

MEDICINE

Live Polio Vaccine Used

Live polio vaccine has been used for millions of persons outside the U. S. Series of doses were used in Costa Rica. Test areas in the U. S. reported the vaccine effective.

MORE THAN 60,000,000 persons outside the United States have been vaccinated with live polio virus vaccine developed by Americans but not yet licensed for use in the U. S., a chief medical officer of the World Health Organization reported.

Dr. A. M.-M. Payne said the acceptance abroad was partly a matter of economics.

He reported that Americans can afford the three-shot Salk vaccine in which the viruses are not alive. But other nations have gone ahead successfully with the live vaccine (which is not unanimously accepted as being as safe as Salk's) because it is cheaper and easier to use. (It takes just one oral dose of the live vaccine to immunize.)

The USSR, Poland, East Germany, Czechoslovakia, Hungary, the Netherlands, Sweden, the United Kingdom and some Latin American nations have used the live vaccine.

Dr. Payne spoke during sessions of the Second International Conference on Live Poliovirus Vaccines held at Georgetown University, Washington, D. C. About 95 polio experts from 20 nations attended.

Dr. Joseph L. Melnick of the Baylor University College of Medicine, Houston, Tex., explained laboratory experiments on monkeys are still important in determining the live vaccine's safety.

But, he added, the ultimate test of the safety of live vaccines rests in long-term studies of its use on human beings, such as those populations already vaccinated.

The live vaccines discussed usually are administered in the form of a fruit-flavored syrup or in capsules or pills.

The conference was sponsored by the Pan American Health Organization and the World Health Organization, with the assistance of the Sister Elizabeth Kenny Foundation of Minneapolis, Minn.

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Test Shows Vaccine Safe

THE MIAMI physician who directed mass tests of a new oral polio vaccine—simpler and cheaper than the Salk vaccine—reported that no evidence of harm to individual or to community has been observed.

Dr. M. Eugene Flipse of the University of Miami said the Cox vaccine has been proved effective by a study of its experimental use on 410,000 volunteers in the Miami area.

Dr. Flipse spoke at a session of the Second International Conference on Live Poliovirus Vaccines held at Georgetown University, Washington, D. C.

He said blood tests of 2,500 persons showed the vaccine was 92.3% effective in building antibodies against the three strains of paralyzing polio.

The Cox vaccine, one of several new live vaccines for which licensing is now sought in the United States, is taken in one oral dose. It contains three types of live polio virus.

Type I virus and Type III are responsible for perhaps 90% of the world's paralytic polio.

The Cox vaccine was reported as 95% effective against Type I and 97.2% effective against Type III. It was only 78.3% effective against Type II.

Dr. Herald R. Cox of the Lederle Laboratories developed the vaccine tested. With it, more than 80% of the under-40 population of Dade County (the Miami area) have been vaccinated on a voluntary basis. The Cox vaccine has not been licensed, however, for general use for fear the harmless virus in the vaccine might go awry and become dangerous.

The Dade County study is not yet complete. Sewage samples have been collected and will be examined for the presence of polio viruses.

The meeting heard two reports on tests of live virus vaccines in Minnesota.

In one, the safety of the Cox live polio virus vaccine was asserted on the basis of tests of 165 volunteers at St. Cloud Reformatory.

The second study, also of the Cox vaccine, was made with families at the University of Minnesota. The study showed that a live-vaccinated member of a family "infects" other members of his family with immunity to polio. The immunity spreads like a disease.

The study showed the immunity did not spread much outside the family group because of less frequent contact.

Altogether, more than half a million Americans have voluntarily taken live polio virus vaccines to demonstrate their effects on families and communities.

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Series of Doses Used

A SERIES of oral doses of live polio virus vaccines appears to be more effective than one-dose vaccines in building immunity against polio, a study in Costa Rica shows.

Licensing of one-dose live virus vaccines for protection against all three paralytic types is now being sought. But Dr. Dorothy M. Horstmann of the Yale School of Medicine told the Second International Conference on Live Poliovirus Vaccines:

1. In vaccines that combine three live virus strains, one often dominates. The vaccinated person is thus not always protected against all three types of paralytic polio. (Type III strain dominates in the Cox vaccine, Type II in the Sabin.)

2. Thus, attention should be given to adjusting the amount of each type in a combination vaccine to allow for the types' varying infectiousness.

3. Until the proper combination has been worked out, the three types administered separately (perhaps with a follow-up of combination vaccine) would seem to be the most effective way to get full immunity.

With three associates, Dr. Horstmann studied vaccinated children in a village near San Jose, Costa Rica.

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Big Polio Decline Reported in Britain

THE MINISTRY of Health in Great Britain has summed up 1959 as the best year for health in a long time. Most notable was the dramatic decline in poliomyelitis.

There were 86 polio deaths in Great Britain, compared with 147 in 1958 and 246 in 1957. "How far this improved position was the result of the rising level of anti-polio vaccination it will always be impossible to estimate," says the Ministry. The Medical Research Council is, however, making a careful check on the experience of the vaccinated and the unvaccinated, which may perhaps reveal how far vaccination does provide protection.

The Ministry's statistics show that good progress was made in giving polio protection to young people. By Christmas, 74% in the most susceptible group, those aged up to 16, had received two or more polio injections.

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BULB POLISHING—The bulb of an electron tube is polished by a revolving abrasive coated with polishing rouge. This is the last step in a sealing technique, polyoptic sealing, that increases the tube's reliability. The process is being investigated at Chatham Electronics, division of Tung-Sol Electric Inc., Livingston, N. J., for the Army.