer, and the issue of possible heterogeneity across the

trials was not discussed. Therefore the Committee was persuaded that, although there is some evidence to suggest that adalimumab may be more effective than etanercept in some circumstances, clinical superiority of adalimumab over etanercept has not been firmly established in the treatment of severe psoriasis.

4.4 The Committee heard from the clinical experts and patient representatives that adalimumab is generally easier to use than etanercept because of the self-injection dosing regimen every other week.

4.5 The Committee discussed the results of the economic analysis conducted by the manufacturer. It considered that the overall approach adopted by the manufacturer was appropriate but that there was uncertainty in the estimates of cost effectiveness. A crucial assumption in the model is that 21 hospital inpatient days are avoided by using a biological therapy compared with using supportive care without biological therapy. The Committee noted the lack of data available to inform this assumption. It heard from the clinical experts that 21 days of inpatient treatment is an appropriate estimate for people in this group with severe psoriasis who do not receive biological treatment, and that this view is supported by recently published, multicentre audit data. The Committee was also aware that this assumption had been accepted in NICE's technology appraisal guidance on etanercept and efalizumab and, in the absence of any strong evidence to the contrary, agreed that this represented the most appropriate estimate.

4.6 The Committee noted that in the manufacturer's base-case analysis using indirect comparisons, etanercept given continuously was dominated by adalimumab (that is, adalimumab had greater effectiveness and lower costs) and etanercept given intermittently (assumed to be 88% of the cost of continuous etanercept) was ruled out on the grounds of extended domination (that is, the incremental cost per quality-adjusted life year [QALY] gained was higher even though either the cost or effectiveness was more favourable).

4.7 The Committee noted that the manufacturer's base-case analysis included an estimate of utility for the use of intermittent etanercept that assumed a disutility related to the associated 'gaps' in therapy. The Committee was concerned, however, that the dose of intermittent therapy used to calculate costs (88% of the continuous etanercept dose) was estimated from US data and was inconsistent with the dose assumed in NICE's technology appraisal guidance on

etanercept and efalizumab (74%). The Committee noted that assumptions regarding the yearly dose for etanercept based on an intermittent dosing schedule had a large impact on the results, and it agreed that the assumptions used should be consistent with those applied in NICE's technology appraisal guidance on etanercept and efalizumab. It also noted the manufacturer's sensitivity analysis, where the assumption regarding the cost of intermittent etanercept was changed to 74% of the cost of continuous etanercept (as in NICE's technology appraisal guidance on etanercept and efalizumab); the resulting incremental cost per QALY gained for intermittent etanercept compared with supportive care (£27,600) was consistent with the value calculated by the ERG (£27,300) in its re-analysis of the manufacturer's model. In addition, the Committee noted that the ERG had also estimated the incremental cost per QALY gained for adalimumab compared with intermittent etanercept, which was £36,700.

4.8 The Committee considered whether the appropriate comparator for adalimumab should be etanercept given continuously or given intermittently, in line with NICE's technology appraisal guidance on etanercept and efalizumab and as indicated in the marketing authorisation for etanercept. It heard from the clinical experts that people with severe disease are either not treated with intermittent therapy or have a very small gap (often no more than 1 week) between courses of treatment if the disease flares up very quickly. The Committee was therefore persuaded that, for some people with severe psoriasis, the periods of time between courses of intermittent treatment with etanercept could often be very short. The Committee therefore agreed that, for people with severe psoriasis, the incremental cost per QALY gained for adalimumab compared with etanercept that reflected clinical practice should take into account the results calculated by the ERG for both intermittent etanercept and continuous etanercept (that is, £36,700 per QALY gained and dominating [greater effectiveness and lower costs for adalimumab], respectively). Although the precise value was not known and would depend on the assumptions regarding the length of time between courses of etanercept, the Committee accepted that it would be likely to be within a range consistent with that which it had previously considered to be a cost-effective use of NHS resources.

4.9 The Committee was aware that the manufacturer's base-case analysis (and the ERG's re-analysis of this described in section 4.6) only included people whose

psoriasis had a substantial effect on their quality of life, as indicated by a baseline Dermatology Life Quality Index (DLQI) score greater than 10. The Committee noted that the manufacturer had conducted a sensitivity analysis on the base case for people with milder forms of psoriasis (baseline DLQI less than or equal to 10) and that this increased the incremental cost per QALY gained for adalimumab compared with supportive care from £30,500 (baseline DLQI greater than 10) to £80,100 (baseline DLQI less than or equal to 10). The Committee therefore agreed that the use of adalimumab for people who have moderate disease with a DLQI less than or equal to 10 would not be a cost-effective use of NHS resources.

4.10 The Committee considered how the population with severe psoriasis could be defined. It heard from the clinical experts that a combination of DLQI and Psoriasis Area Severity Index (PASI) is routinely used in clinical practice and agreed that it would be appropriate to define severe disease as a PASI of 10 or more and a DLQI of more than 10 in line with NICE's technology appraisal guidance on etanercept and efalizumab.

4.11 The Committee concluded that adalimumab should be recommended as a treatment option only for people with severe plaque psoriasis when standard systemic therapies have failed. Owing to the limitations of the clinical effectiveness data and the uncertainty around the cost-effectiveness results, the Committee further concluded that it could not recommend adalimumab in preference to etanercept and that clinicians would need to exercise their clinical judgement in choosing between the 2 treatments.

4.12 The Committee considered the appropriate duration of treatment. It noted that the principal endpoint in the phase III adalimumab trials was a PASI 75 response at 16 weeks and that this was the time-point at which response to treatment was assessed in the cost-effectiveness analysis. Therefore, the Committee concluded that it would be appropriate for treatment to be continued beyond 16 weeks only in people whose psoriasis had shown a PASI 75 response to treatment within 16 weeks. In addition, the Committee agreed that the response criteria should be defined in a similar way to NICE's technology appraisal guidance on etanercept and efalizumab and should include an additional alternative criterion of a PASI 50 response and a 5-point reduction in the DLQI from start of treatment.

4.13 The Committee was aware that there may be some circumstances when the DLQI is not a clinically appropriate tool to inform a clinician's conclusion on the severity of plaque psoriasis, for example, because of a person's disabilities (such as physical impairments) or linguistic or other communication difficulties. The Committee concluded that in such cases healthcare professionals should ensure that their use of the DLQI continues to be a sufficiently accurate measure. The same approach should apply in the context of a decision about whether to continue the use of adalimumab.

5 Implementation

5.1 Section 7 of the National Institute for Health and Care Excellence (Constitution and Functions) and the Health and Social Care Information Centre (Functions) Regulations 2013 requires integrated care boards, NHS England and, with respect to their public health functions, local authorities to comply with the recommendations in this evaluation within 3 months of its date of publication.

5.2 The Welsh ministers have issued directions to the NHS in Wales on implementing NICE technology appraisal guidance. When a NICE technology appraisal guidance recommends the use of a drug or treatment, or other technology, the NHS in Wales must usually provide funding and resources for it within 2 months of the first publication of the final draft guidance.

5.3 When NICE recommends a treatment 'as an option', the NHS must make sure it is available within the period set out in the paragraph above. This means that, if a patient has psoriasis and the healthcare professional responsible for their care thinks that adalimumab is the right treatment, it should be available for use, in line with NICE's recommendations.

6 Recommendations for further research

6.1 The Committee recommends that further research should be conducted comparing available anti-tumour necrosis factor (TNF) agents (such as adalimumab, etanercept and infliximab) with each other.

7 Appraisal Committee members and NICE project team

Appraisal Committee members

The Appraisal Committee is a standing advisory committee of NICE. Its members are appointed for a 3-year term. A list of the Committee members who took part in the discussions for this appraisal appears below. The Appraisal Committee meets 3 times a month except in December, when there are no meetings. The Committee membership is split into 3 branches, each with a chair and vice chair. Each branch considers its own list of technologies, and ongoing topics are not moved between the branches.

Committee members are asked to declare any interests in the technology to be appraised. If it is considered there is a conflict of interest, the member is excluded from participating further in that appraisal.

The minutes of each appraisal committee meeting, which include the names of the members who attended and their declarations of interests, are posted on the NICE website.

Professor Keith Abrams
Professor of Medical Statistics, University of Leicester

Dr Ray Armstrong
Consultant Rheumatologist, Southampton General Hospital

Dr Jeff Aronson
Reader in Clinical Pharmacology, University Department of Primary Health Care, University of Oxford

Dr Darren Ashcroft
Reader in Medicines Usage and Safety, School of Pharmacy and Pharmaceutical Sciences, University of Manchester

Professor David Barnett (Chair)

Professor of Clinical Pharmacology, University of Leicester

Professor Stirling Bryan
Head, Department of Health Economics, University of Birmingham

Professor John Cairns
Professor of Health Economics, Department of Public Health and Policy, London School of Hygiene and Tropical Medicine

Dr Mark Charkravarty
Director, External Relations, Procter and Gamble Health Care, Europe

Professor Jack Dowie
Health Economist, London School of Hygiene and Tropical Medicine

Ms Lynn Field
Nurse Director, Pan Birmingham Cancer Network

Professor Christopher Fowler
Professor of Surgical Education, Barts and The London School of Medicine and Dentistry, Queen Mary, University of London

Dr Fergus Gleeson
Consultant Radiologist, Churchill Hospital, Oxford

Ms Sally Gooch
Independent Nursing and Healthcare Consultant

Mrs Barbara Greggains
Lay member

Mr Sanjay Gupta
Former Service Manager in Stroke, Gastroenterology, Diabetes and Endocrinology, Basildon and Thurrock University Hospitals Foundation NHS Trust

Mr Terence Lewis
Lay member

Professor Gary McVeigh
Professor of Cardiovascular Medicine, Queens University, Belfast

Dr Ruairidh Milne
Senior Lecturer in Public Health, National Coordinating Centre for Health Technology, University of Southampton

Dr Neil Milner
General Medical Practitioner, Tramways Medical Centre, Sheffield

Dr Rubin Minhas
General Practitioner, Coronary Heart Disease Clinical Lead, Medway PCT

Dr John Pounsford
Consultant Physician, Frenchay Hospital, Bristol

Dr Rosalind Ramsay
Consultant Psychiatrist, Adult Mental Health Services, Maudsley Hospital, London

Dr Stephen Saltissi
Consultant Cardiologist, Royal Liverpool University Hospital

Dr Lindsay Smith
General Practitioner, East Somerset Research Consortium

Mr Roderick Smith
Finance Director, West Kent PCT

Mr Cliff Snelling
Lay member

Professor Ken Stein
Professor of Public Health, Peninsula College of Medicine and Dentistry, University of Exeter

Professor Andrew Stevens
Professor of Public Health, Department of Public Health and Epidemiology, University of Birmingham

Dr Rod Taylor
Associate Professor in Health Services Research, Peninsula Medical School, Universities of Exeter and Plymouth

NICE project team

Each technology appraisal is assigned to a team consisting of 1 or more health technology analysts (who act as technical leads for the appraisal), a technical adviser and a project manager.

Helen Knight
Technical Lead

Zoe Charles
Technical Adviser

Natalie Bemrose
Project Manager

8 Sources of evidence considered by the Committee

The Evidence Review Group (ERG) report for this appraisal was prepared by Southampton Health Technology Assessments Centre (SHTAC), University of Southampton:

- Turner D, Picot J, Cooper K et al. Adalimumab for the treatment of psoriasis, November 2007.

The following organisations accepted the invitation to participate in this appraisal. They were invited to comment on the draft scope, the ERG report and the appraisal consultation document (ACD). The manufacturer or sponsor, and professional, specialist, patient and carer groups were also invited to make written submissions. The professional, specialist, patient and carer groups had the opportunity to give their expert views on adalimumab by providing a written statement to the Committee. The manufacturer or sponsor, and professional, specialist, patient and carer groups, and other consultees have the opportunity to appeal against the final appraisal determination.

Manufacturer or sponsor:

- Abbott Laboratories Limited

Professional, specialist, patient and carer groups:

- Psoriasis and Psoriatic Arthritis Alliance
- Psoriasis Association
- British Association of Dermatologists
- Royal College of Nursing
- Royal College of Physicians

Other consultees:

- Nottinghamshire PCT
- Department of Health

- Welsh Assembly Government

Commentator organisations (did not provide written evidence and without the right of appeal):

- Department of Health, Social Services and Public Safety for Northern Ireland
- NHS Quality Improvement Scotland
- Novartis Pharmaceuticals UK Limited
- Pfizer
- MerckSerono Limited
- Wyeth Pharmaceuticals

The following individuals were selected from clinical specialist and patient advocate nominations from the non-manufacturer or sponsor consultees and commentators. They gave their expert personal view on adalimumab by attending the initial Committee discussion and providing written evidence to the Committee. They were also invited to comment on the ACD.

- Professor Christopher Griffiths, Professor of Dermatology, Head of The Dermatology Centre and Division of Medicine and Neurosciences, University of Manchester. Nominated by Royal College of Physicians – clinical specialist
- Professor Jonathan Barker Professor of Consultant Dermatologist, Head of Psoriasis Unit, St John's Institute of Dermatology. Nominated by the British Association of Dermatologists – clinical specialist
- Mr Ray Jobling, Chairman of the Psoriasis Association. Nominated by the Psoriasis Association – patient expert
- Mr David Chandler. Nominated by the Psoriasis and Psoriatic Arthritis Alliance – patient expert

9 Update information

November 2025: We have made minor editorial changes to the wording in section 1.1 to align with the NICE guideline on psoriasis: assessment and management. This does not affect the meaning or intent of the guidance.

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