



Long-term effectiveness of treatments for multiple sclerosis

Background:

- Multiple sclerosis (MS) is a chronic disease causing disability over decades.
- It is important to know whether the short-term benefits of drug treatments (interferon beta and glatiramer acetate) are still effective many years later.
- The UK's National Institute for Health and Care Excellence (NICE) does not currently recommend the treatments as the long-term benefits are uncertain, balanced against the cost.
- This study worked with drug companies to follow up patients over a 10-year period, measuring levels of disability using standardised questionnaires.
- Patients in both the early stages of the disease (relapsing-remitting) and in the later stages (secondary progressive) were included.
- These patients were compared with patients on a Canadian database that recorded the natural progression of MS between 1980 and 1995, when the disease was untreated.

Findings:

- A total of 4,862 patients with MS were followed up, with at least one set of disability scores obtained from 97.5%. From the Canada dataset 978 patients were identified for comparison.
- Questionnaire data for a minimum of nine years was obtained for 77% of patients.
- High-quality data was able to be obtained over a long period of time from a large cohort.
- The disease effects were reduced by 23%-24% across the whole group, and by 24%-31% in the patients in the relapsing-remitting phase.
- The benefits were still effective 10 years later, with reduced disability scores and a stable quality of life.
- The largest benefit was for those still in the relapsing-remitting phase at the outset; those who started treatment earlier; and for women.
- The outcome demonstrated that the cost was worthwhile, though the effect of the drugs appeared to reduce over time.
- Given the high cost of treatment and the reducing effect of the drugs, further study is needed to identify whether treatment could be discontinued once a given level of disability is reached.

Reference:

Palace J, Duddy M, Lawton M, et al. Assessing the long-term effectiveness of interferon-beta and glatiramer acetate in multiple sclerosis: final 10-year results from the UK multiple sclerosis risk-sharing scheme. *J Neurol Neurosurg Psychiatry* 2019;**90**(3):251-60. doi: <https://doi.org/10.1136/jnnp-2018-318360>.



Recommendations for Practice

The short-term benefits of drug treatments have been shown to be sufficiently effective over a 10-year period to justify the cost.

However, as the benefit weakens over time there is a question about whether treatment should be discontinued after a certain point.

Further work to assess this should now be undertaken.

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