Patient-Controlled Analgesia

Edited by
F. Michael Ferrante, M.D., Director, Pain Treatment Service
Gerard W. Ostheimer, M.D., Vice-Chairman
Benjamin G. Covino, Ph.D., M.D., Professor and Chairman
DEPARTMENT OF ANESTHESIA
BRIGHAM AND WOMEN’S HOSPITAL
HARVARD MEDICAL SCHOOL

With a Foreword by
Leroy D. Vandam, M.D., Professor of Anaesthesia Emeritus
HARVARD MEDICAL SCHOOL

Blackwell Scientific Publications
Boston Oxford London Edinburgh Melbourne 1990
# Contents

Foreword, *Leroy D. Vandam* viii  
Preface x

**Part I: Introduction to Patient-Controlled Analgesia** 1

Chapter 1. Patient-Controlled Analgesia: A Historical Perspective, *F. Michael Ferrante and Benjamin G. Covino* 3  
Chapter 3. What Does It Mean to a Patient to Be “in Control”? *Kelly J. Egan* 17  
Chapter 4. The Pharmacology of Patient-Administered Opioids, *Laurence E. Mather and Harry Owen* 27  
Chapter 5. Patient Characteristics Influencing Effective Use of Patient-Controlled Analgesia, *F. Michael Ferrante* 51  
Chapter 6. Patient-Controlled Analgesia as a Research Tool, *F. Michael Ferrante* 61  
Chapter 7. Patient-Controlled Analgesia: Delivery Systems, *Paul F. White* 70

**Part II: Patient-Controlled Analgesia as a Clinical Regimen** 83

Chapter 8. Patient-Controlled Analgesia for the Treatment of Postoperative Pain, *Barbarajean Magnani and Lynn R. Johnson* 85  
Chapter 9. Patient-Controlled Analgesia for the Treatment of Acutely Painful Medical Conditions, *Patricia A. Mattison and Robert S. Leeds* 102
## Contents


Chapter 13. Patient-Controlled Analgesia in Children and Adolescents, *Lynn M. Broadman* 129

Chapter 14. An Analysis of Complaints and Complications with Patient-Controlled Analgesia, *Clair M. Callan* 139

### Part III: The Pain Management Team: Logistic and Economic Issues 151

Chapter 15. The Role of Nursing, *Mary Louise Falk and Kelly McDevitt* 153

Chapter 16. The Role of the Pharmacist, *Terry J. Baumann* 162

Chapter 17. Introducing Patient-Controlled Analgesia into the Hospital: The Experience at Virginia Mason Clinic, *Donald H. Ramsey* 179

Chapter 18. Introducing Patient-Controlled Analgesia into the Hospital: The Experience at Duke University Medical Center, *Patricia A. Mattison and Robert S. Leeds* 188

Chapter 19. The Economics of Patient-Controlled Analgesia, *L. Brian Ready* 191

### Part IV: The Future 199


Chapter 22. Alternative Routes for Patient-Controlled Analgesia in the Management of Acute Pain, *Paul F. White* 223

Chapter 23. The Future of Patient-Controlled Analgesia, *Ray McKenzie* 228