

## MEDICINE

# Acute Leukemia Control

Now that six drugs are known to hold leukemia in check, researchers are seeking a combination of two or more of five of them for a complete cure—By Faye Marley

► SUFFERERS dangerously ill from usually fatal leukemia can be given new leases on life by six drugs, medical research by a task force of the National Cancer Institute has discovered.

This cancer-like disease of blood-forming organs, causing unruly white blood corpuscles, can be held in check by the drugs as demonstrated by tests on human patients.

The next step will be to try to find out whether combinations of the promising chemicals will give better results.

Complete control of leukemia, using two or more drugs, is one aim of the clinical research.

Three combinations of five drugs that have been successful in causing temporary complete remission of leukemia symptoms are being tested. These five drugs are Vincristine, methotrexate, 6-mercaptopurine, cyclophosphamide (Cytosin) and prednisone. The sixth drug is methyl GAG for adults. The other five are for children.

Since a combination of drugs cures TB victims, scientists reasoned that a combination might do the same for leukemia patients.

Dr. C. Gordon Zubrod of the National Cancer Institute, Bethesda, Md., told the 70th annual meeting of the Association of Military Surgeons in Washington, D. C., that "we may be impressed by the dangers of too early use of drugs in man, but there is really a greater danger of a failing to use what we have."

Penicillin was put into human use by the military demands of World War II, Dr. Zubrod pointed out, but this was 13 years after its discovery. Plasmoquin to treat malaria was also put into use in World War II—17 years after its discovery.

"It should not be necessary," Dr. Zubrod said, "for us to wait for an emergency to take action on our most pressing health problems."

As chairman of the Acute Leukemia Task Force, a group of Federal and nongovernment scientists cooperating in leukemia control, Dr. Zubrod outlined some of the problems being solved by the group.

Drug toxicity has not always been comparable in animals and humans, for example. The Task Force found that animal studies, however, had been done under circumstances entirely different from those in the clinic. When conditions were made exactly comparable, and when the total dose of drugs was calculated on the basis of surface area rather than body weight, the correlations were quite good.

Control of hemorrhage is another type of control under study with some success. Arrangements are being made for platelet transfusing units in hospitals in Houston, Boston, Philadelphia and Los Angeles, in

addition to Bethesda. Red Cross blood collection centers also are working toward 1,000 units a week.

Infection is another common cause of death in patients with acute leukemia. With the success of platelet transfusion in mind, replacement of granulocytes (mature granular leukocytes, or white blood cells) was studied. Normal donors could not be used, but by using donors with chronic granulocytic leukemia, large numbers of cells could be obtained. Use of these granulocytes plus anti-pseudomonas chemotherapy has now cured three-fifths of patients with Pseudomonas septicemia, all of whom would otherwise have died.

The outlook for acute leukemia control by drugs is promising, Dr. Zubrod believes. Possible cure of widespread cancer such as occurs not only in leukemia, but in the lymphomas, or lymph node cancers, and spreading carcinomas, cancers originating in the epithelial or lining tissue, is being sought.

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Harvard University

**ANCIENT HORSEMAN**—This bearded horseman in checkered garment painted in brilliant colors on terracotta was found by the Harvard-Cornell expedition in Sardis, Turkey. The figure, one and a half feet high, may have been part of a Lydian vase or pottery vessel. It dates from the time of King Croesus, 6th century B.C.

## MEDICINE

## Coronary Candidates Spotted by Tests

► MEN WHO are likely to have heart attacks can be spotted through tests of high copper levels in their blood long before an attack actually occurs.

The advantage in knowing that a person is "coronary-prone" is that preventive steps can be taken, Dr. Denham Harman, University of Nebraska School of Medicine, Omaha, reported at the American Heart Association's Council on Arteriosclerosis meeting in Los Angeles.

Significantly higher copper concentrations were found in the blood levels of 30 men aged 35 to 55 who had a history of at least one heart attack than in the blood of 95 others in the same age bracket who were judged free of heart disease.

A possible explanation lies in the fact that excess copper speeds the development of atherosclerosis, a form of hardening of the arteries marked by accumulation of fatty deposits in the artery linings.

Above-normal blood levels of copper, Dr. Harman said, may also help explain recent observations that the death rate from heart disease appears to increase with the "softness" of a population's drinking water, since soft water contains high copper levels.

Reducing high copper levels in the blood through dietary or chemical means might be of value in preventing heart attacks or strokes, Dr. Harman suggested.

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## PUBLIC HEALTH

## Addicts to Get Drugs Legally in New Plan

► A SELECT NUMBER of narcotics addicts will soon be walking East and West Coast streets with drugs given them legally and with no police interference.

It is all part of a new treatment plan to help addicts get off and stay off drugs. The addicts will receive drugs in smaller and smaller amounts while they are working with psychiatrists and vocational experts.

The National Association for the Prevention of Addiction to Narcotics (NAPAN) will sponsor the ambulatory treatment projects, Frank D. O'Connor, district attorney of Queens County, New York, and newly appointed national campaign chairman of NAPAN, told a news conference in New York.

The projects will be run in cooperation with law enforcement officers and medical officials. "There is no intention whatsoever," Mr. O'Connor said, "of opening up a chain of clinics where narcotics would be freely dispensed."

Ambulatory treatment of narcotics addicts was until recently considered unethical and unsound by organized medicine. However, the American Medical Association and the New York County Medical Society have adopted resolutions permitting outpatient treatment of addicts if all is done according to medical ethics.

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