handbook of CHRONIC PAIN management

EDITED BY

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Accurate indications, adverse reactions, and dosage schedules for drugs are provided in this book, but it is possible that they may change. The reader is urged to review the package information data of the manufacturers of the medications mentioned.

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To my wife,

Linda Surett Tollison,

and children,

Courtney Louise Tollison

and

Charles David Tollison, Jr.

Foreword

The *Handbook of Chronic Pain Management* is a tribute to progress in medicine. The chapters highlight the tremendous growth of pain research and provide a basis for its clinical application by the many kinds of health professionals who are necessarily involved in treating the chronic pain patient. This text features the complexities of comprehensive multidisciplinary care in such a way that the practitioner can understand and effectively apply this knowledge in the practice of chronic pain management.

Diagnostic and therapeutic difficulties are further complicated by the fact that each patient's problem is unique. This individuality is substantiated by asking, "How many people in the world have the same thumbprint?" The answer, of course, is "None." Not even look-alike twin monkeys have identical thumbprints. This is an anatomic variation. Thus, no two people are alike anatomically, biochemically, or in life-style. Treatment of any diagnosed medical disease or disorder must therefore be tailored to fit each unique individual.

No cookbook recipe for therapy should be employed, nor is the tunnel vision of any single medical specialty adequate, as a rule, for successful chronic pain management. Every practitioner should have the broad background of knowledge that this book supplies.

The superlative chapters of this text review first the classification of pain, its theoretical pathways and mechanisms, and its social, cultural, and psychological aspects. Chapters then focus attention on the diagnosis and management of chronic pain due to many causes, including neurologic lesions of spinal and peripheral nerves, malignancy, visceral and vascular diseases, various forms of joint degeneration and joint locking, and pain as a variant of depression.

One frequent and often overlooked source of chronic pain, the myofascial pain syndrome, receives ample and practical discussion. This condition can be demonstrated objectively by palpation of the muscles for trigger points and by recognition of their related referred pain patterns. The myofascial pain syndrome responds well to specific local therapy if its multiple perpetuating factors are recognized and corrected. Stresses that are both physical and emotional must usually be dealt with if trigger point therapy is to succeed. In addition, systemic perpetuating factors such as chronic infection and parasitic infestation, endocrine disorders (especially marginal [subclinical] hypothyroidism), borderline anemia, vitamin inadequacies, and deficiencies of other nutrients may play a role in maintaining chronicity. Evaluation of these multicausal factors requires unhurried time, detective work, and both skill and humility in communicating with the patient in chronic misery.

The largest organ in the body is the skeletal musculature, comprising nearly half the body weight. The myofascial pain syndrome may be the most common affliction of the human race. Muscles are different from other tissues. When the skin is cut or a bone is broken, it heals. When a muscle is injured or strained, it learns to guard that part. The better the person's athletic ability and coordination, the more likely the muscle is to continue its protective splinting with restricted motion, pain, and weakness for years, until the muscle is taught otherwise. Neuromuscular reeducation may be accomplished by passive stretching to full length during inhibition of reflex contraction, and by other techniques such as the Karel Lewit isometric contraction procedure.

The book's chapters present a large choice of therapeutic modalities, invasive and noninvasive, together with detailed consideration of the pharmacology of anti-inflammatory, analgesic and antidepressant drugs. Prescription of such medications may be necessary, with caution, when other management approaches fail.

The broad range and practical view of the *Handbook for Chronic Pain Management* make it an important working manual for effective clinical care that can improve the quality of life of the suffering patient.

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Preface

God whispers to us in our pleasures, speaks in our conscience, but shouts in our pains. . . .

C. S. Lewis
"The Problem of Pain"

Pain is the most basic link between health professional and patient, yet this fascinating phenomenon is generally neglected in medical training, as are some of the most basic elements of the practitioner-patient relationship (i.e., sex and death). Despite recent advances in our understanding of the intricacies of pain, we continue to struggle with basic issues, such as an acceptable definition for the phenomenon of study. Historically, our view of pain has been clouded by the inherent tunnel vision of our educational training. Thus, to the philosopher and theologian pain is perhaps a moralizing force, whereas the sociologist may view pain as an expression of cultural norms. To the physiologist, pain is a perceptual phenomenon based on clinical sensation and to the psychologist it may be learned behavior. To the physician, pain traditionally has been a signal to be decoded for diagnosis and treatment of organic disease, and to the attorney it may be a basis for litigation.

I am reminded of the fable of the three blind men who were asked to describe an elephant. Each man carefully touched and examined a different part of the elephant's anatomy. The conclusion was three totally different descriptions of the same animal! Although each blind man was correct in his partial description, the basic error was essentially a failure of communication—a failure to communicate descriptive knowledge of "parts" into an accurate composite "whole."

Unfortunately, the same holds true for pain. It appears that the ways we have historically perceived, described, and treated human pain have depended, to a great extent, on what part of the phenomenon was emphasized in our educational training and interests. Unfortunately, this approach has retarded our comprehension of pain and, more importantly, our effectiveness in reducing human suffering. Pain is composed of a variety of complex parts, and it is only with acceptance of the total sum of pain that we recognize our personal limitations of competence and collectively strive toward resolving humankind's oldest and most dreaded fear: pain.

Development of a multidisciplinary team approach to the treatment of pain has been a significant, yet incomplete, step in the right direction. The term "multidisciplinary" pain treatment implies only a collection of specialists practicing in a central location. A possible scenario is that each professional independently practices his medical specialty, complete with its limitations inherent in training and human comprehension. Consequently, the factor that then differentiates traditional and multidisciplinary approaches becomes little more than the delivery of clinical services in a central location. Recall, again, the three blind men and the elephant.

Perhaps a preferable approach to pain management may be found in the term "interdisciplinary" and, more importantly, the operational and clinical applications of the term. Interdisciplinary pain management, like the multidisciplinary approach, recognizes pain as a complex omnidimensional phenomenon, and recognizes the valued expertise and knowledge of individual health specialists. However, true interdisciplinary pain management goes on to require implementation of effective and consistent communication between team members with recognition that the synergism of the treatment team is much greater than its discipline membership parts, and with acceptance that the current structure of our health professional training and educational system simply allows no individual or discipline to be all things to all patients in pain. Turk and Stieg (Turk DC, Stieg RL: Chronic pain: the necessity of interdisciplinary communication. *Clin J Pain* 3:163–167, 1987) have summarized the differentiating attributes of an interdisciplinary pain management team as consisting of a core group of individuals who (*a*) share a common conceptualization of patients with chronic pain; (*b*) synthesize the diverse sets of information based on their own evaluations, as well as those of outside consultants, into an intelligent differential diagnosis and treatment plan for each patient; (*c*) work together to formulate and implement a comprehensive rehabilitation plan based on the available data; (*d*) share a common philosophy of disability management; and, perhaps most importantly, (*e*) act as a

functional unit whose members are willing to learn from each other and modify, when appropriate, their own opinions based on the combined observations and expertise of the entire group.

This book is an attempt to develop an interdisciplinary text on the management of chronic pain. Drawing on the knowledge and expertise of recognized researchers and clinical leaders, the objective of the text is to respond to the need for an integrated perspective to assist providers in understanding the intricate nature of clinical pain and to guide them in their choices and decisions about its management. As a resource, the text is designed to bridge the present gap between theory and practice by providing a handbook for clinical practice that emphasizes practical information essential for evaluating and treating pain in an interdisciplinary, rather than a partitioned, fashion. As a reference, the text is "user friendly" in that it is organized in a logical manner centering on human anatomy.

Section 1 of the text establishes a required foundation for understanding, diagnosing, and treating pain in an interdisciplinary fashion. Six chapters emphasize the requirement for a universal definition and classification system for pain that accounts for physiologic, sociocultural, and psychological influences and variables. Chronic pain is presented as an omnidimensional phenomenon necessitating attention to both its parts and its sum.

Section 2 is a practical interdisciplinary presentation of an armamentarium of therapeutic modalities utilized in the management of chronic pain. Each chapter presents a major treatment modality, considers the rationale underlying its use, outlines indications and limitations, and emphasizes the value of the technique within an interdisciplinary approach to treatment.

Section 3 comprises the heart of the text by presenting comprehensive interdisciplinary management of painful disorders including headaches, facial pain, back and spinal pain, genitourinary pain, malignant disorders, central-peripheral pain, and musculoskeletal and joint pain. Because the evaluation and treatment of chronic pain consistently cross discipline boundaries, the emphasis throughout these 24 chapters is on comprehensive pain management with attention to the specific contributions of selected disciplines. The unique, yet practical, organization of this section should make this text a convenient resource for the busy clinical practitioner.

The fourth section of the text provides practical information on a collection of ancillary topics carefully chosen based on their impact on comprehensive pain management. Clinicians practicing pain management are acutely aware that such practice involves both clinical and nonclinical issues and may find particularly interesting the chapter on *Legal Aspects of Pain and Social Security Disability* as well as the informative presentation of workers' compensation law.

Section 5 concludes the text with the presentation of the role of pain programs in the evaluation and treatment of chronic pain. During the past 10 years we have witnessed a virtual explosion in the number of pain programs. At first glance these programs appear to vary greatly in their approach to pain management and treatment goals; however, the chapter on *Pain Clinics: A Survey and Analysis of Past, Present, and Future Functioning* may provide some surprises with its presentation of informative and interesting results from a recent survey of leading pain programs.

Patients in pain pose a formidable challenge to all health practitioners, particularly those of us who have elected to target our energies and interests toward delivering effective clinical care to this most deserving population. The increasing number of people living with chronic diseases, disorders, and disabilities suggests that chronic pain and its management will continue to gain importance as we maintain our search for clinical solutions. It is clear that our efforts to assist these individuals in overcoming the multiple ramifications of their pain requires far more than an understanding of pain as a neurophysiologic mechanism.

C. David Tollison, Ph.D.

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Many individuals have contributed, both directly and indirectly, to the development of this text. First, I would like to express my sincere appreciation to the contributing authors. Seventy-nine authors contributed their time, talents, and considerable expertise to this book.

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I would particularly like to thank my mother, and father, Louise J. and Wade A. Tollison, for deeply instilling in me the values of truth, honesty, concern, caring, and happiness. Without fanfare or great recognition they have devoted much of their lives to the welfare of others and, in doing so, quietly molded similar values in their children. Perhaps there is no greater gift that a parent may offer a child, and certainly there is not a more deeply felt sense of gratitude than that hereby extended to them. Much of my life has been a failed attempt to emulate the human worth of my father—an effort that affords me great personal satisfaction.

Finally, I would be remiss without acknowledging the thousands of patients in pain who have allowed me to learn from them. The contribution of each is sincerely appreciated.

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