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0521589649 - Falls in Older People: Risk Factors and Strategies for Prevention
Stephen R. Lord, Catherine Sherrington and Hylton B. Menz
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Falls in older people

Risk factors and strategies for prevention

Over the past two decades there has been a great deal of international, specialized research activity focused on risk factors and prevention strategies for falls in older people. This book provides health care workers with a detailed analysis of the most recent developments in the area and helps bridge the gap between scientific journal articles and general texts. The book is constructed in three parts: risk factors, prevention strategies, and future research directions. Coverage includes epidemiology, critical appraisal of the roles of exercise, environment, footwear, and medication, evidence-based risk assessment, and targeted and individually tailored falls-prevention strategies.

Falls in Older People will be invaluable to medical practitioners, physiotherapists, occupational therapists, nurses, researchers and all those working in community, hospital and residential aged care settings.

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Preface

In the last two decades of the twentieth century there was an enormous amount of work published in the international literature on risk factors for falling in older people and falls prevention strategies. The aim of this book is to review the material that has been published in specific journal articles to provide health care workers with a means for gaining access to contemporary findings. In doing so, we hope to bridge the gap between highly specialized journal articles and the often sketchy and superficial chapters on this topic that appear in many textbooks.

As suggested by the title, the book has two major themes: falls risk factors and falls prevention strategies. Part I includes an initial chapter on the epidemiology of falls and fall-related injuries in older people. Chapters 2 to 6 present critical appraisals of the many posited falls risk factors, addressed under the headings of postural stability, sensory and neuromuscular risk factors, medical risk factors, medications as risk factors, and environmental risk factors. In Chapter 7, the importance of the risk factors in each of the above domains is weighed as weak, moderate or strong, using evidence from published studies.

Part II addresses falls prevention strategies. An introductory overview outlines falls prevention strategies which address the multitude of falls risk factors. Chapters 8 to 11 examine the role of specific intervention strategies such as exercise, environmental modifications and the use of safe footwear, aids and appliances for preventing falls and falls injury. In Chapter 12, suggested strategies for preventing falls in institutions are summarized and discussed. Chapters 13 and 14 present clear guidelines for a systematic approach to the medical management of older persons at risk of falling, including management of medication use. The final two chapters of Part II focus on falls prevention strategies tailored to an individual's requirements. Chapter 15 summarizes the studies of targeted falls prevention strategies. Chapter 16 describes a novel profile system for quantifying an individual's risk of falling and targeting intervention strategies. Part III contains a single chapter which reviews the research issues that still need to be addressed in this field.

In each chapter we have attempted to be analytical in nature. Thus, we have not simply presented lists of the many and varied factors that have been suggested as

possible but unproven risk factors for falls and the suggested but untested falls prevention strategies. Instead, we have attempted to evaluate the evidence for each factor implicated with falls to determine whether they constitute important areas for consideration and intervention. For example, we present arguments that challenge some traditional approaches to the management of older persons at risk of falls. We question the utility of falls risk assessment based solely on diagnoses of disease processes and the value of standard clinical tests of vision, sensation, strength and balance. We also discuss the role of particular medications in predisposing older people to falls and why factors such as alcohol use, vestibular disorders and postural hypotension (which are considered important risk factors in clinical practice) have not been demonstrated to be significant risk factors for falls in well-planned epidemiological studies. With regard to interventions, we examine the effectiveness of suggested strategies for preventing falls and question the value of interventions which do not take participant compliance issues into account.

As neurophysiological factors have been found to be key elements in the prediction and prevention of falls, this book places a major emphasis on these. Findings from our own studies have highlighted tests that have great utility in that they are reliable and highly predictive of falls. As outlined in Chapter 16, these tests can be used in a ‘profile’-based approach to falls risk which is aimed at identifying specific impairments in the major sensorimotor systems that contribute to balance, i.e. vision, peripheral sensation, vestibular function, strength and reaction time as well as measures of sway and stability. This enables intervention strategies to be tailored to address an individual’s specific deficits.

The length of the chapters in this book varies considerably. The longer chapters are in the areas in which there is a greater amount of available evidence on which to base falls risk factor assessment and the development of prevention strategies.

We hope this book will be of interest to medical and allied health care undergraduate and postgraduate students, medical practitioners, nurses, physiotherapists, occupational therapists, podiatrists, research workers in the fields of gerontology and geriatrics, health service managers, scientists and health care workers in the disciplines of public health, injury and occupational health. We feel that this book is of relevance to those working in community, hospital, and residential aged care settings.

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