

MEDICINE

More Insurance For Cancer Patients

➤ MORE CANCER PATIENTS are seeking life insurance and more are going to get it than in former years, it appears from a report of Dr. Eugene V. Higgins, medical director of the North American Reassurance Company, New York, at the meeting of the Association of Life Insurance Medical Directors of America in New Orleans.

Anyone with cancer or a history of having had cancer was automatically rejected for life insurance 40 years ago.

"We have progressed considerably from that iron curtain position," Dr. Higgins said.

Today medical examiners can and should, he said, consider the kind and location of the applicant's cancer, how it was treated and what the prognosis is for a particular kind of cancer.

A more hopeful prognosis is justified, he said, in cancer of the colon, rectum, prostate and uterus. Cancers of the lung, stomach, esophagus, ovary and soft tissues continue to present a more discouraging picture. These are conclusions from the Cancer in Connecticut study, the kind of study that gives insurance medical examiners the type of information they need.

Other information must be obtained from the applicant's physician. A favorable factor is the applicant's concern to keep in follow-up touch with his physician.

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PUBLIC HEALTH

Chemical Fallout Causes Air Pollution

➤ THE FALLOUT of chemicals thrown into the atmosphere by industrial plants, home furnaces, automobiles and other sources must be controlled.

The sooner growing communities take measures to limit air pollution, the less chance there is of such smog-caused disasters as those in Donora, Pa., in 1948, and in London in 1952.

Each year air pollution kills a large number of people, Dr. F. N. Frenkiel of the Applied Physics Laboratory, Silver Spring, Md., told a symposium on cleaner air for urban areas at the Franklin Institute, Philadelphia.

For the last two years, including September, Dr. Frenkiel said, "the concentration of ozone during smoggy days in the streets of Los Angeles County was often larger than the safe concentration levels recommended for the health of adult workmen in the factories."

Periodic outbursts of smog have also been reported in New York, Pittsburgh, Cincinnati and Detroit, he noted. Dr. Frenkiel predicted such outbursts would become more and more frequent, and more damaging, unless appropriate steps are taken to control or limit atmospheric pollution.

Mathematical methods, he reported, can

be used to calculate probable pollution patterns and the relative contributions of each pollution source to the concentration at each location. They can also be used to determine the possible effects of control methods.

Los Angeles is a "case history of carelessness in guarding one of its finest assets—fresh air," Dr. A. J. Haagen-Smit charged. The California Institute of Technology biochemistry professor was the first to show that ozone, important in smog formation, can be made by photochemical reactions involving organic compounds and nitrogen dioxide.

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GEOPHYSICS

Data From Satellites Sent by Two Methods

➤ THE EARTH SATELLITES to be sent whizzing around the world during the International Geophysical Year will send the information they gather back to earth by two methods, Dr. John P. Hagen of the Naval Research Laboratory has reported.

The director of Project Vanguard, name given to the satellite program, told a meeting of the Philosophical Society of Washington that some vehicles will telemeter back information continuously, others will do so only on command. Frequency for the transmissions has been set at 108 megacycles.

The messages will be sent by a continuous tone broken up in pulses, the information being conveyed by changes in the pitch, the length of the pulses and the separation between the pulses. These three variables will give 18 channels, Dr. Hagen said.

Choice between continuous and demand telemetering will depend on the kind of experiments contained in the particular satellite. Some experiments will require making measurements all the time, others will not. Definite decision concerning instruments for each satellite will not be made for several months.

Certain to be included, probably in the first trial, Dr. Hagen said, would be measurements of air density at altitudes of 200 to 1,500 miles above the earth's surface, where the satellite is expected to circle.

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PUBLIC HEALTH

VA Hospital Volunteers Safe From TB Danger

➤ VETERANS ADMINISTRATION hospitals are a safe place for volunteers to work, so far as danger of getting tuberculosis goes.

Although tuberculosis afflicts about one out of every 1,000 persons in the general population, a survey of VA hospitals and other installations showed not one of 11,375 volunteer workers developed the disease after coming on duty.

The survey, covering the period from July 1, 1955, to June 30, 1956, is reported by Dr. Leo V. Schneider, chief of VA Tuberculosis Control.

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IN SCIEN

MEDICINE

See Help for Hangovers In One Relaxing Drug

➤ SUCH HANGOVER SYMPTOMS as sleeplessness, the shakes, anxiety and depression are lessened and the time for recovery from intoxication is shortened by treatment with one of the relaxing drugs, meproamate, Dr. Leon A. Greenberg of Yale University reported at a conference on the drug held at the New York Academy of Sciences.

The drug is sold under the trade names Equanil and Miltown.

Trials on 167 alcoholics showed it "clearly an effective drug" for the less severely disturbed who did not need to be put in a hospital. For the acute patients who had to be sent to a hospital, the drug was useful as an addition to other treatment.

For patients who are worried, anxious and tense after an operation, the drug is effective in helping the patients relax, get a good night's sleep and be willing to get out of bed soon after the operation, Dr. Timothy A. Lamphier of Boston reported.

It was effective as replacement for barbiturates in patients who had been addicted to these for a night's sleep.

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PUBLIC HEALTH

Immunity to 600 From Polio Pills

➤ SOME 600 PERSONS have had "full immunity" to polio for the past five years as a result of taking pills of attenuated, or weakened, but living polio virus.

These results were announced in a "progress report" by Drs. Herald R. Cox and Hilary Koprowski of Lederle Laboratories, Pearl River, N. Y., where the vaccine pills are made.

Included in those protected are persons of all ages from five days to 50 years.

Although the virus they swallowed in pills or in juice or milk was alive, it was so weakened it did not cause any paralytic disease in any of the 600. It had been weakened by passing for several generations through mice, chick embryos and monkey kidney tissue.

This virus vaccine is taken in three doses, one for each strain of polio virus. The vaccine is, of course, not the same as the Salk polio vaccine, which is made from killed polio virus, nor is it the same as the attenuated but live virus developed and being tested by Dr. Albert B. Sabin of Cincinnati.

The Cox-Koprowski polio vaccine was tested in humans by Dr. Joseph Stokes Jr. of Philadelphia and Dr. Karl Meyer of San Francisco.

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CE FIELDS

ARCHAEOLOGY

Debris of Party Found In King Nestor's Palace

► EVIDENCE of a big party has been found by University of Cincinnati archaeologists in the great King Nestor's 31-century-old palace near Pylos, Greece.

In one room, the scientists uncovered 2,853 broken drinking cups. It was probably the custom on such occasions, the University scientists surmise, to drain the cup and then to shatter it by hurling it to the floor. King Nestor, they also deduce, was a practical man: the cups were simply and cheaply made for just that purpose. The number was found by counting stems.

In other parts of the luxurious palace were found such "modern" improvements as terracotta chimney-pipes to carry off the smoke from the hearth fires and a drain system to carry off the water from baths and possibly a toilet.

A tremendous collection of at least 8,000 pieces of household dishes and crockery presumably belonged to King Nestor's wife, Eurydice.

Eurydice also had very luxurious quarters in the palace, including a boudoir covered with frescoes and with an elaborately ornamented floor.

The University of Cincinnati expedition was led by Dr. Carl W. Blegen, head of the classics department.

King Nestor's palace was a magnificent building of nearly 100 rooms, of which some 46 separate halls, apartments, chambers, passages, stairways and courts have been excavated.

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TECHNOLOGY

Electronic "Seeing" Aid Invented by Blind Person

► FIFTY BLIND PEOPLE will be testing shortly a new aid for those who cannot see, created by a blind inventor. It is an "audible vision probe" that electronically will help them locate the position of lighted objects.

The new "eye" for the blind is the size of a large fountain pen and its electronic circuit "sees" light. Greater light intensity gives a change in pitch in an earphone.

Invented by Dr. Clifford M. Witcher, himself blind from birth, who died Oct. 6 at the age of 42, it was produced by the Dunn Engineering Associates, Cambridge, Mass., for the American Foundation for the Blind in New York. Dr. Witcher lived to see his instrument produced.

Despite his lack of sight, Dr. Witcher

received a Ph.D. from Columbia University and was a Bell Telephone Laboratories research physicist. Since 1946, he worked on sensory aids to the blind at the Haskins Laboratories, the American Foundation and M.I.T.

The new instrument is an elementary electronic eye that converts lights to sound to help blind people locate distant sources of light, such as windows and doors, lighted pointers on electrical apparatus and other contrasts of light and shade.

With the device, a blind secretary can find the letterhead on a sheet of stationery, a blind telephone operator can spot the lights of an incoming call on her switchboard, and a scientist can read especially equipped instruments.

The American Foundation for the Blind will issue the first lot of the instruments on loan in order to evaluate and perfect the probe.

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TECHNOLOGY

Radar Antenna Is Balloon Shaped Like Lollipop

► A GIANT BALLOON shaped like a lollipop is the latest radar antenna, constructed of fiberglass cloth, towering 30 feet high, and weighing only 1,690 pounds compared with 10,000 pounds of the equivalent metal antenna.

Developed for the Air Force, it won for Coleman J. Miller, an engineer for Westinghouse Electric Corporation, Pittsburgh, a \$5,000 patent award.

It can be erected or dismantled in minutes for fast moving to a new location.

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SURGERY

Pain-Killer Protects Heart From Jitters

► PAIN-KILLER put directly into the heart will protect that organ from a deadly jittering state during frozen sleep anesthesia.

The technique has been developed by Dr. Leo R. Radigan of the National Heart Institute, Bethesda, Md., and in parallel research by Dr. Angelo Riberi at Indiana University, Bloomington, Ind.

More than 40 patients have already benefited from the new technique.

The jittering state is called ventricular fibrillation. When it develops, individual heart muscle fibers act independently instead of all together. As a result the heart cannot pump blood effectively. This may happen when patients are refrigerated, or chilled in an ice bath, to reduce their need for oxygen during heart operations. The chilling procedure, known as hypothermia, is done after the patient has been put under an anesthetic.

The pain-killer used by Drs. Radigan and Riberi to prevent fibrillation at such a time is novocain, familiar as the pain-killer the dentist uses.

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PEDIATRICS

Mountain Babies Born Lightweight

► THE MEDICAL MYSTERY of the mountain-born babies of Leadville, Colo., was related to the Western Society for Pediatric Research meeting in Salt Lake City by Drs. R. C. Howard, J. A. Lichty and P. D. Bruns of the University of Colorado Medical School.

The mystery concerns why so many Leadville babies are technically premature, that is, weighing five and one-half pounds or less at birth. The number is three times greater in Leadville than in the rest of the country.

The babies are not abnormal, only half to three-quarters of a pound lighter in weight when born. Racial origin, mother's diet, water supply, and social and economic factors have been ruled out as solutions to the mystery.

Leadville's altitude, 10,000 feet, was thought to be the explanation, but latest investigations, financed by Playtex Park Research Institute, show the amount of oxygen in the blood and the number of red blood cells in Leadville babies are not significantly different than in babies born in Denver, at an altitude of 5,000 feet.

The medical mystery is still unsolved.

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SURGERY

Create Skulls From Body's Own Ribs

► CREATING NEW SKULLS, or large parts of them, from rib bones is being done by plastic surgeons in Cincinnati. Two of them, Drs. Jacob J. Longacre and G. A. deStefano of Christ and Children's Hospitals, reported the method at the American Society of Plastic and Reconstructive Surgery meeting in Miami Beach, Fla.

One of their patients was a two-year-old boy who had almost half of his skull destroyed when a truck backed over him, grinding his head into the crushed stone of a driveway. Working with Dr. Edgar Lotspeich, Cincinnati neurosurgeon, the doctors removed four ribs from the child in four separate operations and used them to cover the skull defect.

The little boy, now almost six, is alert, developing normally and needs no protective covering for his head. The defect is covered with solid bone and the boy's ribs are normal.

The rib grafts in this and other cases form a scaffolding along which new skull bone is built, the doctors explained.

The defect in the chest wall regenerates with new rib in as little as 34 days.

Because the amount of bone available from the ribs is almost unlimited, the Cincinnati doctors recommend looking on the ribs of the chest cage as "a bone bank within each human body."

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