Clinical effectiveness and cost-effectiveness of beta-interferon and glatiramer acetate for treating multiple sclerosis: systematic review and economic evaluation

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Declared competing interests of authors: Olga Ciccarelli received consultancy fees from Novartis, Biogen Idec Ltd General Electric and Genzyme. All payments were made to her employer, the UCL Institute of Neurology. She also received reimbursement from Novartis and the European Committee for Treatment and Research in Multiple Sclerosis (ECTRIMS) for attending a symposium and funds from the UK MS Society, Engineering and Physical Sciences Research Council (EPSRC), University College London Hospitals NHS Foundation Trust and UCL Hospitals Biomedical Research Centre for research. Aileen Clarke is an editor of the journal Health Technology Assessment. All payments are made to her employer, the Warwick Medical School. Carl Counsell received funding through Biogen Idec Ltd for a departmental multiple sclerosis (MS) nurse. He has also authored a paper that was critical of the UK risk-sharing scheme for disease-modifying therapies in MS (Sudlow CLM, Counsell CE. Problems with UK government’s risk sharing scheme for assessing drugs for multiple sclerosis. BMJ 2003;326:388–92). Jeremy Rodrigues holds a fellowship at the National Institute for Health and Care Excellence. This fellowship is unremunerated. Aileen Clarke and GJ Melendez–Torres are partly supported by the National Institute for Health Research (NIHR) Collaboration for Leadership in Applied Health Research and Care West Midlands at the University Hospitals Birmingham NHS Foundation Trust.

Published September 2017
DOI: 10.3310/hta21520
Plain English summary

Effectiveness of β-IFN and GA for treating MS
Health Technology Assessment 2017; Vol. 21: No. 52
DOI: 10.3310/hta21520

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Plain English summary

Multiple sclerosis (MS) causes inflammation of the nerves. It is a leading cause of disability in the UK. This study is about two types of MS. In relapsing–remitting MS (RRMS) people have relapses, or attacks of more severe illness and recovery. In clinically isolated syndrome (CIS) people have just one episode but are thought to be at high risk of developing MS.

Various treatments are available for RRMS and CIS, including different types of beta-interferons and glatiramer. We focused on these two types of drugs. In this study we looked at the clinical effectiveness and cost-effectiveness of these drugs for RRMS and CIS.

We carried out systematic reviews of randomised controlled trials. We pooled the results on relapse rates with time to worsening of the disease. We drew on a risk-sharing scheme set up by the Department of Health to collect long-term information on the disease-modifying therapies. We developed our own model for CIS.

We found that all of these drugs were clinically effective in both RRMS and CIS. The studies were at high risk of bias and had short follow-up times. As a whole, these drugs were not cost-effective for RRMS. We found that glatiramer was the most cost-effective option for CIS.

We think that longer-term research is needed that compares these drugs with each other. A review of qualitative studies is also needed so that we can understand more about the preferences and experiences of people living with MS.
Health Technology Assessment

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.

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This report

The research reported in this issue of the journal was commissioned and funded by the HTA programme on behalf of NICE as project number 13/74/01. The protocol was agreed in July 2016. The assessment report began editorial review in September 2016 and was accepted for publication in January 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.

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