poorly controlled diabetes mellitus, anticoagulant therapy, infection, and hypermobility syndromes are absolute contraindications to spinal manipulation.⁷ Despite these various precautions, many potentially vulnerable patients will be unidentified and it is likely that patients will continue to present with neurological complications after chiropractic manipulation.

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random sample of the adult population of the United Kingdom, The Netherlands, and Sweden.² As a result, the summary index score does not quantify the respondent's value of their own health, but rather the value that the general population would place on the respondent's health. By contrast, the visual analogue scores are direct measures of the value a respondent places on his or her own health. It is not surprising that the summary index scores and visual analogue scale scores are somewhat different in the study by Schrag *et al*.

These properties of the EQ-5D make it an indicated measure of health status for certain applications, particularly estimating health utility for cost-utility analysis. It is, perhaps, a fortunate accident that it is also a valid measure of quality of life in patients with Parkinson's disease.

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Selai *et al* reply:

We thank Siderowf and Werner for their interest in the EQ-5D and our work. They raise important points about the use and interpretation of generic quality of life instruments.

The valuation of health states raises many complex methodological and ethical issues and it is the topic of considerable debate in the literature.¹ Although we have participated in this debate,² we did not enter into a discussion of these issues in our recent paper because this was beyond the scope of that study.

The EQ-5D is a generic measure that has three distinct components, each providing separate data. The first part yields a simple descriptive profile of the respondents' own subjective health status in five dimensions. Secondly, the respondents next rate their own health on a visual analogue scale, calibrated 0-100. Thirdly, according to how the respondents have rated themselves on the descriptive profile, a utility value can be ascertained. Thus, the EQ-5D generates a cardinal index of health, giving it considerable potential for use in both economic evaluation and for ascertaining a person's subjective perspective of their own health status. The EQ-5D classification system defines a fixed number of health states, which may include health states valued worse than death, but leaves open the issue of what value should be assigned to each of those states.³ Valuation data sets have been obtained in several countries, both European and non-European.

The evaluation of health related quality of life (HR-QOL) of patients with a given disease is generally measured using a disease specific instrument,—for example, the PDQ-39 in patients with Parkinson's disease. As these instruments are only applicable to patients with a particular disease, they do not allow comparisons across health conditions

and are of limited use in economic studies. It is therefore recommended that a generic HR-QOL instrument be used in addition to disease specific measures. The generic measure must be tested and validated before use in the respective patient population. The purpose of our study was to test the validity and feasibility of two generic measures of HR-QOL (the EQ-5D and the SF-36) in patients with Parkinson's disease. The EQ-5D, a simple generic instrument, was shown to have good validity and feasibility and performed better than the SF-36 in this group of patients with Parkinson's disease.

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Cerebral malaria

Two items in the review of cerebral malaria by Newton *et al*¹ warrant comment. The first relates to corticosteroids in the treatment of cerebral malaria, and the second involves the definition of cerebral malaria.

The authors, citing Warrell *et al*² and Hoffman *et al*,³ stated that steroids are contraindicated in cerebral malaria because they add risks without providing any benefit.

In late December 1965, I arrived in Vietnam as a neurologist with the United States Army Medical Corps., and for the next 6 months I was the only neurologist serving United States forces in Vietnam. I was attached to the 93rd Evaluation Hospital, which opened only 2 weeks before my arrival. As recounted in a recent article about my Vietnam experience,⁴ two American soldiers with cerebral malaria died at the hospital during those 2 weeks, and the internal medicine specialists requested my involvement in all future cases. After reviewing the treatment protocols of the two soldiers, I decided that adding dexamethasone to the usual antimalarial regimen would be reasonable in patients with severe cerebral malaria. There was, I think, no literature at the time on the use of steroids; if there was, I certainly had no access to it in the combat zone.

During the next 10 months, we saw 19 patients with cerebral malaria, and they all recovered without any residual neurological dysfunction.⁵ Our success with steroids prompted all the United States medical units in Vietnam to adopt the practice. A decade after the end of the Vietnam conflict, Warrell *et al*,² in a double blind trial, concluded that dexamethasone was both ineffectual and deleterious in cerebral malaria, and Hoffman *et al*³ concurred. These two papers^{2,3} are those usually cited by tropical medicine specialists (Newton and Warrell, 1998; White, 1999. See Daroff⁶ for citations) in recommending

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The EQ-5D—a generic quality of life measure—is a useful instrument to measure quality of life in patients with Parkinson's disease

We read with interest the recent article by Schrag *et al*,¹ in which the authors showed that the EuroQol-5D (EQ-5D) is a valid measure of quality of life in patients with Parkinson's disease. However, the authors neglected to mention two important aspects of the EQ-5D that differentiate it from typical quality of life instruments.

Firstly, the EQ-5D is a preference based measure. The summary score of the EQ-5D captures the strength of a person's preference for a given health outcome relative to other possible outcomes. These preferences (also called utilities) are measured on a scale from 0 to 1 where 0 represents death and 1 represents perfect health. The values derived from the EQ-5D can be used to compare health states in a quantitative way. For example, a health state with a value of 0.5 is half as desirable as perfect health. The scoring rule for the EQ-5D permits scores less than 0, implying that some health states may be worse than death.

Secondly, the index scores for the EQ-5D are intended to approximate general population preferences rather than the respondent's own health values. The EQ-5D values were developed based on ratings by a large,