book. Physicians of any specialty background whose practice is heavily loaded with migraine sufferers will find this a most useful reference text to have not only on the shelves of their library but close at their elbow on the desk in their office or clinic. I frequently referred to the previous edition and undoubtedly will as often refer to this second edition.

Robert F. Nelson Ottawa, Ontario

PARKINSON'S DISEASE. A COMPLETE GUIDE FOR PATIENTS & FAMILIES. 2001. By W.J. Weiner, L.M. Shulman, and A.E. Lang. Published by Johns Hopkins Press. 256 pages. C\$25.52 approx.

This book is primarily based on experience of the authors in dealing with Parkinson's disease patients and their families. It is divided in five parts and each part has several chapters. Part I includes introduction to Parkinson's disease. Part II deals with signs and symptoms and is divided into five chapters covering severity of the disease, psychiatric symptoms and behavioral changes. Part III includes diagnosis and distinction between different Parkinson syndromes. Part IV focuses on treatment of Parkinson's disease and is divided into four chapters which include scientific basis of drug therapy and the currently available drugs, surgical treatment, other issues such as diet, exercise, and alternative therapies. Part V addresses the impact of other illnesses, hospitalization, and the current status of research. The final chapter deals with questions frequently asked by patients/families. They have also provided a list of resources which can be accessed by the patients for further information.

Each chapter starts with several questions, e.g. "Who gets Parkinson's disease?, How common is Parkinson's disease?, Is Parkinson's disease related to aging?, Is it inherited?", etc. They address each question effectively using language which a non-medical person can understand. Understandably, no book can extensively deal with all the issues related to Parkinson's disease. They have, however, produced a comprehensive coverage for the patients/families. The book deals with most of the pertinent scientific, day-to-day patient care, and social issues related to parkinsonism. They have provided well-balanced information, which would be helpful for patients to achieve good grasp of the disease and ask more focused questions for deeper understanding.

A patient may hear of successful use of a new drug in animals, a drug which some friend has benefited from, or the miraculous surgical benefit and ask why she/he cannot have that treatment. Those who read this book would better understand why certain forms of treatment are not possible.

There is some repetition which lengthens the volume. It is, however, desirable as a patient may be interested in only one chapter. There is internal consistency, i.e. the information provided in one chapter is not contradicted elsewhere.

While the book deals with the disease profile in the majority of the patients, those who do not conform to that would ask more questions, as different Parkinson variants respond differently to treatment. They have clarified that the diagnosis is based on clinical assessment alone and have noted that some more complex variants of parkinsonism may not become evident until sometime later. Therefore, the initial diagnosis provided to the patient should include a note of caution regarding evolution of the disease. A list of drugs which produce parkinsonism has been provided. If a patient reads that and brings drug information to the physician, the diagnosis of drug-induced parkinsonism would become easier.

The book clearly states that the current treatment is aimed at improving the symptoms, and there is no cure. They also clarify that every antiparkinsonian drug produces reversible side effects, but none causes irreversible damage to the brain.

They point out the enormous ongoing research activity in Parkinson's disease. That would give hope to the patients/families.

The three authors are well-known experts in the field of Movement Disorders and have extensive clinical experience.

It is a highly recommended reading for those patients/families who wish to know more than is available in short pamphlets or manuals provided by nonprofit organizations.

The book is well-written, easy to read, and provides credible information. Although they have aimed at patients and their families, it will also be useful for family physicians, geriatricians, and internists who look after parkinsonian patients.

This volume should be available at all large Parkinson's disease clinics so it could be loaned to individuals who do not want or cannot purchase but wish to read it.

> Ali H. Rajput Saskatoon, Saskatchewan

NEUROLOGICAL SPORTS MEDICINE. A GUIDE FOR PHYSICIANS & ATHLETIC TRAINERS. 2001. Edited by Julian E. Bailes, Arthur L. Day. Published by American Association of Neurological Surgeons. 310 pages. C\$99.00 approx.

This practical and "user friendly" reference book is written as a guide for physicians and athletic trainers to help understand and manage their athletes suffering neurological sport injuries. Its soft cover format and inexpensive cost allow for portability which is of great value particularly in a readership that is often travelling with teams and trying to pack light. As well, parts of this book make an excellent text for primary sport medicine doctors or sport medicine fellows in the course of studying for particular parts of their specialty examinations. The book covers a wide variety of topics and has some particular strengths: In chapter 13, "Head, Spine, and Peripheral Nerve Injuries in Sports and Dance: An Encyclopedic Reference", one finds a beautifully organised and excellent review of each and every one of the particular athletic activities mentioned. Other strengths are notable including the excellent chapter by Spinner and Kline on peripheral nerve injuries in athletes as well as an excellent chapter by Lovell and Collins on neuropsychological assessment of the head-injured professional athlete. Generally not seen in such a textbook, the chapter on minimally invasive treatment options for athletes with spine injuries is done well and has interesting operative details particularly of benefit to athletic therapists who often are the first to communicate these approaches to their athletes. The practical inclusion of the Sideline Assessment of Concussion is very useful as the document is included in the chapter and has recently been validated and is currently receiving more attention. Barry Jordan, as usual, is an important contributor with his profound experience and understanding of boxing. There are some minor pitfalls related to redundancy within various chapters but of course this is always an issue with multi-authored textbooks. There is excessive information on neuropsychological testing in concussion and some redundancy there. In general, the sections on concussion suffer from the fact that the field of concussion is moving forward rapidly and logistics do not allow for up-to-date information to be included in a textbook format. This is understandable but the book has that limitation. For example, even the chapter written by Bob Cantu describing various grading systems and concussion management approaches does not include his most recent grading system published in 2001 which has significant changes from that of his previous guidelines. Perhaps reflecting this advancement in the science of a concussion, it would have been of some use to include some of the newer data perhaps in the future/research section. For example, along with discussion of neuroimaging and functional imaging, data published from a number of groups regarding electrophysiological concussion analysis might have been of some interest. Moreover, although up-to-date data can not necessarily be included in such a textbook, at least reference should be made to some of the significant controversies in the concussion literature regarding grading systems, return to play and the relative importance of loss of consciousness, post-traumatic amnesia and post-concussion symptoms. A particularly nice feature of the book is the attempt to include a chapter by a helmet manufacturer to reflect the state of the art of that piece of equipment. There would probably be some interest as well to look at other equipment such as visors, mouthguards, elbow pads and cowboy collars. This has practical implications for trainers and team doctors alike. Also of some potential value would have been a section on concussion rehabilitation, as there is much current interest and effort in that particular approach to management.

In summary, while no book can be entirely comprehensive for such a large and rapidly progressing field, this book contains a remarkable amount of solid information, well-written and presented, well-illustrated with appropriate figures and tables and will be a great addition to any collection in the sport medicine office, athletic training room/locker room and indeed parts of it relevant directly to the sideline itself.

Karen M. Johnston Montreal, Quebec

THE VEGETATIVE STATE: MEDICAL FACTS, ETHICAL AND LEGAL DILEMMAS. 2002. By Brian Jennett. Published by Cambridge University Press. 228 pages. C\$67.00 approx.

Brian Jennett and Fred Plumb coined the term "persistent vegetative state" in 1972 to describe wakefulness, including wake and sleep cycles and arousability from sleep, but no evidence of awareness. Vegetative (breathing and basic homeostatic) functions were intact. The term "persistent" subsequently caused confusion because some patients later regained awareness to variable degrees.

Currently "vegetative state" applies to the above syndrome, and "permanent vegetative state" is the prognostic term used when the patient will *never* develop awareness or a state better than vegetative. Concepts are still evolving for vegetative and minimally conscious states. Occasionally patients regain isolated behaviours including crying or mumbling a few repeated words. While relatives seize upon such behaviours as evidence of cognitive function, they do not indicate that widely integrated cerebral activity has returned.

How can we be *sure* that there is no cognitive function if we rely only on behavioural observations? Jennett sites three pieces of evidence that discount cognitive function in these and vegetative patients: no behavioural response to indicate pain and suffering; a decrease in total cerebral blood flow to values comparable to those induced by anesthesia; and extensive bilateral damage to the cerebral hemispheres on pathological examination. He does not, however, mention electrophysiological and functional neuro-imaging studies that can explore information processing in more precise ways.

The book provides a well-written summary of the evolution of the concepts of vegetative and minimally conscious states, estimates of their incidence and prevalence and major clinical features. The underlying patterns of pathology are reviewed briefly but accurately. There is a brief discussion of management principles. A strength of the book is the exploration of physician and societal attitudes about vegetative and minimally conscious states as "lives not worth living". Arguments for limiting and withdrawing care, including "artificial nutrition and hydration," are reviewed from ethical and legal standpoints. The primacy of autonomy of the patient is well discussed as the most fundamental component of end-of-life decision-making. Landmark American and European legal cases are presented, perhaps to excess (92 pages).

A weakness is the emphasis on trauma with little attention to other causes, such as ischemic encephalopathy after cardiac arrest; this oversight reflects the author's main interest. In discussing prognosis, only clinical predictors are presented. There is no mention of electrophysiological and other laboratory tests that have shown effectiveness in arriving at earlier prognostic determinations for post-cardiac arrest and trauma patients.

The book will be of interest to those who see severely brain-damaged patients both acutely and in later phases of their care, e.g., neurologists, neurosurgeons, intensivists and rehabilitation physicians. The ethical discussions are especially useful. However, because of limitations in scope of etiologies and prognostic evaluation, the book is an incomplete treatise on the subject of vegetative and minimally conscious states.

G. Bryan Young Toronto, Ontario