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Pediatrics

AMERICAN ACADEMY OF PEDIATRICS EVANSTON ILLINOIS 60204

PEDIAU 62(5) pp. 681-864 (1978)

Her stuffy nose and ears are bad enough. Why make her drowsy, too?

Single-entity SUDAFED® (pseudoephedrine HCl) Syrup works without antihistamines—so it opens the nose without closing the eyes. Can't cause antihistamine "overdry" either.

SUDAFED Syrup also helps to decongest the sinuses and to restore eustachian tube patency for easier drainage in otitis media. Orally effective, SUDAFED Syrup reaches areas drops and sprays can't. Avoids the rebound problem, too.

SUDAFED Syrup. Available on your Rx or recommendation.

It has the taste children like.

Wellcome

Burroughs Wellcome Co.
Research Triangle Park
North Carolina 27709

PRESCRIPTION INDICATIONS: • acute coryza • vasomotor rhinitis • acute eustachian salpingitis • aerotitis (barotitis) media • serous otitis media with eustachian tube congestion

In the following conditions, adjunctive therapy with analgesics, antihistaminics, antibiotics, expectorants and other measures may be employed with Sudafed brand Pseudoephedrine Hydrochloride for optimum results: • allergic rhinitis • asthma • croup • acute otitis media • acute and subacute sinusitis • acute tracheobronchitis

PRECAUTION: Although pseudoephedrine is virtually without pressor effect in normotensive patients, it should be used with caution in hypertensives.

SIDE EFFECTS: While the great majority of patients will experience no side effects, those particularly sensitive to sympathomimetic drugs may note mild stimulation.

decongestion without drowsiness

SUDAFED®
pseudoephedrine HCl
30mg/5cc Syrup

Spray away tonsillitis pain in your office

send your patient home feeling better

Whenever you see tonsillitis in your office, relieve sore throat pain right at the site with a few sprays of CHLORASEPTIC.

And before your patient leaves, suggest CHLORASEPTIC for home use too.

The anesthetic action of CHLORASEPTIC blocks sensory transmission to the ninth cranial nerve, thereby blocking the pain impulses that cause minor sore throat pain.

Recommend the form of CHLORASEPTIC most suitable for your patient: spray, gargle, or lozenge—in cherry or original flavor.

Chloraseptic®
anesthetic/antiseptic

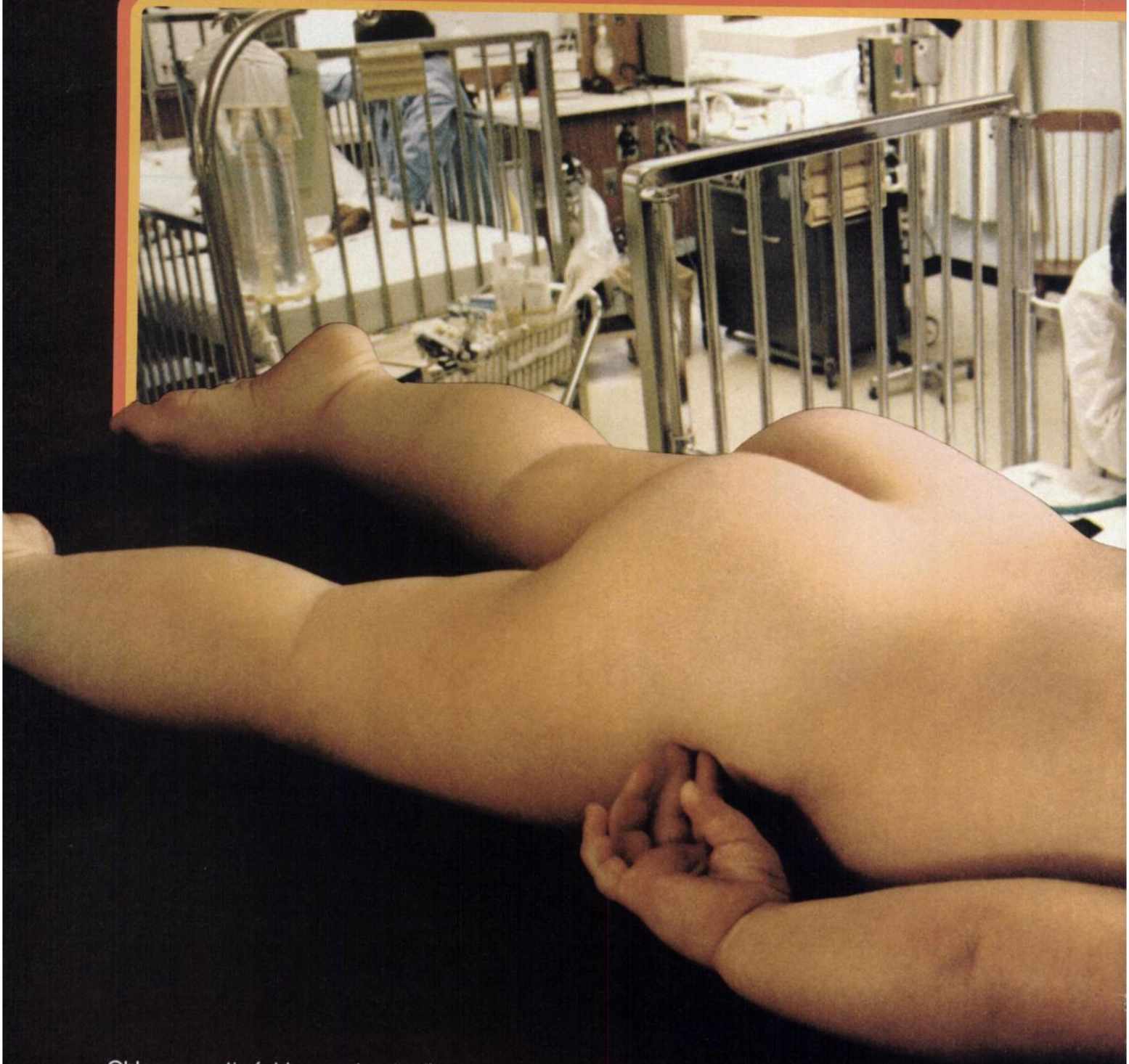
recommended by more physicians than any other spray, gargle or lozenge.

Norwich-Eaton Pharmaceuticals
Division of Morton-Norwich
Norwich, NY 13815

EA 7-8836R

CHLOROMYCETIN®

(chloramphenicol) Sodium Succinate for injection

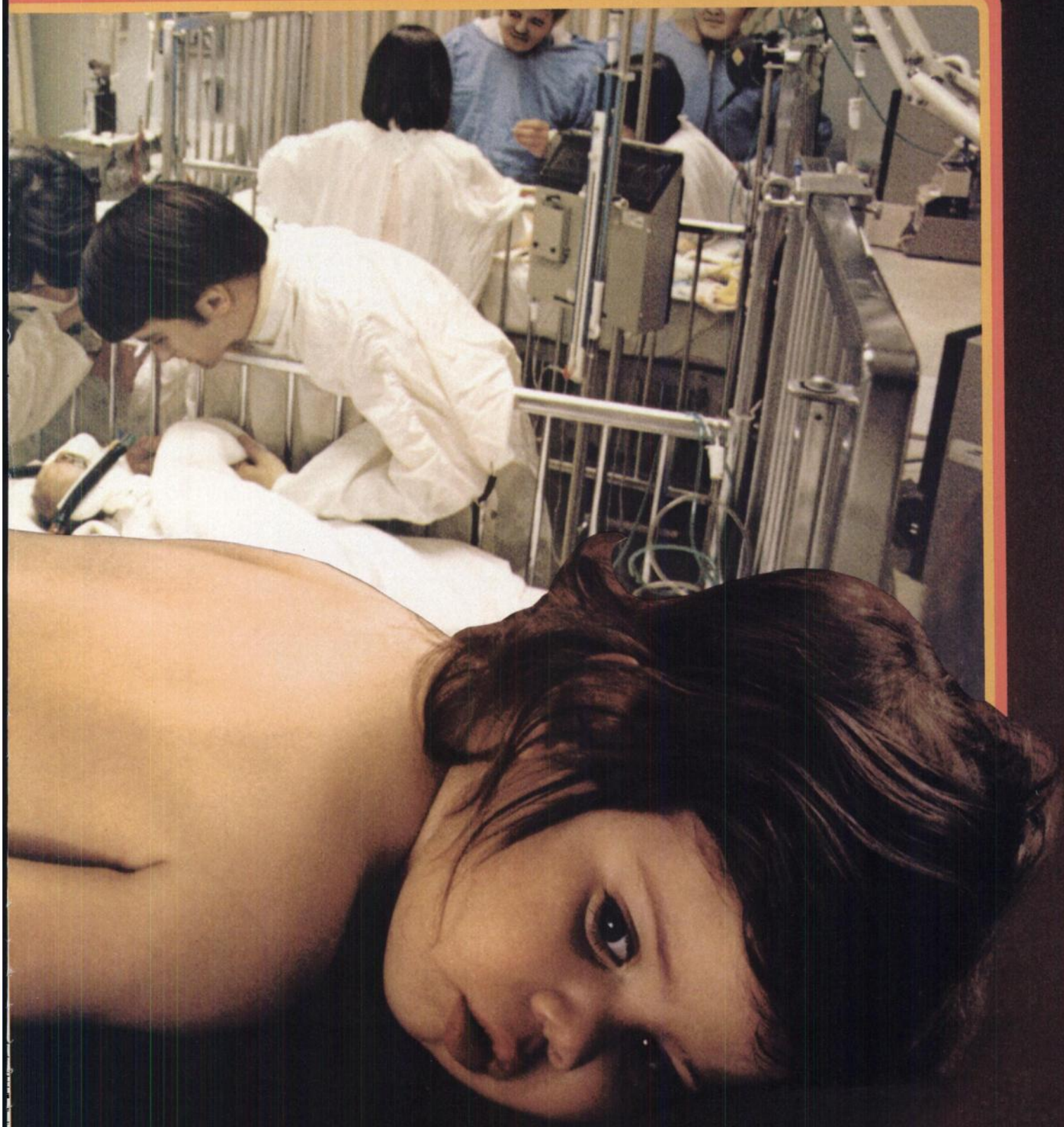


Chloromycetin (chloramphenicol) must be used only in those serious infections for which less potentially dangerous drugs are ineffective or contraindicated. However, Chloromycetin may be chosen to initiate antibiotic therapy on the clinical impression that *Hemophilus influenzae* meningitis is believed to be present.

Among diseases of the central nervous system, *H influenzae* meningitis is one of the most severely threatening. Chloromycetin can be particularly useful in this condition.

Chloromycetin may be used in the treatment of *H influenzae* meningitis when the patient has known—or suspected—allergy to penicillin.

for H influenzae meningitis



Please see next page for complete prescribing information.

PARKE-DAVIS

Prescribing Information
Chloromycetin Sodium Succinate
(chloramphenicol sodium succinate for injection, USP)
For intravenous administration

WARNING

Serious and fatal blood dyscrasias (aplastic anemia, hypoplastic anemia, thrombocytopenia, and granulocytopenia) are known to occur after the administration of chloramphenicol. In addition, there have been reports of aplastic anemia attributed to chloramphenicol which later terminated in leukemia. Blood dyscrasias have occurred after both short-term and prolonged therapy with this drug. Chloramphenicol must not be used when less potentially dangerous agents will be effective, as described in the Indications section. *It must not be used in the treatment of trivial infections or where it is not indicated, as in colds, influenza, infections of the throat; or as a prophylactic agent to prevent bacterial infections.*

Precautions: It is essential that adequate blood studies be made during treatment with the drug. While blood studies may detect early peripheral blood changes, such as leukopenia, reticulocytopenia, or granulocytopenia, before they become irreversible, such studies cannot be relied on to detect bone marrow depression prior to development of aplastic anemia. To facilitate appropriate studies and observation during therapy, it is desirable that patients be hospitalized.

IMPORTANT CONSIDERATIONS IN PRESCRIBING INJECTABLE CHLORAMPHENICOL SODIUM SUCCINATE

CHLORAMPHENICOL SODIUM SUCCINATE IS INTENDED FOR INTRAVENOUS USE ONLY. IT HAS BEEN DEMONSTRATED TO BE INEFFECTIVE WHEN GIVEN INTRAMUSCULARLY.

1. Chloramphenicol sodium succinate must be hydrolyzed to its microbiologically active form and there is a lag in achieving adequate blood levels compared with the base given intravenously.
2. The oral form of chloramphenicol is readily absorbed and adequate blood levels are achieved and maintained on the recommended dosage.
3. Patients started on intravenous chloramphenicol sodium succinate should be changed to the oral form as soon as practicable.

DESCRIPTION

Chloramphenicol is an antibiotic that is clinically useful for, *and should be reserved for,* serious infections caused by organisms susceptible to its antimicrobial effects when less potentially hazardous therapeutic agents are ineffective or contraindicated. Sensitivity testing is essential to determine its indicated use, but may be performed concurrently with therapy initiated on clinical impression that one of the indicated conditions exists (see Indications section).

Each gram (10 ml of a 10% solution) of chloramphenicol sodium succinate contains approximately 52 mg (2.25 mEq) of sodium.

ACTIONS AND PHARMACOLOGY

In vitro chloramphenicol exerts mainly a bacteriostatic effect on a wide range of gram-negative and gram-positive bacteria and is active *in vitro* against rickettsias, the lymphogranuloma-psittacosis group, and *Vibrio cholerae.* It is particularly active against *Salmonella typhi* and *Hemophilus influenzae.* The mode of action is through interference or inhibition of protein synthesis in intact cells and in cell-free systems.

Chloramphenicol administered orally is absorbed rapidly from the intestinal tract. In controlled studies in adult volunteers using the recommended dosage of 50 mg/kg/day, a dosage of 1 g every six hours for eight doses was given. Using the microbiological assay method, the average peak serum level was 11.2 mcg/ml one hour after the first dose. A cumulative effect gave a peak rise to 18.4 mcg/ml after the fifth dose of 1 g. Mean serum levels ranged from 8 to 14 mcg/ml over the 48-hour period. Total urinary excretion of chloramphenicol in these studies ranged from a low of 68% to a high of 99% over a three-day period. From 8% to 12% of the antibiotic excreted is in the form of free chloramphenicol; the remainder consists of microbiologically inactive metabolites, principally the conjugate with glucuronic acid. Since the glucuronide is excreted rapidly, most chloramphenicol detected in the blood is in the microbiologically active free form. Despite the small proportion of unchanged drug excreted in the urine, the concentration of free chloramphenicol is relatively high, amounting to several hundred mcg/ml in patients receiving divided doses of 50 mg/kg/day. Small amounts of active drug are found in bile and feces. Chloramphenicol diffuses rapidly, but its distribution is not uniform. Highest concentrations are found in liver and kidney, and lowest concentrations are found in brain and cerebrospinal fluid. Chloramphenicol enters cerebrospinal fluid even in the absence of meningeal inflammation, appearing in concentrations about half of those found in the blood. Measurable levels are also detected in pleural and in ascitic fluids, saliva, milk, and in the aqueous and vitreous humors. Transport across the placental barrier occurs with somewhat lower concentration in cord blood of newborn infants than in maternal blood.

INDICATIONS

In accord with the concepts in the Warning Box and this Indications section, chloramphenicol must be used only in those serious infections for which less potentially dangerous drugs are ineffective or contraindicated. However, chloramphenicol may be chosen to initiate antibiotic therapy on the clinical impression that one of the conditions below is believed to be present; *in vitro* sensitivity tests should be performed concurrently so that the drug may be discontinued as soon as possible if less potentially dangerous agents are indicated by such tests. The decision to continue use of chloramphenicol rather than another antibiotic when both are suggested by *in vitro* studies to be effective against a specific pathogen should be based upon severity of the infection, susceptibility of the pathogen to the various antimicrobial drugs, efficacy of the various drugs in the infection, and the important additional concepts contained in the Warning Box above.

1. Acute infections caused by *S typhi**
   It is not recommended for the routine treatment of the typhoid carrier state.
2. Serious infections caused by susceptible strains in accordance with the concepts expressed above.
   a) *Salmonella* species
   b) *H influenzae,* specifically meningeal infections
   c) Rickettsia
   d) Lymphogranuloma-psittacosis group
   e) Various gram-negative bacteria causing bacteremia, meningitis, or other serious gram-negative infections
   f) Other susceptible organisms which have been demonstrated to be resistant to all other appropriate antimicrobial agents
3. Cystic fibrosis regimens

*In the treatment of typhoid fever, some authorities recommend that chloramphenicol be administered at therapeutic levels for 8 to 10 days after the patient has become afebrile to lessen the possibility of relapse.

CONTRAINDICATIONS

Chloramphenicol is contraindicated in individuals with a history of previous hypersensitivity and/or toxic reaction to it. *It must not be used in the treatment of trivial infections or where it is not indicated, as in colds, influenza, infections of the throat; or as a prophylactic agent to prevent bacterial infection.*

PRECAUTIONS

1. Base line blood studies should be followed by periodic blood studies approximately every two days during therapy. The drug should be discontinued upon appearance of reticulocytopenia, leukopenia, thrombocytopenia, anemia, or any other blood study findings attributable to chloramphenicol. However, it should be noted that such studies do not exclude the possible later appearance of the irreversible type of bone marrow depression.

2. Repeated courses of the drug should be avoided if at all possible. Treatment should not be continued longer than required to produce a cure with little or no risk of relapse of the disease.

3. Concurrent therapy with other drugs that may cause bone marrow depression should be avoided.

4. Excessive blood levels may result from administration of the recommended dose to patients with impaired liver or kidney function, including that due to immature metabolic processes in the infant. The dosage should be adjusted accordingly or, preferably, the blood concentration should be determined at appropriate intervals.

5. There are no studies to establish the safety of this drug in pregnancy.

6. Since chloramphenicol readily crosses the placental barrier, caution in use of the drug is particularly important during pregnancy at term or during labor because of potential toxic effects on the fetus (gray syndrome).

7. Precaution should be used in therapy of premature and full-term infants to avoid gray syndrome toxicity. (See Adverse Reactions.) Serum drug levels should be carefully followed during therapy of the newborn infant.

8. Precaution should be used in therapy during lactation because of the possibility of toxic effects on the nursing infant.

9. The use of this antibiotic, as with other antibiotics, may result in an overgrowth of nonsusceptible organisms, including fungi. If infections caused by nonsusceptible organisms appear during therapy, appropriate measures should be taken.

ADVERSE REACTIONS

1. Blood Dyscrasias

The most serious adverse effect of chloramphenicol is bone marrow depression. Serious and fatal blood dyscrasias (aplastic anemia, hypoplastic anemia, thrombocytopenia, and granulocytopenia) are known to occur after the administration of chloramphenicol. An irreversible type of marrow depression leading to aplastic anemia with a high rate of mortality is characterized by the appearance weeks or months after therapy of bone marrow aplasia or hypoplasia. Peripherally, pancytopenia is most often observed, but in a small number of cases only one or two of the three major cell types (erythrocytes, leukocytes, platelets) may be depressed.

A reversible type of bone marrow depression, which is dose-related, may occur. This type of marrow depression is characterized by vacuolization of the erythroid cells, reduction of reticulocytes, and leukopenia, and responds promptly to the withdrawal of chloramphenicol.

An exact determination of the risk of serious and fatal blood dyscrasias is not possible because of lack of accurate information regarding (1) the size of the population at risk, (2) the total number of drug-associated dyscrasias, and (3) the total number of nondrug-associated dyscrasias.

In a report to the California State Assembly by the California Medical Association and the State Department of Public Health in January 1967, the risk of fatal aplastic anemia was estimated at 1:24,200 to 1:40,500 based on two dosage levels.

There have been reports of aplastic anemia attributed to chloramphenicol which later terminated in leukemia.

Paroxysmal nocturnal hemoglobinuria has also been reported.

2. Gastrointestinal Reactions

Nausea, vomiting, glossitis and stomatitis, diarrhea and enterocolitis may occur in low incidence.

3. Neurotoxic Reactions

Headache, mild depression, mental confusion, and delirium have been described in patients receiving chloramphenicol. Optic and peripheral neuritis have been reported, usually following long-term therapy. If this occurs, the drug should be promptly withdrawn.

4. Hypersensitivity Reactions

Fever, macular and vesicular rashes, angioedema, urticaria, and anaphylaxis may occur. Herxheimer reactions have occurred during therapy for typhoid fever.

5. "Gray Syndrome"

Toxic reactions including fatalities have occurred in the premature and newborn; the signs and symptoms associated with these reactions have been referred to as the gray syndrome. One case of gray syndrome has been reported in an infant born to a mother having received chloramphenicol during labor. One case has been reported in a 3-month-old infant. The following summarizes the clinical and laboratory studies that have been made on these patients:

a) In most cases, therapy with chloramphenicol had been instituted within the first 48 hours of life.
b) Symptoms first appeared after three to four days of continued treatment with high doses of chloramphenicol.
c) The symptoms appeared in the following order:
   (1) abdominal distention with or without emesis;
   (2) progressive pallid cyanosis;
   (3) vasomotor collapse, frequently accompanied by irregular respiration;
   (4) death within a few hours of onset of these symptoms.
d) The progression of symptoms from onset to exitus was accelerated with higher dose schedules.
e) Preliminary blood serum level studies revealed unusually high concentrations of chloramphenicol (over 90 mcg/ml after repeated doses).
f) Termination of therapy upon early evidence of the associated symptomatology frequently reversed the process with complete recovery.

ADMINISTRATION

Chloramphenicol, like other potent drugs, should be prescribed at recommended doses known to have therapeutic activity. Administration of 50 mg/kg/day in divided doses will produce blood levels of the magnitude to which the majority of susceptible microorganisms will respond.

As soon as feasible, an oral dosage form of chloramphenicol should be substituted for the intravenous form because adequate blood levels are achieved with chloramphenicol by mouth.

The following method of administration is recommended:

Intravenously as a 10% (100 mg/ml) solution to be injected over at least a one-minute interval. This is prepared by the addition of 10 ml of an aqueous diluent such as water for injection or 5% dextrose injection.

DOSAGE

Adults

Adults should receive 50 mg/kg/day in divided doses at six-hour intervals. In exceptional cases, patients with infections due to moderately resistant organisms may require increased dosage up to 100 mg/kg/day to achieve blood levels inhibiting the pathogen, but these high doses should be decreased as soon as possible. Adults with impairment of hepatic or renal function or both may have reduced ability to metabolize and excrete the drug. In instances of impaired metabolic processes, dosages should be adjusted accordingly. (See discussion under Newborn Infants.) Precise control of concentration of the drug in the blood should be carefully followed in patients with impaired metabolic processes by the available microtechniques (information available on request).

Children

Dosage of 50 mg/kg/day divided into four doses at six-hour intervals yields blood levels in the range effective against most susceptible organisms. Severe infections (eg, bacteremia or meningitis), especially when adequate cerebrospinal fluid concentrations are desired, may require dosage up to 100 mg/kg/day; however, it is recommended that dosage be reduced to 50 mg/kg/day as soon as possible. Children with impaired liver or kidney function may retain excessive amounts of the drug.

Newborn Infants
(See section titled Gray Syndrome under Adverse Reactions.)

A total of 25 mg/kg/day in four equal doses at six-hour intervals usually produces and maintains concentrations in blood and tissues adequate to control most infections for which the drug is indicated. Increased dosage in these individuals, demanded by severe infections, should be given only to maintain the blood concentration within a therapeutically effective range. After the first two weeks of life, full-term infants ordinarily may receive up to a total of 50 mg/kg/day equally divided into four doses at six-hour intervals. *These dosage recommendations are extremely important because blood concentration in all premature infants and full-term infants under two weeks of age differs from that of other infants.* This difference is due to variations in the maturity of the metabolic functions of the liver and the kidneys.

When these functions are immature (or seriously impaired in adults), high concentrations of the drug are found which tend to increase with succeeding doses.

Infants and Children with Immature Metabolic Processes

In young infants and other children in whom immature metabolic functions are suspected, a dose of 25 mg/kg/day will usually produce therapeutic concentrations of the drug in the blood. In this group particularly, the concentration of the drug in the blood should be carefully followed by microtechniques. (Information available on request.)

HOW SUPPLIED

N 0071-4057-3 (Steri-Vial® No. 57)
Chloromycetin Sodium Succinate (chloramphenicol sodium succinate for injection, USP) is supplied as a dried powder in Steri-Vials (rubber-diaphragm-capped vials). When reconstituted as directed, each vial contains a sterile solution equivalent to 100 mg of chloramphenicol per milliliter (1 g/10 ml). Available in packages of 10 vials.

CHLOROMYCETIN, brand of chloramphenicol. Reg US Pat Off RJ

PD-JA-1281 2-P(12-77)

PARKE-DAVIS, Division of Warner-Lambert Company, Morris Plains, NJ 07950

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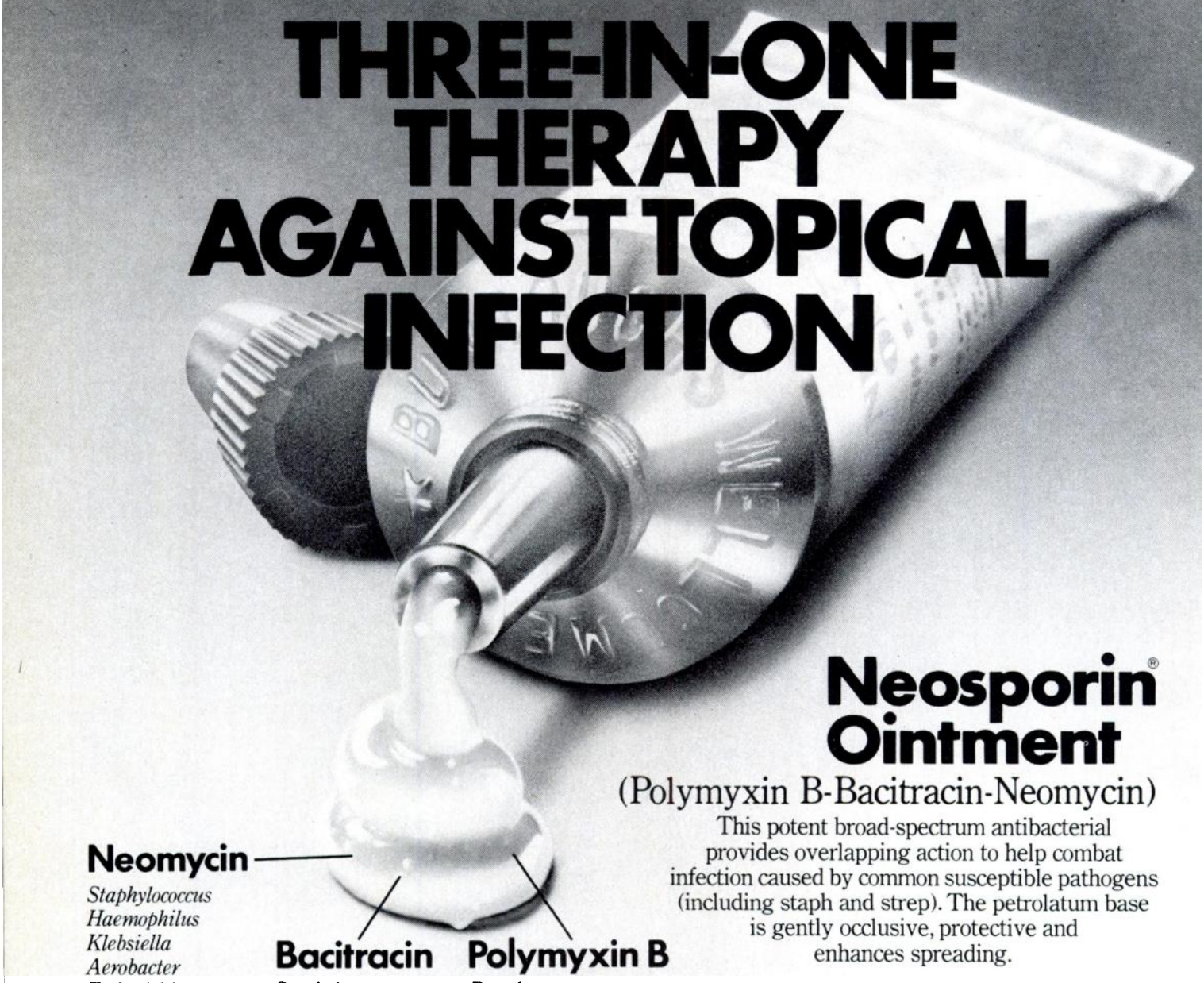
THREE-IN-ONE THERAPY AGAINST TOPICAL INFECTION



Neosporin® Ointment

(Polymyxin B-Bacitracin-Neomycin)

This potent broad-spectrum antibacterial provides overlapping action to help combat infection caused by common susceptible pathogens (including staph and strep). The petrolatum base is gently occlusive, protective and enhances spreading.

Neomycin	Bacitracin	Polymyxin B
Staphylococcus	*Staphylococcus*	*Pseudomonas*
Haemophilus	*Corynebacterium*	*Haemophilus*
Klebsiella	*Streptococcus*	*Klebsiella*
Aerobacter	*Pneumococcus*	*Aerobacter*
Escherichia		*Escherichia*
Proteus		
Corynebacterium		
Streptococcus		
Pneumococcus		

In vitro overlapping antibacterial action of Neosporin® Ointment (polymyxin B-bacitracin-neomycin).

Wellcome

Burroughs Wellcome Co.
Research Triangle Park
North Carolina 27709

Neosporin® Ointment

(Polymyxin B-Bacitracin-Neomycin)

Each gram contains: Aerosporin® brand Polymyxin B Sulfate 5,000 units; zinc bacitracin 400 units; neomycin sulfate 5 mg (equivalent to 3.5 mg neomycin base); special white petrolatum qs; in tubes of 1 oz and 1/2 oz and 1/32 oz (approx.) foil packets.

WARNING: Because of the potential hazard of nephrotoxicity and ototoxicity due to neomycin, care should be exercised when using this product in treating extensive burns, trophic ulceration and other extensive conditions where absorption of neomycin is possible. In burns where more than 20 percent of the body surface is affected, especially if the patient has impaired renal function or is receiving other aminoglycoside antibiotics concurrently, not more than one application a day is recommended.

When using neomycin-containing products to control secondary infection in the chronic dermatoses, it should be borne in mind that the skin is more liable to become sensitized to many substances, including neomycin. The manifestation of sensitization to neomycin is usually a low grade reddening with swelling, dry scaling and itching; it may be manifest simply as failure to heal. During long-term use of neomycin-containing products, periodic examination for such signs is advisable and the patient should be told to discontinue the product if they are observed. These symptoms regress quickly on withdrawing the medication. Neomycin-containing applications should be avoided for that patient thereafter.

PRECAUTIONS: As with other antibacterial preparations, prolonged use may result in overgrowth of nonsusceptible organisms, including fungi. Appropriate measures should be taken if this occurs.

ADVERSE REACTIONS: Neomycin is a not uncommon cutaneous sensitizer. Articles in the current literature indicate an increase in the prevalence of persons allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section).

Complete literature available on request from Professional Services Dept. PML.

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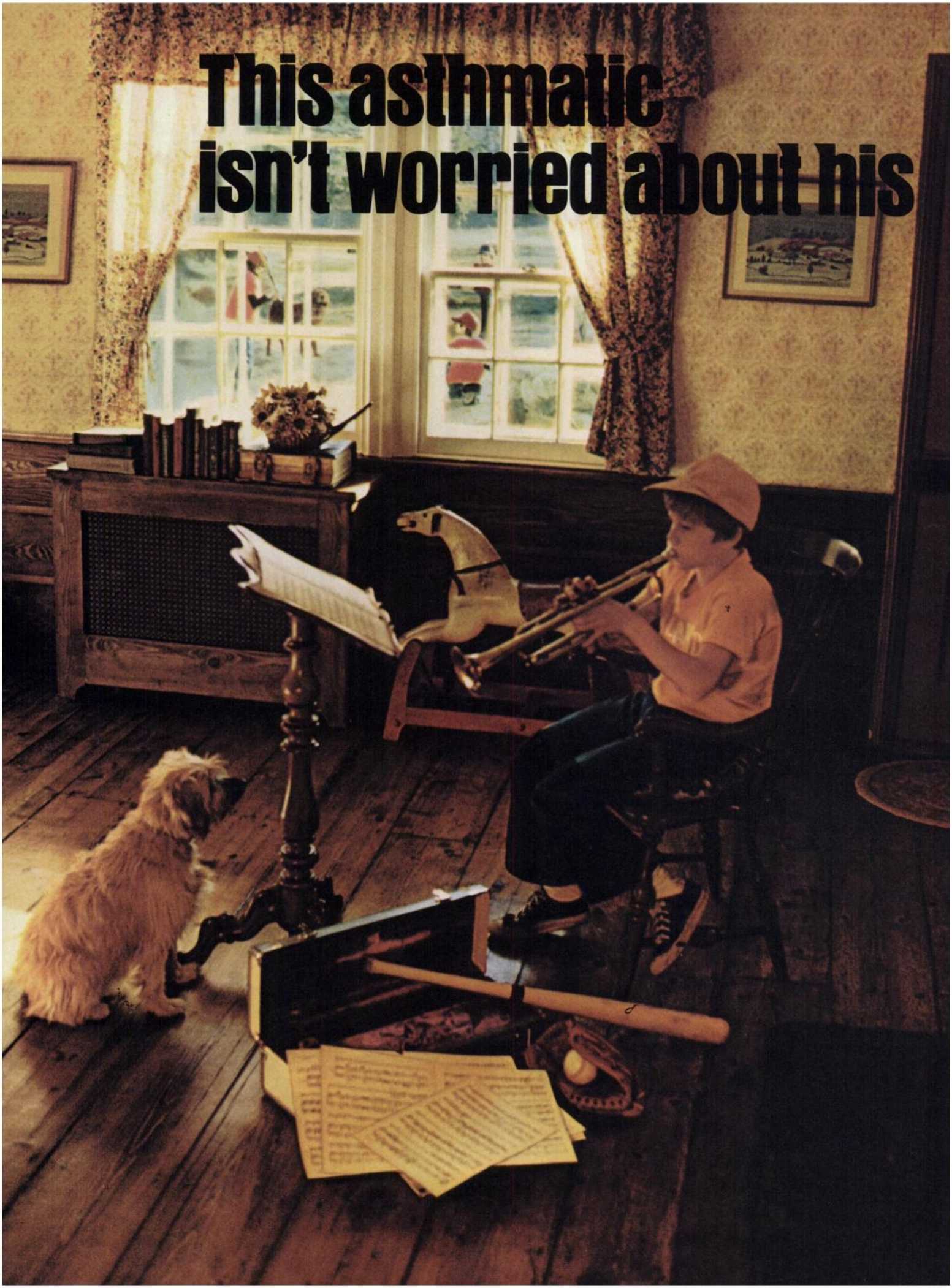
Subscriptions must be entered on a volume basis. Subscriptions may be entered with the January or July issue and expire with the June or December issue. Payment must accompany the order.

Subscription price per year: U.S., Mexico, Canada, Central and South America, $21.00; other countries, $30.00. Special rates for medical students, hospital residents and fellows in full time training in U.S., Mexico, Canada, Central and South America, $13.00 per year. Renewal at special rate beyond two years will require a letter from an appropriate authority stating the individual's eligibility. Current single issue $3.00.

Second-class postage paid at EVANSTON, ILLINOIS, 60204, and at additional mailing office.

BPA Membership Applied for, November 1978

ARTICLES


This asthmatic
isn't worried about his

next breath... he's active he's effectively maintained on

QUIBRON®

Each capsule or tablespoonful (15 ml) elixir contains theophylline (anhydrous) 150 mg and glyceryl guaiacolate (guaifenesin) 90 mg.
Elixir: alcohol 15%

theophylline for effective around-the-clock therapy

Quibron may give the asthmatic up to eight hours of bronchodilation with each dose and provides dosages of theophylline which are now believed necessary to keep patients free of acute attacks and chronic wheezing.

100% free theophylline

Quibron helps achieve therapeutic serum theophylline levels with minimal dosage volume...delivers 100% free theophylline in comparison to many other compounds which contain from 47% to 91% effective theophylline.

individualized theophylline dosage schedule

Today's more efficient usage of theophylline calls for individualizing dosage. Treatment should be initiated at 150 mg theophylline every 6 hours for adults and 4 mg/kg every 6 hours for children. When necessary, to achieve greater efficacy the dosage may be cautiously adjusted upward while monitoring serum theophylline levels.

Mead Johnson PHARMACEUTICAL DIVISION

Indications: For the symptomatic relief of bronchospastic conditions such as bronchial asthma, chronic bronchitis, and pulmonary emphysema.

Dosage: Treatment should be initiated at 150 mg theophylline every 6 hours for adults and 4 mg/kg every 6 hours for children. The usual recommended dosages are Adults: 1-2 capsules or 1-2 tablespoons (15 ml) elixir every 6-8 hours. Children 9 to 12: 4-5 mg theophylline/kg bodyweight every 6-8 hours. Children under 9: 4-6 mg theophylline/kg bodyweight every 6-8 hours. When necessary, to achieve greater efficacy theophylline dosage may be cautiously adjusted upward. Serum theophylline determinations are helpful in monitoring therapeutic progress. When dosages exceed the usual recommended ranges serum determinations are essential. In the absence of side effects, the dosage may be titrated upward cautiously by increments of no more than 25% of previous dose, increasing the dose no more than every third day until the desired clinical response is obtained. If nausea, vomiting or other evidence of toxicity occurs, omit one dose and resume treatment at a lower dose.

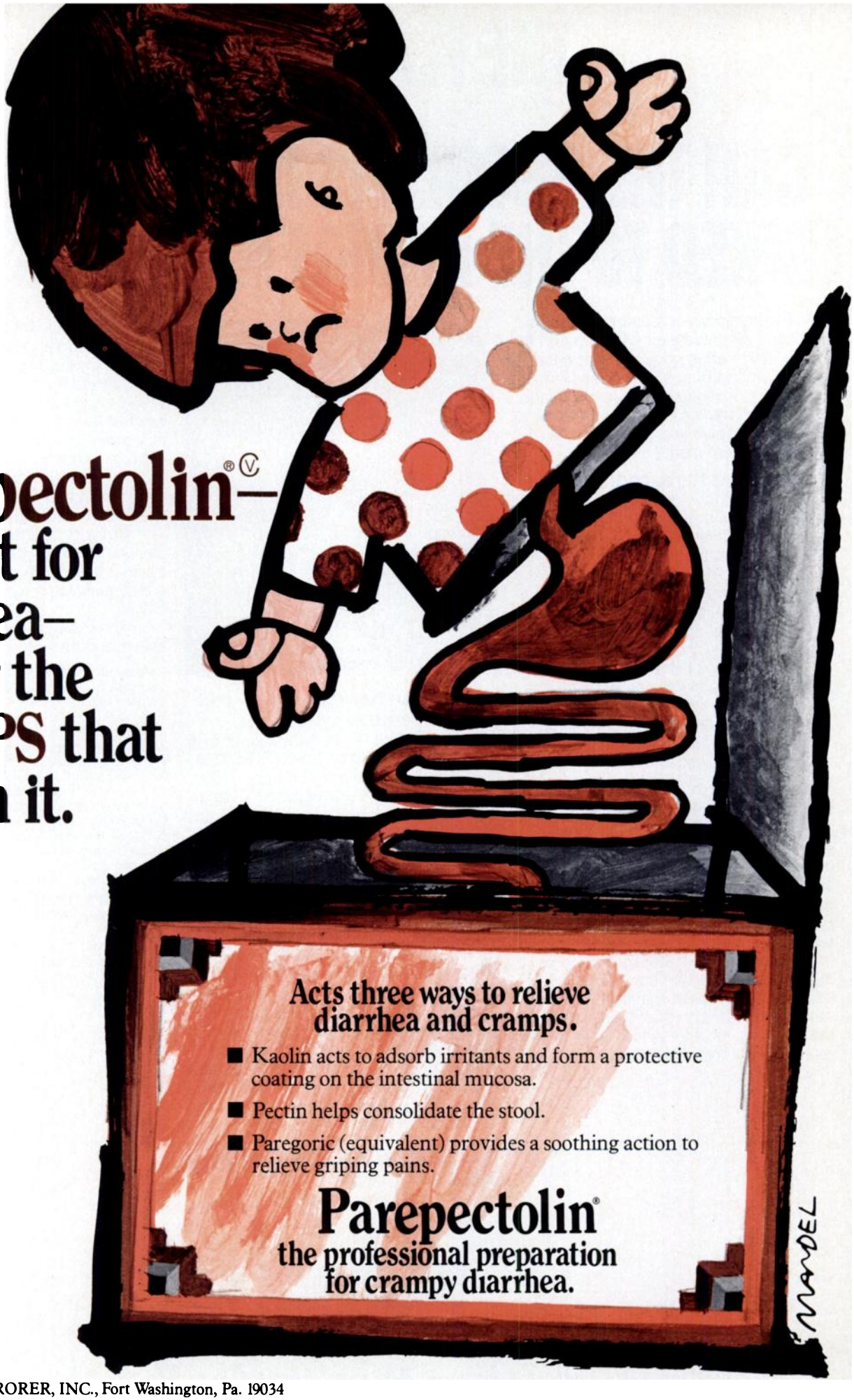
Warnings: Do not administer more frequently than every 6 hours, or within 12 hours after rectal dose of any preparation containing theophylline or aminophylline. Do not give other compounds containing xanthine derivatives concurrently.

Precautions: Use with caution in patients with cardiac disease, hepatic or renal impairment. Concurrent administration with certain antibiotics, i.e. clindamycin, erythromycin, troleandomycin, may result in higher serum levels of theophylline. Plasma prothrombin and factor V may increase, but any clinical effect is likely to be small. Metabolites of guaifenesin may contribute to increased urinary 5-hydroxyindoleacetic acid readings, when determined with nitrosonaphtol reagent. Safe use in pregnancy has not been established. Use in case of pregnancy only when clearly needed.

Adverse Reactions: Theophylline may exert some stimulating effect on the central nervous system. Its administration may cause local irritation of the gastric mucosa, with possible gastric discomfort, nausea, and vomiting. The frequency of adverse reactions is related to the serum theophylline level and is not usually a problem at serum theophylline levels below 20 μg/ml.

How Supplied: Capsules in bottles of 100 and 1000 and unit-dose packs of 100; Elixir in bottles of 1 pint and 1 gallon.

See package insert for complete prescribing information.



ROHRER

WILLIAM H. RORER, INC., Fort Washington, Pa. 19034

THE R.A.U. PATIENT.

CAN THE PROBLEMS IN HIS MOUTH BE LINKED TO THE PROBLEMS ON HIS MIND?

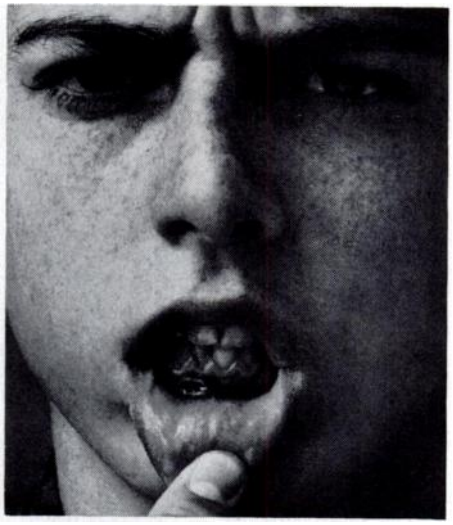
Twenty years of research are now shedding an entirely different light on the canker sore, or as physicians now call it–recurrent aphthous ulceration (R.A.U.). Because the apparently arbitrary exacerbations and remissions that characterize R.A.U. may actually be linked to the presence of emotional stress.[1-5]

R.A.U.—how to recognize it

The aphthous ulcer appears out of nowhere and usually disappears without incident. So most patients dismiss it as little more than a bothersome fact of life. But R.A.U. is actually a complex medical syndrome. It is characterized by single or multiple lesions of 2-20 mm in diameter that appear repeatedly on any of the moist mucous membranes of the mouth. A positive history of recurrences, the healthy appearance of surrounding tissue and the absence of associated systemic disorders will distinguish it from any other oral disease, including a herpetic infection.[4]

Extremely high incidence seen in students under stress

Ship et al[5] uncovered the most extensive evidence of the relationship between R.A.U. and stress in a major study of medical, dental, nursing and veterinary students in the University of Pennsylvania area. Of over 1700 students, 55% suffered from R.A.U. Furthermore, the medical histories of 64% of the students revealed that the group with R.A.U. reported significantly more emotional problems than those without the disease—problems that were in fact related to the frequency of each attack.



Correlation between R.A.U. and other ulcerative syndromes

Naturally a highly-selected population survey should be interpreted with caution. But additional findings by Ship in a subsequent investigation[4] suggest that the connection between R.A.U. and the mind under stress is more than coincidental: for the typical R.A.U. patient, the problem of ulcers doesn't stop in the oral cavity. Gastrointestinal and/or vulvovaginal ulcers plus a variety of other disorders, especially allergies, are often present as well.

Treatment remains palliative

No one knows the precise etiology of R.A.U. Its high incidence in environments notorious for intense pressure and mental strain, and its correlation with disorders long known to be at least partly psychogenic, strongly implicate stress as a leading factor. But until we can positively discern and treat the primary cause of R.A.U., treatment is still centered on debriding the lesion and relieving the pain.

Proxigel: to cleanse and help soothe minor oral inflammations

Proxigel is the ideal antiseptic to recommend for the R.A.U. patient in your practice and is also useful as adjunctive therapy in gingivitis, periodontitis, stomatitis, Vincent's infection and denture irritation.

Its unique viscous base adheres to affected areas—for longer debriding action on necrotic or pathological tissue.

Proxigel also helps to inhibit odor-causing bacteria. It is bactericidal against pathogens and other microorganisms which may be found in the oral cavity.

And Proxigel helps soothe painful tissue and thus aids in healing.

References: 1. Francis, T.: Recurrent aphthous stomatitis and Behcet's disease, *Oral Surg. 30*:476, October 1970. **2.** Greenfield, D.S. and Fasciano, R.W.: Oral ulcerative disease in young adults: diagnosis and management, *J. Am. Coll. Health Assoc. 23*:167, December 1974. **3.** McCarthy, P. and Shklar, G.: *Diseases of the Oral Mucosa,* McGraw-Hill Book Company, New York, 1964, p. 192-200. **4.** Ship, I.I.: Epidemiologic aspects of recurrent aphthous ulcerations, *Oral Surg. 33*:400, March 1972. **5.** Ship, I.I., Morris, A.L., Durocher, R.T. *et al:* Recurrent aphthous ulcerations and recurrent herpes labialis in a professional school student population, *Oral Surg. 13*:1191, 1317,1438, Oct. 1960, Nov. 1960, Dec. 1960.

Proxigel Active Ingredient: Carbamide peroxide 11% in a water-free gel base.

Reed & Carnrick
Kenilworth, New Jersey 07033

PROXIGEL®

Oral Antiseptic & Cleanser

Adjunctive therapy for R.A.U.

AMERICAN ACADEMY OF PEDIATRICS

1801 Hinman Avenue
Evanston, Illinois 60204

SCHEDULE OF MEETINGS

SPRING SESSIONS

1979
Four Seasons Sheraton
Toronto
April 21 to 26

1980
Las Vegas Hilton
Las Vegas
April 19 to 24

1981
Washington, D.C.
April 4 to 9

1982
Honolulu
March 20 to 25

Note: All Spring Sessions start on Saturday

A new indication for Septra

Getting a child with an earache off to sleep is hard enough, without getting her up again. With the q.i.d. and t.i.d. dosages of other antibacterials for acute otitis media, expecting compliance may be expecting a lot. Septra b.i.d. dosage convenience can change all that.

In a study of 94 children with bacterial otitis media confirmed by culture, Septra Suspension produced a success rate of 95.7%.†

Septra Suspension has proved highly effective in acute otitis media caused by the most common middle ear pathogens—*Haemophilus influenzae* and *Streptococcus pneumoniae.*

Though crystalluria has not been a problem with Septra, adequate fluid intake should be maintained and frequent urinalyses with careful microscopic examination performed during therapy. Septra is contraindicated in infants under two months. **Septra should not be used in the treatment of streptococcal pharyngitis.**

†Data on file, Medical Department, Burroughs Wellcome Co.
See last page of this advertisement for prescribing information.

Septra®
Suspension

Each teaspoonful (5 ml) contains:
40 mg trimethoprim and 200 mg sulfamethoxazole

b.i.d.

through-the-night efficacy against major middle ear pathogens

*Septra is now indicated for use in acute otitis media in children due to susceptible strains of *Haemophilus influenzae* or *Streptococcus pneumoniae* when in the judgment of the physician Septra offers some advantage over the use of other antimicrobial agents. Limited clinical information is presently available on the effectiveness of treatment of otitis media with Septra when the infection is due to *Haemophilus influenzae* resistant to ampicillin. To date, there are limited data on the safety of repeated use of Septra in children under two years of age. Septra is not indicated for prophylactic or prolonged administration in otitis media at any age.

Septra® introduces b.i.d. dosage convenience to the treatment of acute otitis media in children

Septra® Suspension

Each teaspoonful (5 ml) contains:
40 mg trimethoprim and 200 mg sulfamethoxazole

- effective *in vitro* against major middle ear pathogens—*Haemophilus influenzae*, including ampicillin-resistant strains, and *Streptococcus pneumoniae**
- well tolerated by infants and children† (Contraindicated in infants under two months. See brief summary below for possible adverse reactions.)

Septra® Tablets

Each tablet contains:
80 mg trimethoprim and 400 mg sulfamethoxazole

- available in pleasant tasting cherry-flavored suspension or in tablet form for use in older children
- encourages compliance; unlike other antibacterials for otitis media, Septra requires no middle-of-the-night dose

---

Septra® Tablets and Suspension

Indications and Usage:

ACUTE OTITIS MEDIA: **For the treatment of acute otitis media in children due to susceptible strains of** *Haemophilus influenzae* **or** *Streptococcus pneumoniae* **when in the judgment of the physician Septra offers some advantage over the use of other antimicrobial agents. Limited clinical information is presently available on the effectiveness of treatment of otitis media with Septra when the infection is due to** *Haemophilus influenzae* **resistant to ampicillin. To date, there are limited data on the safety of repeated use of Septra in children under two years of age. Septra is not indicated for prophylactic or prolonged administration in otitis media at any age.**

Contraindications: Hypersensitivity to trimethoprim or sulfonamides. Pregnancy and during the nursing period. Infants less than two months of age.

Warnings: SEPTRA SHOULD NOT BE USED IN THE TREATMENT OF STREPTOCOCCAL PHARYNGITIS.

Clinical studies have documented that patients with Group A β-hemolytic streptococcal tonsillopharyngitis have a greater incidence of bacteriologic failure when treated with Septra than do those patients treated with penicillin as evidenced by failure to eradicate this organism from the tonsillopharyngeal area.

Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias. Experience with trimethoprim alone is much more limited, but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides.

Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBCs are recommended; therapy should be discontinued if a significant reduction in the count of any formed blood element is noted.

Precautions: Use with caution in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In glucose-6-phosphate dehydrogenase-deficient individuals, hemolysis may occur (frequently dose-related). During therapy, maintain adequate fluid intake and perform frequent urinalyses with careful microscopic examination and renal function tests, particularly where there is impaired renal function.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Septra. *Blood Dyscrasias:* Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. *Allergic Reactions:* Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. *Gastrointestinal Reactions:* Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. *C.N.S. Reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous Reactions:* Drug fever, chills, and toxic nephrosis with oliguria and anuria. Periarteritis nodosa and L.E. phenomenon have occurred. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide and the thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia; cross-sensitivity may exist with these agents. In rats, long-term administration of sulfonamides has produced thyroid malignancies.

Dosage and Administration: Not recommended for use in infants less than two months of age.

ACUTE OTITIS MEDIA IN CHILDREN: The recommended dose for children with acute otitis media is 8 mg/kg trimethoprim and 40 mg/kg sulfamethoxazole per 24 hours, given in two divided doses every 12 hours for 10 days. The following table is a guideline for the attainment of this dosage using Septra Tablets or Suspension.

Children: Two months of age or older:

Weight		Dose—every 12 hours	
lb	kg	Teaspoonfuls	Tablets
20	9	1 (5 ml)	½
40	18	2 (10 ml)	1
60	27	3 (15 ml)	1½
80	36	4 (20 ml)	2 (or 1 DS tablet)

For patients with renal impairment:

Creatinine Clearance (ml/min)	Recommended Dosage Regimen
Above 30	Usual Standard Regimen
15-30	Half of the usual dosage regimen
Below 15	Use Not Recommended

Supplied: SEPTRA TABLETS containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 40, 100, 500 and 1000 tablets; unit dose pack of 100. ORAL SUSPENSION, containing the equivalent of 40 mg trimethoprim and 200 mg sulfamethoxazole in each teaspoonful (5 ml), cherry flavored—bottle of 450 ml.

Also available in double strength, oval-shaped, pink, scored tablets containing 160 mg trimethoprim and 800 mg sulfamethoxazole—bottles of 60 and unit dose packs of 100.

*Clinical results do not necessarily correspond with *in vitro* data.

†Data on file, Medical Department, Burroughs Wellcome Co.

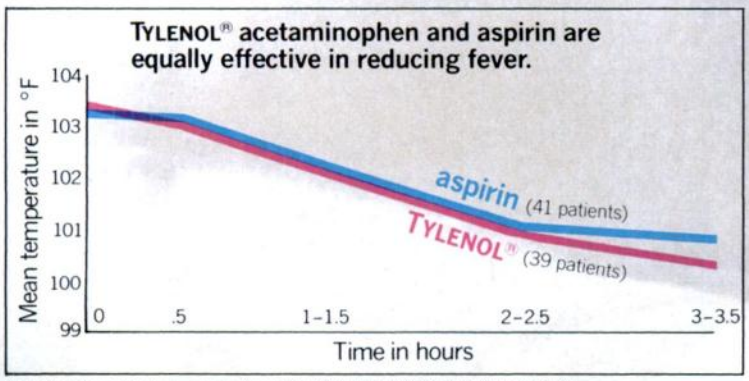
Wellcome

Burroughs Wellcome Co.
Research Triangle Park
North Carolina 27709

Fever's down fast with TYLENOL® safety

acetaminophen

Clinical evidence:



Adapted from Tarlin,L., et al: Am J Dis Child *124*:880-882 (Dec.) 1972.

your logical first choice for fever and pain

McNEIL

McNeil Consumer Products Company
Fort Washington, Pa. 19034

AMOXIL® (amoxicillin)
THE LOGICAL ANTIBIOTIC FOR ACUTE OTITIS MEDIA IN CHILDREN

Better absorption with AMOXIL

About 90% of the AMOXIL is rapidly absorbed from the gastrointestinal tract, while approximately one-half of the ampicillin is unable to pass through the intestinal barrier.[1,2]

Oral Administration	% Not Absorbed (Fasting)	% Drug Absorbed	% Bound To Protein	Theoretical % Available for Tissue Distribution
AMOXIL 250 mg	**11%**	**89%**	**18%**	**73% (82% of 89%)**
ampicillin 500 mg	**53%**	**47%**	**18%**	**38% (82% of 47%)**

More AMOXIL at the site of infection

Middle Ear Fluid Concentrations* after 1-Gm oral dose

AMOXIL mean	**= 6.2 μg/ml**
Ampicillin mean	**= 1.48 μg/ml**

Low incidence of diarrhea

AMOXIL	ampicillin
1.7%	**11.0%**
Based on 1,811 patients receiving AMOXIL capsules[3]	**Based on 957 patients receiving ampicillin capsules[4-9]**

97.5% success or improvement rate with AMOXIL**

Clinical success or improvement reported with AMOXIL against otitis media: 161 out of 165 evaluable patients=97.5%[3]

And the price is right

Because of recent price reduction, AMOXIL Oral Suspension will probably cost the patient only slightly more *per day of therapy* than ampicillin oral suspension.

The only way to be sure your patient receives the originator's brand is to...

Specify AMOXIL® (amoxicillin)

1. Data for amoxicillin from Zarowny D, et al: *Clin Pharmacol Ther* 16:1045-1051, 1974.
2. Data for ampicillin from MacLeod C, et al: *Can Med Assoc J* 111: 341-346, 1974.
3. Wise PJ, Neu HC: Experience with amoxicillin: An overall summary of clinical trials in the United States. *J Infect Dis* 129 (June suppl):226-271, 1974.
4. Kristensen EL, Harding JW: A multi-centre comparative trial of talampicillin and ampicillin in general practice. *Br J Clin Prac* 29:255-266, October 1975.
5. Jaffe G, et al: A comparative study of talampicillin and ampicillin in general practice. *The Practitioner* 216:455-460, 1976.
6. Beavis JP, et al: Colitis and diarrhoea: A problem with antibiotic therapy. *Br J Surg* 63:299-304, 1976.
7. Davies JA, et al: Comparative double-blind trial of cephalexin and ampicillin in treatment of urinary infections. *Br Med J* 3:215-217, July 1971.
8. Horrax TM: Incidence of diarrhea in the treatment of genitourinary tract infections with ampicillin. *Conn Med* 35:301-304, May 1971.
9. Tedesco FJ: Ampicillin-associated diarrhea: A prospective study. *American J Dig Dis* 20:295-297, April 1975.

*Individual and mean MEF concentrations one to two hours after administration of amoxicillin and ampicillin. A 1-Gm oral dose was used in this study for pharmacokinetic purposes. The normal therapeutic dosage range of AMOXIL is 125 mg to 500 mg t.i.d. dependent upon weight. Before prescribing AMOXIL refer to dosage and administration section of complete product information.

Adapted from: Klimek J, et al: Comparison of concentrations of amoxicillin and ampicillin in serum and middle ear fluid of children with chronic otitis media. *J Infect Dis* 135:999-1002, 1977.

**Success means that cultures remained negative during follow-up evaluation. Improvement means that patients were deemed clinically well by attending physicians although follow-up cultures were not done.

See next page for brief summary of prescribing information.

This label shows why 90% of pediatricians want Jimmy to eat a baby food like Beech-Nut®.

A recent national survey* was conducted to determine pediatricians' attitudes toward homemade and commercially prepared baby foods. *The results:* 9 out of 10 pediatricians preferred a baby food with no salt added—and no sugar added to most foods. These same pediatricians also preferred baby foods with no preservatives added, no artificial flavors or colors and no MSG or other flavor enhancers.

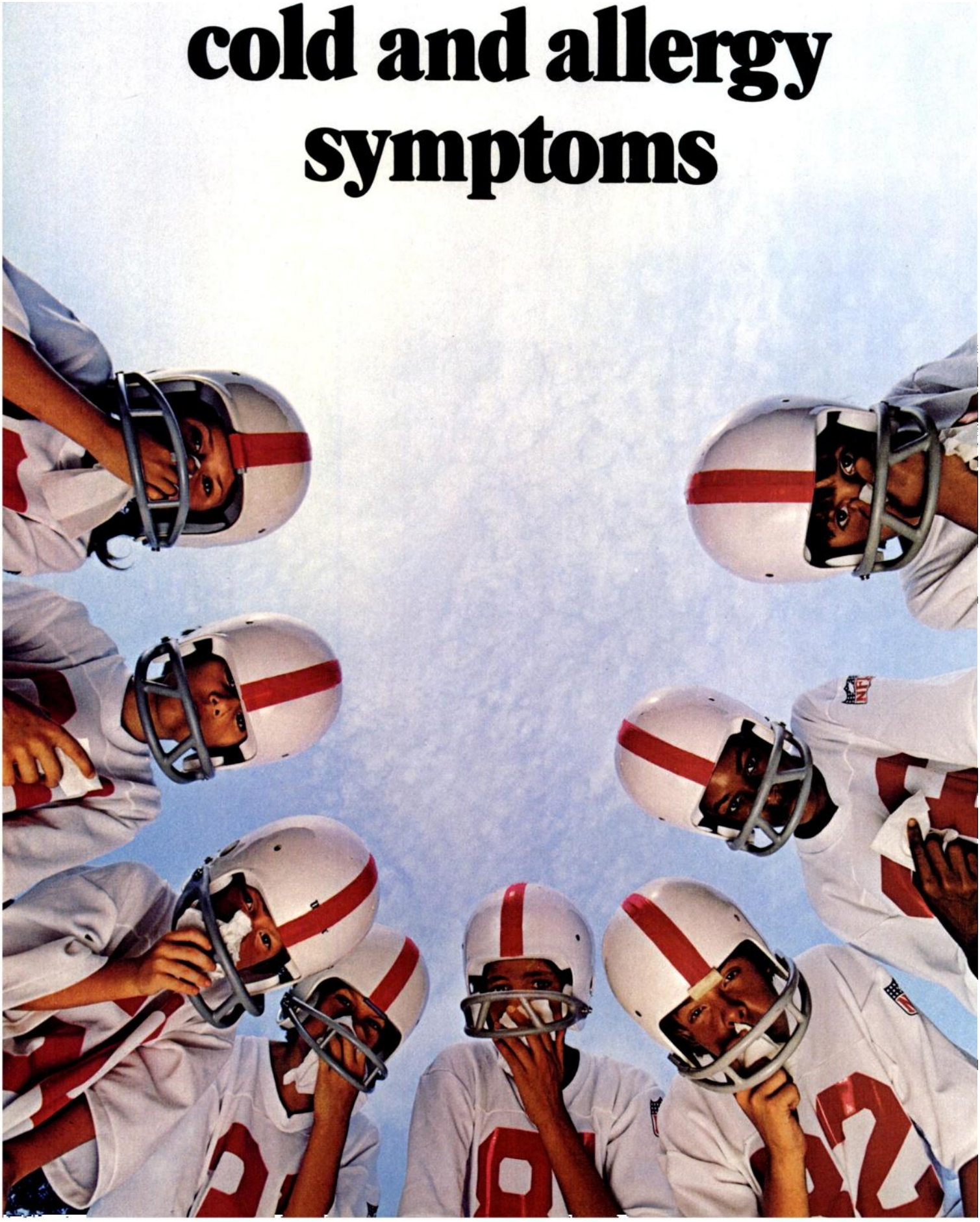
Beech-Nut baby foods have no salt added to any product. And no sugar added to most. And, of course, Beech-Nut contains no artificial colors, artificial flavors, MSG or other flavor enhancers.

No wonder 90% of pediatricians want Jimmy to eat a baby food like Beech-Nut.

*Survey results available upon request from Beech-Nut Medical Services.

BEECH-NUT MEDICAL SERVICES
P. O. Box 127, Fort Washington, PA 19034

Team up against cold and allergy symptoms



with Ornade 2®
Liquid for Children.

Now there's effective cold and allergy symptom relief formulated especially for children.

A gentle decongestant
to alleviate stopped-up nose, that stuffy feeling.

An effective antihistamine
to relieve runny nose, sneezing, itchy, watery eyes.

And a delicious taste
a skillful blend of tropical fruits and spices so kids take it without complaining.

Each 5 ml teaspoonful contains phenylpropanolamine HCl 12.5 mg; chlorpheniramine maleate 2 mg; and alcohol 5%.
And each bottle has its own measuring cup for easy, reliable dosage.

Adults and Children 12 and over
2 teaspoons every four hours
Children 6 to 12
1 teaspoon every four hours
Children 2 to 6
1/2 teaspoon every four to six hours
Do not exceed six doses in 24 hours.

Smith Kline &French Laboratories
Division of SmithKline Corporation, Phila., Pa.

Ornade 2®
Trademark
LIQUID FOR CHILDREN

SK&F
a SmithKline company

Prescribe or recommend it.

Vermox...the

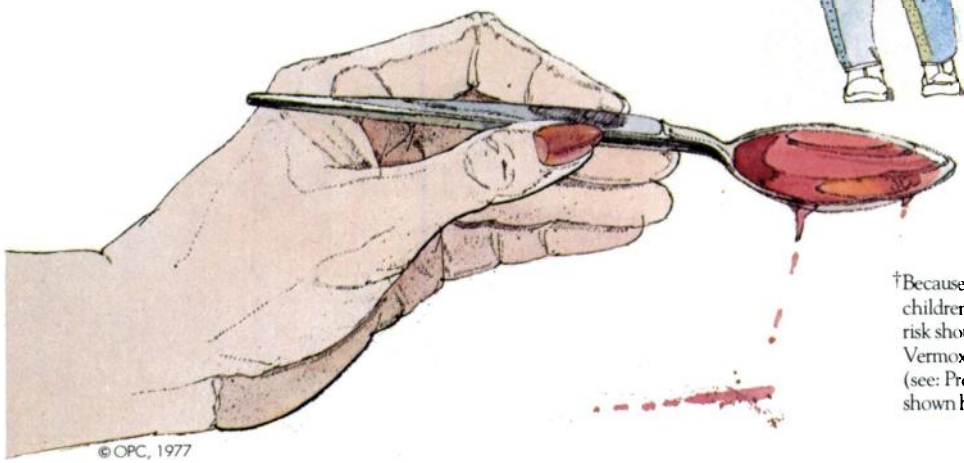
TRADEMARK

Eliminates pinworm with a single tablet in 95% of patients

Just one Vermox tablet is all it takes to treat pinworm. And the cure rate is a very good one. In clinical studies with Vermox, the mean cure rate after a single tablet was 95% (range: 90%-100%). In cases of reinfection, a second tablet is advised.

Eliminates staining and messy liquids

Since Vermox is a chewable, orange-flavored tablet, there are no messy liquids to pour, or spill. And Vermox is not a dye so it cannot stain clothes, teeth, feces, toilet bowls, etc.

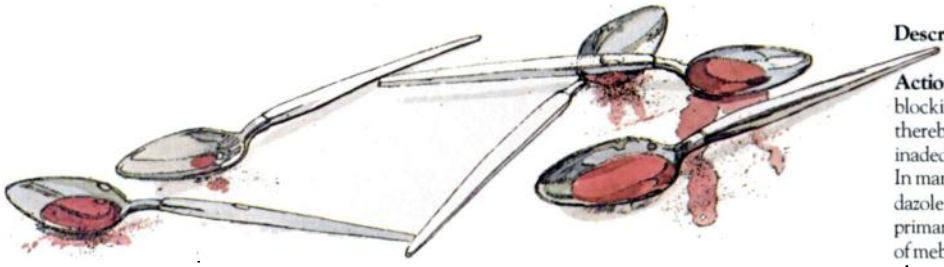


Eliminates dosage calculation by body weight

Everyone—adult or child†—with pinworm gets the same treatment: just one Vermox tablet. No need to calculate the dose based on patient body weight. That makes it easy for the physician, easy for the pharmacist, and especially easy for the patient.

†Because Vermox has not been extensively studied in children under two years of age, the relative benefit/risk should be considered before treating these children. Vermox is contraindicated in pregnant women (see: Pregnancy Precautions) and in persons who have shown hypersensitivity to the drug.

eliminator



Eliminates dosage confusion

Patients don't have to worry about six tablespoons for one member of the family and three tablespoons for another. Or three wafers. Or five tablets. Just one tablet for each patient. It couldn't be easier.

Helps eliminate noncompliance

Because Vermox therapy is so simple, it may encourage patient compliance. Simple instructions provide a better chance that patients will follow through with prescribed therapy. And the single tablet for everyone with pinworm helps ensure that each patient gets the correct amount of medication.

Vermox can be taken at any time, so that therapy does not disrupt daily activity. And Vermox is a pleasant-tasting, orange-flavored tablet which can be chewed, or crushed and mixed with food, or simply swallowed.

The eliminator

Vermox

TRADEMARK

chewable tablets

mebendazole

Description VERMOX (mebendazole) is methyl 5-benzoylbenzimidazole-2-carbamate.

Actions VERMOX exerts its anthelmintic effect by blocking glucose uptake by the susceptible helminths, thereby depleting the energy level until it becomes inadequate for survival.

In man, approximately 2% of administered mebendazole is excreted in urine as unchanged drug or a primary metabolite. Following administration of 100 mg of mebendazole twice daily for three consecutive days, plasma levels of mebendazole and its primary metabolite, the 2-amine, never exceeded 0.03 μ g/ml and 0.09 μ g/ml, respectively.

Indications VERMOX is indicated for the treatment of *Trichuris trichiura* (whipworm), *Enterobius vermicularis* (pinworm), *Ascaris lumbricoides* (roundworm), *Ancylostoma duodenale* (common hookworm), *Necator americanus* (American hookworm) in single or mixed infections. Efficacy varies in function of such factors as pre-existing diarrhea and gastrointestinal transit time, degree of infection and helminth strains.

Contraindications VERMOX is contraindicated in pregnant women (see: Pregnancy Precautions) and in persons who have shown hypersensitivity to the drug.

Precautions *PREGNANCY:* VERMOX has shown embryotoxic and teratogenic activity in pregnant rats at single oral doses as low as 10 mg/kg. Since VERMOX may have a risk of producing fetal damage if administered during pregnancy, it is contraindicated in pregnant women.

PEDIATRIC USE: The drug has not been extensively studied in children under two years; therefore, in the treatment of children under two years the relative benefit/risk should be considered.

Adverse reactions Transient symptoms of abdominal pain and diarrhea have occurred in cases of massive infection and expulsion of worms.

Dosage and administration The same dosage schedule applies to children and adults. The tablet may be chewed, swallowed or crushed and mixed with food.

For the control of pinworm (enterobiasis), a single tablet is administered orally, one time.

For the control of roundworm (ascariasis), whipworm (trichuriasis), and hookworm infection, one tablet of VERMOX is administered, orally, morning and evening, on three consecutive days.

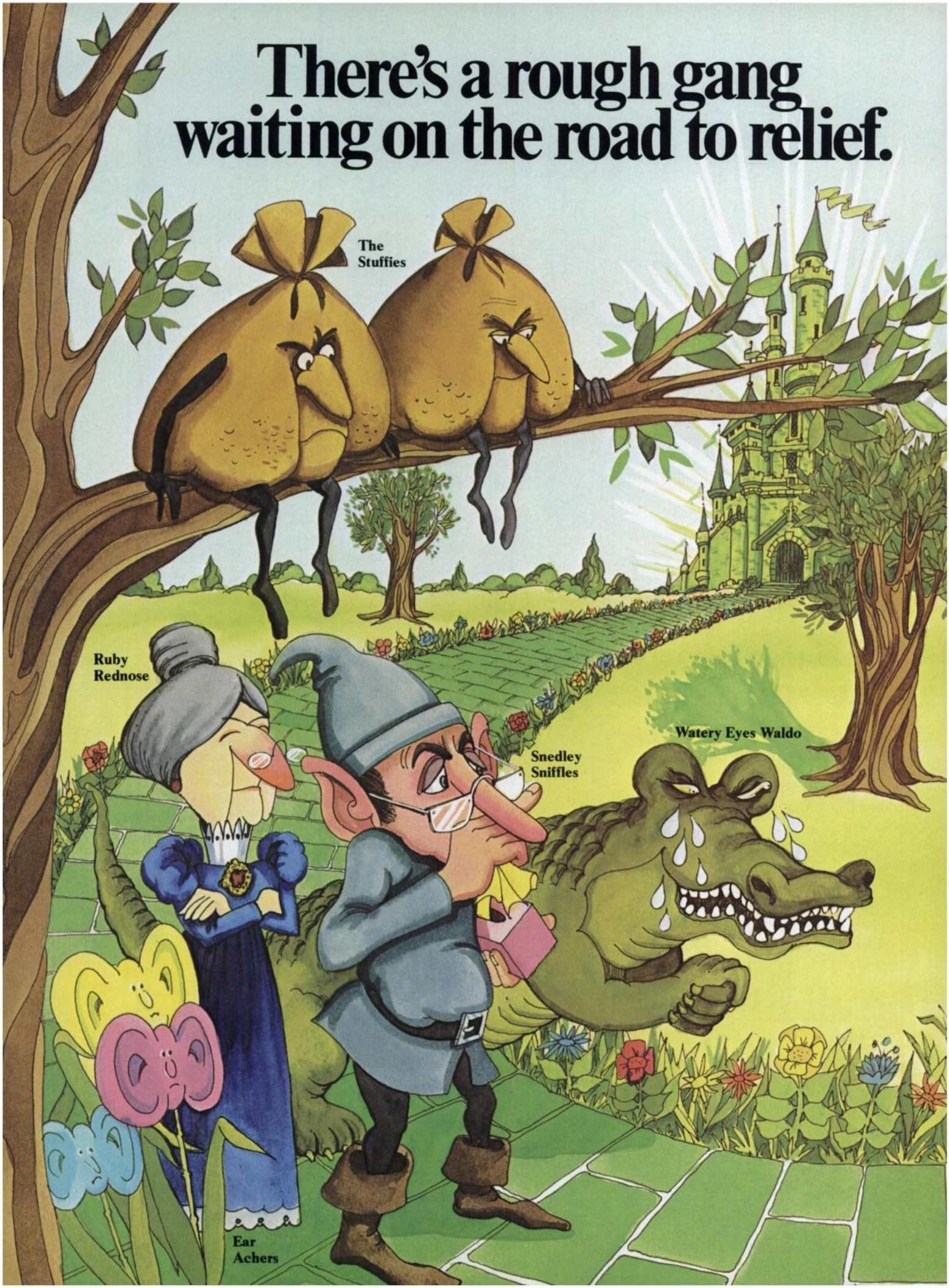
If the patient is not cured three weeks after treatment, a second course of treatment is advised. No special procedures, such as fasting or purging, are required.

How supplied VERMOX is available as chewable tablets, each containing 100 mg of mebendazole, and is supplied in boxes of twelve tablets.

VERMOX (mebendazole) is an original product of Janssen Pharmaceutica, Belgium, and co-developed by Ortho Pharmaceutical Corporation.

Ortho Pharmaceutical Corporation
Raritan, New Jersey 08869

OJ 498-6


There's a rough gang waiting on the road to relief.
The Stuffies
Ruby Rednose
Snedley Sniffles
Watery Eyes Waldo
Ear Achers

Get thru the ambush with

NOVAFED® Liquid
Decongestant and

NOVAFED® A Liquid
Decongestant Plus Antihistamine

They just love little kids. Snedley Sniffles, Watery Eyes Waldo or The Stuffies. The whole gang. Novafed Liquid and Novafed A Liquid keep Snedley and his road gang in check, for effective, fast-acting relief.

DOSAGE: Children over 12 years, 2 teaspoonfuls; 6 to 12 years, 1 teaspoonful; infants and children under 6 years, ½ teaspoonful. May be given every 4 hours. Do not exceed 4 doses in a 24-hour period.

Pleasant candy-stick flavor.
Children take it without fussing.

For your prescription or recommendation.

NOVAFED Liquid
Decongestant

Each 5 ml. teaspoonful of Novafed Liquid contains pseudoephedrine hydrochloride 30 mg and alcohol 7.5%.

NOVAFED A Liquid
Decongestant Plus Antihistamine

Each 5 ml. teaspoonful of Novafed A Liquid contains pseudoephedrine hydrochloride 30 mg, chlorpheniramine maleate 2 mg, and alcohol 5%.

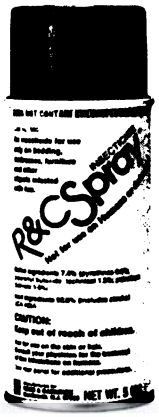
DOW

DOW PHARMACEUTICALS
The Dow Chemical Company
Indianapolis, IN 46268

Now, a major the lice infestation/

advance to break reinfestation cycle.

Kills lice that remain on upholstery, bedding, carpeting...that may reinfest the patient or infest his family.



R&C Spray™ INSECTICIDE

with synergised pyrethrins

Pediculi and their ova can survive (for a short time) off the human host. Thus, even though the patient may have been successfully disinfested of lice on his person, immediate reinfestation is possible or a fresh infestation of other family members may occur.

To help break this infestation/reinfestation cycle, *when washing or dry cleaning is not possible,* R&C Spray can be applied to upholstery, bedding, carpeting and other objects where lice and their eggs are known to linger.

R&C Spray is specially formulated with synergised pyrethrins to provide effective parasite control. "Pyrethrins are exceptionally rapid in their effect upon insects...."*

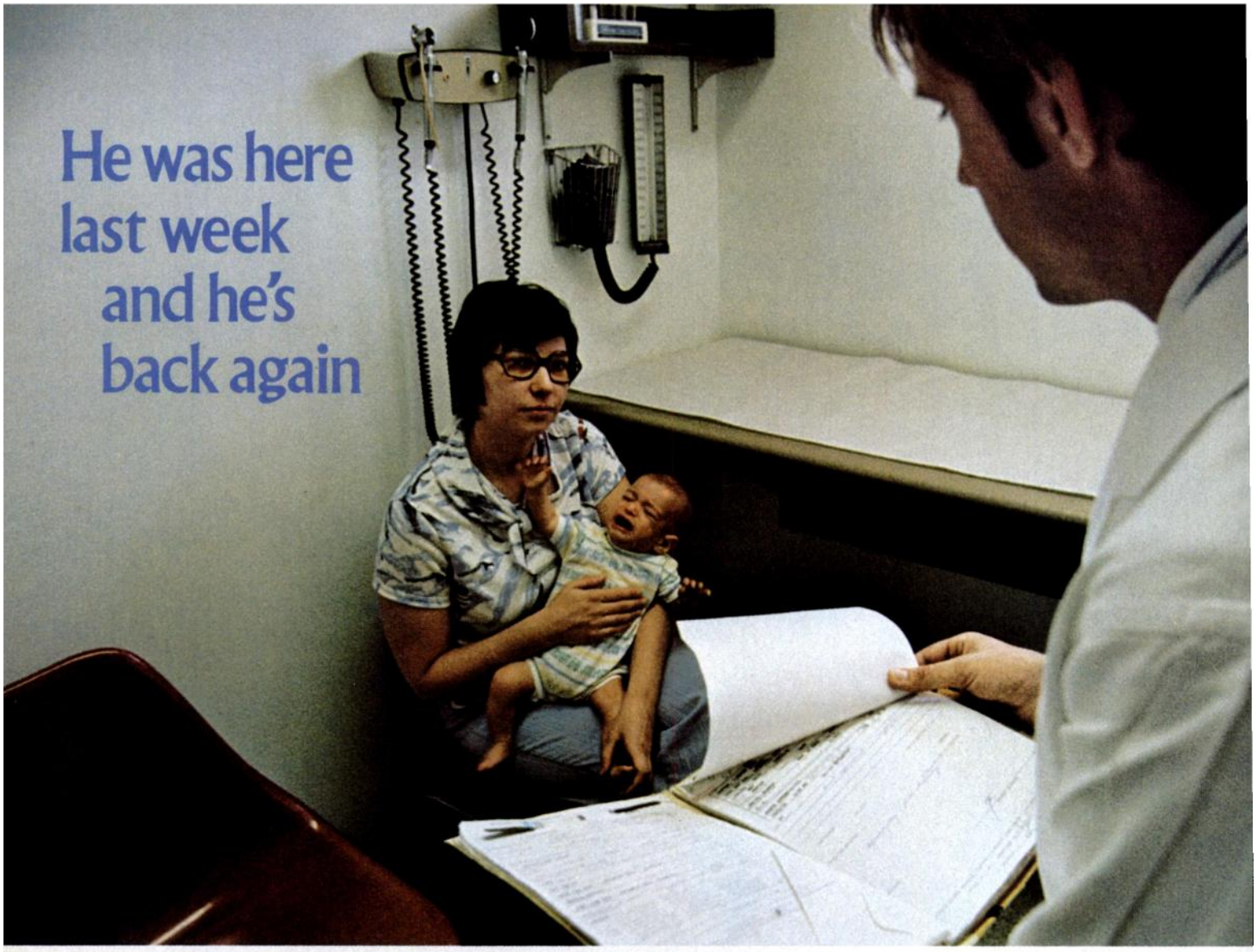
After you have prescribed a specific for parasites on the scalp or body, complete the regimen with the specific for parasites off the body with R&C Spray Insecticide.

Caution: Not for use on humans or animals. Avoid spraying in eyes. May be absorbed through skin. Avoid breathing spray mist. Avoid contact with skin. In case of contact, wash immediately with soap and water. Avoid contamination of feed and foodstuffs. Harmful if swallowed. Vacate room after treatment and ventilate before reoccupying.

*Osol, A. and Farrar, G.E., eds., *United States Dispensatory,* Philadelphia, J. B. Lippincott Co., 25th edition, 1960, p. 2012.

Reed & Carnrick/Kenilworth, N.J. 07033

R&C Spray. Keeps lice from making a comeback.



Have you ruled out cow-milk sensitivity?

The physical symptoms are many and varied: diarrhea, colic, eczema, asthma, vomiting, bronchitis, rhinitis. They can be coupled with behavioral symptoms: repeated refusal of the nursing bottle . . . general fussiness.[1-3]

Alone or together, the manifestations of milk sensitivity are an unnecessary burden for the infant . . . and parents. More important, if unchecked the allergic syndromes can lead to failure to thrive and other serious health problems.[4]

With Isomil® Soy Protein Formula you can avoid the symptoms of milk sensitivity and help confirm your initial diagnosis.

Moreover, Isomil promotes normal growth.[2,5] It looks like milk, it pours like milk and has a pleasant aroma, which help insure acceptability. Unlike milk, Isomil is lactose free. It avoids the possibility of prolonged or recurring diarrhea caused by lactose intolerance.

Consider the possibility of milk sensitivity when associated symptoms are presented. "A high index of suspicion" is essential to its prompt detection.[2,6]

References: 1. Rapp, D. J.: Milk Allergy — From Birth to Old Age. Consultant 14:120, 1974. 2. Cowan, C.C., Brownlee, R.C., DeLoache, W.R., Jackson, H.P., and Matthews, J.P.: A Soy Protein Isolate Formula in the Management of Allergy in Infants and Children. South. Med. J. 62:389, 1969. 3. Clein, N.W.: Cow's Milk Allergy in Infants and Children. Int. Arch. Allergy. 13:245, 1958. 4. Goldman, A.S., Anderson, D.W., Sellars, W.A., Saperstein, S., Kniker, W.T., Halpern, S.R.: Milk Allergy. 1. Oral Challenge with Milk and Isolated Milk Proteins in Allergic Children. Ped. 32:425, 1963. 5. Jung AL, Carr SL: A soy protein formula and a milk-based formula. Clin.Ped. 16:982, 1977. 6. Frier, S. and Kletter, B.: Milk Allergy in Infants and Young Children. Clin. Ped. 9:449, 1970.

Switch first to ISOMIL®

Soy Protein Formula

when the baby can't take milk

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

208-B169

TEDRAL®/TEDRAL® SUSPENSION
TEDRAL® Elixir

Description. Tedral: each tablet contains 130 mg theophylline, 24 mg ephedrine hydrochloride, and 8 mg phenobarbital.

Tedral Suspension: each 5 ml teaspoonful of suspension contains 65 mg theophylline, 12 mg ephedrine hydrochloride, and 4 mg phenobarbital.

Tedral Elixir: each 5 ml teaspoonful contains 32.5 mg theophylline, 6 mg ephedrine hydrochloride, and 2 mg phenobarbital; alcohol content is 15%.

Indications. Tedral, Tedral Suspension and Tedral Elixir are indicated for the symptomatic relief of bronchial asthma, asthmatic bronchitis, and other bronchospastic disorders. They may also be used prophylactically to abort or minimize asthmatic attacks and are of value in managing occasional, seasonal and perennial asthma.

Tedral Suspension and Tedral Elixir are convenient for persons who may have difficulty in swallowing tablets.

These Tedral formulations are adjuncts in the total management of the asthmatic patient. Acute or severe asthmatic attacks may necessitate supplemental therapy with other drugs by inhalation or other parenteral routes.

Contraindications. Sensitivity to any of the ingredients; porphyria.

Warnings. Drowsiness may occur. PHENOBARBITAL MAY BE HABIT-FORMING.

Precautions. Use with caution in the presence of cardiovascular disease, severe hypertension, hyperthyroidism, prostatic hypertrophy, or glaucoma.

Adverse Reactions. Mild epigastric distress, palpitation, tremulousness, insomnia, difficulty of micturition, and CNS stimulation have been reported.

Average Dosage. Prophylactic or Therapeutic.

Tedral. Adults—One or two tablets every 4 hours. Children—(Over 60 lb) one-half the adult dose.

Tedral Suspension. Note: One teaspoonful is equivalent to *one-half* Tedral tablet. Adults—Two to four teaspoonfuls every 4 hours. Children—One teaspoonful per 60 lb body weight, every 4-6 hours unless prescribed otherwise by physician. Should be given to children under 2 years of age only with extreme caution.
SHAKE BOTTLE WELL.

Tedral Elixir. Note: One teaspoonful is equivalent to *one-quarter* Tedral tablet. Children—One teaspoonful per 30 lb body weight, every 4-6 hours unless prescribed otherwise by physician. Should be given to children under 2 years of age only with extreme caution. Adults—One to two tablespoonfuls every four hours.

Supplied. Tedral: White, uncoated scored tablets in bottles of 24 (N 0047-0230-24) 100 (N 0047-0230-51) and 1000 (N 0047-0230-60). Also in Unit Dose—package of 10 x 10 strips (N 0047-0230-11).

Tedral Suspension: Yellow, licorice-flavored suspension in bottles of 237 ml (8 fl oz) (N 0047-0237-08) and 474 ml (16 fl oz) (N 0047-0237-16).

Tedral Elixir: Dark red and cherry-flavored in 474 ml (16 fl oz) bottles (N 0047-0242-16).

STORE BETWEEN 59°-86° F (15°-30° C).

Full information is available on request.

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THE GIFT OF AIR.
Tedral means air...
so children with asthma
can be children.
Once symptoms have
begun, Tedral can reduce
bronchospasm and help
to relieve dyspnea and
wheezing. And, it may
be used prophylactically
to reduce the frequency
and severity of
asthmatic attacks.
Either way, Tedral can
help young asthmatics
lead more active, normal lives.
Available in three convenient
dosage forms for children:
a cherry-flavored elixir,
a licorice-flavored suspension,
and tablets.
See preceding page for prescribing information.
Tedral® Elixir
Each 5 ml teaspoonful contains:
32.5 mg theophylline,
6 mg ephedrine hydrochloride,
and 2 mg phenobarbital;
the alcohol content is 15%.
Tedral®
Each tablet contains:
130 mg theophylline,
24 mg ephedrine hydrochloride,
and 8 mg phenobarbital
ASTHMA THERAPY
A CHILD
CAN LIVE WITH

VOLUME 62 • NOVEMBER 1978 • NUMBER 5

Pediatrics

ARTICLES

Impact of the Apnea Monitor on Family Life

Lois Black, Ph.D., Leonard Hersher, Ph.D., *and* Alfred Steinschneider, M.D., Ph.D.

From the Department of Pediatrics, State University of New York, Upstate Medical Center, Syracuse

ABSTRACT. The use of an apnea monitor in the home to limit the duration of prolonged apneic spells and thus, possibly, to prevent sudden infant death syndrome (SIDS) has raised a number of questions about the effect of such devices on the infant, family, and parent-child interaction. Through interviews and questionnaires, descriptive data were obtained from 31 families who recently or currently had an infant on a monitor. The infants treated were either those who had one or more severe cyanotic episodes, siblings of infants with SIDS or severely cyanotic infants, or normal newborn infants in a research study. On the basis of laboratory sleep studies, all were believed to be prone to prolonged apneic spells.

Most families believed that using the apnea monitor had a significant but temporary impact on their personal and social lives. Many patterns of daily living and child-care routines were altered to accommodate monitor use. Technical limitations of the machine severely aggravated parents' problems. Despite these observations, most parents believed the monitor was an anxiety reducer and, in retrospect, well worth the trouble. Generally it was not seen as a deterrent to normal parent-child relations.

These generalizations are explored in detail and are presented as a stimulus to further investigation and improved management. *Pediatrics* 62:681-685, 1978, *sudden infant death syndrome, apnea, monitor, impact, family.*

Over the past few years, an increasing number of infants have been referred to one of us (A.S.) for evaluation and management because of prolonged apneic episodes during sleep. One of the means available for management has been close observation with an apnea monitor. Since there was no way of anticipating how long this problem would last in any infant, parents were advised to employ an apnea monitor at home rather than keep the infant in the hospital for an indefinite period of time. In addition, it has been recommended to parents of a number of otherwise clinically well infants that they employ an apnea monitor because it appeared that the infant ran a high risk of having prolonged sleep apnea.[1]

The issues that confront parents who agree to such treatment are of three types: the diagnosis of a chronic, if self-limiting, condition has been made, and the fear of a child's sudden death has been raised; a particular mechanical device with limitations and operating requirements must be coped with; and direct and full-time responsibility for appropriate intervention, should breathing stop, has been assumed by the parents.

At the time of this study, more than 50 infants had been cared for at home using apnea monitors. While working with their families, sufficient anectodal material was accumulated to indicate that, although parents were in general grateful for the presence of the monitoring system, this management approach imposed many burdens. The present descriptive study was undertaken to identify these problems and to describe the adaptation of families to the monitor, as well as its effects on family life and the child.

Received January 17; revision accepted for publication April 20, 1978.

Read before the Research Planning Workshops on the Sudden Infant Death Syndrome, Washington, D.C., February 19-20, 1974.

Dr. Steinschneider is now at the University of Maryland Hospital, Baltimore.

ADDRESS FOR REPRINTS: (L.B.) Department of Pathology, Syracuse University, Syracuse, NY 13210.

Although there are significant differences in the surfaces of these two catheters, the clinical importance of these differences remains to be seen. Thrombus formation is a complex process involving many variables, only one of which is the surface characteristics of intravascular catheters. In vitro and in vivo investigations of a number of the other variables are underway at this time.

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ACKNOWLEDGMENT

This investigation was supported by grant HRF-11-76 from the Minnesota Medical Foundation.

We thank Patricia Mottaz for her technical assistance.

AMERICAN ACADEMY OF PEDIATRICS RESIDENCY FELLOWSHIPS STIPULATIONS

To enable young physicians to complete their pediatric training, the American Academy of Pediatrics will grant a small number of fellowships of $500 to $2,500 each to pediatric interns and residents for the year beginning July 1. Candidates must meet the following requirements:

1. Be legal residents of the United States or Canada;
2. Have completed, or will have completed by July 1, a qualifying approved internship (PI-0) or have completed a PI-1 program, and have made a definite commitment for a first year pediatric residency (PI-1 or PI-2) acceptable to the American Board of Pediatrics; or
3. Be pediatric residents (PI-1, PI-2, or PI-3) in a training program and have made a definite commitment for another year of residency in a program acceptable to the American Board of Pediatrics;
4. Have real need of financial assistance; and
5. Support their application with a letter from the Chief of Service substantiating the above requirements; if a change in residency training program is contemplated (i.e., moving to another institution), a letter from the chief of this service certifying acceptance to this program will also be necessary.

The fellowships have been provided through grants to the American Academy of Pediatrics by Mead Johnson Laboratories and the Gerber Products Company.

Although the fellowship awards are intended primarily for the support of first and second year pediatric residents, it is also recognized that some physicians may desire a third or fourth year of pediatric residency. Up to 25% of the fellowships may be awarded to persons in this category. Consideration will be given to geographic spread of awards, and preference will be exhibited for well-qualified but smaller training centers which perhaps have fewer resources for residents in training than do some of the larger centers.

The Committee on Residency Fellowships of the American Academy of Pediatrics will make final decision on the granting of the Awards. Those interested in applying may write to Jean D. Lockhart, M.D., Department of Committees, American Academy of Pediatrics, P.O. Box 1034, Evanston, Illinois 60204, for application forms.

The deadline for the receipt of applications will be March 1.

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ACKNOWLEDGMENT

This investigation was supported by John Hartford Foundation, Inc.; the National Foundation–March of Dimes; and grant N01-A1-42518 from NIAID. Research conducted in the Pediatric Clinical Research Center was supported by grant 5M01-RR00079-15 from the Division of Research Resources, National Institutes of Health.

We thank Ms. Paula Aycock for technical assistance and Ms. Anne Marsh for editorial and typing help.

ANNOUNCEMENT OF 1979 NEONATAL-PERINATAL MEDICINE EXAMINATION

The Sub-Board of Neonatal-Perinatal Medicine of the American Board of Pediatrics with administer its next certifying examination on Friday, November 2, 1979. The following criteria must be met to be eligible to sit for the examination:

1. Certification by the American Board of Pediatrics;
2. Two years of full-time graduate training in neonatal-perinatal medicine completed by October 1, 1979; or five years in the practice of neonatal-perinatal medicine completed by October 1, 1979; or a combination of fellowship and practice to total five years of experience by October 1, 1979: *(a)* for fellowships of less than 12 months: one month of fellowship equals one month of practice; *(b)* for fellowships of 12 to 23 months: one month of fellowship equals two months of practice;
3. Letters of recommendation from individuals able to attest to the applicant's training or practice.

Each application will be considered individually and must be acceptable to the Sub-Board of Neonatal-Perinatal Medicine.

Registration for this examination will extend from **December 1, 1978,** to **March 31, 1979.** Requests for applications received prior to the opening of registration will be held on file until that date at which time application materials will be sent to those who have requested them.

The application fee is $450 ($150 processing fee + $300 examination fee). Candidates who are not approved to take the examination will be refunded the $300 examination fee. The processing fee will be retained.

Please direct inquiries to the American Board of Pediatrics, Suite 402, NCNB Plaza, 136 East Rosemary Street, Chapel Hill, NC 27514; telephone (919) 929-0461.

Lost In The Continuing Education Maze?

Today's pediatrician has a confusing array of continuing education opportunities to choose from. How do you select options which lead to a personalized, yet structured, program of continuing education? Busy pediatricians need a comprehensive, coordinated program of continuing education, one that uses many models and offers the greatest amount of flexibility.

The American Academy of Pediatrics has created such a program—PREP (Pediatrics Review and Education Program).

PREP is a coordinated program which allows participants to:

- Stay abreast of the latest developments in comprehensive (general) pediatrics;
- Further their knowledge in areas of particular interest;
- Assess their own progress and provide documentation for license renewal and recertification requirements.

PREP includes a new journal devoted to continuing education, self-assessment programs and documentation of continuing education activity. In addition, AAP continuing education courses as well as round tables and seminars at national meetings will be coordinated with the PREP curriculum. In fact, all of the PREP materials will relate to the same educational objectives. It is a total program which accommodates individual goals.

If you would like registration information, write PREP, American Academy of Pediatrics, P.O. Box 1034, Evanston, Illinois 60204.

American Academy of Pediatrics

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Pediatrics Review and Education Program

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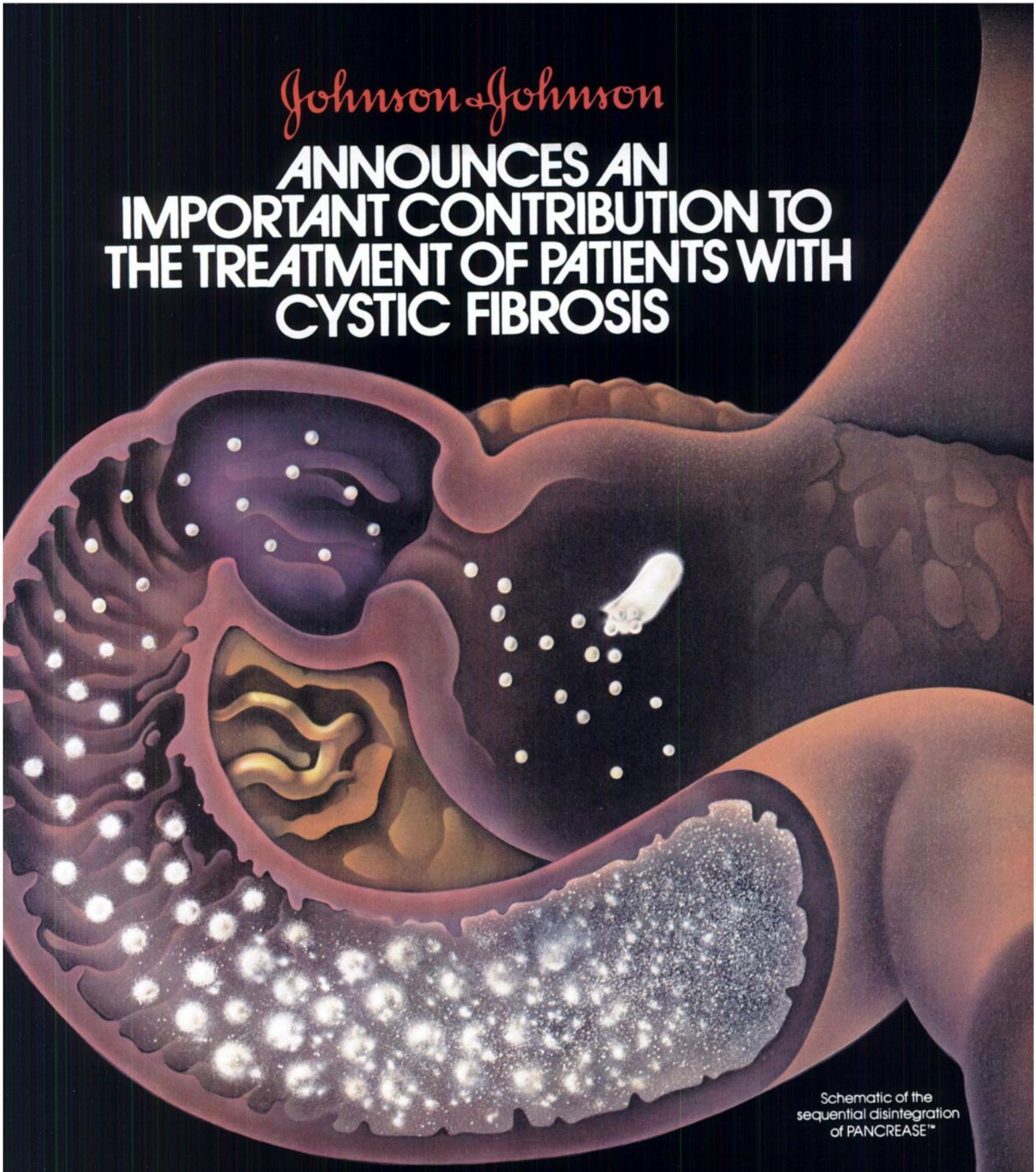
ANNOUNCES AN IMPORTANT CONTRIBUTION TO THE TREATMENT OF PATIENTS WITH CYSTIC FIBROSIS



Schematic of the sequential disintegration of PANCREASE™

PREDICTABLE DELIVERY OF PANCREATIC ENZYMES INTO THE DUODENUM WITHOUT GASTRIC INACTIVATION!

Please consult last page for full prescribing information.

INTRODUCING PANCREASE™

BRAND OF PANCRELIPASE

A Capsule of Enteric Coated Microspheres That Delivers High Levels of Active Pancreatic Enzymes to the Intestine-For Effective Digestion and Improved Patient Nutrition.

PANCREASE,™ the product that overcomes the major limitations of leading supplements.

Current pancreatic enzyme supplements are often highly inefficient digestive aids because much of their enzyme content is either inactivated in the stomach by gastric acid/pepsin or the enzymes are not released at appropriate digestive sites in the intestine.[1,2]

PANCREASE,™ brand of pancrelipase, overcomes these problems. It delivers virtually all of its enzymes into the duodenum in a bioactive state. And it does so mixed homogeneously throughout the chyme. As a consequence, PANCREASE™ provides high digestive efficiency with as little as one or two capsules per meal.

PANCREASE,™ the product that overcomes vulnerability to gastric inactivation.

The enteric coating on each PANCREASE™ microsphere is stable and does not undergo degradation below pH 5.5. This protects the enzyme content from inactivation by gastric acid/pepsin. The microspheres provide ready dispersion throughout the gastric contents and because they are less than 3mm in size easily pass the pylorus into the duodenum. In the intestine, as pH rises above 6, the PANCREASE™ microspheres rapidly disintegrate releasing their enzymes in a bioactive state.[3]

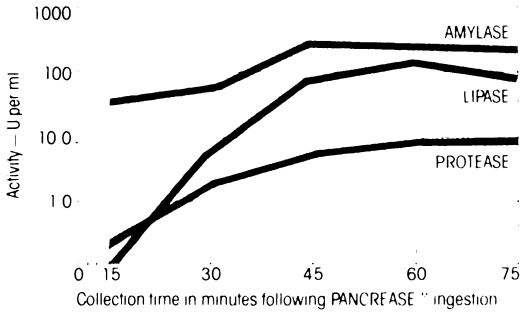
Because the pH-sensitive enteric coating protects the enzymes from gastric inactivation, fewer enzymes are required in each PANCREASE™ capsule to achieve effective digestion. With lower enzyme ingestion, purine intake is also reduced, thereby minimizing potential for hyperuricosuria.

PANCREASE,™ the product that demonstrates high bioavailability.

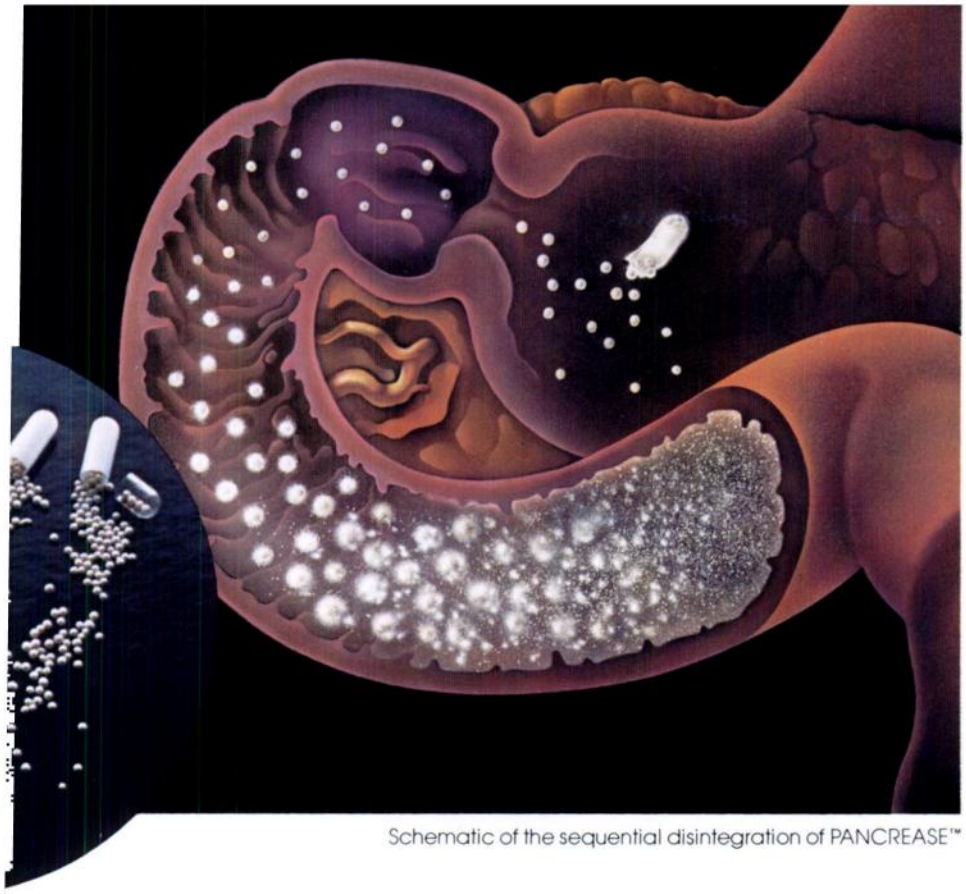
In vitro: To demonstrate the effectiveness of the pH-sensitive enteric coating, the enzymes in PANCREASE™ underwent assay in simulated intestinal fluid following agitation of the microspheres for one hour in simulated gastric juice. The results showed the PANCREASE™ enzymes retained their original activity without loss.[3]

In vivo: After depletion of endogenous pancreatic enzyme reserves by stimulation with cholecystokinin/pancreozymin and secretin, six subjects (three normal volunteers and three patients with severe pancreatic insufficiency) ingested five PANCREASE™ capsules each. Analysis of duodenal aspirates demonstrated high enzyme bioavailability in the intestine. That the enzymes came from PANCREASE™ was verified using disc gel electrophoresis.

Example of PANCREASE™ bioavailability in duodenum of adult patient with severe pancreatic enzyme insufficiency.*



* Data on file, Johnson & Johnson.



Schematic of the sequential disintegration of PANCREASE™

PANCREASE,™ the product that provides effective digestion with less medication.

In one study,[4] 47 outpatient children with cystic fibrosis, ranging in age from 8 to 15, were evaluated for nutritional status, dietary intake and response to PANCREASE™ as compared to conventional pancreatin tablets and powder-filled pancrelipase capsules.

Patients were randomly placed on one of the three pancreatic enzyme supplements and then followed over a six month period. Dietary intake, fat absorption, biochemical parameters and growth patterns were monitored.

Results showed that weight gain, linear growth and fat absorption for those children on a daily dose of either 34 pancreatin capsules or 17 pancrelipase capsules were not significantly different from the children on a daily dose of 9 capsules of PANCREASE.™ This study indicates that PANCREASE™ is as effective as conventional pancreatic enzyme therapy, but at one-fourth to one-half the dosage. Daily purine intake with PANCREASE™ was also substantially reduced. (See chart.)

In a second study,[5] the effect of dietary supplementation along with PANCREASE™ was observed in 10 severely growth-retarded children with cystic fibrosis over a three-week period in a hospital metabolic unit. Mean weight on admission was 25.3 ± 1.1 kg and mean height was 132.2 ± 2.5 cm. Mean triceps skin fold was 7.7 ± 0.6 mm with arm circumference of 18.2 ± 0.3 cm.

Each patient was placed on supplemental fat and carbohydrate, bringing total caloric intake from 1926 ± 111.5 kcal per day, up to 2894 ± 127.5 kcal per day.

Each child received two PANCREASE™ capsules per meal and one with snacks. During the three week period, a significant increase in weight, triceps skin fold and arm circumference was demonstrated. Following discharge on this dietary regimen, continued incremental increases in height, weight, arm circumference and triceps skin fold continued to be observed. There was a significant increase in height after two months' supplementation. Of significance was the finding that these 10 children with cystic fibrosis, who during the prior two months had shown no significant increase in height or weight, were able to tolerate the supplemental calories and demonstrate "catch-up" growth when placed on PANCREASE.™

In view of usual patient concern for gastrointestinal function, it is important to note that many cystic fibrosis patients receiving PANCREASE™ have reported relief of abdominal cramps, greater ability to accept regular food and reduction in stool frequency and "oiliness." Most preferred PANCREASE™ over the supplement they had previously been taking.[6]

Based on reduced stool frequency, improved utilization of dietary fat and long term patient weight gain, it can be concluded that PANCREASE™ provides highly effective enzyme replacement therapy for patients with cystic fibrosis.

Brings the patient with cystic fibrosis closer to normal digestion with less medication.

Response to Therapy

	No. of Patients	Units of Medication per day	% Fat Absorbed	Weight Increase (grams/month)
PANCREASE	17	9.0 · 0.5	84.0 · 3.6	300 · 70
Pancrelipase capsules	15	17.3 · 1.0	80.0 · 4.1	260 · 70
Pancreatin tablets	14	34.0 · 1.7	73.0 · 3.7	290 · 80

Enzyme Ingestion per Day

	No. of Patients	Lipase (000 units)	Amylase (000 units)	Protease (000 units)
PANCREASE	17	41 · 1.7	205 · 8.4	246 · 10.0
Pancrelipase capsules	15	138 · 6.4	520 · 24.0	520 · 23.9
Pancreatin tablets	14	221 · 8.2	1632 · 61.0	1088 · 41.0

All values expressed as mean ± S.E.M.

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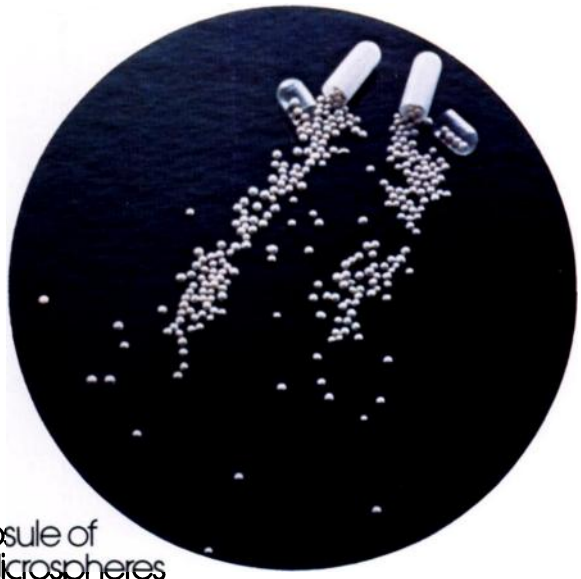
Please see next page for full prescribing information.

AN IMPORTANT CONTRIBUTION TO THE TREATMENT OF PATIENTS WITH CYSTIC FIBROSIS

INTRODUCING

PANCREASE™

BRAND OF PANCRELIPASE



A Capsule of
Enteric Coated Microspheres
That Delivers High Levels of Active Pancreatic
Enzymes to the Duodenum—For Effective
Digestion and Improved Patient Nutrition.

A Wide Range of Advantages in a Single Pancreatic Enzyme Supplement.

- ☐ Protection from gastric inactivation
  - ☐ Uniform enzyme distribution throughout gastric contents
- ☐ Demonstrated bioavailability at site of digestion
  - ☐ Effective at low daily dose levels
- ☐ Reduced purine intake—minimized possibility of hyperuricosuria
  - ☐ Can be administered in capsules or microspheres shaken directly onto food
- ☐ No coal tar dye additives present
  - ☐ Available in bottles of 100 and 250 capsules

Caution: Federal law prohibits dispensing without prescription

Description: PANCREASE™ is a white, dye-free capsule containing enteric coated microspheres of porcine pancreatic enzyme concentrate, predominately steapsin (pancreatic lipase), amylase and protease. Each capsule contains no less than

Lipase	4,000 N.F. Units
Amylase	20,000 N.F. Units
Protease	25,000 N.F. Units

Actions: PANCREASE™ resists gastric inactivation and delivers predictable, high levels of biologically active enzymes into the duodenum.[1] The enzymes catalyze the hydrolysis of fats into glycerol and fatty acids, protein into proteoses and derived substances, and starch into dextrins and sugars. PANCREASE™ is effective in controlling steatorrhea and its consequences at low daily dosage levels.[1,2]

Indications: PANCREASE™ is indicated for patients with exocrine pancreatic enzyme deficiency as in

- cystic fibrosis
- chronic pancreatitis
- post-pancreatectomy
- post-gastrointestinal bypass surgery (e.g., Billroth II gastroenterostomy)
- ductal obstruction from neoplasm (e.g., of the pancreas or common bile duct)

Contraindications: Hypersensitivity to any of the ingredients

Warnings and Precautions: Pancrelipase should be used with caution in patients known to be hypersensitive to pork protein. Safe use in pregnancy has not been established. Diethyl phthalate, an enteric coating component, has been shown with high intraperitoneal dosing to be teratogenic in rats.

Adverse Reactions: No adverse reactions have been observed with PANCREASE™. It should be noted, however, that extremely high doses of exogenous pancreatic enzymes have been associated with hyperuricosuria.[3]

Dosage and Administration: Usual dosage: One or two capsules during each meal and one capsule with snacks. Occasionally a third capsule with meals may be required depending upon individual requirements.

In the presence of deficient pancreatic bicarbonate secretion, antacid supplementation may be required for control of steatorrhea.

Where swallowing of capsules is difficult, they may be opened and the microspheres taken with liquids or shaken onto soft foods which do not require chewing.

TO PROTECT ENTERIC COATING, MICROSPHERES SHOULD NOT BE CRUSHED OR CHEWED.

How Supplied: White, dye-free capsules in bottles of:

100	NDC 0204-0095-01
250	NDC 0204-0095-02

References: 1. Data on file, Johnson & Johnson. 2. Khaw KT, et al. Comparative Effectiveness of Viokase, Cotazym and Pancrease in Children with Cystic Fibrosis. Cystic Fibrosis Club Abstracts, April 26, 1977. 3. Stapleton FD, et al. Hyperuricosuria Due to High Dose Pancreatic Extract Therapy in Cystic Fibrosis. N Engl J Med. 295:246-248, 1976

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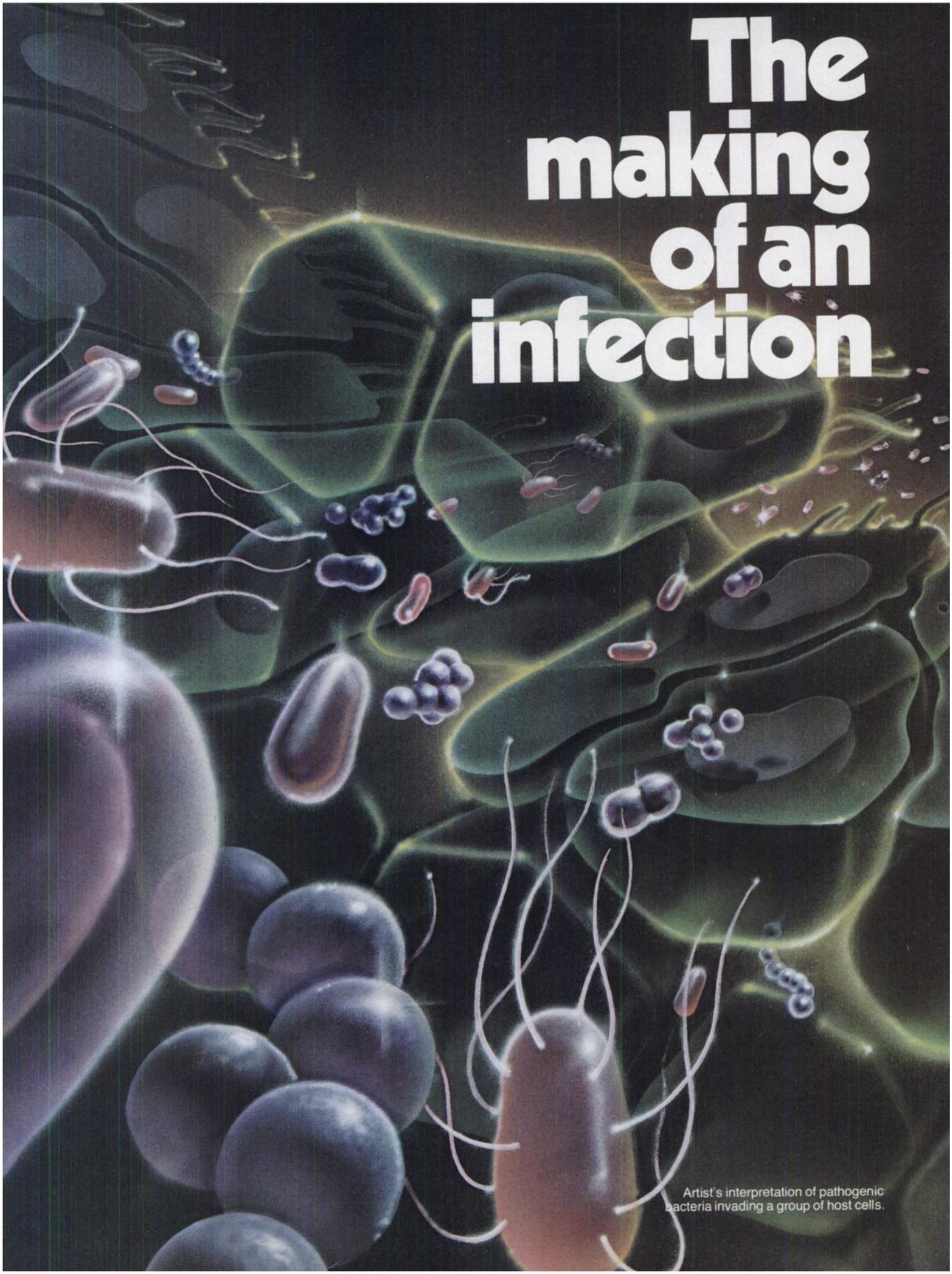
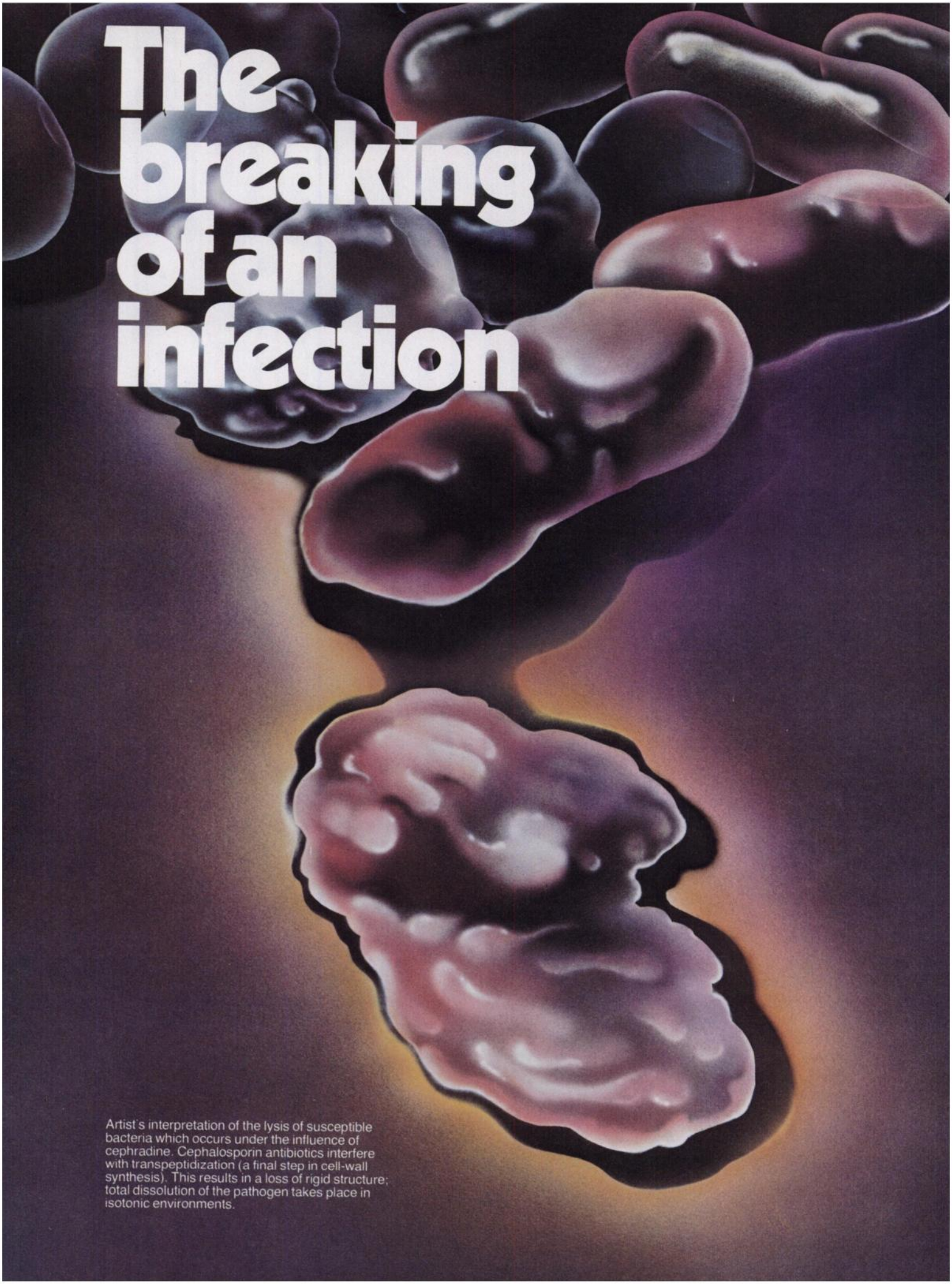
The making of an infection



Artist's interpretation of pathogenic bacteria invading a group of host cells.

The breaking of an infection

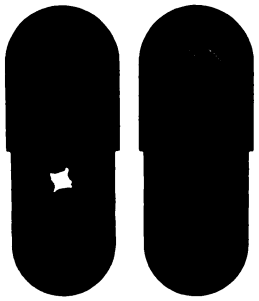


Artist's interpretation of the lysis of susceptible bacteria which occurs under the influence of cephradine. Cephalosporin antibiotics interfere with transpeptidization (a final step in cell-wall synthesis). This results in a loss of rigid structure; total dissolution of the pathogen takes place in isotonic environments.

Breaking infections is the hallmark of

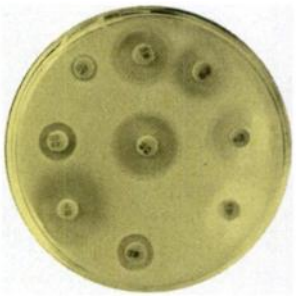
velosef®
CEPHRADINE, SQUIBB

Since its introduction in 1974, Velosef has become the fastest growing oral cephalosporin in the country. Many physicians have found that Velosef fills a definite need in their antibiotic armamentarium, especially when the need is for an oral antibiotic that is rapidly absorbed, well tolerated and reliably effective.*



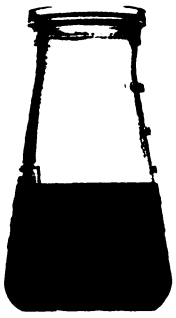
More particularly, Velosef offers the practitioner several distinct advantages, including...

a first in oral cephalosporin therapy:
BID dosage—
a great convenience for office patients, as well as in the hospital—moreover, the option of prescribing one or two 500 mg capsules q 12 h (depending on the infection*) may raise the level of compliance appreciably.



Resists destruction by bacterial enzymes
With reference to its resistance to hydrolysis by staphylococcal penicillinase, Lacey and Stokes conclude that cephradine is more stable than cephaloridine, cephazolin, cephalothin, and cephalexin (*in vitro* studies).[1]

Rapid, virtually total urinary excretion
Velosef is excreted virtually unchanged in the urine reaching concentrations as high as 3200 mcg/ml within three hours following a single oral dose of 500 mg. as demonstrated in 17 healthy adult male volunteers.



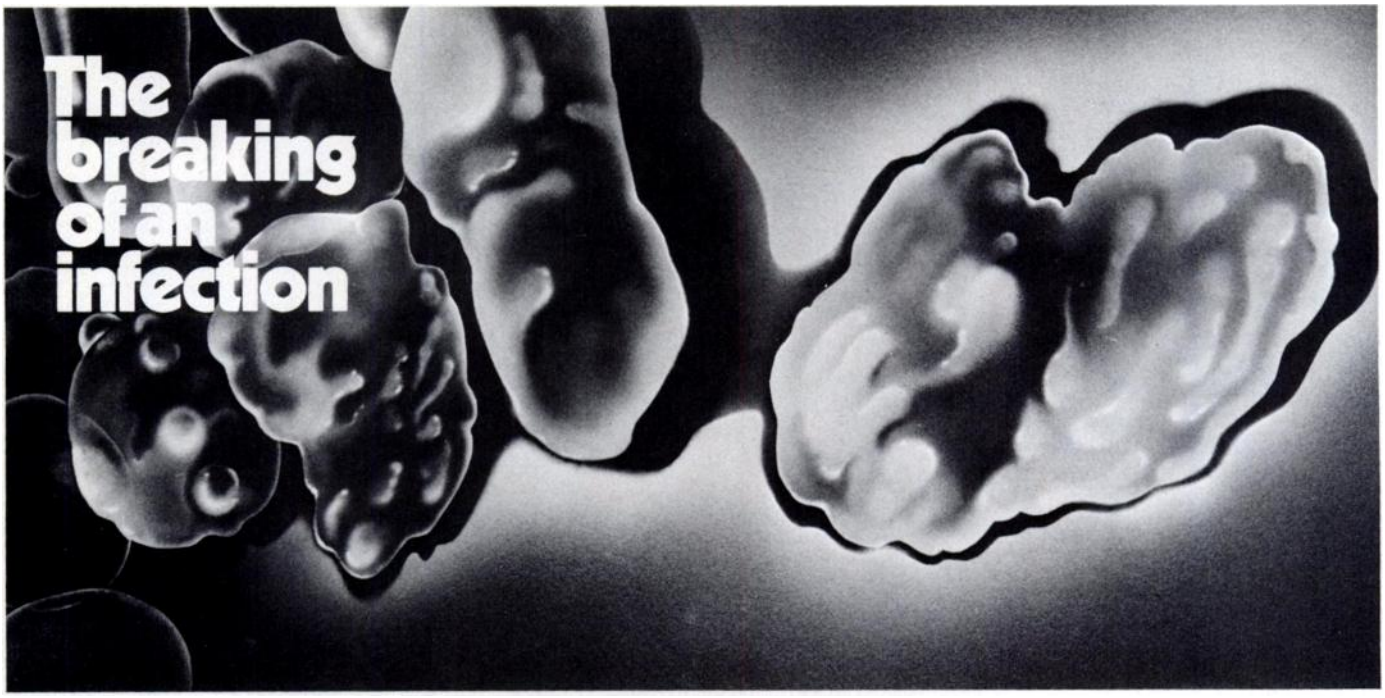
An impressive record of clinical success
In a broad range of infections,* including those of the urinary tract, upper and lower respiratory tract, and skin and skin structures. Velosef oral preparations have produced an impressive record of clinical success and bacterial eradication, both with BID and QID dosage schedules.

velosef®
CEPHRADINE, SQUIBB
Capsules and Powder for Oral Suspension

BID or QID....you have a choice

*Please see next page for Brief Summary, including susceptible organisms and b.i.d. and q.i.d. dosage schedules.

1 Lacey RW and Stokes A. Susceptibility of the 'penicillinase-resistant' penicillins and cephalosporins to penicillinase of *Staphylococcus aureus*. J Clin Path 30:35-39, 1977



velosef®
CEPHRADINE, SQUIBB

VELOSEF® CAPSULES
Cephradine Capsules

VELOSEF® FOR ORAL SUSPENSION
Cephradine for Oral Suspension

DESCRIPTION: Velosef '250' Capsules and Velosef '500' Capsules (Cephradine Capsules) provide 250 mg. and 500 mg. cephradine, respectively, per capsule. Velosef '125' for Oral Suspension and Velosef '250' for Oral Suspension (Cephradine for Oral Suspension) after preparation provide 125 mg. and 250 mg. cephradine, respectively, per 5 ml. teaspoonful.

INDICATIONS: These preparations are indicated for the treatment of infections caused by susceptible strains of designated microorganisms as follows: Respiratory Tract Infections (e.g., tonsillitis, pharyngitis, and lobar pneumonia) due to *S. pneumoniae* (formerly *D. pneumoniae*) and group A beta-hemolytic streptococci [penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever; Velosef (Cephradine, Squibb) is generally effective in the eradication of streptococci from the nasopharynx; substantial data establishing the efficacy of Velosef in the subsequent prevention of rheumatic fever are not available at present]; Otitis Media due to group A beta-hemolytic streptococci, *H. influenzae*, staphylococci, and *S. pneumoniae*. Skin and Skin Structures Infections due to staphylococci; and beta-hemolytic streptococci; Urinary Tract Infections, including prostatitis, due to *E. coli*, *P. mirabilis*, *Klebsiella* spp., and enterococci (*S. faecalis*).

Note: Culture and susceptibility tests should be initiated prior to and during cephradine therapy. Renal function studies should be performed when indicated.

CONTRAINDICATIONS: In patients with known hypersensitivity to the cephalosporin group of antibiotics.

WARNINGS: *Use cephalosporin C derivatives with great caution in penicillin-sensitive patients since there is clinical and laboratory evidence of partial cross-allergenicity of the two groups of antibiotics; there are instances of reactions to both drug classes (including anaphylaxis after parenteral use).*

In persons who have demonstrated some form of allergy, particularly to drugs, use antibiotics, including cephradine, cautiously and only when absolutely necessary.

Usage in Pregnancy and Lactation: Although no teratogenic or anti-fertility effects were seen in reproduction studies in mice and rats receiving up to four times the maximum human dose, the safety for use in human pregnancy has not been established; weigh benefits in pregnant women against possible risk to the fetus. Cephradine is secreted in breast milk during lactation.

PRECAUTIONS: To detect any side effects or unusual manifestations of drug idiosyncrasy, follow patients carefully. Discontinue drug and treat with the usual agents (e.g., pressor amines, antihistamines or corticosteroids) if a hypersensitivity reaction occurs.

Administer cephradine with caution in presence of markedly impaired renal function. In known or suspected renal impairment, careful clinical observation and appropriate laboratory studies should be made prior to and during cephradine therapy since cephradine accumulates in the serum and tissues. Patients with impaired renal function require a modified dosage schedule (see package insert).

Prolonged use of antibiotics may promote overgrowth of nonsusceptible organisms. Take appropriate measures should superinfection occur during therapy.

After treatment with cephradine, a false positive reaction for glucose in the urine may occur with Benedict's solution, Fehling's solution, or with Clinitest® tablets, but not with enzyme-based tests such as Clinistix® and Tes-Tape®.

Recognize that a post-treatment positive Coombs test may be due to the drug since a false positive direct Coombs test has been reported after treatment with other cephalosporins.

Indicated surgical procedures should be performed in conjunction with antibiotic therapy.

ADVERSE REACTIONS: Untoward reactions are limited essentially to G.I. disturbances and, on occasion, to hypersensitivity phenomena. The latter are more likely to occur in persons who have previously demonstrated hypersensitivity and those with a history of allergy, asthma, hay fever, or urticaria.

The following adverse reactions have been reported following use of cephradine: G.I.—glossitis, nausea, vomiting, diarrhea or loose stools, abdominal pain, heartburn. Skin and Hypersensitivity Reactions—mild urticaria or skin rash, pruritus, joint pains. Blood—mild transient eosinophilia, leukopenia and neutropenia. Liver—transient mild rise of SGOT, SGPT, and total bilirubin with no evidence of hepatocellular damage. Renal—transitory rises in BUN have been observed in some patients treated with cephalosporins; their frequency increases in patients over 50 years old. In adults for whom serum creatinine determinations were performed, the rise in BUN was not accompanied by a rise in serum creatinine. Others—dizziness, tightness in chest, and candidal vaginitis.

DOSAGE: Adults—For respiratory tract infections (other than lobar pneumonia) and skin and skin structures infections: 250 mg. q. 6 h. or 500 mg. q. 12 h. For lobar pneumonia and urinary tract infections: 500 mg. q. 6 h. or 1 g. q. 12 h. Severe or chronic infections may require larger doses.

Children over 9 months of age—25 to 50 mg./kg./day in equally divided doses q. 6 or 12 h. For otitis media due to *H. influenzae*: 75 to 100 mg./kg./day in equally divided doses q. 6 or 12 h. but not to exceed 4 g./day. Dosage for children should not exceed dosage recommended for adults. There are no adequate data available on efficacy of b.i.d. regimens in children under 9 months of age.

For full prescribing information, consult package insert.

HOW SUPPLIED: 250 mg. and 500 mg. capsules in bottles of 24 and 100 and Unimatic® single-dose packs of 100. 125 mg. and 250 mg. for oral suspension in bottles of 100 ml. 788-502

SQUIBB® 'The Priceless Ingredient of every product is the honor and integrity of its maker.'™

The rhythm band cough.

Get 'em back on the beat with Novahistine DH. The effective antitussive action of codeine controls a wide range of coughs. At the same time, the decongestant plus antihistamine in Novahistine DH relieves congestion associated with upper respiratory infections.

NOVAHISTINE® DH Ⓥ

Antitussive-Decongestant-Antihistamine

DOW

Each 5 ml. teaspoonful contains codeine phosphate 10 mg. (Warning: May be habit forming), phenylpropanolamine hydrochloride 18.75 mg., chlorpheniramine maleate 2 mg., and alcohol 5%.

DOW PHARMACEUTICALS
THE DOW CHEMICAL COMPANY
INDIANAPOLIS, INDIANA 46268

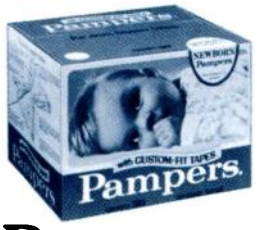
The drier "quieter" waiting room, thanks to Pampers®

Pampers keeps babies drier so they will be more comfortable...

by reducing skin wetness—because Pampers hydrophobic topsheet lets moisture pass through to the highly absorbent padding beneath, the topsheet stays drier...and so does baby's skin.

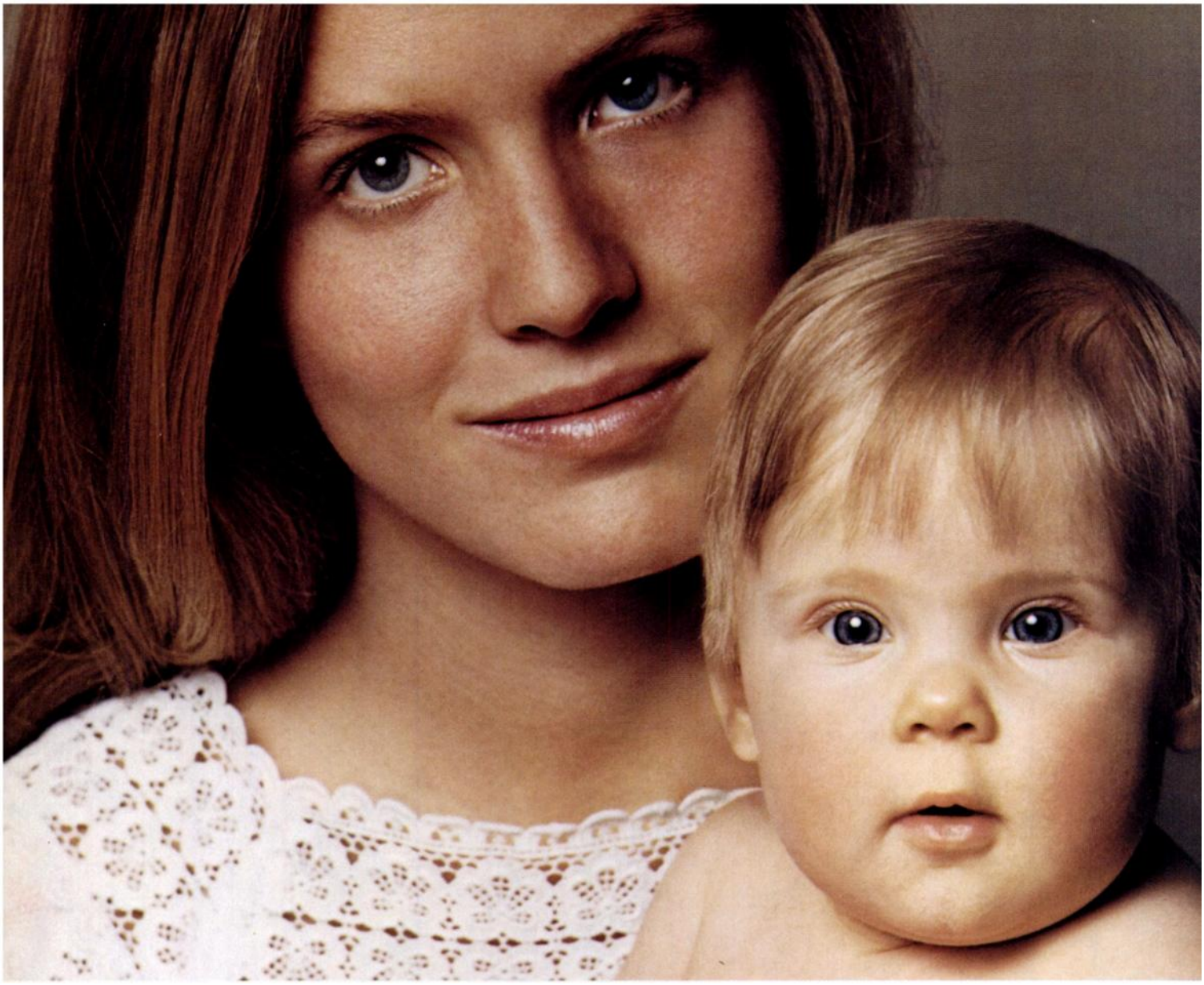
by being free from residual bacteria—such as ammonia-forming bacteria that may be found in cloth diapers after laundering.

by fitting baby better—the Pampers fit is snug without restricting baby's legs and abdomen. Yet, the bucket seat design permits air circulation around baby's bottom.



Pampers®
for diapering with greater comfort.


The unceremonial cough.
Kiss it goodbye with Novahistine Expectorant.
Novahistine Expectorant provides effective antitussive action, plus a decongestant and an expectorant.
NOVAHISTINE® EXPECTORANT ℞
Antitussive-Decongestant-Expectorant
DOW
DOW PHARMACEUTICALS
THE DOW CHEMICAL COMPANY
INDIANAPOLIS, INDIANA 46268
Each 5 ml. teaspoonful contains codeine phosphate 10 mg.
(Warning: May be habit forming), phenylpropanolamine hydrochloride 18.75 mg.,
guaifenesin 100 mg., and alcohol 7.5%.



Infant Formula for 12 Months? Think of it as Nutritional Insurance

That's why you should specify that new mothers keep their babies on breast milk or infant formula for a full 12 months.

Switching to cow's milk in the first year is not advisable. The high sodium content and the high protein content of cow's milk may increase the risk of dehydration and hypernatremia when diarrhea or other conditions increase the demand for water. Cow's milk feedings may place infants at risk for developing iron deficiency. And cow's milk is a poor source of copper and Vitamin C.[1]

Enfamil Provides Balanced Nutrition
ENFAMIL infant formula is patterned after breast milk and is a good source of digestible heat-treated protein, polyunsaturated fat, vitamins and minerals.

Recommend ENFAMIL until the end of the first year for infants who aren't breast feeding or who stop breast feeding.

For a more in-depth discussion of this subject, as well as other aspects of infant nutrition, an educational newsletter series entitled "Dialogues in Infant Nutrition" is available. This is part of a continuing education program on infant nutrition. For copies of the newsletter, contact your Mead Johnson Representative or Health Learning Systems, 1455 Broad Street, Bloomfield, New Jersey 07003.

[1] Material presented at March 23, 1977, symposium, Infant Nutrition: A Foundation for Lasting Health?

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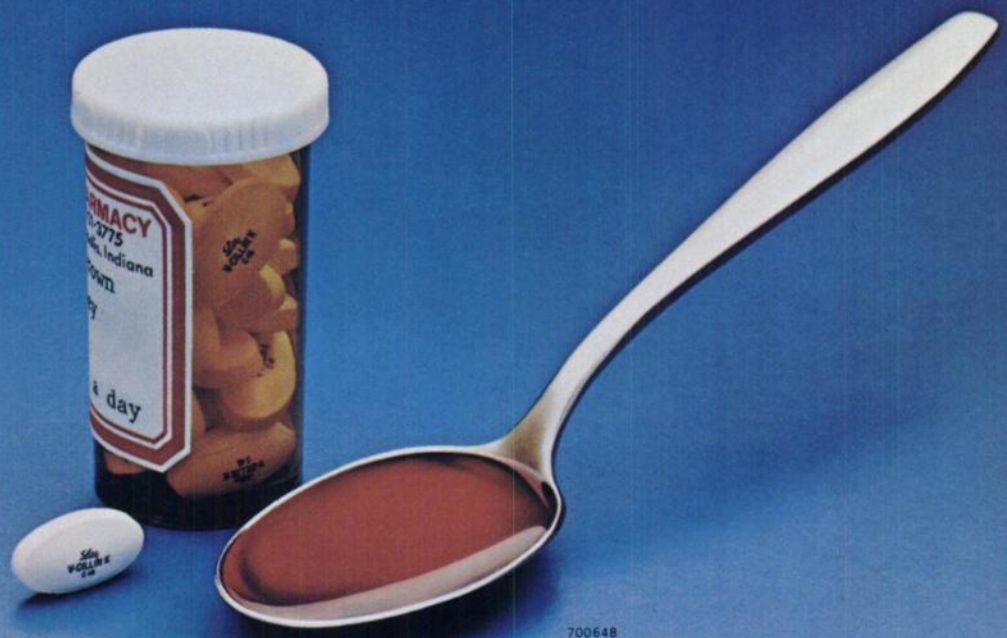
INFANT FORMULA

Mead Johnson NUTRITIONAL DIVISION

L-K6

Because we don't take quality for granted,

you can.



700648

V-Cillin K®

Lilly

penicillin V potassium

the most widely prescribed brand of oral penicillin

Tablets—125, 250, and 500 mg.* Oral Solution—125 and 250 mg.*/5 ml.

V-CILLIN K®
penicillin V potassium

Brief Summary. Consult the package literature for prescribing information.

Description: V-Cillin K is the potassium salt of penicillin V. This chemically improved form combines acid stability with immediate solubility and rapid absorption.

Indications: For the treatment of mild to moderately severe pneumococcal respiratory tract infections and mild staphylococcal skin and soft-tissue infections that are sensitive to penicillin G. See the package literature for other indications.

Contraindication: Previous hypersensitivity to penicillin.

Warnings: Serious, occasionally fatal, anaphylactoid reactions have been reported. Some patients with penicillin hypersensitivity have had severe reactions to a cephalosporin; inquire about penicillin, cephalosporin, or other allergies before treatment. If an allergic reaction occurs, discontinue the drug and treat with the usual agents (e.g., epinephrine or other pressor amines, antihistamines, or corticosteroids).

Precautions: Use with caution in individuals with histories of significant allergies and/or asthma. Do not rely on oral administration in patients with severe illness, nausea, vomiting, gastric dilatation, cardiospasm, or intestinal hypermotility. Occasional patients will not absorb therapeutic amounts given orally. In streptococcal infections, treat until the organism is eliminated (minimum of ten days). With prolonged use, nonsusceptible organisms, including fungi, may overgrow; treat superinfection appropriately.

Adverse Reactions: Hypersensitivity, including fatal anaphylaxis. Nausea, vomiting, epigastric distress, diarrhea, and black, hairy tongue. Skin eruptions, urticaria, reactions resembling serum sickness (including chills, edema, arthralgia, prostration), laryngeal edema, fever, and eosinophilia. Infrequent hemolytic anemia, leukopenia, thrombocytopenia, neuropathy, and nephropathy, usually with high doses of parenteral penicillin. [102175]

* Equivalent to penicillin V.

Additional information available to the profession on request.

Eli Lilly and Company
Indianapolis, Indiana 46206

Mischief or MBD?

(Don't mistake one for the other)

From Huckleberry Finn to the Katzenjammer Kids, the mischievous child has been an integral part of American folklore.

But his normal, youthful overexuberance can be difficult to distinguish from MBD.

©by King Features Syndicate, Inc.

Ritalin (methylphenidate): an important element in the remedial program

Only accurate medical diagnosis can differentiate the child with MBD from the child who is simply overactive, as many normal children are, and from the child who has personality and behavioral disorders not associated with MBD.

When the diagnosis is MBD, Ritalin can prove to be an important element in a remedial program that can provide immediate and long-term benefit.

For Ritalin has demonstrated its effectiveness in reducing such manifestations as hyperactivity,[1,2] distractibility,[1] and disorganized behavior.[1]

Ritalin can help improve classroom performance, interpersonal relations

The alleviation of these symptoms often makes the child more responsive to the nonpharmacological modalities,[3] thus helping him to improve his classroom performance[2,4] and his interpersonal relations.[5,6]

Therapy with Ritalin should be considered only after a medical diagnosis of MBD has been made. Dosage should be periodically interrupted. Often these interruptions reveal some "stabilization" in the child's behavior even

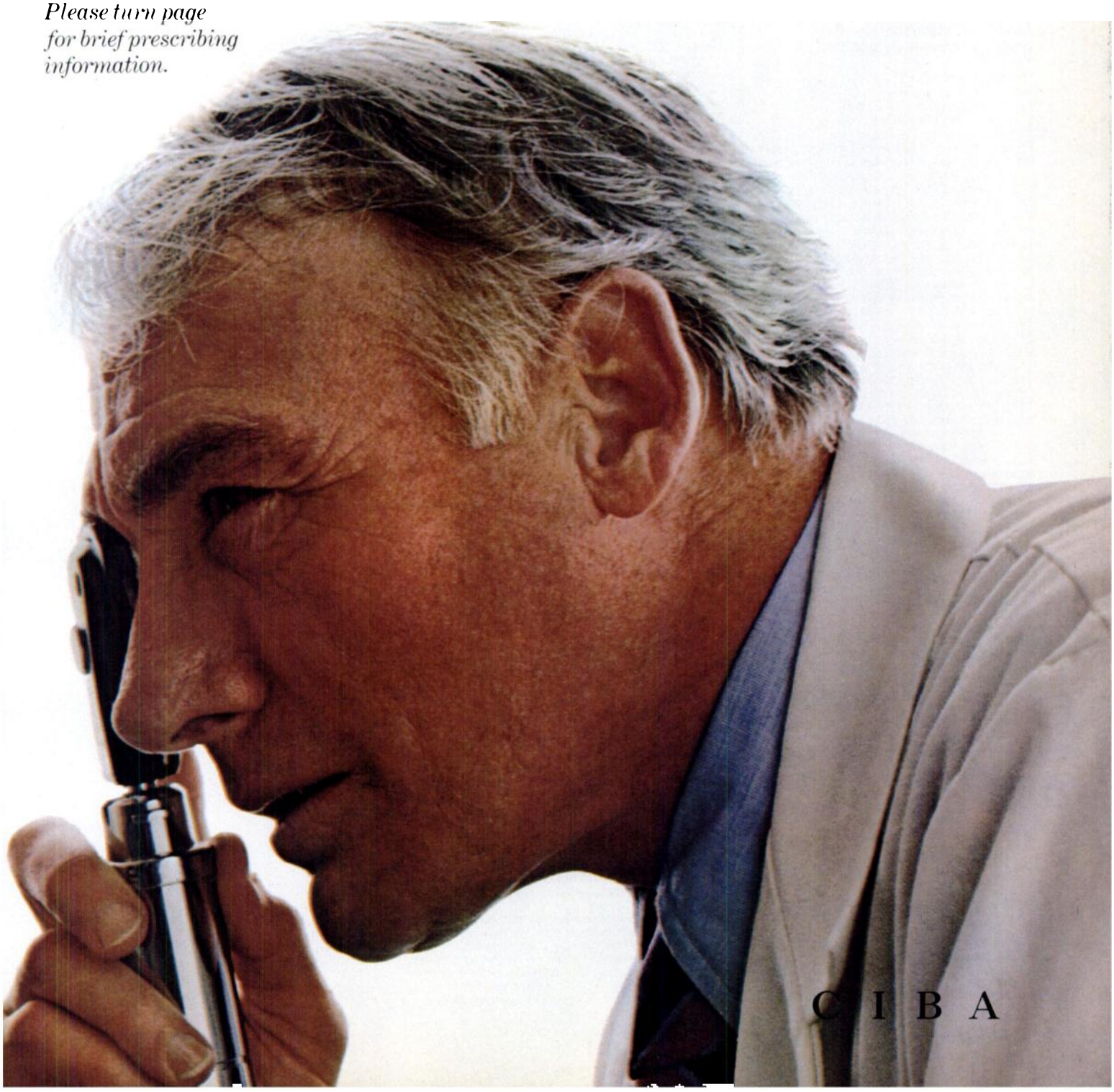
Ritalin®
(methylphenidate)

An effective member of the MBD management team

without medication. In some MBD children they permit a reduction in dosage and eventual discontinuance of drug therapy.

Only when medication is indicated

Please turn page for brief prescribing information.



Ritalin® (methylphenidate)

Only when medication is indicated

Ritalin® hydrochloride Ⓒ
(methylphenidate hydrochloride)
TABLETS

INDICATIONS

Minimal Brain Dysfunction in Children—as adjunctive therapy to other remedial measures (psychological, educational, social)

Special Diagnostic Considerations

Specific etiology of Minimal Brain Dysfunction (MBD) is unknown, and there is no single diagnostic test. Adequate diagnosis requires the use not only of medical but of special psychological, educational, and social resources.

Characteristics commonly reported include chronic history of short attention span, distractibility, emotional lability, impulsivity, and moderate to severe hyperactivity; minor neurological signs and abnormal EEG. Learning may or may not be impaired. The diagnosis of MBD must be based upon a complete history and evaluation of the child and not solely on the presence of one or more of these characteristics.

Drug treatment is not indicated for all children with MBD. Stimulants are not intended for use in the child who exhibits symptoms secondary to environmental factors and/or primary psychiatric disorders, including psychosis. Appropriate educational placement is essential and psychosocial intervention is generally necessary. When remedial measures alone are insufficient, the decision to prescribe stimulant medication will depend upon the physician's assessment of the chronicity and severity of the child's symptoms.

CONTRAINDICATIONS

Marked anxiety, tension, and agitation, since Ritalin may aggravate these symptoms. Also contraindicated in patients known to be hypersensitive to the drug and in patients with glaucoma.

WARNINGS

Ritalin should not be used in children under six years, since safety and efficacy in this age group have not been established.

Sufficient data on safety and efficacy of long-term use of Ritalin in children with minimal brain dysfunction are not yet available. Although a causal relationship has not been established, suppression of growth (*ie*, weight gain and/or height) has been reported with long-term use of stimulants in children. Therefore, children requiring long-term therapy should be carefully monitored.

Ritalin should not be used for severe depression of either exogenous or endogenous origin or for the prevention of normal fatigue states.

Ritalin may lower the convulsive threshold in patients with or without prior seizures, with or without prior EEG abnormalities, even in absence of seizures. Safe concomitant use of anticonvulsants and Ritalin has not been established. If seizures occur, Ritalin should be discontinued.

Use cautiously in patients with hypertension. Blood pressure should be monitored at appropriate intervals in all patients taking Ritalin, especially those with hypertension.

Symptoms of visual disturbances have been encountered in rare cases. Difficulties with accommodation and blurring of vision have been reported.

Drug Interactions

Ritalin may decrease the hypotensive effect of guanethidine. Use cautiously with pressor agents and MAO inhibitors. Ritalin may inhibit the metabolism of coumarin anticoagulants, anticonvulsants (phenobarbital, diphenylhydantoin, primidone), phenylbutazone, and tricyclic antidepressants (imipramine, desipramine). Downward dosage adjustments of these drugs may be required when given concomitantly with Ritalin.

Usage in Pregnancy

Adequate animal reproduction studies to establish safe use of Ritalin during pregnancy have not been conducted. Therefore, until more information is available, Ritalin should not be prescribed for women of childbearing age unless, in the opinion of the physician, the potential benefits outweigh the possible risks.

Drug Dependence

Ritalin should be given cautiously to emotionally unstable patients, such as those with a history of drug dependence or alcoholism, because such patients may increase dosage on their own initiative.

Chronically abusive use can lead to marked tolerance and psychic dependence with varying degrees of abnormal behavior. Frank psychotic episodes can occur, especially with parenteral abuse. Careful supervision is required during drug withdrawal, since severe depression as well as the effects of chronic overactivity can be unmasked. Long-term follow-up may be required because of the patient's basic personality disturbances.

PRECAUTIONS

Patients with an element of agitation may react adversely; discontinue therapy if necessary.

Periodic CBC, differential, and platelet counts are advised during prolonged therapy.

ADVERSE REACTIONS

Nervousness and insomnia are the most common adverse reactions but are usually controlled by reducing dosage and omitting the drug in the afternoon or evening. Other reactions include: hypersensitivity (including skin rash, urticaria, fever, arthralgia, exfoliative dermatitis, erythema multiforme with histopathological findings of necrotizing vasculitis, and thrombocytopenic purpura); anorexia; nausea; dizziness; palpitations; headache; dyskinesia; drowsiness; blood pressure and pulse changes, both up and down; tachycardia; angina; cardiac arrhythmia; abdominal pain; weight loss during prolonged therapy. Toxic psychosis has been reported. Although a definite causal relationship has not been established, the following have been reported in patients taking this drug: leukopenia and/or anemia; a few instances of scalp hair loss.

In children, loss of appetite, abdominal pain, weight loss during prolonged therapy, insomnia, and tachycardia may occur more frequently; however, any of the other adverse reactions listed above may also occur.

DOSAGE AND ADMINISTRATION

Children with Minimal Brain Dysfunction (6 years and over)

Start with small doses (*eg*, 5 mg before breakfast and lunch) with gradual increments of 5 to 10 mg weekly. Daily dosage above 60 mg is not recommended. If improvement is not observed after appropriate dosage adjustment over a one-month period, the drug should be discontinued.

If paradoxical aggravation of symptoms or other adverse effects occur, reduce dosage, or, if necessary, discontinue the drug.

Ritalin should be periodically discontinued to assess the child's condition. Improvement may be sustained when the drug is either temporarily or permanently discontinued.

Drug treatment should not and need not be indefinite and usually may be discontinued after puberty.

HOW SUPPLIED

Tablets, 20 mg (peach, scored); bottles of 100 and 1000.

Tablets, 10 mg (pale green, scored); bottles of 100, 500, 1000 and Accu-Pak® blister units of 100.

Tablets, 5 mg (pale yellow); bottles of 100, 500, and 1000.

Consult complete product literature before prescribing.

C76-16 Rev. 7/76

2/8854

CIBA Pharmaceutical Company
Division of CIBA-GEIGY Corporation
Summit, New Jersey 07901

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1. Knobel M: Psychopharmacology for the hyperkinetic child. Arch Gen Psychiatry 6:198-202, March 1962.

2. Comly HH: Cerebral stimulants for children with learning disorders? J Learning Disabil 4:484-490, November 1971.

3. Report of the Conference on the Use of Stimulant Drugs in the Treatment of Behaviorally Disturbed Young School Children. J Learning Disabil 4:523-530, November 1971.

4. MacKay MC, Beck L, Taylor R: Methylphenidate for adolescents with minimal brain dysfunction. NY State J Med 73:550-554, February 1973.

5. Hoffman SP, Engelhardt DM, Margolis RA, et al: Response to methylphenidate in low socioeconomic hyperactive children. Arch Gen Psychiatry 30:354-359, March 1974.

6. Seger EY, Hallum G: Methylphenidate in children with minimal brain dysfunction: Effects on attention span, visual-motor skills, and behavior. Curr Ther Res 16:635-641, June 1974.

CIBA

"So banana-flavored Donnagel™-PG is really something to smile about: all the benefits of paregoric *and* a taste so good that even banana experts approve.

"In my unbiased opinion, it's this taste which adds to the welcome relief of Donnagel-PG when acute, non-specific diarrhea gets you down.

"After all, diarrhea is not easy to take, so the medicine should be."

A·H·ROBINS

A.H. Robins Company, Richmond, Virginia 23220
Member of Certified Medical Representatives Institute

Not for use in patients with glaucoma, renal or hepatic disease, obstructive uropathy or hypersensitivity to any of the ingredients.
Adverse reactions include blurred vision, dry mouth, difficult urination, and flushing or dryness of the skin.

6 fl. oz. now with child-resistant closure

Donnagel™-PG ℞

Donnagel™ with paregoric equivalent

For diarrhea

Each 30 ml contains:

Kaolin	6.0 g
Pectin	142.8 mg
Hyoscyamine sulfate	0.1037 mg
Atropine sulfate	0.0194 mg
Hyoscine hydrobromide	0.0065 mg
Powdered opium, USP (equivalent to paregoric 6 ml) (warning: may be habit forming)	24.0 mg
Sodium benzoate (preservative)	60.0 mg
Alcohol	5%

THE ASTHMA ATTACK THAT NEVER HAPPENED

He is asthmatic. He was in contact with an allergen that has triggered his attacks in the past. But, this time—nothing. No wheeze. No cough. No mucus. Thanks to **INTAL**® (cromolyn sodium), he enjoyed a normal day of activity, attending school and playing with his friends afterwards.

INTAL® therapy stopped the attack before it happened. **INTAL**® suppresses release of pharmacologic mediators (such as histamine) from the mast cell and "short circuits" allergic response to trigger mechanisms. No other drug works quite like it. Result: no asthmatic attack.

The preventive action of **INTAL**® therapy works right at the site of the problem—the mast cell. Because of its unique preventive action, **INTAL**® is the logical first step in managing asthma patients who require daily symptomatic therapy. It's easier to prevent an attack than to treat it!

Dramatization of an asthma attack posed by professional model.

"Cromolyn sodium has proved most effective in preventing recurring attacks of bronchial asthma..."

Grollman AG. Status report no. 2, Drugs in bronchial asthma. *Consultant* 149-157 (July) 1977.

"In any discussion relative to the treatment of chronic bronchial asthma there can be no doubt that cromolyn sodium must be considered as an integral part of the comprehensive management program."

Feldman BR, Davis WJ: Treatment of asthma with cromolyn and corticosteroids. *Cutis* 17:1103-1109 (June) 1976.

"Cromolyn sodium is dramatic, useful, and has a definite role in the treatment of asthma."

Kaiser HB, in: Asthma: Individualizing drug therapy, a roundtable. *Patient Care* 92-171 (Aug 15) 1977.

INTAL® capsules 20 mg
(cromolyn sodium)

YOUR FIRST LINE OF DEFENSE IN TREATING THE ASTHMATIC PATIENT

INTAL® is indicated as an adjunct in the management of patients with severe bronchial asthma in whom the frequency, intensity and predictability of episodes indicate the use of a continuing program of symptomatic medication. Such patients must have a significant bronchodilator-reversible component to their airway obstruction as demonstrated by a generally accepted pulmonary function test of airway mechanics.

FISONS®

Fisons Corporation, Bedford, Massachusetts 01730

Please see following page for brief summary of prescribing information.

INTAL® capsules 20 mg (cromolyn sodium)

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

INDICATIONS: INTAL is indicated as an adjunct in the management of patients with severe bronchial asthma in whom the frequency, intensity and predictability of episodes indicate the use of a continuing program of symptomatic medication. Such patients must have a significant bronchodilator-reversible component to their airway obstruction as demonstrated by a generally accepted pulmonary function test of airway mechanics.

If improvement occurs, it will ordinarily occur within the first 4 weeks of administration as manifested by a decrease in the severity of clinical symptoms of asthma, or in the need for concomitant therapy, or both.

A decision to continue the administration of INTAL on a long term basis is justified if introduction of the drug into the patient's regime:

produces a significant reduction in the severity of the symptoms of asthma, or

permits a significant reduction in or elimination of steroids, or

permits better management of patients who have intolerable side effects to sympathomimetic agents or methylxanthines.

CONTRAINDICATIONS: INTAL is contraindicated in those patients who have shown hypersensitivity to it.

WARNINGS: INTAL® (cromolyn sodium) has no role in the treatment of an acute attack of asthma, especially status asthmaticus.

In some animal toxicity studies, a previously unreported proliferative arterial lesion found predominantly in the kidneys occurred in both treated and untreated macaque monkeys. The possibility that the increased incidence of the lesion in the treated monkeys is due to the administration of INTAL can neither be affirmed nor refuted. (For additional details, see Animal Toxicology in the package insert.) The relevance of these data to man is unknown. In considering the long term administration of INTAL to a patient, the physician should take into consideration the possible risk as well as the degree of efficacy achieved in the individual patient.

In view of the biliary and renal routes of excretion for INTAL, consideration should be given to decreasing the dosage or discontinuing the administration of the drug in patients with impaired renal or hepatic function.

If eosinophilic pneumonia (pulmonary infiltrates with eosinophilia) occurs during the course of INTAL therapy, the drug should be discontinued.

USE IN PREGNANCY: Reproduction studies have been performed in rabbits, rats, and mice. Adverse fetal effects (increased resorptions, decreased fetal weight) were noticed only at very high parenteral doses that produced maternal toxicity. The relevance to the human is not known. Since there is no experience in pregnant women who have received this drug, safety in pregnancy has not been established and its use in pregnancy is not recommended.

USE IN CHILDREN: Clinical experience in children under 5 years of age is limited due to the necessity for administration by inhalation. Use of INTAL is not recommended for such children. Because of the possiblity that adverse effects of the drug could become apparent only after many years, a benefit-risk consideration of the long term use of INTAL is particularly important in pediatric patients.

PRECAUTIONS: Occasionally patients may experience cough and/or bronchospasm following INTAL inhalation. At times, patients with cromolyn sodium induced bronchospasm may not be able to continue its administration despite prior bronchodilator administration.

Symptoms of asthma may recur if INTAL is reduced below the recommended dosage, or discontinued.

ADVERSE REACTIONS: The most frequently reported adverse reactions attributed to INTAL (on the basis of reoccurrence following readministration) involve the respiratory tract and include:

Bronchospasm
Cough
Laryngeal Edema (rare)
Nasal Congestion
Pharyngeal Irritation
Wheezing

Other adverse reactions which have also been attributed to the drug (on the basis of reoccurrence following readministration) are:

Angioedema
Dizziness
Dysuria and Urinary Frequency
Joint Swelling and Pain
Lacrimation
Nausea and Headache
Rash
Swollen Parotid Gland
Urticaria

In addition, the following adverse reactions have been reported as rare events and it is unclear whether these are attributable to the drug:

Anaphylaxis
Anemia
Exfoliative Dermatitis
Hemoptysis
Hoarseness
Myalgia
Nephrosis
Periarteritic Vasculitis
Pericarditis
Peripheral Neuritis
Photodermatitis
Polymyositis
Pulmonary Infiltrates with Eosinophilia
Vertigo

The following adverse effects which have occurred are related to the cromolyn sodium delivery system:

Inhalation of gelatin particles
Inhalation of mouthpiece or propeller

DOSAGE AND ADMINISTRATION: The usual **Starting Dosage** for adults and children 5 years of age and over is the contents of one INTAL (cromolyn sodium) capsule inhaled four times daily at regular intervals using a SPINHALER turbo-inhaler. Because INTAL and the Spinhaler represent a different approach to the treatment of asthma, careful explanation and instruction in the use of the Spinhaler should be given to each patient. (Please see the instructions for the use of the Spinhaler included with the device.) **It should be emphasized to the patient that the drug is not absorbed when swallowed and is not effective by this route of administration.** Patients should be advised that the effect of INTAL therapy is dependent upon its administration at regular intervals, as directed. INTAL should be introduced into the patient's therapeutic regimen when the acute episode has been controlled, the airway cleared and the patient is able to inhale adequately. INTAL has no role in the treatment of an acute asthma attack especially status asthmaticus.

Once a patient is stabilized on INTAL, if there is no need for steroids, the frequency of administration may be titrated downward to the least frequent level consistent with the desired effect. The usual decrease is from four to three INTAL capsules per day. It is important that the dosage be reduced slowly, maintaining close supervision of the patient, to avoid exacerbation of asthma. It should be emphasized that in patients who have been titrated to less than four capsules per day, an increase in dosage may be needed if the patient's clinical condition worsens.

CORTICOSTEROID TREATMENT AND ITS RELATION TO INTAL USE: An attempt to decrease corticosteroid administration and particularly to institute an alternate day regimen should be made in asthmatic patients receiving corticosteroids. Concomitant corticosteroids, as well as bronchodilators, should be continued following the introduction of INTAL. If the patient improves, an attempt to decrease corticosteroids should be made. Even if the steroid-dependent patient fails to improve following INTAL administration, gradual tapering of steroid dosage may nonetheless be attempted. It is important that the dose be reduced slowly, maintaining close supervision of the patient to avoid an exacerbation of asthma. It should be borne in mind that prolonged corticosteroid therapy frequently causes a reduction in the activity and size of the adrenal cortex. Relative adrenocortical insufficiency upon discontinuation of therapy may be avoided by gradual reduction of dosage.

However, a potentially critical degree of insufficiency may persist asymptomatically for some time even after gradual discontinuation of adrenocortical steroids. Therefore, if a patient is subjected to significant stress, such as a severe asthmatic attack, surgery, trauma or severe illness while being treated or within one year (occasionally up to two years) after corticosteroid treatment has been terminated, consideration should be given to reinstituting corticosteroid therapy. When the inhalation of INTAL is impaired, as may occur in severe exacerbation of asthma, a temporary increase in the amount of corticosteroids and/or other medications may be required.

It is particularly important that great care be exercised if for any reason INTAL is withdrawn in cases where its use has permitted a reduction in the maintenance dose of steroids. In such cases, continued close supervision of the patient is essential since there may be sudden reappearance of severe manifestations of asthma which will require immediate therapy and possible reintroduction of corticosteroids.

HOW SUPPLIED: INTAL capsules, each containing 20 mg. cromolyn sodium in strips of four capsules each, in trade packages of 60 and 120 capsules. SPINHALER® turbo-inhalers are supplied separately in individual containers.

CAUTION: Federal law prohibits dispensing without prescription.

October 1977

FISONS®

Fisons Corporation, Bedford, Massachusetts 01730

...but why take chances with mumps?

Highly effective vaccine against mumps

Single-Dose Vials

Mumpsvax®

(MUMPS VIRUS VACCINE, LIVE | MSD)

While you vaccinate against mumps you can also be vaccinating against measles and rubella with

Single-Dose Vials

M-M-R®

(MEASLES, MUMPS AND RUBELLA VIRUS VACCINE, LIVE | MSD)

now recommended for use at 15 months*

*MUMPSVAX may be given as early as 12 months if that offers greater convenience in scheduling.

For a brief summary of prescribing information, please see following page.

MSD
MERCK SHARP & DOHME

pediatric vaccines from Merck Sharp & Dohme

Indications: ***ATTENUVAX® (Measles Virus Vaccine, Live, Attenuated, MSD)***—Active immunization against measles (rubeola) in children 15 months of age or older.

BIAVAX® (Rubella and Mumps Virus Vaccine, Live, MSD)—Simultaneous immunization against rubella and mumps in children 15 months of age to puberty. May be given as early as 12 months if that offers greater convenience in scheduling.

MERUVAX® (Rubella Virus Vaccine, Live, MSD)—Immunization against rubella (German measles) in children 15 months of age to puberty. May be given as early as 12 months if that offers greater convenience in scheduling. May be useful for postpubertal males to prevent or control rubella outbreaks in circumscribed population groups. In postpubertal females vaccination must not be undertaken unless the woman is not pregnant, is susceptible to rubella (as shown by Hemagglutination Inhibition test), understands it is imperative not to become pregnant for next three months and will follow a medically acceptable method for pregnancy prevention (also in immediate postpartum period), and is informed of frequent occurrence of self-limited arthralgia and possible arthritis beginning two to four weeks after vaccination.

M-M-R® (Measles, Mumps and Rubella Virus Vaccine, Live, MSD)—Simultaneous immunization against measles, mumps, and rubella in children 15 months of age to puberty.

M-R-VAX® (Measles and Rubella Virus Vaccine, Live, MSD)—Simultaneous immunization against measles (rubeola) and rubella (German measles) in children 15 months of age to puberty.

MUMPSVAX® (Mumps Virus Vaccine, Live, MSD)—Immunization against mumps for children 15 months of age or older and adults. May be given as early as 12 months if that offers greater convenience in scheduling.

Contraindications: Pregnancy or the possibility of pregnancy within three months following vaccination (see special considerations for ATTENUVAX below); hypersensitivity to neomycin; in patients hypersensitive to chicken or chicken eggs or feathers or, for rubella-containing vaccines, duck or duck eggs or feathers, weigh benefits of immunization against potential risks of hypersensitivity reactions; any febrile respiratory illness or other active infection; for measles-containing vaccines, active untreated tuberculosis; therapy with ACTH, corticosteroids (except as replacement therapy, e.g., for Addison's disease), irradiation, alkylating agents, or antimetabolites; blood dyscrasias, leukemia, lymphomas of any type, or other malignant neoplasms affecting the bone marrow or lymphatic systems; primary immunodeficiency states, including cellular immune deficiencies, hypogammaglobulinemic, and dysgammaglobulinemic states.

ATTENUVAX—PREGNANCY: The effects of ATTENUVAX on fetal development are unknown at this time. Live attenuated measles virus vaccine should not be given to persons known to be pregnant; furthermore, pregnancy should be avoided for three months following vaccination. Reports have indicated that natural measles during pregnancy enhances fetal risk. Increased rates of spontaneous abortion, stillbirth, congenital defects, and prematurity have been observed subsequent to natural measles during pregnancy. There are no adequate studies of the attenuated (vaccine) strain of measles virus in pregnancy. However, it would be prudent to assume that the vaccine strain of virus is also capable of inducing adverse fetal effects for up to three months following vaccination.

Vaccine administration to post-pubertal females entails a potential for inadvertent immunization during pregnancy. Theoretical risks involved should be weighed against the risks that measles poses to the unimmunized adolescent or adult. Advisory committees reviewing this matter have recommended vaccination of post-pubertal females who are presumed to be susceptible to measles and not known to be pregnant. If a measles exposure occurs during pregnancy, one should consider the possibility of providing temporary passive immunity through the administration of immune serum globulin (human).

Precautions: Administer subcutaneously; ***do not give intravenously.*** Epinephrine should be available for immediate use should an anaphylactoid reaction occur. Should not be given less than one month before or after immunization with other ***live*** virus vaccines, with the exception of monovalent or trivalent poliovirus vaccine, live, oral, which may be administered simultaneously. Vaccinations should be deferred for at least three months following blood or plasma transfusions or administration of more than 0.02 ml human immune serum globulin per pound of body weight. Rubella vaccine may be given in the immediate postpartum period to those nonimmune women who have received anti-Rh_0 (D) immune globulin (human) without interfering with vaccine effectiveness.

Attenuated measles, mumps, and rubella virus vaccines, live, given separately, may result in a temporary depression of tuberculin skin sensitivity; therefore, if a tuberculin test is to be done, it should be administered before or simultaneously with any of these virus vaccines.

Measles-Containing Vaccines—Due caution should be employed in children with a history of febrile convulsions, cerebral injury, or any other condition in which stress due to fever should be avoided. The physician should be alert to the temperature elevation which may occur 5 to 12 days after vaccination. The occurrence of thrombocytopenia and purpura has been extremely rare.

Rubella-Containing Vaccines—Excretion of live attenuated rubella virus from the throat has occurred in the majority of susceptible individuals administered rubella vaccine. There is no definitive evidence to indicate that such virus is contagious to susceptible persons who are in contact with vaccinated individuals. Consequently, transmission, while accepted as a theoretical possibility, has not been regarded as a significant risk.

Adverse Reactions: To date, clinical evaluation of the combination vaccines has revealed those adverse reactions expected to follow administration of the monovalent vaccines given separately.

Measles-Containing Vaccines—Occasionally, moderate fever (101-102.9 F); less commonly, high fever (above 103 F); rarely, febrile convulsions. Infrequently, rash, usually minimal without generalized distribution. Reactions at injection site. Local reactions characterized by marked swelling, redness, and vesiculation at the injection site of attenuated live measles virus vaccines have occurred in children who received killed measles vaccine previously; the combination vaccines were not given under this condition in clinical trials.

Experience from more than 80 million doses of all live measles vaccines given in the U.S. through 1975 indicates that significant central nervous system reactions such as encephalitis and encephalopathy, occurring within 30 days after vaccination, have been temporally associated with measles vaccine approximately once for every million doses. In no case has it been shown that reactions were actually caused by vaccine. The Center for Disease Control has pointed out that "a certain number of cases of encephalitis may be expected to occur in a large childhood population in a defined period of time even when no vaccines are administered." However, the data suggest the possibility that some of these cases may have been caused by measles vaccines. The risk of such serious neurological disorders following live measles virus vaccine administration remains far less than that for encephalitis and encephalopathy with natural measles (one per thousand reported cases). There have been reports of subacute sclerosing panencephalitis (SSPE) in children who did not have a history of natural measles but did receive measles vaccine. Some of these cases may have resulted from unrecognized measles in the first year of life or possibly from the measles vaccination. Based on estimated nationwide measles vaccine distribution, the association of SSPE cases to measles vaccination is about one case per million vaccine doses distributed, far less than the 5-10 cases of SSPE per million cases of natural measles.

Rubella-Containing Vaccines—Adverse reactions may include fever and rash; mild local reactions such as erythema, induration, tenderness, and regional lymphadenopathy; thrombocytopenia and purpura; allergic reactions such as urticaria; and arthritis, arthralgia, and polyneuritis.

Moderate fever (101-102.9 F) occurs occasionally, and high fever (103 F) occurs less commonly. Rash occurs infrequently and is usually minimal without generalized distribution. Encephalitis and other nervous system reactions have occurred very rarely.

Transient arthritis, arthralgia, and polyneuritis vary in frequency and severity with age and sex, being greatest in adult females and least in prepubertal children. Symptoms relating to joints (pain, swelling, stiffness, etc.) and to peripheral nerves (pain, numbness, tingling, etc.) occurring within approximately two months after vaccination should be considered as possibly vaccine related. These symptoms need not be associated with other features of rubella, such as fever, rash, and lymphadenopathy. In prepubertal children, the symptoms have generally been mild and of no more than three days' duration, with an incidence of less than 1 percent for reactions that would interfere with normal activity or necessitate medical attention. In teen-age girls, the rates of reactions are somewhat higher but probably do not exceed 5 to 10 percent. In women, the rates are greater and may exceed 30 percent; the symptoms in older females tend to be more prominent and of longer duration, rarely persisting for a matter of months, but have not generally interfered with normal activity. There is, at present, no evidence that the joint involvement or neuritis accompanying infection with either natural rubella or the attenuated viruses predisposes to any of the known chronic arthritic or neurologic diseases. Transient arthralgia and arthritis in nonimmune males may occur; however, as in the natural disease, the incidence is expected to be lower than in women.

Mumps-Containing Vaccines—Parotitis. Rarely, purpura and allergic reactions such as urticaria. Very rarely, encephalitis and other nervous system reactions. With the monovalent mumps vaccine, mild fever occurs occasionally, and fever above 103 F is uncommon.

Shipment, Storage, and Reconstitution: During shipment, to insure that there is no loss of potency, the vaccine must be maintained at a temperature of 10 C (50 F) or less. Before reconstitution, store vaccines at 2-8 C (35.6-46.4 F) and ***protect from light.*** Use only diluent supplied to reconstitute vaccines. If not used immediately, store reconstituted vaccines in a dark place at 2-8 C (35.6-46.4 F), and discard if not used within eight hours.

Color change: The usual color of the vaccine when reconstituted is pinkish to red due to the presence of phenol red, a pH indicator. Some vaccine which has been shipped in dry ice may exhibit a variation in color when reconstituted because carbon dioxide has been absorbed from the dry ice. This vaccine, if crystal clear on reconstitution, is acceptable for use whether it is red, pink, or yellow.

How Supplied: ***ATTENUVAX® (Measles Virus Vaccine, Live, Attenuated, MSD)***—Single-dose vials of lyophilized vaccine, containing when reconstituted not less than 1,000 $TCID_{50}$ (tissue culture infectious doses) of measles virus vaccine expressed in terms of the assigned titer of the FDA Reference Measles Virus, and approximately 25 mcg neomycin.

BIAVAX® (Rubella and Mumps Virus Vaccine, Live, MSD)—Single-dose vials of lyophilized vaccine, containing when reconstituted not less than 1,000 $TCID_{50}$ of rubella virus vaccine, live, and 5,000 $TCID_{50}$ of mumps virus vaccine, live, expressed in terms of the assigned titer of the FDA Reference Rubella and Mumps Viruses, and approximately 25 mcg neomycin.

MERUVAX® (Rubella Virus Vaccine, Live, MSD)—Single-dose vials of lyophilized vaccine, containing when reconstituted not less than 1,000 $TCID_{50}$ of rubella virus vaccine expressed in terms of the assigned titer of the FDA Reference Rubella Virus, and approximately 25 mcg neomycin.

M-M-R® (Measles, Mumps and Rubella Virus Vaccine, Live, MSD)—Single-dose vials of lyophilized vaccine, containing when reconstituted not less than 1,000 $TCID_{50}$ of measles virus vaccine, live, attenuated, 5,000 $TCID_{50}$ of mumps virus vaccine, live, and 1,000 $TCID_{50}$ of rubella virus vaccine, live, expressed in terms of the assigned titer of the FDA Reference Measles, Mumps, and Rubella Viruses, and approximately 25 mcg neomycin.

M-R-VAX® (Measles and Rubella Virus Vaccine, Live, MSD)—Single-dose vials of lyophilized vaccine, containing when reconstituted not less than 1,000 $TCID_{50}$ of measles virus vaccine, live, attenuated, and 1,000 $TCID_{50}$ of rubella virus vaccine, live, expressed in terms of the assigned titer of the FDA Reference Measles and Rubella Viruses, and approximately 25 mcg neomycin.

MUMPSVAX® (Mumps Virus Vaccine, Live, MSD)—Single-dose vials of lyophilized vaccine, containing when reconstituted not less than 5,000 $TCID_{50}$ of mumps virus vaccine expressed in terms of the assigned titer of the FDA Reference Mumps Virus, and approximately 25 mcg neomycin.

Each of these vaccines is supplied as a single-dose vial packed with a disposable syringe containing diluent and fitted with a 25-gauge, 5/8" needle, and as a box of 10 single-dose vials with an accompanying box of 10 diluent-containing disposable syringes with affixed needles.

For more detailed information, consult your MSD representative or see full prescribing information. Merck Sharp & Dohme, Division of Merck & Co., Inc., West Point, Pa. 19486. J7MU02R1

MSD
MERCK SHARP & DOHME

"He just seems to pick at his food, Doctor... it worries me."

Picky eaters can also be picky vitamin takers and vitamins won't do anything if they aren't taken.

Physicians appreciate the importance of a multivitamin supplement that appeals to the balky child and helps the concerned mother assure sufficient vitamin and iron intake.

The multivitamin with mother-appeal

Chewable Flintstones® offer mothers a number of benefits that make it her choice:

□ A formula that fully complies with the FDA's standards.

□ Economy she appreciates—costing 50¢ to 90¢ less than leading ethical brand in pharmacies.

□ Mother acceptability because they are readily accepted by her child.

□ Quality she can rely upon—among the highest standards of freshness and manufacturing control.

Recommend with confidence

FLINTSTONES® Chewable Vitamins

MILES®

Miles Laboratories, Inc.
Elkhart, Ind. 46514 ©1977


"WHO COUGHED?"

When unproductive coughs startle,

HYCOTUSS® Expectorant provides effective antitussive/expectorant action — controls coughing for up to 6 hours and helps liquefy bronchial secretions to aid expectoration.

HYCOTUSS® EXPECTORANT (C III)

Each teaspoonful (5 ml) contains 5 mg hydrocodone bitartrate (WARNING: May be habit forming), 100 mg guaifenesin and alcohol U.S.P. 10% v/v

Cough relief for children under 12

USUAL DOSAGE: *Children under 2 years* – calculate as hydrocodone, 0.3 mg/kg/24 hours, divided into 4 equal doses. *Children 2 to 12 years* – ½ teaspoonful after meals and at bedtime, not less than 4 hours apart. *Children over 12 and adults* – 1 teaspoonful after meals and at bedtime, not less than 4 hours apart.

Please see brief summary of prescribing information below.

BRIEF SUMMARY OF PRESCRIBING INFORMATION

CONTRAINDICATIONS: HYCOTUSS Expectorant should not be used in patients with hypersensitivity to hydrocodone or guaifenesin.

WARNINGS: HYCOTUSS Expectorant should be prescribed and administered with the same degree of caution appropriate for the use of other oral narcotic-containing medications since it can produce drug dependence and, therefore, has the potential for abuse. Patients should be warned not to drive a car or operate machinery if they become drowsy or show impaired mental and/or physical abilities while taking HYCOTUSS Expectorant. Patients receiving narcotic analgesics, phenothiazines, other tranquilizers, sedative-hypnotics or other central nervous system depressants (including alcohol) concomitantly with HYCOTUSS Expectorant may exhibit an additive central nervous system depression. When such combined therapy is contemplated, the dose of one or both agents should be reduced.

PRECAUTIONS: Before prescribing medication to suppress or modify cough, it is important to ascertain that the underlying cause of cough is identified, that modification of cough does not increase the risk of clinical or physiologic complications, and that appropriate therapy for the primary disease is provided.

ADVERSE REACTIONS: Adverse reactions, when they occur, include sedation, nausea, vomiting and constipation.

DRUG INTERACTIONS: The central nervous system depressant effects of HYCOTUSS Expectorant may be additive with that of other central nervous system depressants. See WARNINGS.

6072-3

Oral prescription where permitted by State law.

HYCOTUSS® is an Endo registered U.S. trademark

6070-2BS

Endo Laboratories, Inc.
Subsidiary of the DuPont Company
Garden City, New York 11530

DUPONT

Can you pick the virus that caused the last cold you treated?

Even an expert virologist wouldn't find it easy.
To check your virology-quotient, see answers printed upside down below.

1. Rhinovirus 2. Parainfluenza Virus 3. Adenovirus 4. Herpesvirus 5. Influenza Type A Virus

For the interchangeable symptoms* of over 100 different viruses

Physician's number one choice for relieving
the drip and congestion common to most virus colds –
the elixir with the great grape taste.

DIMETAPP® ELIXIR

Each 5 ml teaspoonful contains:
Brompheniramine Maleate, NF ... 4 mg,
Phenylephrine Hydrochloride, USP ... 5 mg,
Phenylpropanolamine Hydrochloride, NF ... 5 mg,
(Alcohol 2.3%)

*

INDICATIONS

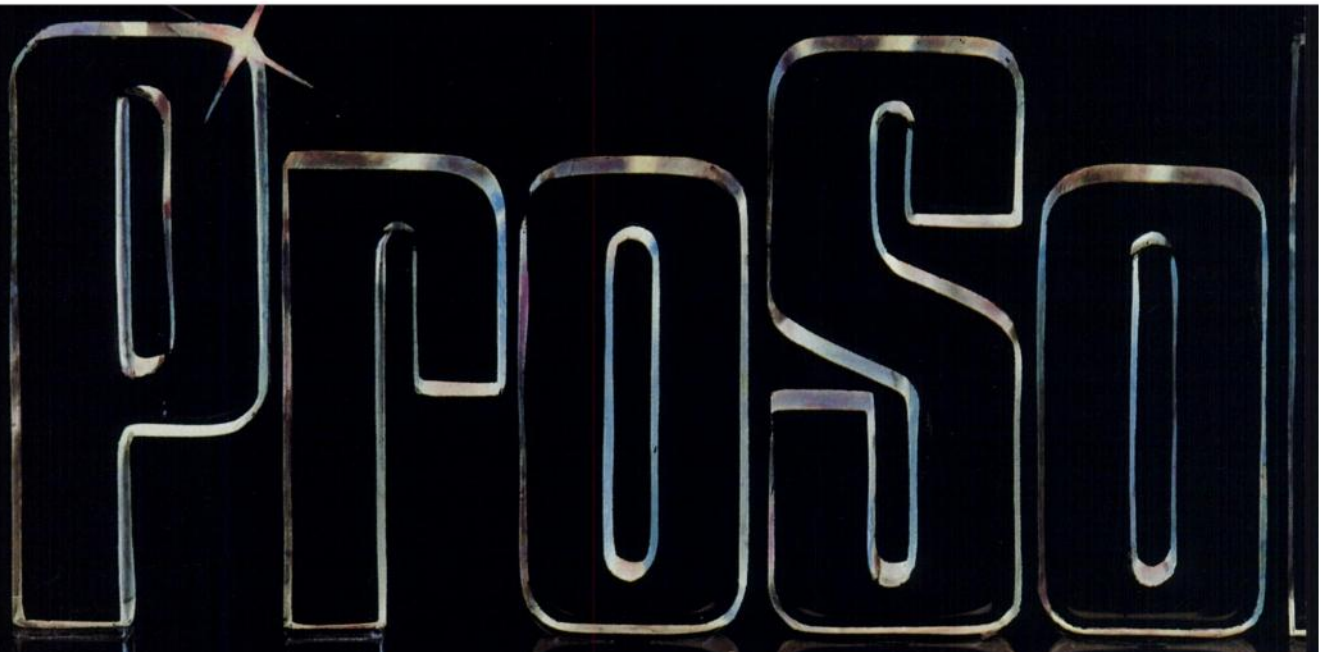
Based on a review of this drug by the National Academy of Sciences – National Research Council and/or other information, FDA has classified the following indications as "probably effective" for Dimetapp Elixir: The symptomatic treatment of seasonal and perennial allergic rhinitis and vasomotor rhinitis; and "lacking substantial evidence of effectiveness as a fixed combination" for the following indications: They symptomatic relief of upper respiratory infection, acute sinusitis, nasal congestion, pharyngitis, bronchitis, and otitis.

Final classification of the less-than-effective indications requires further investigation.

CONTRAINDICATIONS: Hypersensitivity to antihistamines. Not recommended for use during pregnancy. PRECAUTIONS: Administer with care to patients with cardiac or peripheral vascular diseases or hypertension. Until the patient's response has been determined, he should be cautioned against engaging in operations which require alertness. SIDE EFFECTS: Hypersensitivity reactions including skin rashes, urticaria, hypotension and thrombocytopenia have been reported on rare occasions. Drowsiness, lassitude, nausea, giddiness, dryness of the mouth, mydriasis, increased irritability or excitement may be encountered. DOSAGE: Adults – 1 to 2 teaspoonfuls 3 or 4 times daily. Children (1 to 6 months) – ¼ teaspoonful 3 or 4 times daily; (7 months to 2 years) – ½ teaspoonful 3 or 4 times daily; (2 to 4 years) – ¾ teaspoonful 3 or 4 times daily; (4 to 12 years) – 1 teaspoonful 3 or 4 times daily. Rev. July 1976

A·H·ROBINS

A. H. ROBINS COMPANY RICHMOND, VA 23220
"Member of Certified Medical Representatives Institute"



Five good reasons to recommend ProSobee...

1. Price ProSobee is priced comparable to milk-based formulas.

2. Availability ProSobee is available in most drugstores and foodstores.

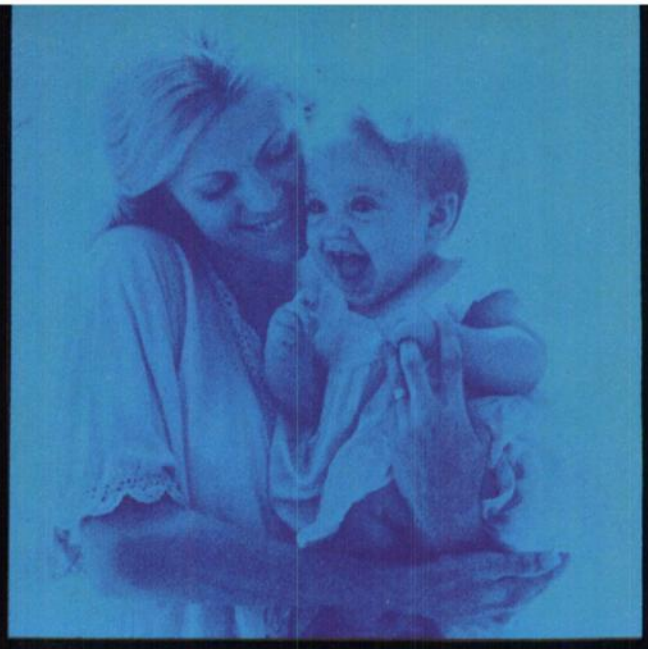
3. Symptomatic Relief ProSobee helps to avoid the symptoms caused by milk protein sensitivity and lactose intolerance.

4. Patient Growth the proven formulation of ProSobee assures good patient growth.

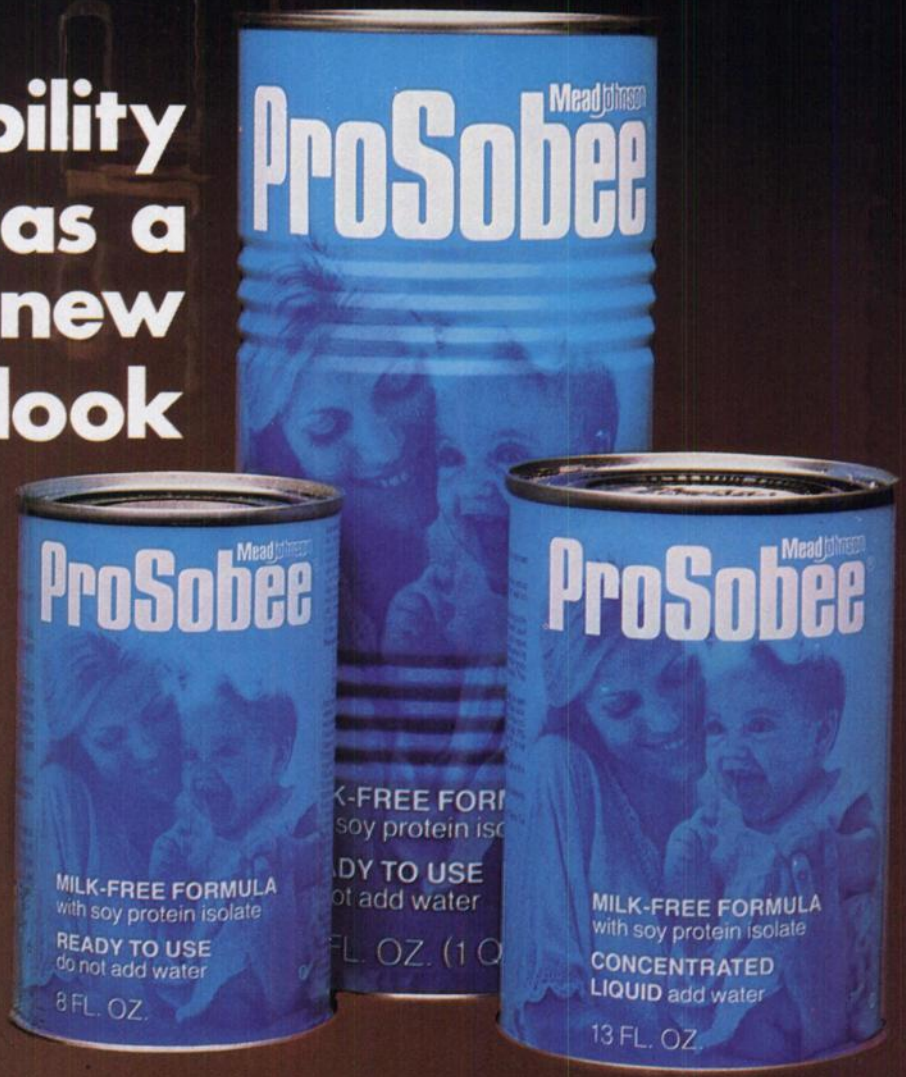
5. Reliability Physicians have confidently relied on ProSobee longer than any other soy isolate formula. It's just the kind of product you'd expect from Mead Johnson.

When you can't recommend a milk-based

L-K7-78



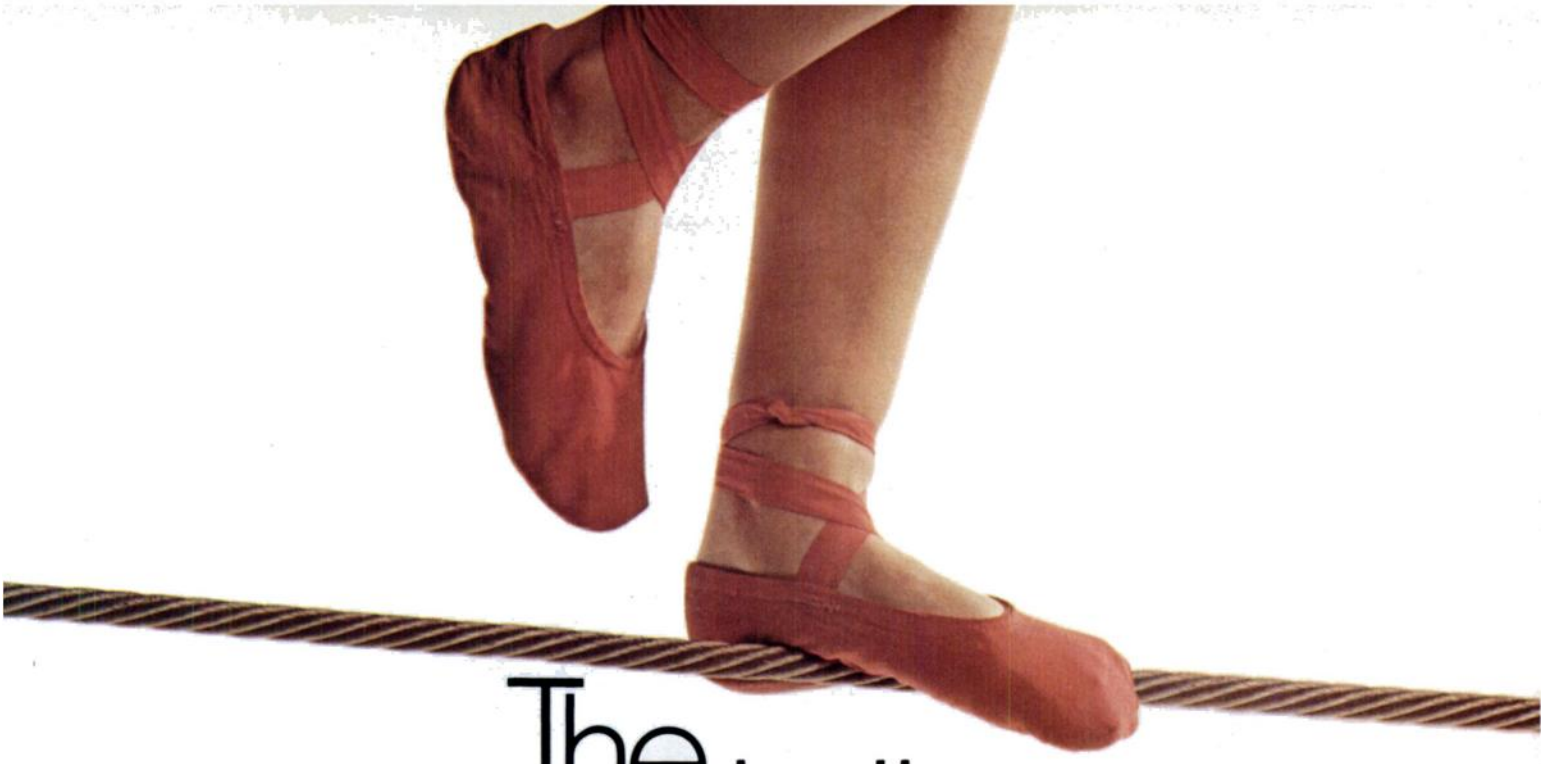
reliability has a new look



ormula... specify ProSobee

Mead Johnson
NUTRITIONAL DIVISION

ProSobee® milk-free formula with soy isolate.



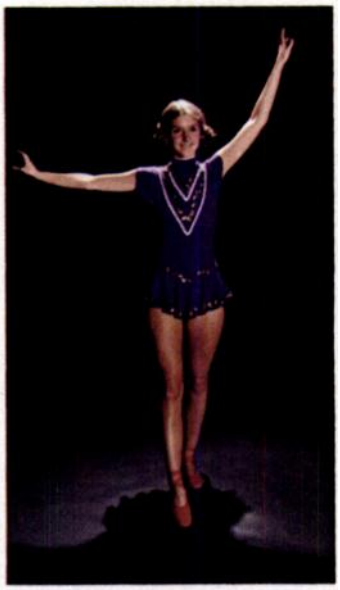
The Theophylline tightrope.

Maintain the balance with Accurbron.

In theophylline therapy, the therapeutic range is narrow. Serum levels in the 10 mcg/ml to 20 mcg/ml range are necessary for optimum effect with minimal side effects. Accurbron offers an effective bronchodilator for the symptomatic relief of bronchial asthma with simplified delivery system for more accurate dosage.

For easy dosage calculation, each milliliter of Accurbron contains 10 mg. anhydrous theophylline. Then, for precise measurement, a special combination spoon and vial is calibrated to deliver the measured dose of Accurbron.*

And, with the acceptable, neutral flavor of Accurbron flavor fatigue is less likely to occur.



*A combination spoon and vial, graduated in milliliters to assure more accurate dosage, is packed with each pint bottle of Accurbron.

ACCURBRON™

theophylline

Each ml. contains anhydrous theophylline 10 mg. and alcohol 7.5%

DOW

Dow Pharmaceuticals
The Dow Chemical Company
Indianapolis, Indiana 46268

See opposite page for prescribing information.

Child-proved

Aspirin—the most experienced analgesic

...with a 75-year record of effectiveness in children that no other analgesic/antipyretic can match

...with proven anti-inflammatory activity...and an excellent record of toleration

Bayer—the most experienced name in aspirin

...the original name in aspirin

...a name synonymous with aspirin purity, quality and stability

Bayer® Children's Aspirin—the most widely used children's aspirin

...1¼ grains of aspirin in each tablet

...chewable, orange-flavored, contains no Tartrazine yellow #5

Other pediatric products from Bayer:

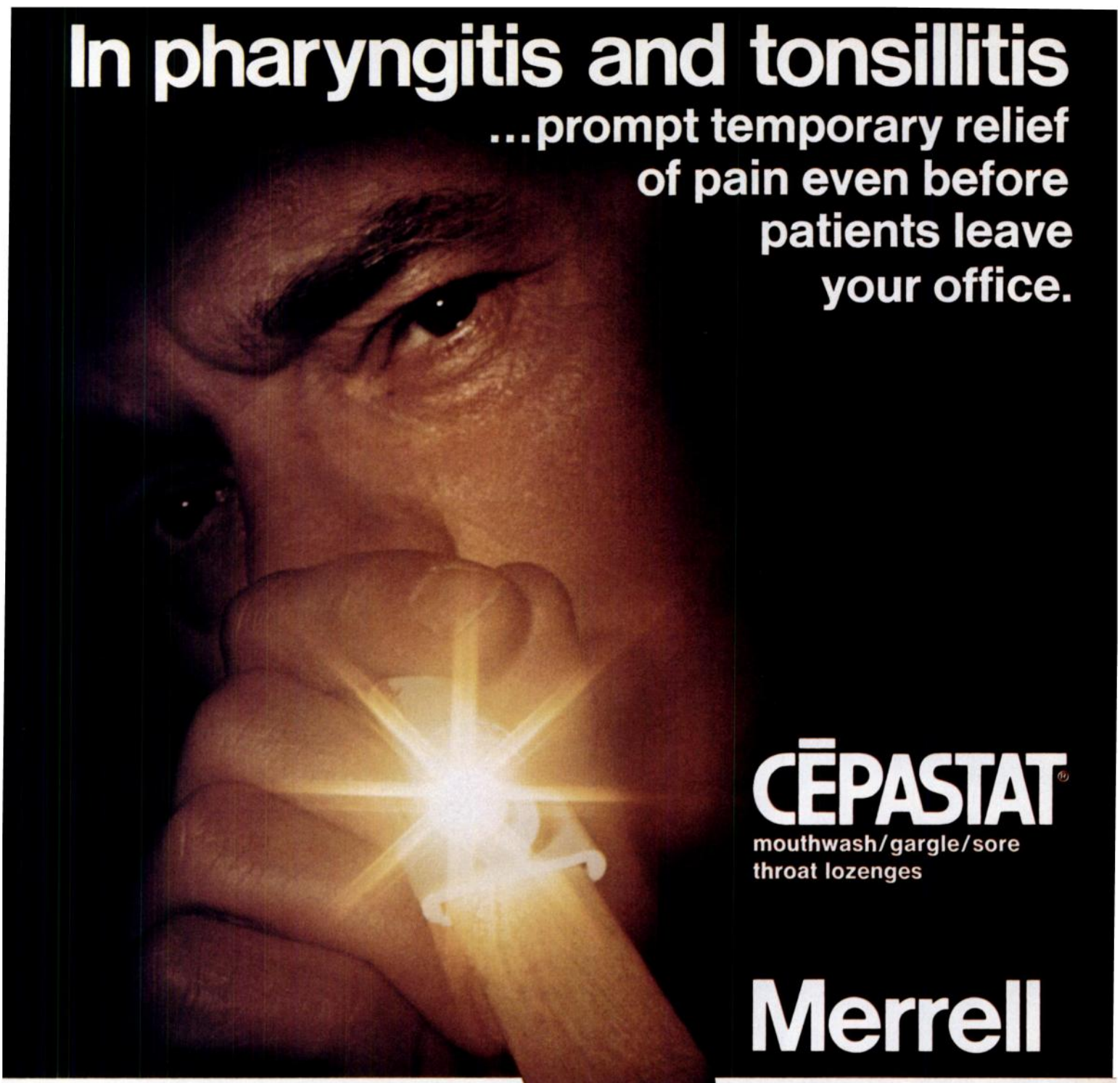
Bayer® Children's Cold Tablets
Containing 3.125 mg. of phenylpropanolamine HCl and 1¼ grains of Bayer aspirin in each chewable orange-flavored tablet

Bayer® Cough Syrup for Children
Containing dextromethorphan hydrobromide 7.5 mg. and phenylpropanolamine HCl, 9 mg. in each cherry-flavored teaspoonful

The Bayer Company
Glenbrook Laboratories, Division of Sterling Drug Inc.
90 Park Avenue, New York, New York 10016

In pharyngitis and tonsillitis

...prompt temporary relief of pain even before patients leave your office.



CĒPASTAT®
mouthwash/gargle/sore throat lozenges

Merrell

Proven Anesthetic Effectiveness

Spraying the throat with CĒPASTAT brings soothing relief within minutes. Your patients will appreciate this relief while waiting for therapeutic measures to take hold. The well-established anesthetic effects of CĒPASTAT provide soothing temporary anesthesia to the irritated or inflamed oropharyngeal mucosa.

CĒPASTAT in your treatment room . . .

Used as a spray, CĒPASTAT is more likely to deliver the most relief to the painful area of the throat.

Suit the product to the patient . . .

The liquid is best for use at home as a spray or gargle. Lozenges are ideal for patients on the go.

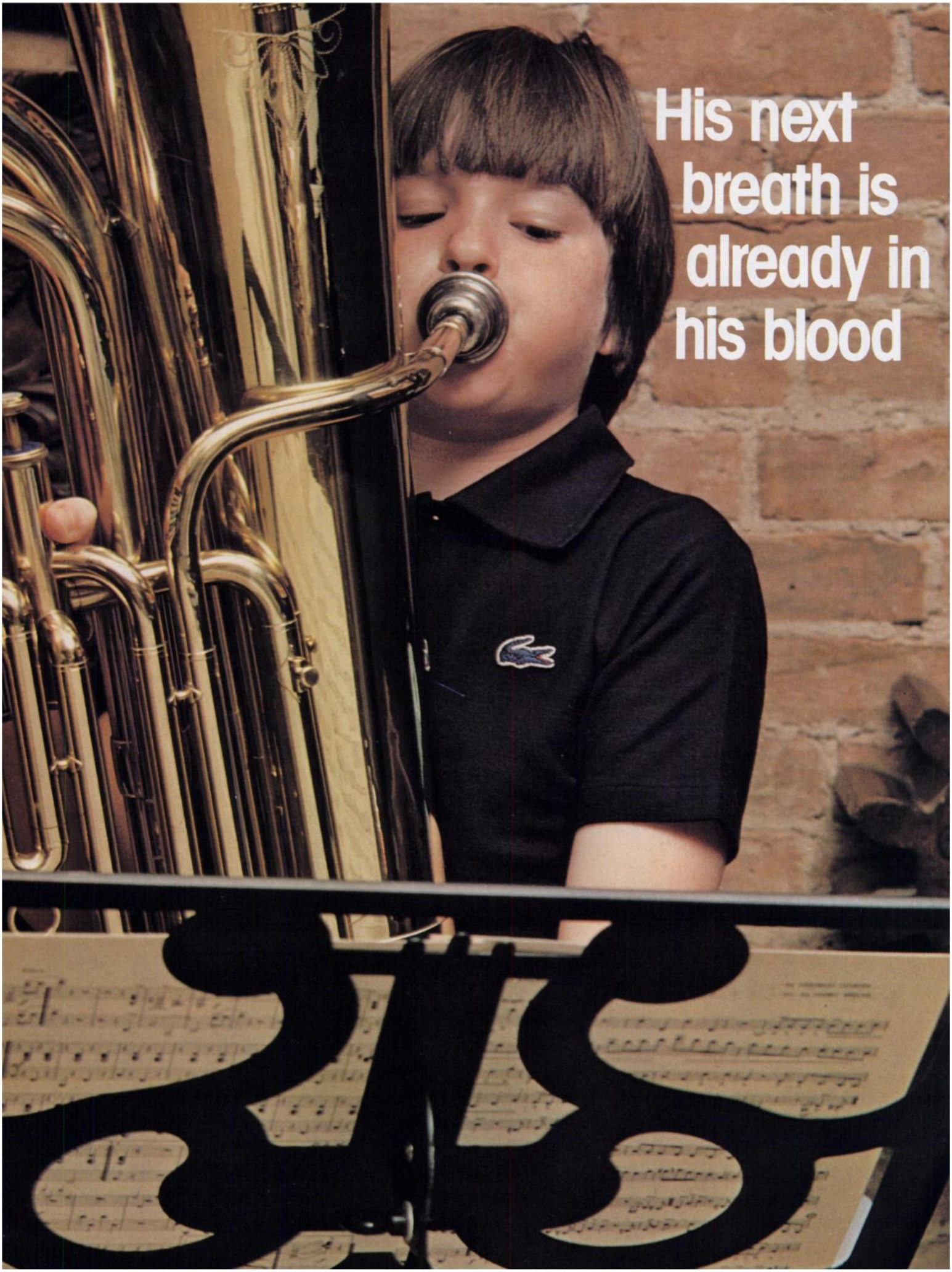
A recommendation is best . . .

It costs less. Keeps the emphasis where you want it . . . on more important counter-measures — your prescription for anti-infectives, for example.

MERRELL-NATIONAL LABORATORIES
Division of Richardson-Merrell Inc.
Cincinnati, Ohio 45215

relief of minor sore throat when patients want it . . . *stat*

8-3983 (Y572A)


His next
breath is
already in
his blood

SLO-PHYLLIN®
(theophylline, anhydrous)
the predictable bronchodilator...
New from Rorer

Predictable and reproducible clinical response—once dose has been titrated

Current literature[1,2] confirms the value of single-entity theophylline in asthma and emphasizes that individualization of dosage "...is difficult with fixed combination drugs."[1] SLO-PHYLLIN® offers pure theophylline...

No ephedrine because it may add to toxicity when theophylline is used in adequate dose.[2]

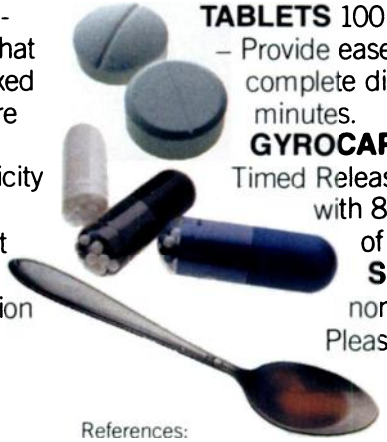
No barbiturates because they may affect theophylline metabolism[1] and half-life.[2]

No alcohol because it may create toleration problems in younger children.[3]

Predictable and reproducible absorption—with 100% bioavailability

Absorption approaching 100% of available drug has been demonstrated with SLO-PHYLLIN® Gyrocaps®.[4] Proven dose-related response helps assure therapeutic results.

Predictable and flexible management—with three dosage forms for ease of titration



TABLETS 100 and 200 mg dye-free – Provide ease of titration with complete dissolution in 9-10 minutes.

GYROCAPS® 60, 125, 250 mg Timed Release – For maintenance with 8-10 hour duration of action.

SYRUP 80 mg nonalcoholic, sugar-free – Pleasant tasting; ideal for your pediatric patients.

References:

1. Webb-Johnson, DC and Andrews, JL: *New Eng. Med.* 297:758, 1977.
2. Weinberger, M: *Jnl. of Pediatrics*, Jan., 1978.
3. Bierman, CW: *Ped.* 58:624, 1976.
4. Clinical data on file, William H. Rorer, Inc.

See following page for a summary of product information

SLO-PHYLLIN®

(theophylline, anhydrous)

100% bioavailable...

as predictable as the next breath

DOONER LABORATORIES, INC.

Subsidiary of:
William H. Rorer, Inc.
Fort Washington, PA 19034

SLO-PHYLLIN® (theophylline, anhydrous)

SLO-PHYLLIN® GYROCAPS® 60 mg., 125 mg., 250 mg. (theophylline, anhydrous)

SLO-PHYLLIN® TABLETS 100 mg. and 200 mg. (theophylline, anhydrous)

SLO-PHYLLIN® 80 SYRUP (theophylline, anhydrous)

Composition: Slo-Phyllin® Gyrocaps® (timed release capsules) contain Theophylline (anhydrous) in a special base that provides for a prolonged therapeutic effect. Each Slo-Phyllin® 60 (white color, dye-free) Gyrocap® contains 60 mg. of Theophylline (anhydrous). Each Slo-Phyllin® 125 (brown color) Gyrocap® contains 125 mg. of Theophylline (anhydrous). Each Slo-Phyllin® 250 (purple color) Gyrocap® contains 250 mg. of Theophylline (anhydrous). Slo-Phyllin® tablets (white, scored, dye-free) contain prompt acting Theophylline in two strengths. Slo-Phyllin® 100 mg. tablet and Slo-Phyllin® 200 mg. tablet.
Slo-Phyllin® 80 Syrup (orange color, non-alcoholic) contains 80 mg. of Theophylline (anhydrous) per 15 ml. (one tablespoonful).

Indications: Slo-Phyllin® is used in the treatment of asthma and other pulmonary disorders in which a reversible bronchoconstrictive element may be present such as chronic bronchitis and emphysema.

Side Effects: Theophylline may cause gastric irritation, nausea, vomiting, and abdominal discomfort, headache, palpitation, fall in blood pressure, central nervous system stimulation, and diuresis. Slo-Phyllin® Gyrocaps® are formulated in a timed release form to minimize these gastric complaints.

Precautions: Slo-Phyllin® should not be used concurrently with other formulas containing xanthine derivatives.

Warning: Safety in human pregnancy has not been established.

Dosage and Administration:
Slo-Phyllin® Gyrocaps® 60 mg.—125mg.—250mg.
CHILDREN UNDER 12: The recommended dosage range is 3–5 mg./kg. body weight every 8 hours. An initial dosage of 4 mg./kg. body weight every 8 hours to a maximum of 16 mg./kg./24 hours is recommended.
If the dosage is to be increased, it should be done in small increments up to a maximum of 24 mg./kg./24 hours or 900 mg./24 hours whichever is less. If the patient is to be maintained at a near maximum of the recommended dosage levels, serum theophylline levels should be determined. In children, not more than 8 mg./kg. every 8 hours should ordinarily be given. If side effects should occur, the dosage should be reduced by 1 mg./kg./dose.
ADULTS AND CHILDREN OVER 12: An initial dosage of 4 mg./kg. body weight every 8 hours is recommended.
The recommended median dose is 8 mg./kg. every 8 hours. This dosage can be approached by increasing the initial dose by increments of 60 mg. to 125 mg. at 3 to 4 day intervals as long as adverse effects are not achieved.
Because of the risk of reaching toxic serum theophylline levels (above 20 μg./ml.), serum theophylline concentrations should be obtained if higher doses are to be maintained.
The average adult dose is 930 mg./24 hours. However, some individuals may require doses as high as 2000 mg./24 hours.
For greater flexibility and easier titration of dosage, Slo-Phyllin® Gyrocaps® are available in 3 dosages—60 mg., 125 mg., and 250 mg. These dosages may be used interchangeably or complementary to one another in order to achieve the desired dosage level.
Slo-Phyllin® Tablets and Slo-Phyllin® 80 Syrup
Theophyllinize (titrate) each patient using Slo-Phyllin® at the recommended dosage of 3–5 mg./kg. body weight every six hours. Initially the lower dosage should be administered, then the dosage may be increased if optimal bronchodilator effects are not achieved. It is generally advised that a dosage of 5 mg./kg. body weight every six hours not be exceeded unless it is possible to monitor serum theophylline concentrations during therapy since it has been established that significant variations occur among individuals in the rate at which the drug is eliminated from the body.

Recommended Dosage of SLO-PHYLLIN® Tablets for Various Body Weights

Weight		Dose (in mg)			
lbs.	kg	3 mg/kg	4 mg/kg	5 mg/kg	6 mg/kg
22	10	30	40	50	60
33	15	45	60	75	90
44	20	60	80	100	120
55	25	75	100	125	150
66	30	90	120	150	180
88	40	120	160	200	240
110	50	150	200	250	300
132	60	180	240	300	360
154	70	210	280	350	420
176	80	240	320	400	480
198	90	270	360	450	540
220	100	300	400	500	600

Administered every six hours.

Recommended Dosage of SLO-PHYLLIN® 80 Syrup for Various Body Weights

Weight		Dose (in tsp.)		
lbs.	kg	3 mg/kg	4 mg/kg	5 mg/kg
20	9	1 tsp.	1⅓ tsp.	1½ tsp.
40	18	2 tsp.	2½ tsp.	3 tsp.
60	27	3 tsp.	4 tsp.	5 tsp.
79	36	4 tsp.	5 tsp.	6½ tsp.

Administered every six hours.

The therapeutic serum theophylline concentration is considered to be between 10 and 20 μg./ml. This range may best be reached by individualizing the patient's dosage while concomitantly monitoring the serum theophylline concentrations.
Slo-Phyllin® 80 Syrup U.S. Patent #3928609

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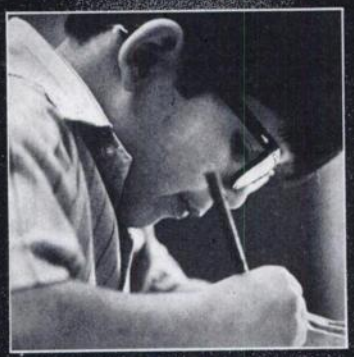

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An Efficient Practice

Infectious Diseases: The *Red Book* officially known as the "Report of the Committee on Infectious Diseases," is a succinct, up-to-date desk reference on the etiology, epidemiology, incubation period, clinical forms and differential diagnosis, treatment and control measures for more than 100 diseases. 1977 Indexed: 345 pages. Price: $6.00

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Introducing the Fleet Bowel Retraining Program

For the Patient Who Needs Bowel Retraining: Immediate Results Without Systemic Involvement.

For the chronically constipated patient, a bowel retraining program may offer a solution to the problem of oral laxative dependence. The Fleet Bowel Retraining Program is excellent in its systematic and physiologic approach which includes the use of diet and exercise combined with the concurrent use of Fleet Enema for a short initial period.

The Fleet Bowel Retraining Program

- Take one Fleet® Enema daily, at intervals of two or three days, until normal defecation reflexes have been re-established. Fleet® Enema combats the oral laxative habit with its physiologic mode of action and lack of oral administration. The enema is known " . . . to cleanse only the distal colon and thus . . . it most nearly approximates, in its results, a normal bowel movement."[1]
- Establish dietary habits that will facilitate regularity. This includes increasing fluid intake and eating such foods as bran, whole grains, leafy vegetables and fruits.
- Increase exercise and activity level. Daily exercise is an important part of the program because it helps maintain good muscle tone throughout the body, including the intestinal tract.

As with any habit that has taken time to develop, chronic constipation can't be changed overnight. During the retraining period, Fleet Enema may be taken at intervals to combat any tendency to lapse back to oral laxatives until good bowel habits are re-established.

And for the Acute Patient with Immediate Needs: Avoid Oral Laxative Introduction.

When an acutely ill patient needs immediate relief from constipation, you can prescribe an oral laxative for him and his symptoms will be relieved promptly. But you may be needlessly setting him on the road to chronic laxative dependence by unnecessarily involving his whole system. Don't let him get started down that road in the first place.

Think, instead, of recommending a short-term solution. Prescribe Fleet Enema promptly for a short (3-day) period and provide immediate relief without the risk of oral laxative dependence. Fleet Enema now so he won't need retraining later.

- Physiologic Mode of Action
- Not Orally Administered
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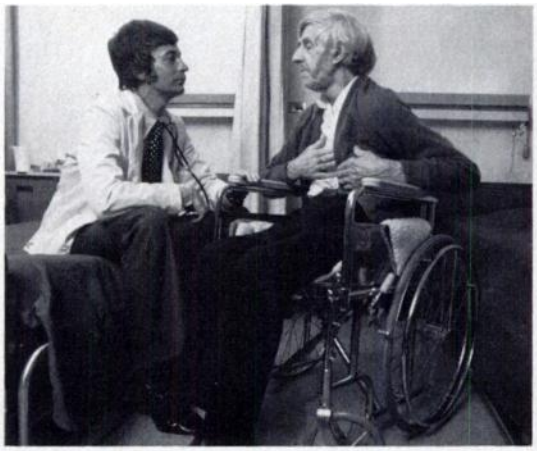
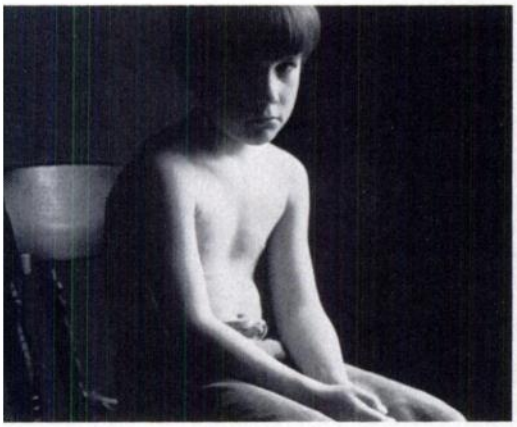
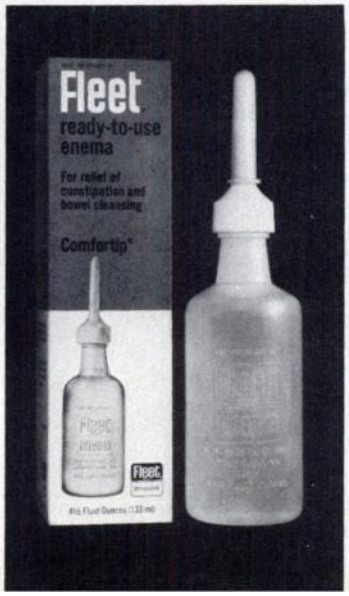
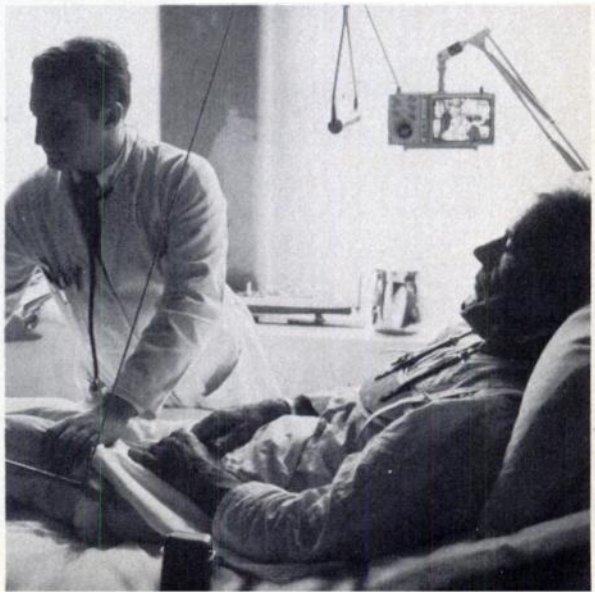
[1]Steinberg H, Almy TP: *Drugs of Choice* 1964–1965, Modell (ed), Saint Louis, C V Mosby Co, 1964, p 351.









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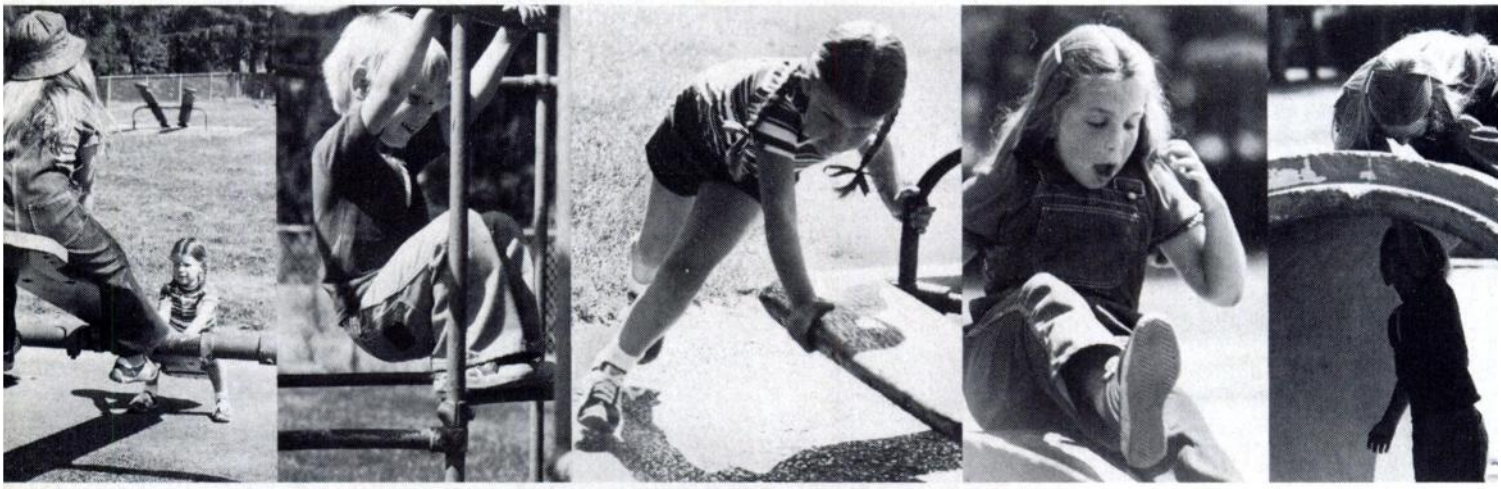
one-shot therapy* in strep pharyngitis†



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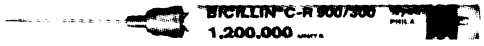

INJECTION

BICILLIN® C-R 900/300

(penicillin G benzathine and penicillin G procaine suspension)

Wyeth Laboratories
Philadelphia, Pa 19101

FOR DEEP INTRAMUSCULAR INJECTION ONLY
This product is not indicated for continuous prophylaxis of rheumatic fever or in the treatment of venereal diseases.

Indications: For use in children of all ages in the treatment of moderately severe infections due to penicillin G-susceptible microorganisms susceptible to serum levels common to this dosage form. Therapy should be guided by bacteriological studies (including susceptibility testing) and by clinical response. NOTE: When high sustained serum levels are required, penicillin G sodium or potassium either IM or IV should be used. This drug should **not** be used in the treatment of venereal diseases including syphilis, gonorrhea, yaws, bejel and pinta.

The following infections usually respond to adequate dosages of this drug: †**Streptococcal infections** (group A—without bacteremia). Moderately severe to severe infections of the upper respiratory tract, skin and soft tissue infections, scarlet fever and erysipelas. NOTE: Streptococci in groups A,C,G,H,L and M are very sensitive to penicillin G. Other groups, including group D (enterococci) are resistant. Penicillin G sodium or potassium is recommended for streptococcal infections with bacteremia. **Pneumococcal infections:** Moderately severe pneumonia and otitis media. NOTE: Severe pneumonia, empyema, bacteremia, pericarditis, meningitis, peritonitis and arthritis of pneumococcal etiology are better treated with penicillin G sodium or potassium during acute stage.

Contraindications: Previous hypersensitivity reaction to any penicillin or to procaine.

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 with oral penicillins. Reactions are more apt to occur in individuals with a history of sensitivity to multiple allergens. Reports of individuals with a history of penicillin hypersensitivity reactions who have had severe hypersensitivity reactions when treated with a cephalosporin have been well documented. Before penicillin therapy, inquire carefully concerning previous hypersensitivity reactions to penicillins, cephalosporins and other allergens. If allergic reaction occurs, drug should be discontinued and patient treated with the usual agents, e.g., pressor amines, antihistamines and corticosteroids.

Precautions: Penicillin should be used with caution in individuals with histories of significant allergies and/or asthma. Care should be taken to avoid intravenous or intra-arterial administration or injection into or near major peripheral nerves or blood vessels, since such injections may produce neurovascular damage. In streptococcal infections, therapy must be sufficient to eliminate the organism; otherwise the sequelae of streptococcal disease may occur.*Cultures should be taken following completion of treatment to determine whether streptococci have been eradicated. A small percentage of patients are sensitive to procaine. If there is a history of sensitivity make the usual test: Inject intradermally 0.1 ml of a 1 to 2 percent procaine solution. Development of an erythema, wheal, flare or eruption indicates procaine sensitivity. Sensitivity should be treated by the usual methods, including barbiturates, and procaine penicillin preparations should not be used. Antihistaminics appear beneficial in treatment of procaine reactions. The use of antibiotics may result in overgrowth of nonsusceptible organisms. Constant observation of the patient is essential. If new infections due to bacteria or fungi appear during therapy, the drug should be discontinued and appropriate measures taken. Whenever allergic reactions occur, penicillin should be withdrawn unless, in the opinion of the physician, the condition being treated is life threatening and amenable only to penicillin therapy. In prolonged therapy with penicillin, and particularly with high dosage schedules, periodic evaluation of the renal and hematopoietic systems is recommended.

Adverse Reactions: Penicillin is a substance of low toxicity but does possess a significant index of sensitization. The following hypersensitivity reactions associated with use of penicillin have been reported: skin rashes, ranging from maculopapular eruptions to exfoliative dermatitis; urticaria; serum sickness-like reactions, including chills, fever, edema, arthralgia and prostration. Severe and often fatal anaphylaxis has been reported (see "Warnings").

Description: Each TUBEX® sterile cartridge-needle unit (2 ml size) contains 1,200,000 units of penicillin comprising: 900,000 units penicillin G benzathine and 300,000 units penicillin G procaine in a stabilized aqueous suspension with sodium citrate buffer; and as w/v, approximately 0.5% lecithin, 0.55% carboxymethylcellulose, 0.55% povidone, 0.1% methylparaben, and 0.01% propylparaben; packages of 10 TUBEX.

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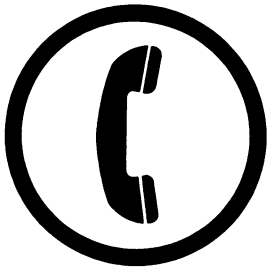

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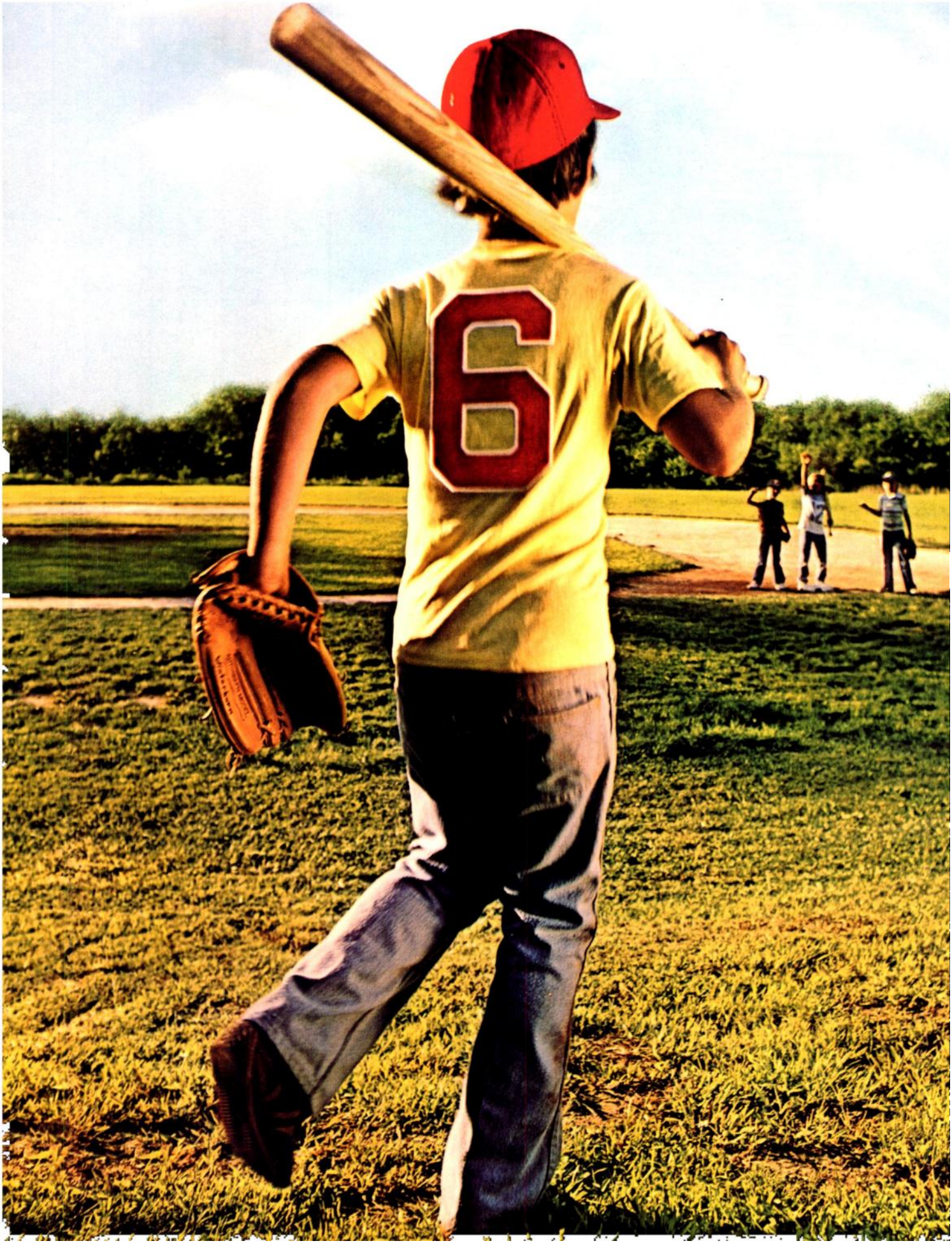

6

Newly indicated for children 6 years and older

Tegretol®
carbamazepine USP

Provides alert control in refractory grand mal and psychomotor epilepsy

A major feature that distinguishes Tegretol from other anticonvulsants is its well-recognized ability to effectively control seizures—without excessive sedation. As Troupin[1] states "... the degree to which people are more alert on Tegretol is quite striking."

Recommendations for use of Tegretol

Penry[2] states that since "... seizure control [with Tegretol] is not achieved with dosages producing serum concentrations below the 'therapeutic range,'" consider increasing the dosage* to more effective levels before abandoning therapy.

Increasing dosage gradually may aid in avoiding side effects.

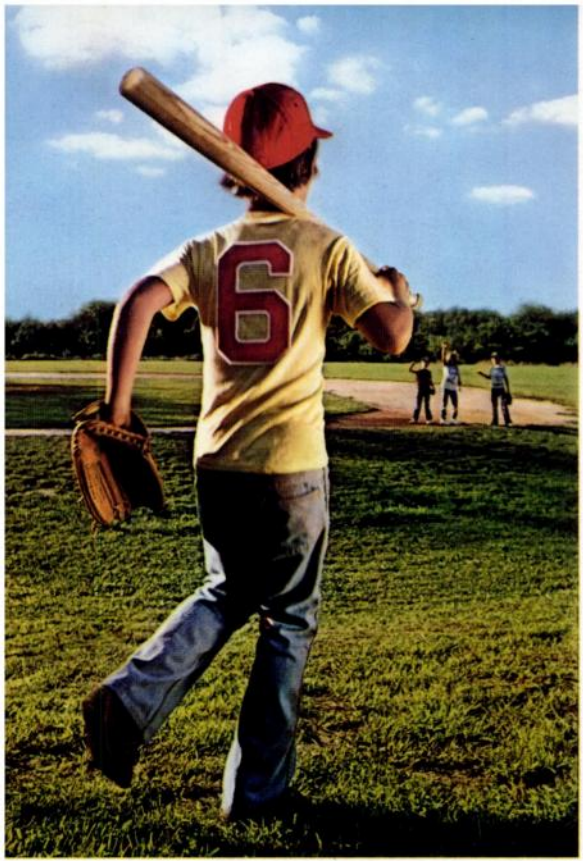
NOTE: Please see the boxed warning concerning blood abnormalities and the necessity for repeated blood counts.

* In children 6-12 dosage should generally not exceed 1000 mg daily.

References:
1. Troupin AS: The choice of anticonvulsants, proceedings of the 25th Western Institute of Epilepsy, March 26, 1975, Las Vegas, Nevada, p 5.
2. Penry JK: Carbamazepine, valproic acid, clonazepam, in *Treatment of Epilepsy Today,* Ferris GS (Ed.), Med Econ Co., 1978, pp 11-24.

Please turn page for a brief summary of the prescribing information.

Geigy



Tegretol®

brand of carbamazepine USP

Tablets of 200 mg

Brief Summary of Prescribing Information

WARNING

SERIOUS AND SOMETIMES FATAL ABNORMALITIES OF BLOOD CELLS (APLASTIC ANEMIA, AGRANULOCYTOSIS, THROMBOCYTOPENIA, AND LEUKOPENIA) HAVE BEEN REPORTED FOLLOWING TREATMENT WITH TEGRETOL, BRAND OF CARBAMAZEPINE.

EARLY DETECTION OF HEMATOLOGIC CHANGE IS IMPORTANT SINCE, IN SOME PATIENTS, APLASTIC ANEMIA IS REVERSIBLE.

COMPLETE PRETREATMENT BLOOD COUNTS, INCLUDING PLATELET AND POSSIBLY RETICULOCYTE AND SERUM IRON, SHOULD BE OBTAINED. ANY SIGNIFICANT ABNORMALITIES SHOULD RULE OUT USE OF THE DRUG. THESE SAME TESTS SHOULD BE REPEATED AT FREQUENT INTERVALS, POSSIBLY WEEKLY DURING THE FIRST THREE MONTHS OF THERAPY AND MONTHLY THEREAFTER FOR AT LEAST TWO TO THREE YEARS. THE DRUG SHOULD BE STOPPED IF ANY EVIDENCE OF BONE MARROW DEPRESSION DEVELOPS.

PATIENTS SHOULD BE MADE AWARE OF THE EARLY TOXIC SIGNS AND SYMPTOMS OF A POTENTIAL HEMATOLOGIC PROBLEM, SUCH AS FEVER, SORE THROAT, ULCERS IN THE MOUTH, EASY BRUISING, PETECHIAL OR PURPURIC HEMORRHAGE, AND SHOULD BE ADVISED TO DISCONTINUE THE DRUG AND TO REPORT TO THE PHYSICIAN IMMEDIATELY IF ANY SUCH SIGNS OR SYMPTOMS APPEAR.

This drug is not a simple analgesic and should not be used for the relief of trivial aches or pains. Treatment of epilepsy should be restricted to those classifications listed under "Indications."

Before prescribing Tegretol, brand of carbamazepine, the physician should be thoroughly familiar with the details of this prescribing information, particularly regarding use with other drugs, especially those which accentuate toxicity potential.

Indications *Epilepsy:* Tegretol, brand of carbamazepine, is indicated for the following conditions in patients who have not responded satisfactorily to treatment with other agents such as diphenylhydantoin, phenobarbital, and/or primidone:

1. Partial seizures with complex symptomatology (psychomotor, temporal lobe). Patients with these seizures appear to show greater improvement than those with other types.
2. Generalized tonic-clonic seizures (grand mal).
3. Mixed seizure patterns which include the above, or other partial or generalized seizures. Absence seizures (petit mal) do not appear to be controlled by Tegretol, brand of carbamazepine.

Because of the necessity for frequent laboratory evaluation for potentially serious side effects, Tegretol, brand of carbamazepine, is not recommended as the drug of first choice in seizure disorders. It should be reserved for patients whose seizures are difficult to control and/or patients experiencing marked side effects (e.g., excessive sedation).

Trigeminal Neuralgia: Tegretol, brand of carbamazepine, is indicated in the treatment of the pain associated with true trigeminal neuralgia.

Beneficial results have also been reported in glossopharyngeal neuralgia.

Contraindications Tegretol, brand of carbamazepine, should not be used in patients with a history of previous bone marrow depression and/or hypersensitivity to the drug, or in patients with a known sensitivity to any of the tricyclic compounds, such as amitriptyline, desipramine, imipramine, protriptyline, nortriptyline, etc. Likewise, on theoretical grounds its use with monoamine oxidase inhibitors is not recommended. When administering Tegretol, brand of carbamazepine, to patients receiving MAO inhibitors, the MAO inhibitors should be discontinued and as long a drug-free interval should elapse as the clinical situation permits with a minimum of fourteen days.

Warnings The drug should be discontinued if evidence of significant bone marrow depression occurs. In general, Tegretol, brand of carbamazepine, should be discontinued if a patient sustains evidence of marrow suppression as follows:

1) Erythrocytes	less than 4.0 m/cmm
Hematocrit	less than 32%
Hemoglobin	less than 11 gm%
2) Leukocytes	less than 4000/cmm
3) Platelets	less than 100,000/cmm
4) Reticulocytes	less than 0.3% (20,000/cmm)
5) Serum iron	greater than 150 μgm%

Patients with a history of adverse hematologic reaction to any drug may be particularly at risk.

Usage in Pregnancy: The effects of Tegret brand of carbamazepine, in human pregnancy and nursing infants are unknown.

Recent reports suggest an association be tween the use of anticonvulsant drugs by women with epilepsy and an elevated inci dence of birth defects in children born to these women. Data are more extensive wit respect to diphenylhydantoin and phenobarbital, but these are also the mos commonly prescribed anticonvulsants; les systematic or anecdotal reports suggest a possible similar association with the use o all known anticonvulsant drugs.

The reports suggesting an elevated incidence of birth defects in children of drug-treated epileptic women cannot be regarded as adequate to prove a definite cause-and-effect relationship. There are ir trinsic methodologic problems in obtainin adequate data on drug teratogenicity in humans; the possibility also exists that other factors, e.g., genetic factors or the epileptic condition itself, may be more important than drug therapy in leading to bir defects. The great majority of mothers on anticonvulsant medication deliver normal infants.

It is important to note that anticonvulsant drugs should not be discontinued in patients in whom the drug is administered to prevent major seizures because of the strong possibility of precipitating status epilepticus with attendant hypoxia and threat to life. In individual cases where the severity and frequency of the seizure disorder are such that the removal of medica tion does not pose a serious threat to the patient, discontinuation of the drug may b considered prior to and during pregnancy although it cannot be said with any confidence that even minor seizures do not pose some hazard to the developing embryo or fetus.

Adverse effects have been observed in reproduction studies in animals given Tegretol, brand of carbamazepine, orally. In rat teratology studies, 2 of 135 offspring showed kinked ribs at 250 mg/kg and 4 of 119 offspring at 650 mg/kg showed other anomalies [cleft palate (1), talipes (1), anophthalmos (2)]. In reproduction studie nursing rats demonstrated a lack of weigh gain and an unkempt appearance at a maternal dosage level of 200 mg/kg.

The prescribing physician will wish to weigh these considerations in treating or counseling epileptic women of childbearing potential.

Use of Tegretol, brand of carbamazepine, in women of childbearing potential should be considered only when the clinical situation warrants the risk. It is inadvisable for mothers taking Tegretol, brand of carbamazepine, to nurse.

Tegretol, brand of carbamazepine, has shown mild anticholinergic activity; therefore, patients with increased intraocular pressure should be closely observed during therapy.

Because of the relationship of the drug to other tricyclic compounds, the possibility activation of a latent psychosis and, in elderly patients, of confusion or agitation should be borne in mind.

Since dizziness and drowsiness may occur, patients should be cautioned abou the hazards of operating machinery or automobiles or engaging in other potentially dangerous tasks.

Precautions Before initiating therapy, the following procedures are recommended:

Detailed history and physical examination.

Therapy should be prescribed only after critical benefit-to-risk appraisal in patients with a history of cardiac, hepatic or renal damage, history of adverse hematologic reaction to other drugs or who have had interrupted courses of therapy with Tegretol, brand of carbamazepine.

Complete pretreatment blood counts, including platelet and possibly reticulocyte and serum iron, should be obtained. Any significant abnormalities should rule out use of the drug. These same tests should be repeated at frequent intervals, possibly weekly, during the first three months of therapy and monthly thereafter for at least two to three years.

Baseline evaluations of liver function, particularly in patients with a history of liver disease. Liver function tests must be performed at regular intervals during treatment with this drug since liver damage may occur. The drug should be discontinued immediately in cases of aggravated liver dysfunction or active liver disease.

Baseline and periodic eye examinations, including slit-lamp, funduscopy and tonometry. These are recommended for patients being treated with this drug since many phenothiazines and related drugs have been shown to cause eye changes.

Baseline and periodic complete urinalysis and BUN determinations. These are recommended for patients treated with this agent because of observed renal dysfunction.

Carcinogenesis and Mutagenesis. Carbamazepine, when administered to Sprague-Dawley rats for two years in the diet at doses of 25, 75, and 250 mg/kg/day, resulted in a dose-related increase in the incidence of hepatocellular tumors in females and in benign interstitial cell adenomas in the testes of males. Carbamazepine must, therefore, be considered to be carcinogenic in Sprague-Dawley rats. Bacterial and mammalian mutagenicity studies using carbamazepine produced negative results. The significance of these findings relative to the use of carbamazepine in humans is, at present, unknown.

Adverse Reactions If adverse reactions are of such severity that the drug must be discontinued, the physician must be aware that abrupt discontinuation of any anticonvulsant drug in a responsive epileptic patient may lead to seizures or even status epilepticus with its life-threatening hazards.

The adverse reactions most frequently observed, particularly during the initial phases of therapy, are dizziness, drowsiness, unsteadiness, nausea, and vomiting. To minimize the possibility of such reactions, therapy should be initiated at the low dosage recommended.

The following additional adverse reactions have been reported:

Hemopoietic System: Aplastic anemia, leukopenia, agranulocytosis, eosinophilia, leukocytosis, thrombocytopenia, purpura.

Hepatic: Abnormalities in liver function tests and cholestatic and hepatocellular jaundice.

Genitourinary System: Urinary frequency, acute urinary retention, oliguria with elevated blood pressure and impotence. Albuminuria, glycosuria, elevated BUN and microscopic deposits in the urine have also been reported.

Testicular atrophy occurred in rats receiving Tegretol, brand of carbamazepine, orally from 4 to 52 weeks at dosage levels of 50 to 400 mg/kg/day. In dogs, it produced a brownish discoloration, presumably a metabolite, in the urinary bladder at dosage levels of 50 mg/kg and higher. Relevance of these findings to humans is unknown.

Nervous System: Dizziness, drowsiness, disturbances of coordination, confusion, headache, fatigue, blurred vision, visual hallucinations, transient diplopia and oculomotor disturbances, speech disturbances, and abnormal involuntary movements, peripheral neuritis and paresthesias, depression with agitation, talkativeness, nystagmus, tinnitus, and hyperacusis.

There have been reports of associated paralysis and other symptoms of cerebral arterial insufficiency, but the exact relationship of these reactions to the drug has not been established.

Skin: Pruritic and erythematous rashes, urticaria, Stevens-Johnson syndrome, photosensitivity reactions, alterations in skin pigmentation, exfoliative dermatitis, alopecia, diaphoresis, erythema multiforme and nodosum, and aggravation of disseminated lupus erythematosus. In certain cases, discontinuation of therapy may be necessary.

Digestive System: Nausea, vomiting, gastric distress and abdominal pain, diarrhea, constipation, anorexia, and dryness of the mouth and pharynx, including glossitis and stomatitis.

Cardiovascular System: Congestive heart failure, aggravation of hypertension, hypotension, syncope and collapse, edema, primary thrombophlebitis, recurrence of thrombophlebitis, aggravation of coronary artery disease, and adenopathy or lymphadenopathy.

Some of these cardiovascular complications have resulted in fatalities. Arrhythmias and myocardial infarction have been associated with other tricyclic compounds.

Eyes: There have been scattered, punctate, cortical lens opacities reported, as well as conjunctivitis. Although a direct causal relationship has not been established, many phenothiazines and related drugs have been shown to cause eye changes.

Musculoskeletal: Aching joints and muscles, and leg cramps.

Metabolic: Fever and chills.

Dosage and Administration Dosage should be adjusted to the needs of the individual patient. A low initial daily dosage with a gradual increase is advised. As soon as adequate control is achieved, the dosage may be reduced very gradually to the minimum effective level.

Epilepsy (see **Indications**):

Adults and children over 12 years of age–Initial: One tablet (200 mg) b.i.d. on the first day. Increase gradually by adding up to 200 mg per day using a t.i.d. or q.i.d. regimen until the best response is obtained. Dosage should generally not exceed 1000 mg daily in children 12 to 15 years of age, and 1200 mg daily in patients above 15 years of age. Doses up to 1600 mg daily have been used in adults in rare instances.

Maintenance: Adjust dosage to the minimum effective level, usually 4-6 tablets (800-1200 mg) daily.

Children 6-12 years of age–Initial: One-half tablet (100 mg) b.i.d. on the first day. Increase gradually by adding 100 mg per day using a t.i.d. or q.i.d. regimen until the best response is obtained. Dosage should generally not exceed 1000 mg.

Maintenance: Adjust dosage to the minimum effective level, usually 2-4 tablets (400-800 mg) daily.

Combination Therapy: Tegretol, brand of carbamazepine, may be used alone or with other anticonvulsants. When added to existing anticonvulsant therapy, the drug should be added gradually while the other anticonvulsants are maintained or gradually decreased.

Trigeminal Neuralgia (see **Indications**):

Initial: One-half tablet (100 mg) b.i.d. on the first day for a total daily dose of 200 mg. This daily dose may be increased by up to 200 mg a day using increments of one-half tablet every 12 hours only as needed to achieve freedom from pain. Do not exceed 1200 mg daily. Tablets should be taken with meals.

Maintenance: Control of pain can be maintained in most patients with 400 mg to 800 mg daily. However, some cases may be maintained on as little as 200 mg daily, while others may require as much as 1200 mg daily. At least once every 3 months throughout the treatment period, attempts should be made to reduce the dose to the minimum effective level or even to discontinue the drug.

How Supplied Round, white, single-scored tablets of 200 mg in bottles of 100 and 1000, and Unit Dose Packages of 100.

B667103 (10/78) C78-31

For complete details, including description, actions, and overdosage, please see full prescribing information.

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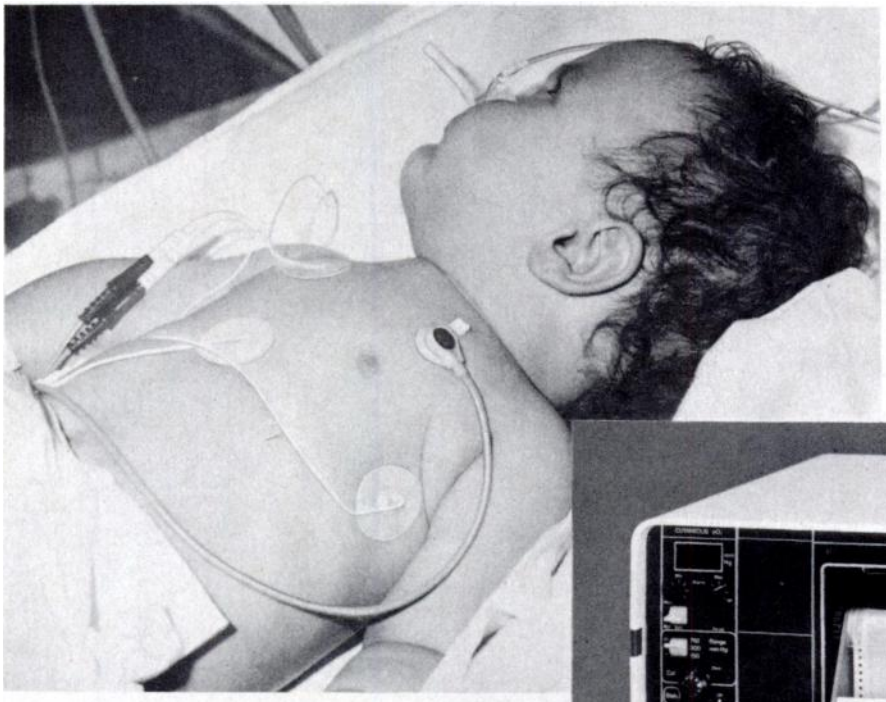

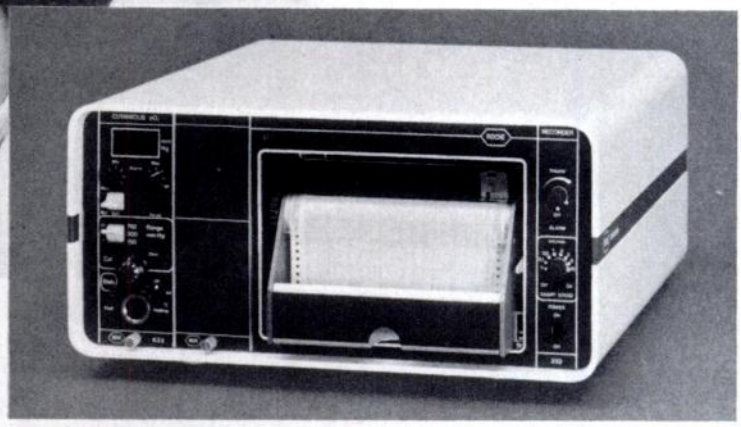

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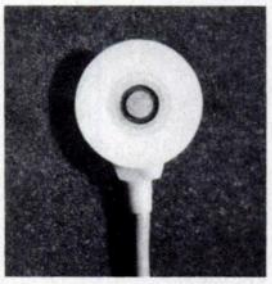

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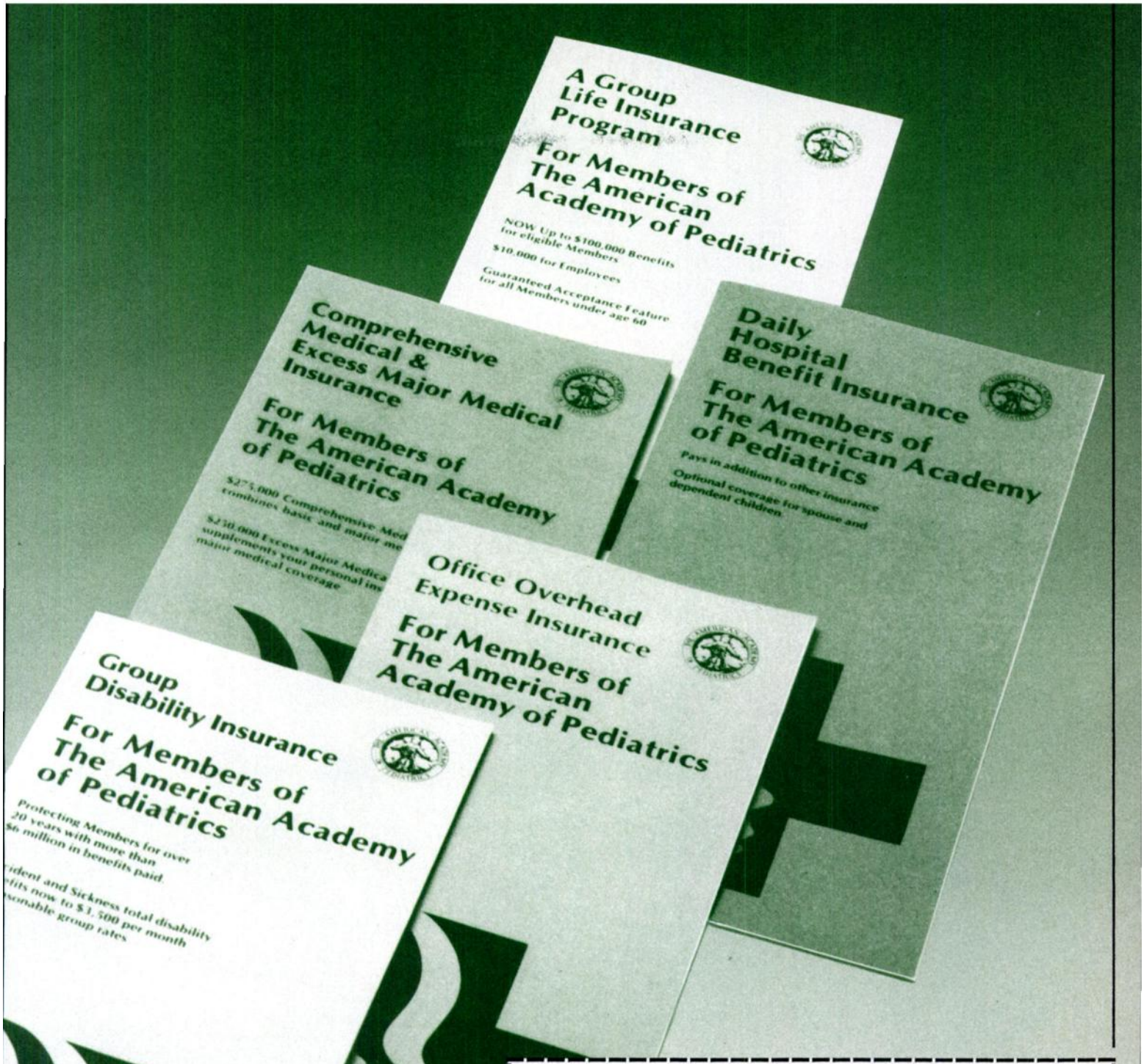

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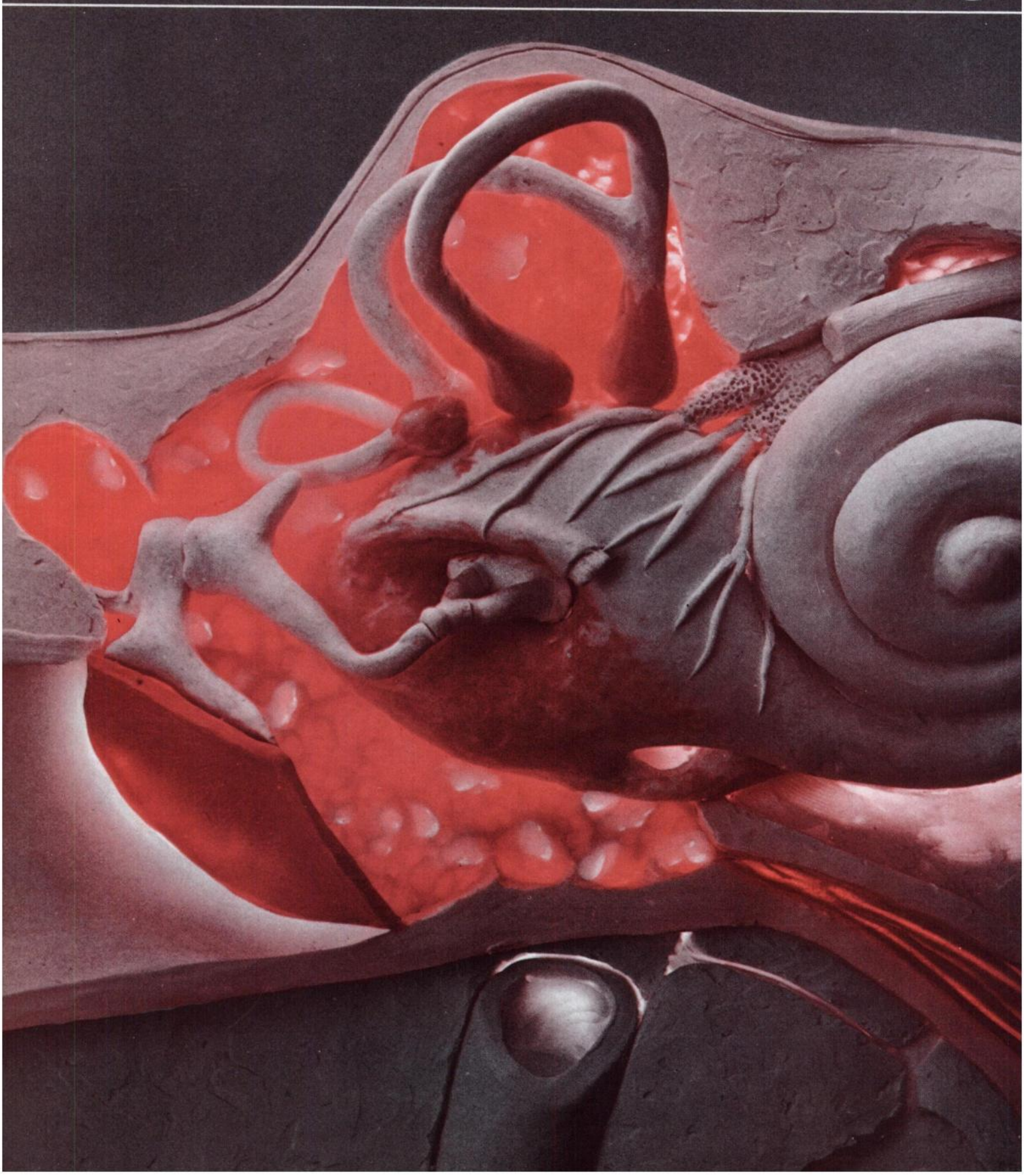

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Bactrim demonstrates 93% success rate in multicenter studies

High efficacy against major otic pathogens

Bactrim is highly effective against acute otitis media caused by *Str. pneumoniae (D. pneumoniae)* or *H. influenzae.* An overall efficacy of 93% was reported in a multicenter evaluation* of 121 patients with acute otitis media due to these organisms. The age range was 2 months to 13 years, with an average of 3 years.

In vitro spectrum includes ampicillin-resistant strains of H. influenzae

Note: Clinical information on the efficacy of Bactrim in otitis media due to ampicillin-resistant *H. influenzae* is limited at present; further studies are in progress.

Useful in patients allergic to penicillins

Same safety profile as in other indications

In pooled data* on 238 patients receiving Bactrim for an average of approximately 10 days, adverse effects were infrequent and not serious. Although serious reactions can occur, none were noted in these studies. Contraindications to Bactrim include patients hypersensitive to its components and infants less than two months of age.

Note: Bactrim should not be used in the treatment of streptococcal pharyngitis, since the incidence of failure has been greater than that of penicillin in eradicating group A beta-hemolytic streptococci from the tonsillopharyngeal area.

*Data on file, Medical Department, Hoffmann-La Roche Inc.

ROCHE

BACTRIM™ Suspension

(40 mg trimethoprim and 200 mg sulfamethoxazole per 5 ml)

Convenient b.i.d. therapy

Please see following page for summary of product information.

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

Indications and Usage: For the treatment of urinary tract infections due to susceptible strains of the following organisms: *Escherichia coli, Klebsiella-Enterobacter, Proteus mirabilis, Proteus vulgaris, Proteus morganii*. It is recommended that initial episodes of uncomplicated urinary tract infections be treated with a single effective antibacterial agent rather than the combination. *Note:* The increasing frequency of resistant organisms limits the usefulness of all antibacterials, especially in these urinary tract infections.

For acute otitis media in children due to susceptible strains of *Haemophilus influenzae* (*Streptococcus pneumoniae* when in physician's judgment it offers an advantage over other antimicrobials. Limited clinical information presently available on effectiveness of treatment of otitis media with Bactrim when infection is due to ampicillin-resistant *Haemophilus influenzae*. To date, there are limited data on the safety of repeated use of Bactrim in children under two years of age. Bactrim is not indicated for prophylactic or prolonged administration in otitis media at any age.

For enteritis due to susceptible strains of *Shigella flexneri* and *Shigella sonnei* when antibacterial therapy is indicated.

Also for the treatment of documented *Pneumocystis carinii* pneumonitis. To date, this drug has been tested only in patients 9 months to 16 years of age who were immunosuppressed by cancer therapy.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides; pregnancy; nursing mothers; infants less than two months of age.

Warnings: BACTRIM SHOULD NOT BE USED TO TREAT STREPTOCOCCAL PHARYNGITIS. Clinical studies show that patients with group A β-hemolytic streptococcal tonsillopharyngitis have higher incidence of bacteriologic failure when treated with Bactrim than do those treated with penicillin. Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted.

Precautions: Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function. Bactrim may prolong prothrombin time in those receiving warfarin; reassess coagulation time when administering Bactrim to these patients.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. *Blood dyscrasias:* Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. *Allergic reactions:* Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. *Gastrointestinal reactions:* Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L.E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for infants less than two months of age.

URINARY TRACT INFECTIONS AND SHIGELLOSIS IN ADULTS AND CHILDREN, AND ACUTE OTITIS MEDIA IN CHILDREN:

Adults: Usual adult dosage for urinary tract infections—1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days. Use identical daily dosage for 5 days for shigellosis.

Children: Recommended dosage for children with urinary tract infections or acute otitis media—8 mg/kg trimethoprim and 40 mg/kg sulfamethoxazole per 24 hours, two divided doses for 10 days. Use identical daily dosage for 5 days for shigellosis. A guide follows:

Children two months of age or older:

Weight		Dose—every 12 hours	
lbs	kgs	Teaspoonfuls	Tablets
22	10	1 teasp. (5 ml)	½ tablet
44	20	2 teasp. (10 ml)	1 tablet
66	30	3 teasp. (15 ml)	1½ tablets
88	40	4 teasp. (20 ml)	2 tablets or 1 DS tablet

For patients with renal impairment:

Creatinine Clearance (ml/min)	Recommended Dosage Regimen
Above 30	Usual standard regimen
15-30	½ the usual regimen
Below 15	Use not recommended

PNEUMOCYSTIS CARINII PNEUMONITIS: Recommended dosage: 20 mg/kg trimethoprim and 100 mg/kg sulfamethoxazole per 24 hours in equal doses every 6 hours for 14 days. See complete product information for suggested children's dosage table.

Supplied: *Double Strength (DS) tablets*, each containing 160 mg trimethoprim and 800 mg sulfamethoxazole, bottles of 100; Tel-E-Dose® packages of 100; Prescription Paks of 20. *Tablets*, each containing 80 mg trimethoprim and 400 mg sulfamethoxazole —bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 40, available singly and in trays of 10. *Oral suspension*, containing in each teaspoonful (5 ml) the equivalent of 40 mg trimethoprim and 200 mg sulfamethoxazole, fruit-licorice flavored—bottles of 16 oz (1 pint).

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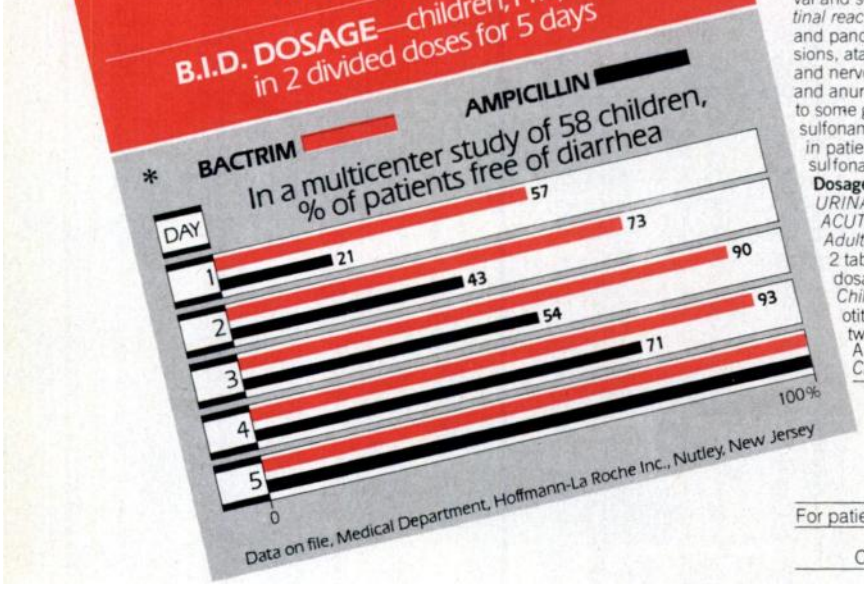

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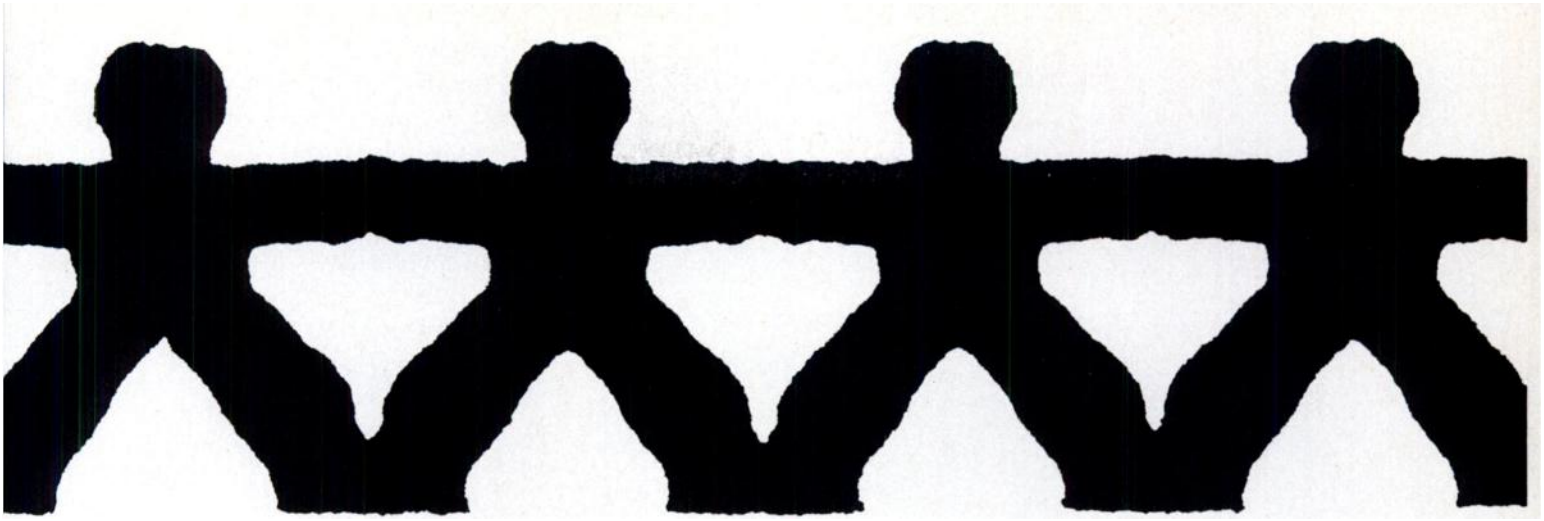

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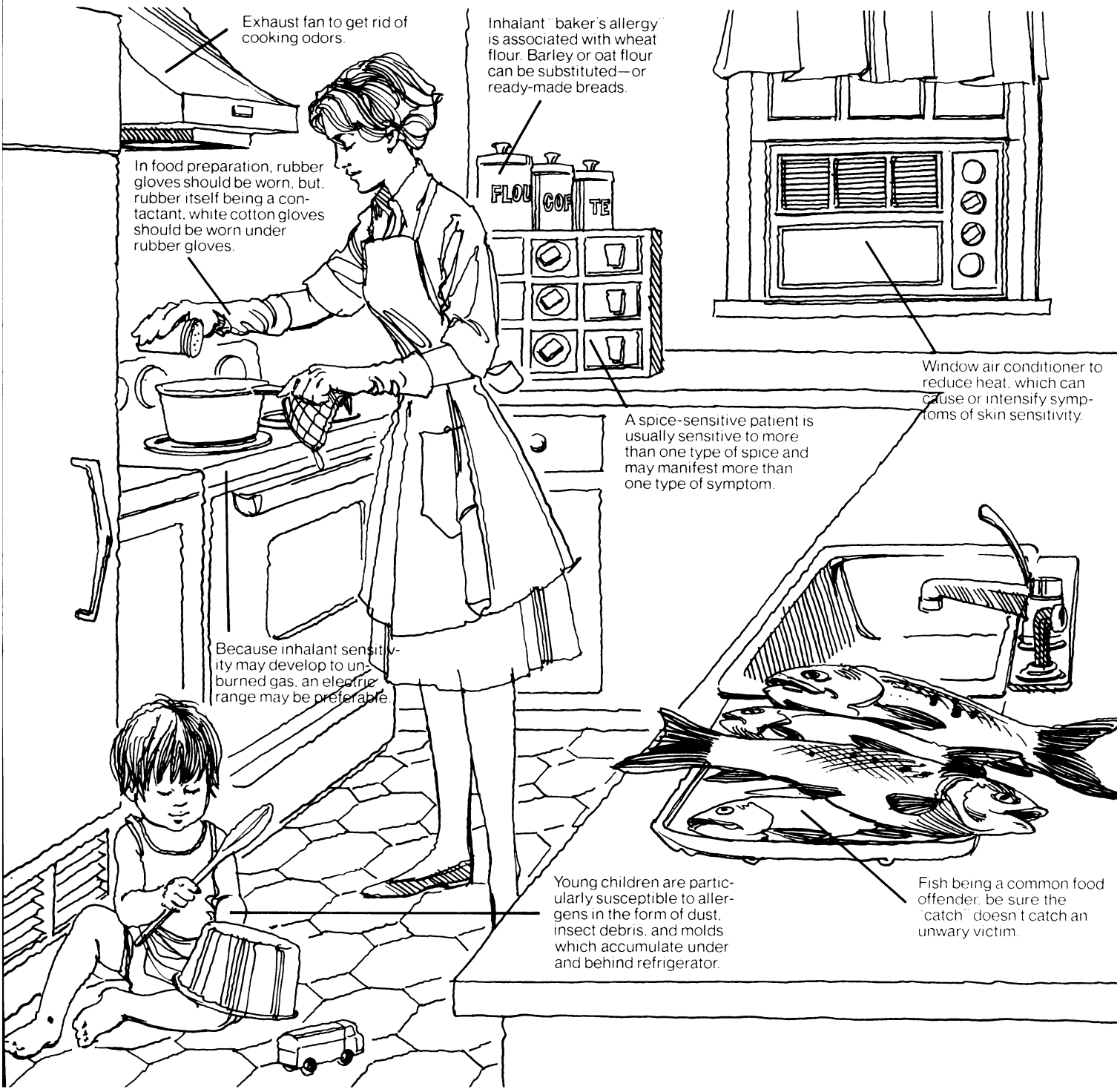

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[1]Lipman, WH: Clinical evaluation of para-brompheniramine maleate (Dimetane). *Annals of Allergy* 17:19-24, 1959.

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System: Epigastric distress,* anorexia, nausea, vomiting, diarrhea, constipation. *G.U. System:* Urinary frequency, difficult urination, urinary retention, early menses. *Respiratory System: Thickening of bronchial secretions,* tightness of chest and wheezing, nasal stuffiness. **Overdosage:** Antihistamine overdosage reactions may vary from central nervous system depression to stimulation. Stimulation is particularly likely in children. Atropine-like signs and symptoms – dry mouth; fixed, dilated pupils; flushing; and gastrointestinal symptoms may also occur. *If vomiting has not occurred spontaneously,* the patient should be induced to vomit. This is best done by having him drink a glass of water or milk after which he should be made to gag. Precautions against aspiration must be taken, especially in infants and children. *If vomiting is unsuccessful,* gastric lavage is indicated within 3 hours after ingestion and even later if large amounts of milk or cream were given beforehand. Isotonic and ½ isotonic saline is the lavage solution of choice. *Saline cathartics,* as milk of magnesia, by osmosis draw water into the bowel and therefore, are valuable for their action in rapid dilution of bowel content. *Stimulants* should **not** be used. Vasopressors may be used to treat hypotension. **Dosage and Administration:** DOSAGE SHOULD BE INDIVIDUALIZED ACCORDING TO THE NEEDS AND THE RESPONSE OF THE PATIENTS. *Adults:* One to two 4 mg tablets three or four times a day. One Extentab (8 or 12 mg) every eight to twelve hours or twice daily. Two to four teaspoonfuls of elixir three or four times a day. *Children over six.* One 4 mg tablet three or four times a day. One Extentab (8 or 12 mg) every twelve hours. One or two teaspoonfuls of elixir three or four times a day. *Children under six.* 0.5 mg of brompheniramine maleate per kg of body weight per 24 hours, or 15 mg per M^2 per 24 hours, divided into 3-4 doses.

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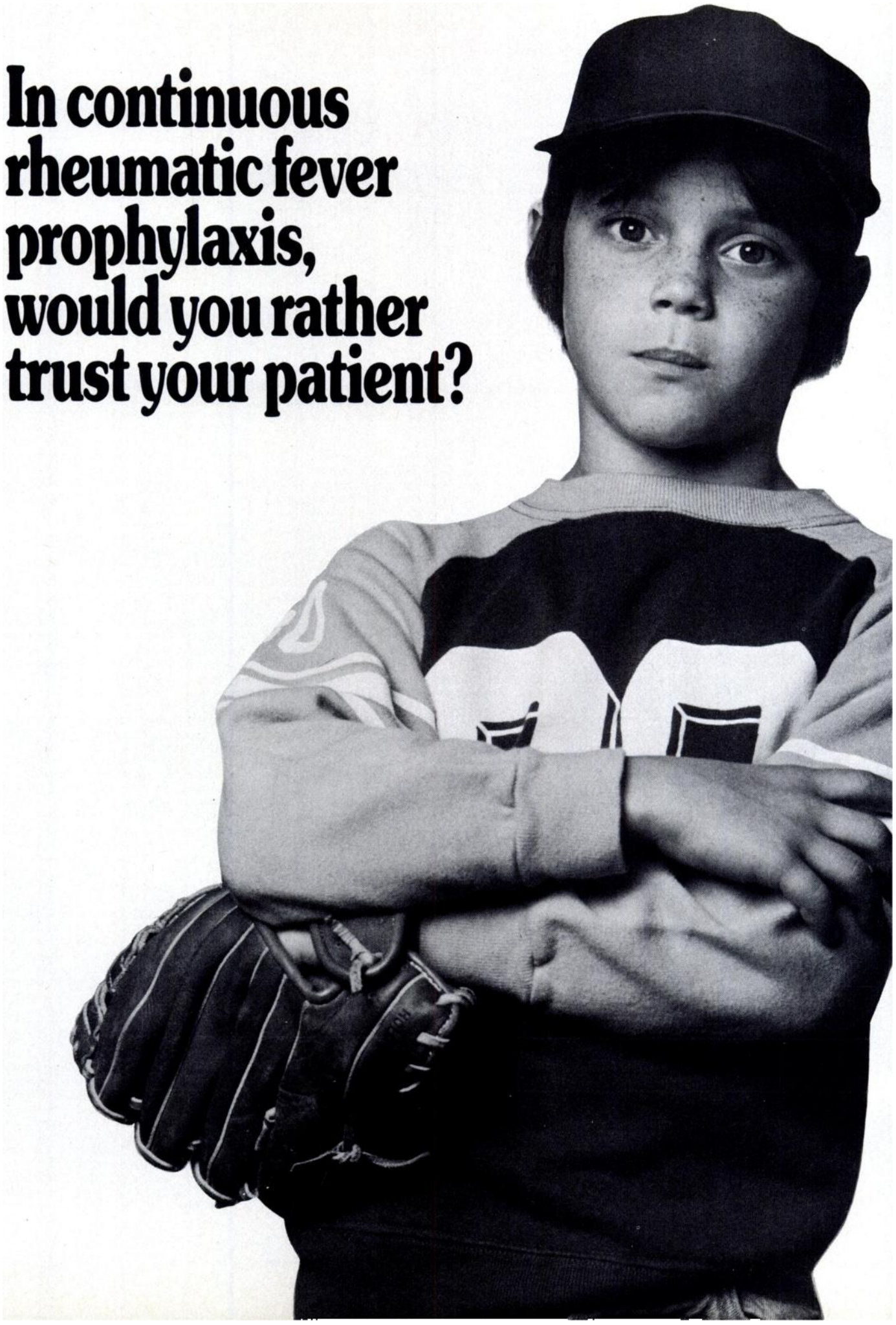

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Indications: In treatment of infections due to penicillin G-sensitive microorganisms susceptible to the low and very prolonged serum levels common to this dosage form. Therapy should be guided by bacteriological studies (including sensitivity tests) and clinical response.

The following infections usually respond to adequate dosage of IM penicillin G benzathine.

Streptococcal infections (Group A - without bacteremia). Mild to moderate upper respiratory infections (e.g., pharyngitis).

Venereal infections – Syphilis, yaws, bejel, and pinta.

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Rheumatic fever and/or chorea – Prophylaxis with penicillin G benzathine has proven effective in preventing recurrence of these conditions. It has also been used as followup prophylactic therapy for rheumatic heart disease and acute glomerulonephritis.

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Warnings: Serious and occasionally fatal hypersensitivity (anaphylactoid) reactions have been reported. Anaphylaxis is more frequent following parenteral therapy but has occurred with oral penicillins. These reactions are more apt to occur in individuals with history of sensitivity to multiple allergens. Severe hypersensitivity reactions with cephalosporins have been well documented in patients with history of penicillin hypersensitivity. Before penicillin therapy, carefully inquire into previous hypersensitivity to penicillins, cephalosporins and other allergens. If allergic reaction occurs, discontinue drug and treat with usual agents, e.g., pressor amines, antihistamines and corticosteroids.

Precautions: Use cautiously in individuals with histories of significant allergies and/or asthma.

Carefully avoid intravenous or intraarterial use, or injection into or near major peripheral nerves or blood vessels, since such injection may produce neurovascular damage.

†In streptococcal infections, therapy must be sufficient to eliminate the organism, otherwise the sequelae of streptococcal disease may occur. Take cultures following completion of treatment to determine whether streptococci have been eradicated.

Prolonged use of antibiotics may promote overgrowth of non-susceptible organisms including fungi. Take appropriate measures if superinfection occurs.

Adverse Reactions: Hypersensitivity reactions reported are skin eruptions (maculopapular to exfoliative dermatitis), urticaria and other serum sickness-like reactions, laryngeal edema and anaphylaxis. Fever and eosinophilia may frequently be only reaction observed. Hemolytic anemia, leucopenia, thrombocytopenia, neuropathy and nephropathy are infrequent and usually associated with high parenteral doses.

As with other antisyphilitics, Jarisch-Herxheimer reaction has been reported.

Composition: (units penicillin G benzathine as active ingredient in aqueous suspension): 300,000 units per ml. – 10-ml. multi-dose vial. Each ml. also contains sodium citrate buffer, approximately 6 mg. lecithin, 3 mg. povidone, 1 mg. carboxymethylcellulose, 0.5 mg. sorbitan monopalmitate, 0.5 mg. polyoxyethylene sorbitan monopalmitate, 1.2 mg. methylparaben and 0.14 mg. propylparaben.

600,000 units in 1-ml. TUBEX® (sterile cartridge-needle unit) Wyeth, packages of 10.

900,000 units, 1.5-ml. fill in 2-ml. TUBEX, packages of 10.

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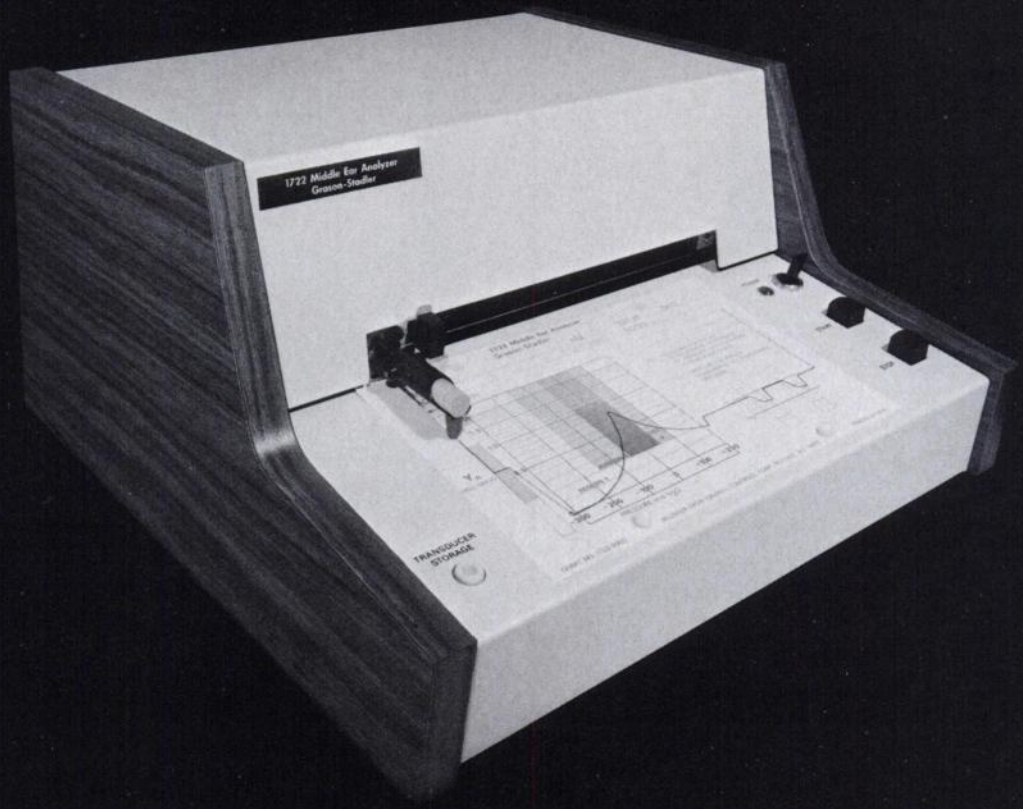

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*Shwachman, H., Redmond, A. and Khaw, K-T: "Studies in Cystic Fibrosis—Report of 130 Patients Diagnosed Under 3 Months of Age Over a 20-Year Period"; Pediatrics, 46: 335, 1970.

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The enzyme potency of the tablets and powder are:

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Under conditions of the N.F. test method (in vitro) VIOKASE has the following total digestive capacity:

	Each 325 mg. Tablet	Each 0.75 g. Powder
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VIOKASE Tablets are not enteric coated.

Indications: As a digestive aid in cystic fibrosis and in exocrine pancreatic deficiencies usually due to chronic pancreatitis, pancreatectomy or obstruction in the pancreas caused by malignant growth.

Administration and Dosage:
Powder: Dosage to patients with cystic fibrosis: ⅓ teaspoon (0.75 grams) with meals.

Tablets: Dosage to patients with cystic fibrosis or chronic pancreatitis —1 to 3 tablets with meals. For aiding digestion in patients with pancreatectomy or gastrectomy—1 to 2 tablets taken at 2-hour intervals, or as directed by physician.

Caution: Federal law prohibits dispensing without prescription.

Warnings: Avoid inhalation of powder.

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Since the function and use of fluoride has not been taught adequately to medical students or physicians, an intensive multiphasic educational approach is underway. An audio cassette prepared by eight authorities explains how fluoride works, who should get it, how much and for how long. It also presents the physiology of tooth calcification, methods of motivating parents to comply with instructions, and the long range health and financial benefits to the patients. The cassette is in the process of being mailed to all physicians caring for children. A sound color motion picture has also been developed that will cover essentially the same material as the audio cassette. Further educational materials include an exhibit that will be used at major medical meetings nationwide and a portfolio that will be sent to medical educational institutions that will contain audio and visual materials as well as literature on the subject.

Before this intensive educational project was set in motion, a survey was made of 2500 general practitioners, osteopathic physicians and pediatricians. The survey was designed to learn what the physician's general understanding is concerning the use of fluoride as a preventive technique. The results of the survey will be published. After a 1-2 year interval another sample of comparable groups will be drawn in an effort to determine what, if any, change has occurred in the knowledge and practice of the use of fluoride in caries prevention. Granted, there are not many areas in medicine that lend themselves to this kind of massive educational effort but it will be interesting to learn whether this approach does in fact make a significant impact on the priorities of practicing physicians.

The project emanates from the Department of Pediatrics, Wayne State University School of Medicine, Detroit, and is funded by the W.K. Kellogg Foundation, Battle Creek, Michigan. Questions or comments may be directed to Frederick J. Margolis, M.D., Department of Pediatrics, Wayne State University School of Medicine, Detroit, Michigan 48202.