The role of specialist nurses in multiple sclerosis: a rapid and systematic review

De Broe S, Christopher F, Waugh N

Authors’ objectives
To assess the effectiveness and cost-effectiveness of specialist nurses in improving the care and outcomes for patients with multiple sclerosis (MS).

Searching
The following sources were searched during the period 1982 to 1999 (dates for each source were listed in the report): the Cochrane Library, MEDLINE, PREMEDLINE, CINAHL, NHS EED, the National Research Register, PsycLIT, AMED, ASSIA, British Nursing Index, HMIC, NLM, RCN Journals Database, HealthSTAR, the Science Citation Index, the Social Sciences Citation Index and EMBASE. The search was limited to publications in the English language. The MeSH terms used were ‘Multiple sclerosis’ under the subheading ‘Nursing’; free text searching used ‘Multiple sclerosis near/and nurs*’. The bibliographies of related papers were assessed for relevant studies.

Study selection
Study designs of evaluations included in the review
The following study designs were pre-specified for inclusion: systematic reviews and randomised controlled trials (RCTs), non-randomised experimental studies, observational studies, and qualitative studies (including surveys). The included study, which had no control group, was an evaluation of a service by means of nurses’ records, and questionnaires sent to the patients and general practitioners (GPs).

Specific interventions included in the review
The pre-specified intervention was the specialist nurse for patients with MS. The role of the specialist nurse included care management.

Participants included in the review
People diagnosed with MS.

Outcomes assessed in the review
The primary outcome measures sought were patient-related outcomes, including symptom management, quality of life and quality of care.

How were decisions on the relevance of primary studies made?
The titles and abstracts were screened for inclusion by one reviewer, and the decisions were checked by a second. The full papers were examined for inclusion by two reviewers; a third reviewer also read most papers. Any disagreements were resolved through discussion.

Assessment of study quality
The included studies were assessed using the critical appraisal criteria outlined in the Wessex Institute for Health Research and Development Rapid Reviews Team Guidelines (no reference given). The included study underwent a quality assessment by three reviewers, and any disagreements were resolved through discussion.

Data extraction
The data were extracted by two reviewers, and any disagreements were resolved through discussion.

Data were extracted for study and design, intervention, outcome measures and results.
Methods of synthesis
How were the studies combined?
Only one study was included; this was described in the text and a table.

How were differences between studies investigated?
Only one study was included.

Results of the review
One service evaluation study was included (136 patients referred to a MS liaison nurse service, which appeared to involve only one nurse).

There was considerable methodological weakness in the design of the included study: the method of sampling was unclear; there was no control group; the outcome assessment was not independent; and the prior beliefs of the investigators and funding body may have influenced the results. The study concluded that patients with MS and their carers found the MS specialist nurse to be helpful, particularly in improving their knowledge of MS, ability to cope, mood and confidence about the future. GPs also reported the nurse to be helpful. It was unclear whether the results of the study could be extrapolated to other settings or to other groups of MS patients.

The lack of studies evaluating specialist nurses in MS meant that, subsequently, less extensive searches were carried out for studies evaluating specialist nurses in diabetes mellitus, epilepsy and Parkinson's disease. No high-quality evidence was found from which to extrapolate to MS. This part of the review was not reported in detail.

Cost information
A cost-effectiveness analysis was not possible due to the lack of data. The estimated salary for a MS specialist nurse in the UK is between £17,000 and £26,000 per year, depending on their grade and location; this was based on a report by the Royal College of Nursing. The authors report that currently there are no good data on whether access to a MS specialist nurse will reduce the costs to the NHS or social services, or whether it will increase the costs through improved knowledge and uptake of services and benefits.

Authors' conclusions
The authors concluded that present evidence does not make it possible to comment with any certainty on the value of specialist nurses in MS.

CRD commentary
The review addressed a clear question in terms of the participants, intervention and outcomes. The study designs eligible for inclusion were specified. An extensive search was conducted, although the search strategy was limited largely to electronic databases and English language publications (a common feature of rapid reviews such as this). It is, therefore, possible that some relevant studies were missed. The selection of studies for inclusion, the quality assessment and the data extraction were performed by more than one reviewer to minimise bias. The critical appraisal method was named but the criteria used were not described. The one included study was tabulated clearly, and the results were described in the context of methodological limitations of the study. The report included a list of the studies excluded, which is helpful.

The authors' conclusion is supported by the evidence presented.

Implications of the review for practice and research
Practice: The authors state that expert opinion seems to be that MS specialist nurses are valuable in the care and management of MS, but there is a lack of high-quality research evidence to substantiate this opinion.

Research: The authors state that further research is needed before firm recommendations can be made on the value of MS specialist nurses relative to other possible uses of funds. Two UK studies that have, as yet, to report their results
were described in the report.

**Funding**
NHS R&D Health Technology Assessment (HTA) Programme, project number 99/05/04.

**Bibliographic details**

**Original Paper URL**
http://www.hta.ac.uk/project.asp?PjtId=1166

**Indexing Status**
Subject indexing assigned by NLM

**MeSH**
Diabetes Mellitus /nursing; Epilepsy /nursing; Great Britain /epidemiology; Multiple Sclerosis /epidemiology /nursing; National Health Programs /economics; Nurse Clinicians; Parkinson Disease /nursing; Quality-Adjusted Life Years

**AccessionNumber**
12001008401

**Date bibliographic record published**
30/06/2002

**Date abstract record published**
30/06/2002

**Record Status**
This is a critical abstract of a systematic review that meets the criteria for inclusion on DARE. Each critical abstract contains a brief summary of the review methods, results and conclusions followed by a detailed critical assessment on the reliability of the review and the conclusions drawn.