

## PUBLIC HEALTH

# TB After Ulcer Surgery

There is a need for continuous measures to control tuberculosis which should be made available to all regardless of ability to pay or legal residence—By Faye Marley

► **STOMACH SURGERY**, called gastrectomy, as a treatment for ulcers can trigger tuberculosis of the lungs from four to seven years later.

Frequent examinations and preventive treatment with the drug isoniazid were advised following gastrectomy by three Italian physicians at the National Tuberculosis Association meeting in New York.

Dr. A. Omodei Zorini, who is directing a large preventive drug program now under way in Italy, said the severest cases of TB had been seen soon after surgery. Most cases are spread by the blood. The average time between gastrectomy and the aggravation of latent but previously existing TB of the lungs is five to seven years. In persons who never before had TB, the tuberculosis condition appears, on the average, four to six years after surgery.

Drs. B. Mariani and V. Romeo collaborated with Dr. Zorini in his report, which covered a study of 102 cases, compared with 248 cases of stomach ulcer not treated by surgery. Without surgery, 2.4% of the patients developed TB, while 8.6% contracted it after surgery.

New active cases among boys and girls under 15 years of age were stressed in highlights of the report of the Task Force on Tuberculosis to Surgeon General Luther L. Terry of the U.S. Public Health Service given by two members of the House of Representatives.

An increase of 800 active cases among this age group occurred in the ten years from 1953 through 1962, and from 1961 to 1962 alone there was a 23.5% increase.

Although about 60% of TB patients in the United States are being treated by drugs at home, intensive clinic supervision is needed for 64,000 of these nonhospitalized patients.

Rep. John E. Fogarty (D-R. I.), chairman of the House Subcommittee on Appropriations for the Departments of Labor and Health, Education and Welfare, with Rep. Melvin R. Laird (R-Wis.), a member of the committee, cited these facts.

The Task Force recommended that less than \$21 million a year be added to what was spent last year by state and local governments, TB associations and in Federal TB grants to states.

Other recommendations included in the Task Force report were emphasized by Dr. John D. Porterfield of the University of California, Berkeley, who headed the Surgeon General's committee.

Services necessary for TB control should be available to all without regard for ability to pay or legal residence of the patient, Dr. Porterfield said. Automatic data processing should be developed to handle a "pur-

poseful campaign against a complex and chronic disease."

The present research programs of the Public Health Service should be expanded so the remaining pockets of TB can be discovered and cleaned out, Dr. Porterfield advised.

The present 63,400 cases and relapses in the U.S. each year can be reduced in ten years to a level of 22,000 if the Task Force report is followed, Dr. Porterfield predicted. Otherwise we can still expect 50,000 TB cases and relapses ten years from now.

At least 15 million people suffer from infectious tuberculosis in the world today, with three million lives lost, the World Health Organization estimates as minimum figures.

Up to 70% of the world's children may be infected before they reach the age of 14.

• Science News Letter, 85:357 June 6, 1964

## TB Spread by Singer

► **TWELVE BOYS** in a Negro industrial school in Little Rock, Ark., whose initial tuberculin tests were negative, developed tuberculosis after singing in the school choir with a boy who had a cavity in his lung from TB.

Airborne droplet cells, believed to spread

tuberculosis, could easily be carried through the air by singing, three Little Rock investigators told the meeting of the National Tuberculosis Association.

Two cases of cavitary tuberculosis of the lung developed in the school, which has an enrollment of 153, and repeated skin tests were made to find out which contacts might have been infected.

Routine tuberculin tests and chest X-rays had been made when the boys first enrolled, so these second skin tests could easily detect the newly infected pupils. Twenty-five boys, including the 12 choir singers, became tuberculin positive, although they had originally tested negative.

Dr. Joseph H. Bates of the Little Rock Veterans Administration Hospital, Dr. William E. Potts of the University of Arkansas School of Medicine and Margaret Lewis, public health nurse, cooperated in the study.

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## MEDICINE

### Many TB Patients Now Treated at Home

► **THE DRUGS** now used for tuberculosis patients make it possible for about 60% of them to be treated at home.

Even those who are hospitalized in the early infectious stages of TB often return home or to their jobs in a few months, continuing to take drugs until they have fully recovered. They are not allowed to go among healthy persons, of course, while the tubercle bacilli organisms are found in their sputum.

If a patient is careful in his habits, he may not be hospitalized even at first, Mrs. Shirley H. Ferebee, associate chief, research section, tuberculosis program, U.S. Public Health Service, told SCIENCE SERVICE.

Isoniazid, which costs only one cent a day for adult dosage, is given by mouth not only to the infected person, but to members of his family as a preventive for as long as a year. The home patient in the United States will also be given PAS, initials for para-amino-salicylic acid, in powder form in fruit juice before meals for perhaps 18 months.

Hospital patients are often given streptomycin with Pyrazinamid (PZA for short), a combination not usually given at home because it may cause jaundice and requires watching by physicians.

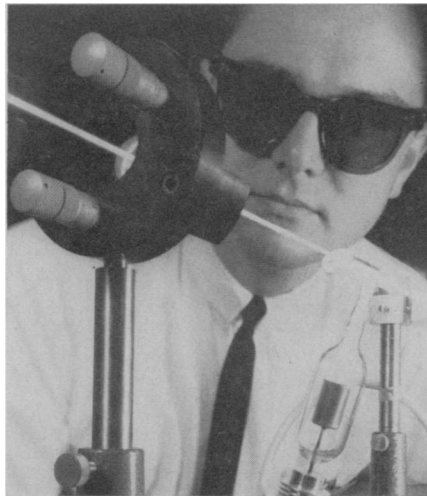
A comparison of drug treatment at home and in a sanatorium at the Tuberculosis Chemotherapy Center in Madras, India, showed no material benefit from a year in a sanatorium.

When given drug treatment for tuberculosis, patients living in crowded conditions in their homes, with very poor diet, who often had to return to work soon after the start of treatment, turned out as well as those with good nursing, food and bed rest.

No more tuberculosis arose in the families of the patients treated at home while living together than among family members separated from TB patients in the sanatorium.

The search continues for a better companion drug than PAS to be given with isoniazid.

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Hughes Aircraft

**LASER IN COLOR**—The slim beam of light shooting from the end of a gas laser (glass tube at right) now comes in more than 60 additional colors due to research by Hughes Aircraft Company, Malibu, Calif. The colors emitted by the lasers range from red to violet, the entire visible portion of the spectrum.