Current Indications for Growth Hormone Therapy

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Foreword

I am delighted to write a foreword to the first volume of this exciting, new series entitled *Endocrine Development*. In this book, Dr. Peter Hindmarsh, an acknowledged expert in the field, has addressed one of the most important questions currently facing paediatric endocrinologists, namely who benefits most from treatment with recombinant human growth hormone.

A distinguished group of contributors has tackled the different aspects of this subject with scientific rigour and clarity. There is emphasis on evidence-based analysis of results and clear guidelines for clinical practice. The principal childhood conditions associated with short stature, which might be amenable to beneficial long-term growth hormone treatment, have been covered. These include disorders associated with both insufficiency and sufficiency of growth hormone secretion.

Consequently a volume which breaks new ground in terms of scientific analysis, comprehensive subject matter and advice for clinicians has been written. I am honoured to be associated with this book, which I am confident will be both of great interest and practical help to paediatricians and endocrinologists.

Martin O. Savage
London, August 1998
The introduction of biosynthetic human growth hormone in the mid-1980s opened the way for clinical trials to be instituted on a large scale. These have largely been directed to determine whether growth hormone could be used for a wider number of indications rather than restricted usage to growth hormone deficiency. Over ten years have elapsed since the commencement of these studies and final height data are now being gathered and reported in the literature. This collection of articles reviews the current state of knowledge on the use of growth hormone in conditions ranging from Turner syndrome through other syndromes of intrauterine growth retardation to the short normal child. Each chapter has been approached in a similar manner in that evidence has been appraised along the lines required for systematic review evaluation. The principles of evidence-based medicine are outlined at the beginning of this book along with a critical appraisal of the statistical issues that lie at the centre of growth hormone trials. The introduction of any therapy needs to be evaluated not simply in terms of the efficacy and safety of the intervention, but whether there is any health benefit for the individual or for society. These issues have rarely been approached in paediatric endocrinology and for this reason a special chapter on health economic evaluation has been included. The chapters that follow describe the experience of growth hormone studies in a variety of nongrowth hormone-deficient states. To set these in perspective, one chapter has been devoted to the management of the growth hormone-deficient individual. This book should provide the reader with background information on the way in which growth hormone trials should be evaluated. Each chapter provides an as comprehensive as possible review of the current state of the therapeutic modality for that condition and highlights issues that remain to be addressed in each particular area.

Peter C. Hindmarsh