

PUBLIC HEALTH

Vaccine for Influenza Is Now Ready for Trial Use

Whooping Cough Vaccine Not so Successful in Test; Human Guinea Pigs Aid in Research on Food Poisoning

A VACCINE that promises protection against influenza is at hand, it appears from the report of Dr. Thomas Francis, Jr., of the Rockefeller Institute to the American Public Health Association.

A group of human volunteers has been vaccinated with human influenza virus vaccine. The vaccinations "took" so far as laboratory tests show. The blood of the vaccinated persons injected into mice kept these animals from getting the disease when flu virus was given them. The tests showed that the vaccinated persons had developed a supply of flu-fighting antibodies in their blood. The big question is whether these flu-fighters will protect a vaccinated person against the disease when an influenza epidemic comes along to give him a big dose of the virus that causes influenza. Another point to be settled is how long the flu-fighting antibodies will remain in the blood.

Whooping Cough Vaccine Fails

Vaccination against whooping cough does not protect children from the disease, in the experience of three Cleveland physicians.

Cases of whooping cough occurred about as often among vaccinated children as among unvaccinated, Drs. James A. Doull, Gerald S. Shibley and Joseph E. McClelland of Western Reserve University School of Medicine reported to the American Public Health Association.

Whether or not to vaccinate against whooping cough has long been as much of a question to physicians and health officers as to parents. Apparently it continues to be an unanswered question. Recently a new method of preparing the vaccine was developed and from first reports the new vaccination appeared successful.

The Cleveland physicians gave the new type of vaccine to 500 children between six and fifteen months of age. Another 500 children of the same ages were not vaccinated. Both groups were carefully followed for over two years, each case of whooping cough in either

group being reported. Special nurses visited the homes of the children every four weeks to check up.

The number of cases of whooping cough was about the same in the two groups, the physicians reported.

The attacks were thought to be somewhat milder in the vaccinated children who got the disease, but this cannot be proved. The vaccine apparently is safe, for the only death that occurred among more than 120 children who got whooping cough was in a child who had not been vaccinated.

Auto Death Rates

Present methods of computing the death rate from automobile accidents are all wrong, in the opinion of Henry L. Porsche and Phillip Stein of the Chicago Board of Health. The number of automobiles in a city as well as the total population and the number of auto fatalities should be considered in estimating the automobile death rate.

This car-population method, they feel, gives a fairer death rate and a better method of judging the results of safety campaigns. By the old method, they explained, of computing the death rate according to the city's population, Milwaukee in 1935 had the lowest death rate of 12.2 deaths per hundred thousand population. Cleveland had more than twice as high a death rate and Los Angeles about three times as high.

But when number of automobiles are taken into the reckoning, the three cities rank about the same. Milwaukee and Cleveland each had less than one death per thousand cars. And Los Angeles just one death per thousand cars.

A large number of motor vehicles does not excuse a city for having a large number of automobile fatalities, no matter how they are reckoned, Dr. Arthur W. Hedrich of the Maryland State Health Department pointed out. Commenting on the new method of computing auto deaths, he said the chief thing to be considered is the number of lives that can be saved.

Whether the new method would help toward this end seems, in his opinion, a matter of some doubt.

Swallow Germs

Human guinea pig experiments that helped to discover the germ that causes food poisoning were reported at the meeting of the American Public Health Association.

The germ has the scientific name of *Staphylococcus aureus* and is the same one that causes boils. The germ produces a poison which causes the sickness.

This germ was first found in custard filling sponge cake by Dr. G. M. Dack of the University of Chicago. Before his discovery, scientists had believed food poisonings were caused by other kinds of germs.

Cream puffs and other custard filled cakes are not the only kinds of food that harbor this germ, Dr. Dack pointed out in his report. The germs have also been found in many common foods such as cheese, gravy, doughnuts, milk, ice cream and meat sandwiches. Because these germs are always found in the air, it is extremely difficult to keep them out of food when it is being prepared.

The germs can be killed by cooking for a short time, however. Heating for fifteen minutes at a temperature of 156 degrees Fahrenheit kills them, and Dr. Dack found that reheating cream puffs or eclairs at this temperature does not spoil the flavor or appearance of the pastry and does make them safe to eat.

Both Dr. Dack and Dr. George A. Denison of the Jefferson County, Alabama, Board of Health reported experiments in which they fed some of the suspected germs to human volunteers. Some of them drank the germs in a glass of milk. They all had typical food poisoning symptoms of cramps, nausea, vomiting and diarrhea. Some were sicker than others, depending on the amount of germs in the dose they swallowed. These experiments helped to prove that the *Staphylococcus* is the germ of food poisoning.

Housewives and retailers of foods should be sure to keep custard filled cakes, gravies and the other incriminated foods in the refrigerator, it was pointed out. Even a few hours in a warm room will give the food poisoning germs a chance to grow and produce enough of their poison to be a menace to the health of those eating the foods.

Mice Fight Rabies

Development of a special breed of mice to help fight rabies was described by Dr. Leslie T. Webster of the Rockefeller Institute for Medical Research, New York City. By selection and cross-breeding methods, he obtained a strain of mice that are highly susceptible to rabies. These mice are used to diagnose rabies in doubtful cases and to test the effectiveness of commercial anti-rabies vaccines. Pasteur treatments prevent rabies deaths if given early enough after a person has become infected with rabies. But not everyone bitten by a dog needs Pasteur treatment. The dog may not have had rabies. If there is doubt about this, the mouse test will help to decide the matter, it appears from Dr. Webster's work.

One in Five Has Chronic Ills

Chronic sicknesses like heart disease and arthritis are an important cause of disability and unemployment. Figures on such sickness have been collected on a large scale for the first time by the U. S. Public Health Service. One out of every five persons has suffered from a chronic illness for three months or longer, the Federal Health Service's principal statistician, G. St. J. Perrott, reported. His figures were obtained in a survey of a number of large cities, and give a fair idea of the extent of chronic illness all over the country. One in ten of unemployed heads of households was unable to work because of

serious disability due to chronic sickness.

Such figures show, Mr. Perrott pointed out, how an effective public health program is necessary for achieving economic security.

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SURGERY

Surgery of Abdomen Advanced by Research

NEW HOPE for better treatment and speedier recovery from severe abdominal conditions, including obstructions and peritonitis, is offered by reports being made to the American College of Surgeons.

A method of treatment of acute intestinal obstruction devised by Dr. Owen H. Wangensteen of Minneapolis, Minn., is hailed as one of the greatest contributions to surgery in recent years. It consists in using continuously a stomach tube to reduce the internal pressure in the distended abdomen. Dr. Wangensteen gave the assembled surgeons the technical details of his decompression method.

In discussion, Dr. Thomas A. Shallow of Philadelphia declared that the Wangensteen method has added to the operative safety of patients with acute intestinal obstruction and to the post-operative comfort of patients without intestinal obstructions to such a degree that it has now replaced all methods used in the past.

"While Dr. Wangensteen does not

make any claim for the cure of peritonitis by means of this method of treatment," he explained, "I am strongly of the belief that many cases of peritonitis are made exceedingly comfortable and the balance is cast in favor of a certain number of a group by the use of the decompression mechanism."

Peritonitis is the acute inflammation of the lining of the abdominal cavity.

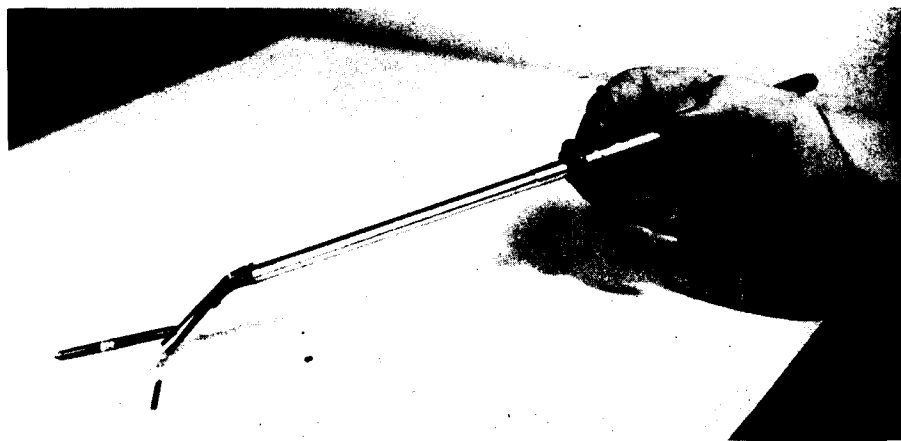
"The most serious problem which confronts the abdominal surgeon today is the distended abdomen associated with acute intestinal obstruction," Dr. Shallow continued. "Even in the hands of the most skillful surgeon or the best technician, the distended abdomen in acute intestinal obstruction is a nightmare. In the past, all of us have attempted to fight our way across the pushing coils of intestines to isolate, diagnose and release the cause of obstruction. In our effort, we produced shock and we traumatized tissue to such a degree that, even in successfully performed operations, a fatality occurred.

State of Storm

"It might be said that we entered the abdomen in the state of storm to launch our surgical ship into its depths. The introduction of the Wangensteen decompression principle has made it possible for us to enter the abdomen in a calm, to carry the individual through the storm without the danger of gangrene, rupture, or permeation of the bowel. It has made it possible for us to reach the area of obstruction under direct vision and with proper exposure, then to exercise our surgical skill and judgment in overcoming the obstructing agent. All of these surgical principles have been accomplished after due consideration of the physiologic factors and the pathologic processes which exist, so that the operative delay has not been deleterious to the patient.

"Dr. Wangensteen has clearly shown that the permeability of the intestinal wall, the rupture of the vessels and the development of gangrene all pass through stages of circulatory dysfunction. This begins with a gradual increase in pressure in the capillaries and ends when the intramural intestinal pressure exceeds that of the systolic vascular pressure. He establishes beyond question that rupture, permeability and gangrene can be prevented."

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TO HANDLE RADIUM

Scientists of the National Bureau of Standards at Washington are protected from the deadly radiation of radium and other radioactive substances by use of these new forceps for handling the tiny but dangerous and costly packets tested there. Specially designed by Dr. L. F. Curtiss, they are light weight and keep the hands as far removed from the radium as possible. Many investigators in the early days of radium's use received burns because of lack of adequate handling apparatus.

So common is diabetes, that in New York City there are said to be between 50,000 and 100,000 persons with this disease.