

# Medical Sciences Notes

## PHARMACOLOGY

### New Drug Against Tuberculosis

Japan and Italy will be the first countries to benefit from a new antituberculosis drug currently being produced at Cyanamid International's plant in Gosport, England.

Myambutol ethambutol was developed in the United States by Lederle Laboratories at Pearl River, N.Y., but has not yet been approved by the Food and Drug Administration for use in this country. Both Lederle and Cyanamid International are divisions of the American Cyanamid Company.

Myambutol has been found to be particularly valuable because it delays the appearance of tuberculosis strains that resist existing drugs.

Investigators say that it has a new mode of action, diffusing into growing tubercle bacilli and appearing to inhibit the synthesis of a substance needed for reproduction of these cells.

The new drug is free from gastrointestinal side effects found in other TB drugs, but was found to produce a unique, reversible, decrease in sharpness of sight in less than five percent of patients who underwent initial treatment. The effect seemed to be related to dose and duration of treatment causing optic neuritis.

## ALLERGY

### Pigeon Breeder's Disease

Children who raise birds as a hobby run the risk of developing chronic respiratory problems, a University of Wisconsin pediatrician warns.

Dr. E. Richard Stiehm says he recently observed five children with pigeon breeder's disease. He believes the ailment can be serious unless it is recognized and treated early.

All five patients had an allergic reaction to pigeon blood, feathers and droppings. The onset of illness is usually slow—anywhere from three to 30 days. Acute symptoms are fever, chest pain and chills, and chronic symptoms are shortness of breath, cough and weight loss.

## INSTRUMENTATION

### New Monitoring System

A new device for measuring the pulse and breathing rate of an astronaut or hospital patient without attaching sensors to the body is showing marked promise at the Convair Division of General Dynamics, San Diego, Calif.

Dr. William A. Shafer demonstrated the Field Effect Monitor at the April meeting of the Aerospace Medical Association's meeting in Washington, D.C.

The instrumentation consists of a sensing antenna, amplifier and filter systems, with paper or tape recorders or an oscilloscope. The antenna is simply placed under a hospital mattress or the cushion of an astronaut's couch with the resulting signals monitored on a scope or recording device.

Dr. Shafer, who has been developing, testing and refining the instrumentation over the past two-and-a-half years, said, "This is an entirely new method of obtaining cardiovascular and cardiorespiratory information, not simply a modification of an older method."

## PUBLIC HEALTH

### Motorcycles Aid Smallpox Drive

Following commitments by America and Russia to the World Health Organization's new 10-year smallpox eradication drive, Japan has chosen her special contribution—motorcycles.

One hundred Hondas will go to teams in West Pakistan, India, Indonesia, Zambia, Congo, Sudan, Afghanistan, Burma and Nepal, and 20 Suzukis will go to East Pakistan and Kenya.

America's top Government doctors and the Agency for International Development have pledged to 19 West African nations vaccine supplies and jet vaccinator guns at a cost of almost \$40 million.

The Soviets have donated almost one billion doses of freeze-dried vaccine, mostly to India.

## INSTRUMENTATION

### Japan Develops Stomach Camera

An image orthicon sequential system camera, capable of exploring, recording and broadcasting events in the stomach's interior has been installed at the Prefectural Adult Disease Center in Osaka, Japan. Said to be the world's first, the color television system is the latest in a series of Japan-perfected endoscopes, fiberscopes and gastro-cameras.

The system consists of a camera-equipped bundle of glass fibers working as a two-channel fiberscope inserted into the stomach, and a xenon lamp to illuminate the interior with a cool but strong light.

Connected, too, is a tube that flushes water into the stomach sloughing off potential cancer cells. Pumped out, these can later be placed on a smear for study after centrifugal spinning. This is judged superior to biopsy, which could cause damage and internal bleeding deep in the stomach wall.

A high-precision field sequential system color TV receiving set is then connected to the tiny camera, itself attached to the fiberscope tip. This not only photographs the stomach in constant motion, but enables visual studies by physicians, production of video tape or color motion picture prints, and live TV transmission.

By satellite, the TV picture can be shown outside Japan where other specialists can participate in study and diagnosis.

Japanese have concentrated on the stomach because of the high, often fatal, incidence of gastric cancer here. But they predict development of laparoscopes, esophagoscopes, cystoscopes, and sigmoidoscopes, too.

## CRYOGENICS

### Freezing Stops Severe Nosebleed

Intranasal freezing, using a small balloon filled with an alcoholic coolant from a hypothermia machine, is reported highly successful in the emergency control of severe nosebleed that does not respond to conventional methods.

Of 21 patients who underwent the treatment by two physicians in the department of otolaryngology, University of Pittsburgh, all but one had immediate cessation of bleeding.

Drs. Charles C. Bluestone and Harry C. Smith report their findings in the April issue of the ARCHIVES OF OTOLARYNGOLOGY.