How to use this book
Cerebral palsy is the most common physical disability in childhood (Rosenbaum, 2003). The disturbances that occur in the developing fetal or infant brain with cerebral palsy result in a wide variety of movement disorders that persist from childhood into the adult years. Physiotherapists and occupational therapists play a key role in helping people with cerebral palsy to solve problems with movement and the range of other impairments that so often accompany cerebral palsy, so that they can be more active and better able to participate in roles such as study, work, recreation and relationships. The aim of this book is to provide a practical guide for physiotherapists and occupational therapists who support the needs of people with cerebral palsy but it will also be a useful resource for those with cerebral palsy, their families, carers and teachers. It may also be of interest to physiotherapy and occupational therapy students, and other allied health professionals.

The book includes an introductory background section (Part 1) where key issues in defining and classifying cerebral palsy (Chapter 2), understanding the family’s perspective (Chapter 3) and an overview of therapy interventions (Chapter 4) are described and discussed. Parts 2, 3 and 4 (Chapters 5–16) take a case-based approach to managing cerebral palsy across the lifespan and include chapters on the preschool years, the school years, and, finally, the adult years. Each chapter describes a case, and how the physiotherapist or occupational therapist managed that individual’s problems. These chapters include the reasoning behind assessment and treatment choices, and describe the interventions and outcomes. This book will not and does not aim to describe the management of every possible problem area associated with cerebral palsy. Rather, it provides in-depth descriptions of common clinical situations that many physiotherapists and occupational therapists who are working with people with cerebral palsy may encounter.
The intervention process model
A key feature of the book is the intervention process model described below and used throughout the case-based chapters in Parts 2, 3 and 4. The model describes the clinical reasoning process that informs assessment, intervention and evaluation. It was adapted from the Occupational Performance Process Model (Canadian Association of Occupational Therapists [CAOT], 2002) to accommodate generic language with which both physiotherapists and occupational therapists are familiar. The eight steps of the intervention process model explicitly describe the clinical reasoning process underlying the interventions described in Parts 2, 3 and 4 of the book (Figure 1.1). The eight steps are as follows.

(1) Initial data collection. The process begins with the referral and includes the early information gathered from the client, family and other sources that begins to contextualize the person and their potential therapy needs.

(2) Identify and prioritize the concerns. This is a client-centred process that identifies, acknowledges and prioritizes the concerns of the client, family and other key individuals.

(3) Identify relevant theory. With initial information gathered and the concerns of the client and others identified, relevant theory is considered to inform and guide the remaining steps in the process.

(4) Assess body function and structure, activity and participation. The therapist identifies the components that facilitate performance as well as those that may contribute to the concerns through appropriate assessment or observation.

(5) Identify contextual factors: environmental and personal. Factors relating to the individual (for example age, sex, temperament) and the environment (for example social, physical, institution supports and barriers) are identified so that they can be considered in relation to implementing a management plan.

(6) Negotiate a management plan. Using the information gained initially, as well as from appropriate assessment, a management plan is negotiated with the client, family and others as required, including, for example, other health professionals, teachers, classroom aides, sports coaches, or recreational leaders or organizations.

(7) Implement the plan. The negotiated treatment plan is implemented. This includes ongoing evaluation of progress and need for adjustment or modification of the plan as required.

(8) Evaluate the outcomes. The final step is a review of the outcomes for the client. This includes whether the concerns were addressed in a manner that suited the individual, and whether the issues were resolved or further intervention is required. In most cases, this step includes some formal re-evaluation to identify how much and what sort of change occurred following intervention. The client is discharged if the issues are resolved to the satisfaction of the client, his/her family and key others. If the issues are not resolved a further round of intervention, beginning at Step 2, may be initiated.
International Classification of Functioning, Disability and Health

Another feature of the book is the use of International Classification of Functioning, Disability and Health (ICF, World Health Organization, 2001) as a framework to assist in the clinical reasoning process. Recent international acceptance of the ICF has resulted in a more overt appreciation of the complex interactions between a person, their environment and activities in the presence of a health condition (Figure 1.2).

The ICF defines functioning and disability as umbrella terms that encompass the body functions and structures of people, the activities people do and the life areas in which they participate, taking account of the interactions of these factors with contextual factors (World Health Organization, 2001). In the management of people with cerebral...
palsy, the ICF helps to expand thinking beyond fixing primary impairments of body structure and function, by acknowledging that the relationships between the components that affect functioning are complex and non-linear. The ICF therefore highlights the importance of promoting the person’s full participation in all aspects of functioning and life (Rosenbaum and Stewart, 2004). The recognition of the role of contextual factors is also very applicable in the management of people with cerebral palsy, particularly in acknowledging the important contribution of the family environment to the person’s health and well-being (Rosenbaum and Stewart 2004).

As well as providing a broad conceptual framework to understand the health condition of cerebral palsy, the ICF can also be a useful practical guide for parents and therapists when determining priorities for assessment and treatment. Throughout the clinical cases described in Parts 2, 3 and 4 of the book, assessments are organized according to the ICF components (step 4 of the intervention process model), and include sections where contextual factors are considered (step 5 in the model). Descriptions of the more commonly used assessments in this book can be found in the Appendix.

The ICF is also considered when devising and implementing the management plans in Parts 2, 3 and 4 of the book (steps 6 and 7 of the intervention process model), as the parents and therapist decide where intervention is best targeted to improve functioning: that is, if the intervention should be primarily directed at reducing impairments, improving activity or increasing life participation.

A family-centred approach to therapy
Throughout this book an emphasis has also been placed on implementing a family-centred approach to therapy. Gaining the confidence and trust of the child’s family and other key support people is critical to the success of therapy for children and young people with cerebral palsy. It is important for therapists to understand the fundamental need to be sensitive to and respectful of the family culture and to work closely as a team.
with the family and significant support people (e.g. daycare staff, teachers, support workers) to successfully support the individual. Therapy directed at technical and short-term rehabilitation interventions that focus only on the individual with cerebral palsy is rarely successful. Rather, success comes from using a family-centred approach that includes families in decision-making, and recognizes the importance of acknowledging the family environment and making all reasonable accommodations to suit the family when providing services. Chapter 3 summarizes some of the important things that therapists can do when working with young people with cerebral palsy.

**Multidisciplinary practice models**
Another underlying principle in this book is that of multidisciplinary team work. The problems and issues faced by people with cerebral palsy are not confined to physical impairments that impact on the individual alone. Rather a diagnosis of cerebral palsy can bring with it a range of physical, sensory, psychological, as well as social-emotional issues that cannot effectively be managed in isolation from each other. No one discipline can individually manage all of the concerns, but working together the multidisciplinary team can provide better outcomes.

The multidisciplinary health care team is a group of professionals with diverse training and backgrounds who can work together in a coordinated and collaborative way. Team members collaborate to solve client problems that are too complex to be solved by one discipline. To provide care as efficiently as possible, the team creates ‘formal’ and ‘informal’ structures that encourage collaborative problem-solving. Team members work interdependently to define and help clients solve problems, and learn to accept and capitalize on disciplinary differences and overlapping roles (Drinka and Clark, 2000). For these reasons, practice models that include a range of individuals from different health disciplines can more effectively and efficiently support the needs of people with cerebral palsy and their families.

**Concluding remarks**
The key themes emphasized throughout the book are the use of the clinical reasoning approach of the intervention process model, the use of the ICF as a framework to help therapists inform child and parent decision-making about priorities of assessment and treatment, the use of family-centred approaches in developing and implementing therapeutic strategies and the use of multidisciplinary team work. We do not expect that therapists will read the book from cover to cover. Instead we expect that the reader will start by looking at one of the case-based chapters that is most pertinent to them in terms of the areas of their particular clinical roles and responsibilities. If an element of the background or theory in the case-based chapter needs further explanation, the therapist can refer back to the relevant section or chapter in Part 1, or for more detail about a particular assessment to the Appendix. We hope that this book will provide a clinically relevant resource for therapists.
Part 1 Background

References


