


Carole Kenner
Judy Wright Lott
EDITORS

FIFTH EDITION

COMPREHENSIVE NEONATAL NURSING CARE



SPRINGER  PUBLISHING COMPANY



Contents

<i>Contributors</i>	ix
<i>Past Contributors to the Fourth Edition</i>	xiii
<i>Foreword</i> Linda S. Franck, PhD, RN, FRCPC, FAAN	xv
<i>Preface</i>	xvii
<i>Acknowledgments</i>	xxi

UNIT I: PRENATAL CONSIDERATIONS AND CARE

1. Fetal Development: Environmental Influences and Critical Periods **1**
Cindy M. Little
2. Prenatal, Intrapartal, and Postpartal Risk Factors **28**
Beverly Bowers

UNIT II: INTRAPARTAL AND NEWBORN CARE

3. Resuscitation and Stabilization of the Newborn and Infant **55**
Gail A. Bagwell
4. Assessment of the Newborn and Infant **71**
Terri A. Cavaliere and Debra A. Sansoucie
5. Normal Term Newborn **113**
Cheryl Riley, Becky Spencer, and Lyn S. Prater

UNIT III: SYSTEMS ASSESSMENT AND MANAGEMENT OF DISORDERS

6. Respiratory System **133**
Thomas D. Soltau and Waldemar A. Carlo
7. Cardiovascular System **152**
Judy Wright Lott
8. Gastrointestinal System **189**
Sheryl J. Montrouel
9. Metabolic System **229**
Laura A. Stokowski
10. Endocrine System **253**
Laura A. Stokowski
11. Immune System **278**
Mary Beth Bodin
12. Integumentary System **299**
Carolyn Houska Lund and Joanne McManus Kuller

13. Hematologic System **334**
Gail A. Bagwell
14. Musculoskeletal System **376**
Joyce M. Butler and Beth Mullins
15. Neurologic System **392**
Georgia R. Ditzenberger and Susan Tucker Blackburn
16. Auditory System **438**
Kathleen Haubrich
17. Ophthalmic System **450**
Lori Baas Rubarth and Debra M. Parker
18. Genitourinary System **472**
Leslie A. Parker

UNIT IV: SPECIAL CONSIDERATIONS

19. Fluids, Electrolytes, Vitamins, and Minerals **509**
Sergio DeMarini and Linda L. Rath
20. Nutrition Management of Premature Infants **530**
Diane M. Anderson
21. Neonatal and Infant Pharmacology **545**
Beth Shields
22. Emerging Technologies in Neonatal Care: Health Care Simulation for Neonatal Care **559**
Jennifer Arnold
23. Pain in the Newborn and Infant **571**
Marlene Walden
24. Fetal Therapy **587**
Jody A. Farrell
25. Surgical Considerations in the Newborn and Infant **608**
Kaye Spence
26. Emerging Infections **619**
Kathryn R. McLean

UNIT V: VULNERABLE POPULATIONS

27. Newborn or Infant Transplant Patient **641**
Linda MacKenna Ikuta and Kathleen P. Juco
28. Extremely-Low-Birth-Weight (ELBW) Infant **658**
Shahirose S. Premji
29. The Late Preterm Infant **679**
Maureen F. McCourt

UNIT VI: ENVIRONMENTAL HEALTH AND FAMILY-CENTERED CARE IN THE NICU AND BEYOND

30. Neurobehavioral Development 689
Diane Holditch-Davis and Susan Tucker Blackburn
31. The Neonatal Intensive Care Unit (NICU) Environment 722
Leslie Altmier and Robert D. White
32. Family: Essential Partner in Care 739
Jacqueline M. McGrath
33. Palliative and End-of-Life Care 766
Carole Kenner
34. Complementary and Integrative Therapies 773
Nadine A. Kassity-Krich and Jamieson E. Jones
35. Postdischarge Care of the Newborn, Infant, and Families 783
Marina Boykova, Carole Kenner, and Susan Ellerbee

UNIT VII: NEONATAL CARE IN THE NEW MILLENNIUM: CHALLENGES AND OPPORTUNITIES

36. Trends in Neonatal Care Delivery 809
Carole Kenner and Jana L. Pressler
37. Neonatal Care Using Informatics 817
Susan K. Newbold, Willa H. Drummond, and Tony C. Carnes
38. Human Genetics and Genomics: Impact on Neonatal Care 829
Judith A. Lewis
39. Trends in Neonatal Research and Evidence-Based Practice 849
Lynda Law Wilson and Kathleen R. Stevens
40. Legal and Ethical Issues in Neonatal Care 863
Tanya Sudia-Robinson
41. Neonatal Care From a Global Perspective 868
Carole Kenner and Marina Boykova
42. Competency-Based Education and Continued Competency 874
Debra A. Sansoucie

UNIT VIII: NEONATAL DIAGNOSTIC AND CARE PROTOCOLS

- I Diagnostic Processes 887
Samual Mooneyham
- II Developmental Care for the Sick and Preterm Infant 925
Caitlin Bradley and Rachel Ritter
- III Neonatal Transport 932
Dorothy M. Mullaney
- IV Introduction to Vascular Access 939
Elizabeth L. Sharpe
- V Age-Appropriate Care of the Premature and Hospitalized Infant 943
Mary E. Coughlin
- VI Competency Education in the NICU 947
Wakako Eklund
- VII Transfusion Guidelines 953
Gail A. Bagwell
- VIII Management of Jaundice in the Newborn Nursery 954
Gail A. Bagwell
- IX Newborn Whole-Body Cooling Protocol 956
Georgia R. Ditzenberger and Susan Tucker Blackburn

Appendix A: Neonatal Nurses and Interconception Care 959
Merry K. Moos

Appendix B: Conversion Table to Standard International (SI) Units 961

Appendix C: Frequently Used Reference Values and Conversions 964

Index 965