Reviewer's report

Title: The quality of care delivered to Parkinson's disease patients in the U.S. Pacific Northwest Veterans Health System

Version: 1 Date: 28 February 2006

Reviewer: Richard Walker

Reviewer's report:

General

1) This study is a retrospective review of the administrative database, the Pacific Northwest Veterans Health Administration (VHA) data warehouse, from which data on a random sample of 150 patients with idiopathic Parkinson’s disease (IPD) was collected. The authors analysed 5 care indicators for adherence to screening – annual screening for depression, annual screening for falls, management of urinary incontinence, management of orthostatic hypotension (OH) and management of hallucinations. They identified poor adherence rates with discrepancies between the different indicators and between different care providers. This is an important paper as optimal management of such care indicators in IPD can have a major impact on individual quality of life.

2) Physician diagnosis of definite or possible IPD was confirmed from clinic letters with additional information gathered relating to cardinal features and supportive and non-supportive clinical criteria so the diagnoses are likely to be as reliable as possible from this type of data source.

3) Development of medical chart abstraction instrument
   The authors are obviously very experienced at this type of work and quote similar previous work by them from Los Angeles. Their methods appear robust.

4) ANALYSIS
   Appropriate statistical tests have been used. A patient-year was defined as having non-VA care if any encounter during that period noted non-VA care. I presume this will provide accurate data but am not familiar enough with the US system to know this for sure.

5) The authors found disappointingly low rates for the five evidence-based quality of care indicators except management of urinary incontinence, which also appeared to be better managed outwith specialty care, unlike falls which were better screened within specialty care. Also patients receiving care outside the VA system were more likely to be adherent for depression screening.

6) Their explanations for their results, including coordination problems and role responsibility confusion seem reasonable. It might be worth going on to detail recommendations to improve matters.

7) Within most PD specialist services in the UK symptoms of OH, hallucinations and falls would be routinely asked about whereas management of urinary incontinence and depression screening is perhaps more haphazard. It will be interesting to see if publication of this paper leads to improvement in the areas highlighted and it would certainly be worth repeating this study in a few years time with the same methodology to assess this.

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

1) 1998 to 2004 who either had an ICD 9 code suggesting Parkinsonism or where on dopaminergic medication (levodopa or dopamine agonist), but they have not included Selegiline (a monoamine-oxidase inhibitor type B) which is sometimes used as monotherapy in early IPD. Addition of this is only likely to add small numbers.

2) From the 5864 identified a random sample of 350 patient charts underwent further review but it is not stated how these 350 were randomly selected. Why was this number chosen?

3) The 5 care indicators from the original 16 PD-specific “evidence-based guide to key care processes and PD management” were selected to represent a range of preventative, primary and speciality care. The authors provide a table with the defined eligibility (denominator), and defined adherence (numerator) for each care indicator. For annual depression screening the defined adherence is “screening for depression with at least note of the presence or absence”. Was use of a recognised depression scale required? Which depression scales are most commonly used? The definition of depression in PD is difficult as the somatic symptoms of PD, such as bradykinesia, can, in themselves, lead to high scoring on a depression score.

4) The defined adherence for annual falls screening was “Medical record documents patient asked about falls at least once a year”. Retrospective re-call data for falls is often inaccurate, particularly over a longer period of time and is something that should probably be asked on each visit.

5) The defined eligibility for OH management is “patient with symptomatic OH not responsive to behaviour modification” with the defined adherence as “prescribing Midodrine or Fludrocortisone”. OH is a common problem in PD but is rarely severe enough to require drug therapy in addition to behaviour modification and so it is not too surprising that the number of positive assessments is small. Also contra-indications to drug treatment in this relatively elderly population with other co-morbidities, are likely to be common.

6) For hallucination management there was a defined eligibility of “patient with PD having persistent hallucinations or delirium not improved by discontinuation or reduction of IPD medications” with the defined adherence prescription of Quetiapine or Clozapine…..” Again, it is not too surprising that there were a small number of incidences on assessment recorded as positive. Other potential drug management could include cholinesterase inhibitors.

7 Data collection
The data was collected by an experienced and appropriately qualified individual but only 7% of the charts were assessed by a second trained medical chart reviewer to assess inter-rater reliability for diagnostic accuracy and presence of care criteria for indicators. It might have been better to include more.

8) RESULTS
317/350 patients had adequate medical records for determination of diagnosis and it is quite surprising that less than half of these actually had a diagnosis of IPD or possible IPD and then in fact 93 had a non-Parkinsonism movement disorder and a further 47 another neurological disorder. Are these individuals receiving inappropriate treatment? It would certainly be worth the authors commenting why they felt there was such a high false positive rate. As the authors point out it is not surprising that the positive patients were statistically more likely to have the clinically correct
characteristics evaluated.

9) It is very surprising that only 52.7% of the patients had seen a specialist at some point in their care. This and the fact that only 2.4% of all visits were to geriatrics, reflects a big difference from UK clinical practice where now increasingly patients are under specialist care and supervision and this is equally provided by both geriatricians and neurologists. Another under-represented group appears to be therapists, in that only 3.3% of visits were to physiotherapy and 0.5% of visits to occupational therapy. This might be worth making more of in the discussion.

Discretionary Revisions (which the author can choose to ignore)

What next?: Accept after minor essential revisions

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: No

Declaration of competing interests:

I declare that I have no competing interests.