VOL. VI, No. 12 DECEMBER 1940

PHARMACEUTICAL ABSTRACTS

Published by the American Pharmaceutical Association
2215 Constitution Ave., Washington, D. C.

EDITOR: A. G. DUMEZ, 32 S. Greene Street, Baltimore, Maryland

ABSTRACTORS

CONTENTS

PHARMACOLOGY, TOXICOLOGY AND THERAPEUTICS

THERAPEUTICS (*Continued*)

Diethylaminoethoxy-2-Diphenyl or 1262 F in the Treatment of Angina Syndromes. 1262 F administered orally in a dose of 50 mg., taking 150 to 200 mg. per day, is very well managed and supported, in subjects having profound alterations of the kidney and heart. It exerts a remarkable influence upon the pain of an anginus type, exhibiting activity in the great majority of cases and, in particular when accentuated electrocardiographic deformations exist, very probably producing a coronary intervention. Without a doubt, the supposed casual lesion is not removed but its regrettable consequences are quickly attenuated, and perhaps also prevented since better results are obtained than with 883 F in pure anginas. On the contrary, the authors repeat, active exhaustion, sometimes observed with the new drug has not been observed with that of the older. The choice of the two depends upon the indications, the authors have sometimes made comparative measurement in certain diseases to decide which was preferred. The medicament has not in any way been found harmful to the heart.—A. CLERC and J. STERNE. *Presse méd.*, 85–86 (1939), 1517. (W. H. H.)

Dihydrotachysterol—Management of Hypoparathyroidism with. Treatment for hypoparathyroidism has been so simplified that even blood calcium estimation is eliminated. Calcium level is raised by dihydrotachysterol and the level gaged by Sulkowitch test for calcium in the urine. Dihydrotachysterol is a photochemical derivative of ergosterol. Normal blood calcium is 9.5 to 11 mg. per 100 cc. A parathyroidectomized person has 5 to 7 mg. Above 11.5 mg. large amounts are excreted in the urine and danger of nephrolithiasis or nephrocalcinosis exists. At 16 mg., death from hypercalcemia is likely. A patient with parathyroid tetany should have no calcium in the urine. Dihydrotachysterol is administered until urine tests show a moderate amount of calcium. If large amounts appear, the dose is reduced. Sulkowitch reagent consists of oxalates buffered to such p_H that when equal amounts are added to the urine calcium will come down in a fine white precipitate of calcium oxalate. The absence of a precipitate indicates no calcium, a fine precipitate indicates a moderate amount and satisfactory range. A precipitate giving a milky appearance indicates danger of hypercalcemia. The patient does his own tests and modifies his dosage accordingly. Dosage begins with 3 cc. dihydrotachysterol daily until calcium appears, then drops to a maintenance level of 1 cc., three to five times a week.—FULLER ALBRIGHT. *J. Am. Med. Assoc.*, 112 (1939), 2592. (G. S. G.)

Diseases and Their Treatment. A number of diseases of the blood are discussed.—ANON. *Chemist and Druggist*, 132 (1940), 54. (A. C. DED.)

Drugs—Clinical Testing of. The clinical testing of sulfapyridine, and contrast of its value in pneumonia with that of pneumonia serum, of tablets of theobromine and barbital in hypertensive patients, of digitalis preparations including *lanata* preparations, of liver and stomach preparations in pernicious anemia, of sex homone preparations and diethylstilboestrol, also of gonadotropic hormones of the hypophysis, as conducted in Scandinavian hospitals, is discussed.—T. GEILL. *Arch. Pharm. Chemi*, 47 (1940), 51. (C. S. L.)

Duodenal Ulcer—Value of Treatment in. A series of cases of hyperchlorhydria associated with duodenal ulceration has been investigated and it is noted that the hyperchlorhydria is but little modified by light diet without drugs, but symptoms are relieved. The hyperchlorhydria is significantly modified by a Sippy regime. No special advantage is noted in the use of magnesium trisilicate as compared with alkalies. In the absence of vomiting, the risks of alkalosis developing during alkali therapy are slight. No distinction can be drawn on clinical grounds between cases in which hyperchlorhydria during treatment is, or is not, altered. Healing of a peptic ulcer and relief of symptoms can take place although the hyperchlorhydria is unaltered or even becomes more severe. The "long test meal," lasting at least twelve hours, is of considerable value in the investigation of gastric function and the assessment of the effect of different agents upon secretion.—J. RONALD. *Brit. Med. J.*, 4116 (1939), 1033. (W. H. H.)

Endocrinology—Clinical Advances in. Clinical aspects of glandular and synthetic hormones are reviewed.—A. A. WERNER. *Merck Rept.*, 47 (1938), No. 4, 4; 48 (1939), No. 1, 19; (1939), No. 2, 23; (1939), No. 3, 16. (S. W. G.)

Epinephrine Hydrochloride—Hemiplegia Following Injection of. A man with hay fever and asthma was treated with pollen extracts and used a nebulizer with epinephrine for asthma, with subcutaneous injections in severe attacks. This therapy was satisfactory for three years. After one 0.5 cc. injection of 1:1000 solution he became unconscious almost immediately and semicomatose 45 minutes later, but unable to speak. This was diagnosed as caused by angiospasm of vascular hemorrhage. It is likely that epinephrine was injected by mistake into a small blood vessel. The result was complete right sided hemiplegia with right homonymous hemianopia. It is remarkable that more such accidents do not occur with the widespread and sometimes careless use of epinephrine by asthmatic patients. Epinephrine joins the rare causes of hemiplegia, along with antipneumococcus serum, antidiphtheric serum, insulin and nicotine.—EDMUND L. KEENY. *J. Am. Med. Assoc.*, 112 (1939), 2131. (G. S. G.)

Estrogen—Treatment of Vulvovaginitis with. Infections of immature vagina present social and medical problems in institutions and homes. Its incidence varies with facilities to detect and isolate infected children. Infection may be transferred by careless nursing, contaminated linens and toilet seats. It is diagnosed by a smear of gram-negative intracellular diplococci; doubtful smears are checked by cultures though even the culture method is not infallible. In the acute stage the vulva is reddened and edematous. Estrogen is used to transform a vulnerable vagina to a more resistant type. One hundred and eighteen children in hospital wards were studied. Their ages ranged from eighteen months to eleven years, and the duration of the gonococcic vulvovaginitis extended from two months to two years. Eighty-one received estradiol benzoate hypodermically, 34 received it in suppositories, the remaining three received estradiol orally. The dose must be sufficient to cornify the vaginal epithelium and reduce the p_H to a point below 6. An eight-week treatment safeguards against recurrence and hypodermic or suppository treatment is best. Side effects such as growth of pubic hair are temporary and are more likely to be encountered with hypodermic than with local treatment with estrogen.—CHARLES MAZER and FRED R. SCHECTER. *J. Am. Med. Assoc.*, 112 (1939), 1925. (G. S. G.)

Hemorrhage—Effect of Heat and Cold on. It is shown that heat accelerates the production of a blood-coagulating substance in damaged tissues and cold retards it. It is suggested that heat and not cold ought to be used to control hemorrhage.—S. B. STOKER. *Brit. Med. J.*, 4119 (1939), 1185. (W. H. H.)

Histaminase in Treatment of Serum Sickness. The phenomena of serum sickness are supposed to be due to the release of histamine or a histamine-like substance in the tissues and circulation, consequent on a union of serum protein antigens and antibodies. Histaminase consists of ferments derived from intestinal mucosa which are destructive to histamine and histamine-like substances. It is furnished in enteric coated tablets of 5 detoxicating units and in ampuls for intramuscular injection, each dose representing 1 unit. One unit represents the quantity of material capable of detoxicating 1 mg. of histamine hydrochloride during 24 hours at 37° C. Twenty-two patients received histaminase orally or intramuscularly. The enteric coated tablets alone were ineffective. Marked relief was experienced by others. There is a possibility of its value as a prophylactic. No untoward effects were noticed.—LEE FOSHAY and O. E. HAGEBUSCH. *J. Am. Med. Assoc.*, 112 (1939), 2398. (G. S. G.)

Lymphogranuloma Inguinale—Sulfanilamide Treatment for. Five cases are noted, in all of which the glands had suppurated—in one the amount of pus was very small, in others from 2–4 cc. The usual dose was 8 tablets daily each of 5 grains, and aspiration was carried out in each case. Improvement was usually observable in 72 hours and healing complete in a fortnight or three weeks. Though observed for some time afterward (in one case a year) there had been no relapse. A second series is briefly referred to in which 8 tablets daily were given for 10 days with equally good results.—R. BUSO. *Bol. Asoc. Med. Puerto Rico.*, 31 (1939), 383; through *Bull. Hyg.*, 15 (1940), 225. (T. C. G.)

M. & B. 693 in Lymphopathia Venereum. The beneficial results of treatment with M. & B. 693, in five-day courses of five to six 0.5-Gm. tablets daily, in twelve illustrative cases of lymphopathia venereum (2 of recetal stenosis in females and 10 of lymphogranuloma inguinale) are described. The best results were obtained when treatment was begun in the stage of adenitis. When fistulas have been formed, cure with M. & B. 693 is slower, probably because it is less effective against "rough" secondarily infecting organisms. It is suggested that the inmates of brothels should be prophylactically treated with M. & B. 693.—K. V. EARLE. *Lancet*, 237 (1939), 1265. (W. H. H.)

Meningitis Epidemica—Treatment of, with *p*-Aminobenzenesulfonyl, *p'*-Aminobenzenesulfone-Dimethylamide (Uliron). A review with 33 references.—K. H. SCHAEFER. *Deut. med. Wochschr.*, 65 (1939), 165–168. (L. K.)

Mustard Gas—Eye Injuries from. The tolerance of the eye to certain reagents capable of neutralizing mustard gas under various conditions is discussed.—J. FOSTER. *Brit. Med. J.*, 4119 (1939), 1181. (W. H. H.)

Nicotinic Acid—Observations on the Use of, in the Treatment of Pellagra and Allied Conditions. The author describes 20 cases of nicotinic acid deficiency and 3 cases of true pellagra which were generally improved, or cured, by nicotinic acid supplemented by an iron tonic and a mixed, well-balanced diet. The patients were mostly Hindus or Anglo-Indians. J. W. D. GOODALL. *Indian Med. Gaz.*, 75 (1940), 147–153. (W. T. S.)

Nicotinic Acid—Treatment of Atypical Psychotic States with. Nineteen patients with mental symptoms similar to those of subclinical pellagra, are reported. All were cases of inadequate nutrition, most of them were elderly and with organic disease. A control group consisted of persons with stupor of demonstrable organic origin. Three patients were given thiamin chloride intramuscularly and intrathecally and one patient by mouth. Nicotinic acid was given after other treatments failed; it was used intravenously as sodium nicotinate. Response to nicotinic acid was dramatic in the study group; it had no effect on the control group. It seems that the therapeutic test with nicotinic acid was life saving in most of the group; and that many persons must have been allowed to die because of failure to recognize cerebral symptoms of pellagra when other clinical signs were absent.—H. M. CLECKLEY. *J. Am. Med. Assoc.*, 112 (1939), 2107. (G. S. G.)

Oral Vaccine—Use of, in the Prophylaxis of the Common Cold. Among 445 taking oral vaccine, 399 had 70% less colds than usual during a year whereas 469 controls showed a decrease of only 26.3% in the number of colds. For the 4th consecutive year experiments on 100 volunteers with another group of 100 controls confirm previous findings that the use of oral cold vaccines is effective in preventing colds. About 25% of the individuals studied, who had taken the oral vaccine during the winter season of 1938–39, reported that they had not contracted colds at all in spite of the wide prevalence of colds during this time; 70% taking vaccine reported a reduction of the number of colds from an average of 4 per individual in previous winter seasons to 1 or 2 and these were reported as much milder or of shorter duration due to self-immunization with oral vaccine; the remaining 5% reported that they did not seem to be benefited at all; but some of this group admitted that they had not taken the vaccine faithfully throughout the season. Statistics from more than 3000 immunized individuals and a like number of controls that were not immunized showed that those not receiving the oral vaccine had approximately 4 times the number of colds during any experimental year as those who had taken the oral vaccine. The advantages of this method of immunization are discussed.—LEONARD J. PICCOLI. *Pharm. Arch.*, 11 (1940), 43–48. (H. M. B.)

Organotherapy. Thyroid, liver and pancreas are discussed.—ERNST NACHMACHER. *Scientia Pharm.*, 11 (1940), 13–14. (H. M. B.)

Oxygen Baths—Investigation and Evaluation of. A discussion.—HEINRICH MENZEL. *Arch. Pharm.*, 277 (1939), 1–14. (L. K.)

Porphyrinuria—Clinical. "Clinical porphyrinuria" is defined; it includes the congenital form due to drugs such as sulfonal, and the acute idiopathic type, of which a case is described because it is not well recognized in British literature. A summary is given of the chemistry of the porphyrins, for upon that depend not only the simple tests used in the clinical laboratories but also the special investigations being made at several centers in the hope of throwing light on the synthesis of hemoglobin and the metabolism of the related pigments. The urine may contain uroporphyrin or coproporphyrin or both, and two isomers of each have to be considered and methods for the separation and identification of these are described. In the authors' case of acute idiopathic porphyrinuria, uroporphyrin accounted for about 99% of the total urinary porphyrins.—F. G. CHANDLER, G. A. HARRISON and C. RIMINGTON. *Brit. Med. J.*, 4119 (1939), 1173. (W. H. H.)

Prontosil Album in Gangrenous Stomatitis. This usually fatal disease was cured in a ten-year old male child by the administration of 14 prontosil album tabulets over a period of three and one-half days.—TEHE RAM. *Indian Med. Gaz.*, 75 (1940), 162. (W. T. S.)

Quinine, an Etiologic Factor in Nerve Deafness. Of the drugs causing nerve deafness, *e. g.*, quinine, salicylates, alcohol, tobacco, arsenic, mercury,

opium, etc., quinine is the worst offender. Its wide use and predilection for auditory nerve tissue has caused considerable trouble. Huge doses in experimental animals have been reported to degenerate the auditory nerve. Therapeutic doses in man may, in addition, bring about a hypertonic reaction in the labyrinth, possibly causing tinnitus. Quinine administered in pregnancy is known to produce deafness in the child. Large doses in children may produce permanent impairment of sight and hearing. The authors have examined 1218 cases of deafness of which 274 were definitely of the nerve. In these 274 cases, four times more patients had a history of having taken quinine than did the other 832 patients. Included are 12 audiograms which definitely indicated that quinine is an etiologic factor in this type of deafness.—S. D. FORBES. *Southern Med. J.*, 33 (1940), 613–621. (W. T. S.)

Quinoline-Carbonic Acid—Intravenous Injections of, for the Pain and Evolution of Secondary Cancer of Bone. The author has studied, in five cases of secondary bone tumors of mammary origin and one case of seminone with renal generalization, ganglionary and radicular compression, the action of slow intravenous injections of (in one or one and one-half hours) 500 mg. of quinoline-carbonic acid in the form of the sodium or lithium salt in 60 cc. of isotonic glucose. These injections reduced the pain so that a decrease in morphine could be made; it was tolerated very well in three cases where a light reaction was produced, this was eliminated in a few days during which the medication was administered by mouth. Quinoline-carbonic acid possesses in these cases of cancer of the bone a local and general antiphlogistic action; there was improvement in the circulation of an edematis member by compression and, in another, the respiratory difficulty was produced by a mediastinal tumor; the radiologic aspect of the bone had been modified; anemia had regressed and at times augmented; at the same time, quinoline-carbonic acid slows up the metastasis development making radiotherapy an auxillary process. It is highly probable that the combination *in vivo* of the acid with cholesterin is responsible for the sedative action; it is further easy to show *in vitro* that the complex of the acid and cholesterin in oil has the same sedative effects as morphine.—M. LOEPER. *Acad. de Med.*, (Nov. 21, 1939); through *Presse méd.*, 88–89 (1939), 1577. (W. H. H.)

Review of 1939. Fifty references dealing especially with new German specialties for the year.—KONRAD SCHULZE. *Scientia Pharm.*, 11 (1940), 1–2, 5–7, 10–12. (H. M. B.)

Salve Therapy in War Times. Eighteen formulas are recommended.—ANON. *Deut. Apoth. Ztg.*, 55 (1940), 358–359. (H. M. B.)

Sulfamidotherapy—Purpose of the Cyanosis Observed During the Course of. The authors noted during the course of a meningitis pneumococci treated with 1162 F that the cyanosis preceded the methemoglobin, that the two phenomena disappeared completely after the ingestion of 2 mg. of adrenaline, in spite of the maintained treatment of sulfamide and that it reappeared after suppression by adrenaline.—A. GERMAIN, G. GAUTRON and P. MORAND. *Soc. Med. des Hopitaux*, (Nov. 24, 1939); through *Presse méd.*, 88–89 (1939), 1578. (W. H. H.)

Sulfanilamide and Related Compounds—Chemotherapy of. The following generalizations may be drawn from the results obtained up to the present. (1) Nuclear shift or replacement of the NH_2 or SO_2NH_2 groups and additional nuclear substitution all tend to diminish or destroy the therapeutic activity. (2) Substitution in the NH_2 group tends to lessen activity; acylation reduces toxicity; multiplication of sulfonamide groups diminishes activity. Compounds have no action against pneumococci, and their toxicity and stability are altered rather than their efficacy or range. (3) Substitution in the SO_2NH_2 group. Higher alkyl groups decrease whereas *p*-amino and *p*-nitro phenyl substituents increase activity. Alkyl groups decrease toxicity. Alkanolamino derivatives have less action against streptococci but equal action on meningococci. Range is increased to include pneumococci and staphylococci. The mode of action, pharmacologic studies and clinical observations are discussed.—C. R. ADDINALL. *Merck Rept.*, 49 (1940), No. 2, 24–26. (S. W. G.)

Sulfanilamide Derivatives—Experimental Evaluation of. The various factors to be considered are discussed and interpreted in the light of results obtained with sulfanilamide, benzylsulfanilamide and sulfapyridine.—H. MOLITOR. *Merck Rept.*, 48 (1939), No. 3, 24–27. (S. W. G.)

Sulfanilamide in the Treatment of Small Pox. Of seven cases of small pox four were given sulfanilamide and three received only symptomatic treatment. The onset and initial period were identical in all seven cases, but the patients receiving sulfanilamide recovered more promptly and escaped the eruption and subsequent scarring. All seven cases were treated from the onset. Only one, aged 53, had been vaccinated previously and that was 40 years before.—WALTER O. MCCAMMON. *J. Am. Med. Assoc.*, 112 (1939), 1936. (G. S. G.)

Sulfanilamide Cure for Gonorrhea—Relapses after. This article deals with an important and hitherto neglected aspect of the new chemotherapy of gonorrhea—namely, the occurrence of late relapses after apparently complete cure by sulfonamide compounds; it also gives the results of an investigation into the incidence, recognition and causation of these relapses. An analysis is given of 1268 male and 210 female cases of gononorrhea whose chemotherapy was completed from six months to two years previously. This analysis indicates that of cases which have been successfully treated with sulfonamide compounds and which have passed tests of cure about 20% relapse subsequently. This figure of 20% is quite distinct from the incidence of chemotherapy failures and early relapses and must therefore be added to the latter in any calculation which shows the final results of sulfonamide treatment. In the present article no attempt is made to assess the full incidence of chemotherapy failures or the results obtained with individual compounds. The analysis gives comparative figures of relapses after sulfanilamide, sulfapyridine and uliron; it indicates also the effect on the relapse rate of delaying the chemotherapy and of combining it with adjuvant treatment, and provides answers to other pertinent questions. Special attention is given to the clinical recognition of late post-chemotherapy relapses and to their differentiation from reinfections and from early relapses. The course of treatment of late relapses are also indicated briefly. Emphasis is laid on the influence this high relapse rate must exert on the reliability of tests of cure, on the length of a safe follow-up period, and on the responsibility inseparable from the final discharge of the patient. The fact that half of these late relapses occurred more than three months after apparently complete cure throws doubt on the reliability of certain published statistics of results obtained with sulfapyridine and other sulfonamide compounds.—A. J. COKKINIS and G. L. M. MCELLIGOTT. *Brit. Med. J.*, 4117 (1939), 1080. (W. H. H.)

Sulfanilamide Therapy—Granulocytopenia after. A patient had taken 540 gr. (35 Gm.) of sulfanilamide in a period of 15 days for leucorrhea. He

entered the hospital with symptoms suggesting diphtheria and with serologic evidence of syphilis. He died two days after admission of agranulocytic angina. This emphasizes the importance of frequent blood counts during sulfanilamide therapy and a more economical dosage over a short period.—PHILIP CORR and RALPH N. ROOT. *J. Am. Med. Assoc.*, 112 (1939), 1939. (G. S. G.)

Sulfapyridine and Pneumonia. Three cases of pneumonia, a child two years old and two adults were treated with sulfapyridine. The adults developed nausea, but an oxygen tent used a half hour before and a half hour after administration relieved this. Oxygen was continued until the temperature became normal when the dose of sulfapyridine was cut from 2 Gm. to 1 Gm., then to 0.5 Gm. every four hours. Therapy was continued two days after the temperature drop and no complications developed.—W. M. WHITEHEAD and C. C. CARTER. *J. Am. Med. Assoc.*, 112 (1939), 2594. (G. S. G.)

Sulfapyridine—Anterior Poliomyelitis Treated with. A case of anterior poliomyelitis was treated with courses of sulfapyridine three days after the onset of paralytic symptoms. It produced a dramatic reduction of the white cell count and of temperature, and gave relief of parasthesia. Sulfapyridine is not a specific but is productive of relief in early cases.—JOHN C. WAGNER. *J. Am. Med. Assoc.*, 112 (1939), 1935. (G. S. G.)

Sulfapyridine Sodium—Intravenous Use of. Sulfapyridine is very slightly soluble in water, hence parenteral administration is difficult. Oil suspension is dangerous. A very soluble salt of sulfapyridine as described and studied by Marshall, Bratton and Litchfield offers a better means of parenteral administration. Sodium sulfapyridine solution is strongly alkaline (p_H 10.4 to 11.0), hence the intravenous route is the only one possible. Experimental studies were made on animals to determine its toxicity, effect on circulation and respiration and on renal function. A 5% solution, injected slowly, was used for patients, on the basis of 3.8 Gm. per 65 Kg., or 0.05 Gm. per Kg. This was adopted as a standard for adult patients. Ten cases of several types of pneumonia were treated with sulfapyridine orally, and with intravenous sodium sulfapyridine. The intravenous method is especially useful in cases of vomiting and satisfactory clinical results were obtained. Experience recommends 4 mg. per 100 cc. in pneumonia of adults.—E. K. MARSHALL, JR. and PERRIN H. LONG. *J. Am. Med. Assoc.*, 112 (1939), 1671. (G. S. G.)

Sulfonamide Derivatives. The nomenclature of this group of drugs is unfortunate and most confusing. Douthwaite puts it clearly by stating that sulfonamide is the generic term and embraces all the drugs of the group, whereas sulfanilamide denotes one substance only—no matter what the title—namely, *p*-aminobenzenesulfonamide. There are many proprietary names for this substance, some giving no indication of its constitution, and many doctors will not realize they all apply to the one chemical. It has been suggested that the name sulfanilamide with the brand added would be much more satisfactory. The sulfonamide derivatives should only be used under strict and careful medical attention, as their indiscriminate use might lead to grave toxic results. Drugs containing the sulfonamide group are extremely valuable, but they are powerful and definitely dangerous. Their most important toxic effects include nausea and vomiting, cyanosis—possibly due to sulfhemoglobin or methemoglobin—and agranulocytosis.—J. B. TAIT. *Pharm. J.*, 144 (1940), 212. (W. B. B.)

Sulfonamides in Wound Infections. The great importance that the sulfonamides have taken of recent years, both in the surgical and in the medical field, is emphasized by an interesting pamphlet lately issued by the War Office to all officers of the R.A.M.C. The pamphlet recommends that these compounds should be given a trial in the field, and that all the wounds which appear likely to become the site of secondary coccal or gas gangrene infection should receive a prophylactic course at the earliest opportunity and that this should be extended if infection supervenes. A number of general principles for administration are given.—ANON. *Indian and Eastern Chemist*, 21 (1940), 40. (A. C. DED.)

Testicular Hormone—Synthetic, Treatment of Psychic Manifestations in Old Age in Men and Women by Means of. In the cases of 12 men and 28 women, grave psychic disturbances caused probably by endocrine malfunction were favorably influenced by synthetic testicular hormone treatment extending over several weeks.—WALTER HEINEN. *Deut. med. Wochschr.*, 65 (1939), 260–261. (L. K.)

Testosterone—Effect of, on Serum Lipids in Schizophrenia. The injection of testosterone propionate during a period of three weeks into nine schizophrenic subjects produced a continuous rise in serum lipids followed by a return toward the initial level after medication. Sesame oil injections had no significant effect in ten subjects.—LOWELL O. RANDALL. *J. Biol. Chem.*, 133 (1940), 137. (F. J. S.)

Therapeutics—Recent Developments in. The following are discussed: Pituitary hormones, adrenal cortex hormone, pancreas and spleen hormones and sex hormones.—F. PRESCOTT. *Chemist and Druggist*, 132 (1940), 476. (A. C. DED.)

Urinary Bladder Function—Disturbances of, and Their Treatment with Follicular Hormone. A discussion.—E. STEINKAMM. *Deut. med. Wochschr.*, 65 (1939), 1237–1240. (L. K.)

Vitamin B_2 Complex Factors—Possible Clinical Use of. D. reviewed the work which has been done on the vitamin B_2 complex including vitamin B_6, riboflavin and the filtrate factor (or chick anti-dermatitis factor). From the information available two speculations were made concerning clinical applications of the two last named factors. (1) Crude liver extracts or similar sources of the whole vitamin B_2 complex may prove to be of some value in the treatment of certain dysfunctions of the liver. (2) Certain skin disorders and some anemias may well be treated by the administration of relatively crude preparations of liver or yeast containing several of the vitamin B_2 components. Thirty-one references are given.—W. J. DANN. *Am. J. Trop. Med.*, 19 (1939), 219–229. (W. T. S.)

Vitamin C—Influence of, on Pathological Phenomena of Humans Due to Great Cold. During a period of great cold two patients suffering from spasmodic hemoglobinuria were successfully treated with large doses of vitamin C *per os*. Being short of synthetic vitamin C, solutions were prepared by extracting 100 Gm. of fresh iris leaves with saturated ammonium sulfate solution. These solutions containing 225–240 mg. of vitamin C (checked by titration with 0.1 *N* iodine) were preserved by adding an equal volume of 10% aqueous tannic acid solution and adjusting to a p_H of 4–5 by means of metaphosphoric acid. Emulsions of these solutions were prepared containing 5% oil of turpentine, 0.5% chloral hydrate and 2 drops of oil of mustard. About sixty cases of frozen feet were successfully treated by applying the emulsion with friction. Substitution of synthetic vitamin C in the same ratio in the emulsion failed to give the same physiological effect. It thus appears that the extraction liquid of iris leaves contains besides vitamin C another vitamin which after preliminary tests has been designated

vitamin P.—AUGUSTE SARTORY and JACQUES MEYER. *Compt. rend.*, 210 (1940), 349. (G. W. H.)

Vitamin C—Role of, in Addison's Disease. The blood plasma values for ascorbic acid in 6 patients who had Addison's disease were within normal range. The urinary excretion during 24 hours was low. It appears that the determination of the urinary excretion cannot be used as an index of vitamin C deficiency in Addison's disease.—JOSEPH F. JENOVESE, ARNOLD E. OSTERBERG and EDWARD H. RYNEARSON. *Proc. Soc. Exptl. Biol. Med.*, 44 (1940), 335. (A. E. M.)

Vitamin K Activity of 2-Methyl-1,4-Naphthoquinone and Its Clinical Use in Obstructive Jaundice. The problem of hemorrhage in jaundice has recently been reviewed by Illingworth. Butt, Snell and Osterberg (1939) found that the effects of intramuscular administration of vitamin K concentrates were not striking. The results herein reported of the use of 2-methyl-1,4-naphthoquinone as a synthetic substitute for natural vitamin K are more outstanding. This preparation, when given to four cases of obstructive jaundice with low prothrombin indices, has raised the index considerably in all of them within two days. In the last case the change was evident within twelve hours; it is probable that the effect was present in the other cases at that stage too, but was not recognized because the index was not estimated soon enough. It is hoped that, when conditions are favorable, further work will be done on the question of the rapidity of this change. The results suggest that the intramuscular use of this synthetic product is effective in raising the prothrombin index in cases of obstructive jaundice. Its value in the prevention and treatment of hemorrhage in jaundice is apparent. The rapidity of its effect as shown in one case—within twelve hours—suggests that it may be particularly valuable in the treatment of postoperative bleeding in jaundice. There was no opportunity of investigating this in the present series of cases.—J. M. MACFIE, A. L. BACHARACH and M. R. A. CHANCE. *Brit. Med. J.*, 4120 (1939), 1220. (W. H. H.)

Vitamin K—Clinical Importance of. The antihemorrhagic factor, or coagulation vitamin, is found in the photosynthetic portion of plants. It is in alfalfa, kale, spinach, carrot tops, chestnut leaves, tomatoes and oat sprouts. It is also found in some vegetable oils but not much in fish liver oils. It is found in the lipoid fraction of some microorganisms and is produced by bacterial activity in the intestinal tract. It has been prepared as a colorless, crystalline fat-soluble material, heat-stable, but destroyed by alkalies or sunlight. It is probably a complex unsaturated hydrocarbon of high molecular weight, containing a small amount of N, but no S or P. Antihemorrhagic properties are determined by its activity on K-avitaminous chicks, but is too experimental to establish a "unit." Deficiency of prothrombin is noted in cases of jaundice. Hemorrhagic states are controlled by oral administration of extract of alfalfa or putrefied fish meal together with bile or bile salts. Amounts for prophylactic or curative treatment are still under investigation. Purpuric states, hemophilia and essential hematuria are not affected by vitamin K therapy; but recurrent hemorrhagic retinitis and certain forms of functional menorrhagia show some response. So far there is no evidence of toxicity, but indiscriminate use is discouraged, awaiting further study.—ALBERT M. SNELL. *J. Am. Med. Assoc.*, 112 (1939), 1457. (G. S. G.)

Vitamin K Compounds—Synthetic, Effect of, on Prothrombin Concentration in Man. Phthiocol (2 - methyl - 3 - hydroxy - 1,4 - naphthoquinone), 2-methyl-1,4-naphthoquinone and 4-amino-2-methylnaphthol hydrochloride were tested on 26 patients with hypoprothrombinemia. The result was most marked in the patients with obstructive jaundice, less in chronic or acute liver diseases. The activity of the three compounds was approximately equal.—P. M. AGGELER, S. P. LUCIA and LEON GOLDMAN. *Proc. Soc. Exptl. Biol. Med.*, 43 (1940), 689. (A. E. M.)

Vitamin Treatment—Possibilities and Limits of, in Alcoholic Polyneuritis. The authors examined the causes of failure of the usage of vitamin B_1 against alcoholic polyneuritis. In the group, without disregarding these eventualities, the authors believe conclusively that the efficaciousness of this therapeutic agent if one utilizes it in certain conditions and without certain modifications, is integral in the complete treatment, directed not only against the polyneuritis but also against the polyvesicular lesions which accompanies it.—M. VELLARET, L. JUSTIN-BESANEON and H. P. KLOTZ. *Soc. Med. des Hopitaux*, (Nov. 17, 1939); through *Presse méd.*, 85–86 (1939), 1525. (W. H. H.)

Wounds—Drugs Used for the Treatment of. Three phases of wound therapy are noted in connection with the substances or minerals used, such as plant drugs and substances obtained from them, animal products such as cod liver oil and honey and 16 classes of chemical substances. Standard prescriptions are offered in many cases. Sixteen references.—ERICH HERRMANN. *Deut. Apoth. Ztg.*, 54 (1940), 609–616. (H. M. B.)

NEW REMEDIES

SYNTHETICS

Amphojel Tablets (John Wyeth & Bro., Inc., Philadelphia, Pa.) contain in each tablet the equivalent of 10 gr. of hydrated alumina [$Al_2(OH)_6$] and produce the antacid effect of about two teaspoonsful of liquid. The tablets are used in the treatment of hyperacidity and peptic ulcers; and they are offered as a convenient supplement to gel therapy in treating ambulatory patients. Amphojel Tablets are supplied in boxes of 60 tablets.—*Amer. Professional Pharmacist*, 6 (1940), 451. (F. J S.)

Astreptine is the name given by the Union Chemique Belge, to sulfanilamide.—*Pharm. Weekblad*, **76** (1939), 1520. (E. H. W.)

Betamin (Cerevim Products Corp., 100 Sixth Ave., New York, N. Y.) contains in each wafer 100 International Units (0.3 mg.) thiamin hydrochloride U. S. P. XI (vitamin B_1) and is low in caloric value (15 calories per wafer). It is used for restricted diets or whenever vitamin B_1 deficiency is indicated. Betamin is advertised only to physicians and is distributed only through pharmacies in hermetically sealed one-half pound tins.—*Amer. Professional Pharmacist*, 6 (1940), 450. (F. J. S.)

Be-Vitrat (Nordmarkwerke, Hamburg) contains the vitamin B complex, increased with vitamin B_1 and with peptihydrochlorides which prevent the breaking down of the B vitamins in the gastrointestinal tract. The preparation is found on the market in drops, ampuls and bean-shaped dragées.—*Pharm. Weekblad*, 76 (1939), 1136. (E. H. W.)

Cortiron is synthetic crystalline desoxycorticosterone acetate presented in oily solution for intramuscular injection. It enables an adequate and exactly dosed cortical hormone therapy to be used for the treatment of diseases due to suprarenal insufficiency, such as Addison's disease, war neurosis, shock due to burns, and frost bite and severe toxic diseases which cause suprarenal exhaustion.

A daily dose up to 10 mg. can be given, and, as no secondary effects have been observed, overdosage would appear to be extremely unlikely. Cortiron is supplied in boxes of 4 ampuls containing either 2, 5 or 10 mg.—*Quart. J. Pharm. Pharmacol.*, 13 (1940), 95 (S. W. G.)

Crysto-Vibex Elixir (Parke, Davis & Co., Detroit, Mich.) contains 6.66 mg. of thiamin chloride (2220 International Units vitamin B_1) in each fluid ounce of a palatable elixir base. This elixir is offered for the convenience of physicians who wish to prescribe thiamin chloride in liquid form for oral administration. Crysto-Vibex Elixir is supplied in 16-oz. and 1-gallon bottles.—*Modern Pharmacy*, 24 (February, 1940), 12. (F. J. S.)

Curacit-Natron (C. H. Boehringer Sohn, Ingelsheim) is a bile acid preparation which is also used in washing powders to increase the foaming properties.—*Pharm. Weekblad*, 76, (1939), 1136. (E. H. W.)

Disulfamine (Laboratori Biochimici, Locarno) is a combination of hexamethylenetetramine-sulfosalicylate, sodium nucleinate and camphoric acid-dimethylaminoantipyrine. It is used as a sedative and antipyretic having at the same time antiseptic properties and is found on the market in tablet form.—*Pharm. Weekblad*, 76 (1939), 1136. (E. H. W.)

Dormovit (Chem. Fabrik Dr. J. Wiernik & Co., A. G., Berlin, Waudmannslust) contains furfuryl-isopropyl-barbituric acid. It is marketed in the form of tablets and is recommended as a soporific.—*Pharm. Zentralhalle*, 80 (1939), 509. (N. L.)

Efolor Tablets (Apotheker H. Otterbach, Ludwigshafen a. Rh.) contain in each tablet, acetylsalicyclic acid and acetophenetidin of each, 0.25 parts, phenyl-allyl-barbituric acid 0.05 parts and caffeine 0.03 parts. It is recommended as an analgesic.—*Pharm. Zentralhalle*, 80 (1939), 509. (N. L.)

Efosedif Tablets (Apotheker H. Otterbach, Ludwi shafen a. Rh.) contain in each tablet sodium phenyl-allyl-barbituric acid 0.07 parts and potassium bromide 0.8 parts. It is recommended as a nervine.—*Pharm. Zentralhalle*, 80 (1939), 510. (N. L.)

Ephynal is *alpha*-tocopherol acetate, a stable preparation of vitamin E. It is suggested for the treatment of habitual and threatened abortion, sterility, certain cases of dysmenorrhea and vulvovaginitis and during lactation. The dose is one tablet (3 mg.) daily as a prophylactic, but massive doses should be given in cases of threatened abortion. It is supplied in bottles of 30 tablets.—*Quart. J. Pharm. Pharmacol.*, 13 (1940), 95. (S. W. G.)

Ferrous Gluconate (Frederick Stearns & Co., Detroit, Mich.) is a specially prepared, stable form of ferrous iron, readily soluble in water and contains approximately 12% ferrous iron. It is indicated in iron deficiency anemia of childhood, adolescence, pregnancy, convalescence and senility. The average dose for adults is 3 to 6 tablets daily; children, 1 to 2 tablets daily. Ferrous Gluconate is supplied in 5-gr. sugar-coated tablets in bottles of 100.—*Amer. Professional Pharmacist*, 6 (1940), 450. (F. J. S.)

Lipo-Bismol Ampoules (Parke, Davis & Co., Detroit, Mich.) contain bismuth octyloxyacetate (50.7% bismuth) dissolved in an olive oil base containing 20% benzyl benzoate. Each cubic centimeter represents 100 mg. bismuth, approximately double the concentration of most oil-soluble bismuth preparations. It is administered intramuscularly, at seven-day intervals, in courses of 6 to 16 injections, as part of the treatment for syphilis. Lipo-Bismol Ampoules are supplied in 1-cc. ampuls in boxes of 12 and 50 ampuls; also in 10-cc. (ten-dose) ampuls, single ampuls and boxes of 12.—*Modern Pharmacy*, 24 (February, 1940), 12. (F. J. S.)

Liquæmin (Roche-Organon, Inc., Nutley, N. J.) is a solution of the sodium salt of heparin and is the first American-made heparin of high potency for clinical use. It is used for the prevention and treatment of thrombosis. Liquæmin is supplied in 5-cc. vials, each vial containing 10,000 anticoagulant units.—*Amer. Professional Pharmacist*, 6 (1940), 451. (F. J. S.)

Neuro-Trasentine (Gesellschaft für Chemische Industrie, Basel) contains 20 mg. trasentine and 20 mg. phenylethyl barbituric acid per tablet. Trasentine is a synthetic antispasmodic, *i. e.*, diphenyl-acetyldiethyl-amino-enthanolester hydrochloride. Trasentine is a reliable means for abolishing spasms by lowering the tone of smooth muscle. It acts on the nerves like atropine and on the organs like papaverine. The combination of trasentine and phenylethyl barbituric acid offers a drug which, depending upon dosage acts as a sedative, a hypnotic or a drug that acts during sleep. The dose is 2–3 tablets, to 6 tablets per day.—*Pharm. Weekblad*, 76 (1939), 785. (E. H. W.)

Phytoferol is a highly active preparation of vitamin E produced by the molecular distillation of natural oils. It is standardized biologically in terms of *dl-alpha*-tocopherol. It is used for prophylactic treatment in habitual aborption and as a routine treatment in pregnancy, greatly diminishing the incidence of spontaneous abortion, and other complications. Phytoferol can also be used for the treatment of sterility in males. Phytoferol capsules contain in each the equivalent of 3 mg. of synthetic *dl-alpha*-tocopherol. The dose as a prophylactic is one capsule daily during pregnancy. Four to six capsules may be given daily in cases of threatened abortion. For treatment of sterility and impotence in the male, 3 capsules daily is suggested. Phytoferol is supplied in boxes of 25 and 100 capsules.—*Quart. J. Pharm. Pharmacol.*, 13 (1940), 96. (S. W. G.)

Prontalbine is a newly adopted name for Prontosil Album.—*Pharm. Weekblad*, 76 (1939), 1521. (E. H. W.)

Sulfathiazole (Alba Pharm. Co., 80 Varick St., New York, N. Y.; Lederle Laboratories, 30 Rockefeller Plaza, New York, N. Y.; Maltbie Chem. Co., 250 High St., Newark, N. J.; E. R. Squibb & Sons, 745 Fifth Ave., New York, N. Y.; Winthrop Chem. Co., 170 Varick St., New York, N. Y.) is the thiazole analog of sulfapyridine and is used in the treatment of pneumococcal and staphylococcal infections. The chief advantages of sulfathiazole in comparison with sulfapyridine are believed to be more uniform absorption, less conjugation after absorption, less tendency to cause serious nausea or provoke vomiting, greater effectiveness against staphylococcal infections. It is administered orally. Sulfathiazole is supplied in 0.5-Gm. scored tablets (in bottles of 50, 100, 500 and 1000); in 0.25-Gm. scored tablets (in bottles of 50, 100, 500 and 1000); and 5-Gm. vials of crystals for making solutions to be used as reagent in estimating sulfathiazole content of blood.—*Amer. Professional Pharmacist*, 6 (1940), 518. (F. J. S.)

Sulfapyridine Sodium Monohydrate (E. R. Squibb & Sons, 745 Fifth Ave., New York, N. Y.) is sodium 2-sulfanilyl aminopyridine monohydrate, a soluble salt of sulfapyridine. It is used in emergencies only in patients severely ill with pneumococcal infections and it is intended exclusively for intravenous injection only in hospitals and only under the constant supervision of a physician. It should not be used as a routine measure or continued throughout

the illness, but should be followed by oral sulfapyridine. The dosage is: Standard initial dose, 3.8 Gm. for adult patients, calculated on the basis of 0.06 Gm. per Kg. body weight, administered intravenously, slowly, followed by oral sulfapyridine. Sulfapyridine Sodium Monohydrate is supplied in a 5-Gm. ampul in boxes of 10.—*Amer. Professional Pharmacist*, 6 (1940), 450. (F. J. S.)

Sulfapyridine Tablets and Capsules (Parke, Davis & Co., Detroit, Mich.) contain in each tablet 0.5 Gm. (7.7 gr.) of sulfapyridine [2-(*p*-aminobenzenesulfonamido)-pyridine]; each capsule contains 0.25 Gm. (3¾ gr.). They are indicated for oral use in the treatment of pneumonia and should be employed only in cases where the patient is under the constant supervision of a physician. Sulfapyridine Tablets are supplied in 0.5-Gm. (7.7-gr.) tablets in bottles of 50, 100 and 1000; Sulfapyridine Capsules, 0.25 Gm. (3¾ gr.), in bottles of 50, 100 and 500.—*Modern Pharmacy*, 24 (February, 1940), 12. (F. J. S.)

Thyroid U. S. P. Desiccated (Parke, Davis & Co., Detroit, Mich.) is the dried thyroid gland containing 0.2% iodine in organic combination and it is not to be confused with Thyroid Glands P. D. & Co., Desiccated, which contain 0.3% iodine in organic combination. It is used for the treatment of cretinism, myxedema and all degrees of hypothyroidism. Thyroid U. S. P. Desiccated is supplied in 1/10-gr., 1/4-gr., 1/2-gr., 1-gr., 2-gr. and 5-gr. compressed tablets in bottles of 100 and 500; also as a powder in 1-oz. and 1/4-pound bottles.—*Modern Pharmacy*, 24 (February, 1940), 13. (F. J. S.)

SPECIALITIES

All-vi-ron (Professional Laboratories, Inc., Bloomfield, N. J.) contains in each perle not less than 7000 I. U. vitamin A as concentrated fish liver oils; 50 I. U. vitamin B_1 as thiamin hydrochloride and vitamin adsorbate from rice polishings, whey and wheat germ; 65 I. U. vitamin C as ascorbic acid (approximately 1/5 daily need); 900 I. U. vitamin D; 30 micrograms of vitamin B_2 (G) as riboflavin, adsorbate from rice polishings, whey and wheat germ (approximately 1/30 daily requirement); 25 mg. cold pressed wheat germ oil as minute source of vitamin E (*alpha*-tocopherol) and 0.0508 Gm. U. S. P. ferrous sulfate (dried) equal to 15 mg. iron. It is indicated as a necessity for the body's preservation where deficiency diseases may be present which may cause serious manifestations due to the lack of the essential element iron. The dose is 1–2 perles daily with any meal. All-vi-ron is obtainable in packages of 100 perles.—*Amer. Professional Pharmacist*, 6 (1940), 250. (F. J. S.)

Almedine (N. V. Orgachemia, Oss) is a new analgesic with vitamin B_1, that does not contain pyrazolones. Because of the danger of agranulocytosis from the use of pyramidon and other pyrazolone derivatives, necessitating that their use be under the control of the physician, it was suggested that the trade be furnished with a preparation that did not have these dangers. Recently the antineuritic vitamin B_1 has been used in neuralgias and is therefore administered in combination with acetylsalicylic acid, phenacetin and citrated caffeine. The combination is as follows: vitamin B_1 0.150 mg.; citrated caffeine 50 mg.; phenacetin 200 mg. and acetylsalicylic acid 200 mg. per tablet.—*Pharm. Weekblad*, 76 (1939), 1520. (E. H. W.)

Arthex Tablets (Sagitta-Werk, G. m. b. H., München) are marketed in two forms: Grade I (brown) contains phenyl-quinoline carboxylic acid and amidophenazon; and Grade II (white) contains acetylsalicylic acid and bromoisovalerianyl urea. They are indicated in the treatment of arthritis and neuralgia.—*Pharm. Zentralhalle*, 80 (1939), 509. (N. L.)

B-Compules (Abbott Laboratories, North Chicago, Illinois) contain in each compule 333 U. S. P. units of vitamin B_1 (1 mg. of thiamin hydrochloride), 40 Sherman units of vitamin G (approximately 100 gammas of riboflavin), and other members of the vitamin B complex found in liver concentrate. The compules are indicated in conditions of vitamin B complex deficiency. The average dose is 1 to 3 capsules daily and one capsule provides recognized daily prophylactic dose of thiamin hydrochloride for adults and supplements the diet by supplying 1/10 of the estimated minimum daily requirement of riboflavin. B-Compules are supplied in bottles of 40 and 500.—*Amer. Professional Pharmacist*, 6 (1940), 250. (F. J. S.)

Bilein is a preparation of bile salts for administration with Klotogen (p. 525). It is supplied in vials containing the dose to be dissolved in 200 cc. of water or normal saline solution and given by duodenal tube, or in 5-grain capsules for oral use with Klotogen capsules.—*Quart. J. Pharm. Pharmacol.*, 13 (1940), 95. (S. W. G.)

Byleric Capsules (Wm. S. Merrell Co., Cincinnati, Ohio) are modified choleic capsules containing 11 gr. ricinoleic acid combined with 1 gr. of bile salts, encapsulated in soft gelatin. They are used as an improved cholagogue-choleretic. Byleric Capsules are supplied in boxes of 40 and 100 capsules.—*Amer. Professional Pharmacist*, 6 (1940), 181. (F. J. S.)

Cosanyl (Syrup Cocillana Compound) (Parke, Davis & Co., Detroit, Mich.) contains in each fluidounce 120 minims Tinct. Euphorbia Pilulifera, 120 minims Syrup Wild Lettuce, 40 minims Tinct. Cocillana, 24 minims Syrup Squill Compound, 8 gr. cascarin (bitterless), 1/4 gr. ethyl morphine hydrochloride, 8/100 gr. menthol. It is used as a sedative-expectorant; indicated for relief of cough associated with scanty secretion and expectoration. Cosanyl is supplied in 4-oz., 16-oz. and 1-gallon bottles.—*Modern Pharmacy*, 24 (February, 1940), 13. (F. J. S.)

Davitamon B_1 (N. V. Orgachemia, Oss) is the antineuritic vitamin or aneurin, discovered by Eykman in 1897 and by Grijns in 1901, investigated as a remedy for beriberi and later obtained in crystalline form by Jansen and Donath. This vitramin is offered as Davitamon B_1 in tablets of 1 mg. and in ampuls 1 and of 10 mg. per cc. One milligram corresponds to 33 International Units.—*Pharm. Weekblad*, 76 (1939), 152. (E. H. W.)

Davitamon K (N. V. Orgachemia, Oss) consists of the antihemorrhagic vitamin obtained by Dam in 1934, dissolved in oil. This vitamin, an oil soluble compound, keeps the normal concentration of prothrombin in the blood and thus prevents a diminution of the coagulability of the blood. Vitamin K is found in a number of green plants including lucern and spinach and also in fish meal. In various forms of icterus which show a tendency toward hemorrhagic diathesis the state of a lowered blood coagulation represents an occasion for the prophylactic administration of Davitamon K. Davitamon K is found on the market in 15-cc. dropping bottles, containing 20,000 Dam units per cc. For combination therapy cachets of 0.4 Gm. of desoxycholzuur-Organon are also obtainable.—*Pharm. Weekblad*, 76 (1939), 1521. (E. H. W.)

Deterzit (Bika, Chem.-pharm. Fabrik, Stuttgart) is a coal-tar paste containing solution of coal-tar, zinc paste and lanolin. It is indicated in the treatment of chronic eczema, herpes, pruritis, furunculosis, skin fissures, etc.—*Pharm. Zentralhalle*, 80 (1939), 567. (N. L.)

Dicalcium Phosphate with Viosterol (Parke, Davis & Co., Detroit, Mich.) contains in each wafer 15 gr. (1 Gm.) of dicalcium phosphate and not less than 1000 units of viosterol (vitamin D) combined in a wafer, agreeably flavored with chocolate. It is used as a dietary supplement in the management of conditions likely to be associated with calcium-phosphorus deficiency. Dicalcium Phosphate with Viosterol is supplied in boxes of 36, 100 and 250 wafers.—*Modern Pharmacy*, 24 (February, 1940), 12. (F. J. S.)

Emocin Throat Lozenges contain, in each, 2 grains of acetylsalicylic acid combined with a flavored demulcent base. They are intended to dissolve slowly in the mouth for their analgesic effect after tonsillectomy, or in other irritative and inflammatory conditions. They are supplied in tubes of 25.—*Quart. J. Pharm. Pharmacol.*, 13 (1940), 95. (S. W. G.)

Ether-Oil (E. R. Squibb & Sons, 745 Fifth Ave., New York, N. Y.) consists of the following composition: Ether Squibb, $2^1/_2$ fluidounces; quinine alkaloid, 20 grains; alcohol (absolute), 45 minims; sulfonated olein, 1.4 grains; mineral oil, *q. s. ad*, 4 fluidounces. The ether-oil method is almost universally applicable for relieving pain during labor. It is contraindicated only in the presence of colitis, diabetes mellitus, auditory disturbances, fistula or isochiorectal abscess. It is not contraindicated in toxemia, cardiac disease, tuberculosis, placenta praevia or any fetal presentation or position. Ether-Oil for Obstetrical Analgesia is administered by rectal instillation. It is supplied in 4-ounce containers (sufficient for one treatment).—*Amer. Professional Pharmacist*, 6 (1940), 251. (F. J. S.)

Fibrosan is supplied in 6-grain tablets each containing salol $^2/_3$ grain; acetylsalicylic acid $1^1/_3$ grains; sodium salicylate $1^1/_3$ grains; strychnine sulfate $^1/_{600}$ grain. It is recommended for the relief of pain in rheumatism, arthritis, fibrositis, headaches, dysmenorrhea and influenza. The dose is three tablets, two or three times daily after meals. Fibrosan tablets are sold in bottles of 75.—*Quart. J. Pharm. Pharmacol.*, 13 (1940), 95. (S. W. G.)

Ipedrin (Chem.-pharm. Fabrik, Sandoz, A. G., Nürnberg) is an ipecopan-ephedrine cough syrup. In 200 cc. (about 230 Gm.) of syrup, there are emetine 0.0158 Gm., a benzyl-morphine derivative 0.1268 Gm., codeine hydrochloride 0.0031 Gm., ephedrine 0.23 Gm. and other alkaloids 0.038 Gm. It is recommended in the treatment of acute and chronic catarrh.—*Pharm. Zentralhalle*, 80 (1939), 567. (N. L.)

Iri-Heart Syrup (H. Köhler, Berlin) consists chiefly of extracts of thyme, orange, cascara sagrada, cactus, convallaria and uva ursi in combination with tincture of cimicifuga, sparteine sulfate, caffeine citrate, theobromine sodio-salicylate, dried sodium sulfate, wine and saccharine. It is recommended as a cardiac tonic.—*Pharm. Zentralhalle*, 80 (1939), 567. (N. L.)

Kapseals Ferro-Desicol (Parke, Davis & Co., Detroit, Mich.) contain in each kapseal 2 gr. of ferrous sulfate, exsiccated, and 4 gr. of desicol (desiccated fresh whole bile), approximately equivalent to 2 cc. of whole gall bladder bile. The kapseals are indicated for the treatment of iron deficiency anemia, particularly when associated with biliary dysfunction. Kapseals Ferro-Desicol are supplied in bottles of 100, 500 and 1000.—*Modern Pharmacy*, 24 (April, 1940), 12. (F. J. S.)

Klotogen is a concentrate rich in natural vitamin K, sometimes called the antihemorrhagic factor. It is indicated for the treatment of hemorrhagic diathesis of jaundice, hepatic injury, injury of the biliary tract and conditions of circulatory deficiency of prothrombin and interference with the intestinal absorption of vitamin K. Klotogen is supplied in oil for administration by intraduodenal instillation. Eight cc. warmed to body temperature should be mixed with a solution of 30 grains of bile salts or 200 cc. of Bilein (p. 524) solution, and administered through a duodenal tube, the total volume being instilled in thirty to sixty minutes. Klotogen is also supplied in capsules for oral administration. One capsule with two 5-grain Bilein capsules should be given three times daily with meals for at least four days as a routine pre-operative preparation of moderately jaundiced patients. If possible the prothrombin time (Quick's method) should be determined, and Klotogen administered by intraduodenal instillation if the prothrombin time has not shortened. Klotogen in oil is supplied in 50-cc. bottles. The capsules containing 1000 units of vitamin K are supplied in bottles of 25.—*Quart. J. Pharm. Pharmacol.*, 13 (1940), 95. (S. W. G.)

Kolavotine is a vegetable food for illness and convalescence made according to the formula of Professor Astier of Lausanne. It contains, among other things, defatted cacao, oatmeal, kola and aromatics.—*Pharm. Weekblad*, 76 (1939), 1521. (E. H. W.)

Nebadrene (Nebula Adrenalin Co.) contains atropine methyl nitrate 0.125; pilocarpine nitrate 0.1; papaverine sulfate 1.0; adrenaline 0.25; pituitary (posterior lobe) 0.5; and chlorbutol 1.5% *w/v*. It is recommended for the treatment of bronchial asthma, and it is intended to be inhaled in the form of a very fine vapor. The nebulizer must produce a cloud of vapor, not a spray, and the vapor must be inhaled deeply *via* the nose or throat for two or three minutes night and morning as a prophylactic, or a maximum of five minutes for the relief of an attack. Nebadrene is supplied in 10-cc. vials, 4-oz. bottles and also in 10-cc. vials with nebulizer.—*Quart. J. Pharm. Pharmacol.*, 13 (1940), 96. (S. W. G.)

Pargran Perles (E. R. Squibb & Sons, 745 Fifth Ave., New York) contain in each perle not less than 10,000 vitamin A U. S. P. XI units, 1000 vitamin D U. S. P. XI units, 200 International Units of vitamin B_1, 500 International Units of vitamin C, 100 gammas of riboflavin and 5 mg. of nicotinic acid. A small size capsule for the use of those especially small children, who find other vitamin capsules too large to swallow with ease. The perles are recommended especially for growing children; also for pregnant and lactating women, malnourished or "run-down" children or adults, etc. The dosage is one capsule daily, or as prescribed by the physician. Pargran Perles are supplied in boxes of 25, 50, 100 and 250.—*Amer. Professional Pharmacist*, 6 (1940), 181. (F. J. S.)

Radium-Uræmonal (Dr. Hugo Remmler, A. G., Berlin) consists chiefly of lithium citrate, hexamine, potassium sulfate and radium bromide (each teaspoonful containing the equivalent of 0.016 microgm. radium). It is recommended in the treatment of rheumatic and neuralgic conditions, arteriosclerosis, constipation, etc.—*Pharm. Zentralhalle*, 80 (1939), 541. (N. L.)

Ranol-Yeast-Albumin Ointment (Rad-Jo Versand, G. m. b. H., Hamburg) is an ointment recommended in the treatment of skin eruptions, open wounds, sunburn, etc. It contains anhydrous lanolin, white vaseline, zinc oxide and smaller quantities of salicylic and boric acids.—*Pharm. Zentralhalle*, 80 (1939), 541. (N. L.)

Sodium Salicylate Emplets (Parke, Davis & Co., Detroit, Mich.) consist of sodium salicylate, 10 gr., in a tablet protected by a chocolate-colored enteric coating. They are suitable for use wherever salicyl-

ates are indicated; and the enteric coating prevents interference that sodium salicylate might encounter with gastric digestion. Sodium Salicylate Emplets, 10 gr., are supplied in bottles of 100 and 1000.—*Modern Pharmacy*, 24 (April, 1940), 12. (F. J. S.)

Sulfanilamide and Sodium Bicarbonate Tablets (Parke, Davis & Co., Detroit, Mich.) contain in each tablet 5 gr. sulfanilamide and 5 gr. sodium bicarbonate. They are intended for the oral treatment of certain streptococcic infections. Compressed Tablets Sulfanilamide and Sodium Bicarbonate are supplied in bottles of 100 and 500.—*Modern Pharmacy*, 24 (June, 1940), 13. (F. J. S.)

Takazyme (Parke, Davis & Co., Detroit, Mich.) is an aromatized combination of Taka-Diastase (a potent starch-liquefying enzyme) with calcium carbonate, magnesium carbonate and bismuth subcarbonate. It is employed by physicians in correcting conditions associated with excessive gastric acidity, particularly cases in which there is an inadequate digestion of starches. Takazyme is supplied in 1-oz., 2-oz., 5-oz. and 1-pound screw-top cans.—*Modern Pharmacy*, 24 (June, 1940), 13. (F. J. S.)

Veriazol (Knoll & Co., N. V., Amsterdam) is a combination of cardiazol and veritol obtainable in tablets, in ampuls and in solution.—*Pharm. Weekblad*, 76 (1939), 1522. (E. H. W.)

Vi-siblin Granules are prepared from the mucilage of certain species of *Plantago* and contain in addition in each heaped teaspoonful 50 International Units of crystalline vitamin B_1. Since this preparation will absorb well over 30 times its weight of water, swelling to a soft gelatinous mass which is not perceptibly affected by gastric ferments, it is well suited to the treatment of constipation. In addition, absence of vitamin B_1 causes atony of the intestinal musculature, and the replacement of this is an aid to peristaltic function. The dosage is two teaspoonfuls morning and night, falling to two teaspoonfuls daily as restoration to normal occurs. Water should be taken freely, at least one glassful with each dose. In patients known or suspected to be hypersensitive to *Plantago*, caution should be observed until the tolerance is known. Vi-siblin is supplied in packages of about 4 oz. and 1 lb.—*Quart. J. Pharm. Pharmacol.*, 13 (1940), 96. (S. W. G.)

BACTERIOLOGY

Antipneumococcus Antiserum—Rabbit, Use of, in the Treatment of Ulcus Serpens. Rabbit serum is more useful for pneumococcic ulcers of the eye than horse serum because of the smaller molecule of the antibody. A man whose eye was injured by a twig, had an ulcer form on the cornea. Various instillations and injections were ineffective. A culture of material from the eye showed positive Type XXIII pneumococci. He was treated with Type XXIII antipneumococcus rabbit serum, 30,000 units intravenously, 15,000 units by instillation (one drop every fifteen minutes) and 4000 units subconjunctively, in 24 hours. The ulcer cleared and retracted. The patient was given daily injections intravenously for four days then medication was stopped. Instillations were continued intermittently for 10 days, to a grand total of 480,000 units. Sixteen days after the institution of therapy the cultures were found negative. There was no serum reaction and the eye healed.—HAROLD G. SCHEIE and LEON H. COLLINS. *J. Am. Med. Assoc.*, 112 (1939), 2130. (G. S. G.)

Antipneumococcus Serum—Assay of, in Rabbits. It is now customary to determine the potency of antipneumococcus serum by mixing various dilutions of the serum with lethal doses of the organisms and injecting the mixtures into mice. To compensate for the variation in resistance of the mice, large numbers of animals must be used for each titration. In this paper the author describes a method for titrating antipneumococcus serum by injecting the serum and organism mixtures intradermally into a single rabbit. The end-point of the titration is shown by the degree of inflammation developing and the number of viable organisms which may be cultured from the lesions after the animal is killed. By using but one animal for the test, individual variation in resistance of the test animals is eliminated. The accuracy of the test performed in one rabbit is equal to that in which 200 mice are used.—J. IPSEN, JR. *J. Path. Bact.*, 46 (1938), 571. (T. C. G.)

Antitoxins—Refining of. Unrefined serum is obtained by injecting a horse with the toxin of a particular organism and allowing the antitoxin to form in the horse's blood. Blood is then withdrawn and allowed to clot and the clear serum which separates constitutes unrefined serum. The first refining method is by fractional salt precipitation, or salting out, and it makes use of the fact that each fraction precipitates individually with different concentrations of ammonium sulfate. The weaker solution precipitates the uglobulins first. The supernatant liquid is decanted off and treated with a higher concentration of ammonium sulfate which precipitates pseudoglobulins and antitoxins together. The precipitate is collected and suspended in a cellophane bag immersed in distilled water so that it dissolves and at the same time is freed from traces of ammonium sulfate by dialysis. The contents of the cellophane bag after further filtration constitute the purified antiserum and the volume is usually one-fourth of that of the original unrefined serum. Any further concentration of the antibodies by reducing the volume increases proportionately the percentage of pseudoglobulin content and this is called globulin antitoxin. A second method is also described.—H. D. MILLS. *Pharm. J.*, 144 (1940), 73. (W. B. B.)

Aspirin as an Antiseptic. The preservative properties of acetylsalicylic acid are not generally recognized. Brief experiments were carried out in an attempt to demonstrate these preservative properties. It was concluded that whether alone or partly converted to salicylic acid, aspirin possesses valuable preservative properties.—D. B. DOTT. *Pharm. J.*, 144 (1940), 212. (W. B. B.)

Azo Compounds—Bactericidal. Various examples are given of the production of products suitable for the treatment of infectious diseases, which have the general formula $R'N{:}NR''$, where R' stands for a cyclic radical from the group consisting of phenyl radicals containing a sulfamide group in the *para* position to the azo group and of disulfamide-substituted phenyl radicals, which radicals are free from other substituents, and R'' stands for a pyridine radical a nuclear carbon atom of which is directly connected with the azo group and which contains at least one further substituent from the group consisting of amino, lower hydrocarbon alkylamino and hydroxyl groups and further contains at least one acid radical which is bound to the pyridine radical by a member from the group consisting of nuclear carbon atoms, oxygen atoms and amino groups. These azo compounds are in the form of their alkali and alkaline-earth metal, ammonium and amine salts, in general soluble in water.—FRITZ MIETZSCH and JOSEF KLARER, assignors to WINTHROP CHEMICAL CO. U. S. pat. 2,148,910, Feb. 28, 1939. (A. P.-C.)