JULY 1990

VOLUME 86
NUMBER 1

Pediatrics

AMERICAN ACADEMY OF PEDIATRICS ELK GROVE VILLAGE IL 60009–0927

SPECIAL ARTICLE

1 **Diagnosis of Human Immunodeficiency Virus Infection**—R. N. Husson et al

ARTICLES

11 **Mother-to-Child Transmission of Human T-Lymphotropic Virus Type-I**—Y. Tsuji et al

18 **Fetal Growth and Body Proportionality**—M. S. Kramer et al

27 **Birth Weight Less Than 800 Grams: Changing Outcomes and Influences**—E. L. Hoffman and F. C. Bennett

35 **Ultrasonography and Management of Recurrent Abdominal Pain**—A. Shanon et al

39 **Antroduodenal Manometry for Functional Bowel Symptoms**—P. E. Hyman et al

45 **Prediction Rules for Selective Radiographic Assessment of Extremity Injuries**—K. M. McConnochie et al

58 **Psychological Development of Children Treated Antenatally With Corticosteroids**—B. Schmand et al

65 **Physical Development and Medical History of Children Treated Antenatally With Corticosteroids: 10- to 12-Year Follow-up**—H. Smolders-de Haas et al

71 **Extracorporeal Membrane Oxygenation in Infants of Greater Than 2500-Gram Birth Weight**—W. M. Southgate et al

75 **Aspartame: Effects on Learning, Behavior, and Mood**—S. Saravis et al

84 **δ-Aminolevulinic Acid Dehydratase in Tyrosinemia and Liver Transplantation**—S. Sassa et al

87 **Elevated Liver Transaminase Levels in Children With Blunt Abdominal Trauma**—H. M. Hennes et al

91 **Nefedipine Poisoning**—T. G. Wells et al

95 **Stimulant Medication Use by Primary Care Physicians to Treat Attention Deficit Hyperactivity Disorder**—M. L. Wolraich et al

102 **Serologic Responses to *Haemophilus Influenzae* Type b Polysaccharide-*Neisseria meningitidis* Outer Membrane Protein Conjugate Vaccine**—H. Campbell et al

108 **Home Visitation and the Health of Women and Children at Environmental Risk?**—D. L. Olds and H. Kitzman

EXPERIENCE AND REASON

117 **Esophagitis, Epiglottitis, and Cocaine Alkaloid ('Crack'): 'Accidental' Poisoning or Child Abuse?**—S. Kharasch et al

SPECIAL ARTICLE

120 **A Comprehensive Emergency Medical System for Children**—J. A. Haller Jr

EDITORIAL

123 **Contraindication of Tetracycline for Therapy of Rocky Mountain Spotted Fever in Children Less Than 9 Years Old?**—J. S. Abramson and L. B. Givner

SECTION REPORT

125 **Pediatric Dermatology Update**—D. P. Krowchuk et al

AMERICAN ACADEMY OF PEDIATRICS

130 **Dexamethasone Therapy for Bacterial Meningitis**—Committee on Infectious Diseases

134 **Contraception and Adolescents**—Committee on Adolescence

139 **Selection of Substance Abuse Treatment Programs**—Provisional Committee on Substance Abuse

141 **Ride-On Mower Injuries**—Committee on Accident and Poison Prevention

PEDIAU 86(1) pp. 1-155 (1990)

Too old for a baby bar,

Too delicate for just any soap.

UNSCENTED!

Beiersdorf
The science of skin care.

Introducing BASIS® Sensitive Skin Specially formulated to eliminate soap sting

Harsh adult soaps could sting sensitive or irritated children's skin—prone to disorders such as rashes, insect bites, sunburn or eczema. But BASIS Sensitive Skin combines a mild, unscented soap formulation with a proven anti-inflammatory agent, contained in chamomile...to lessen the chance of stinging, while it cleans, smooths and soothes children's delicate complexions.

Specially formulated for the needs of children's skin

BASIS has also been proven in clinical skin roughness tests to leave skin as smooth and soft as other leading "mild" brands.[1] And BASIS rinses clean, essentially without the damaging residues which can be left behind by other soaps.[1] So for your patients who are too old for a baby bar, and too delicate for their parents' soap, recommend the unscented cleanser made especially for them: BASIS Sensitive Skin.

1. Sauermann G, Doerschner A, Hoppe U, et al: Comparative study of skin care efficacy and in-use properties of soap and surfactant bars. *J Soc Cosmet Chem* 1986; 37:309-27.

Tender loving clean™

Brief Summary of Prescribing Information

AUGMENTIN amoxicillin/clavulanate potassium

Indications and Usage: AUGMENTIN* is indicated in the treatment of infections caused by susceptible strains of the designated organisms in the conditions listed below:

Lower Respiratory Infections caused by β-lactamase-producing strains of *Hemophilus influenzae* and *Branhamella catarrhalis*.
Otitis Media caused by β-lactamase-producing strains of *Hemophilus influenzae* and *Branhamella catarrhalis*.
Sinusitis caused by β-lactamase-producing strains of *Hemophilus influenzae* and *Branhamella catarrhalis*.
Skin and Skin Structure Infections caused by β-lactamase-producing strains of *Staphylococcus aureus*, *E. coli*, and *Klebsiella* spp.
Urinary Tract Infections caused by β-lactamase-producing strains of *E. coli*, *Klebsiella* spp. and *Enterobacter* spp.

While AUGMENTIN is indicated only for the conditions listed above, infections caused by ampicillin susceptible organisms are also amenable to AUGMENTIN treatment due to its amoxicillin content. Therefore, mixed infections caused by ampicillin susceptible organisms and β-lactamase-producing organisms susceptible to AUGMENTIN should not require the addition of another antibiotic.

Bacteriological studies, to determine the causative organisms and their susceptibility to AUGMENTIN, should be performed together with any indicated surgical procedures.

Therapy may be instituted prior to obtaining the results from bacteriological and susceptibility studies to determine the causative organisms and their susceptibility to AUGMENTIN when there is reason to believe the infection may involve any of the β-lactamase-producing organisms listed above. Once the results are known, therapy should be adjusted, if appropriate.

Contraindications: A history of allergic reactions to any penicillin is a contraindication.

WARNINGS: SERIOUS AND OCCASIONALLY FATAL HYPERSENSITIVITY (ANAPHYLACTOID) REACTIONS HAVE BEEN REPORTED IN PATIENTS ON PENICILLIN THERAPY. ALTHOUGH ANAPHYLAXIS IS MORE FREQUENT FOLLOWING PARENTERAL THERAPY, IT HAS OCCURRED IN PATIENTS ON ORAL PENICILLINS. THESE REACTIONS ARE MORE LIKELY TO OCCUR IN INDIVIDUALS WITH A HISTORY OF PENICILLIN HYPERSENSITIVITY AND/OR A HISTORY OF SENSITIVITY TO MULTIPLE ALLERGENS. THERE HAVE BEEN REPORTS OF INDIVIDUALS WITH A HISTORY OF PENICILLIN HYPERSENSITIVITY WHO HAVE EXPERIENCED SEVERE REACTIONS WHEN TREATED WITH CEPHALOSPORINS. BEFORE INITIATING THERAPY WITH ANY PENICILLIN, CAREFUL INQUIRY SHOULD BE MADE CONCERNING PREVIOUS HYPERSENSITIVITY REACTIONS TO PENICILLINS, CEPHALOSPORINS, OR OTHER ALLERGENS. IF AN ALLERGIC REACTION OCCURS, AUGMENTIN SHOULD BE DISCONTINUED AND THE APPROPRIATE THERAPY INSTITUTED. **SERIOUS ANAPHYLACTOID REACTIONS REQUIRE IMMEDIATE EMERGENCY TREATMENT WITH EPINEPHRINE. OXYGEN, INTRAVENOUS STEROIDS, AND AIRWAY MANAGEMENT, INCLUDING INTUBATION, SHOULD ALSO BE ADMINISTERED AS INDICATED.**

Precautions: General: While AUGMENTIN possesses the characteristic low toxicity of the penicillin group of antibiotics, periodic assessment of organ system functions, including renal, hepatic and hematopoietic function is advisable during prolonged therapy.

A high percentage of patients with mononucleosis who receive ampicillin develop a skin rash. Thus, ampicillin class antibiotics should not be administered to patients with mononucleosis.

The possibility of superinfections with mycotic or bacterial pathogens should be kept in mind during therapy. If superinfections occur (usually involving *Pseudomonas* or *Candida*), the drug should be discontinued and/or appropriate therapy instituted.

Drug Interactions: Probenecid decreases the renal tubular secretion of amoxicillin. Concurrent use with AUGMENTIN may result in increased and prolonged blood levels of amoxicillin.

The concurrent administration of allopurinol and ampicillin increases substantially the incidence of rashes in patients receiving both drugs as compared to patients receiving ampicillin alone. It is not known whether this potentiation of ampicillin rashes is due to allopurinol or the hyperuricemia present in these patients. There are no data with AUGMENTIN and allopurinol administered concurrently.

AUGMENTIN should not be co-administered with Antabuse® (disulfiram).

Carcinogenesis, Mutagenesis, Impairment of Fertility: Long-term studies in animals have not been performed to evaluate carcinogenic or mutagenic potential.

Pregnancy (Category B): Reproduction studies have been performed in mice and rats at doses up to ten (10) times the human dose and have revealed no evidence of impaired fertility or harm to the fetus due to AUGMENTIN. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, this drug should be used during pregnancy only if clearly needed.

Labor and Delivery: Oral ampicillin class antibiotics are generally poorly absorbed during labor. Studies in guinea pigs have shown that intravenous administration of ampicillin decreased the uterine tone, frequency of contractions, height of contractions and duration of contractions. However, it is not known whether the use of AUGMENTIN in humans during labor or delivery has immediate or delayed adverse effects on the fetus, prolongs the duration of labor or increases the likelihood that forceps delivery or other obstetrical intervention or resuscitation of the newborn will be necessary.

Nursing Mothers: Ampicillin class antibiotics are excreted in the milk; therefore, caution should be exercised when AUGMENTIN is administered to a nursing woman.

Adverse Reactions: AUGMENTIN is generally well tolerated. The majority of side effects observed in clinical trials were of a mild and transient nature and less than 3% of patients discontinued therapy because of drug related side effects. The most frequently reported adverse effects were diarrhea/loose stools (9%), nausea (3%), skin rashes and urticaria (3%), vomiting (1%), and vaginitis (1%).

The overall incidence of side effects, and in particular diarrhea, increased with the higher recommended dose. Other less frequently reported reactions include abdominal discomfort, flatulence and headache.

The following adverse reactions have been reported for ampicillin class antibiotics:

Gastrointestinal: Diarrhea, nausea, vomiting, indigestion, gastritis, stomatitis, glossitis, black "hairy" tongue, enterocolitis and pseudomembranous colitis.

Hypersensitivity reactions: Skin rashes, urticaria, angioedema, serum sickness-like reactions (urticaria or skin rash accompanied by arthritis/arthralgia, myalgia, and frequently fever), erythema multiforme (rarely Stevens-Johnson Syndrome), and an occasional case of exfoliative dermatitis have been reported. These reactions may be controlled with antihistamines and, if necessary, systemic corticosteroids. Whenever such reactions occur, the drug should be discontinued, unless the opinion of the physician dictates otherwise. Serious and occasional fatal hypersensitivity (anaphylactic) reactions can occur with oral penicillin (See Warnings).

Liver: A moderate rise in SGOT and/or SGPT has been noted in patients treated with ampicillin class antibiotics as well as with AUGMENTIN, but the significance of these findings is unknown. As with some other penicillins, and some cephalosporins, transient hepatitis and cholestatic jaundice have been reported rarely.

Hemic and Lymphatic Systems: Anemia, thrombocytopenia, thrombocytopenic purpura, eosinophilia, leukopenia and agranulocytosis have been reported during therapy with penicillins. These reactions are usually reversible on discontinuation of therapy and are believed to be hypersensitivity phenomena. A slight thrombocytosis was noted in less than 1% of the patients treated with AUGMENTIN.

Central Nervous System: Reversible hyperactivity, agitation, anxiety, insomnia, confusion, behavioral changes, and/or dizziness have been reported rarely.

Dosage: Adults: The usual adult dose is one AUGMENTIN '250' tablet every eight hours. For more severe infections and infections of the respiratory tract, the dose should be one AUGMENTIN '500' tablet every eight hours.

Since both the AUGMENTIN '250' and '500' tablets contain the same amount of clavulanic acid (125 mg, as the potassium salt), two AUGMENTIN '250' tablets are not equivalent to one AUGMENTIN '500' tablet. Therefore, two AUGMENTIN '250' tablets should not be substituted for one AUGMENTIN '500' tablet for treatment of more severe infections.

Children: The usual dose is 20 mg/kg/day, based on amoxicillin component, in divided doses every eight hours. For otitis media, sinusitis and other more severe infections, the dose should be 40 mg/kg/day, based on the amoxicillin component, in divided doses every eight hours. Also available as AUGMENTIN '125' and '250' chewable tablets.

Children weighing 40 kg and more should be dosed according to the adult recommendations.

Beecham laboratories
BRISTOL TENNESSEE 37620

9417094/W88-BS

MANUSCRIPT PREPARATION: INSTRUCTIONS FOR AUTHORS

SEND ALL MANUSCRIPTS TO:

Jerold F. Lucey, MD, Editor
Pediatrics Editorial Office
Medical Center Hospital
Burlington, VT 05401
(802) 862-8778

Manuscripts for *Pediatrics* will be accepted for review with the stipulation that they are being submitted only to the American Academy of Pediatrics and that the material has not been previously published. This should be confirmed by a signed statement.

Manuscripts should be prepared in the manner described in the American Medical Association *Manual of Style*, eighth edition, © 1989. A current issue of *Pediatrics* should be consulted for general style.

Four (4) complete copies of the manuscript including tables and glossy prints of illustrations must be supplied. (Copies are required for separate publication in India, Italy, Spain, and the US.) All material should be typed on white bond paper, 21.6 × 27.9 cm (8 × 11 in). If word processing is used, letter-quality printing, rather than dot-matrix, is preferred.

Use double-spacing throughout, including title page, abstract, text, acknowledgements, references, tables, and legends for illustrations.

The author's style will be respected; however, writing should conform to acceptable English usage and syntax, and American Medical Association style preference should be observed.

Title Page: Titles should be concise and relevant to content. On title page, give authors' full names and professional degrees, corresponding author's address, reprint request author's name and address, and name of institution(s) where work was done; omit departmental appointments unless necessary for special reasons.

General Style: Slang, medical jargon, abbreviations, and use of nouns as adjectives should be avoided. Mathematical terms, formulas, abbreviations, and units of measurement must conform to usage in Pediatrics. Metric system will be used; equivalent measurement in English system may be included in parentheses. Names of chemical compounds—not formulas—should be given. Proprietary names, if unavoidable, should be indicated by capitalization of the first letter. Conversions to accepted standards and terms should be made before the manuscript is submitted.

Form: Manuscripts should include a clear introductory statement of purpose; a historical review when desirable; a description of the technique and scope of the experiments or observations (previously published procedures require only references to the original); a brief *Comment* or *Discussion* concerning the significance of the findings and any correlation with those of other workers; a paragraph headed Speculation and Relevance, Implications; or Conclusions.

Abstracts: Articles should be accompanied by an abstract of 200 words or less, as well as key words under which the paper should be indexed. Reviews, commentaries, and articles for "Experience and Reason" do not require abstracts. Authors should also supply an alphabetical list of any unusual abbreviations used and their definitions.

References must be typed double-spaced. They must be numbered consecutively according to their citation in the text. I not repeat references; cite the number of the reference prev ously cited. Abbreviations for journals should be those listed ir *Index Medicus*. The following are examples of the basic style (for more details, see the AMA *Manual of Style*). List all authors unless more than six (6), in which case, list first three (3) and then "et al."

Journal

1. Starzl TE, Klintmalm GBG, Porter KA, et al. Liver transplantation with use of cyclosporin A and prednisone. *N Engl J Med.* 1981;305:266–269

Book

1. Kavet J. Trends in the utilization of influenza vaccine: an examination of the implementation of public policy in the United States. In: Selby P, ed. *Influenza: Virus, Vaccines, and Strategy*, Orlando, FL: Academic Press Inc; 1976:297–308

Tables must be typed **double-spaced**. They must be comprehensible to the reader without reference to the text and typed rather than photographed. Each table should be typed on separate sheet(s), be numbered consecutively, and have a brief title. Care should be taken to make tables as concise and brief as possible.

Illustrations: Four (4) sets of ***photographs*** of line drawings and any other figures that are not composed simply of letters, numerals, and routine symbols must be furnished. Do not send original artwork or printed forms. A reasonable number of black-and-white illustrations will be printed from black-and-white glossies or film without charge.

Color Illustrations and other special processing involve extra costs that must be borne by the author. Manuscripts containing such materials will not be processed until arrangements for payment, on the basis of estimated price, are made. Color work requires 1 month longer for production.

Each illustration must be identified on its back, indicating the figure number, lead author's name, and "top." They should be cited in the text. If unessential, their omission may be requested. The prints should not be stapled, clipped together, mounted, or trimmed. Details to be emphasized or crop marks should be indicated.

Illustrations of poor quality may be returned for improvement. Photographs of patients should be submitted *only* when written parental permission has been obtained. It is the responsibility of the authors to obtain this permission and to keep it in their files. If a figure has been published previously, acknowledge the original source and obtain written permission for its use from the copyright holder. Use cardboard inserts to protect illustrations in the mail. Legends (double-spaced) for figures must be on separate sheets.

Copyright: After manuscript has been reviewed and accepted for publication, the author(s) will receive a standard Copyright Agreement which should be read, signed by *all* authors, and returned to the Editor as soon as possible to avoid delay in the publication process. Manuscripts submitted by persons who were employees of the US federal government at the time the work was prepared are not protected by the Copyright Act and therefore no copyright can be transferred. This should be stated on the Copyright Assignment and submitted to *Pediatrics*.

Return of Manuscripts: Manuscripts will not be returned to authors. Original illustrations will be returned only if requested by the author.

☞ ---------- ☜

Manuscript Checklist: (clip and send with manuscript)

_____ 4 Copies, entirely double-spaced.

_____ Corresponding author's address on cover page.

_____ References in proper format, in numerical order, making sure each is cited in the text, entirely double-spaced.

_____ 4 Sets of photographs of any illustrations, labeled on back with figure number, author's name, and "Top" designation.

_____ Affiliations of each author, with degrees they hold.

_____ Statement of publication stating that the paper is being sent only to the AAP and that it has not been previously published.

Trust is more than a matter of taste.

Trust is knowing that your recommendation stands for efficacy. Dimetapp Elixir has a heritage of efficacy that's unsurpassed for colds and allergy relief. Every spoonful provides effective relief of the runny nose, sniffling and nasal congestion of a cold or flu. Dimetapp Elixir also relieves the itchy, watery eyes and sneezing of little allergy sufferers.

And, Dimetapp is a name that has always stood for great grape taste. So, compliance is never an issue. Trust Dimetapp Elixir. A heritage of efficacy in every good-tasting spoonful.

Dimetapp® Elixir

Nasal Decongestant/Antihistamine

A heritage of efficacy in every spoonful.

JULY 1990 VOL. 86 NO. 1

Pediatrics

OFFICAL PUBLICATION OF THE AMERICAN ACADEMY OF PEDIATRICS

PEDIATRICS (ISSN 0031 4005) is owned and controlled by the American Academy of Pediatrics. It is published monthly by the American Academy of Pediatrics, PO Box 927, Elk Grove Village, IL 60009-0927.

Subscription price per year: Individual in US, $52; other countries, $67. Special rate for medical students, hospital residents, and Fellows in full-time training in US, $34 per year; in other countries, $49. Institution in US, $90; in other countries; $105. Renewal at special rate beyond two years will require a letter from an appropriate authority stating the individual's eligibility. Air mail delivery available outside US and Canada for an additional $85 per year. Please allow 6–8 weeks for delivery of first issue. Single issues in US, $8; other countries, $10. Payment must accompany order. Subscription claims must be received within 6 months of publication date.

Second-class postage paid at ELK GROVE VILLAGE, ILLINOIS 60009-0927 and at additional mailing offices.

POSTMASTER: Send address changes to PEDIATRICS, American Academy of Pediatrics, 141 Northwest Point Blvd, Elk Grove Village, IL 60009-0927.

SPECIAL ARTICLE

1 **Diagnosis of Human Immunodeficiency Virus Infection in Infants and Children**—Robert N. Husson, Anne M. Comeau, and Rodney Hoff

ARTICLES

11 **Prevention of Mother-to-Child Transmission of Human T-Lymphotropic Virus Type-I**—Yoshiro Tsuji, Hiroshi Doi, Tooru Yamabe, Tadayuki Ishimaru, Tsutomu Miyamoto, and Shigeo Hino

18 **Determinants of Fetal Growth and Body Proportionality**—Michael S. Kramer, Marielle Olivier, Frances H. McLean, Geoffrey E. Dougherty, Diana M. Willis, and Robert H. Usher

27 **Birth Weight Less Than 800 Grams: Changing Outcomes and Influences of Gender and Gestation Number**—Edward L. Hoffman and Forrest C. Bennett

35 **Ultrasonographic Studies in the Management of Recurrent Abdominal Pain**—Amir Shanon, David John Martin, and William Feldman

39 **Antroduodenal Manometry in the Evaluation of Chronic Functional Gastrointestinal Symptoms**—Paul E. Hyman, Judy A. Napolitano, Alice Diego, Swati Patel, Alejandro F. Flores, Bruce B. Grill, Narasimha Reddy, Thomas Q. Garvey III, and Takeshi Tomomasa

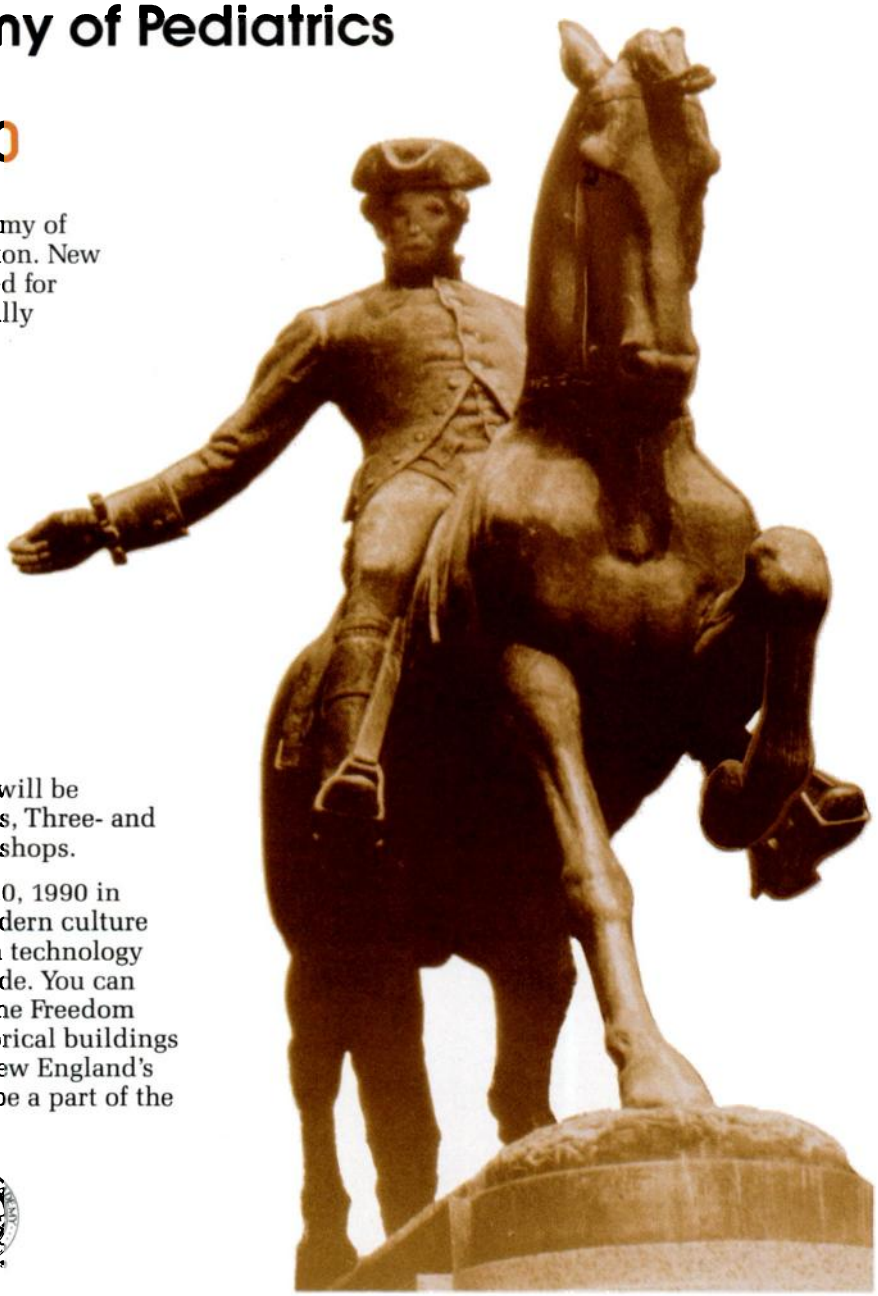
45 **Prediction Rules for Selective Radiographic Assessment of Extremity Injuries in Children and Adolescents**—Kenneth M. McConnochie, Klaus J. Roghmann, Joel Pasternack, David J. Monroe, and Liberatore P. Monaco

58 **Psychological Development of Children Who Were Treated Antenatally With Corticosteroids to Prevent Respiratory Distress Syndrome**—B. Schmand, J. Neuvel, H. Smolders-de Haas, J. Hoeks, P. E. Treffers, and J. G. Koppe

65 **Physical Development and Medical History of Children Who Were Treated Antenatally With Corticosteroids to Prevent Respiratory Distress Syndrome: A 10- to 12-Year Follow-up**—H. Smolders-de Haas, J. Neuvel, B. Schmand, P. E. Treffers, J. G. Koppe, and J. Hoeks

BOSTON

American Academy of Pediatrics Annual Meeting October 5–10, 1990



Plan now to attend the American Academy of Pediatrics' 59th Annual Meeting in Boston. New this year are Dialogue Sessions, designed for participant/speaker interaction. Nationally recognized speakers include:

Infectious Diseases
George H. McCracken, MD, FAAP
Sheldon L. Kaplan, MD, FAAP
Samuel L. Katz, MD, FAAP
Jerome O. Klein, MD, FAAP

Dermatology
Sidney Hurwitz, MD, FAAP

Child Development
Leon Eisenberg, MD, FAAP
Barry S. Zuckerman, MD, FAAP

Sports Health
James Garrick, MD

A rich variety of scientific information will be presented in expanded Plenary Sessions, Three- and Six-Hour Seminars, and hands-on Workshops.

Join us Friday–Wednesday, October 5–10, 1990 in Boston. You'll find a city filled with modern culture and old-world charm; a city where high technology and colonial architecture live side by side. You can follow the path of Paul Revere or walk the Freedom Trail that leads you to many of the historical buildings in the downtown area. Boston is also New England's center for cultural events, and you can be a part of the excitement while earning CME credits.

American Academy of Pediatrics

Please send me registration information about the AAP Annual Meeting in Boston. (Note: All Academy members will receive a program and registration packet in August.)

Name _____

Address _____

City _____ State _____ Zip _____

American Academy of Pediatrics
Division of Meeting Services
P.O. Box 927
Elk Grove Village, IL 60009-0927
800-433-9016

Enfamil... Because breast-fed infants deserve a natural transition

Enfamil has a 60:40 whey-to-casein ratio—similar to that of breast milk. Other milk-based formulas have an 18:82 whey-to-casein ratio, similar to that of cow's milk. So when mothers need a supplementing or weaning formula, or when bottle-feeding is chosen, recommend a formula that provides an easily digestible, natural transition from breast milk. Stay with whey... stay with Enfamil.

Enfamil®

Full-Year Formula™

L-K324-1-90

STAY WITH ENFAMIL • FULL-YEAR FORMULA™

STAY WITH WHEY

71 **Need for and Impact on Neonatal Mortality of Extracorporeal Membrane Oxygenation in Infants of Greater Than 2500-Gram Birth Weight**—W. Michael Southgate, Charles G. Howell, and William P. Kanto Jr

75 **Aspartame: Effects on Learning, Behavior, and Mood**—Susan Saravis, Russell Schachar, Stanley Zlotkin, Lawrence A. Leiter, and G. Harvey Anderson

84 **Succinylacetone and δ-Aminolevulinic Acid Dehydratase in Hereditary Tyrosinemia: Immunochemical Study of the Enzyme**—Shigeru Sassa, Hiroyoshi Fujita, and Attallah Kappas

87 **Elevated Liver Transaminase Levels in Children With Blunt Abdominal Trauma: A Predictor of Liver Injury**—Halim M. Hennes, Douglas S. Smith, Kathleen Schneider, Mary A. Hegenbarth, Michael A. Duma, and Juda Z. Jona

91 **Nefedipine Poisoning in a Child**—Thomas G. Wells, Charles J. Graham, M. Michele Moss, and Gregory L. Kearns

95 **Stimulant Medication Use by Primary Care Physicians in the Treatment of Attention Deficit Hyperactivity Disorder**—Mark L. Wolraich, Scott Lindgren, Ann Stromquist, Richard Milich, Charles Davis, and Doretta Watson

102 **Serologic Responses to an *Haemophilus Influenzae* Type b Polysaccharide-*Neisseria meningitidis* Outer Membrane Protein Conjugate Vaccine in Very Young Gambian Infants**—Harry Campbell, Peter Byass, Vincent I. Ahonkhai, Philip P. Vella, and Brian M. Greenwood

108 **Can Home Visitation Improve the Health of Women and Children at Environmental Risk?**—David L. Olds and Harriet Kitzman

EXPERIENCE AND REASON

117 **Esophagitis, Epiglottitis, and Cocaine Alkaloid ('Crack'): 'Accidental' Poisoning or Child Abuse?**—Sigmund Kharasch, Robert Vinci, and Robert Reece

SPECIAL ARTICLE

120 **Toward a Comprehensive Emergency Medical System for Children**—J. Alex Haller Jr

EDITORIAL

123 **Should Tetracycline Be Contraindicated for Therapy of Presumed Rocky Mountain Spotted Fever in Children Less Than 9 Years of Age?**—Jon S. Abramson and Laurence B. Givner

The questions we get...

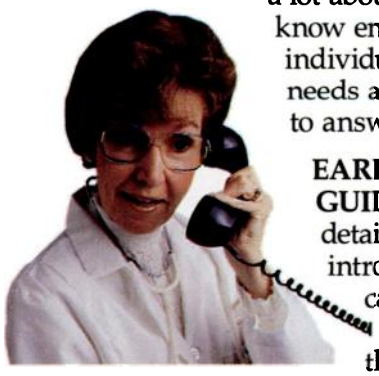
need the answers you've got.

''When can I start Heather on baby foods?''

''My doctor said to start Brett on vegetables, but how much do I feed him?''

These are some of the 6,000 questions we get each month about nutrition on our 1-800-4-GERBER line.

WE DON'T ANSWER these questions. We refer the callers to you. That's because although we know a lot about nutrition - - only you know enough about each individual baby's nutritional needs and growth rate to answer accurately.



EARLY ANTICIPATORY GUIDANCE followed by detailed instructions on the introduction of baby foods can assure that parents have the information they need for a smooth, controlled transition from an all-liquid to a mixed diet.

YOUR OFFICE TIME is valuable and nutrition is just one of the many subjects you cover in your health supervision visits. That's why Gerber has developed time-saving instruction sheets for Starting Foods as well as for allergy or caloric guidance.

These instruction sheets can help you make sure that parents understand and follow your feeding advice for their individual babies. That makes your job easier and more pleasant, too.

Ask your Gerber representative for materials, or write to us:

Gerber®
Medical Services
P.O. Box 7000
Fremont, Michigan 49413

GOOD THINGS COME TO THOSE WHO WAIT.

Introducing Special Reports Television. Now Special Reports expands to both a television and magazine program for your waiting room. It's designed to make waiting room time seem a lot shorter for your patients. SRTV provides network quality programming, with information and education geared to the needs of today's families. And another good thing, you can have SRTV at no cost to your practice. For more information call 1-800-637-8207.

SPECIAL REPORTS
FOR TODAY'S FAMILY

SCHEDULE OF CONTINUING EDUCATION COURSES
1990

Pediatric Trends
Montreal, Quebec, Canada
August 31–September 2

Issues and Advances in Pediatrics
Scottsdale, Arizona
October 26–28

Pediatric Update
Williamsburg, Virginia
December 7–9

1991

Current Concepts in Pediatrics
Vail, Colorado
January 10–13

Fourth Annual Pediatrics in Progress
San Francisco, California
February 15–17

Pediatrics 1991
Kauai/Maui, Hawaii
April 9–14

State of the Art Pediatrics: 1991
New York, New York
May 3–5

Pediatric Advances
Kiawah Island, South Carolina
May 24–26

Clinical Pediatrics
Washington, DC
June 21–23

SECTION REPORT

125 **Pediatric Dermatology Update**—Daniel P. Krowchuk, Walter W. Tunnessen Jr, and Sidney Hurwitz

AMERICAN ACADEMY OF PEDIATRICS

130 **Dexamethasone Therapy for Bacterial Meningitis in Infants and Children**—Committee on Infectious Diseases

134 **Contraception and Adolescents**—Committee on Adolescence

139 **Selection of Substance Abuse Treatment Programs**—Provisional Committee on Substance Abuse

141 **Ride-On Mower Injuries in Children**—Committee on Accident and Poison Prevention

LETTERS TO THE EDITOR

144 **Half-Dose Immunization for Diphtheria, Tetanus, Pertussis**—Wm. B. Rogers; Reply by Judy Bernbaum and Richard A. Polin; Stanley A. Plotkin

145 **Persistent Bacteremia**—Gary J. Noel and Paul J. Edelson; Reply by Christian C. Patrick, Sheldon L. Kaplan, Carol J. Baker, and Edward O. Mason Jr

146 **Why Use Indomethacin?**—Charles R. Rosenfeld; Reply by Frank van Bel, Margot van de Bor, The Stijnen, Jan Baan, and Jan H. Ruys

147 **Drugs and Breast Milk**—Joan S. Dorfman; Jack Newman; Reply by Ralph E. Kauffman

148 **Denver Developmental Test Problems**—Leonard Hersher

149 **I.B.C.L.C.**—Arnold L. Tanis, Allan B. Coleman, and Leon Gross

149 **Transfer of Drugs and Other Chemicals into Human Milk**—John T. Wilson

150 **Routine Cholesterol Surveillance in Childhood**—William Feldman; Reply by Richard E. Garcia

151 **Tin-protoporphyrin in the Management of Children With Crigler-Najjar Disease**—Antony R. McDonagh; Reply by Firmino F. Rubaltelli and Guilio Jori

153 AMERICAN BOARD OF PEDIATRICS

A19 BOOKS RECEIVED

A19 PEDIATRICS IN REVIEW CONTENTS

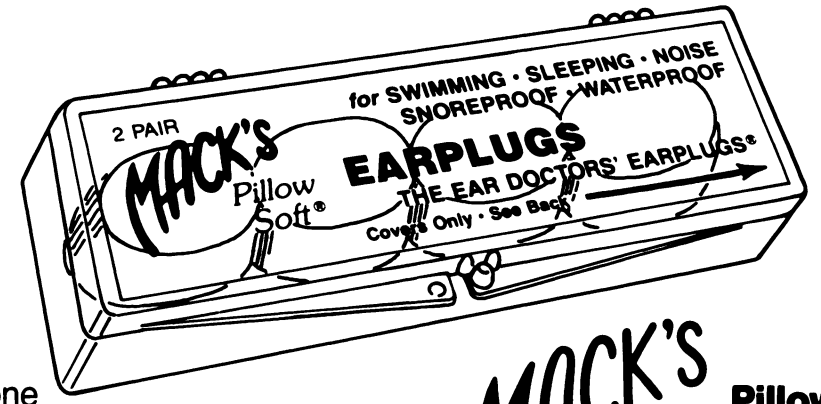
A5 MANUSCRIPT PREPARATION

A16 GENERAL INFORMATION

A83 CLASSIFIED ADS

A109 INDEX TO ADVERTISERS

MACK'S MAKES IT EASY FOR YOU AND YOUR PATIENTS.



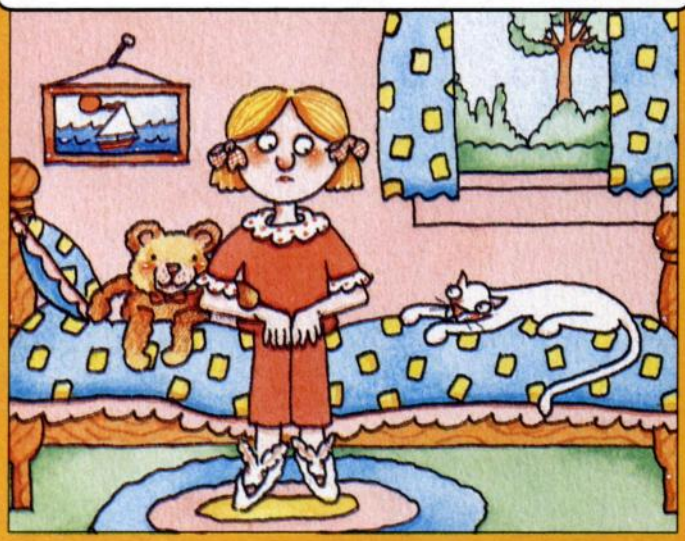
Only MACK's, the original moldable silicone earplugs, are available at **pharmacies everywhere** for your convenience. Widely used for post-surgery and the prevention of swimmer's ear. For a free professional sample, contact:

MACK'S **Pillow Soft®** **EARPLUGS**

McKeon Products, Inc.
P.O. Box 69009
Pleasant Ridge, MI 48069-0009
(313) 548-7560

THE ALLERGY EXPERTS

"When my hay fever makes me feel bad, I ask my mom for help–she's an expert."



"When Suzie comes to me with a runny nose and itchy, watery eyes, I know it's an allergy. So I call an expert."

GENERAL INFORMATION

PEDIATRICS publishes papers on original research or observations and special feature or review articles in the field of pediatrics as broadly defined. Papers on material pertinent to pediatrics will also be included from related fields such as nutrition, surgery, dentistry, public health, child health services, human genetics, animal studies, psychology, psychiatry, education, sociology and nursing.

PEDIATRICS is the official publication of the American Academy of Pediatrics and serves as a medium for expression to the general medical profession as well as pediatricians. The Executive Board and Officers of the American Academy of Pediatrics have delegated to the Editor and the Editorial Board the selection of the articles appearing in PEDIATRICS. Statements and opinions expressed in such articles are those of the authors and not necessarily those of the American Academy of Pediatrics, its Committees, PEDIATRICS, or the Editor or Editorial Board of PEDIATRICS.

Communications

Concerning editorial matters and manuscripts should be sent to PEDIATRICS, Dr. Jerold F. Lucey, Editor, Medical Center Hospital of Vermont, Colchester Avenue, Burlington, Vermont 05401.

Concerning business matters, reprints, and advertising should be sent to PEDIATRICS, Business Office, American Academy of Pediatrics, P.O. Box 927, Elk Grove Village, IL 60009-0927.

Concerning the American Academy of Pediatrics should be sent to Dr. Errol R. Alden, Director, Department of Education, P.O. Box 927, Elk Grove Village, IL 60009-0927.

Concerning subscriptions, renewals, and address changes should be sent to PEDIATRICS, P.O. Box 927, Elk Grove Village, IL 60009-0927.

Please include the 8 digit number on your journal label for address changes.

Reprint Orders

Reprint order forms will be sent to the senior author with galley proofs. *Upon receiving reprint order forms, please read them carefully.* All instructions thereon are final.

Please submit orders through the senior author. Reprints are available at any time after publication. However, it is suggested that reprint orders be placed promptly so that they are not subject to any price increases necessitated by paper and labor cost increases. *Delivery of reprints is usually 4 to 6 weeks after publication.*

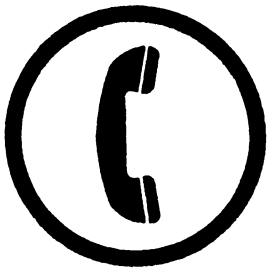
All reprints are saddle-stitched and self-covered, unless covers are ordered. Any additional changes from the standard pages are subject to additional charges. Orders for over 1,000 are, please note, subject to special quotations.

Finally, prepayment must accompany reprint orders.

Information for Contributors

Papers are accepted on the condition that they have not been published elsewhere in whole or in part and that they are contributed exclusively to this Journal, except by special consideration. Manuscripts should be prepared according to the instructions for "Manuscript Preparation."

Permission to reproduce material from PEDIATRICS must be requested and obtained in writing from the author and the American Academy of Pediatrics.



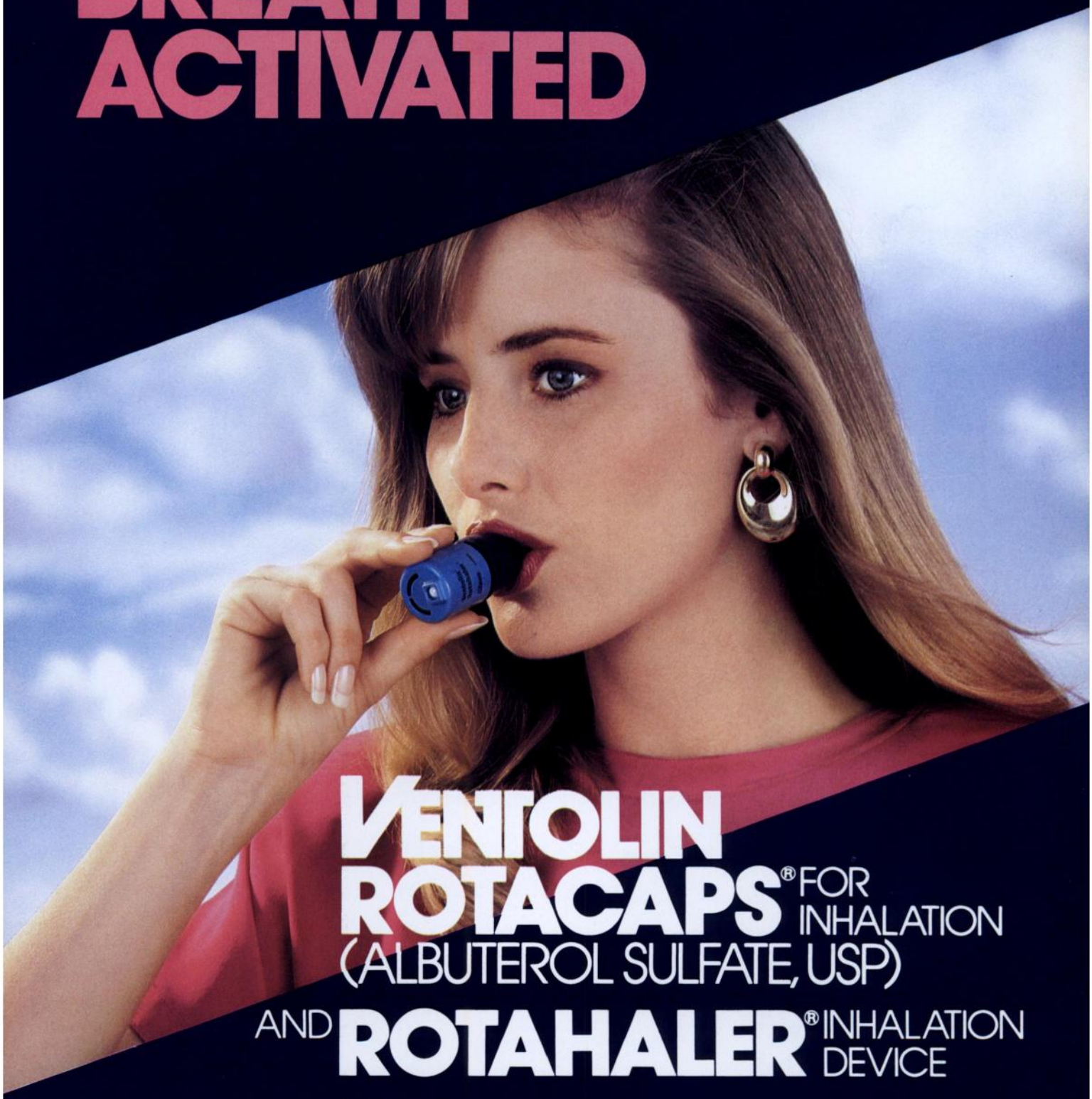
SUBSCRIPTION PROBLEMS?

To solve any subscription problems, readers may call (708) 228-5005.

Sorry, but no collect calls, please.

For speedy service, refer to the 8-digit number on your address label.

BREATH-ACTIVATED



VENTOLIN ROTACAPS® FOR INHALATION (ALBUTEROL SULFATE, USP)

AND

ROTAHALER® INHALATION DEVICE

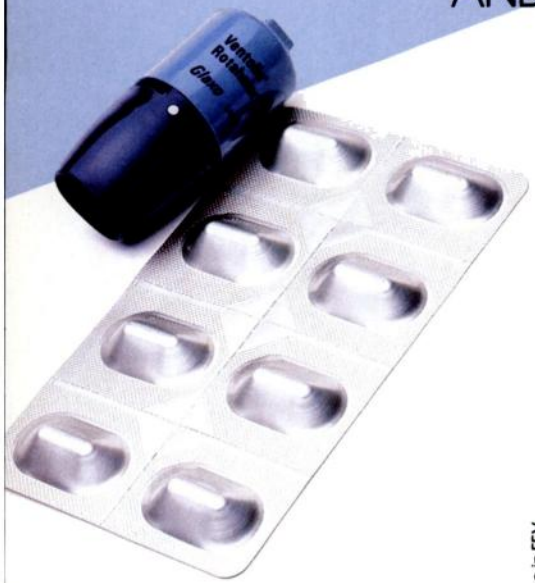
Inhaled bronchodilator therapy made easier...
Now more of your asthma patients can receive the benefits of inhaled albuterol therapy—with a unique, breath-activated delivery system.

Allen & Hanburys
DIVISION OF GLAXO INC.
a world leader in respiratory care

Please consult Brief Summary of Prescribing Information on following page.

VENTOLIN® ROTACAPS® FOR INHALATION (ALBUTEROL SULFATE, USP)

AND ROTAHALER® INHALATION DEVICE



Breath-activated inhalation

- Convenient for a wide range of patients

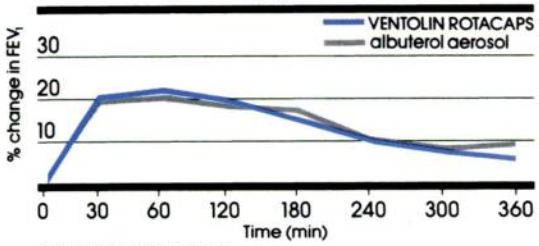
Patient-tested and patient-accepted[1]

- Easy to use and pleasant-tasting

Proven efficacy and safety

- Comparable to VENTOLIN® (albuterol, USP) Inhalation Aerosol[1]*

Percent Change From Baseline in Mean FEV_1 After Drug Treatment. Week 12



Adapted from Bronsky et al.[1]

Each medication was administered four times daily for 12 weeks.

*As with all sympathomimetic amines, albuterol should be used with caution in patients with cardiovascular disorders, especially coronary insufficiency, hypertension, and cardiac arrhythmia.

REFERENCE:

1. Bronsky E, Bucholtz GA, Busse WW, et al. Comparison of inhaled albuterol powder and aerosol in asthma. *J Allergy Clin Immunol.* 1987;79:741-747.

VIN484 Printed in USA August 1989

Ventolin® Inhalation Aerosol (albuterol, USP)
Bronchodilator Aerosol For Oral Inhalation Only

Ventolin Rotacaps® for Inhalation
(albuterol sulfate, USP) For Inhalation Only

BRIEF SUMMARY

The following is a brief summary only. Before prescribing, see complete prescribing information in Ventolin® Inhalation Aerosol and Ventolin Rotacaps® for Inhalation product labeling.

CONTRAINDICATIONS: Ventolin® Inhalation Aerosol and Ventolin Rotacaps® for Inhalation are contraindicated in patients with a history of hypersensitivity to any of their components.

WARNINGS: As with other inhaled beta-adrenergic agonists, Ventolin® Inhalation Aerosol and Ventolin Rotacaps® for Inhalation can produce paradoxical bronchospasm that can be life-threatening. If it occurs, the preparation should be discontinued immediately and alternative therapy instituted.

Fatalities have been reported in association with excessive use of inhaled sympathomimetic drugs. The exact cause of death is unknown, but cardiac arrest following the unexpected development of a severe acute asthmatic crisis and subsequent hypoxia is suspected.

Immediate hypersensitivity reactions may occur after administration of albuterol, as demonstrated by rare cases of urticaria, angioedema, rash, bronchospasm, anaphylaxis, and oropharyngeal edema.

The contents of Ventolin Inhalation Aerosol are under pressure. Do not puncture. Do not use or store near heat or open flame. Exposure to temperatures above 120°F may cause bursting. Never throw container into fire or incinerator. Keep out of reach of children.

PRECAUTIONS: General: Although no effect on the cardiovascular system is usually seen after the administration of inhaled albuterol at recommended doses, cardiovascular and central nervous system (CNS) effects seen with all sympathomimetic drugs can occur after use of inhaled albuterol and may require discontinuation of the drug. As with all sympathomimetic amines, albuterol should be used with caution in patients with cardiovascular disorders, especially coronary insufficiency, cardiac arrhythmias, and hypertension; in patients with convulsive disorders, hyperthyroidism, or diabetes mellitus; and in patients who are unusually responsive to sympathomimetic amines. Clinically significant changes in systolic and diastolic blood pressure have been seen in individual patients and could be expected to occur in some patients after use of any beta-adrenergic bronchodilator.

Large doses of intravenous albuterol have been reported to aggravate pre-existing diabetes mellitus and ketoacidosis. Additionally, beta-agonists, including albuterol, given intravenously may cause a decrease in serum potassium, possibly through intracellular shunting. The decrease is usually transient, not requiring supplementation. The relevance of these observations to the use of Ventolin® Inhalation Aerosol is unknown.

Although there have been no reports concerning the use of Ventolin Inhalation Aerosol or Ventolin Rotacaps® for Inhalation during labor and delivery, it has been reported that high doses of albuterol administered intravenously inhibit uterine contractions. Although this effect is extremely unlikely as a consequence of Ventolin use, it should be kept in mind.

Information for Patients: The action of Ventolin Inhalation Aerosol may last up to six hours, and the action of Ventolin Rotacaps for Inhalation may last for six hours or longer. Therefore they should not be used more frequently than recommended. Do not increase the frequency of doses without medical consultation. If the recommended dosage does not provide relief of symptoms or symptoms become worse, seek immediate medical attention. While using Ventolin Inhalation Aerosol or Ventolin Rotacaps for Inhalation, other inhaled drugs should not be used unless prescribed. See package inserts for illustrated Patient's Instructions for Use.

Drug Interactions: Other sympathomimetic aerosol bronchodilators or epinephrine should not be used concomitantly with Ventolin Inhalation Aerosol; other sympathomimetic aerosol bronchodilators should not be used concomitantly with Ventolin Rotacaps for Inhalation because they may have additive effects. If additional adrenergic drugs are to be administered by any route to the patient using Ventolin Inhalation Aerosol, they should be used with caution to avoid deleterious cardiovascular effects.

Albuterol should be administered with extreme caution to patients being treated with monoamine oxidase inhibitors or tricyclic antidepressants because the action of albuterol on the vascular system may be potentiated.

Beta-receptor blocking agents and albuterol inhibit the effect of each other.

Carcinogenesis, Mutagenesis, Impairment of Fertility: Albuterol sulfate, like other agents in its class, caused a significant dose-related increase in the incidence of benign leiomyomas of the mesovarium in a two-year study in the rat at doses corresponding to 111, 555, and 2,800 times the maximum human aerosol dose and to 42, 248, and 1,042 times the maximum human inhalational dose (Ventolin Rotacaps® for Inhalation (albuterol sulfate, USP)). In another study this effect was blocked by the coadministration of propranolol. The relevance of these findings to humans is not known. An 18-month oral study in mice, at doses corresponding to 10,417 times the human inhalational dose, and a lifetime oral study in hamsters, at doses corresponding to 1,042 times the human inhalational dose, showed no evidence of tumorigenicity. Studies with albuterol showed no evidence of mutagenesis. Oral reproduction studies in rats, at doses corresponding to 1,042 times the human inhalational dose, showed no evidence of impaired fertility.

Pregnancy: *Teratogenic Effects: Pregnancy Category C:* Albuterol has been shown to be teratogenic in mice when given in doses corresponding to 14 times the human aerosol dose and five times the human inhalational dose (Ventolin Rotacaps for Inhalation). There are no adequate and well-controlled studies in pregnant women. Albuterol should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus. A reproduction study in CD-1 mice given albuterol subcutaneously (0.025, 0.25, and 2.5 mg/kg, corresponding to 1.4, 14, and 140 times the maximum human aerosol dose and to 0.5, 5, and 52 times the maximum human inhalational dose, respectively) showed cleft palate formation in 5 of 111 (4.5%) fetuses at 0.25 mg/kg and in 10 of 108 (9.3%) fetuses at 2.5 mg/kg. None was observed at 0.025 mg/kg. Cleft palate also occurred in 22 of 72 (30.5%) fetuses treated with 2.5 mg/kg isoproterenol (positive control). A reproduction study with oral albuterol in Stride Dutch rabbits revealed cranioschisis in 7 of 19 (37%) fetuses at 50 mg/kg, corresponding to 2,800 times the maximum human aerosol dose and to 1,042 times the maximum human inhalational dose of albuterol.

Labor and Delivery: Oral albuterol has been shown to delay preterm labor in some reports. There are presently no well-controlled studies that demonstrate that it will stop preterm labor or prevent labor at term. Therefore, cautious use of Ventolin Rotacaps for Inhalation is required in pregnant patients when given for relief of bronchospasm so as to avoid interference with uterine contractility.

Nursing Mothers: It is not known whether albuterol is excreted in human milk. Because of the potential for tumorigenicity shown for albuterol in some animal studies, a decision should be made whether to discontinue nursing or to discontinue the drug, taking into account the importance of the drug to the mother.

Pediatric Use: Safety and effectiveness have not been established in children below 12 years of age for either product.

ADVERSE REACTIONS: The adverse reactions to albuterol are similar in nature to reactions to other sympathomimetic agents, although the incidence of certain cardiovascular effects is less with albuterol. Rare cases of urticaria, angioedema, rash, bronchospasm, and oropharyngeal edema have been reported after the use of albuterol. In addition to the reactions given below by specific dosage form, albuterol, like other sympathomimetic agents, can cause adverse reactions such as hypertension, angina, vomiting, vertigo, CNS stimulation, insomnia, unusual taste, and drying or irritation of the oropharynx.

Ventolin® Inhalation Aerosol (albuterol, USP): A 13-week double-blind study compared albuterol and isoproterenol aerosols in 147 asthmatic patients. The results of this study showed that the incidence of cardiovascular effects was: palpitations, less than 10 per 100 with albuterol and less than 15 per 100 with isoproterenol; tachycardia, 10 per 100 with both albuterol and isoproterenol; and increased blood pressure, less than 5 per 100 with both albuterol and isoproterenol. In the same study, both drugs caused tremor or nausea in less than 15 patients per 100, and dizziness or heartburn in less than 5 per 100 patients. Nervousness occurred in less than 10 per 100 patients receiving albuterol and in less than 15 per 100 patients receiving isoproterenol.

Ventolin Rotacaps® for Inhalation: The results of clinical trials in 172 patients showed the following side effects:

CNS: Tremors, 6 of 172 patients (3%); nervousness, 5 of 172 patients (3%); headache, 10 of 172 patients (6%); dizziness, 3 of 172 patients (2%); lightheadedness, 4 of 172 patients (2%); insomnia, 1 of 172 patients (<1%); drowsiness, 1 of 172 patients (<1%).

Gastrointestinal: Nausea, burning in stomach, indigestion, each in <1% of patients.

Oropharyngeal: Throat irritation, 3 of 172 patients (2%), dry mouth and voice changes (<1%).

Cardiovascular: 1 of 172 patients (<1%).

Respiratory: Hoarseness, 2 of 172 patients (1%), coughing, 4 of 172 patients (2%).

OVERDOSAGE: Information concerning possible overdosage and its treatment appears in the full prescribing information.

Allen & Hanburys
DIVISION OF GLAXO INC.
Research Triangle Park, NC 27709

RB 2-801
March 1989

BOOKS RECEIVED

Managing Asthma. M. Weinberger. Baltimore, MD: Williams & Wilkins; 1990, $36.95 (paperback), 330 pp.

The Practical Application of Medical and Dental Hypnosis. M. H. Erickson, S. Hershman, I. I. Secter. New York: Brunner/Mazel Publishers; 1990, $18.95 (paperback), 480 pp.

Pediatric Neuroimaging (Contemporary Neuroimaging, Vol. 1). A. J. Barkovich. New York: Raven Press; 1990, $110.00 (hardback), 367 pp.

Handbook of Pediatric Dermatology. P. A. Krusinski, F. P. Flowers. Chicago: Year Book Medical Publishers, Inc.; 1990, $34.95 (paperback), 407 pp.

Principles and Practice of Pediatrics. F. A. Oski, C. D. DeAngelis, R. D. Feigin, J. B. Warshaw, eds. Philadelphia: J. B. Lippincott, Co.; 1989, $95.00 (hardback), 2155 pp.

Adoption: A Handful of Hope. S. Arms. Berkeley, CA: Celestial Arts; 1990, $12.95 (paperback), 436 pp.

The Case for Animal Experimentation. M. Fox. Berkeley, CA: University of California Press; 1986, $24.95 (hardcopy), 262 pp.

Child Health—The Screening Tests. A. Macfarlane, S. Sefi, and M. Cordeiro. New York, NY: Oxford University Press; 1989, $12.95 (paperback), 57 pp.

Conception to Birth: Epidemiology of Prenatal Development. J. Kline, Z. Stein, and M. Susser. New York, NY: Oxford University Press; 1989, $55.00 (hardcopy), 433 pp.

Emergency Medical Services for Children Innovation Bank, Edition II. Human Interaction Research Institute. Washington, DC: National Maternal and Child Health Clearinghouse; 1989, $N/A (paperback), 163 pp.

PEDIATRICS IN REVIEW: September 1990 Contents

Point-Counterpoint: Breast Milk Jaundice—Powers; Rosenthal and Sinatra

The Role of the Pediatrician in School Health—Sklaire; Editorial reponse by McInerny

Muscle Disease in Children: A Practical Approach—Patterson and Gomez

Lower Gastrointestinal Bleeding—Silber

Gammagard®

Immune Globulin Intravenous (Human)

Five reasons why Gammagard® IGIV stands out.

1. The first IGIV with three indications.

- ☐ Primary immunodeficiencies—Indicated for antibody replacement in primary immunodeficiencies.
- ☐ ITP—The unique dosing regimen recommended for Gammagard® allowed 62% of patients treated to respond after only one 1 gram/kg infusion.[1]
- ☐ CLL—The first IGIV indicated to prevent bacterial infections in patients with B-cell chronic lymphocytic leukemia (CLL).[2]

2. The first IGIV with no known contraindications.

An extra purification step removes most IgA and other non-IgG components. So Gammagard® is a good choice, even for sensitive patients.[3,4]

3. The first IGIV available in four convenient sizes.

- ☐ You can choose 0.5, 2.5, 5.0 and 10.0 gram vials.
- ☐ Gammagard® can be stored at room temperature.

4. The first IGIV offered with lot-by-lot characteristics.

When you order Gammagard,® you can request lot-specific information, including IgA levels, CMV Elisa titers, and Hepatitis B titers.

5. The IGIV with a reimbursement hotline.

For your convenience, we've established an exclusive hotline for Gammagard® IGIV customers to help with any questions regarding reimbursement information. See your sales representative for more details.

For more information on Gammagard,® contact Baxter Healthcare Corporation, Hyland Division, 800-423-2090.

You'll see why our name stands out in IGIV therapy.

1. Sixteen patients (children and adults) with acute or chronic ITP were studied at New York Hospital-Cornell Medical Center. Childhood ITP may resolve spontaneously without treatment.

2. Intravenous immunoglobulin for the prevention of infection in chronic lymphocytic leukemia. NEJM 1988; 319:902-907.

3. Burks AW, Sampson HA, Buckley RH: NEJM 1986; 314:560-564.

4. Buckley RH: JAMA 1987; Vol 258, No 20:2841-2850.

Gammagard®
Immune Globulin Intravenous (Human)
Pure and simple

Hyland Division

Baxter

Gammagard®

Immune Globulin Intravenous (Human)

DESCRIPTION

Immune Globulin Intravenous (Human), Gammagard®* is a sterile, dried, highly purified preparation of immunoglobulin G (IgG) which is derived from the cold ethanol fractionation process and is further purified using ultra-filtration and ion exchange adsorption. When reconstituted with the appropriate volume of diluent, this preparation contains approximately 50 mg of protein per mL, of which at least 90% is gamma globulin. The reconstituted product contains approximately 0.15 M sodium chloride and has a pH of 6.8 ± 0.4. Stabilizing agents are present in the following maximum amounts: 20 mg/mL glucose, 2 mg/mL polyethylene glycol (PEG), 0.3 M glycine, and 3 mg/mL Albumin (Human).

The manufacturing process for Immune Globulin Intravenous (Human), Gammagard, isolates IgG without additional chemical or enzymatic modification and the Fc portion is maintained intact. Immune Globulin Intravenous (Human), Gammagard contains all of the IgG antibody activities which are present in the donor population. On the average, the distribution of IgG subclasses present in this product is the same as is present in normal plasma.[1] Immune Globulin Intravenous (Human), Gammagard contains only trace amounts of IgM and IgA.

Immune Globulin Intravenous (Human), Gammagard contains no preservative.

This product has been prepared from large pools of human plasma from which donors found to have elevated alanine aminotransferase (ALT) levels were excluded. Each unit of plasma used in the manufacture of this product has been found to be nonreactive for HBsAg by an FDA approved test.

CLINICAL PHARMACOLOGY

Immune Globulin Intravenous (Human), Gammagard contains a broad spectrum of IgG antibodies against bacterial and viral agents that are capable of opsonization and neutralization of microbes and toxins.

Peak levels of IgG are reached immediately after infusion of Immune Globulin Intravenous (Human), Gammagard. It has been shown that IgG is distributed relatively rapidly between plasma and extravascular fluid until approximately half of the total body pool is partitioned in the extravascular space. A rapid initial drop in serum levels is, therefore, to be expected.[2]

As a class, IgG survives longer *in vivo* than other serum proteins.[2,3] Studies show that the half-life of Immune Globulin Intravenous (Human), Gammagard is approximately 24 days. These findings are consistent with reports of a 21 to 25 day half-life for IgG.[2,3,4] The half-life of IgG can vary considerably from person to person, however. In particular, high concentrations of IgG and hypermetabolism associated with fever and infection have been seen to coincide with a shortened half-life of IgG.[2,3,4,5]

INDICATIONS AND USAGE

Immunodeficiencies

Primary

Immune Globulin Intravenous (Human), Gammagard is indicated for the treatment of primary immunodeficient states, such as: congenital agammaglobulinemias, common variable immunodeficiency, Wiskott-Aldrich syndrome, and severe combined immunodeficiencies.[4,5] Immune Globulin Intravenous (Human), Gammagard is especially useful when high levels or rapid elevation of circulating IgG are desired or when intramuscular injections are contraindicated (e.g., small muscle mass).

B-cell Chronic Lymphocytic Leukemia

Immune Globulin Intravenous (Human) (IGIV), Gammagard is indicated for prevention of bacterial infections in patients with hypogammaglobulinemia and/or recurrent bacterial infections associated with B-cell Chronic Lymphocytic Leukemia (CLL). In a study of 81 patients, 41 of whom were treated with Immune Globulin Intravenous (Human), Gammagard, bacterial infections were significantly reduced in the treatment group.[6,7] In this study, the placebo group had approximately twice as many bacterial infections as the IGIV group. The median time to first bacterial infection for the IGIV group was greater than 365 days. By contrast, the time to first bacterial infection in the placebo group was 192 days. The number of viral and fungal infections, which were for the most part minor, was not statistically different between the two groups.

Idiopathic Thrombocytopenic Purpura (ITP)

When a rapid rise in platelet count is needed to control bleeding or to allow a patient with ITP to undergo surgery, the administration of Immune Globulin Intravenous (Human), Gammagard should be considered. The efficacy of Immune Globulin Intravenous (Human), Gammagard has been demonstrated in a clinical study involving sixteen patients (twelve adults and four children) diagnosed with acute or chronic Idiopathic Thrombocytopenic Purpura (ITP). Each of the sixteen patients (100%) demonstrated an acute, clinically significant rise in platelet count (platelet count greater than 40,000/mm³) following the administration of Immune Globulin Intravenous (Human), Gammagard.

Ten of the sixteen patients (62%) exhibited a clinically significant rise in platelet count after only one 1 g/kg infusion; four patients (25%) exhibited this result after only two 1 g/kg infusions; and two patients exhibited this result after more than two 1 g/kg infusions. The rise in platelet count is generally rapid, occurring within 5 days. The rise, however, is transient and should not be considered curative. Platelet rises most often lasted 2 to 3 weeks, with a range of 12 days to 6 months. *It should be noted that childhood ITP may resolve spontaneously without treatment.*

CONTRAINDICATIONS

None known.

WARNINGS

Immune Globulin Intravenous (Human), Gammagard should only be administered intravenously. Other routes of administration have not been evaluated.

Immune Globulin Intravenous (Human), Gammagard contains very low levels of IgA (not more than 10 μg/mL); nonetheless, it should be given with caution to patients with antibodies to IgA or selective IgA deficiencies.[5,8]

PRECAUTIONS

Drug Interactions

Admixtures of Immune Globulin Intravenous (Human), Gammagard with other drugs have not been evaluated. It is recommended that Immune Globulin Intravenous (Human), Gammagard be administered separately from other drugs or medication which the patient may be receiving.

Pregnancy Category C

Animal reproduction studies have not been conducted with Immune Globulin Intravenous (Human), Gammagard. It is also not known whether Immune Globulin Intravenous (Human), Gammagard can cause fetal harm when administered to a pregnant woman or can affect reproduction capacity. Immune Globulin Intravenous (Human), Gammagard should be given to a pregnant woman only if clearly needed.

ADVERSE REACTIONS

In general, adverse reactions to Immune Globulin Intravenous (Human) (IGIV), Gammagard in patients with congenital or acquired immunodeficiencies are similar in kind and frequency. The incidence of untoward reactions in these patients is low, although various minor reactions, such as headache, fatigue, chills, backache, leg cramps, lightheadedness, fever, urticaria, flushing, slight elevation of blood pressure, nausea and vomiting may occasionally occur. The incidence of these reactions directly attributable to the infusion of Immune Globulin Intravenous (Human), Gammagard during the clinical trials of primary immunodeficiencies was about 6%. In the study of patients with B-cell Chronic Lymphocytic Leukemia (CLL), the incidence was about 3%. Slowing or stopping the infusion usually allows the symptoms to disappear promptly.

During the clinical study of this product for treatment of Idiopathic Thrombocytopenic Purpura (ITP), the only side effect reported was headache which occurred in 12 of 16 patients. Oral antihistamines and analgesics alleviated the headache and were used as pretreatment for those patients requiring additional IGIV therapy. The remaining four patients did not report any side effects and did not require pretreatment.

Immediate anaphylactic and hypersensitivity reactions are a remote possibility. Epinephrine should be available for treatment of any acute anaphylactoid reaction. (See *Warnings*.)

DOSAGE AND ADMINISTRATION

Immunodeficiencies

For patients with primary immunodeficiencies, monthly doses of at least 100 mg/kg are recommended. Initially, patients may receive 200-400 mg/kg. As there are significant differences in the half-life of IgG among patients with primary immunodeficiencies, the frequency and amount of immunoglobulin therapy may vary from patient to patient. The proper amount can be determined by monitoring clinical response. The minimum serum concentration of IgG necessary for protection has not been established.

For patients with hypogammaglobulinemia and/or recurrent bacterial infections due to B-cell Chronic Lymphocytic Leukemia (CLL), a dose of 400 mg/kg every three to four weeks is recommended.

Idiopathic Thrombocytopenic Purpura (ITP)

For patients with acute or chronic Idiopathic Thrombocytopenic Purpura (ITP), a dose of 1 g/kg is recommended. The need for additional doses can be determined by clinical response and platelet count. Up to three doses may be given on alternate days if required.

Rate of Administration

It is recommended that initially a rate of 0.5 mL/kg/Hr be used. If infusion at this rate causes the patient no distress, the administration rate may be gradually increased but should not exceed 4 mL/kg/Hr.

A rate of administration which is too rapid may cause flushing and changes in pulse rate and blood pressure. Slowing or stopping the infusion usually allows the symptoms to disappear promptly.

Administration

Immune Globulin Intravenous (Human), Gammagard should be administered as soon after reconstitution as possible. Administration should begin not more than 2 hours after reconstitution.

The reconstituted material should be at room temperature during administration.

Parenteral drug products should be inspected visually for particulate matter and discoloration prior to administration, whenever solution and container permit.

How Supplied

Immune Globulin Intravenous (Human), Gammagard is supplied in either 0.5 g, 2.5 g, 5.0 g, or 10.0 g single use bottles. Each bottle of Immune Globulin Intravenous (Human), Gammagard is furnished with a suitable volume of Sterile Water for Injection, USP, and a transfer device. An administration set, which contains an integral airway and a 15 micron filter, is included with the 2.5 g, 5.0 g, and 10.0 g sizes.

Storage

Immune Globulin Intravenous (Human), Gammagard is to be stored at a temperature not to exceed 25°C (77°F). Freezing should be avoided to prevent the diluent bottle from breaking.

REFERENCES

1. Unpublished data in the files of Baxter Healthcare Corporation.
2. Waldmann TA, Storber W: Metabolism of immunoglobulins. *Prog Allergy 13:* 1-110, 1969
3. Morell A, Riesen W: Structure, function and catabolism of immunoglobulins in *Immunohemotherapy.* Nydegger UE (ed), London, Academic Press, 1981, pp 17-26
4. Stiehm ER: Standard and special human immune serum globulins as therapeutic agents. *Pediatrics 63:* 301-319, 1979
5. Buckley RH: Immunoglobulin replacement therapy: Indications and contraindications for use and variable IgG levels achieved in *Immunoglobulins: Characteristics and Use of Intravenous Preparations.* Alving BM, Finlayson JS (eds), Washington, DC, U.S. Department of Health and Human Services, 1979, pp 3-8
6. Bunch C, Chapel HM, Rai K, et al: Intravenous Immune Globulin reduces bacterial infections in Chronic Lymphocytic Leukemia: A controlled randomized clinical trial. *Blood 70 Suppl 1:* 753, 1987
7. Cooperative Group for The Study Of Immunoglobulin in Chronic Lymphocytic Leukemia: Intravenous immunoglobulin for the prevention of infection in Chronic Lymphocytic Leukemia: A randomized, controlled clinical trial. *N Eng J Med 319:*902-907, 1988
8. Burks AW, Sampson HA, Buckley RH: Anaphylactic reactions after gammaglobulin administration in patients with hypogammaglobulinemia: Detection of IgE antibodies to IgA. *N Eng J Med 314:*560-564, 1986

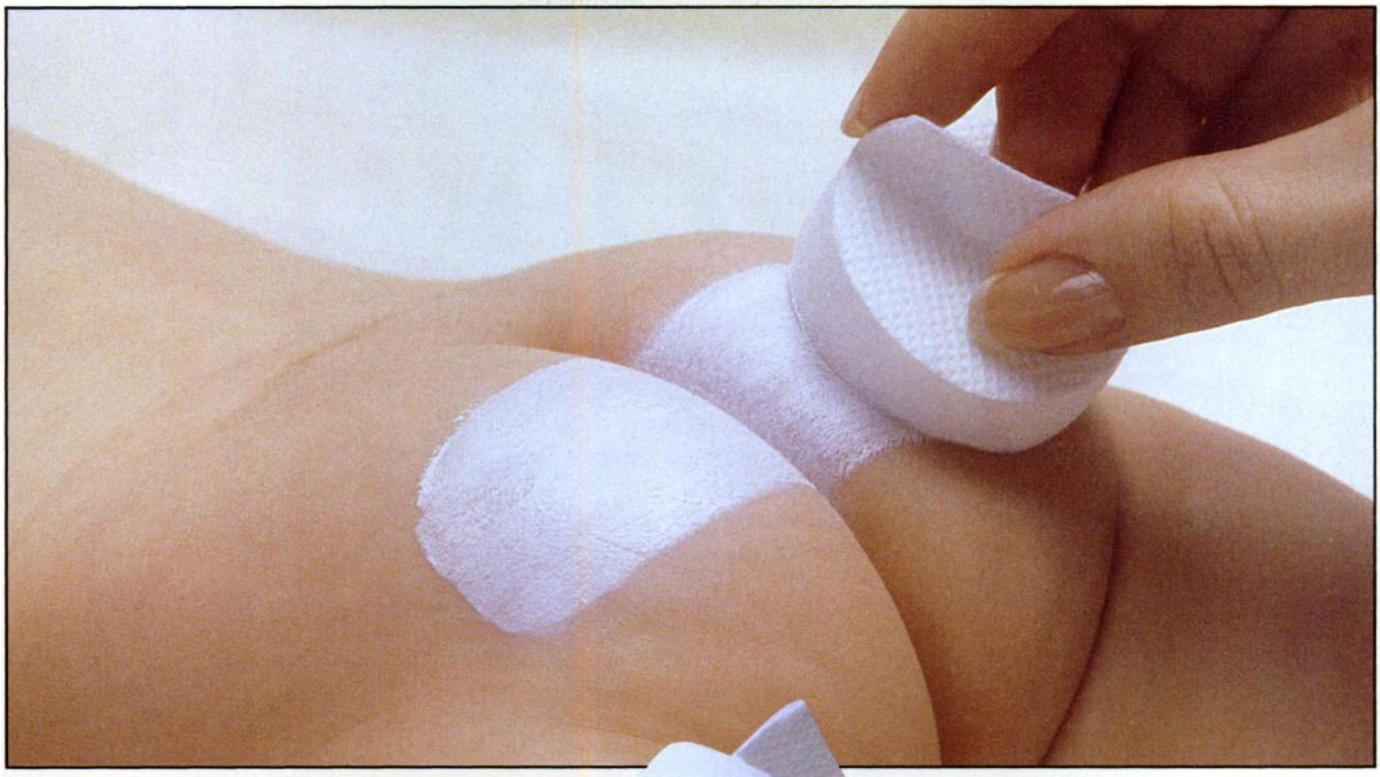
BIBLIOGRAPHY

Bussel JB, Kimberly RP, Inman RD, *et al:* Intravenous gammaglobulin treatment of chronic idiopathic thrombocytopenic purpura. *Blood 62:* 480-486, 1983

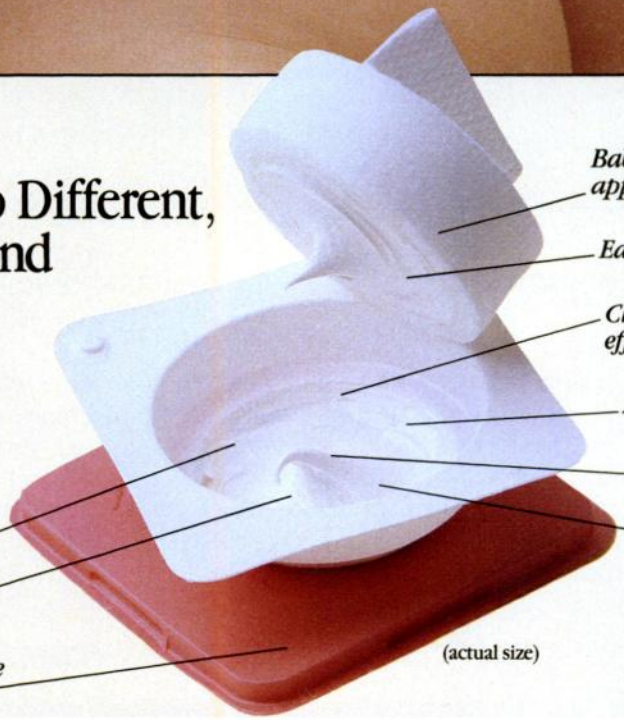
*Manufactured under U.S. Patent No. 4,439,421.

Baxter Healthcare Corporation
Hyland Division
Glendale, CA 91203 USA
U.S. License No. 140
Printed in U.S.A. G-14 Revised February 1989

Dyprotex® Has Changed Diaper Rash Care From the Bottom Up.



A Product So Different, It Goes Beyond Treatment Into Protection.



Baby-soft applicator pad

Easier to use

Clinically proven effective

Antibacterial

Smooth and creamy

Smells nice

Three times the wetness protection of ordinary ointments

Effective rash treatment

Patented resealable package

(actual size)

FOR FREE SAMPLES,
call Blistex at 1-800-837-BABY
or write to **DYPROTEX Pediatrician Samples**,
P.O. Box 4985, Oak Brook, IL 60522-9970,
Attention: Marketing Department

RECOMMEND

DYPROTEX®

MEDICATED DIAPER RASH PADS*

ONLY FROM Blistex

Diaper rash care that's different from top to bottom.

The Skin Protection Specialists™

*Contains micronized zinc oxide, petrolatum and dimethicone.

BLIND BY DESIGN

When a double-blind drug trial is set up, every effort should (and may) be made to ensure that active tablets resemble placebos, and to arrange a fair assessment of the results. But such ideals may not always be met. Patients—understandably—may try to subvert the trial to get the best available treatment; preparations thought to be identical may well differ; and side-effects (or beneficial effects of treatment) may often give the game away. Oxtoby et al[1] emphasise that an author's description of a trial as "double-blind" may disguise a multitude of sins. They repeat the so-far little heeded call for such trials to include data on how many of the patients (and, perhaps more importantly, the "blind" clinicians) thought which was the active preparation, and which the placebo, before the code was broken. If either group guessed more accurately than might be expected by chance alone, is the trial really double-blind?

REFERENCES

1. Oxtoby A, Jones A, Robinson M. Is your 'double-blind' design really double-blind? *Br J Psychiatry.* 1989;155:700–701.

Blind by design. *Lancet.* 1989;2:1539. Notes and News.

Noted by J.F.L., MD

HOW MANY PATIENTS NEEDED IN AN *OBSERVATIONAL* STUDY?

Observational prospective studies are a valuable method for examining the association of potential risk factors with subsequent occurrence of disease. A sample of subjects have potential risk factors recorded at an initial screening and are then followed to see which subjects manifest (or die from) the specified disease. . .Although it is known that prospective studies need to be large, there is less widespread acceptance of the concept of focusing on a primary prespecified hypothesis as a basis for calculating study size, as is common practice in clinical trials.

Phillips AN, Pocock SJ. Sample size requirements for prospective studies with examples for coronary heart disease. *J Clin Epidemiol.* 1989;42:639–648.

Submitted by Student

A NEW CHOICE FOR PEDIATRIC CARE

PRESCRIBE

Children's Advil® (ibuprofen) Suspension

100mg/5mL

- **Effectively Reduces Fever**
  - —In fever above 102.5°F, a 10 mg/kg dose of Children's Advil Suspension proved significantly better than a 10 mg/kg dose of acetaminophen.*[1]
  - —In fever 102.5°F or below, a 5 mg/kg dose of Children's Advil® Suspension was comparable to a 10 mg/kg dose of acetaminophen.*[1]
- **Effective Anti-inflammatory Action** demonstrated in juvenile arthritis[2]
- **Demonstrated Tolerability** in both short-[1,3,4] and long-term use[2,5]

* Labeled fever-reducing dose of acetaminophen drops and liquid is approximately 10 to 15 mg/kg.

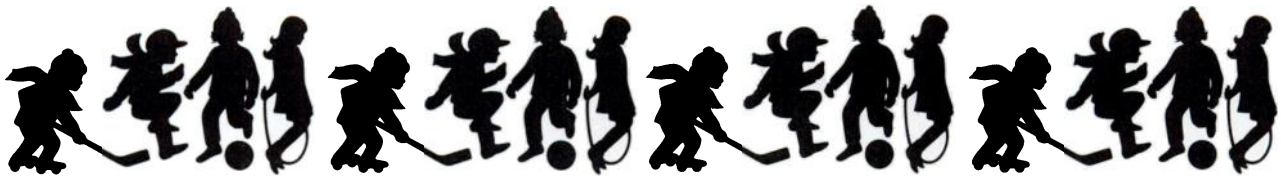
Please see adjacent page for brief summary of prescribing information.

WHITEHALL LABORATORIES
A HEALTH CARE DIVISION OF
AMERICAN HOME PRODUCTS CORPORATION

Children's Advil® (ibuprofen) Suspension

A NEW CHOICE FOR PEDIATRIC CARE

100 mg/5mL



BRIEF SUMMARY OF PRESCRIBING INFORMATION

INDICATIONS: CHILDREN'S ADVIL® SUSPENSION is indicated for the reduction of fever in patients aged 12 months and older, and for the relief of mild-to-moderate pain in patients aged 12 years and older.

CHILDREN'S ADVIL® SUSPENSION is also indicated for relief of the signs and symptoms of juvenile arthritis, rheumatoid arthritis, and osteoarthritis.

CHILDREN'S ADVIL® SUSPENSION is indicated for the relief of primary dysmenorrhea.

CONTRAINDICATIONS: Patients hypersensitive to ibuprofen or patients with all or part of the syndrome of nasal polyps, angioedema, and bronchospastic reactivity to aspirin or other nonsteroidal anti-inflammatory agents. Anaphylactoid reactions to ibuprofen have occurred in such patients.

WARNINGS: Risk of GI Ulcerations, Bleeding, and Perforation with NSAID Therapy: Physicians should remain alert for ulceration and bleeding in patients treated chronically with NSAIDS even in the absence of previous GI tract symptoms. In patients observed in clinical trials of several months' to two years' duration, symptomatic upper GI ulcers, gross bleeding or perforation appear to occur in approximately 1% of patients treated for 3-6 months, and in about 2-4% of patients treated for one year.

Except for a prior history of serious GI events and other risk factors known to be associated with peptic ulcer disease, no risk factors have been associated with increased risk. Elderly or debilitated patients seem to tolerate ulceration or bleeding less well than other individuals and most spontaneous reports of fatal GI events are in this population.

PRECAUTIONS: General: Because serious GI tract ulceration and bleeding can occur without warning symptoms, physicians should follow chronically treated patients for the signs and symptoms of ulceration and bleeding.

Blurred and/or diminished vision, scotomata, and/or changes in color vision have been reported. If a patient develops such complaints the drug should be discontinued and the patient should have an ophthalmologic examination.

Fluid retention and edema have been reported with ibuprofen; therefore, the drug should be used with caution in patients with a history of cardiac decompensation or hypertension.

Ibuprofen can inhibit platelet aggregation and prolong bleeding time. CHILDREN'S ADVIL® SUSPENSION should be used with caution in persons with intrinsic coagulation defects and those on anticoagulant therapy.

The antipyretic and anti-inflammatory activity of ibuprofen may reduce fever and inflammation, thus diminishing their utility as diagnostic signs in detecting complications of presumed noninfectious, noninflammatory painful conditions.

Small decreases (usually not exceeding one gram) in hemoglobin and hematocrit with an apparent dose response relationship have been observed following chronic administration. If there are no signs of bleeding, it is probably not clinically important.

To avoid exacerbation of disease or adrenal insufficiency, patients on prolonged corticosteroid therapy should have their therapy tapered slowly when CHILDREN'S ADVIL® SUSPENSION is added to the treatment program.

Aseptic meningitis: Aseptic meningitis with fever and coma has been observed on rare occasions in adult patients on ibuprofen therapy. Although it is more likely to occur in patients with systemic lupus erythematosus and related connective tissue diseases, it has been reported in adult patients who do not have underlying chronic disease. If signs or symptoms of meningitis develop in a patient on CHILDREN'S ADVIL® SUSPENSION, the possibility of its being related to ibuprofen should be considered.

Renal Effects: As with other nonsteroidal anti-inflammatory drugs, long-term administration of ibuprofen to animals has resulted in renal papillary necrosis and other abnormal renal pathology. In humans, there have been reports of acute interstitial nephritis with hematuria, proteinuria, and occasionally nephrotic syndrome.

A second form of renal toxicity has been seen in patients with prerenal conditions leading to reduction in renal blood flow or blood volume. In these patients, administration of a nonsteroidal anti-inflammatory drug may cause a dose dependent reduction in prostaglandin formation and precipitate overt renal decompensation. Patients at greatest risk of this reaction are those with impaired renal function, heart failure, liver dysfunction, and those taking diuretics and the elderly. Those patients at high risk who chronically take CHILDREN'S ADVIL® SUSPENSION should have renal function monitored if they have signs or symptoms of azotemia. Discontinuation of nonsteroidal anti-inflammatory drug therapy is typically followed by recovery to the pretreatment state.

Since ibuprofen is eliminated primarily by the kidneys, patients with significantly impaired renal function should be closely monitored and a reduction in dosage should be anticipated to avoid drug accumulation.

Information for Patients: Physicians may wish to discuss with their patients the potential risks and likely benefits of treatment with CHILDREN'S ADVIL® SUSPENSION.

Laboratory Tests: Meaningful (3 times the upper limit of normal) elevations of SGPT or SGOT (AST) occurred in controlled clinical trials in less than 1% of patients. A patient with symptoms and/or signs suggesting liver dysfunction, or in whom an abnormal liver test has occurred, should be evaluated for evidence of the development of more severe hepatic reactions while on therapy with ibuprofen. If abnormal liver tests persist or worsen, if clinical signs and symptoms consistent with liver disease develop, or if systemic manifestations occur, CHILDREN'S ADVIL® SUSPENSION should be discontinued.

Diabetes: Each 5 mL of CHILDREN'S ADVIL® SUSPENSION contains 2.5 g of sucrose which should be taken into consideration when treating patients with impaired glucose tolerance. It also contains 350 mg of sorbitol per 5 mL. Although in clinical trials CHILDREN'S ADVIL® SUSPENSION was not associated with more diarrhea than control treatments, should a patient develop diarrhea, the physician may wish to review the patient's dietary intake of sorbitol from other sources.

Drug Interactions: *Coumarin-type Anticoagulants:* Bleeding has been reported when ibuprofen and other nonsteroidal anti-inflammatory agents have been administered to patients on coumarin-type anticoagulants; the physician should be cautious when administering CHILDREN'S ADVIL® SUSPENSION to patients on anticoagulants.

Aspirin: Concurrent use of aspirin is not recommended.

Methotrexate: In vitro studies indicate that ibuprofen could enhance the toxicity of methotrexate. Caution should be used if CHILDREN'S ADVIL® SUSPENSION is administered concomitantly with methotrexate.

H_2 Antagonists: In studies with human volunteers, coadministration of cimetidine or ranitidine with ibuprofen had no substantive effect on ibuprofen serum concentrations.

Furosemide: Ibuprofen can reduce the natriuretic effect of furosemide and thiazides in some patients. During concomitant therapy with CHILDREN'S ADVIL® SUSPENSION, the patient should be observed closely for signs of renal failure as well as to assure diuretic efficacy.

Lithium: Ibuprofen produced an elevation of plasma lithium levels (15%) and a reduction in renal lithium clearance (19%) in a study of 11 normal volunteers during the period of concomitant drug administration. Patients should be observed carefully for signs of lithium toxicity. Read package insert for lithium before its use.

Pregnancy: Administration of ibuprofen is not recommended during pregnancy or for use by nursing mothers.

Infants: Safety and efficacy of CHILDREN'S ADVIL® SUSPENSION in children below the age of 12 months have not been established.

ADVERSE REACTIONS: The most frequent type of adverse reaction occurring with CHILDREN'S ADVIL® SUSPENSION is gastrointestinal. In clinical trials among adults involving chronic administration of ibuprofen, the percentage of patients reporting one or more gastrointestinal complaints ranged from 4% to 16%.

Incidence Greater Than 1% (but less than 3%), Probable Causal Relationship (see PRECAUTIONS): Abdominal cramps or pain, abdominal distress, constipation, diarrhea, epigastric pain,* fullness of the GI tract (bloating and flatulence), heartburn,* indigestion, nausea,* nausea and vomiting; dizziness,* headache, nervousness; pruritus, rash* (including maculopapular type); tinnitus; decreased appetite; edema, fluid retention (generally responds promptly to drug discontinuation).

Precise Incidence Unknown (but less than 1%), Probable Causal Relationship (see PRECAUTIONS): Abnormal liver function tests, gastric or duodenal ulcer with bleeding and/or perforation, gastritis, gastrointestinal hemorrhage, hepatitis, jaundice, melena, pancreatitis; alopecia, erythema multiforme, Stevens-Johnson syndrome, urticaria, vesiculobullous eruptions; aseptic meningitis with fever and coma, confusion, depression, emotional lability, insomnia, somnolence; amblyopia (blurred and/or diminished vision, scotomata and/or changes in color vision), hearing loss; agranulocytosis, aplastic anemia, decreases in hemoglobin and hematocrit, eosinophilia, hemolytic anemia (sometimes Coombs' positive), neutropenia, thrombocytopenia with or without purpura; congestive heart failure in patients with marginal cardiac function, elevated blood pressure, palpitations; anaphylaxis, bronchospasm (see CONTRAINDICATIONS), syndrome of abdominal pain, fever, chills, nausea and vomiting; acute renal failure in patients with pre-existing significantly impaired renal function, azotemia, cystitis, decreased creatinine clearance, hematuria, polyuria; dry eyes and mouth, gingival ulcers, rhinitis.

Precise Incidence Unknown (but less than 1%), Causal Relationship Unknown: Dream abnormalities, hallucinations, paresthesias, pseudotumor cerebri; photoallergic skin reactions, toxic epidermal necrolysis; cataracts, conjunctivitis, diplopia, optic neuritis; bleeding episodes (e.g., epistaxis, menorrhagia); acidosis, gynecomastia, hypoglycemic reactions; arrhythmias (sinus tachycardia, sinus bradycardia); angioedema, Henoch-Schönlein vasculitis, lupus erythematosus syndrome, serum sickness; renal papillary necrosis.

*Reactions occurring in 3% to 9% of adult patients treated with ibuprofen.

OVERDOSAGE: Patients with a history of ingestion of greater than 100 mg/kg should have induced emesis or gastric lavage. Multiple dose oral administration of activated charcoal may be useful. Supportive therapy may include oxygen, respiratory support, and parenteral fluids. Because the drug is acidic and excreted in the urine, administration of sodium bicarbonate and induction of diuresis may be beneficial.

DOSAGE AND ADMINISTRATION: Fever: 5 mg/kg if baseline temperature is 102.5°F or below or 10 mg/kg if baseline temperature is greater than 102.5°F, every 6-8 hours (children); 400 mg every 4-6 hours (adults).

Mild to moderate pain in adults: 400 mg every 4 to 6 hours.

Juvenile Arthritis: 30-40 mg/kg day in 3 or 4 divided doses.

RA and OA: 1200-3200 mg per day in 3 or 4 divided doses.

Dysmenorrhea: 400 mg every 4 hours.

HOW SUPPLIED: 4 and 16 oz. bottles

Caution: Federal law prohibits dispensing without prescription.

References:

1. Watson PD, Galletta G, Braden NJ, Alexander L. Ibuprofen, acetaminophen, and placebo treatment of febrile children. *Clin Pharmacol Ther.* 1989;46:9-17.
2. Independent Clinical Study: Juvenile Arthritis (I). Data on file, Medical Department, Whitehall Laboratories.
3. Independent Clinical Study: Reduction of Fever in Children, Multiple Dose. Data on file, Medical Department, Whitehall Laboratories.
4. Independent Clinical Study: Reduction of Fever in Children, Single Dose. Data on file, Medical Department, Whitehall Laboratories.
5. Independent Clinical Study: Juvenile Arthritis (II). Data on file, Medical Department, Whitehall Laboratories.

WHITEHALL LABORATORIES
A HEALTH CARE DIVISION OF
AMERICAN HOME PRODUCTS CORPORATION

THERE IS ONLY ONE COMPLETE SCREENING SYSTEM APPROVED BY THE AMERICAN CYSTIC FIBROSIS FOUNDATION:

1

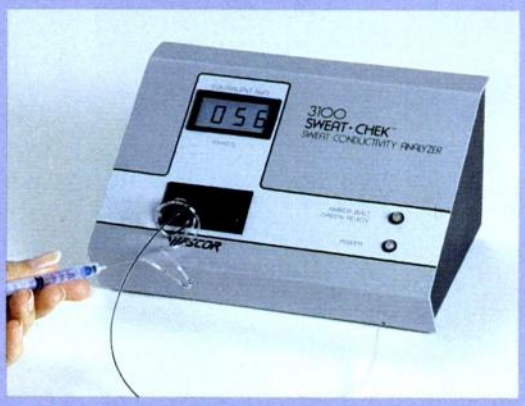
The Macroduct® sweat stimulation and collection system.

The Macroduct system is the simplest means of collecting a sweat specimen *without the errors and artifacts* associated with previous methods. This system, which allows visual quantitation of sweat production during collection, is approved as an integral part of the QPIT as defined by the Cystic Fibrosis Foundation.

1. The Cystic Fibrosis Foundation recommends that patients having sweat conductivity values about 50 mmol/L (equivalent NaCl) be referred to a CF Center).
2. Data on file.

2

The Sweat-Chek™ sweat conductivity analyzer for sweat analysis.



Early in 1990 the Cystic Fibrosis Foundation approved the Wescor Sweat-Chek analyzer for cystic fibrosis screening.[1] The Sweat-Chek analyzer makes accurate, reproducible conductivity measurements on sweat samples as small as 10 microliters.

Dr. Lewis E. Gibson reports that "if this machine is kept clean, it gives results that are every bit as reliable as an analysis for sodium or chloride."[2] Dr. Gibson, co-originator of the venerable Gibson-Cooke method, recommends that conductivity values ranging up to 70 mmol/L can be considered normal.[2]

Contact Wescor for details. Wescor, Inc., 459 Main St., Logan, UT 84321 USA.
Toll Free 800-453-2725. FAX 801-752-4127.

WESCOR®

Call 1-800-662-ROSS

SURVANTA®

beractant, surfactant TA

Treatment IND for Neonatal Respiratory Distress Syndrome

The Food and Drug Administration has approved a Treatment Investigational New Drug protocol for SURVANTA® for use in the prevention and treatment (rescue) of respiratory distress syndrome in premature infants.

Ross Laboratories will provide SURVANTA® at no charge to eligible Level II and Level III neonatal intensive care units that are directed by a board-certified or board-eligible neonatologist and that routinely manage infants with severe respiratory distress syndrome.

For more information, call

1-800-662-ROSS

(1-800-662-7677)

24 hours a day

Ross Laboratories – Helping Premature Babies

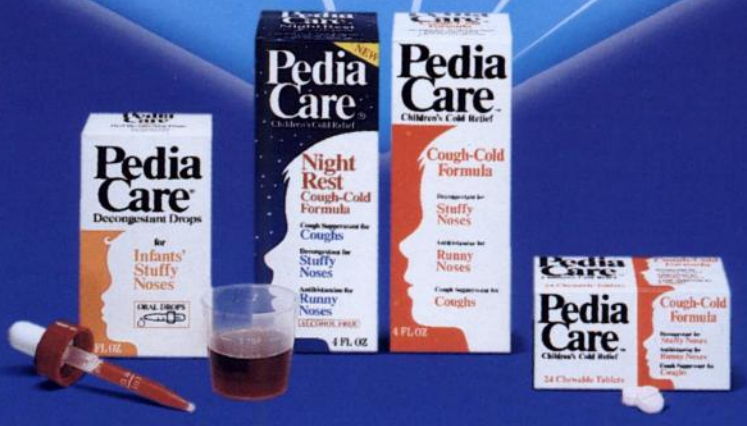
A5521 JUNE 1990

ROSS LABORATORIES
COLUMBUS, OHIO 43216
Division of Abbott Laboratories, USA

LITHO IN USA

PediaCare® is strong relief made just for kids.

Cough/Cold Products	Pediatric Concentrations	Calibrated Dosage Cup/ Dropper	Preferred Decongestant†[1]	Alcohol-Free
PediaCare® Oral Decongestant Drops, Cough-Cold Formula, NightRest	✓	✓	✓	✓
Triaminic®* DM®, Cold Syrup, Triaminicol®				✓
Dimetapp®* Elixir				
Robitussin®* Syrup, CF®, DM®				



Effective cough/cold relief just for children

McNEIL

McNeil Consumer Products Company
Division of McNeil-PPC, Inc.
Fort Washington, PA 19034 USA

Reference; 1.Data on file, McNeil Consumer Products Company.

*Triaminic, DM, and Triaminicol are registered trademarks of Sandoz Consumer. Dimetapp, Robitussin, CF, and DM are registered trademarks of AH Robins Company, Inc.
†Pseudoephedrine HCl

TOUGH ON FEVER

When her fever flares, fight it with Children's or Junior Strength TYLENOL® acetaminophen. Not even aspirin fights fever harder.[1] And TYLENOL has a better safety profile than aspirin.[2] In fact, there's no other pediatric antipyretic, OTC or Rx, safer for children.[3]

So get tough with fever. Recommend...

Children's and Junior Strength

TYLENOL®

acetaminophen

First choice for fever relief

References: 1. Tarlin L, et al. *Am J Dis Child* 1972;124:880-882. 2. Aspirin or paracetamol? *Lancet*. 1981;II:287-289. 3. Data on file, McNeil Consumer Products Company.

McNEIL

McNeil Consumer Products Company
Division of McNeil-PPC, Inc.
Fort Washington, PA 19034

"Mom said my doctor gave her Americaine® for my sunburn.

It made it feel all better, fast."

Sunburn pain can really hurt. But Americaine® topical anesthetic quickly relieves hot, burning sunburn pain. And hospital formula Americaine quickly stops the pain and itch of other minor hurts like scrapes, cuts, insect bites and household burns.

So when your patients need fast topical pain relief, recommend Americaine, the brand hospitals have used for years.

Americaine®

For patient literature on Americaine® and free samples, complete this certificate and mail to:
FISONS Consumer Health
P.O. Box 1212
Rochester, New York 14603-1212

NAME _____

ADDRESS _____

CITY _____

STATE _____ ZIP _____

My kids had Orimune®.

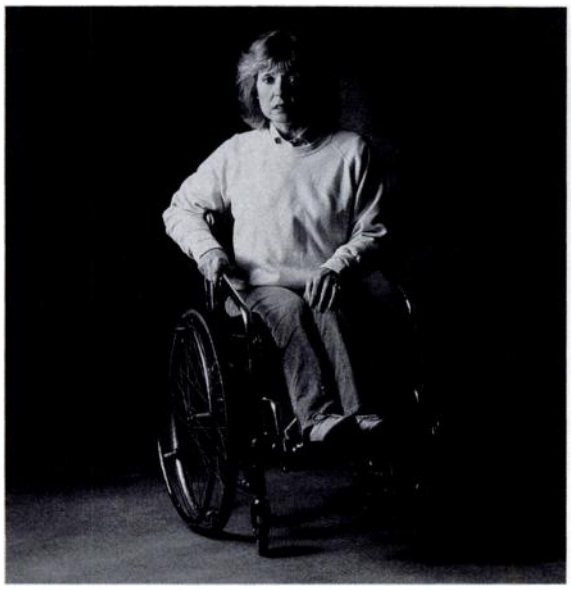
Poliovirus Vaccine Live Oral Trivalent/Lederle

I didn't.

Jackie, Gina, and Krista DiLorenzo are all superior athletes. Jackie is a world champion table tennis player. Her daughters excel in track and basketball. Unfortunately, Jackie must perform her sport in a wheelchair. Because, unlike Gina and Krista, Jackie was born too soon for ORIMUNE. Jackie is thankful her daughters were protected.

Lederle Biologicals Protecting Families Through Immunization®

Please see adjacent page for brief summary of Prescribing Information.



When I was a child there was no Orimune®

Proven in Millions of US Patients

ORIMUNE was the first live, oral, trivalent polio vaccine. No other oral polio vaccine has done more to help eradicate wild poliovirus in the US. Over 500 million doses have been distributed to date.

Proven Safety* Record

Lederle takes every precaution during production and testing to ensure the safety of ORIMUNE. This dedication is evident by our 28-year safety record.

Uninterrupted Supply

Lederle has consistently met the nation's needs for oral polio vaccine for about 28 years. In fact, when all other US manufacturers discontinued the production of oral polio vaccine, Lederle has remained committed to this essential product and to the health of America's children.

Convenient Unit-Dose DISPETTE®

ORIMUNE is packaged in a single-dose DISPETTE, which assures dosage accuracy and avoids the risk of contamination.

*Paralytic disease following ingestion of live poliovirus vaccines has been reported on rare occasions in individuals receiving the vaccine or in their close contacts.

Orimune®
Poliovirus Vaccine Live Oral Trivalent/Lederle

Poliovirus Vaccine
Live Oral Trivalent
ORIMUNE®
A Brief Summary

Please see package insert for full description, directions for use, and references.

INDICATIONS: *For prevention of poliomyelitis caused by Poliovirus Types 1, 2, and 3.*

CONTRAINDICATIONS: *Under no circumstances should this vaccine be administered parenterally.*

Administration of the vaccine should be postponed or avoided in those experiencing any acute illness and in those with any advanced debilitated condition or persistent vomiting or diarrhea.

ORIMUNE *must not* be administered to patients with immune deficiency diseases such as combined immunodeficiency, hypogammaglobulinemia, and agammaglobulinemia. Further, ORIMUNE *must not* be administered to patients with altered immune states, such as those occurring in thymic abnormalities, leukemia, lymphoma, or generalized malignancy or by lowered resistance from therapy with corticosteroids, alkylating drugs, antimetabolites, or radiation. ORIMUNE should also not be given to members of a household in which there is a family history of immunodeficiency until the immune status of all members is determined to be normal. All persons with altered immune status should avoid close household-type contact with recipients of the vaccine for at least six to eight weeks. Inactivated poliovirus vaccine (IPV) is preferred for immunizing all persons in the above described circumstances.

WARNINGS: *Under no circumstances should this vaccine be administered parenterally.*

Administration of the vaccine should be postponed or avoided in those experiencing any acute illness and in those with any advanced debilitated condition or persistent vomiting or diarrhea.

Other viruses (including poliovirus and other enteroviruses) may interfere with the desired response to this vaccine, since their presence in the intestinal tract may interfere with the replication of the attenuated strains of poliovirus in the vaccine.

PRECAUTIONS: Preliminary data indicate that immune globulin (Human) (IG) does not appear to interfere with immunization with poliovirus vaccine live oral trivalent (OPV). However, until more data are available, it would seem prudent not to administer OPV shortly after IG, unless such a procedure is unavoidable, for example, with unexpected travel to or contact with epidemic areas or endemic areas. If OPV is given with or shortly after IG, the dose should probably be repeated after three months if immunization is still indicated.

The vaccine is not effective in modifying or preventing cases of existing and/or incubating poliomyelitis.

NATIONAL CHILDHOOD VACCINE INJURY ACT OF 1986 (as amended in 1987)

Manufacturer and lot number of vaccine administered must be recorded by health care provider in vaccine recipient's permanent record, along with date of administration and name, address, and title of person administering vaccine.

Health care provider must report to a health department or to the FDA the occurrence following immunization of any event set forth in the Vaccine Injury Table including: paralytic poliomyelitis—in a nonimmunodeficient recipient within 30 days of vaccination—in an immunodeficient recipient within 6 months of vaccination; any vaccine-associated community case of paralytic poliomyelitis; or any acute complication or sequela (including death) of above events.

Use in Pregnancy: Pregnancy Category C: Animal reproduction studies have not been conducted with Poliovirus vaccine live oral trivalent. It is also not known whether OPV can cause fetal harm when administered to a pregnant woman or can affect reproduction capacity. Although there is no convincing evidence documenting adverse effects of either OPV or IPV on the developing fetus or pregnant woman, it is prudent on theoretical grounds to avoid vaccinating pregnant women. However, if immediate protection against poliomyelitis is needed, OPV is recommended. (See **CONTRAINDICATIONS** and **ADVERSE REACTIONS**.)

ADVERSE REACTIONS: Paralytic disease following the ingestion of live poliovirus vaccines has been, on rare occasion, reported in individuals receiving the vaccine (see, for example, CONTRAINDICATIONS), and in persons who were in close contact with vaccinees. The vaccine viruses are shed in the vaccinee's stools for at least six to eight weeks as well as via the pharyngeal route. Most reports of paralytic disease following ingestion of the vaccine or contact with a recent vaccinee are based on epidemiological analysis and temporal association between vaccination or contact and the onset of symptoms. Most authorities believe that a causal relationship exists. Prior to administration of the vaccine, the attending physician should warn or specifically direct personnel acting under his authority to convey the warnings to the vaccinee, parent, guardian, or other responsible person of the possibility of vaccine-associated paralysis, particularly to susceptible family members and other close personal contacts.

The Centers for Disease Control report that during the years 1973 through 1984 approximately 274.1 million OPV doses were distributed in the US. During this same period, 105 vaccine-associated cases were reported (1 case per 2.6 million doses distributed). Of these 105 cases, 35 occurred in vaccine recipients (1 case per 7.8 million doses distributed), 50 occurred in household and nonhousehold contacts of vaccinees (1 case per 5.5 million doses distributed), 14 occurred in immunodeficient recipients or contacts, and 6 occurred in persons with no history of vaccine exposure, from whom vaccine-like viruses were isolated.

Thirty-three (94%) of the recipient cases, 41 (82%) of the contact cases, and 5 (36%) of the immune deficient cases were associated with the recipient's first dose of OPV. Because most cases of vaccine-associated paralysis have occurred in association with the first *v* subsequent doses of OPV, using the number of births during 1973-1984 to estimate the number of first doses distributed, and subtracting this from the total distribution to estimate the number of subsequent doses distributed. This method estimates a frequency of paralysis for recipients of 1 case per 1.2 million first doses *v* 1 case per 116.5 million subsequent doses; for contacts one case per 1 million first doses *v* 25.9 million subsequent doses; with an overall frequency of 1 case per 520,000 first doses *v* 1 case per 12.3 million subsequent doses.

Other methods of estimating the likelihood of paralysis in association with OPV have been described. Because the number of susceptible vaccine recipients or contacts of recipients is not known, the true risk of vaccine-associated poliomyelitis is impossible to determine precisely.

When the attenuated vaccine strains are to be introduced into a household with adults who have not been adequately vaccinated or whose immune status cannot be determined, the risk of vaccine-associated paralysis can be reduced by giving these adults one dose of IPV per month for three months before the children receive *Poliovirus vaccine live oral trivalent* ORIMUNE. The children may receive the first dose of ORIMUNE at the same visit that the adult receives the third dose of IPV. The CDC reports that no paralytic reactions to IPV are known to have occurred since the 1955 cluster of poliomyelitis cases caused by vaccine that contained live polioviruses that had escaped inactivation.

The ACIP states: "Because of the overriding importance of ensuring prompt and complete immunization of the child and the extreme rarity of OPV-associated disease in contacts, the Committee recommends the administration of OPV to a child regardless of the poliovirus-vaccine status of adult household contacts. This is the usual practice in the United States. The responsible adult should be informed of the small risk involved. An acceptable alternative, if there is a strong assurance that ultimate, full immunization of the child will not be jeopardized or unduly delayed, is to immunize adults according to the schedule outlined above before giving OPV to the child."

The ACIP has concluded that "Oral polio vaccine remains the vaccine of choice for primary immunization of children."

Rev. 7/89

Lederle Biologicals
Protecting Families Through Immunization®

Lederle Laboratories,
A Division of American Cyanamid Company, Wayne, New Jersey 07470
 016-0

POLITICS AND SCIENCE

David Baltimore, who has just been named president of Rockefeller University, already knows what it's like to go through life with "Nobel laureate" appended to one's name. He is currently experiencing what it's like to have the phrase, "under investigation for scientific fraud," also attached to his name. The Nobel committee made the first addition; John Dingell's congressional committee created the second.

. . .a substantial number of Rockefeller's faculty. . .were disturbed at what they regarded as Dr Baltimore's confrontational attitude toward the Dingell committee, which held hearings on a dispute over the lab notebooks of a researcher who had co-authored a scientific paper with Dr Baltimore.

Insofar as Mr Dingell has a special interest in NIH and the institutions that receive its funding, the Rockefeller scientists were no doubt discomfited by Dr Baltimore's unflattering public opinion of this congressional patron, whose behavior reminded Dr Baltimore of the McCarthy era.

Scientists are mistaken who still think that the attacks on science in this country aren't their concern or that a David Baltimore could have somehow placated a John Dingell.

Fortunately, there are signs that increasing numbers of scientists understand the necessity of speaking out.

Scientists need to understand that while they tend to believe their work is primarily about establishing new knowledge or doing good, today it is also about power. In a media-linked world, scientists may earn wide praise and even Nobels for their work, but they also attract the attention of people who wish to gain control over the content, funding and goals of that work.

Baltimore at Rockefeller. *The Wall Street Journal.* October 23, 1989.

Lactaid's 2 lactases:

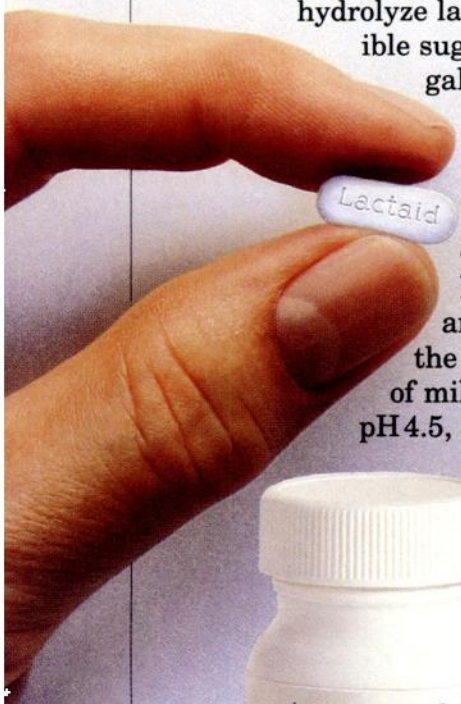
■ Caplets–For oral use ■ Drops–To add to milk

Lactaid enables your patients to make lactose digestible regardless of their level of tolerance or where or when they eat. Your patients will enjoy dairy foods once again and benefit from their nutritional value.

LACTAID CAPLETS

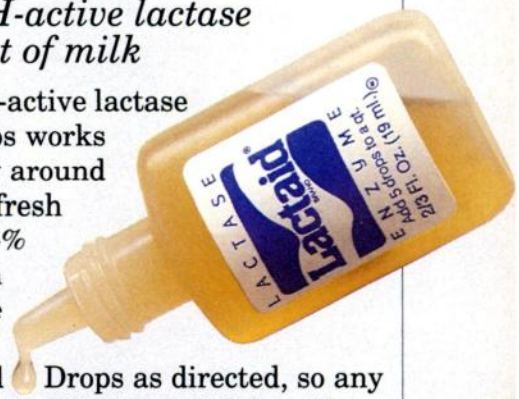
A stomach acid-stable oral lactase

As an acid-stable lactase, Lactaid Caplets work effectively in most gastric conditions from pH 2.5 to above 7.0. When taken at the beginning of a meal, Lactaid Caplets hydrolyze lactose into digestible sugars, glucose and galactose, as the food is eaten. Each Lactaid Caplet contains 3000 FCCLU (*Food Chemicals Codex* lactase units). This amount will hydrolyze the lactose in 8 ounces of milk in 11 minutes at pH4.5, 37°C. Dosage ranges from one-half to three caplets taken with the lactose content food, to treat various intolerance levels.



LACTAID DROPS

A neutral pH-active lactase for treatment of milk



The neutral pH-active lactase in Lactaid Drops works most effectively around pH 7.0, that of fresh milk. Up to 99+% of the lactose in any milk can be hydrolyzed by adding Lactaid Drops as directed, so any lactose intolerant patient can drink milk symptom-free.

Lactaid Brand Milk is pretreated at the dairy with Lactaid neutral pH-active lactase to 70% hydrolysis of the lactose. It can be further home-treated if necessary with Lactaid Drops for 99+% lactose reduction. Lactaid Lowfat Milk is real milk, ready to drink, and is available in the dairy case of almost all supermarkets.

Lactaid works effectively orally and for treating milk.
The clinical effectiveness of both Caplets and Drops is well established.

For our professional pamphlets on Lactaid Caplets and Lactaid Drops, patient literature, and free samples, please call our Lactaid Hotline.
1-800-257-8650 9am to 4pm Eastern Time Monday - Friday

Lactaid® BRAND

THE ACKNOWLEDGED ANSWER TO LACTOSE INTOLERANCE

sigma-tau
Pharmaceuticals, Inc.
A leader in metabolic research

THE SILENT ENERGY CRISIS

The lethargic, hypotonic child. The fretful infant who doesn't eat. No specific evidence of disease…yet something clearly is wrong.

Fortunately, pediatricians are now identifying a cause of these and other similarly perplexing symptoms: an inability to metabolize fatty acids. One cause of this problem is primary systemic carnitine deficiency.

Why children require adequate carnitine

Carnitine is essential for fatty-acid oxidation and synthesis in energy production. Carnitine deficiency results in loss of energy and toxic accumulations of free fatty acids. When carnitine supply is inadequate, heart and skeletal muscle activity may be severely impaired.

Primary systemic carnitine deficiency may be associated with the following:

- hypoglycemia
- hypotonia
- hepatomegaly
- hepatic coma
- congestive heart failure
- neurologic disturbances
- progressive myasthenia
- lethargy
- encephalopathy
- cardiomegaly
- cardiac arrest
- impaired growth and development in infants

Because oral carnitine therapy has been proven effective in primary systemic carnitine deficiency in children and because it has little or no toxicity,[1] CARNITOR® (levocarnitine) should be considered in all suspected cases of this syndrome.

So safe, there are no contraindications

CARNITOR® has no serious side effects apart from mild diarrhea, which is easily reversible with dosage adjustment or discontinuance. Because mild GI complaints have been reported, tolerance should be monitored closely during the first week and after any dosage increase.

Pediatric dosage: 50-100 mg/kg/day of CARNITOR® Tablets or CARNITOR® (100 mg/ml) Oral Solution.

CARNITOR®
(LEVOCARNITINE)

FOR INFORMATION:
(800) 447-0169

THE ONLY PRESCRIPTION FORMULATION IN TABLETS AND ORAL SOLUTION

See brief summary of CARNITOR® (levocarnitine) prescribing information on the adjacent page.

CARNITOR®
(LEVOCARNITINE)

Reference: 1. Lohninger A, Kaiser E, Legenstein E, et al: Carnitine, metabolism and function, in Kaiser E, Lohninger A (eds): *Carnitine—Its Role in Lung and Heart Disorders.* Basel, Switzerland, Karger, 1987, p 4.

CARNITOR® (LEVOCARNITINE)

Before prescribing, please consult complete product information, a summary of which follows:

INDICATIONS AND USAGE CARNITOR (levocarnitine) is indicated in the treatment of primary systemic carnitine deficiency.

CONTRAINDICATIONS None known.

WARNINGS None.

PRECAUTIONS

General CARNITOR Oral Solution is for oral/internal use only. **Not for parenteral use.** Gastrointestinal reactions may result from too rapid consumption. CARNITOR Oral Solution may be consumed alone, or dissolved in drinks or other liquid foods to reduce taste fatigue. It should be consumed slowly and doses should be spaced evenly throughout the day (every 3-4 hours, preferably during or following meals) to maximize tolerance.

Carcinogenesis, Mutagenesis, Impairment of Fertility Mutagenicity tests have been performed in *Salmonella typhimurium, Saccharomyces cerevisiae,* and *Schizosaccharomyces pombe* that do not indicate that CARNITOR is mutagenic. Long-term animal studies have not been conducted to evaluate the carcinogenicity of the compound.

Usage in pregnancy *Pregnancy Category B* Reproductive studies have been performed in rats and rabbits using parenteral administration at doses equivalent on a mg/kg basis to the suggested oral adult dosage and have revealed no harm to the fetus due to CARNITOR. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, this drug should be used during pregnancy only if clearly needed.

Nursing mothers Levocarnitine is a normal component of human milk. Levocarnitine supplementation in nursing mothers has not been studied.

Pediatric use See **Dosage and Administration.**

ADVERSE REACTIONS Various mild gastrointestinal complaints have been reported during the long-term administration of oral L- or D, L-carnitine; these include transient nausea and vomiting, abdominal cramps, and diarrhea. Mild myasthenia has been described only in uremic patients receiving D, L-carnitine. Gastrointestinal adverse reactions with CARNITOR Oral Solution dissolved in liquids might be avoided by slow consumption or by greater dilution. Decreasing the dosage often diminishes or eliminates drug-related patient body odor or gastrointestinal symptoms when present. Tolerance should be closely monitored during first week of administration, and after any dosage increases.

OVERDOSAGE There have been no reports of toxicity from carnitine overdosage. The oral LD_{50} of levocarnitine in mice is 19.2 g/kg. Carnitine may cause diarrhea. Overdosage should be treated with supportive care.

DOSAGE AND ADMINISTRATION

CARNITOR Tablets: Recommended adult dosage is 990 mg two or three times a day using the 330-mg tablets, depending on clinical response. Recommended dosage for infants and children is 50-100 mg/kg/day in divided doses, with a maximum of 3 g/day. Dosage should begin at 50 mg/kg/day. The exact dosage will depend on clinical response. Monitoring should include periodic blood chemistries, vital signs, plasma carnitine concentrations, and overall clinical condition.

CARNITOR Oral Solution: Recommended adult dosage is 1-3 g/day for a 50-kg subject which is equivalent to 10-30 ml/day of CARNITOR Oral Solution. Higher doses should be administered only with caution and only where clinical and biochemical considerations make it seem likely that higher doses will be of benefit. Dosage should start at 1 g/day (10 ml/day), and be increased slowly while assessing tolerance and therapeutic response. Monitoring should include periodic blood chemistries, vital signs, plasma carnitine concentrations, and overall clinical condition. Recommended dosage for infants and children is 50-100 mg/kg/day which is equivalent to 0.5 ml/kg/day CARNITOR Oral Solution. Higher doses should be administered only with caution and only where clinical and biochemical considerations make it seem likely that higher doses will be of benefit. Dosage should start at 50 mg/kg/day, and be increased slowly to a maximum of 3 g/day (30 ml/day) while assessing tolerance and therapeutic response. Monitoring should include periodic blood chemistries, vital signs, plasma carnitine concentrations, and overall clinical condition. See **PRECAUTIONS/General** above for additional information.

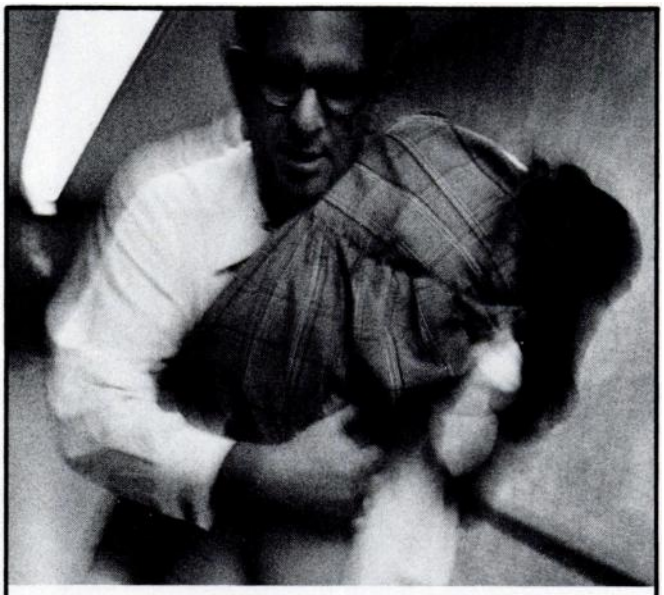
HOW SUPPLIED CARNITOR Tablets are supplied as 330-mg, individually foil-wrapped tablets in boxes of 90. Store at room temperature (25°C). CARNITOR Oral Solution is supplied in 118-ml (4 fl oz) multiple-unit plastic containers packaged 24 per case. Store at room temperature (25°C).

CAUTION Federal (USA) law prohibits dispensing without prescription.

CARNITOR Oral Solution manufactured for Sigma-Tau, Inc. By: Barre-National, Inc., Baltimore, MD 21207-2642

Rev. 1/90

sigma-tau
Pharmaceuticals, Inc.
A leader in metabolic research



Your pediatric emergencies need the most comprehensive, up-to-date care

Now Available

Keep abreast of the latest advances in pediatric emergency care with the new *Advanced Pediatric Life Support* manual.

Comprehensive overview of emergency techniques

Advanced Pediatric Life Support manual provides a core of knowledge for all health care providers who care for children in emergency settings. The 209-page, soft-cover manual is divided into five sections:

- *Cardiorespiratory Support:* cardiopulmonary arrest, shock, dysrhythmia, and congestive heart failure
- *Traumatic Emergencies:* burns, child abuse, and trauma to the chest, abdomen, and central nervous system
- *Environmental Emergencies:* poisonings, drowning, and hypothermia/hyperthermia
- *Neonatal Emergencies:* neonatal resuscitation
- *Emergencies with Altered Levels of Consciousness:* diabetic ketoacidosis, meningitis, Reye syndrome, and status epilepticus

The experience of leading professionals

This reference guide was compiled by experts from the American Academy of Pediatrics/American College of Emergency Physicians, and the National Task Force on Advanced Pediatric Life Support. The manual also serves as the text for the official AAP/ACEP APLS Course. To find out about courses, call the National Course Coordinator at ACEP (214-550-0911).

Enhance your skills today

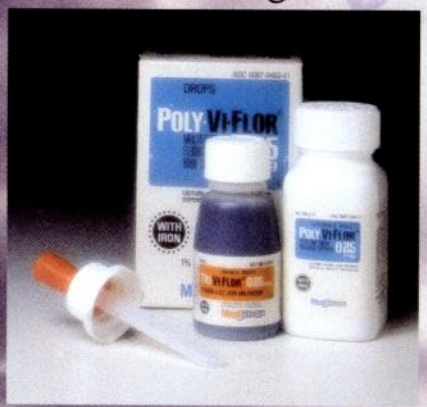
The *Advanced Pediatric Life Support* manual is indispensable for anyone who will administer pediatric emergency care. The manual is $55 for AAP/ACEP members ($75 nonmembers) plus a $3.75 handling charge per order. To charge your order (VISA/MasterCard), call 800-433-9016 (in IL, 800-421-0589). Or write the AAP Publications Dept., PO Box 927, Elk Grove Village, IL 60009-0927.

American Academy of Pediatrics

Now's the time for fluoride.

Dietary fluoride works best during the first few years of life when both primary and secondary teeth are hardening.

The American Academy of Pediatrics recommends starting fluoride as early as two weeks of age for those who need it, including exclusively breastfed infants.



Specify DO NOT SUBSTITUTE. Check fluoride concentration in your area. Dose according to AAP guidelines.

Mead Johnson NUTRITIONALS

A Bristol-Myers Squibb Co.
Evansville, Indiana 47721
U.S.A.

TRI-VI-FLOR®
POLY-VI-FLOR® fluoride vitamin supplements

See Next Page for Brief Summary of Full Prescribing Information.

VI-FLOR®
supplementation

to help you guard appropriate patients against caries risk and nutritional risk.

INDICATIONS AND USAGE: Prophylaxis of vitamin deficiencies and dental caries in children and adults when fluoride of water supply does not exceed 0.7 ppm.[1,2,3] And, in the case of TRI-VI-FLOR® 0.25 mg Drops with Iron and POLY-VI-FLOR® Drops and Chewable Tablets with Iron, prophylaxis against iron deficiencies. Note: VI-FLOR Drops do not contain folic acid because the vitamin is not stable in liquid form.

PRECAUTIONS: Do not exceed recommended dose or give concurrently with other medications containing significant amounts of fluoride. Prolonged excessive fluoride intake may cause dental fluorosis.

All VI-FLOR® with Iron products: as with all products containing iron, parents should be warned against excessive dosage. The bottle should be kept out of reach of children.

Keep all VI-FLOR with Iron products tightly closed and away from direct light.

VI-FLOR Drops should be dispensed in the original plastic container, since contact with glass leads to instability and precipitation.

ADVERSE REACTIONS: Allergic rash has rarely been reported.

DOSAGE AND ADMINISTRATION: Supplemental Fluoride Dosage Schedule (mg/day)*

Age	Concentration of Fluoride in Drinking Water (ppm)		
	<0.3	0.3-0.7	>0.7
2-wk-2-yr**	0.25	0	0
2-3 yr	0.5	0.25	0
3-16 yr	1.0	0.5	0

*From the American Academy of Pediatrics Committee on Nutrition statement, Fluoride supplementation: Revised dosage schedule. *Pediatrics* 1986;77(5):758-761.

**The Committee recommends that all breast-fed infants be evaluated shortly after birth to determine their need for fluoride supplementation. In formula-fed infants, fluoride supplementation should be according to the fluoride content of the water used to prepare formula. No fluoride is present in the water used to produce Ready-To-Use formula.

PRODUCT	FORM	SIZE	FLUORIDE mg/dose
POLY-VI-FLOR 0.25 mg	Drops	50 mL Bottle	0.25
POLY-VI-FLOR 0.25 mg with Iron	Drops	50 mL Bottle	0.25
POLY-VI-FLOR 0.25 mg	Tablets	Bottle of 100	0.25
POLY-VI-FLOR 0.25 mg with Iron	Tablets	Bottle of 100	0.25
POLY-VI-FLOR 0.5 mg	Drops	50 mL Bottle	0.5
POLY-VI-FLOR 0.5 mg with Iron	Drops	50 mL Bottle	0.5
POLY-VI-FLOR 0.5 mg	Tablets	Bottle of 100	0.5
POLY-VI-FLOR 0.5 mg with Iron	Tablets	Bottle of 100	0.5
POLY-VI-FLOR 1.0 mg	Tablets	Bottle of 100	1.0
POLY-VI-FLOR 1.0 mg with Iron	Tablets	Bottle of 100	1.0
TRI-VI-FLOR 0.25 mg	Drops	50 mL Bottle	0.25
TRI-VI-FLOR 0.25 mg with Iron	Drops	50 mL Bottle	0.25
TRI-VI-FLOR 0.5 mg	Drops	50 mL Bottle	0.5
TRI-VI-FLOR 1.0 mg	Tablets	Bottle of 100	1.0

REFERENCES:

1. Hennon DK, Stookey GK, Muhler JC: The clinical anticariogenic effectiveness of supplementary fluoride-vitamin preparations — Results at the end of four years. *J Dentistry for Children* 1967(Nov); 34:439-443.
2. Hennon DK, Stookey GK, Muhler JC: The clinical anticariogenic effectiveness of supplementary fluoride-vitamin preparations — Results at the end of five and a half years. *Pharmacology and Therapeutics in Dentistry* 1970(Oct); 1:1-6.
3. Hennon DK, Stookey GK, Muhler JC: Prophylaxis of dental caries: Relative effectiveness of chewable fluoride preparations with and without added vitamins. *J Pediatrics* 1972(June); 80:1018-1021.

VI-SOL® /VI-FLOR® products are the nation's most prescribed children's vitamin and fluoride-vitamin supplements.
(For complete details, please consult full prescribing information.)

Mead Johnson
NUTRITIONALS
A Bristol-Myers Squibb Company
Evansville, Indiana 47721
U.S.A.

Baby Alive

The video that could save your child's life!

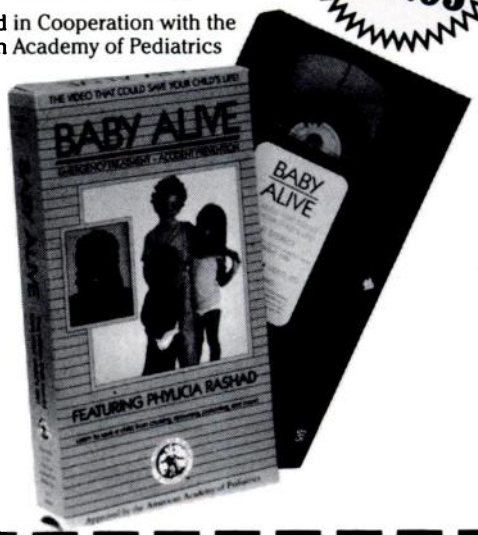
Produced in cooperation with the American Academy of Pediatrics, this 60-minute videotape provides vital information to keep your infant or young child safe and secure.

Phylicia Rashad of *The Bill Cosby Show* and top medical experts present a step-by-step guide for prevention and treatment of life-threatening situations facing children from birth to 5 years old, including:

- CHOKING – Learn the Heimlich maneuver.
- DROWNING – Learn CPR & Rescue Breathing.
- POISONING – When and when NOT to induce vomiting.
- HEAD INJURIES – When it's just a bump, and when it's more serious.
- CUTS – Control bleeding.

NOW ONLY $19.95

Produced in Cooperation with the American Academy of Pediatrics



PED

To Order:
BABY ALIVE
Post Office Box 1160
Salt Lake City, Utah 84110-9915

Please send _____ VHS copies of: BABY ALIVE ($19.95 each plus $5.00 shipping and handling. Utah residents add $2.50 sales tax per unit.)
Please bill my ☐ MasterCard ☐ VISA ☐ Check Enclosed

CREDIT CARD NUMBER _____

DATE CARD EXPIRES _____

SIGNATURE _____

NAME _____

ADDRESS _____

CITY _____

STATE/ZIP _____

TELEPHONE _____

TO ORDER TOLL FREE CALL: 1-800-468-1300

Little children, big infections.

ROCEPHIN® (ceftriaxone sodium/Roche) stops pathogens that cause severe and life-threatening infections in children, including *Hemophilus influenzae, Staphylococcus aureus, Streptococcus pneumoniae, Escherichia coli* and *Neisseria meningitidis.*
Dosage of ROCEPHIN in treatment of pediatric infections is b.i.d., conserving cost and effort while minimizing invasiveness. ROCEPHIN is generally well tolerated by pediatric patients, including neonates.

B.I.D. ROCEPHIN. **Mean** to pathogens, **lean** on your budget, **clean** with pediatric patients.

ROCEPHIN is indicated in the following infections: bacterial septicemia, bone and joint, intra-abdominal, lower respiratory tract, skin and skin structure, urinary tract, bacterial meningitis and gonorrhea.

B.I.D.

Rocephin® IV·IM
ceftriaxone sodium/Roche

As with any cephalosporin, there exists the possibility of hypersensitivity reactions, especially in individuals with a history of sensitivity.

Please see adjacent page for summary of product information.

Rocephin® IV·IM

ceftriaxone sodium/Roche

Before prescribing, please consult complete product information, a summary of which follows:

CONTRAINDICATIONS: Rocephin is contraindicated in patients with known allergy to the cephalosporin class of antibiotics.

WARNINGS: BEFORE THERAPY WITH ROCEPHIN IS INSTITUTED, CAREFUL INQUIRY SHOULD BE MADE TO DETERMINE WHETHER THE PATIENT HAS HAD PREVIOUS HYPERSENSITIVITY REACTIONS TO CEPHALOSPORINS, PENICILLINS OR OTHER DRUGS. THIS PRODUCT SHOULD BE GIVEN CAUTIOUSLY TO PENICILLIN-SENSITIVE PATIENTS. ANTIBIOTICS SHOULD BE ADMINISTERED WITH CAUTION TO ANY PATIENT WHO HAS DEMONSTRATED SOME FORM OF ALLERGY, PARTICULARLY TO DRUGS. SERIOUS ACUTE HYPERSENSITIVITY REACTIONS MAY REQUIRE THE USE OF SUBCUTANEOUS EPINEPHRINE AND OTHER EMERGENCY MEASURES. **Pseudomembranous colitis, reported with nearly all antibacterial agents, including ceftriaxone, may range in severity from mild to life-threatening. Therefore, consider this diagnosis in patients who present with diarrhea subsequent to administration of antibacterial agents.** Treatment with antibacterial agents alters normal flora of the colon and may permit overgrowth of clostridia. Studies indicate a toxin produced by *Clostridium difficile* is one primary cause of "antibiotic-associated colitis." After establishing diagnosis of pseudomembranous colitis, initiate therapeutic measures. Mild cases of pseudomembranous colitis usually respond to drug discontinuation alone. In moderate to severe cases, consider management with fluids and electrolytes, protein supplementation and treatment with an oral antibacterial drug effective against *C. difficile*.

PRECAUTIONS: *GENERAL:* Although transient elevations of BUN and serum creatinine have been observed, at the recommended dosages, the nephrotoxic potential of Rocephin is similar to that of other cephalosporins. Ceftriaxone is excreted via both biliary and renal excretion (see Clinical Pharmacology). Therefore, patients with renal failure normally require no adjustment in dosage when usual doses of Rocephin are administered, but concentrations of drug in the serum should be monitored periodically. If evidence of accumulation exists, dosage should be decreased accordingly. Dosage adjustments should not be necessary in patients with hepatic dysfunction; however, in patients with both hepatic dysfunction and significant renal disease, Rocephin dosage should not exceed 2 gm daily without close monitoring of serum concentrations. Alterations in prothrombin times have occurred rarely in patients treated with Rocephin. Patients with impaired vitamin K synthesis or low vitamin K stores (e.g., chronic hepatic disease and malnutrition) may require monitoring of prothrombin time during Rocephin treatment. Vitamin K administration (10 mg weekly) may be necessary if the prothrombin time is prolonged before or during therapy. Prolonged use of Rocephin may result in overgrowth of nonsusceptible organisms. Careful observation of the patient is essential. If superinfection occurs during therapy, appropriate measures should be taken. Rocephin should be prescribed with caution in individuals with a history of gastrointestinal disease, especially colitis. Rare cases reported of sonographic abnormalities seen in the gallbladder; patients may also have symptoms of gallbladder disease. These abnormalities, variously described as sludge, precipitations, echoes with shadows, may be misinterpreted as concretions. Chemical nature of sonographically-detected material not determined. Condition appears to be transient and reversible upon discontinuation of Rocephin and conservative management. Therefore, discontinue Rocephin if signs and symptoms suggestive of gallbladder disease and/or the sonographic findings described above develop. *CARCINOGENESIS, MUTAGENESIS, IMPAIRMENT OF FERTILITY:* Carcinogenesis: Considering the maximum duration of treatment

and the class of the compound, carcinogenicity studies with ceftriaxone in animals have not been performed. The maximum duration of animal toxicity studies was six months. Mutagenesis: Genetic toxicology tests included the Ames test, a micronucleus test and a test for chromosomal aberrations in human lymphocytes cultured *in vitro* with ceftriaxone. Ceftriaxone showed no potential for mutagenic activity in these studies. Impairment of Fertility: Ceftriaxone produced no impairment of fertility when given intravenously to rats at daily doses up to 586 mg/kg/day, approximately 20 times the recommended clinical dose of 2 gm/day. *PREGNANCY:* Teratogenic Effects: Pregnancy Category B. Reproductive studies have been performed in mice and rats at doses up to 20 times the usual human dose and have no evidence of embryotoxicity, fetotoxicity or teratogenicity. In primates, no embryotoxicity or teratogenicity was demonstrated at a dose approximately three times the human dose. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproductive studies are not always predictive of human response, this drug should be used during pregnancy only if clearly needed. Nonteratogenic Effects: In rats, in the Segment I (fertility and general reproduction) and Segment III (perinatal and postnatal) studies with intravenously administered ceftriaxone, no adverse effects were noted on various reproductive parameters during gestation and lactation, including postnatal growth, functional behavior and reproductive ability of the offspring, at doses of 586 mg/kg/day or less. *NURSING MOTHERS:* Low concentrations of ceftriaxone are excreted in human milk. Caution should be exercised when Rocephin is administered to a nursing woman. *PEDIATRIC USE:* Safety and effectiveness of Rocephin in neonates, infants and children have been established for the dosages described in the Dosage and Administration section. *In vitro* studies have shown ceftriaxone, like some other cephalosporins, can displace bilirubin from serum albumin. Rocephin should not be administered to hyperbilirubinemic neonates, especially prematures.

ADVERSE REACTIONS: Rocephin is generally well tolerated. In clinical trials, the following adverse reactions, which were considered to be related to Rocephin therapy or of uncertain etiology, were observed: *LOCAL REACTIONS*—pain, induration or tenderness at the site of injection (1%). Less frequently reported (less than 1%) was phlebitis after I.V. administration. *HYPERSENSITIVITY*—rash (1.7%). Less frequently reported (less than 1%) were pruritus, fever or chills. *HEMATOLOGIC*—eosinophilia (6%), thrombocytosis (5.1%) and leukopenia (2.1%). Less frequently reported (less than 1%) were anemia, neutropenia, lymphopenia, thrombocytopenia and prolongation of the prothrombin time. *GASTROINTESTINAL*—diarrhea (2.7%). Less frequently reported (less than 1%) were nausea or vomiting, and dysgeusia. Onset of pseudomembranous colitis symptoms may occur during or after antibiotic treatment (see WARNINGS). *HEPATIC*—elevations of SGOT (3.1%) or SGPT (3.3%). Less frequently reported (less than 1%) were elevations of alkaline phosphatase and bilirubin. *RENAL*—elevations of the BUN (1.2%). Less frequently reported (less than 1%) were elevations of creatinine and the presence of casts in the urine. *CENTRAL NERVOUS SYSTEM*—headache or dizziness were reported occasionally (less than 1%). *GENITOURINARY*—moniliasis or vaginitis were reported occasionally (less than 1%). *MISCELLANEOUS*—diaphoresis and flushing were reported occasionally (less than 1%). Other rarely observed adverse reactions (less than 0.1%) include leukocytosis, lymphocytosis, monocytosis, basophilia, a decrease in the prothrombin time, jaundice, gallbladder sludge, glycosuria, hematuria, anaphylaxis, bronchospasm, serum sickness, abdominal pain, colitis, flatulence, dyspepsia, palpitations and epistaxis.

PI. 0290

Roche Laboratories

a division of Hoffmann-La Roche Inc.

340 Kingsland Street
Nutley, New Jersey 07110-1199

PEDIATRIC RHEUMATOLOGY

Clinical - Research Staff Fellowship Position

The National Institute of Arthritis and Musculoskeletal and Skin Diseases, National Institutes of Health, Public Health Service and the Children's Hospital, National Medical Center are accepting applications for a 3-year combined clinical and research staff fellowship position in pediatric rheumatology to begin in July, 1990. Applicants must have completed 3 years of clinical pediatric residency training. Prior research experience is preferred. The salary range is $35,000 to $40,000.

Position information and additional qualification requirements may be obtained by writing:

Dr. Henry Metzger
National Institutes of Health
Building 10, Room 9N240
9000 Rockville Pike
Bethesda, MD 20892

or

Dr. Patience White
Children's Hospital
National Medical Center
111 Michigan Avenue, NW
Washington, DC 20010

U.S. Citizenship is Required
NIH and CHNMC are Equal Opportunity Employers

PEDIATRIC *Intensivist* DIRECTOR

The Department of Pediatrics at the University of Tennessee Medical Center at Knoxville is seeking a qualified individual to become Director, Section of Critical Care Medicine. The candidate must be board certified in Pediatrics with subspecialty training in critical care and/or pulmonary medicine and certified by or eligible for critical care boards. The selected applicant will direct a three person medical critical care group and a 10 bed medical and surgical PICU. The PICU supports the only Level I pediatric trauma center in East Tennessee, is complementary to the department's 45 bed Level 3 Intensive Care Nursery, and is separate from the six person full-time Pediatric Emergency Medicine Section. The position includes responsibility for patient care, graduate and undergraduate education, outreach education for referring physicians and opportunities for clinical or basic research. Academic appointment will be commensurate with experience. The Medical Center is a tertiary care referral facility for a population of 1.5 million people in East Tennessee, Southeast Kentucky and Western Virginia. The Department of Pediatrics currently has 34 full-time faculty with all subspecialties represented and is undergoing expansion. Knoxville, home of the University of Tennessee and the University of Tennessee Veterinary School of Medicine, is located at the foothills of the scenic Great Smokey Mountains. Interested applicants are encouraged to personally visit the Department and to send their Curriculum Vitae to:

Eddie S. Moore, M.D., Professor and Chairman
Department of Pediatrics, D-113

THE UNIVERSITY OF TENNESSEE
Medical Center at Knoxville

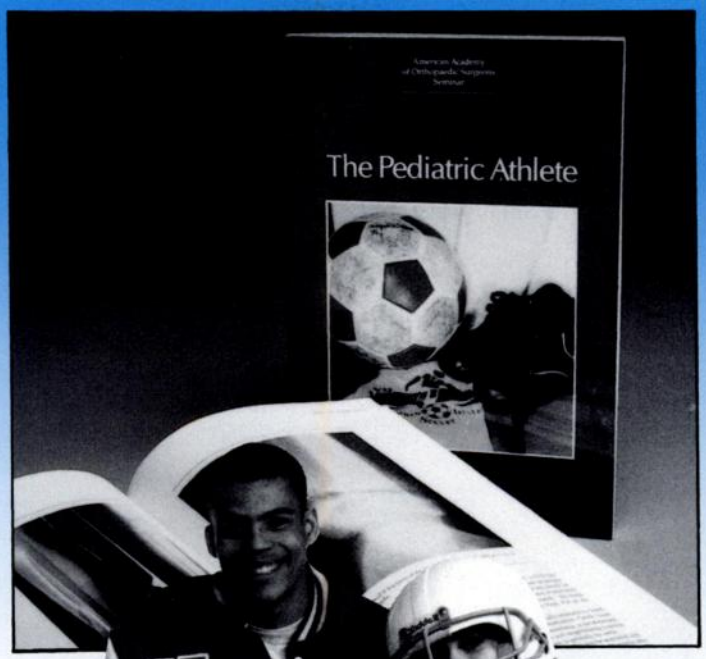
1924 ALCOA HIGHWAY
KNOXVILLE, TENNESSEE 37920

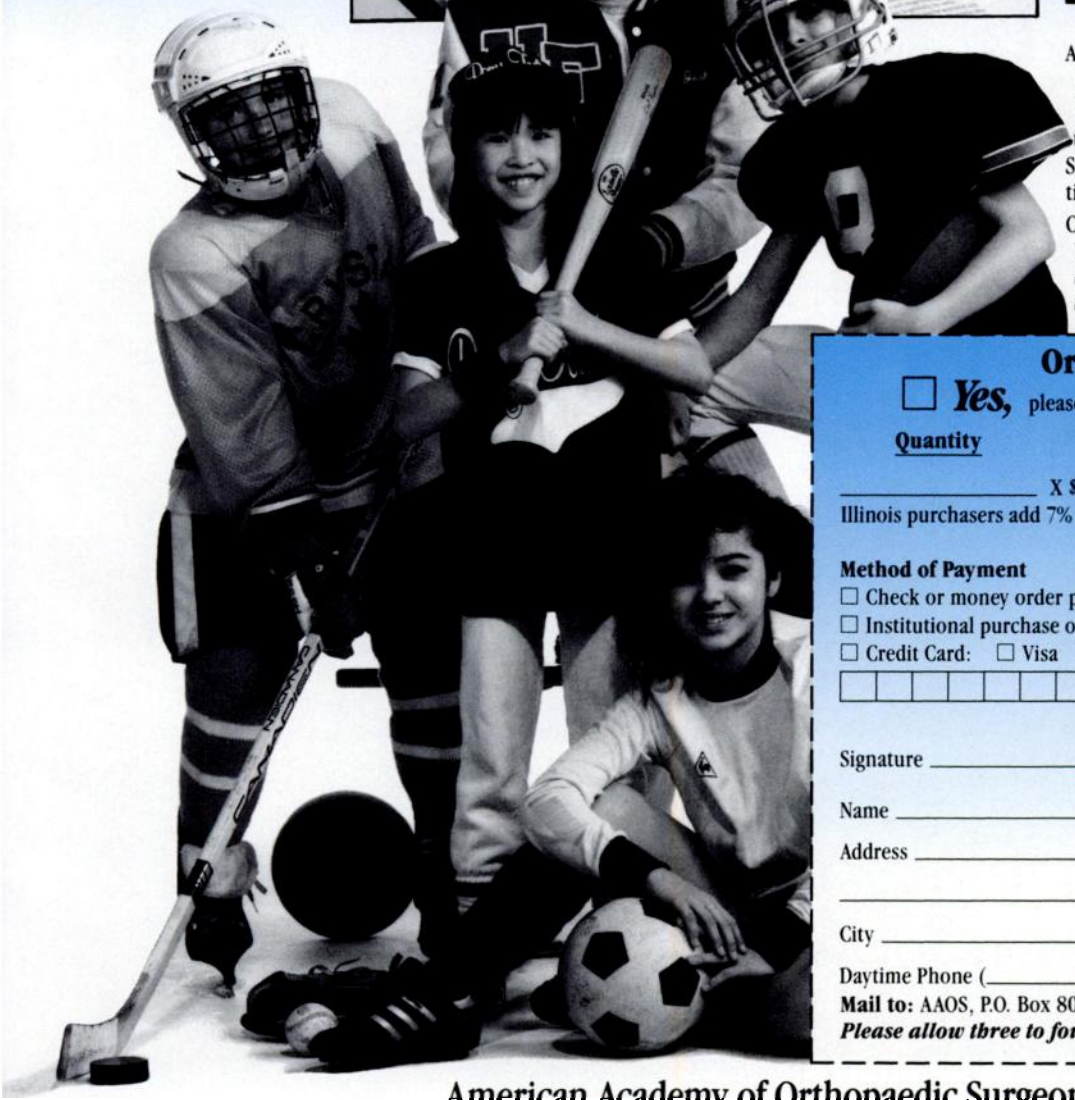
or call collect (615) 544-9321 for further information
Position open till filled

EEO/An Affirmative Action/Title IX/Section 504 Employer

Run. Throw. Tackle. Sprain. Fracture. Cut. Train. Condition. Prevent. Treat.

All in one book, what you need to know about kids in sports





The Pediatric Athlete

It's been compiled by leading physicians, educators, and sports medicine professionals. It contains the special insights you need to prevent and treat athletic injury in the young. Topics include:

- Training
- Nutrition and Drugs
- Medical Care
- Sports Psychology and Organization
- Musculoskeletal Injury
- Overuse Syndromes
- Rehabilitation
- Protective Equipment

You'll find answers to such questions as:

- Can aerobic and anaerobic techniques enhance performance?
- What are valid standards for preparticipation evaluations?
- What are the nutritional requirements of the younger athlete?
- How does a child's sweat pattern affect the electrolyte balance?

And many, many more.

Edited by J. Andy Sullivan, MD, and William A. Grana, MD. Published by the American Academy of Orthopaedic Surgeons. (1990, 266 pages, 31 illustrations, softcover)

Order *The Pediatric Athlete* today! Use the convenient order form below, or call toll-free and charge to your Visa or MasterCard. **1-800-626-6726**

Order Form

☐ ***Yes,*** please send me *The Pediatric Athlete.*

Quantity **Price** **Cost**

_____ X $19.00 = $_____

Illinois purchasers add 7% sales tax $_____

Total $_____

Method of Payment

☐ Check or money order payable to AAOS enclosed.

☐ Institutional purchase order enclosed.

☐ Credit Card: ☐ Visa ☐ MasterCard Card Number:

Signature _____ Exp. Date: _____

Name _____

Address _____

_____

City _____ State _____ Zip _____

Daytime Phone (_____)_____

Mail to: AAOS, P.O. Box 809287, Chicago, IL 60680-9287

Please allow three to four weeks for delivery.

PC: 02-043
SC: 0116

American Academy of Orthopaedic Surgeons

AIRLINES NOW PUSH BABY SAFETY SEATS

The US airline industry has changed course and now wants the government to require that all children under the age of two be strapped into safety seats during plane flights...

The industry's trade group, the Air Transport Association, plans to file a petition today urging the Federal Aviation Administration to adopt the requirement...

...the FAA has resisted requiring safety seats for babies in part because it would compel parents to buy a ticket for the child...

...According to industry estimates, 5,000 to 10,000 children under age two fly on US airlines every day. Precise numbers aren't available because tickets aren't issued for babies...

Any rule requiring safety seats could easily take a year or so to go into effect.

McGinley L. Airlines now push baby safety seats. *The Wall Street Journal.* February 22, 1990.

Noted by J.F.L., MD

A FRIGHTENING STATISTIC

In northern Manhattan, 34 percent of the children who die die of gunshot wounds.

Cooper A. Quoted by: Kempton M. Mad about guns. *New York Review of Books.* December 21, 1989.

Submitted by Student

Hypoallergenic

Not just a claim - a commitment

Extensive Laboratory Testing

Alimentum® Protein Hydrolysate Formula With Iron undergoes extensive ingredient testing and thorough batch analysis.

Each lot of hydrolyzed casein and every batch of finished formula are tested for immunologically active casein. And, every batch of finished formula is tested again to detect levels of intact protein. *Hypoallergenic* is a word we take seriously.

Clinically Proven

Laboratory testing is crucial, but performance is what's important to your patients. Alimentum is clinically documented to be hypoallergenic in children with severe, IgE-mediated cow's-milk allergy.*

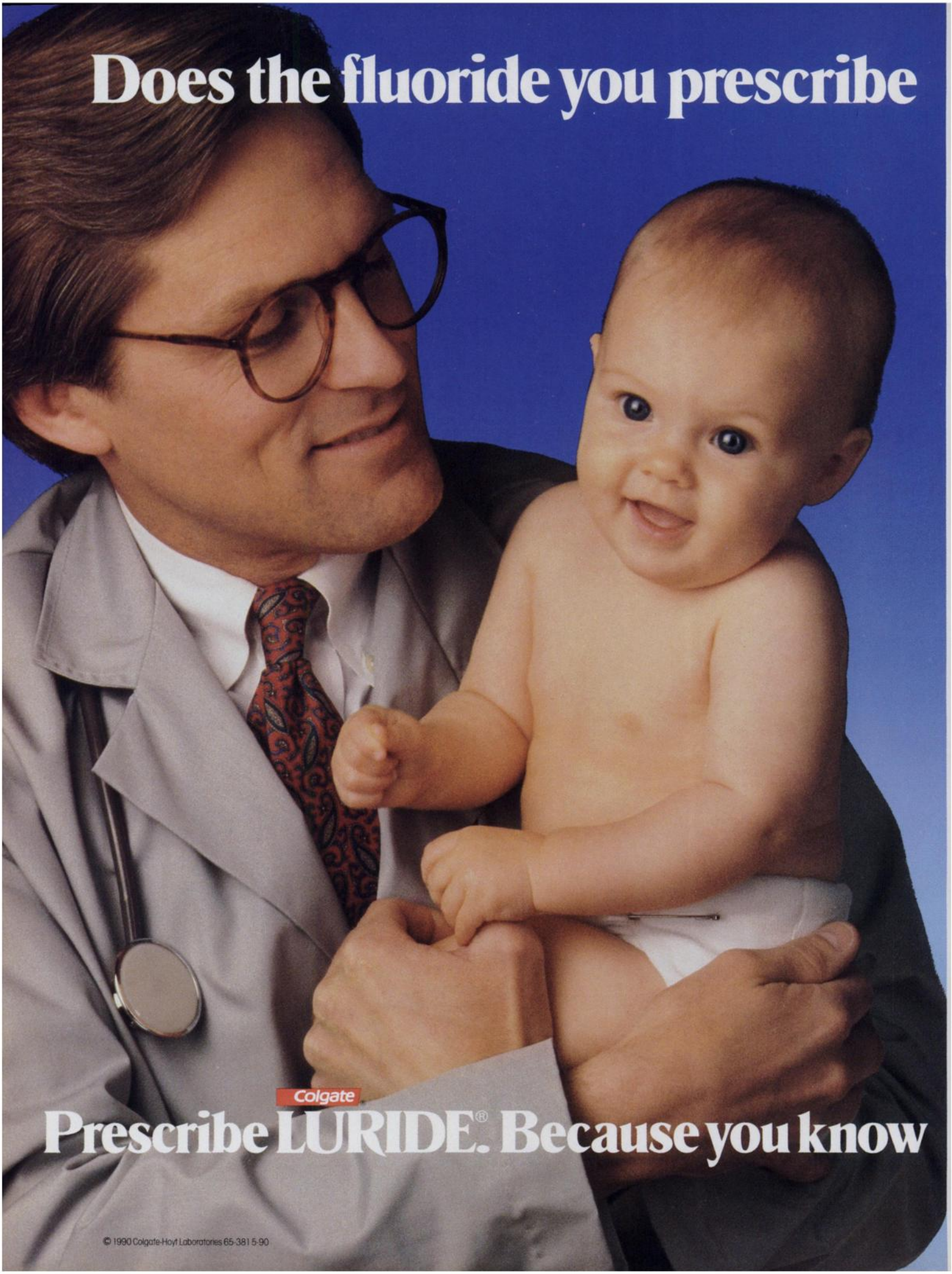
Recommend ALIMENTUM®

Protein Hydrolysate Formula With Iron

The hydrolysate formula with the hypoallergenicity and the formulation advantages to meet all your hydrolysate feeding needs.

*Sampson HA: Safety of casein hydrolysate formula in children with cow's milk hypersensitivity. *Pediatr Res* 1989;25:123A.

ROSS LABORATORIES
COLUMBUS, OHIO 43216
Division of Abbott Laboratories, USA


Does the fluoride you prescribe
Colgate
Prescribe LURIDE®. Because you know
© 1990 Colgate-Hoyt Laboratories 65-3815-90

contain vitamins he doesn't need?

"...the normal breast-fed infant of the well nourished mother has not been shown conclusively to need any specific vitamin and mineral supplement. Similarly, there is no evidence that supplementation is necessary for the full-term, formula-fed infant and for the properly nourished normal child."

"...In the absence of an adequately fluoridated water supply, fluoride supplements should be given to all children."

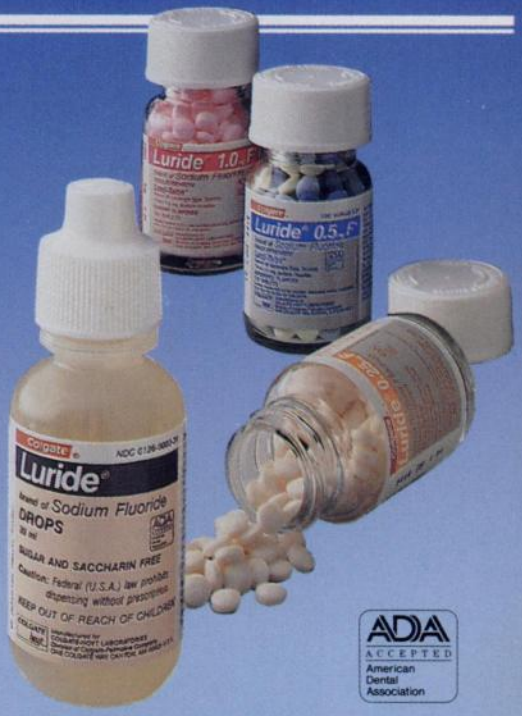
AMERICAN ACADEMY OF PEDIATRICS COMMITTEE ON NUTRITION[1,2]

Many children do not require vitamin supplements, but do need supplemental fluoride. About half of all children live in communities with inadequately fluoridated water. Babies who are breast-fed, fed ready-to-use formulas, or who drink nonfluoridated bottled water also don't receive enough fluoride. With vitamin-free LURIDE, you can prescribe optimum fluoride dosage without unnecessary vitamins.

Even if a patient needs vitamins, there's good reason to prescribe LURIDE so that fluoride and vitamins may be administered separately. Vitamins are commonly taken with meals and milk. Milk reduces fluoride's bioavailability as much as 30%.[3] LURIDE tablets, chewed immediately before going to bed at night, provide full-strength fluoride protection. And when consumed at bedtime, LURIDE delivers topical fluoride benefits as well.[4]

LURIDE has been proven to reduce caries up to 80% when used daily in nonfluoridated areas.[5] It's titratable, so you can prescribe a dosage to meet each patient's need. LURIDE is sugar-free and contains no saccharin.

When fluoride is indicated, you can prescribe LURIDE with confidence.



Protect the integrity of your prescription and instruct the pharmacist to dispense as written

1. American Academy of Pediatrics, Committee on Nutrition. Vitamin and mineral supplement needs in normal children in the United States. Pediatrics 1980;66(6):1015-1021. 2. American Academy of Pediatrics, Committee on Nutrition. Fluoride supplementation. Pediatrics 1986;77(5):758-761. 3. Trautner K et al. Influence of milk and food on fluoride bioavailability from NaF and Na_2FPO_3 in man. J Dent Res 1989;68(1):72-77. 4. Keyes PH, Englander HR. Fluoride therapy in the treatment of dentomicrobial plaque diseases. J Am Soc Prev Dent 1975;5:36-48. 5. Aasenden R, Peebles TC. Effects of fluoride supplementation on human deciduous and permanent teeth. Arch Oral Biol 1974;19:321-326.

all patients don't need extra vitamins.

Colgate-Hoyt Laboratories, Division of Colgate-Palmolive Company
One Colgate Way • Canton, MA 02021 • 1-800-225-3756

COLGATE hoyt

TOUGH ON PAIN

When he needs hardworking pain relief, recommend Children's or Junior Strength TYLENOL® acetaminophen. Clinical studies prove TYLENOL is as effective as aspirin for pain relief,[1] yet has a better safety profile than aspirin.[2] In fact, there's no other pediatric analgesic, OTC or Rx, safer for children.[2,3]

So get tough with pain. Recommend . . .

Children's and Junior Strength

TYLENOL®

acetaminophen

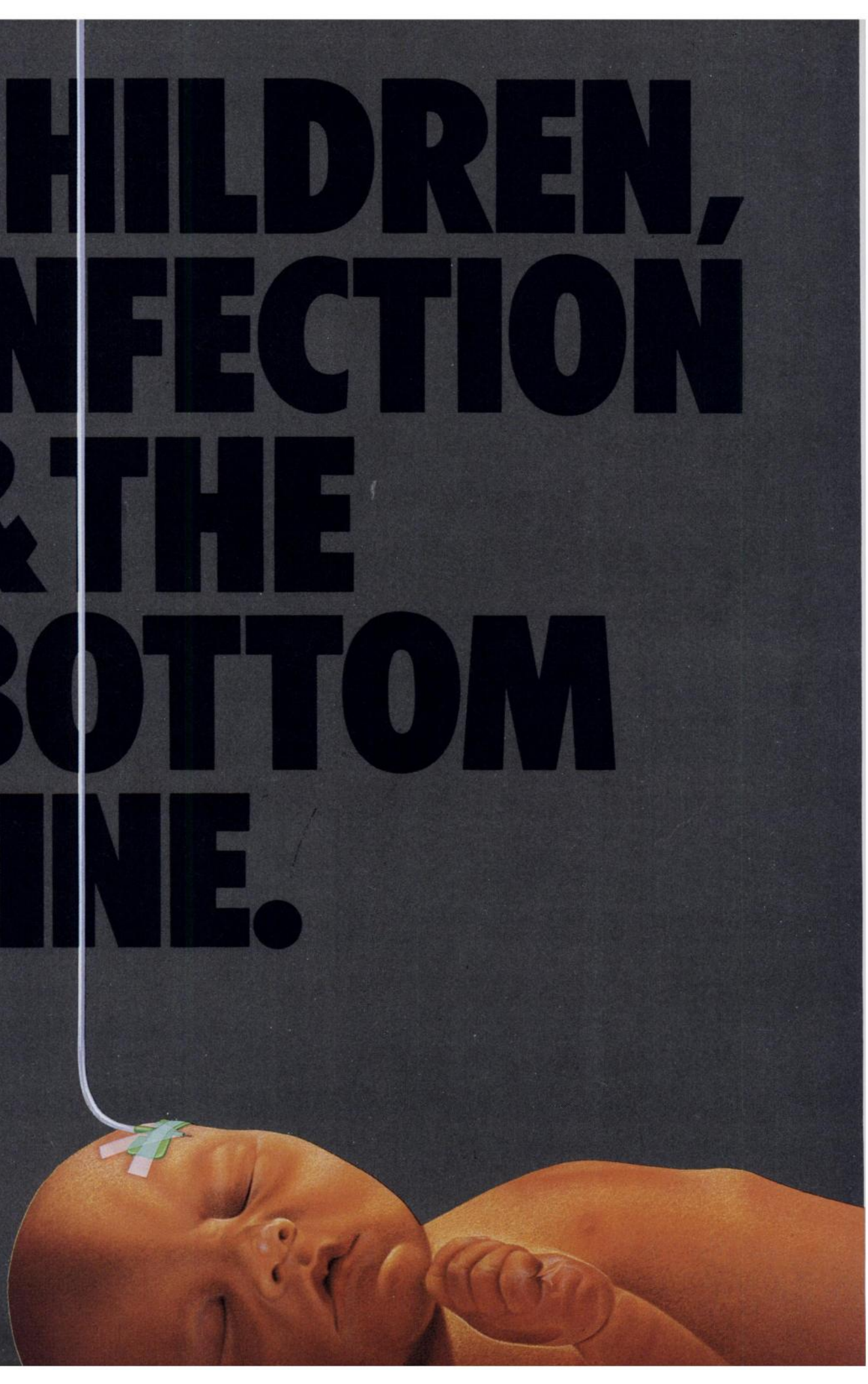
First choice for pain relief

References: 1. Cooper SA. *Arch Intern Med.* 1981;141:282-285. 2. Aspirin or paracetamol? *Lancet.* 1981;II:287-289. 3. Data on file, McNeil Consumer Products Company.

McNEIL

McNeil Consumer Products Company
Division of McNeil-PPC, Inc.
Fort Washington, PA 19034

CHILDREN, INFECTION & THE BOTTOM LINE.



Meningitis to Sepsis

The efficacy you demand

Highly effective first-line therapy for a broad range of indications in neonates, infants and older children

Prematurity to Puberty

The safety patients need

The safety of first-generation cephalosporins, without many disadvantages seen with other advanced-generation agents

Acquisition to Administration

The economy cost-containment requires

Economical q12h dosing for neonates up to 1 week of age, and q8h dosing for infants up to 4 weeks

STERILE & INJECTION

Claforan®

(cefotaxime sodium)*

*U.S. Patent No. 4,152,432.

The bottom line.

Please see following page for brief summary of prescribing information.

Claforan®

STERILE & INJECTION

(cefotaxime sodium)*

Brief Summary
INDICATIONS AND USAGE

Treatment
Claforan is indicated for the treatment of patients with serious infections caused by susceptible strains of the designated microorganisms in the diseases listed below.
(1) **Lower respiratory tract infections,** including pneumonia, caused by *Streptococcus pneumoniae* (formerly *Diplococcus pneumoniae*), *Streptococcus pyogenes*‡ (Group A streptococci) and other streptococci (excluding enterococci, e.g., *Streptococcus faecalis*), *Staphylococcus aureus* (penicillinase and non-penicillinase producing), *Escherichia coli*, *Klebsiella* species, *Haemophilus influenzae* (including ampicillin-resistant strains), *Haemophilus parainfluenzae*, *Proteus mirabilis*, *Serratia marcescens*,‡ *Enterobacter* species, indole-positive *Proteus* and *Pseudomonas* species (including *P. aeruginosa*).
(2) **Genitourinary infections,** Urinary tract infections caused by *Enterococcus* species, *Staphylococcus epidermidis*, *Staphylococcus aureus*‡ (penicillinase and non-penicillinase producing), *Citrobacter* species, *Enterobacter* species, *Escherichia coli*, *Klebsiella* species, *Proteus mirabilis*, *Proteus vulgaris*,‡ *Proteus inconstans* Group B, *Morganella morganii*,‡ *Providencia rettgeri*,‡ *Serratia marcescens*, and *Pseudomonas* species (including *P. aeruginosa*). Also, uncomplicated gonorrhea of single or multiple sites caused by *Neisseria gonorrhoeae*, including penicillinase producing strains.
(3) **Gynecologic infections,** including pelvic inflammatory disease, endometritis and pelvic cellulitis caused by *Staphylococcus epidermidis*, *Streptococcus* species, *Enterococcus* species, *Enterobacter* species,‡ *Klebsiella* species,‡ *Escherichia coli*, *Proteus mirabilis*, *Bacteroides* species (including *Bacteroides fragilis*‡), *Clostridium* species, anaerobic cocci (including *Peptostreptococcus* species and *Peptococcus* species) and *Fusobacterium* species (including *F. nucleatum*‡).
(4) **Bacteremia/Septicemia** caused by *Escherichia coli*, *Klebsiella* species, *Serratia marcescens*, *Staphylococcus aureus*, and *Streptococcus* species (including *S. pneumoniae*)
(5) **Skin and skin structure infections** caused by *Staphylococcus aureus* (penicillinase and non-penicillinase producing), *Staphylococcus epidermidis*, *Streptococcus pyogenes* (Group A streptococci) and other streptococci, *Enterococcus* species, *Acinetobacter* species,‡ *Escherichia coli*, *Citrobacter* species (including *C. freundii*‡), *Enterobacter* species, *Klebsiella* species, *Proteus mirabilis*, *Proteus vulgaris*,‡ *Morganella morganii*, *Providencia rettgeri*,‡ *Pseudomonas* species, *Serratia marcescens*, *Bacteroides* species, and anaerobic cocci (including *Peptostreptococcus*‡ species and *Peptococcus* species).
(6) **Intra-abdominal infections** including peritonitis caused by *Streptococcus* species,‡ *Escherichia coli*, *Klebsiella* species, *Bacteroides* species, anaerobic cocci (including *Peptostreptococcus*‡ species and *Peptococcus*‡ species), *Proteus mirabilis*,‡ and *Clostridium* species.‡
(7) **Bone and/or joint infections** caused by *Staphylococcus aureus* (penicillinase and non-penicillinase producing strains), *Streptococcus* species (including *S. pyogenes*‡), *Pseudomonas* species (including *P. aeruginosa*‡), and *Proteus mirabilis*.‡
(8) **Central nervous system infections,** e.g., meningitis and ventriculitis, caused by *Neisseria meningitidis*, *Haemophilus influenzae*, *Streptococcus pneumoniae*, *Klebsiella pneumoniae*,‡ and *Escherichia coli*.‡
‡ Efficacy for this organism, in this organ system, has been studied in fewer than 10 infections.

Although many strains of enterococci (e.g., *S. faecalis*) and *Pseudomonas* species are resistant to cefotaxime sodium *in vitro*, Claforan has been used successfully in treating patients with infections caused by susceptible organisms.

Specimens for bacteriologic culture should be obtained prior to therapy in order to isolate and identify causative organisms and to determine their susceptibilities to Claforan. Therapy may be instituted before results of susceptibility studies are known, however, once these results become available, the antibiotic treatment should be adjusted accordingly.

In certain cases of confirmed or suspected gram-positive or gram-negative sepsis or in patients with other serious infections in which the causative organism has not been identified, Claforan may be used concomitantly with an aminoglycoside. The dosage recommended in the labeling of both antibiotics may be given and depends on the severity of the infection and the patient's condition. Renal function should be carefully monitored, especially if higher dosages of the aminoglycosides are to be administered or if therapy is prolonged, because of the potential nephrotoxicity and ototoxicity of aminoglycoside antibiotics. Some β-lactam antibiotics also have a certain degree of nephrotoxicity. Although, to date, this has not been noted when Claforan was given alone, it is possible that nephrotoxicity may be potentiated if Claforan is used concomitantly with an aminoglycoside.

Prevention
The administration of Claforan preoperatively reduces the incidence of certain infections in patients undergoing surgical procedures (e.g., abdominal or vaginal hysterectomy, gastrointestinal and genitourinary tract surgery) that may be classified as contaminated or potentially contaminated.

In patients undergoing cesarean section, intraoperative (after clamping the umbilical cord) and postoperative use of Claforan may also reduce the incidence of certain postoperative infections. (See **DOSAGE AND ADMINISTRATION** section.)

Effective use for elective surgery depends on the time of administration. To achieve effective tissue levels, Claforan should be given ½ to 1½ hours before surgery. (See **DOSAGE AND ADMINISTRATION** section.)

For patients undergoing gastrointestinal surgery, preoperative bowel preparation by mechanical cleansing as well as with a non-absorbable antibiotic (e.g., neomycin) is recommended.

If there are signs of infection, specimens for culture should be obtained for identification of the causative organism so that appropriate therapy may be instituted.

CONTRAINDICATIONS
Claforan is contraindicated in patients who have shown hypersensitivity to cefotaxime sodium or the cephalosporin group of antibiotics.

WARNINGS
BEFORE THERAPY WITH CLAFORAN IS INSTITUTED, CAREFUL INQUIRY SHOULD BE MADE TO DETERMINE WHETHER THE PATIENT HAS HAD PREVIOUS HYPERSENSITIVITY REACTIONS TO CEFOTAXIME SODIUM, CEPHALOSPORINS, PENICILLINS, OR OTHER DRUGS. THIS PRODUCT SHOULD BE GIVEN WITH CAUTION TO PATIENTS WITH TYPE I HYPERSENSITIVITY REACTIONS TO PENICILLIN. ANTIBIOTICS SHOULD BE ADMINISTERED WITH CAUTION TO ANY PATIENT WHO HAS DEMONSTRATED SOME FORM OF ALLERGY, PARTICULARLY TO DRUGS. IF AN ALLERGIC REACTION TO CLAFORAN OCCURS, DISCONTINUE TREATMENT WITH THE DRUG. SERIOUS HYPERSENSITIVITY REACTIONS MAY REQUIRE EPINEPHRINE AND OTHER EMERGENCY MEASURES.
Pseudomembranous colitis has been reported with the use of cephalosporins (and other broad spectrum antibiotics); therefore, it is important to consider its diagnosis in patients who develop diarrhea in association with antibiotic use.

Treatment with broad spectrum antibiotics alters normal flora of the colon and may permit overgrowth of clostridia. Studies indicate a toxin produced by *Clostridium difficile* is one primary cause of antibiotic-associated colitis. Cholestyramine and colestipol resins have been shown to bind the toxin *in vitro*.

Mild cases of colitis may respond to drug discontinuance alone.

Moderate to severe cases should be managed with fluid, electrolyte, and protein supplementation as indicated.

When the colitis is not relieved by drug discontinuance or when it is severe, oral vancomycin is the treatment of choice for antibiotic-associated pseudomembranous colitis produced by *C. difficile*. Other causes of colitis should also be considered.

PRECAUTIONS
Claforan® (cefotaxime sodium) should be prescribed with caution in individuals with a history of gastrointestinal disease, particularly colitis.

Claforan has not been shown to be nephrotoxic, however, because high and prolonged serum antibiotic concentrations can occur from usual doses in patients with transient or persistent reduction of urinary output because of renal insufficiency, the total daily dosage should be reduced when Claforan is administered to such patients. Continued dosage should be determined by degree of renal impairment, severity of infection, and susceptibility of the causative organism.

Although there is no clinical evidence supporting the necessity of changing the dosage of cefotaxime sodium in patients with even profound renal dysfunction, it is suggested that, until further data are obtained, the dose of cefotaxime sodium be halved in patients with estimated creatinine clearances of less than 20 mL/min/1.73 m².

When only serum creatinine is available, the following formula (based on sex, weight, and age of the patient) may be used to convert this value into creatinine clearance. The serum creatinine should represent a steady state of renal function.

$$\text{Males: } \frac{\text{Weight (kg)} \times (140 - \text{age})}{72 \times \text{serum creatinine}}$$

$$\text{Females: } 0.85 \times \text{above value}$$

As with other antibiotics, prolonged use of Claforan may result in overgrowth of nonsusceptible organisms. Repeated evaluation of the patient's condition is essential. If superinfection occurs during therapy, appropriate measures should be taken.

As with other beta-lactam antibiotics, granulocytopenia and, more rarely, agranulocytosis may develop during treatment with Claforan®, particularly if given over long periods. For courses of treatment lasting longer than 10 days, blood counts should therefore be monitored.

Drug Interactions: Increased nephrotoxicity has been reported following concomitant administration of cephalosporins and aminoglycoside antibiotics.

Carcinogenesis, Mutagenesis: Long-term studies in animals have not been performed to evaluate carcinogenic potential. Mutagenic tests included a micronucleus and an Ames test. Both tests were negative for mutagenic effects.

Pregnancy (Category B): Reproduction studies have been performed in mice and rats at doses up to 30 times the usual human dose and have revealed no evidence of impaired fertility or harm to the fetus because of cefotaxime sodium. However, there are no well-controlled studies in pregnant women. Because animal reproductive studies are not always predictive of human response, this drug should be used during pregnancy only if clearly needed.

Nonteratogenic Effects: Use of the drug in women of childbearing potential requires that the anticipated benefit be weighed against the possible risks.

In perinatal and postnatal studies with rats, the pups in the group given 1200 mg/kg of Claforan were significantly lighter in weight at birth and remained smaller than pups in the control group during the 21 days of nursing.

Nursing Mothers: Claforan is excreted in human milk in low concentrations. Caution should be exercised when Claforan is administered to a nursing woman.

ADVERSE REACTIONS
Claforan is generally well tolerated. The most common adverse reactions have been local reactions following IM or IV injection. Other adverse reactions have been encountered infrequently.
The most frequent adverse reactions (greater than 1%) are:

Local (4.3%) – Injection site inflammation with IV administration. Pain, induration, and tenderness after IM injection.

Hypersensitivity (2.4%) – Rash, pruritus, fever, and eosinophilia.

Gastrointestinal (1.4%) – Colitis, diarrhea, nausea, and vomiting.
Symptoms of pseudomembranous colitis can appear during or after antibiotic treatment.

Nausea and vomiting have been reported rarely.
Less frequent adverse reactions (less than 1%) are:

Hematologic System – Neutropenia, transient leukopenia, eosinophilia, thrombocytopenia and agranulocytosis have been reported. Some individuals have developed positive direct Coombs Tests during treatment with Claforan® and other cephalosporin antibiotics. Rare cases of hemolytic anemia have been reported.

Genitourinary System – Moniliasis, vaginitis.

Central Nervous System – Headache.

Liver – Transient elevations in SGOT, SGPT, serum LDH, and serum alkaline phosphatase levels have been reported.

Kidney – As with some other cephalosporins, transient elevations of BUN have been occasionally observed with Claforan.

DOSAGE AND ADMINISTRATION
Adults
Dosage and route of administration should be determined by susceptibility of the causative organisms, severity of the infection, and the condition of the patient (see table for dosage guidelines). Claforan may be administered IM or IV after reconstitution. Premixed Claforan Injection is intended for IV administration after thawing. The maximum daily dosage should not exceed 12 grams.

GUIDELINES FOR DOSAGE OF CLAFORAN

Type of Infection	Daily Dose (grams)	Frequency and Route
Gonorrhea	1	1 gram IM (single dose)
Uncomplicated infections	2	1 gram every 12 hours IM or IV
Moderate to severe infections	3-6	1-2 grams every 8 hours IM or IV
Infections commonly needing antibiotics in higher dosage (e.g., septicemia)	6-8	2 grams every 6-8 hours IV
Life-threatening infections	up to 12	2 grams every 4 hours IV

To prevent postoperative infection in contaminated or potentially contaminated surgery, the recommended dose is a single 1 gram IM or IV administered 30 to 90 minutes prior to start of surgery.

Cesarean Section Patients
The first dose of 1 gram is administered intravenously as soon as the umbilical cord is clamped. The second and third doses should be given as 1 gram intravenously or intramuscularly at 6 and 12 hours after the first dose.

Neonates, Infants, and Children
The following dosage schedule is recommended:
Neonates (birth to 1 month):

0-1 week of age	50 mg/kg IV q12h
1-4 weeks of age	50 mg/kg IV q8h

It is not necessary to differentiate between premature and normal-gestational-age infants.
Infants and Children (1 month to 12 years): For body weights less than 50 kg, the recommended daily dose is 50 to 180 mg/kg IM or IV of body weight divided into four to six equal doses. The higher dosages should be used for more severe or serious infections, including meningitis. For body weights 50 kg or more, the usual adult dosage should be used; the maximum daily dosage should not exceed 12 grams.

Impaired Renal Function – see **PRECAUTIONS** section.

NOTE: As with antibiotic therapy in general, administration of Claforan should be continued for a minimum of 48 to 72 hours after the patient defervesces or after evidence of bacterial eradication has been obtained; a minimum of 10 days of treatment is recommended for infections caused by Group A beta-hemolytic streptococci in order to guard against the risk of rheumatic fever or glomerulonephritis; frequent bacteriologic and clinical appraisal is necessary during therapy of chronic urinary tract infection and may be required for several months after therapy has been completed; persistent infections may require treatment of several weeks and doses smaller than those indicated above should not be used.

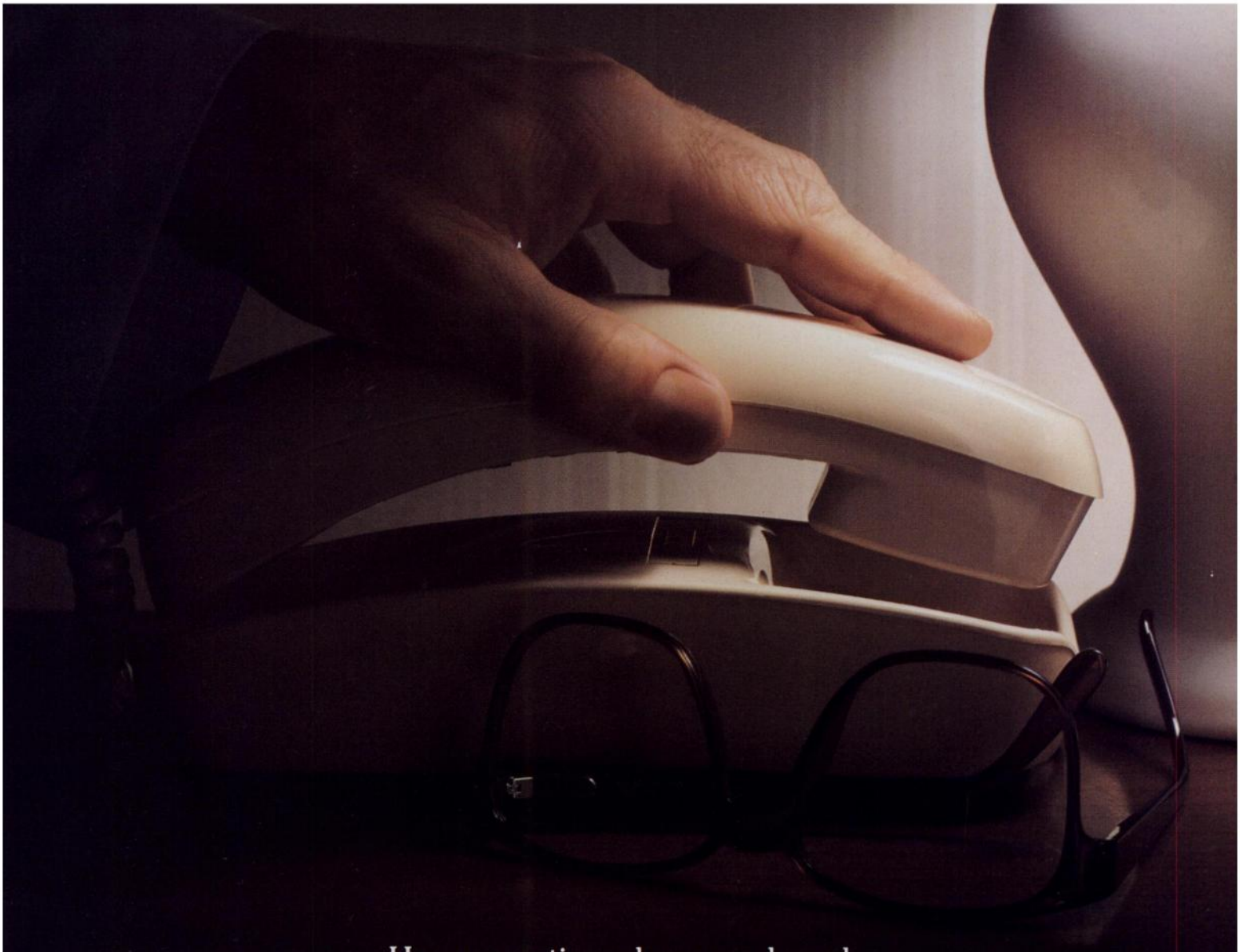
*US Patent 4,152,432 CLAFORAN REG TM ROUSSEL-UCLAF

71789T
Revised 3/89

Hoechst-Roussel Pharmaceuticals Inc.
Somerville, New Jersey 08876-1258

Hoechst

Q74338-290



How many times have you heard...

"Doctor I'm having a terrible time with my child's constipation what should I do?"

Fleet® Babylax® is the answer.

Fleet Babylax is the safe, effective medically correct solution for occasional childhood constipation that's easier on both child and mother.

Babylax, from the makers of Fleet enema, is a unique, ready-to-use disposable applicator that contains 4 ml of liquid glycerin. Babylax takes just seconds to use. The parent simply removes the protective shield, inserts the pre-lubricated applicator and squeezes the bulb dispensing the glycerin. Then the applicator is removed and discarded. A normal bowel movement should occur within 30 minutes.

Babylax eliminates all the problems of suppositories: messy insertion, lengthy melting time and discomfort for the child.

Babylax is available in most drug and food stores, in handy boxes of six disposable units.

Babylax. Another healthy innovation from C. B. Fleet Company.

For occasional use only. Use with caution in children under two years of age. For further information write: C.B. Fleet Co., Inc., Lynchburg, Va. 24506

AIDS STRIKES ROMANIAN CHILDREN

The Baltimore Sun

BUCHAREST, Romania—A full-blown AIDS crisis has hit the sick and abandoned children of Romania...

Tests by Romanian and French virologists revealed that of 1025 children under age 13 tested in hospitals and children's homes since the December revolution, 367 were HIV positive.

They are victims of direct transfusions of unchecked blood and repeated use of unsterilized hypodermic needles...

Of 460 children tested in hospitals here, 283 were HIV positive and 60 per cent of them were developing AIDS, Patrascu said.

AIDS strikes Romanian children. *The Burlington Free Press.* February 6, 1990.

Noted by J.F.L., MD

AIDS CASES IN US ROSE 9% IN 1989

ATLANTA, Feb 10 (AP)—The number of new AIDS cases in the United States rose 9 percent last year...the number of new cases grew faster among heterosexuals, newborns, women and Southerners, health officials say.

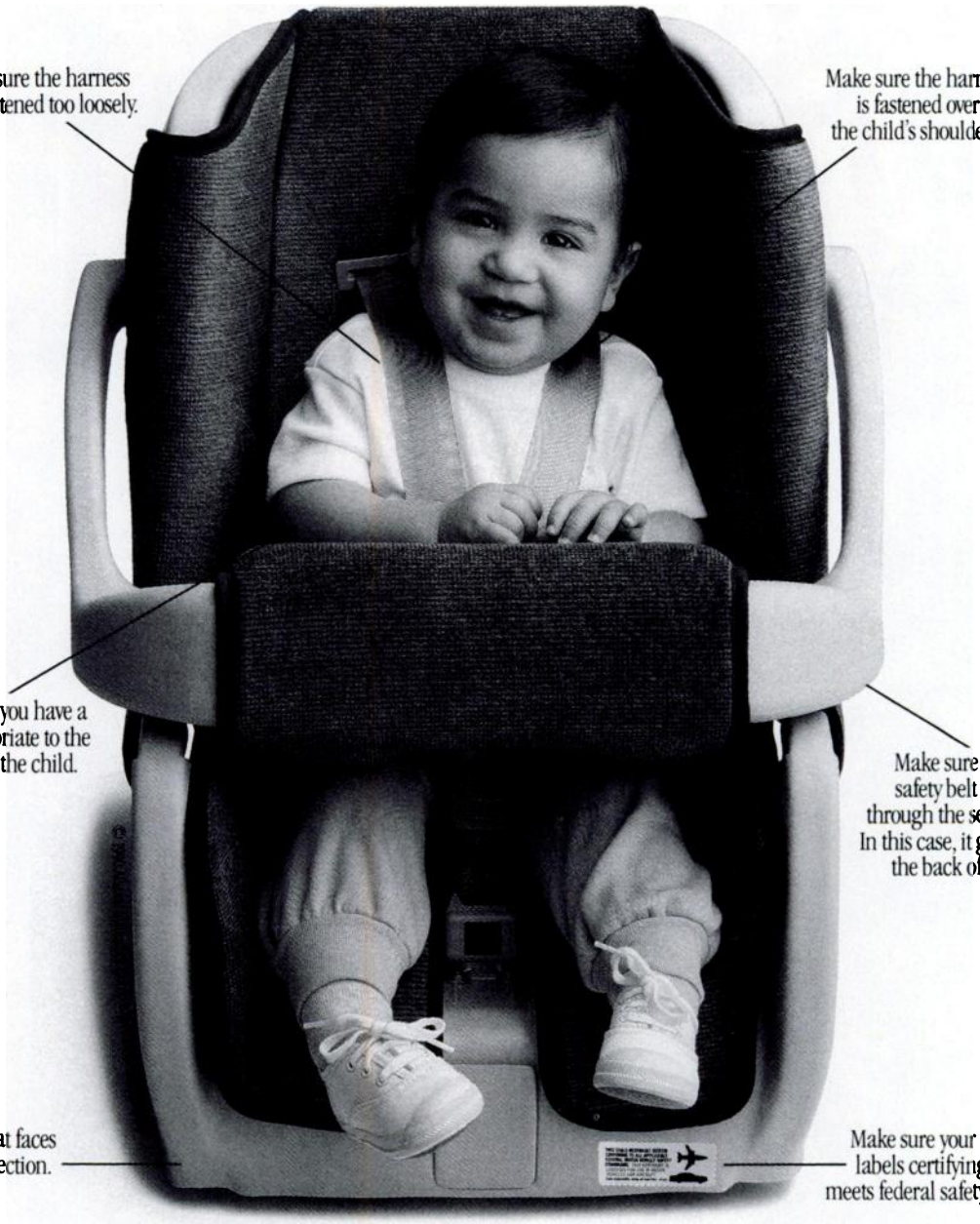
The Atlanta-based Federal health agency reported a total of 35,238 AIDS cases in 1989, compared with 32,196 in 1988...

Last year 547 cases of AIDS transmission from mothers to newborns were reported, up 17 percent from 1988. And while women accounted for only 3,931 of the 35,238 cases last year, that was an increase of 11 percent over the total for 1988...

AIDS cases in U.S. rose 9% in 1989. *The New York Times.* February 11, 1990.

Noted by J.F.L., MD

What makes a child seat safe is how an adult uses it.



One-third of all child seats aren't used correctly. It's one reason traffic accidents are the leading cause of death in children. To change that, double-check your child's seat. Read all instructions and follow them carefully.

Allstate championed child seats long before they became law in all fifty states.

Through our "Buckle Up Baby" program, we offer infant seats to employees when their children are born. That's because a child seat improves a kid's chance of surviving an accident by 70% if used correctly.

As adults, it's our job to make sure child seats are used right all the time.

A member of the Sears Financial Network

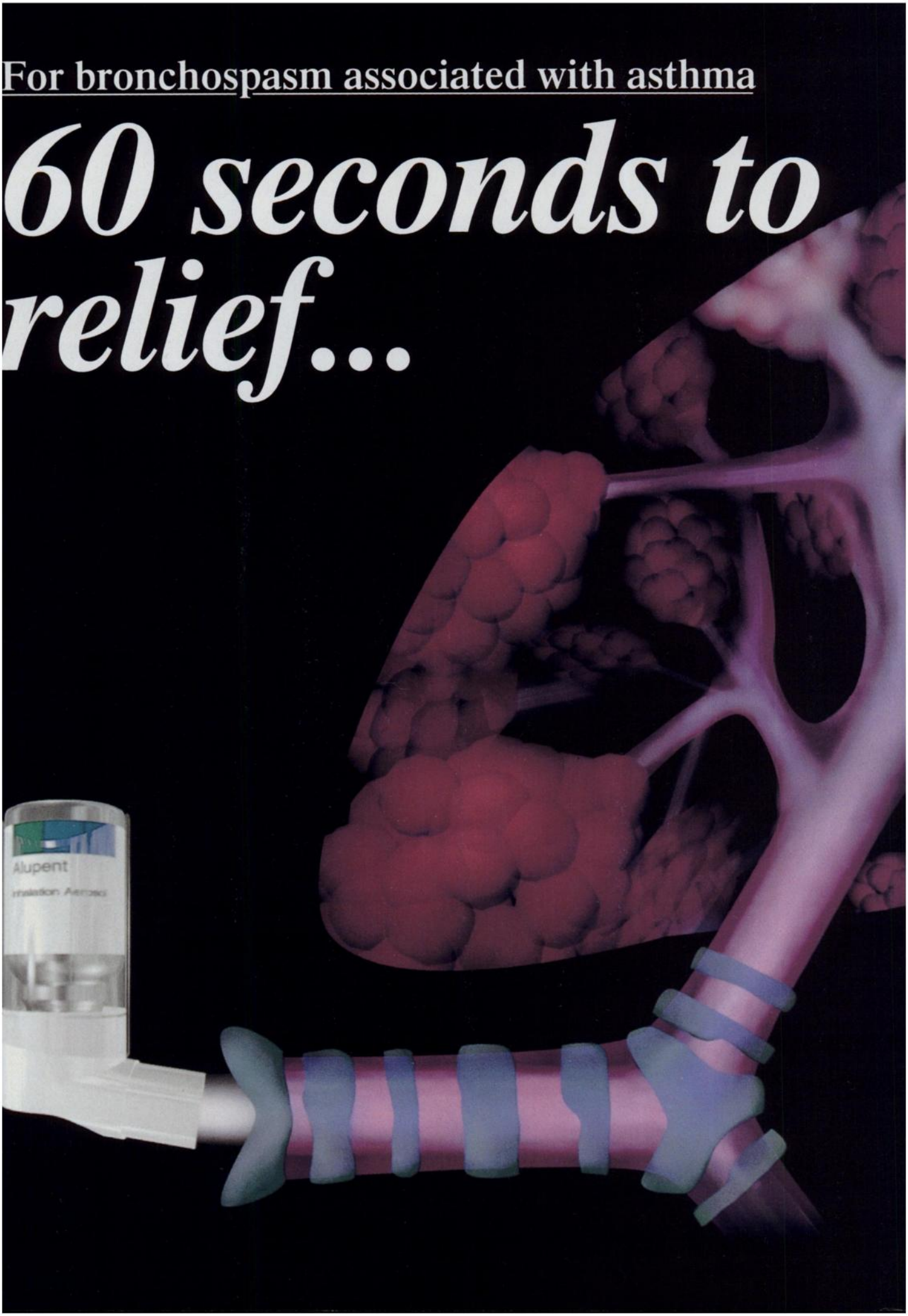
Allstate

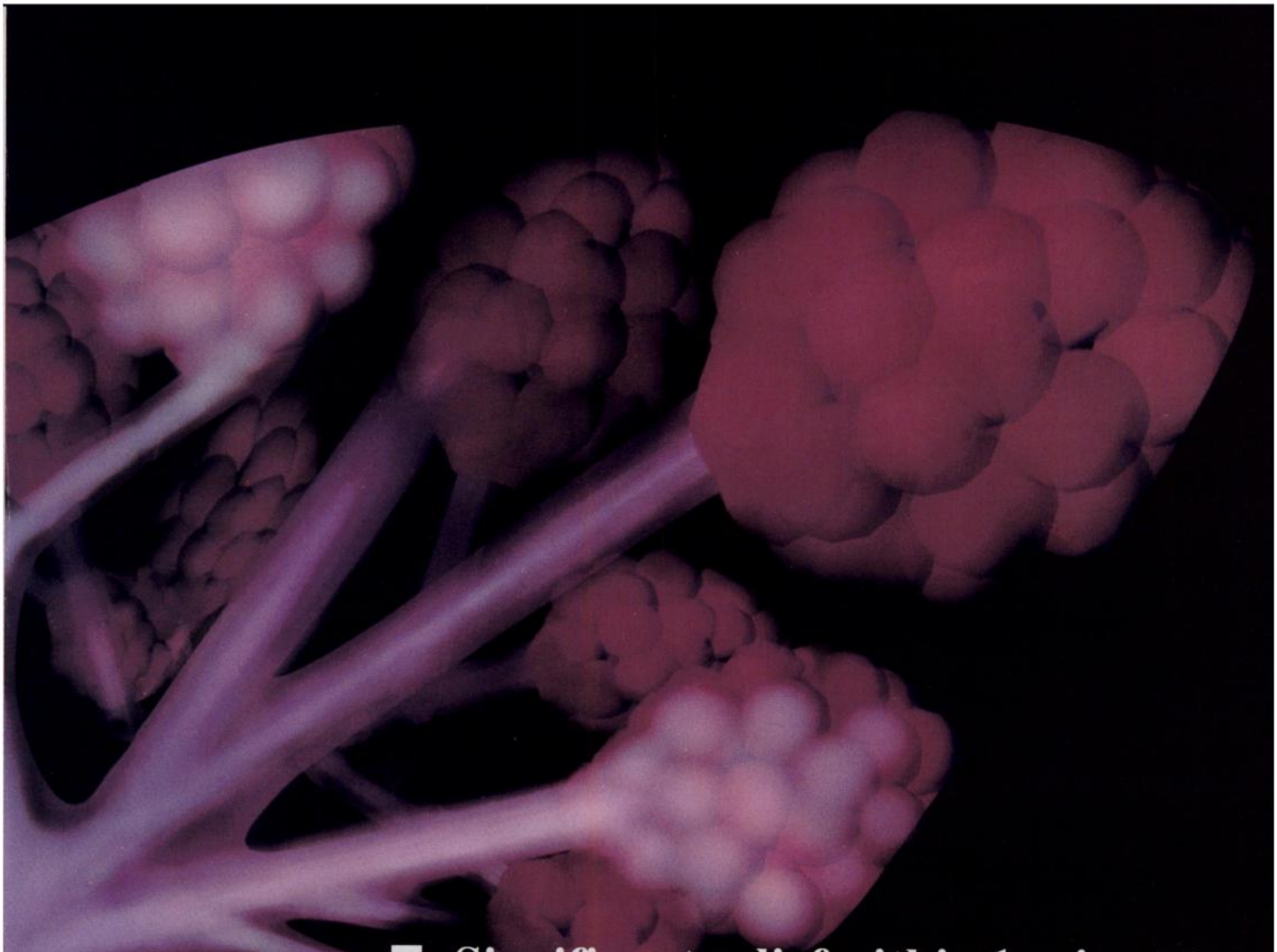
You're in good hands.

For a free poster of this ad, write to:
Allstate, Department 700, P.O. Box 7600, Mount Prospect, IL 60056-9961.

For bronchospasm associated with asthma

60 seconds to relief...





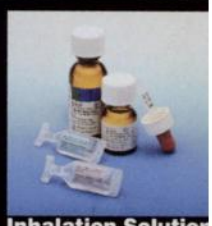
- **Significant relief within 1 minute[1] – No beta$_2$ works faster**
- **Safety profile confirmed in over 2 decades of clinical use**

Adverse reactions similar to those of other sympathomimetic agents

Fast Action, Fast Relief in Asthma

Alupent®
(metaproterenol sulfate)

Inhalation Aerosol
10 mL: 15 mg/mL (each metered dose delivers 0.65 mg metaproterenol sulfate)



Inhalation Solution
5% in 10 mL and 30 mL bottles; unit dose 0.6% and 0.4%

Please see following page for brief summary of Prescribing Information.

Boehringer Ingelheim

Boehringer Ingelheim Pharmaceuticals, Inc.
Ridgefield, CT 06877

Fast Action, Fast Relief in Asthma

Alupent®

(metaproterenol sulfate)

Inhalation Aerosol 10 mL*

***10 mL; 15 mg per mL (each metered dose delivers 0.65 mg metaproterenol sulfate)**

Bronchodilator

Brief Summary of Prescribing Information

CONTRAINDICATIONS Use in patients with cardiac arrhythmias associated with tachycardia is contraindicated.

Although rare, immediate hypersensitivity reactions can occur. Therefore, Alupent® (metaproterenol sulfate USP) Inhalation Aerosol is contraindicated in patients with a history of hypersensitivity to any of its components.

WARNINGS Fatalities have been reported following excessive use of Alupent® (metaproterenol sulfate USP) as with other sympathomimetic inhalation preparations, and the exact cause is unknown. Cardiac arrest was noted in several cases.

Alupent, like other beta adrenergic agonists, can produce a significant cardiovascular effect in some patients, as measured by pulse rate, blood pressure, symptoms, and/or ECG changes. As with other beta adrenergic aerosols, Alupent can produce paradoxical bronchospasm (which can be life-threatening). If it occurs, the preparation should be discontinued immediately and alternative therapy instituted.

Alupent®(metaproterenol sulfate USP) should not be used more often than prescribed. Patients should be advised to contact their physician in the event that they do not respond to their usual dose of a sympathomimetic amine aerosol.

PRECAUTIONS General Extreme care must be exercised with respect to the administration of additional sympathomimetic agents.

Since metaproterenol is a sympathomimetic amine, it should be used with caution in patients with cardiovascular disorders, including ischemic heart disease, hypertension or cardiac arrhythmias, in patients with hyperthyroidism or diabetes mellitus, and in patients who are unusually responsive to sympathomimetic amines or who have convulsive disorders. Significant changes in systolic and diastolic blood pressure could be expected to occur in some patients after use of any beta adrenergic bronchodilator.

Information for Patients Appropriate care should be exercised when considering the administration of additional sympathomimetic agents. A sufficient interval of time should elapse prior to administration of another sympathomimetic agent.

Drug Interactions Other beta adrenergic aerosol bronchodilators should not be used concomitantly with Alupent because they may have additive effects. Beta adrenergic agonists should be administered with caution to patients being treated with monoamine oxidase inhibitors or tricyclic antidepressants, since the action of beta adrenergic agonists on the vascular system may be potentiated.

Carcinogenesis/Mutagenesis/Impairment of Fertility In an 18-month study in mice, Alupent produced an increase in benign ovarian tumors in females at doses corresponding to 320 and 640 times the maximum recommended dose (based on a 50 kg individual). In a 2-year study in rats, a nonsignificant incidence of benign leiomyomata of the mesovarium was noted at 640 times the maximum recommended dose. The relevance of these findings to man is not known. Mutagenic studies with Alupent have not been conducted. Reproduction studies in rats revealed no evidence of impaired fertility.

Pregnancy/Teratogenic Effects *PREGNANCY CATEGORY C* Alupent has been shown to be teratogenic and embryotoxic in rabbits when given in doses corresponding to 640 times the maximum recommended dose. These effects included skeletal abnormalities, hydrocephalus and skull bone separation. Results of other studies in rabbits, rats or mice have not revealed any teratogenic, embryocidal or fetotoxic effects. There are no adequate and well-controlled studies in pregnant women. Alupent should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Nursing Mothers It is not known whether Alupent is excreted in human milk; therefore, Alupent should be used during nursing only if the potential benefit justifies the possible risk to the newborn.

Pediatric Use Safety and effectiveness in children below the age of 12 have not been established. Studies are currently under way in this age group.

ADVERSE REACTIONS Adverse reactions are similar to those noted with other sympathomimetic agents.

The most frequent adverse reaction to Alupent® (metaproterenol sulfate USP) administered by metered-dose inhaler among 251 patients in 90-day controlled clinical trials was nervousness. This was reported in 6.8% of patients. Less frequent adverse experiences, occurring in 1% to 4% of patients were headache, dizziness, palpitations, gastrointestinal distress, tremor, throat irritation, nausea, vomiting, cough and asthma exacerbation. Tachycardia occurred in less than 1% of patients.

HOW SUPPLIED Each Alupent® (metaproterenol sulfate USP) Inhalation Aerosol contains 150 mg of metaproterenol sulfate as a micronized powder in inert propellants. Each metered dose delivers through the mouthpiece 0.65 mg metaproterenol sulfate (each mL contains 15 mg). Alupent Inhalation Aerosol with Mouthpiece (NDC 0597-0070-17), net contents 14 g (10 mL), equipped with blue protective cap. Alupent Inhalation Aerosol Refill (NDC 0597-0070-18), net contents 14 g (10 mL).

Store between 59°F (15°C) and 77°F (25°C). Avoid excessive humidity.

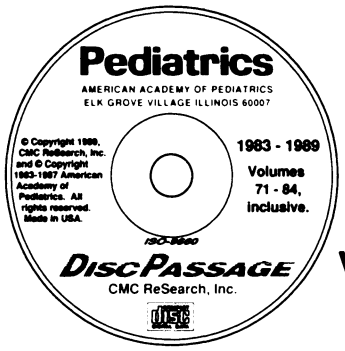
Consult package insert before prescribing. **AL-BS-10/89**

Reference:
1. Reilly EB, Rodgers JM, Bickerman HA. A comparison of the onset of bronchodilator activity of metaproterenol and isoproterenol aerosols. *Curr Ther Res.* 1974;16(8):759-764.

AL-4431

Boehringer Ingelheim

Boehringer Ingelheim
Pharmaceuticals, Inc.
Ridgefield, CT 06877



NEW!

PEDIATRICS *on disc!* 1983 - 1989 Volumes 71-84

- **Full text & images from seven years on a single compact disc**
- **Color and black & white images, radiographs, line art, tables**
- **Locate vital data in seconds**
- **Instant access through author, subject, keyword, or title search**
- **Store 84 issues + supplements in 1/4" of shelf space**
- **Utilizes IBM or compatible PC, external CD-ROM player, VGA monitor, and video adaptor card**
- **Retail price of disc: $395.00**
- **10% discount to AAP members**

Produced for the
American Academy of Pediatrics
exclusively by CMC ReSearch, Inc.

☐ Send **Pediatrics *on disc!*** @ $355.50 + shipping

Terms: ☐ Check enclosed ☐ VISA
☐ MasterCard ☐ American Express

Card # _____ Expires _____

☐ Send more information on CD-ROM technology

☐ Phone me @ _____

Name _____

Address _____

City/State/Zip _____

Signature _____

Date _____

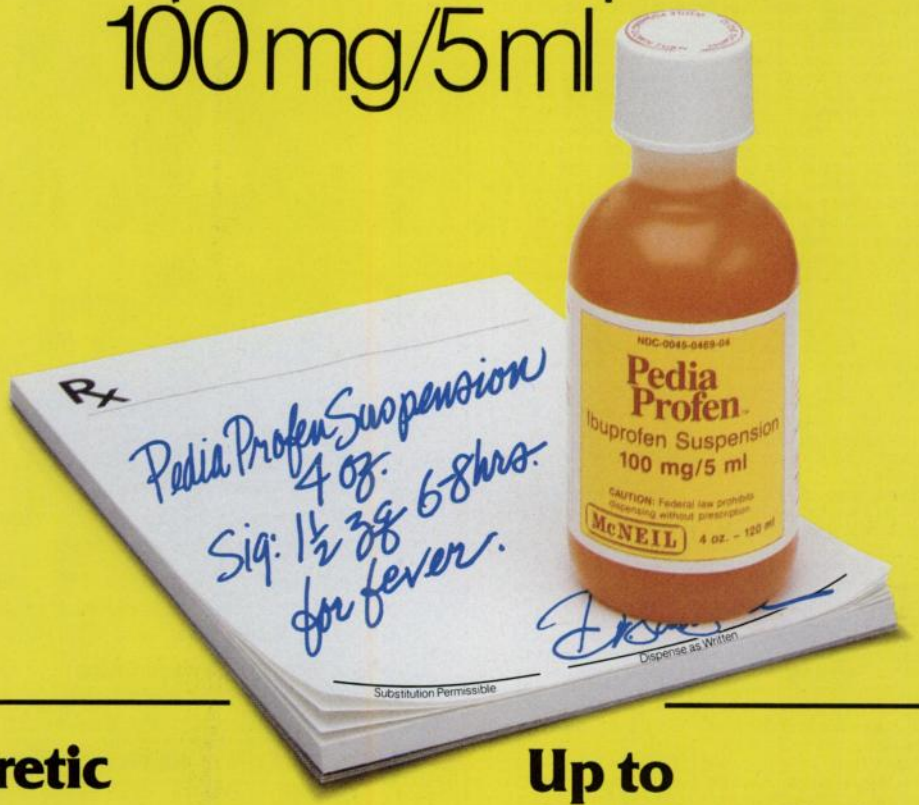
CMC ReSearch, Inc.

7150 SW Hampton
Suite 120
Portland, OR 97223
(503) 639-3395

A new alternative for fever

Pedia Profen™

Ibuprofen Suspension 100 mg/5 ml



Antipyretic efficacy

In children with temperatures greater than 102.5° F, ibuprofen 10 mg/kg is more effective than ibuprofen 5 mg/kg or acetaminophen 10 mg/kg! And the only ibuprofen suspension indicated for use in children as young as 6 months is PediaProfen.

Up to 8-hour relief

Ibuprofen 10 mg/kg provides longer duration of antipyresis than acetaminophen[1,2]—up to 8 hours of relief. That means fewer interruptions in the family's work, school, or sleep schedules. And PediaProfen is pleasant-tasting, so it's easy to take.

COMPREHENSIVE FEVER MANAGEMENT FROM McNEIL

References: 1. Walson PD, et al. Ibuprofen, acetaminophen and placebo treatment of febrile children. *Clin Pharmacol Ther.* 1989;46:9-17. 2. Data on file, McNeil Consumer Products Company.

Please see Brief Summary of Prescribing Information on the next page.

McNEIL CONSUMER PRODUCTS CO.
Division of McNeil-PPC, Inc.
Fort Washington, PA 19034 USA

A new alternative for fever

PediaProfen™

Ibuprofen Suspension 100 mg/5 ml

The following is a brief summary only. Before prescribing, see complete prescribing information in **PediaProfen** labeling.

INDICATIONS AND USAGE: PediaProfen is indicated for the reduction of fever in patients aged 6 months and older, and for the relief of mild-to-moderate pain in patients aged 12 years and older.

CLINICAL PHARMACOLOGY: Controlled clinical trials comparing doses of 5 and 10 mg/kg ibuprofen and 10-15 mg/kg of acetaminophen have been conducted in children 6 months to 12 years of age with fever primarily due to viral illnesses. In these studies there were no differences between treatments in fever reduction for the first hour and maximum fever reduction occurred between 2 and 4 hours. Response after 1 hour was dependent on both the level of temperature elevation as well as the treatment. In children with baseline temperatures at or below 102.5°F, both ibuprofen doses and acetaminophen were equally effective in their maximum effect. In those children with temperatures above 102.5°F, the ibuprofen 10 mg/kg dose was more effective. By 6 hours children treated with ibuprofen 5 mg/kg tended to have recurrence of fever, whereas children treated with ibuprofen 10 mg/kg still had significant fever reduction at 8 hours. In control groups treated with 10 mg/kg acetaminophen, fever reduction resembled that seen in children treated with 5 mg/kg of ibuprofen, with the exception that temperature elevation tended to return 1-2 hours earlier.

CONTRAINDICATIONS: PediaProfen should not be used in patients who have previously exhibited hypersensitivity to ibuprofen, or in individuals with all or part of the syndrome of nasal polyps, angioedema and bronchospastic reactivity to aspirin or other nonsteroidal anti-inflammatory agents. Anaphylactoid reactions have occurred in such patients.

WARNINGS: Risk of GI Ulceration, Bleeding and Perforation with NSAID Therapy. Serious gastrointestinal toxicity such as bleeding, ulceration, and perforation, can occur at any time, with or without warning symptoms, in patients treated chronically with NSAID therapy. Although minor upper gastrointestinal problems, such as dyspepsia, are common, usually developing early in therapy, physicians should remain alert for ulceration and bleeding in patients treated chronically with NSAIDs even in the absence of previous GI tract symptoms. In patients observed in clinical trials of several months to two years duration, symptomatic upper GI ulcers, gross bleeding or perforation appear to occur in approximately 1% of patients treated for 3-6 months, and in about 2-4% of patients treated for one year. Physicians should inform patients about the signs and/or symptoms of serious GI toxicity and what steps to take if they occur.

Studies to date have not identified any subset of patients not at risk of developing peptic ulceration and bleeding. Except for a prior history of serious GI events and other risk factors known to be associated with peptic ulcer disease, such as alcoholism, smoking, etc., no risk factors (e.g., age, sex) have been associated with increased risk. Elderly or debilitated patients seem to tolerate ulceration or bleeding less well than other individuals and most spontaneous reports of fatal GI events are in this population. Studies to date are inconclusive concerning the relative risk of various NSAIDs in causing such reactions. High doses of any NSAID probably carry a greater risk of these reactions, although controlled clinical trials showing this do not exist in most cases. In considering the use of relatively large doses (within the recommended dosage range), sufficient benefit should be anticipated to offset the potential increased risk of GI toxicity.

PRECAUTIONS: General: Blurred and/or diminished vision, scotomata, and/or changes in color vision have been reported. If a patient develops such complaints while receiving **PediaProfen**, the drug should be discontinued and the patient should have an ophthalmologic examination which includes central visual fields and color vision testing.

Fluid retention and edema have been reported in association with ibuprofen; therefore, the drug should be used with caution in patients with a history of cardiac decompensation or hypertension.

PediaProfen, like other nonsteroidal anti-inflammatory agents, can inhibit platelet aggregation, but the effect is quantitatively less and of shorter duration than that seen with aspirin. Ibuprofen has been shown to prolong bleeding time (but within the normal range) in normal subjects. Because this prolonged bleeding effect may be exaggerated in patients with underlying hemostatic defects, **PediaProfen** should be used with caution in persons with intrinsic coagulation defects and those on anticoagulant therapy.

Patients on **PediaProfen** should report to their physicians signs or symptoms of gastrointestinal ulceration or bleeding, blurred vision or other eye symptoms, skin rash, weight gain, or edema.

In order to avoid exacerbation of disease of adrenal insufficiency, patients who have been on prolonged corticosteroid therapy should have their therapy tapered slowly rather than discontinued abruptly when ibuprofen is added to the treatment program.

The antipyretic and anti-inflammatory activity of **PediaProfen** may reduce fever and inflammation, thus diminishing their utility as diagnostic signs in detecting complications of presumed noninfectious, noninflammatory painful conditions.

Since ibuprofen is eliminated primarily by the kidney, patients with significantly impaired renal function should be closely monitored and a reduction in dosage should be anticipated to avoid drug accumulation. Prospective studies on the safety of ibuprofen in patients with chronic renal failure have not been conducted.

Safety and efficacy of **PediaProfen** in children below the age of 6 months has not been established.

Pregnancy: Reproductive studies conducted in rats and rabbits at doses somewhat less than the maximal clinical dose did not demonstrate evidence of developmental abnormalities. However, animal reproduction studies are not always predictive of human response. As there are no adequate and well-controlled studies in pregnant women, this drug should be used during pregnancy only if clearly needed. Because of the known effects of nonsteroidal anti-inflammatory drugs on the fetal cardiovascular system (closure of ductus arteriosus), use during late pregnancy should be avoided. As with other drugs known to inhibit prostaglandin synthesis, an increased incidence of dystocia and delayed parturition occurred in rats. Administration of **PediaProfen** is not recommended during pregnancy.

ADVERSE REACTIONS: The most frequent type of adverse reaction occurring with ibuprofen is gastrointestinal. In controlled clinical trials, the percentage of adult patients reporting one or more gastrointestinal complaints ranged from 4% to 16%.

Adverse reactions occurring in 3% to 9% of patients treated with ibuprofen: nausea, epigastric pain, heartburn, dizziness, rash. *Adverse reactions occurring in 1% to 3% of patients:* diarrhea, abdominal distress, nausea and vomiting, indigestion, constipation, abdominal cramps or pain, fullness of GI tract, headache, nervousness, pruritus, tinnitus, decreased appetite, edema, fluid retention (generally responds promptly to drug discontinuation). Still other reactions (less than 1 in 100) have been reported, and are detailed in the full summary of prescribing information.

DOSAGE AND ADMINISTRATION: Shake well prior to administration.

Fever Reduction in Children 6 months to 12 years of age: Dosage should be adjusted on the basis of the initial temperature level (See CLINICAL PHARMACOLOGY for a description of the controlled clinical trial results). The recommended dose is 5 mg/kg if the baseline temperature is less than 102.5°F or 10 mg/kg if the baseline temperature is greater than 102.5°F. The duration of fever reduction is generally 6-8 hours and is longer with the higher dose. The recommended maximum daily dose is 40 mg/kg.

Mild to moderate pain: 400 mg every 4 to 6 hours as necessary for the relief of pain in adults.

In controlled analgesic clinical trials, doses of ibuprofen greater than 400 mg were no more effective than 400 mg dose.

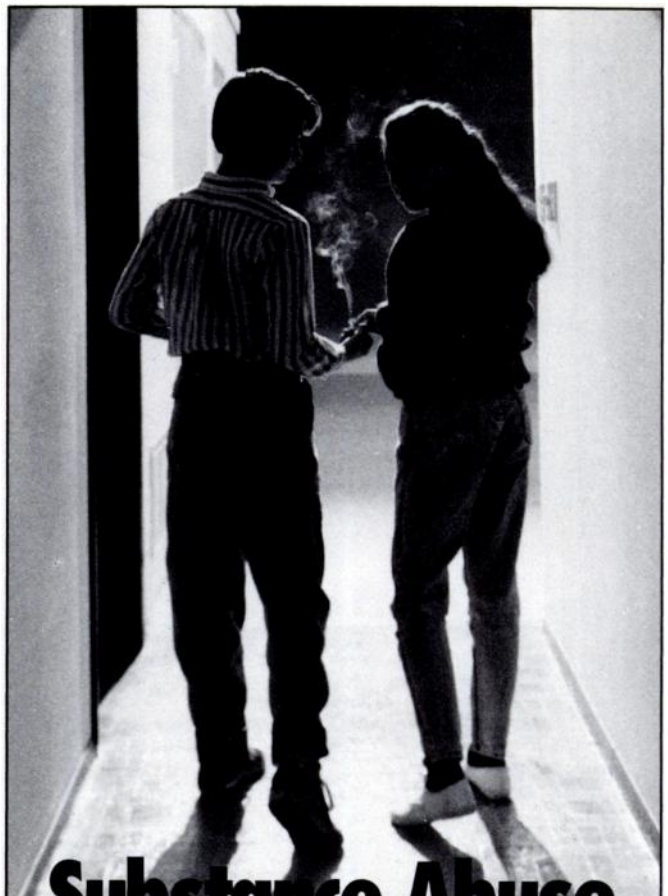
HOW SUPPLIED: PediaProfen Ibuprofen Suspension 100 mg/5 ml (teaspoon)—orange, berry-vanilla flavored

Bottles of 4 oz (120 ml) ..... NDC 0045-0469-04
Bottles of 16 oz (480 ml) ..... NDC 0045-0469-16

SHAKE WELL BEFORE USING. Store at room temperature.

Caution: Federal law prohibits dispensing without prescription.

McNEIL **McNEIL CONSUMER PRODUCTS CO.**
DIVISION OF McNEIL-PPC, INC.
FORT WASHINGTON, PA 19034 USA



Substance Abuse

New Patient Literature from the American Academy of Pediatrics

For thousands of kids, the daily eye-opener is orange juice—and vodka. Cocaine can easily be had for lunch money, and marijuana use is so accepted that 5th and 6th graders are blasé about it.

Substance abuse has become a major problem. And the toll? The future of millions of children.

To help you reach these children at risk, the American Academy of Pediatrics has prepared a series of three pamphlets on substance abuse:

Alcohol: Your Child and Drugs
Cocaine: Your Child and Drugs
Marijuana: Your Child and Drugs

Designed for parents of adolescents, these pamphlets explain in a clear, factual and nonjudgmental way:

- The physical, mental and emotional dangers of marijuana, cocaine and alcohol.
- How to recognize stages of drug use.
- How to help children say "no" to drugs.

The Substance Abuse brochures are specially priced: a pack of 300 brochures—100 each of **Cocaine, Marijuana,** and **Alcohol**—is only $40 for AAP members ($55 for nonmembers). Order today by calling the Academy toll-free: 1-800-433-9016 (in Illinois, 1-800-421-0589).

American Academy of Pediatrics

We turn waiting time into learning time

At no cost to you or your patients, HealthLink Television can turn waiting time into a positive educational experience.

We'll install a TV, videodisc player, patient information material, and hours of healthcare programming, turning your waiting room into an informative extension of your practice.

Affiliated with Lifetime Medical Television and produced in cooperation with the American Academy of Pediatrics, HealthLink Television provides families with the information they want and the quality you expect.

For a free enrollment kit and program samples, call 1-800-969-LINK.

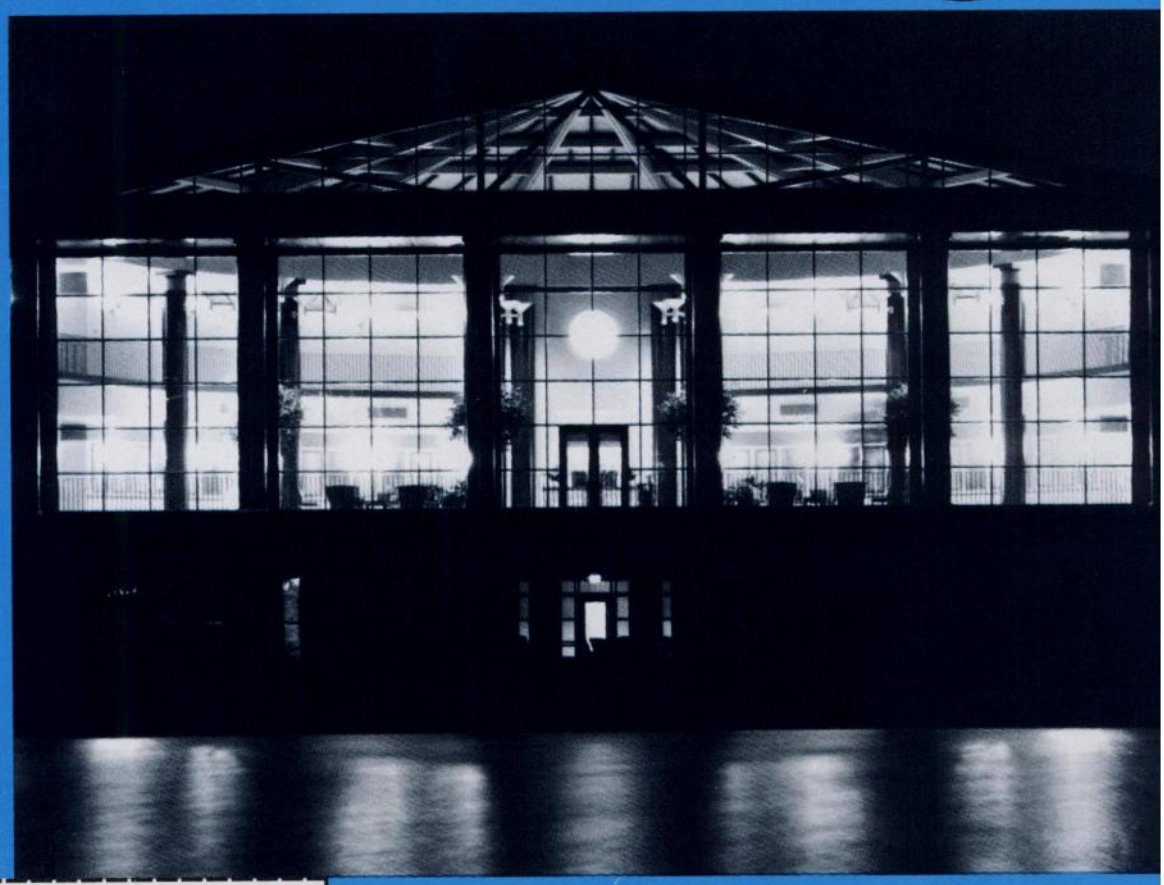
HealthLink TELEVISION

A new way to look at patient education

ex · clu · sive*

**for members only*

their families and employees



FREE INFORMATION REQUEST

Please send me the benefit information, rates and applications on the following Academy Insurance Benefit Plan(s):

- ☐ Disability Income Protection
- ☐ Office Overhead Expense
- ☐ Group Term Life
- ☐ $1,000,000 Comprehensive Major Medical
- ☐ Daily Hospital Benefit
- ☐ Dental
- ☐ Group I.R.A.*
- ☐ UNIVERSAL LIFE
  (Universal Life Plan is available in most states)

*Read the prospectus before investing or forwarding funds.

Name _____

Address _____

City _____ State _____ Zip _____

☐ Please call me/Phone No.: (_____) _____
Area Code

NOT A MEMBER OF THE ACADEMY?

Check this box for AAP Membership Information ☐

MAIL TO: Pediatrics Insurance Consultants, Inc.
799 W. Roosevelt Rd. • Bldg. 6 • Suite 215
Glen Ellyn, IL 60137-5903

P-790

Find out about these low-cost group plans for members of the American Academy of Pediatrics

We have developed a series of easy-to-understand brochures on The Academy's Benefit Plans. Mail the coupon at the left to receive Free Information (including brochures, applications and rates) on any of the AAP Benefit Plans listed.

If you are interested in the new UNIVERSAL LIFE INSURANCE PLAN (described on right-hand page) and would like to receive a Personalized Plan Illustration, showing how your money grows, tax-deferred, mail the coupon at the right or call our toll-free number.

NEW!
Tax-Deferred
UNIVERSAL LIFE PLAN

AVAILABLE IN MOST STATES

Mail coupon below for a Personalized Plan Illustration

endorsed by
The American Academy of Pediatrics

administered by
Pediatrics Insurance Consultants, Inc.
who are available direct-by-phone to provide information, rate quotations and assistance on any of the Academy's insurance benefit plans.

VALUE

- **High first year cash value**
- **Low expense load**
- **Immediate Liquidity**
- **No surrender charge**

FLEXIBILITY

- **Flexible premium**
- **Adjustable death benefit**
- **Tax deferred benefit build-up**

SECURITY

- **Underwritten by**
  Ameritas Life Insurance Corp.
  Bankers Life Nebraska
  An A+ (Superior)
  century-old company

Complete the coupon below for your Personalized Plan Illustration, showing the future build-up of tax deferred earnings and life insurance benefits, based on your age and size of premium.

To get your Personalized Plan Illustration *quicker* call toll-free

1-800-257-3220

In Canada call collect 1-708-790-3100

Pediatrics Insurance Consultants, Inc.
799 W. Roosevelt Rd. • Bldg. 6 • Suite 215
Glen Ellyn, IL 60137-5903

REQUEST FOR FREE *Personalized Plan Illustration of Universal Life Insurance*

Yes, send me complete information and a Personalized Plan Illustration on the new Tax-Deferred Universal Life Plan.

_____ Date of Birth
Male ☐ Female ☐
Non-Smoker ☐ Yes ☐ No

Name _____

Address _____

City _____ State _____ Zip _____

We will need your phone number to get your personal data for a Personalized Plan Illustration (_____) _____
Area Code

☐ Currently, I am considering a Universal Life Insurance proposal. Please send me a competitive proposal based on:

Face Amount (insurance): $_____

Annual Premium: $_____

MAIL TO: Pediatrics Insurance Consultants, Inc.
799 W. Roosevelt Rd. • Bldg. 6 • Suite 215
Glen Ellyn, IL 60137-5903

P-790

Part 1: AS DRUG BABIES GROW OLDER, SCHOOLS STRIVE TO MEET THEIR NEEDS

Los Angeles—The children look like a casting call for Sesame Street, but they carry unseen burdens.

One slim, six-year-old boy sits on the floor with his classmates happily singing an alphabet song. Two years ago, he used to throw hour-long temper tantrums. He would build a tower of blocks, then shout that it was on fire and knock it down. Last year, while classmates watched the space shuttle blast off on television, he banged on his desk and cried.

What little his teachers know of his background helps explain some of his problems. While pregnant with him, his mother used alcohol, cocaine and PCP. After he was born, she would abandon him from time to time in deserted buildings. Once, a building exploded in flames when he was inside. "He had an area in the schoolroom where he could just go and cry," says a social worker at his school.

The troubled boy is part of a pilot project here for children exposed to drugs in their mothers' wombs. These 30 or so preschoolers and kindergarteners represent the advance guard of a generation of drug babies who are growing up and starting school. The project's goal is to provide early help to children who are of normal intelligence but considered at high risk for developmental,behavioral and learning problems.

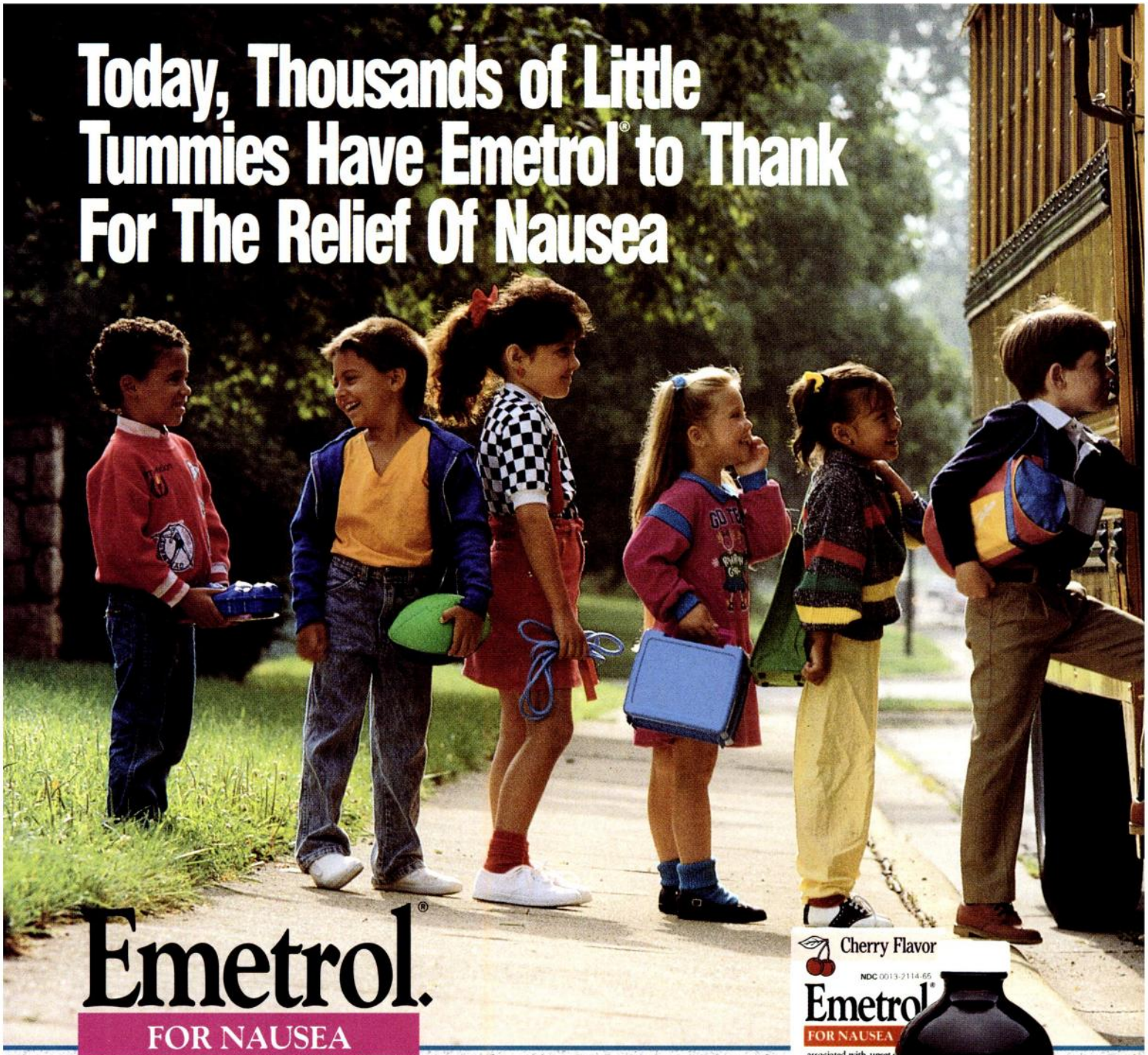
Researchers are just now beginning to uncover a web of problems related to prenatal exposure to crack and other drugs, though much still is not known of the long-term effects. A child's ability to learn may be hampered. A child may have difficulty developing strong attachments for others. Extremes of behavior are common, from apathy to aggression, passivity to hyperactivity, indiscriminate trust to extreme suspicion.

The numbers of afflicted children are multiplying, especially in drug-laden urban areas. Within a few years, 40% to 60% of the children in some inner-city schools will have been prenatally exposed to drugs, predicts [a] clinical professor of pediatrics at the University of California, Los Angeles, School of Medicine, whose research helped spark the project.

Even the suburbs and the urban enclaves of the well-to-do are likely to see the effects of the drug epidemic in their classrooms soon. A 1988 survey of 36 urban and suburban hospitals found that 11% of the newborns had been exposed to drugs in the womb.

Trost C. Second Chance. *The Wall Street Journal.* December 27,1989.

Today, Thousands of Little Tummies Have Emetrol® to Thank For The Relief Of Nausea



Emetrol®

FOR NAUSEA

For over 30 years, physicians have recommended Emetrol for nausea associated with upset stomach of:

- Intestinal Flu
- Food Indiscretions
- Emotional Upsets

They prefer Emetrol because of its:

Safety...Non-toxic. No antihistamine side effects. No alcohol. No caffeine. No drowsiness. No salicylates. Does not mask symptoms of underlying pathology.

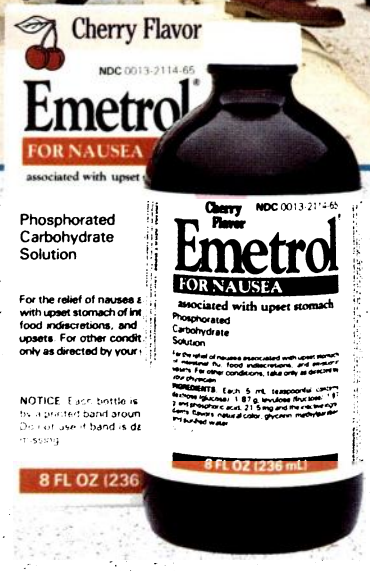
Effectiveness...Works almost immediately by local action on the wall of the hyperactive G.I. tract to reduce smooth-muscle contractions.

Emetrol contains levulose (fructose), dextrose (glucose) and phosphoric acid with controlled hydrogen ion concentration. It should not be taken by diabetics except under the advice and supervision of a physician, or by persons with hereditary fructose intolerance (HFI).

High Patient Compliance...Emetrol now comes in two great tasting flavors—original lemon-mint and cherry—and is low in cost.

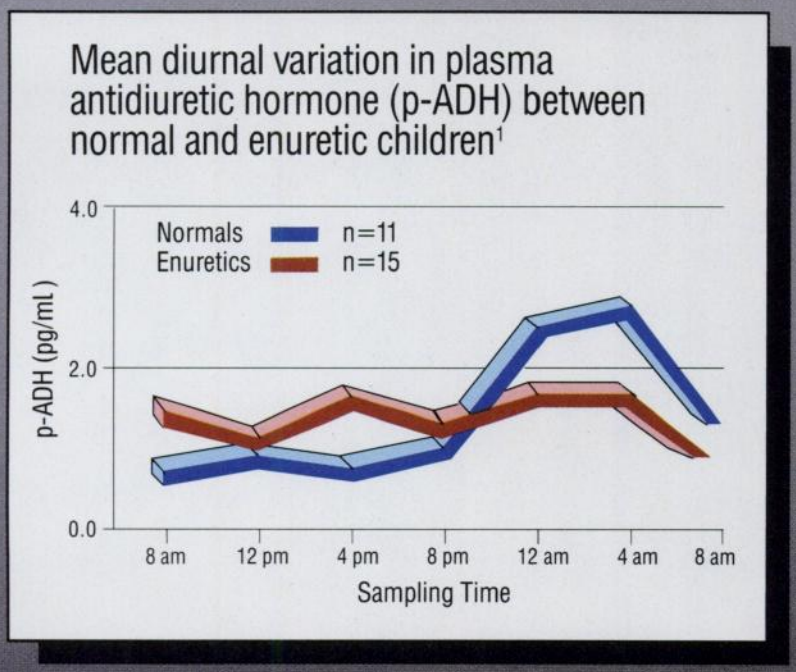
Convenience...No Rx required. Ideal for telephone recommendations. Available in 4, 8 and 16 oz. sizes.

Recommend Emetrol all year long for the relief of nausea associated with upset stomach. It's the liquid antinauseant pediatricians count on most.



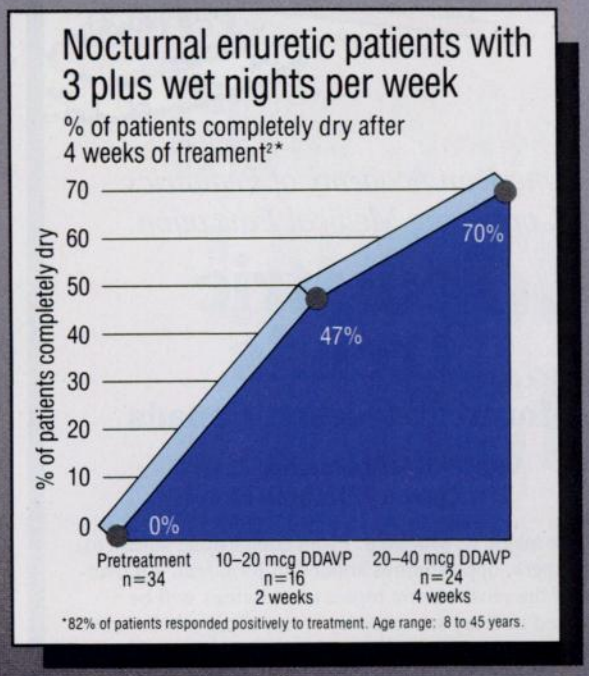
Now Available In Cherry and Original Lemon-Mint.

Landmark study concludes: Enuretic children may lack diurnal rhythm of ADH common in non-enuretic children[1]



The ADH Deficit

The first physiologic treatment for nocturnal enuresis



- DDAVP Nasal Spray, a synthetic analog of naturally occurring ADH, provides physiologic control of nighttime urine production in children 6 years of age or older[1-4]
- Clinically proven in all degrees of primary nocturnal enuresis, even in many patients resistant to imipramine and alarms[3]
- Easy to use — metered-dose nasal spray administered at bedtime
- Outstanding safety record in pediatric and adult patients[5]

DDAVP® Nasal Spray
(desmopressin acetate) 5mL

Safely Corrects the ADH Deficit

Please see next page for brief summary of prescribing information.

Part 2: AS DRUG BABIES GROW OLDER, SCHOOLS STRIVE TO MEET THEIR NEEDS

Most schools are ill-prepared to handle, much less nourish, . . .drug-exposed children. . .Their disabilities often frustrate teachers who may not be familiar with their backgrounds.On a recent day, the classroom at the Salvin Special Education School crackles with the combustible energy of three- and four-year-olds pushing dolls in strollers and hurtling down slides. A girl crawls on a visitor's lap. She says playing outside and coloring are her favorite things to do.

She is being raised by her 50-year-old father, who teachers say started using heroin at age 13. Her 26-year-old mother has to go to meetings because she uses drugs, the child says. Her grandmother died of AIDS, contracted from her husband, a drug addict.

Teachers say the little girl is doing well in school, but her actions sometimes betray a wellspring of frustration. Once, a teacher recalls, the child was playing in a sandbox when she got upset. She reached into her sock and pretended to pull out a knife to jab at a boy's face.

Teachers also see more subtle signs of the children's drug exposure and fragmented lives. A girl demands to be left alone, bumps into walls, or stares blankly into space. A boy screams and throws himself on the floor because he wants to be picked up but can't express himself.

On the average, the children in the pilot project have been placed in three different homes; some have been shuffled through as many as seven or eight. Most of the children are being reared by foster parents or grandparents.

Children are referred to the program by hospitals, social service agencies and foster-care providers. But only a tiny percentage can be accepted.

Caring for drug-damaged children demands an extraordinary commitment from the staff - in and out of the classroom. Some ferry children to after-school parties they normally would have missed for lack of transportation. Others spend long hours with children's families or caseworkers.But such care is costly. The Los Angeles Unified School District pays up to $18,000 a year to educate each of these children. In contrast, it pays an average of $4,000 a year per child in its regular classrooms.

Trost C. Second chance. *The Wall Street Journal.* December 27, 1989.

Liquid decongestant/antihistamines can stain a child's clothes and strain a parent's patience. That's why RYNATAN®-S comes complete with its own oral dosing syringe — to help make sure the prescribed amount of medication goes into the child and not onto his outfit.

And because RYNATAN®-S is given B.I.D., children don't have to take medication at school or day care. And parents won't need to wake up for midnight dosing.

So help avoid strains and stains. Prescribe RYNATAN®-S Pediatric Suspension, available in a 4 fl. oz. container.

Please see full prescribing information.
*Patent pending. RYNATAN®-S is the combination of RYNATAN® Pediatric Suspension (4 fl oz) in a unit of use container and a 10 mL calibrated oral syringe.
†When used for symptomatic relief of coryza and nasal congestion in allergic rhinitis or the common cold.

RYNATAN®-S* B.I.D.
PEDIATRIC SUSPENSION

Each teaspoonful (5 mL) contains: phenylephrine tannate, 5 mg; chlorpheniramine tannate, 2 mg; pyrilamine tannate, 12.5 mg.

Helps give spotless performance – two times daily

WALLACE LABORATORIES
Division of Carter-Wallace, Inc.
Cranbury, New Jersey 08512

See us at Booth 941 & 945

RYNATAN®-S* B.I.D.

PEDIATRIC SUSPENSION

Each teaspoonful (5 mL) contains: phenylephrine tannate, 5 mg; chlorpheniramine tannate, 2 mg; pyrilamine tannate, 12.5 mg.

Description RYNATAN® is an antihistaminic/decongestant combination available for oral administration as *Tablets* and as *Pediatric Suspension*. Each tablet contains:

Phenylephrine Tannate	25 mg
Chlorpheniramine Tannate	8 mg
Pyrilamine Tannate	25 mg

Other ingredients: corn starch, dibasic calcium phosphate, magnesium stearate, methylcellulose, polygalacturonic acid, talc.

Each 5 mL (teaspoonful) of the Pediatric Suspension contains:

Phenylephrine Tannate	5 mg
Chlorpheniramine Tannate	2 mg
Pyrilamine Tannate	12.5 mg

Other ingredients: benzoic acid, FD&C Red No. 3, flavors (natural and artificial), glycerin, kaolin, magnesium aluminum silicate, methylparaben, pectin, purified water, saccharin sodium, sucrose.

Clinical Pharmacology RYNATAN combines the sympathomimetic decongestant effect of phenylephrine with the antihistaminic actions of chlorpheniramine and pyrilamine.

Indications and Usage RYNATAN is indicated for symptomatic relief of the coryza and nasal congestion associated with the common cold, sinusitis, allergic rhinitis and other upper respiratory tract conditions. Appropriate therapy should be provided for the primary disease.

Contraindications RYNATAN is contraindicated for newborns, nursing mothers and patients sensitive to any of the ingredients or related compounds.

Warnings Use with caution in patients with hypertension, cardiovascular disease, hyperthyroidism, diabetes, narrow angle glaucoma or prostatic hypertrophy. Use with caution or avoid use in patients taking monoamine (MAO) inhibitors. This product contains antihistamines which may cause drowsiness and may have additive central nervous system (CNS) effects with alcohol or other CNS depressants (e.g., hypnotics, sedatives, tranquilizers).

Precautions *General:* Antihistamines are more likely to cause dizziness, sedation and hypotension in elderly patients. Antihistamines may cause excitation, particularly in children, but their combination with sympathomimetics may cause either mild stimulation or mild sedation.

Information for patients: Caution patients against drinking alcoholic beverages or engaging in potentially hazardous activities requiring alertness, such as driving a car or operating machinery while using this product.

Drug interactions: MAO inhibitors may prolong and intensify the anticholinergic effects of antihistamines and the overall effects of sympathomimetic agents.

Carcinogenesis, mutagenesis, impairment of fertility: No long term animal studies have been performed with RYNATAN®.

Pregnancy: Teratogenic effects: Pregnancy Category C. Animal reproduction studies have not been conducted with RYNATAN. It is also not known whether RYNATAN can cause fetal harm when administered to a pregnant woman or can affect reproduction capacity. RYNATAN should be given to a pregnant woman only if clearly needed.

Nursing mothers: RYNATAN should not be administered to a nursing woman.

Adverse Reactions Adverse effects associated with RYNATAN at recommended doses have been minimal. The most common have been drowsiness, sedation, dryness of mucous membranes, and gastrointestinal effects. Serious side effects with oral antihistamines or sympathomimetics have been rare.

Overdosage *Signs and symptoms:* May vary from CNS depression to stimulation (restlessness to convulsions). Antihistamine overdosage in young children may lead to convulsions and death. Atropine-like signs and symptoms may be prominent.

Treatment: Induce vomiting if it has not occurred spontaneously. Precautions must be taken against aspiration especially in infants, children and comatose patients. If gastric lavage is indicated, isotonic or half-isotonic saline solution is preferred. Stimulants should not be used. If hypotension is a problem, vasopressor agents may be considered.

Dosage and Administration Administer the recommended dose every 12 hours.
RYNATAN Tablets: Adults — 1 or 2 tablets.
RYNATAN Pediatric Suspension: *Children over six years of age* — 5 to 10 mL (1 to 2 teaspoonfuls); *Children two to six years of age* — 2.5 to 5 mL (½ to 1 teaspoonful); *Children under two years of age* — Titrate dose individually

How Supplied RYNATAN® Tablets: buff, capsule-shaped, compressed tablets in bottles of 100 (NDC 0037-0713-92) and 500 (NDC 0037-0713-96).

RYNATAN® Pediatric Suspension: pink with strawberry-currant flavor, in 4 fl. oz. bottles (NDC 0037-0715-67, labeled RYNATAN®-S*) and in pint bottles (NDC 0037-0715-68).

Storage: RYNATAN® Tablets — Store at room temperature; avoid excessive heat — above 40°C (104°F).

RYNATAN® Pediatric Suspension — Store at controlled room temperature — between 15°C–30°C (59°F–86°F); protect from freezing.

**Patent Pending*

RYNATAN®-S is the combination of RYNATAN Pediatric Suspension (4 fl. oz.) in a unit of use container and a 10 mL, calibrated, oral syringe.

WALLACE LABORATORIES
Division of
CARTER-WALLACE, INC.
Cranbury, New Jersey 08512

Printed in U.S.A. Rev. 6/88

WALLACE LABORATORIES
Division of Carter-Wallace, Inc.
Cranbury, New Jersey 08512

American Academy of Pediatrics
Continuing Medical Education

Pediatric Update

Williamsburg, Virginia

December 7–9, 1990
Williamsburg Lodge and Conference Center

Step back in time and enjoy this special time of year just as our forefathers did in the eighteenth century. Renowned faculty will present an update on the following subspecialty areas: adolescence, ENT, genetics, infectious diseases, and sports medicine.

COURSE FACULTY

Adolescence
Astrid H. Heger, MD, FAAP

ENT
Robin T. Cotton, MD, FAAP

Genetics
Kathleen E. Toomey, MD, FAAP

Infectious Diseases
Joel I. Ward, MD, FAAP

Sports Medicine
Walter W. Huurman, MD, FAAP

Course Monitor
Raymond A. Amoury, MD, FAAP

AMA Category 1 Credit: 16 Hours
PREP Credit: 10 Hours

To register or for program information contact:
Division of Planning and Evaluation, CME Registration

American Academy of Pediatrics

P.O. Box 927
Elk Grove Village, IL 60009-0927

Toll-free:
800-433-9016, ext 7657
Outside US and Canada:
708-228-5005, ext 7657

A Family Tradition In Tinea Therapy

The only Griseofulvin in easy-to-swallow suspension

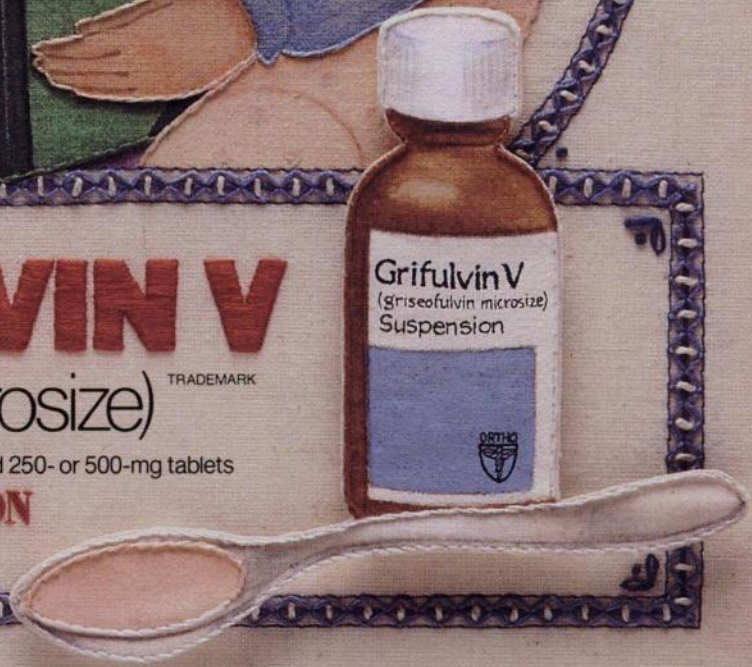
GRIFULVIN V

(griseofulvin microsize) TRADEMARK

Available in 125 mg per 5 mL oral suspension and 250- or 500-mg tablets

COMPLIANCE IN A SPOON

Please see next page for a brief summary of Prescribing Information.



GRIFULVIN V
TRADEMARK

(griseofulvin microsize)
Tablets/Suspension

Indications
Major indications for GRIFULVIN V griseofulvin microsize are:

Tinea capitis	Tinea unguium
Tinea corporis	Tinea cruris
Tinea pedis	Tinea barbae

GRIFULVIN V (griseofulvin microsize) inhibits the growth of those genera of fungi that commonly cause ringworm infections of the hair, skin, and nails, such as:

Trichophyton rubrum	Microsporum audouini
Trichophyton tonsurans	Microsporum canis
Trichophyton mentagrophytes	Microsporum gypseum
Trichophyton interdigitalis	Epidermophyton floccosum
Trichophyton verrucosum	Trichophyton megnini
Trichophyton sulphureum	Trichophyton gallinae
Trichophyton schoenleini	Trichophyton crateriform

Note: Prior to therapy, the type of fungi responsible for the infection should be identified. The use of the drug is not justified in minor or trivial infections which will respond to topical antifungal agents alone.

It is *not* effective in:

Bacterial infections	Coccidioidomycosis
Candidiasis (Moniliasis)	North American Blastomycosis
Histoplasmosis	Cryptococcosis (Torulosis)
Actinomycosis	Tinea versicolor
Sporotrichosis	Nocardiosis
Chromoblastomycosis	

Contraindications
This drug is contraindicated in patients with porphyria, hepatocellular failure, and in individuals with a history of hypersensitivity to griseofulvin.

Two cases of conjoined twins have been reported in patients taking griseofulvin during the first trimester of pregnancy. Griseofulvin should not be prescribed to pregnant patients.

Warnings
Prophylactic Usage: Safety and efficacy of prophylactic use of this drug has not been established.

Chronic feeding of griseofulvin, at levels ranging from 0.5-2.5% of the diet, resulted in the development of liver tumors in several strains of mice, particularly in males. Smaller particle sizes result in an enhanced effect. Lower oral dosage levels have not been tested. Subcutaneous administration of relatively small doses of griseofulvin once a week during the first three weeks of life has also been reported to induce hepatomata in mice. Although studies in other animal species have not yielded evidence of tumorigenicity, these studies were not of adequate design to form a basis for conclusions in this regard.

In subacute toxicity studies, orally administered griseofulvin produced hepatocellular necrosis in mice, but this has not been seen in other species. Disturbances in porphyrin metabolism have been reported in griseofulvin-treated laboratory animals. Griseofulvin has been reported to have a colchicine-like effect on mitosis and cocarcinogenicity with methylcholanthrene in cutaneous tumor induction in laboratory animals.

Reports of animal studies in the Soviet literature state that a griseofulvin preparation was found to be embryotoxic and teratogenic on oral administration to pregnant Wistar rats. Rat reproduction studies done thus far in the United States and Great Britain have been inconclusive in this regard, and additional animal reproduction studies are underway. Pups with abnormalities have been reported in the litters of a few bitches treated with griseofulvin.

Suppression of spermatogenesis has been reported to occur in rats but investigation in man failed to confirm this.

Precautions
Patients on prolonged therapy with any potent medication should be under close observation. Periodic monitoring of organ system function, including renal, hepatic and hemopoietic, should be done.

Since griseofulvin is derived from species of penicillin, the possibility of cross sensitivity with penicillin exists: however, known penicillin-sensitive patients have been treated without difficulty.

Since a photosensitivity reaction is occasionally associated with griseofulvin therapy, patients should be warned to avoid exposure to intense natural or artificial sunlight. Should a photosensitivity reaction occur, lupus erythematosus may be aggravated.

Drug Interactions: Patients on warfarin-type anticoagulant therapy may require dosage adjustment of the anticoagulant during and after griseofulvin therapy. Concomitant use of barbiturates usually depresses griseofulvin activity and may necessitate raising the dosage.

The concomitant administration of griseofulvin has been reported to reduce the efficacy of oral contraceptives and to increase the incidence of breakthrough bleeding.

Adverse Reactions
When adverse reactions occur, they are most commonly of the hypersensitivity type such as skin rashes, urticaria and rarely, angioneurotic edema, and may necessitate withdrawal of therapy and appropriate countermeasures. Paresthesias of the hands and feet have been reported rarely after extended therapy. Other side effects reported occasionally are oral thrush, nausea, vomiting, epigastric distress, diarrhea, headache, fatigue, dizziness, insomnia, mental confusion and impairment of performance of routine activities.

Proteinuria and leukopenia have been reported rarely. Administration of the drug should be discontinued if granulocytopenia occurs.

When rare, serious reactions occur with griseofulvin, they are usually associated with high dosages, long periods of therapy, or both.

LEADERS IN TOPICAL RETINOID THERAPY.
DERMATOLOGICAL DIVISION
ORTHO PHARMACEUTICAL CORPORATION
Raritan, New Jersey 08869-0602

ORTHO

a Johnson & Johnson company

American Academy of Pediatrics
Continuing Medical Education

Issues and Advances in Pediatrics

Scottsdale, Arizona

October 26–28, 1990
Marriott's Mountain Shadows Resort

Come enjoy Scottsdale, an oasis in the Arizona desert, where Indian and Spanish cultures abound. This course is designed to give the practicing pediatrician an overview of five subspecialty areas: allergy, behavioral pediatrics, gastroenterology, infectious diseases, and sports medicine.

COURSE FACULTY

Allergy
Laurie J. Smith, MD, FAAP

Behavioral Pediatrics
Paul H. Dworkin, MD, FAAP

Gastroenterology
William F. Balistreri, MD, FAAP

Infectious Diseases
S. Michael Marcy, MD, FAAP

Sports Medicine
Steven J. Anderson, MD, FAAP

Course Monitor
Richard L. Saphir, MD, FAAP

AMA Category 1 Credit: 16 Hours
PREP Credit: 10 Hours

To register or for program information contact:
Division of Planning and Evaluation, CME Registration

American Academy of Pediatrics

P.O. Box 927
Elk Grove Village, IL 60009-0927

Toll-free:
800-433-9016, ext. 7657
Outside US and Canada:
708-228-5005, ext 7657