ZOVIRAX®
(ACYCLOVIR)
OINTMENT 5%

‹efore prescribing, please consult full package insert, a summary of which follows:

NDICATIONS AND USAGE: Zovirax (Acyclovir) Ointment 5% is indicated in the management of initial erpes genitalis and in limited nonlife-threatening mucocutaneous Herpes simplex virus infections ı immunocompromised patients. In clinical trials of initial herpes genitalis, Zovirax Ointment 5% has hown a decrease in healing time and in some cases a decrease in duration of viral shedding and uration of pain. In studies in immunocompromised patients with mainly herpes labialis, there was decrease in duration of viral shedding and a slight decrease in duration of pain.

y contrast, in studies of recurrent herpes genitalis and of herpes labialis in nonimmunocompro- ıised patients, there was no evidence of clinical benefit; there was some decrease in duration of viral hedding.

iagnosis: Whereas cutaneous lesions associated with Herpes simplex infections are often haracteristic, the finding of multinucleated giant cells in smears prepared from lesion exudate or crapings may assist in the diagnosis.[1] Positive cultures for Herpes simplex virus offer a reliable means ›r confirmation of the diagnosis. In genital herpes, appropriate examinations should be performed) rule out other sexually transmitted diseases.

ONTRAINDICATIONS: Zovirax Ointment 5% is contraindicated for patients who develop hypersen- itivity or chemical intolerance to the components of the formulation.

/ARNINGS: Zovirax Ointment 5% is intended for cutaneous use only and should not be used in the eye.

RECAUTIONS:

eneral: The recommended dosage, frequency of applications, and length of treatment should not e exceeded (see DOSAGE AND ADMINISTRATION). There exist no data which demonstrate that the se of Zovirax Ointment 5% will either prevent transmission of infection to other persons or prevent ›current infections when applied in the absence of signs and symptoms. Zovirax Ointment 5% should ot be used for the prevention of recurrent HSV infections. Although clinically significant viral resis- ınce associated with the use of Zovirax Ointment 5% has not been observed, this possibility exists.

rug Interactions: Clinical experience has identified no interactions resulting from topical or systemic dministration of other drugs concomitantly with Zovirax Ointment 5%.

arcinogenesis, Mutagenesis, Impairment of Fertility: Acyclovir was tested in lifetime bioassays in ıts and mice at single daily doses of 50, 150 and 450 mg/kg/day given by gavage. These studies ıowed no statistically significant difference in the incidence of benign and malignant tumors pro- ıced in drug-treated as compared to control animals, nor did acyclovir induce the occurrence of tumors ırlier in drug-treated animals as compared to controls. In 2 *in vitro* cell transformation assays, used provide preliminary assessment of potential oncogenicity in advance of these more definitive lifetime oassays in rodents, conflicting results were obtained. Acyclovir was positive at the highest dose sed in one system and the resulting morphologically transformed cells formed tumors when inoculated to immunosuppressed, syngeneic, weanling mice. Acyclovir was negative in another transforma- ›n system.

o chromosome damage was observed at maximum tolerated parenteral doses of 100 mg/kg acyclovir rats or Chinese hamsters; higher doses of 500 and 1000 mg/kg were clastogenic in Chinese amsters. In addition, no activity was found in a dominant lethal study in mice. In 9 of 11 microbial ıd mammalian cell assays, no evidence of mutagenicity was observed. In 2 mammalian cell assays ıuman lymphocytes and L5178Y mouse lymphoma cells *in vitro*), positive response for mutagenici- and chromosomal damage occurred, but only at concentrations at least 1000 times the plasma levels chieved in man following topical application.

cyclovir does not impair fertility or reproduction in mice at oral doses up to 450 mg/kg/day or in ts at subcutaneous doses up to 25 mg/kg/day. In rabbits given a high dose of acyclovir (50 g/kg/day, s.c.), there was a statistically significant decrease in implantation efficiency.

egnancy: ***Teratogenic Effects.*** Pregnancy Category C. Acyclovir was not teratogenic in the mouse 50 mg/kg/day, p.o.), rabbit (50 mg/kg/day, s.c. and i.v.) or in standard tests in the rat (50 g/kg/day, s.c.). In a non-standard test in rats, fetal abnormalities, such as head and tail anomalies, ere observed following subcutaneous administration of acyclovir at very high doses associated with xicity to the maternal rat. The clinical relevance of these findings is uncertain.[2] There are no ade- ıate and well-controlled studies in pregnant women. Acyclovir should not be used during pregnan- unless the potential benefit justifies the potential risk to the fetus.

ırsing Mothers: It is not known whether this drug is excreted in human milk. Because many drugs e excreted in human milk, caution should be exercised when Zovirax is administered to a nursing ›man.

)VERSE REACTIONS: Because ulcerated genital lesions are characteristically tender and sensitive any contact or manipulation, patients may experience discomfort upon application of ointment. the controlled clinical trials, mild pain (including transient burning and stinging) was reported by 3 (28.3%) of 364 patients treated with acyclovir and by 115 (31.1%) of 370 patients treated with acebo; treatment was discontinued in 2 of these patients. Other local reactions among acyclovir- ated patients included pruritus in 15 (4.1%), rash in 1 (0.3%) and vulvitis in 1 (0.3%). Among placebo-treated patients, pruritus was reported by 17 (4.6%) and rash by 1 (0.3%).

all studies, there was no significant difference between the drug and placebo group in the rate or e of reported adverse reactions nor were there any differences in abnormal clinical laboratory findings.

'ERDOSAGE: Overdosage by topical application of Zovirax Ointment 5% is unlikely because of limited nscutaneous absorption (see Clinical Pharmacology).

ISAGE AND ADMINISTRATION: Apply sufficient quantity to adequately cover all lesions every 3 urs 6 times per day for 7 days. The dose size per application will vary depending upon the total sion area but should approximate a one-half inch ribbon of ointment per 4 square inches of surface ea. A finger cot or rubber glove should be used when applying Zovirax to prevent autoinoculation other body sites and transmission of infection to other persons. **Therapy should be initiated as ear- as possible following onset of signs and symptoms.**

IW SUPPLIED: Zovirax Ointment 5% is supplied in 15 g tubes (NDC 0081-0993-94) and 3 g tubes DC 0081-0993-41). Each gram contains 50 mg acyclovir in a polyethylene glycol base. Store at °-25°C (59°-77°F) in a dry place.

FERENCES

Naib ZM et al. *Cancer Res* 33:1452-1463, 1973.
Stahlmann R, Klug S, Lewandowski C, et al. *Infection:* 15(4): 261-262, 1987.

S. Patent No. 4199574

IMPROVING LIVES THROUGH ANTIVIRAL RESEARCH

Burroughs Wellcome Co.,
Research Triangle Park,
North Carolina 27709

›pr. © 1989 Burroughs Wellcome Co. All rights reserved.
)-1029

BOOK REVIEWS

Manual of Clinical Problems in Obstetrics and Gynecology (3rd edition). *Michel E. Rivlin, John C. Morrison, G. William Bates (eds). Little, Brown and Company, Boston, 1990, 480 pp, $22.50 (paper). ISBN 0-316-74774-2.*

The practice of obstetrics and gynecology has undergone major informational and technological changes over the past few years. There is indeed an ever-present challenge for the family physician to stay abreast of these changes and incorporate them in daily practice. This spiral-bound manual, now in its third edition, provides not only an excellent review of basic concepts in obstetrics and gynecology but also places newer developments in proper perspective.

The manual is subdivided according to major topics in obstetrics and gynecology. Obstetric topics include hemorrhage in pregnancy, preexisting diseases in pregnancy, other high-risk pregnancies, fetal malpositions, labor and delivery, the puerperium, and newer advances in obstetrics. The gynecology section includes basic information in general gynecology, infectious disease, contraception, infertility, and endocrinology. Additionally, there is a well-written section on human sexuality, which includes such discussions as alteration of sexuality with aging, drugs, and disease, and problems of orgasmic response in the male.

The text of each topic, usually several pages in length, is very readable and reflects the most recent changes in this specialty. Each individual section also includes a bibliography that lists references according to type: general, etiology, diagnosis, treatment, complications, and prognosis. That there are no diagrams or illustrations does not detract from the quality of the text.

Although the authors do not specifically address the potential usefulness of this manual to the family physician, its readability, style, and extensive references make it an excellent resource in obstetrics and gynecology for medical students, residents in family medicine, and the busy practicing family physician. Those who do not actively practice obstetrics would also benefit from this library edition.

Kathryn M. Larsen, MD
Orange, California

The Clinical Encounter. A Guide to the Medical Interview and Case Presentation. *J. Andrew Billings, John Stoeckle. Year Book Medical Publishers, Chicago, 1989, 305 pp, $19.95 (paper). ISBN 0-8151-0807-9.*

This new text is intended to guide medical students in their first contacts with patients and to develop the communication skills that will enhance the value and outcomes of the physician-patient relationship. The book addresses primarily encounters with adults in ambulatory settings. It should also be of considerable interest to graduates engaged in family practice, particularly those who were educated along traditional lines, with mastery of interviewing skills and of organization and presentation of findings limited to catch-as-catch-can opportunities.

The aims of the authors have been met admirably in a lucid format replete with illustrative questions and statements in quotation form designed to encourage the development and free exchange of essential information.

The topics of earlier chapters include history taking, development of the database, formulating the assessment and differential diagnosis, informing and counseling the patient, recording data, and an introduction to problem-oriented charting (later developed in detail).

Subsequent chapters address approaches to the more subtle, difficult, and sensitive aspects of the interview: eliciting the motivation of the patient to seek care, nonverbal communication ("body language"), recognizing and assessing alcohol abuse, discussing sexual matters, and psychosocial and occupational assessments. The mental status examination is presented in some detail, as are the description and management of situations that engender difficult physician-patient relationships (anxiety, somatization, the terminally ill and dying patient).

The final chapters deal with strategies for carrying out the treatment plan in the face of noncompliance, sharing bad news and decisions about life-sustaining care, home visits and functional assessment, collaborative care, oral presentations, and an illustrative complete case write-up.

This comprehensive, informative, readable and eminently practical text is highly recommended for medical students, their teachers, and even medical graduates as an introduction and guide to the development and nurturing of a unique, complex, and difficult human relationship.

Leonard P. Eliel, MD
University of Washington
Seattle, Washington

Sports Injuries: Diagnosis and Management. *James G. Garrick, David R. Webb. W.B. Saunders, Philadelphia, 1990, 369 pp, $45. ISBN 0-7216-2127-9.*

The authors, in their preface, state that this is essentially a "how-to" book—how to make the diagnoses and how to manage exercise- and sports-related injuries. They have certainly succeeded in that endeavor in this book. The text is a good general overview of sports medicine with much commonsense information in terms of diagnosis, initial treatment, and rehabilitation methods for many sports-related injuries.

Some features of this text not usually found in other sports medicine books include discussion of the value of exercise, description of kinesthetic sense after injury, and the use of bicycling as a retraining technique. It examines the more frequent sports injuries, such as shoulder dislocation, acromioclavicular separation, sprained ankle, and impingement syndromes, and gives an in-depth discussion of treatment and rehabilitation. There are nice presentations of initial treatments followed by definitive treatments of each condition encountered. There is a good review of ankle and foot injuries with very helpful information on rehabilitation techniques.

An unusual and very informative chapter is devoted to decision analysis. Decision analysis is a systematic approach to decision making under conditions of uncertainty. The primary function of decision analysis is to determine the optimal strategy that will maximize the probability of obtaining a desired outcome. The discussion plus the algorithms presented help the physician to decide on a logical approach to further treatment.

This book presents an overall review of sports medicine in a very practical and easily applicable way. Many other sports medicine books seem to be nothing more than slightly modified orthopedic texts. *Sports Injuries* should be in the library of every physician who deals with sports medicine and its injuries.

Arnold N. Krause, MD
Vincent J. Ross, MD
Family Practice Residency
University of Wyoming, Cheyenne

Becoming a Family Physician. *Marilyn Little, John E. Midtling (eds). Springer Verlag, New York, 1990, 286 pp, (price not available). ISBN 0-387-96949-7.*

The arrival of this book found me in a contemplative mood: I had just handed over the responsibility of residency director. I wish I had been able to read it when I started 8 years ago. It is written by several faculty at the programs affiliated with the University of California at San Francisco and is about training family physicians.

Like many multiauthored books, the style and quality of each chapter are variable. I especially liked the chapters on cross-cultural medicine, ethics, and professional development. The chapter on funding for training programs will be particularly valuable to those engaged in financial negotiations with their sponsoring institutions. Although *Becoming a Family Physician* addresses a real need for a single resource about many of the issues that face family medicine educators, some of the chapters are too parochial to be as helpful as they could be. Future editions would benefit from including more of the experiences of other programs. Nevertheless, all in all this book is recommended to family practice educators; it makes me dream

Amoxicillin To Go!
AMOXIL® (amoxicillin)
Chewables
Beecham
laboratories
Philadelphia, PA 19101
© SmithKline Beecham, 1990

about being residency director all over again.

Peter Franks, MD
Rochester, New York

Clinical Cardiology (3rd edition). *Peter C. Gazes. Lea & Febiger, Philadelphia, 1990, 594 pp, $55. ISBN 0-8121-1235-0.*

As Dr Gazes indicates in his preface, "every physician, regardless of the type of practice in which he is engaged, must deal with cardiology problems." All too frequently, however, textbooks limited to cardiology are tedious reading and include abundant amounts of information that are not particularly germane to day-to-day clinical care. Fortunately, this book is a wonderful exception to my general experience with speciality-oriented texts. *Clinical Cardiology* is intended for nurses, medical students, residents, cardiology fellows, and physicians who are not cardiologists or cardiovascular surgeons, though Dr Gazes feels that the heart specialists may benefit from the book as well. The readability, organization, and quality of tables and illustrations contribute to a product that very nicely fulfills its promise.

The text has the obligatory introductory chapters on the cardiovascular examination, diagnostic clues in cardiovascular disease, and clinical electrocardiography. The first chapter is brief and to the point, with good explanations of echocardiography, indications for Swan-Ganz catheters, and diagnostic studies for specific cardiac conditions such as coronary artery disease, pericardial disease, and bacterial endocarditis, to name a few. As to diagnostic clues, physical findings are described with clear and succinct descriptions of the physiology as well as the clinical implications. This is even done as well for the chapter on electrocardiography, which provides convenient lists of disorders or factors associated with electrocardiogram (ECG) findings such as axis deviation, bundle branch blocks, ventricular and atrial hypertrophy, and other findings that may be noted on ECG interpretations. The content and organization of these three chapters are among the best I have seen and make this book useful for both general reading and looking up specific information in a timely fashion.

The remainder of the book deals with particular cardiovascular problems (coronary heart disease, hypertension, valvular heart disease, congenital heart disease, innocent heart murmurs, etc). Here again the writing style and organization of the chapters make the book very readable. Research studies are quoted to substantiate points made by the author, but the author writes predominantly just as an experienced and knowledgeable consultant would discuss clinical problems with a referring physician.

The final chapter, "Non-Cardiac Surgery in Cardiac Patients," is particularly useful for family physicians. This chapter covers preoperative evaluation including computation of cardiac risk index and review of drugs requiring special attention before surgery: corticosteroids, antihypertensive agents, tranquilizers and antidepressants, hypoglycemic agents, antiplatelet agents and anticoagulants, and specific cardiovascular agents. The preoperative management of specific types of cardiovascular problems are outlined with guidelines as to what perioperative laboratory monitoring is particularly relevant. The operative and postoperative management is also covered fully with discussions of how to manage electrolyte disturbances, hyper- or hypovolemia, hypotension, and other potential complications.

This is a superb book for residents and attending physicians who must be knowledgeable about cardiovascular disease but who also demand a practical and succinct reference. This book clearly fills the bill, and I recommend it highly.

John C. Rogers, MD, MPH
Baylor College of Medicine
Houston, Texas

Effective Care in Pregnancy and Childbirth, Volumes 1 and 2. *Iain Chalmers, Murray Enkin, Marc J.N.C. Keirse (eds). Oxford University Press, Oxford, 1989, 1500 pp, $415.* **A Guide to Effective Care in Pregnancy and Childbirth.** *Murray Enkin, Marc J.N.C. Kierse, Iain Chalmers. Oxford University Press, Oxford, 1989, 376 pp, $21.95.*

What the Canadian Task Force, Frame and Carlsson, and most recently the US Preventive Services Task Force have done to analyze critically the evidence supporting health maintenance and screening activities has now been done, thoroughly and comprehensively, by Chalmers, Enkin, and Keirse in the field of obstetrics. They have searched the published literature from 1950 onwards, by computer and by hand, and have written to over 40,000 physicians to obtain unpublished data. Evidence pertaining to a wide variety of perinatal practices has been critically reviewed, compared, and synthesized into recommendations for practice and for research. These editors' methods have circumvented several pitfalls, avoiding a bias toward the views of one particular professional group or specialty, toward the latest fads, and toward aspects of current practice that are scientifically unsupported. The refreshing result is both balanced and iconoclastic. It is also humbling: one realizes how few questions have been answered, and that some answers continue to be ignored. The wealth of information here published will be of vital interest to childbearing women and to those who care for them, including students and teachers, practitioners, policymakers, and researchers.

Effective Care in Pregnancy and Childbirth, the expensive 1500-page reference, contains one volume on pregnancy and one on birth, with comprehensive description and discussion of the available evidence, conclusions, and bibliography for each topic. Since such a reference must become outdated, there is an alternative "electronic publication," *The Oxford Database of Perinatal Trials*, by Iain Chalmers, which will be continually updated. Since the price may be prohibitive for individual teachers or even departments, medical school or regional medical libraries should be urged to acquire one of these.

The companion *Guide to Effective*

continued on page 568

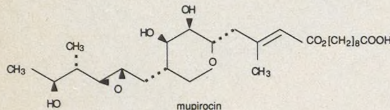
BACTROBAN®

(mupirocin)

Ointment 2%
For Dermatologic Use

DESCRIPTION

Each gram of BACTROBAN® Ointment 2% contains 20 mg mupirocin in a bland water miscible ointment base consisting of polyethylene glycol 400 and polyethylene glycol 3350 (polyethylene glycol ointment, N.F.). Mupirocin is a naturally-occurring antibiotic. The chemical name is 9-4-[5S-(2S,3S-epoxy-5S-hydroxy-4S-methylhexyl)-3R,4R-dihydroxytetrahydropyran-2S-yl]-3-methylbut-2(E)-enoyloxy-nonanoic acid. The chemical structure is:



CLINICAL PHARMACOLOGY

Mupirocin is produced by fermentation of the organism *Pseudomonas fluorescens*. Mupirocin inhibits bacterial protein synthesis by reversibly and specifically binding to bacterial isoleucyl transfer-RNA synthetase. Due to this mode of action, mupirocin shows no cross resistance with chloramphenicol, erythromycin, fusidic acid, gentamicin, lincomycin, methicillin, neomycin, novobiocin, penicillin, streptomycin, and tetracycline.

Application of ^{14}C-labeled mupirocin ointment to the lower arm of normal male subjects followed by occlusion for 24 hours showed no measurable systemic absorption (<1.1 nanogram mupirocin per milliliter of whole blood). Measurable radioactivity was present in the stratum corneum of these subjects 72 hours after application.

Microbiology: The following bacteria are susceptible to the action of mupirocin *in vitro:* the aerobic isolates of *Staphylococcus aureus* (including methicillin-resistant and ß-lactamase producing strains), *Staphylococcus epidermidis, Staphylococcus saprophyticus,* and *Streptococcus pyogenes.*

Only the organisms listed in the **INDICATIONS AND USAGE** section have been shown to be clinically susceptible to mupirocin.

INDICATIONS AND USAGE

BACTROBAN® (mupirocin) Ointment is indicated for the topical treatment of impetigo due to: *Staphylococcus aureus*, beta hemolytic *Streptococcus**, and *Streptococcus pyogenes.*

*Efficacy for this organism in this organ system was studied in fewer than ten infections.

CONTRAINDICATIONS

This drug is contraindicated in individuals with a history of sensitivity reactions to any of its components.

WARNINGS

BACTROBAN® Ointment is not for ophthalmic use.

PRECAUTIONS

If a reaction suggesting sensitivity or chemical irritation should occur with the use of BACTROBAN® Ointment, treatment should be discontinued and appropriate alternative therapy for the infection instituted.

As with other antibacterial products prolonged use may result in overgrowth of nonsusceptible organisms, including fungi.

Pregnancy category B: Reproduction studies have been performed in rats and rabbits at systemic doses, i.e., orally, subcutaneously, and intramuscularly, up to 100 times the human topical dose and have revealed no evidence of impaired fertility or harm to the fetus due to mupirocin. There are, however, no adequate and well-controlled studies in pregnant women. Because animal studies are not always predictive of human response, this drug should be used during pregnancy only if clearly needed.

Nursing mothers: It is not known whether BACTROBAN® is present in breast milk. Nursing should be temporarily discontinued while using BACTROBAN®.

ADVERSE REACTIONS

The following local adverse reactions have been reported in connection with the use of BACTROBAN® Ointment: burning, stinging, or pain in 1.5% of patients; itching in 1% of patients; rash, nausea, erythema, dry skin, tenderness, swelling, contact dermatitis, and increased exudate in less than 1% of patients.

DOSAGE AND ADMINISTRATION

A small amount of BACTROBAN® Ointment should be applied to the affected area three times daily. The area treated may be covered with a gauze dressing if desired. Patients not showing a clinical response within 3 to 5 days should be re-evaluated.

HOW SUPPLIED

BACTROBAN® (mupirocin) Ointment 2% is supplied in 15 gram tubes.
(NDC #0029-1525-22)

Store between 15° and 30°C (59° and 86°F).

0938020/B88–REV. FEB. 1988

Reference:

1. Data on file, Medical Department, Beecham Laboratories.

Beecham
laboratories
BRISTOL, TENNESSEE 37620

continued from page 566

Care in Pregnancy and Childbirth is available inexpensively in paperback. It contains the conclusions and recommendations for each topic, but only short synopses of the evidence, and *none* of the references. The style is pithy and many conclusions surprising, which had the effect of sending me to the library post haste to examine the evidence. The best part of the guide may be the four appendix tables, which summarize the authors' conclusions: forms of care that have proven to be effective, those that "appear promising, but require further evaluation," those with unknown effects, and "forms of care that should be abandoned in the light of the available evidence," which includes a wide range of actions to be eschewed, from "prescribing stilboestrol [DES] during pregnancy" to "failing to provide continuity of care during pregnancy and childbirth." It is a pleasure to see assumptions, especially in a field so dogmatic as obstetrics, questioned on the basis of scientific principles. I believe that this compendium may have a profound effect on teaching, practice, and research in obstetrics during the next few years.

Louise Acheson, MD, MS
Case Western Reserve University
Cleveland, Ohio

Handbook of Drug Therapy in Reproductive Endocrinology and Infertility. *Michael E. Rivlin (ed). Little, Brown, Boston, 1990, 250 pp, $22.50 (paper). ISBN 0-316-74772-6.*

According to the editor, this paperbound manual was written for obstetricians, gynecologists, and family physicians who treat women with endocrine disorders. It is intended to supplement rather than supplant standard gynecology texts, which deal primarily with physiology, pathophysiology, and diagnosis. Following an introductory overview, there are eight chapters on individual hormonal agents and five chapters reviewing specific clinical situations involving endocrine therapy. There is a list of specific disorders and clinical situations with references to all of the hormonal therapies described for each diagnosis. Finally, there is an extensive index.

The book seems to meet its stated goal of discussing hormonal manipulation in treatment or disorders of the reproductive system in the female patient and also includes a chapter on hormone therapy in the male patient.

The initial overview chapter devotes one or two paragraphs to each of the the major diagnoses covered in the book. Each section cautions that the patient must undergo a thorough pretreatment evaluation prior to therapy, but the workup is not described or discussed. The subsequent chapters on specific hormonal agents each describe the physiology, pharmacology, indications, contraindications, adverse reactions, and administration instructions for the agents covered. All forms of the agent available are then enumerated with specific comments about each. Each chapter also includes a short bibliography.

As is so often true of multiauthored texts, the quality of the chapters varies. The discussion of birth control pill indications, contraindications, and side effects is particularly accessible and useful. Conversely, other chapters contain some substantive errors and omissions, such as the suggestion in chapter 10 that one must avoid nonsteroidal antiinflammatory drugs in women with a history of gastric ulceration, but there is no warning about the specific contraindication to the use of these drugs in patients with asthma, rhinitis, and nasal polyps. The chapter on pharmacotherapy and sexual dysfunction provides a useful overview of this complex and controversial subject but would have been improved by omission of the "testimonials" scattered throughout.

In summary, although this inexpensive, fact-filled handbook may be a useful reference for the individual already quite knowledgeable about the diagnostic assessment of problems in reproductive endocrinology, it is not likely to be a useful addition to the library of the average family physician.

Clinton H. Toewe, MD
East Virginia Medical School
Norfolk