October 12-13
AAMI 1981 Regional Meeting. Los Angeles, California. Sponsored by AAMI. Contact: Renee Pietrangelo, AAMI, 1901 N. Ft. Myer Dr., Suite 602, Arlington, VA 22209. 703/525-4890.

October 12-14
Clinical Microbiology Reviews. Rochester, Minnesota. Contact: John A. Washington, Section of Clinical Microbiology, Mayo Clinic, Rochester, MN 55901.

October 13-16
Recent Advances in Medical Microbiology. New York, New York. Contact: Victor Lorian, The Bronx-Lebanon Hospital Center, Albert Einstein College of Medicine, Fulton Ave. at 169th St., Bronx, NY 10456.

October 15-16
Second Annual Pennsylvania Infection Control Symposium. Erie, Pennsylvania. Sponsored by APIC, Pennsylvania Chapters. Contact: Alice McDonnell, Moses Taylor Hospital, 700 Quincy Ave., Scranton, PA 18510.

October 19-20
Second International Symposium on Spectroscopic Methods for Biomedical Research. Columbus, Ohio. Sponsored by Battelle Columbus Laboratories. Contact: Karen L. Waite, Battelle Columbus Laboratories, 505 King Avenue, Columbus, OH 43201.

October 21-23
First Annual Symposium for Infection Control Teams. Sioux Falls, South Dakota. Sponsored by Sioux Valley Hospital. Contact: Cindi Colter, R.N., Infection Control Practitioner, Sioux Valley Hospital, 1100 South Euclid Avenue, Sioux Falls, SD 57105. 605/336-3440.

October 22
Fifth Annual Infection Control Seminar. Roslyn, New York. 5 credits category I AMA Physicians Recognition Award, 5 CEUs applied for. Contact: Margaret E. Flynn, R.N., Infection Control Practitioner, St. Francis Hospital, Roslyn, NY 11576.

October 26-30
The Infection Control Practitioner as an Environmentalist. Chapel Hill, North Carolina. Sponsored by the School of Medicine, University of North Carolina at Chapel Hill and the North Carolina Dept. of Human Resources, Division of Health Services. Contact: V. Kennedy, Division of Infectious Diseases, School of Medicine, University of North Carolina at

The CROSS INFECTION CHAIN

Germicides—Vestal provides a complete choice of quaternary ammonium and phenolic germicides to solve specific problems. T.B.Q.—the first quat effective against the tubercle bacillus (TB). LpH—a versatile phenolic proven effective in hard water. Enviroquat Spray and Staphene Spray—pleasantly scented odor control agents in convenient spray form. And many more.

Inservice Training—Vestal representatives use their professional know-how and the latest audio-visual programs to train your people in the proper application of these products... and that's the Vestal extra step that keeps the system working.

Quality that costs no more—Infection control is no place to cut corners, and at Vestal we are committed to quality without compromise. But, Vestal quality does not mean higher costs. In fact, the effective end-use costs of The System can help you meet your cost-containment goals. For complete details write or call your local Vestal representative.
(continued from p. 395)

Chapel Hill, 547 Clinical Sciences Bldg., 229 H. Chapel Hill, NC 27514. 919/966-2356.

October 28-29
Seminar: UTI's Still #1, Construction-Planning, Costs, Design, Infection Control. Des Moines, Iowa. Sponsored by University of Iowa, Program of Epidemiology. Contact: Iowa Hospital Association, Suite R, 600 Fifth Avenue, Des Moines, IA 50309.

October 29-30
Seminar: "Where Are the Risks?" Wichita, Kansas. Sponsored by APIC, Wichita Area Chapter. Contact: Mary S. Costello, Infection Control Nurse, 3600 E. Harry, Wichita, KS 67218.

October 29-30
Laboratory Diagnosis in Clinical Practice. San Francisco, California. Sponsored by the Department of Laboratory Medicine and Extended Programs in Medical Education, University of California School of Medicine. Contact: Extended Programs in Medical Education, University of California School of Medicine, Room 569-U, Third and Parnassus, San Francisco, CA 94143. 415/666-4251.

October 29-November 1
Recent Advances in Internal Medicine: Diagnosis & Management: ACP Postgraduate course. New York, New York. Sponsored by the American College of Physicians. Contact: Postgraduate Courses Department, American College of Physicians, 4200 Pine Street, Philadelphia, PA 19104. 215/243-1200, 800/523-1546.

October 29-30
Fall Conference, Michigan Society for Infection Control. East Lansing, Michigan. Sponsored by the Michigan Society for Infection Control. Contact: Ms. G. Calhoun, R.N., I.C.O, Program Chairperson, c/o Beyer Memorial Hospital, 155 S. Prospect, Ypsilanti, MI 48197. 313/484-2200.

November 6-8
Feeling One's Culture While Valuing Another: First Annual Meeting of the ANA Council on Intercultural Nursing. Baltimore, Maryland. Sponsored by the ANA. Contact: ANA, 2420 Pershing St., Kansas City, MO 64108.

November 7
Infection Control for the New Hospital Epidemiologist. Chicago, Illinois. Sponsored by the Midwest Conference for Infectious Diseases. Contact: Joan Trandel, IDPH, Division of Laboratories, 2121 Taylor St., Chicago, IL 60612. 312/793-4779.

November 12
Seminar: "Infection Control—New Directions." Cherry Hill, New Jersey. Sponsored by APIC, Southern New Jersey Chapter. Contact: (Ms.) Linda Longo, R.N., St. Peter's Medical Center, New Brunswick, NJ 08903. 201/745-8600

November 12-13
Seventh Annual Symposium for Clinicians on Hospital Infection Control. Charlottesville, Virginia. Sponsored by the Epidemiology Division of the Department of Medicine, The University of Virginia Medical Center, in conjunction with the Virginia State Health Department. Contact: Division of Epidemiology, Box 473, The University of Virginia Medical Center, Charlottesville, Va 22908. 804/924-2777.

November 12-14
South Eastern Association for Clinical Microbiology Meeting. Columbia, South Carolina. Contact: Patsy Meade, Microbiology, Richland Memorial Hospital, Columbia, SC 29202.

November 12-14
Living the Best You Can Be: Annual Meeting. San Diego, California. Sponsored by Council of Primary Health Care Nurse Practitioners and the Council of Nursing Home Nurses. Contact: ANA, 2420 Pershing Rd., Kansas City, MO 64108.

November 13-14
Fifth Symposium on Wine and Health: Wine, Health and Society. San Francisco, California. Sponsored by University of California Department of Continuing Education in Medicine, Wine Institute and Society of Medical Friends of Wine. Contact: Patricia Schneider, Wine Institute, 165 Post Street, San Francisco, CA 94108.

November 16-20
Surveillance of Nosocomial Infections. Chapel Hill, North Carolina. Sponsored by the School of Medicine, University of North Carolina at Chapel Hill and North Carolina Dept. of Human Resources, Division of Health Services. Contact: V. Kennedy, Division of Infectious Diseases, School of Medicine, University of North Carolina at Chapel Hill, 547 Clinical Sciences Bldg., 229 H. Chapel Hill, NC 27514. 919/966-2356.

November 19
Facets of Infection Control. Hubertus, Wisconsin. Sponsored by APIC, Southeastern Wisconsin. CEUs applied for. Contact: Patricia Peck, Chrmn., Registration, APIC-SEW Seminar, P.O. Box 31, Hubertus, WI 53033.

November 19-20
AAMI 1981 Regional Meeting. Dallas, Texas. Sponsored by AAMI. Contact: Renee Pietrangelo, AAMI 1901 N. Ft. Myer Dr., Suite 602, Arlington, VA 22209. 703/525-4890.

December 3-5
Certification, Competencies, Contracts: Implications for Nursing Administrators. San Diego, California. Sponsored by the ANA, Council on Nursing Administration. Contact: ANA, 2420 Pershing Rd., Kansas City, MO 64108.

December 7-11
The New and Old in the Diagnosis and Therapy of Infectious Diseases: An Update.: ACP postgraduate course. New York, New York. Sponsored by the American College of Physicians. Contact: Postgraduate Courses Department, American College of Physicians, 4200 Pine Street, Philadelphia, PA 19104. 215/243-1200, 800/523-1546.

1982
January 23-30
Fifth Annual Infectious Diseases in Clinical Practice. Snowmass, Colorado. CEUs available. Sponsored by the Department of Laboratory Medicine and Extended Programs in Medical Education, University of California School of Medicine. Contact: Extended Programs in Medical Education, University of California School of Medicine, Room 569-U, Third and Parnassus, San Francisco, CA 94141. 415/666-4251.

(continued on p. 428)
The Rockefeller University Hospital announces a program of support for medical graduates interested in pursuing careers in clinical research. Twelve scholarships will be maintained concurrently at the hospital, each to run for a maximum of three years. Graduates of medical schools who have completed their hospital training in internal medicine, pediatrics and/or in the clinical subspecialities are invited to apply. Previous research experience is not a prerequisite; this program is intended to encourage participation at a critical time in a young person's career by offering full salary and laboratory support prior to the attainment of independent status. Scholars will carry full faculty positions at ranks and salaries appropriate to their previous medical training and/or research experience.

Contact: Physician-in-Chief, The Rockefeller University Hospital, 1230 York Ave., New York, NY 10021.

The World Health Organization will make available to citizens of the United States a limited number of short-term travel/study fellowships for 1982. The purpose of the fellowships is to provide a contribution that will improve and strengthen health services in the United States. The fellowship award will include per diem and transportation and usually is limited to a period of approximately three months. Deadline for submission of applications is September 30, 1981.

Contact: Ruth K. Aladj, Chief, International Education Staff, Office of International Affairs, Health Resources Administration, Room 9-50, FCB #2, 3700 East-West Hwy., Hyattsville, MD 20782. 301/436-7770.

Infant Formula Feeding

Low income American woman, persuaded by free samples distributed by hospitals and doctors, are choosing infant formulas over breast feeding and their children are suffering as a result, alleged Rep. Albert Gore (D, TN) following hearings before a House Commerce Oversight Subcommittee. Many witnesses before the subcommittee urged Congress to require the use of product warning labels and to ban free samples in maternity wards.
In serious intra-abdominal and pelvic infections...

The clinical importance and virulence of Bacteroides fragilis

Clinical importance of B. fragilis

*Bacteroides fragilis* is a major anaerobic pathogen in abdominal and pelvic infections. Both aerobes and anaerobes are involved in the majority of serious intra-abdominal and female pelvic infections. Therefore, early antimicrobial therapy against both pathogens should be considered.

Two studies have confirmed the value of including *Cleocin Phosphate™* (clindamycin phosphate injection, NF) as part of the therapy for serious intra-abdominal and pelvic infection.

Penetrating abdominal wounds

In a prospective, randomized study at Cook County Hospital, Chicago, 100 patients who had penetrating abdominal wounds, with spillage of bowel contents, were given kanamycin (0.5 gram q12h) and either clindamycin (600 mg q6h) or cephalothin (3 grams q6h). The clindamycin/kanamycin-treated group showed significantly fewer episodes of septicemia or intra-abdominal sepsis. The higher complication rate in the cephalothin/kanamycin group was the result of infections due to anaerobic bacteria alone or a mixture of aerobes and anaerobes (see Table 1).

| Table 1 | Cephalothin/Kanamycin | Clindamycin/Kanamycin |
|---------|------------------------|-----------------------|
| Number of patients | 52 | 48 |
| Septic complications | | |
| Septicemia | 7 | 2 |
| intra-abdominal abscesses | 7 | 3 |
| Total complications | 14 | 5 |

Postcesarean endomyometritis

In a prospective, randomized study at the University of Southern California Medical Center among 200 women who developed endomyometritis following cesarean section, the clinical response was more favorable in those receiving clindamycin (600 mg q6h) and gentamicin (60-80 mg q8h) than in those receiving penicillin (5 million units q6h) and gentamicin (60-80 mg q8h) (see Table 2).

| Table 2 | Penicillin/Gentamicin | Clindamycin/Gentamicin |
|---------|-----------------------|------------------------|
| Number of patients | 100 | 100 |
| No response—third antibiotic required | 29 | 5 |
| Serious complications* | 4 | 0 |
| Mean duration of hospital stay (days) | 8.7 | 7.4 |
| Mean febrile degree hours | 110 | 81 |
| Mean febrile degree hours in eight patients who developed Bacteroides bacteremia | 256.4 (n = 6) | 73.4 (n = 2) |

*1 patient with pelvic abscess, 1 with wound evisceration, and 2 with septic thrombophlebitis.

The foregoing studies suggest that early treatment with *Cleocin Phosphate* in combination with an aminoglycoside is effective therapy in these serious infections and can prevent progression to more complicated and disseminated infection.
Virulence of \textit{B. fragilis}

As clinical studies have shown, antibiotics active against \textit{B. fragilis} must be instituted early in the course of therapy for serious pelvic and abdominal infection to prevent complications due to this organism.

Research is currently being conducted to better define the virulence of \textit{B. fragilis}.

\textbf{Specific antigenic marker}

Investigators at the Harvard Medical School have identified a capsular polysaccharide on the outer membrane of \textit{B. fragilis}. In an experimental model, an antibody response to this antigen was associated with \textit{B. fragilis} infection. The clinical significance of this antibody-antigen relationship is unknown.

A subsequent clinical study has shown that in the acute phase of pelvic inflammatory disease, women from whom \textit{B. fragilis} was cultured after culdocentesis had a more significant change in antibody titer to the polysaccharide antigen than did women from whom \textit{B. fragilis} was not isolated.

These data suggest that \textit{B. fragilis} may play a significant role in acute pelvic inflammatory disease and may be involved early in the infectious process.

\textbf{Antibiotic susceptibility}

Cleocin Phosphate has maintained an excellent record of in vitro activity against \textit{B. fragilis}.

If significant diarrhea or colitis occurs during therapy, this antibiotic should be discontinued (see WARNING box). A summary of prescribing information for Cleocin Phosphate—used in the treatment of serious infections due to anaerobic pathogens—can be found on the following page.

\textbf{For serious anaerobic infections...}

\textbf{Cleocin Phosphate™}
(clindamycin phosphate injection, NF)
STERILE SOLUTION—FOR INTRAMUSCULAR AND INTRAVENOUS USE

\textbf{Upjohn}
Cleocin Phosphate™
(clostridial phosphatase injection, NF)
STERILE SOLUTION—FOR INTRAMUSCULAR AND INTRAVENOUS USE

WARNING
Clostridial therapy has been associated with severe colitis which may end fatal. Therefore, it should be reserved for serious infections where less-toxic antimicrobial agents are inappropriate, as described in the INDICATIONS section. It should not be used in patients with nonbacterial infections, such as most upper respiratory tract infections. Studies indicate a toxin(s) produced by Clostridia is one primary cause of antibiotic-associated colitis. Cholestyramine and colestipol resins have been shown to bind the toxin in vitro. See WARNINGS section. The colitis is usually characterized by severe, persistent diarrhea and severe abdominal cramps and may be associated with the passage of blood and mucus. Endoscopic examination may reveal pseudomembranous colitis.

When significant diarrhea occurs, the drug should be discontinued or, if necessary, continued only with close observation of the patient. Large-bowel endoscopy has been recommended. Antiperistaltic agents such as opiates and diphenoxylate at atropine (Lomotil) may prolong and/or worsen the condition.

Diarrhea, colitis, and pseudomembranous colitis have been observed to begin up to weeks following cessation of therapy with clindamycin.

Each ml contains:
clindamycin phosphate equivalent to 150 mg clindamycin
benzyl alcohol 5 mg
disodium edetate 0.5 mg
water for injection qs

When necessary, pH adjusted with NaOH and/or HCl.

Indications: Clindamycin is indicated in the treatment of serious infections caused by susceptible anaerobic bacteria.

Clindamycin is also indicated in the treatment of serious infections due to susceptible strains of streptococci, pneumococci, and staphylococci. Its use should be reserved for penicillin-allergic patients or other patients for whom, in the judgment of the physician, a penicillin is inappropriate. Because of the risk of colitis, as described in the WARNING box, before selecting clindamycin, the physician should consider the nature of the infection and the suitability of less-toxic alternatives (e.g., erythromycin).

Anaerobes: Serious respiratory tract infections such as empyema, anaerobic pneumonitis, and lung abscesses; serious skin and soft-tissue infections; sepsisemia; intra-abdominal infections such as peritonitis and intra-abdominal abscesses (typically resulting from anaerobic organisms resident in the normal gastrointestinal tract); infections of the female pelvis and genital tract such as endometritis, nongonococcal tubo-ovarian abscesses, pelvic cellulitis, and postpartum pelvic infection.

S. pneumoniae: Serious respiratory tract infections; serious skin and soft-tissue infections; sepsisemia.

S. pyogenes: Serious respiratory tract infections; serious skin and soft-tissue infections; sepsisemia; acute hematogenous osteomyelitis.

Pseudomonas aeruginosa: Serious respiratory tract infections.

Adjunctive Therapy: In the surgical treatment of chronic bone and joint infections due to susceptible organisms. Indicated surgical procedures should be performed in conjunction with antibiotic therapy.

Bacteriologic studies should be performed to determine the causative organisms and their susceptibility to clindamycin.

Contraindications: History of hypersensitivity to clindamycin.

Warnings: See WARNING box. Studies indicate a toxin(s) produced by Clostridia is one primary cause of antibiotic-associated colitis. Cholestyramine and colestipol resins have been shown to bind the toxin in vitro. Mild cases of colitis may respond to drug discontinuance alone. Moderate to severe cases should be managed promptly with fluid, electrolyte, and protein supplementation as indicated. Systemic corticoids and corticoid retention enemas may help relieve the colitis. Other causes of colitis should also be considered.

A careful inquiry should be made concerning previous sensitivities to drugs and other allergens. Antagonism has been demonstrated between clindamycin and erythromycin in vitro. Because of possible clinical significance, these two drugs should not be administered concomitantly.

Usage in Pregnancy: Safety for use in pregnancy has not been established.

Usage in Newborns and Infants: When clindamycin phosphate is administered to newborns and infants, appropriate monitoring of organ system functions is desirable.

Nursing Mothers: Clindamycin has been reported to appear in breast milk in the range of 0.7 to 3.8 mcg/ml.

Usage in Meningitis: Since clindamycin does not diffuse adequately into the cerebrospinal fluid, the drug should not be used in meningitis. SERIOUS ANAPHYLACTOID REACTIONS REQUIRE IMMEDIATE EMERGENCY TREATMENT WITH EPINEPHRINE. OXYGEN AND INTRAVENOUS CORTICOSTEROIDS SHOULD ALSO BE ADMINISTERED AS INDICATED.

Precautions: Review of experience to date suggests that a subgroup of older patients with associated severe illness may tolerate diarrhea less well. When clindamycin is indicated in these patients, they should be carefully monitored for changes in bowel frequency. Prescribe with caution in individuals with a history of gastrointestinal disease, particularly colitis. Do not inject intravenously as an undiluted bolus; infuse as directed in package insert. Indicated surgical procedures should be performed in conjunction with therapy. Patients with very severe renal disease and/or very severe hepatic disease accompanied by severe metabolic aberrations should be dosed with caution and serum clindamycin levels monitored during high-dose therapy.

Prescribe with caution in atopic individuals. During prolonged therapy, periodic liver and kidney function tests and blood counts should be performed. Use may result in overgrowth of nonsusceptible organisms, particularly yeasts. Should superinfection occur, adjust therapy as clinical situation dictates. Clindamycin has been shown to have neuromuscular blocking properties that may enhance the action of other neuromuscular blocking agents. Use with caution in patients receiving such agents.

Adverse Reactions:
Gastrointestinal: Abdominal pain, nausea, vomiting, and diarrhea. See WARNING box. Hypersensitivity Reactions: Maculopapular rash and urticaria have been observed. Generalized mild to moderate morbilliform-like skin rashes are the most frequently reported of all adverse reactions. Rare instances of erythema multiforme, some resembling Stevens-Johnson syndrome, have been associated with clindamycin. A few cases of anaphylactoid reactions have been reported. If a hypersensitivity reaction occurs, the drug should be discontinued. The usual agents (epinephrine, corticosteroids, antihistamines) should be available for emergency treatment of serious reactions. Liver: Jaundice and abnormalities in liver function tests have been observed during clindamycin therapy. Hematopoietic: Neutropenia, eosinophilia, agranulocytosis, and thrombocytopenia have been reported; no direct etiologic relationship to concurrent clindamycin therapy has been made. Local Reactions: Pain, induration, and abscesses have been reported after intramuscular injection, and thrombophlebitis after intravenous infusion. Reactions can be minimized or avoided by giving deep intramuscular injections and avoiding prolonged use of indwelling intravenous catheters. Musculoskeletal: Rare instances of polyarthritis have been reported.

How Supplied: Available as sterile solution with each ml containing clindamycin phosphate equivalent to 150 mg clindamycin. Ampoules of 2 and 4 ml.

Caution: Federal law prohibits dispensing without prescription.

References:
1. Thadepalli H, Gorkach SL, Broido PW, Norsen J, Nyhuis L: Abdominal trauma, anaerobes, and antibiotics. Surg Gynecol Obstet 137:270-276, 1973. 2. DiZerega G, Yonekura L, Roy S, Nakamura RM, Ledger WJ: A comparison of clindamycin-gentamicin and penicillin-gentamicin in the treatment of postcesarean section endometritis. Am J Obstet Gynecol 134:238-242, 1979.

The Upjohn Company, Kalamazoo, Michigan 49001

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