MEDICINE

Streptomycin Still Good

First drug of real value in beating down tuberculosis still "by far the most effective." Best treatment is when given with synthetic chemical, PAS.

➤ STREPTOMYCIN, the first drug found of real value in treating tuberculosis, is still "by far the most effective" of all drugs developed and tried in recent years, Dr. Henry Welch of the U. S. Food and Drug Administration declared at the meeting of the National Tuberculosis Association in Cincinnati.

This drug from a soil fungus is even more effective when given with the synthetic chemical, para-aminosalicylic acid, known as PAS for short, he emphasized.

Tibione, or TB-1, another synthetic chemical, has a "limited beneficial effect," he said, and other antibiotics, neomycin, aureomycin, mycomycin, terramycin and viomycin, have been studied and shown to have some influence on the disease.

Once streptomycin with PAS treatment is started, it should be kept up for a long time, until definite results are attained, Dr. Nicholas D. D'Esopo of the Veterans Administration Hospital at Sunmount, N. Y., stressed.

When doctors first started using streptomycin to treat tuberculosis, they generally limited the treatment to four months. Much better results are obtained when the combined streptomycin-PAS treatment is continued far beyond that length of time, Dr. D'Esopo said.

A group of 100 patients at Sunmount has been getting the combined treatment since 1949 for periods ranging from four months to two years. The tuberculosis germs have not become resistant to the drugs and the patients have not shown any harmful effects from this long term treatment.

Dihydrostreptomycin, however, caused appreciable hearing loss when used for more than four months. Use of this drug has now been abandoned at the Sunmount institution.

Combining streptomycin-PAS treatment with collapse and surgical procedures is "the keystone of successful treatment," Dr. Kirby S. Howlett, Jr., of Laurel Heights Sanatorium, Shelton, Conn., said. He warned against prolonging even streptomycin-PAS treatment unduly before proceeding with collapse or surgical measures in certain types of the disease.

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BOTANY

Transfusions Save Plants

➤ SUGAR SOLUTIONS may serve the same purpose for plants as blood plasma for human beings.

Paul G. Smith of the University of California truck crops division, Davis, Calif., has used sugar sprays to restore energy to tomato plants that were depleted of carbohydrates and has reduced their post-planting mortality by approximately 50%.

Pulling and transplanting cause severe shock, from which weak young plants recover very slowly or not at all. Economically this usually means delayed growth and additional cost for replanting.

The experiments of the University of California scientist were conducted with tomato plants, some of which were shipped to the hot Imperial Valley for transplanting. Tomatoes grown in this area for winter market must attain a good stand by early September while air temperatures are still high and the humidity is low.

Through the sugar treatment, combined with night planting, Mr. Smith secured early and consistent stands.

The sugar solutions have now been tested in field plantings for two seasons. Their use may make it possible greatly to reduce mortality if plants must be held several days at high temperature or must be planted during hot weather.

Indications are that this method will also be effective on other plants such as peppers and some ornamentals.

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PUBLIC HEALTH

Tempting Water May Actually Be Polluted

➤ THE FIRST hot days of early summer tempt many children homeward bound from school to dive into the nearest stream or swimming hole. Grown-ups, too, on early season drives into the country, may be tempted to a swim or a drink at a wayside stream.

They should remember, however, and warn the children, that typhoid fever and other dangers may lurk in the streams. This is especially true of those in or on the edges of towns and cities which use the streams for industrial wastes and sewage.

You cannot always tell by looking at it whether or not water is polluted. Polluted water can look safe, smell safe and taste delicious and yet be as dangerous as a drink of poison. Just because the water bubbles from a spring or runs in a fairly swift current down the stream does not mean that it is safe, either for drinking or for swimming.

Many health departments, both city and state, regularly inspect and test the water from springs, streams, pools and lakes. If they find the water safe, a sign saying so is usually posted. In some communities, such as Baltimore, signs warning that water is not safe for drinking or swimming are also posted. If the spring, pool or stream has no sign to show the quality of its water, play safe and avoid it. Try to find a supervised, inspected and health department approved pool for the children to swim in.

If you live on a farm or in a small town and have your own well or cistern, you should have it inspected from time to time by the health department. Even if your home water supply has always been safe, there is always the danger of the well walls cracking and allowing polluted water, perhaps from the privy, to seep in. The walls of a cistern should be inspected every time the cistern is cleaned.

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INVENTION

Street Equipment Tells Radio Programs Tuned in Vicinity

➤ RADIO RECEIVING and measuring equipment, on which the government issued a patent, can tell, when mounted on a truck at a city street corner, which radio programs are being picked up by the various home receivers in the vicinity.

The invention is for use in so-called radio surveys, for the benefit of advertisers, to determine the size of the listening audience to any particular program. Wide usage of this device would eliminate troublesome surveys now being made by telephone calls, and eliminate the recording devices now used on some receivers which must be examined occasionally by inspectors.

Modern radio receivers are today largely of the superheterodyne type. By that it is meant that the frequency of the radio wave received is changed to a new frequency inside the receiver.

In doing this, it is combined with the output of an adjustable local oscillator in the instrument. The result is an output of unmodulated signals which is dependent on the frequency of the station being received. It is the resulting frequencies, picked up by the street instrument, that betray the broadcast station being received.

Patent 2,552,585 was awarded to Henry A. Rahmel, Evanston, Ill., the inventor. Rights have been assigned to A. C. Nielsen Company, Chicago.

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