MEDICINE

Future Medical Cures

Physicians at American Medical Association meeting suggest life-saving treatments, now being used experimentally, for patients of the future.

➤ GLIMPSES OF future healing and life-saving treatments were seen at the meeting of the American Medical Association in San Francisco. These may be the cures for tomorrow's or next year's patients, though they are now in the experimental and planning stages.

These future aids range from new chemicals in the war on cancer to a new way of getting a pea or button out of the lungs of a small child.

For the war on cancer, chemists have developed and doctors are trying the following: Desoxypyridoxine which is made from vitamin B-6; a British drug called GT 41, or Myleran; a Swiss drug called Demecolcin; and a new U. S. chemical, Thio-Tepa, made by chemists at Lederle Laboratories, Pearl River, N. Y. It is related to the nitrogen mustards which doctors have for some years been using to stave off death temporarily in leukemia patients.

Looking for a better anti-cancer chemical, the Lederle scientists first made Tepa, which showed some promise, and then substituted a sulfur molecule for an oxygen molecule and came up with Thio-Tepa.

This very new compound is showing promise in trials in chronic myelogenous leukemia and also in breast cancer.

Thio-Tepa may also save patients from cancer that has spread to other parts of the body after the original growth in breast or uterus or other organ has been removed.

In such cases, surgeons will put the new chemical into the place from which they have removed the cancer. Because Thio-Tepa, unlike some anti-cancer chemicals, can be applied locally it may be used this way to destroy any cancer cells that might break off and stay in the body when the main cancer is being removed. Such stray lost cancer cells are believed to be a source of recurring cancer or spreading cancer after removal of the original growth.

These new chemical weapons against cancer are still on trial and have not yet effected any cures. However, they show that chemical treatment of cancer is valuable and they give promise that still more effective ones will be developed. The new and old and future chemicals for cancer treatment were described by Drs. Jerome J. Oleson and James H. Williams of Lederle Laboratories.

A mechanical coughing device, developed originally to aid polio patients and others who cannot cough up mucus that collects in and plugs the bronchial tubes in the lungs, may in future be used to save babies and older children or grown-ups who accidentally inhale buttons, pins, peas and so on.

At present, the bronchoscope is used for such cases. This long tube with light and mirror arrangement is put down the throat into the lungs, and with instruments put through it the surgeon can often remove the inhaled object. Wonderful as the bronchoscope is, however, it does not reach all parts of the tubes into and through the lungs, particularly those that go off at angles from the main stem. In such cases, an operation must be performed to get the foreign object.

The mechanical cougher, which operates like two vacuum cleaners alternately blowing air into the lungs and sucking it out, is expected to help here. In animals it has already proved capable of freeing and sucking out foreign objects in the lungs. The doctors who developed the machine are ready now to try it on a human patient.

Reporting this and other uses of the mechanical cougher were Drs. Alvan L. Barach, Hylan A. Bickerman, Gustav J. Beck, Edward K. Williams, Louis A. Scarrone and William H. Smith of the College of Physicians and Surgeons, Columbia University, New York.

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• RADIO

Saturday, July 10, 1954, 3:15-3:30 p.m. EDT

"Adventures in Science" with Watson Davis, director of Science Service, over the CBS Radio Network. Check your local CBS station.

Theodore H. Davis, forester, American Forest Products Industries, will discuss "Tree Farming."

ENGINEERING

Electronic "Brain" for New York Power System

➤ AN ELECTRONIC "brain" is concentrating its vacuum tubes upon the changing demand for electric power in New York City so that electric service will always be what the customer pays for.

The computer compares the actual loads at generating plants with the pre-set loading schedules, the American Institute of Electrical Engineers' meeting in Los Angeles was told.

It takes into "consideration" short-time demands that come and go continuously. It increases power generation as the sustained load goes up, and it does this economically.

The electronic watchman simplifies the load-control job of the system operator, reported H. A. Bauman, C. N. Metcalf and J. G. Noest, all of Consolidated Edison Co., and J. B. Carolus of Leeds & Northrup, Philadelphia.

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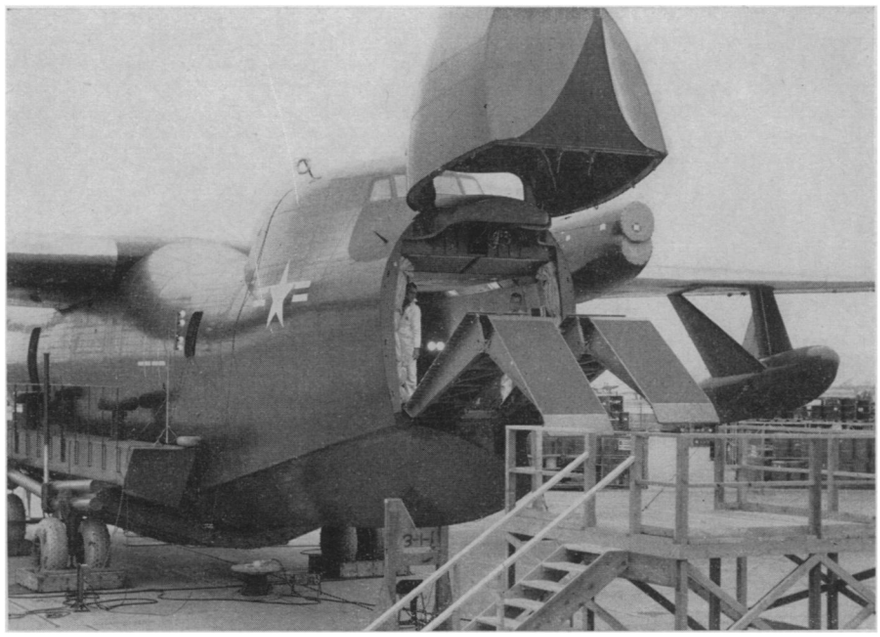

FLYING LST—A water-based plane that can land guns, trucks, supplies or troops directly onto a beachhead, as did the water-bound landing craft of World War II, but much faster, is now in production. The four-engined turboprop transport, R3Y-1, is shown here with its bow door opening prior to loading. The plane, which can load 24 tons, has a flying range of more than 2,000 miles.