

MEDICINE

Need More Heart Study

► UNITED NATIONS AMBASSADOR Adlai E. Stevenson's collapse and death July 14 emphasizes the significance of President Johnson's national program to conquer heart disease, cancer and stroke.

Two bills—one of them on authorization of the U.S. Public Health Service to implement the program, which passed the Senate by voice vote, and another still in the House Appropriations Committee but expected to be voted upon in a few weeks—will give a start to the new national effort to cut down on the three killer diseases. The House committee is considering \$44,120,000 as a start.

Diseases of the heart and circulatory system now claim nearly a million lives each year.

World leaders such as Winston Churchill and Ambassador Stevenson seem to be especially good targets for heart disease and stroke, but heart specialists deny that their responsible positions increase the likelihood.

Researchers are trying to find the cause and prevention as well as the best treatment for the cardiovascular diseases.

If a person has certain types of right heart failure with pulmonary complications, carrying oxygen for inhalation could help.

If a person is one of the 2 out of 10 stroke victims who cannot survive a first massive attack, nothing can be done. But 8 of 10 stroke victims survive, although usually in a seriously disabled condition.

Application of the present knowledge of prevention and treatment of these diseases

in the regional centers proposed as a nationwide network is receiving widespread opposition from organized medicine. The program is "changing" the present system and might have repercussions, the American Medical Association's House of Delegates believes.

But everyone agrees that more research must be done at whatever expense to stop the increased number of deaths that are more and more including such statesmen as Adlai Stevenson.

• Science News Letter, 88:52 July 24, 1965

TECHNOLOGY

Machine Measures Lungs Then Administers Oxygen

► A PORTABLE "mask-to-mouth" respiratory machine will measure a patient's lungs, then breathe the right amount of oxygen into his lungs without any adjustment or controls.

The machine, called the Automan, can be used at the beach, in pools, factories, mines or by mobile rescue teams. It can operate in contaminated atmosphere and even underwater.

The Automan, which is made by Blase Anaesthetic Equipment Ltd., Chesham, Buckinghamshire, England, can even be used for respiration by hand if an oxygen tank is not available.

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BIOTECHNOLOGY

Laser to Relieve Cancer

► THE INTENSE LIGHT of the laser will be applied this fall to human cancer for the first time at the National Cancer Institute, Bethesda, Md., in the hope of relief, but not cure.

Dr. Alfred S. Ketchum, the Institute's chief of surgery, who will be in charge of the clinical work, told SCIENCE SERVICE he is taking this step with "suppressed enthusiasm." The treatment is still experimental.

Successful work has been done at the Institute on animals with transplanted cancer. For example, the livers of 12 rhesus monkeys healed after complete cell destruction had been caused by large bursts of laser radiation.

Although it is planned to use the laser to destroy cancer spread, or metastasis, to the liver of humans, Dr. Ketchum points out that there is rarely a primary cancer in the liver, and that relief of the liver condition can be only palliative. Liver cancer is fatal, however.

"I do not expect that the laser will become a universal form of cancer treatment in hospitals but it probably will be successful in palliation and we are going to attempt definitive cure," he said.

More enthusiastic are Drs. Leon Goldman and Paul E. McGuff of the laser laboratory, Children's Hospital, Cincinnati, Ohio.

"We have used laser radiation in the treatment of more than 70 patients here," Dr. Goldman said by telephone. "In Boston, where Dr. McGuff was previously in the surgery department of Tufts University, he treated 12 patients. Our results with melanoma, for example, have been good so far.

"We plan to use laser treatment for brain surgery in humans soon. Dr. Hubert L. Rosomoff of the University of Pittsburgh-Presbyterian Hospital has already begun such work."

Dr. Goldman said it would be five years before the experimental use of the laser on human cancer could be evaluated, however. It has been most successful on accessible areas such as the skin and in areas that could be exposed.

"We have used it successfully on burns of the face, the back and the arm where surgery cannot be used," he explained. "Birth marks in infants have responded to laser radiation and we have treated angiomas, tumors, usually benign, composed of lymph and blood vessels."

Dr. Goldman emphasized that laser treatment of cancer should be in the hands of surgeons, who are best equipped to evaluate the effects.

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Questions

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