

**MEDICAL UPDATE MEMO**  
**MARCH 14, 2003**

**LONG-TERM BENEFITS OF INTERFERONS IN MS**  
**SUBJECT OF JOURNAL REVIEW ARTICLE**

**SUMMARY**

The long-term benefit of disease modifying drugs continues to be debated within the research and clinical communities. A review published in the scientific journal *The Lancet* (February 15, 2003) concluded that the benefit of interferons to treat relapsing-remitting MS is unclear beyond one year because of the way the various clinical trials were designed and reported. The study, which was led by Italian researcher Dr. Graziella Filippini, also suggested that further clinical trials are needed to assess the drugs' long-term effectiveness. An MS Society of Canada/Health Canada funded study now underway at Queen Elizabeth II Health Sciences Centre in Halifax may help provide some answers to these questions in the future. In the meantime, the Multiple Sclerosis Society of Canada recommends people with MS and their physicians follow the consensus prescribing guidelines issued by the Canadian MS Clinics Network.

**DETAILS**

The long-term benefit of disease modifying drugs continues to be debated within the research and clinical communities. A review published in the scientific journal *The Lancet* (February 15, 2003) concluded that the benefit of interferons to treat relapsing-remitting MS is unclear beyond one year because of the way the various clinical trials were designed and reported.

The review was led by Dr. Graziella Filippini (National Neurological Institute "C Besta", Milan, Italy) and involved six other investigators including Dr. George Ebers (University of Oxford and formerly University of Western Ontario) and Dr. George Rice (University of Western Ontario). The authors of the review selected seven clinical trials of interferon alpha and beta in MS out of a total of 24 possible studies. The studies all involved people with relapsing-remitting MS. Because of differences in the way the seven studies were designed and reported, the review was not able to examine the drugs' impact on the same clinical measures for all seven.

By combining the results of five out of the seven trials, the authors verified the benefit of interferons over the course of one year in reducing the number of study participants having an MS attack (relapse). This beneficial effect could not be verified beyond the first year because of the differing study designs and because of the number of participants who dropped out of the studies over time. The authors also suggested that further clinical trials are needed to assess the drugs' long-term effectiveness.

An MS Society of Canada/ Health Canada funded study now underway at Queen Elizabeth II Health Sciences Centre in Halifax may help provide some answers to therapy effectiveness questions. Dr. John Fisk is leading a study to determine the effectiveness and cost-effectiveness of the four approved disease modifying MS therapies in actual use as opposed to usage in a clinical trial setting. Using data from the Nova Scotia MS Therapy Program, natural history information and measurements of disability, he is assessing the effectiveness (including cost effectiveness) of the therapies over time. The three-year project began April 2002.

Three different versions of beta interferon (Avonex®, Betaseron® and Rebif®) and one non-beta interferon, glatiramer acetate (Copaxone®), are approved in Canada to treat relapsing multiple sclerosis following individual review of each therapy by Health Canada. In 1999, a consensus statement on prescribing the therapies was published by the Canadian MS Clinics Network and supported by the MS Society of Canada. The consensus statement provides criteria for physicians' use in determining whether their patients might benefit from treatment with one of the therapies. The MS Society of Canada suggests that until longer-term and consistently-designed studies are available, people with MS and their physicians follow the Canadian MS Clinics Network consensus guidelines. (The guidelines are available by contacting the nearest division office of the MS Society of Canada at 1 800 268-7582.)

*(With information from the National MS Society [USA])*

**ASK MS Code**

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National Research Department  
National Communications & Social Action Department

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