CURRENT THERAPY

IN

NEONATAL-PERINATAL MEDICINE-2

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MEDICINE - 2

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Publisher

B.C. Decker Inc

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320 Walnut Street Suite 400

Philadelphia, Pennsylvania 19106

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Hong Kong and China McGraw-Hill Book Company Suite 618, Ocean Centre 5 Canton Road Tsimshatsui, Kowloon Hong Kong India

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Current Therapy in Neonatal-Perinatal Medicine - 2

ISBN 1-55664-070-6

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Echocardiographic Evaluation of Congenital Heart Disease in the Fetus and Newborn

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Thrombocytopenia

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Vater Association

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JOHN L. MYERS, M.D.

Assistant Professor of Surgery and Pediatrics, The Milton S. Hershey Medical Center, Pennsylvania State University College of Medicine, Hershey, Pennsylvania Arterial Switch Operation: Correction of Simple Transposition of the Great Arteries

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Premature Rupture of the Membranes

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Chronic Cholestasis

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Hemorrhagic Disease (Vitamin K Deficiency)

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Immunizations

Infant of a Diabetic Mother

PER OLOFSSON, M.D., Ph.D

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Fetal Surveillance in High-Risk Pregnancy

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Cryotherapy for Retinopathy of Prematurity Ophthalmoscopy in the Newborn

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Advanced Maternal Age

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Diagnosis-Related Groups

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Vacuum Extraction

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Cord Prolapse

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Transient Diabetes

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Herpes Simplex Infection

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Intrauterine Growth Retardation: Pediatric Aspects

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Cyanotic/Apneic Episodes

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Hypokalemia

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Placenta Previa

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Renal Cystic Disease

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Spontaneous Abortion

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Clostridium difficile Infection

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Premature Rupture of the Membranes

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Immunizations

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Parenteral Nutrition

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Persistent Pulmonary Hypertension

STEVEN J. WASSNER, M.D., F.A.A.P.

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ROBERT M. WRIGHT, M.D.

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Perinatal Magnetic Resonance Imaging

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Mechanical Ventilation

EDWARD R. YEOMANS, M.D.

Chief of Obstetrics, Department of Obstetrics/Gynecology, Wilford Hall USAF Medical Center (SGHG), Lackland Air Force Base, San Antonio, Texas Intrauterine Growth Retardation: Pediatric Aspects

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Neonatal Seizures

This Second Edition of *Current Therapy in Neonatal-Perinatal Medicine* aims to continue the plan of the first: a horizontal slice through some newer developments of clinical relevance, as well as statements of established personal practice in areas of continuing importance to those whose major professional involvement is with the newborn and his family.

Topics include the late-breaking (cryotherapy) and the heart-breaking (AIDS). The dominance of technology (ECHO, ECMO, EFM, MRI) and its intermingling with art (fetal blood sampling, video electroencephalography) should not surprise a practitioner entering the '90s. This more mercantile era for medicine (at least in North America) is becoming denoted by "DRGs" and computer controls, the latter now becoming manageable at the personal as well as "main frame" level. Surgical topics burgeon, especially concerning the heart. The non-surgeon, reading of such operations as "filleting" or "gusseting" (in the process of "switching" the great arteries), is reminded of the tonsorial traditions from which such advances arose.

The geography of authorship has now widened to include *all* the hemispheres (Near East and Far East, Australasia and Scandinavia, as well as the Americas). Fortunately for the Editor, most modern medical authors, regardless of mother tongue, write English well. The greater challenge has been to resist the temptation to translate these fine manuscripts into *American*!

Despite the occasional vagaries of old-fashioned ("non-FAX") mail service between Pennsylvania and Ontario, Brian Decker's team, especially Julia Ollinger and Mary Mansor (medical editor and fellow Mozart lover), has been most gently effective in bringing all this to pass.

We continue to enjoy the freedom *not* to cover some important topics, on the thesis that either they were covered in the earlier volume (many are updated here by their previous or different authors), or we will get to them in subsequent versions.

Nicholas M. Nelson Hershey, Pennsylvania August 7, 1989

PREFACE TO THE FIRST EDITION

When first approached by Brian Decker to undertake the editing of the present volume, I (as a congenital and fervid "lumper") expressed great doubt that it were possible to conjure up the 100 or so clinical topics in neonatal/perinatal medicine necessary to fulfill the established format of the Decker "Current Therapy" series. But then I recalled Dr. Mary Ellen Avery's observation that early editions of the Harriet Lane (pediatric house officer's) Manual had exhaustively presented hard knowledge of proper management of the premature infant in 1 or 2 pages, whereas presently 10 or more pages barely suffice for only superficial treatment, and gained confidence that the total meal might be adequate; the real question was the size and texture of the bites. We hope our readers will agree that this final menu is *al dente* and intellectually nourishing.

Those among the authorship (and readership) of this volume who know me can attest (as could the preceding paragraph) to my enjoyment in pressing the English language to its outer limits. Those less acquainted with this aberration have occasionally been nonplussed by (but in the end always graciously acceded to) such eccentricities as the inclusion of computers, transportation, and bereavement under the general rubric of "treatment." Briefly put, I have for present purposes chosen to interpret current therapy to mean "what's happening" in the field of neonatal-perinatal medicine, here presented to those involved subspecialists who must get things done by those who make things happen. The inclusion of such demonstrably nonperinatal topics as ectopic pregnancy should also serve notice of my continuing intent to present material presumed to be of general interest to those who serve the needs of the pregnant woman and her products of conception.

The final choice of topics will, no doubt, strike many as odd. Why, for instance, is there no chapter on infantile respiratory distress syndrome (née hyaline membrane disease)?— because I took it as a personal challenge to produce a table of contents that did not include these terms, since I regard this "disease" not as an affection of lung, but as a global phenomenon of developmental deficiency among multiple organs. Those who feel bereft need only to look to the chapters on surfactant replacement, mechanical ventilation, parenteral nutrition, patent ductus arteriosus, and parental bereavement for a surfeit of material on the current therapy of hyaline membrane disease—to such a degree has this lumper become a splitter! Beyond this, the final array of topics presented here is the admixed result of my own highly subjective judgment of the general importance or current curiosity inherent to each, as well as the presence of new information, or at least inflammatory opinion ("action," in the vernacular), all balanced against the availability of authoritative and lucid writers whose other commitments and work habits could permit inclusion. Moreover, the fact that this volume is intended for approximately biennial renewal, combined with the ever-sedate pace of true therapeutic advance in clinical medicine, has allowed us the freedom *not* to cover certain topics of unquestioned importance in this first edition.

A personal trip through the cabbage patch of illness during the production of this volume has denied me the ultimate reward of editorship (the massaging of someone else's words), and I am, accordingly, grateful for the high competence herein displayed by Brian Decker's associates, particularly so because I have thus been able to savor these manuscripts more as reader than editor and to note such happy diversity in writing styles. The most gratifying discovery has been that there is so much with which I can agree.

I have gained some personal pearls: that there is a Munchhausen syndrome in obstetrics, that self-examination of the cervix is a concept supported (even taught) by male obstetricians (as well as by the National Organization of Women), that one-half of LBW infants are SGA, that prospects for future child-bearing by the woman who has suffered an ectopic pregnancy are dim.

Some items qualify as "non-news": that physicians don't handle death well, that the provision of contraceptive (or any other) information to teenagers does not guarantee its accurate application (has driver education diminished young male auto accident rates?); but I have felt illuminated by the authors' efforts to look behind these depressing facts.

I find it satisfying that such "hi tech" maneuvers as monitored "kick counts" of fetal activity and patellar reflex bioassay of MgSO₄ blood levels (in toxemia/eclampsia) yet survive and still contribute to patient management in the era of fetoscopy and high-frequency ventilation by machines that beep but don't always call home.