Subcutaneous Injection of Adalimumab Trial compared with Control (SCIATiC): a randomised controlled trial of adalimumab injection compared with placebo for patients receiving physiotherapy treatment for sciatica

Nefyn H Williams,[1,2*] Alison Jenkins,[1] Nia Goulden,[1] Zoe Hoare,[1] Dyfrig A Hughes,[1] Eifiona Wood,[1] Nadine E Foster,[3] David A Walsh,[4] Dawn Carnes,[5] Valerie Sparkes,[6] Elaine M Hay,[3] John Isaacs,[7] Kika Konstantinou,[3] Dylan Morrissey,[8] Jaro Karppinen,[9] Stephane Genevay[10] and Clare Wilkinson[1]

[1]School of Healthcare Sciences, Bangor University, Bangor, UK
[2]Betsi Cadwaladr University Health Board, Bangor, UK
[3]Research Institute of Primary Care and Health Sciences, Keele University, Keele, UK
[4]Arthritis Research UK Pain Centre Division of Rheumatology, Orthopaedics and Dermatology, University of Nottingham, Nottingham, UK
[5]Centre for Primary Care and Public Health, Bart's and the London School of Medicine and Dentistry, London, UK
[6]School of Healthcare Sciences, Cardiff University, Cardiff, UK
[7]National Institute for Health Research Newcastle Biomedical Research Centre, Newcastle University, Newcastle upon Tyne, UK
[8]Centre for Sports and Exercise Medicine, William Harvey Research Institute, Bart's and the London School of Medicine and Dentistry, Queen Mary University of London, London, UK
[9]Medical Research Centre Oulu, University of Oulu, Oulu, Finland
[10]Rheumatology Department, Geneva University Hospitals, Geneva, Switzerland

*Corresponding author nefyn.williams@bangor.ac.uk

Declared competing interests of authors: Nefyn H Williams declares membership of the Health Technology Assessment (HTA) Primary Care, Community and Preventative Interventions Panel. Dyfrig A Hughes reports other grants from National Institute for Health Research (NIHR) during the conduct of the study and membership of the HTA Clinical Trials Board from 2010 to 2016, the HTA Funding Teleconference from 2015 to 2016 and the Pharmaceuticals Panel from 2008 to 2012. Eifiona Wood reports other grants from NIHR during the conduct of the study. Nadine E Foster declares membership of the HTA Primary Care, Community and Preventative Interventions Panel. David A Walsh reports grants from Pfizer Ltd and personal fees from Novartis Pharmaceuticals UK Ltd outside the submitted work. Kika Konstantinou reports other grants from NIHR during the conduct of the study. Jaro Karppinen reports personal fees from lectures (Pfizer Ltd, Merck & Co., Inc. and ORION Pharma GmbH), personal fees from a scientific advisory board (Axsome Therapeutics Inc.) and personal fees from stocks (ORION Pharma GmbH) outside the submitted work. Stephane Genevay reports grants from AbbVie Inc., Merck & Co., Inc., Pfizer Ltd, University Hospitals of Geneva, the Rheumasearch Foundation, Fondation de bienfaisance Eugenio Litta and Centre de Recherches outside the submitted work.

Published October 2017
DOI: 10.3310/hta21600

Plain English summary

The SCIATiC RCT

Health Technology Assessment 2017; Vol. 21: No. 60
DOI: 10.3310/hta21600

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

Plain English summary

Sciatica is a severe leg pain usually caused by inflammatory chemicals released from a ruptured intervertebral disc irritating a nerve as it leaves the spine. Biological treatments such as adalimumab (Humira®, AbbVie Ltd, Maidenhead, UK) block the effects of these chemicals and may be effective for treating sciatica.

We aimed to test whether or not adalimumab injections plus physiotherapy are more effective, and better value for money, than saline injections plus physiotherapy for patients with sciatica.

Participants were adults with sciatica for 1–6 months and with moderate or high disability. They were referred from primary care and musculoskeletal services to outpatient physiotherapy clinics. They received, at random, either two doses of adalimumab or saline injections. Both groups were referred for a course of physiotherapy treatment.

Outcomes were measured at the start, and after 6 weeks' and 6 months' follow-up. The main outcome was back pain-related disability. Other outcomes measured leg pain disability, bothersomeness, general health, anxiety, depression, resource use, predictors of disability and adverse effects.

We planned to recruit 332 participants, with the first 50 taking part in a pilot study. Unfortunately, only eight participants were recruited from two out of six sites. Of the other four sites, one dropped out, one failed to complete contract negotiations and two did not sign their contracts until just before trial closure. In the two sites that did recruit participants, large numbers of invitations were sent, but uptake was poor. Two sites planned to recruit participants during general practitioner consultations but opened too late to recruit.

The research question is still an important one to answer. A number of factors contributed to poor recruitment: contracts, inefficient identification of participants, delays in site set-up and lack of investigator engagement. Because of this, we were not able to complete the internal pilot or test all of the different methods for primary care recruitment that we had planned.

Health Technology Assessment

HTA/HTA TAR

ISSN 1366-5278 (Print)

ISSN 2046-4924 (Online)

Impact factor: 4.236

Health Technology Assessment is indexed in MEDLINE, CINAHL, EMBASE, The Cochrane Library and the Clarivate Analytics Science Citation Index.

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. Print-on-demand copies can be purchased from the report pages of the NIHR Journals Library website: www.journalslibrary.nihr.ac.uk

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

The HTA programme, part of the National Institute for Health Research (NIHR), was set up in 1993. It produces high-quality research information on the effectiveness, costs and broader impact of health technologies for those who use, manage and provide care in the NHS. 'Health technologies' are broadly defined as all interventions used to promote health, prevent and treat disease, and improve rehabilitation and long-term care.

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.

For more information about the HTA programme please visit the website: http://www.nets.nihr.ac.uk/programmes/hta

This report

The research reported in this issue of the journal was funded by the HTA programme as project number 12/201/02. The contractual start date was in January 2015. The draft report began editorial review in February 2017 and was accepted for publication in May 2017. 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 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, NETSCC, the HTA programme or the Department of Health. 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, NETSCC, the HTA programme or the Department of Health.

Published by the NIHR Journals Library (www.journalslibrary.nihr.ac.uk), produced by Prepress Projects Ltd, Perth, Scotland (www.prepress-projects.co.uk).