

The Safety of Polio Vaccine

I WANT to help you, a little more, if I can, with this problem of vaccination against poliomyelitis. I know you have a feeling of uncertainty about it, and why not? You were just as doubtful about diphtheria immunisation, thirty years ago. In fact, then, only about one parent in three would consent to protection against diphtheria!

The history of the Salk vaccine is brief. In 1954 Salk prepared a vaccine from strains of the three known types of polio virus, and inactivated the virus with formalin. His tests that he had killed any live virus in the vaccine proved effective enough, for 422,000 children received one or more injections of the vaccine without ill effect. In 1955 the results of this field trial were announced. As compared with the control group of 201,000 children the vaccine gave protection against paralytic poliomyelitis to the tune of 60-70 per cent effective against type I virus, and 90 per cent or more effective against types II and III.

Immediately there was a U.S.A. rush to be on the bandwagon of polio vaccination. One manufacturer failed in his safety testing, and a series of poliomyelitis cases followed the use of the manufacturer's vaccine. The United States Department of Health traced the breakdown, and prescribed more stringent testing for safety by all manufacturers. Between May and mid-November in the same year, 1955, 21 million doses of polio vaccine were released for use in the United States. At least ten million children received the vaccine in these months, with not an iota of trouble. In this large group there has been protection against paralytic polio. The unvaccinated children have had from two to more than five times more paralytic polio.

In Canada more than one million children were vaccinated against polio in 1955 with Salk vaccine without mishap. Preliminary results from four provinces in October, 1955, indicated five times more paralytic polio among the unvaccinated. Wherever the vaccine has been used there have been no untoward reactions after use. We will be using British-made vaccine and in Britain there has been the same experience as in other countries. I am assured by the British Ministry of Health that any reactions have been of a local and trivial nature, and that the vaccine has not proved upsetting in use.

The safety of the British vaccine to be used in New Zealand is as assured as is humanly possible. I personally

This is the text of a talk on health, broadcast recently from ZB, YA and YZ stations of the NZBS, by DR. H. B. TURBOTT, Deputy-Director-General of Health

have been over the laboratory where the vaccine for New Zealand was made. The manufacturers have spared no expense in making this separate laboratory for the manufacture of Salk vaccine. The doctor in charge was one of the original workers on the Salk vaccine in the Connaught Laboratories of Toronto, Canada. He is not using the Mahoney strain of type I virus that caused the trouble in U.S.A., but a modified Brunhilde strain, type I virus, that has less virulence but equivalent immunising power. The three viruses, types I to III, are grown separately, then inactivated with formalin and safety tested separately by making tissue cultures, and examining for live virus, and finally trying them out on live monkeys for ill effects. To make sure, the poor monkeys are killed after 28 days, and histological sections of the central nervous system examined microscopically for possible damage. Finally the three strains are bulked, and tissue culture and monkey tests repeated. Safety tests are now made on monkeys made more susceptible to the presence of live virus by being treated with cortisone. Now the vaccine is released to the Medical Research Council and to the National Laboratory Service, of England, where parallel tests for safety are gone through all over again. This multiple testing wastes a lot of vaccine, and the U.S.A. does nothing like such stringent testing, but you can rest assured that adequate safety testing is being done with the British vaccine.

I followed the process of making this vaccine through all stages, gowned and masked as though for an operating theatre visit. A high degree of sterility was maintained and, of course, tested continuously. There would not be many operating theatres that could outdo this laboratory in all the measures taken to assure sterility, and I left with the impression that the manufacturer was determined that, within the limits of human possibilities, no child would suffer mishap from being vaccinated with British-made vaccine.

Well, that is about all I can tell you. The vaccine will be as safe as man can make it. It will give protection against paralytic poliomyelitis. It is over to you.

HE WHO COMES BACK

*ALL up the autumn gullies the broompods crackle dry,
The woman-breasted ranges jut to a windy sky.
The farmer treads on stubble that was a field of grain:
I see the old year burn to ash, nor wish it back again.*

*Upon these roads my heart was light that is more heavy now,
Here once my father showed me Orion and the Plough.
These moments rise in memory, a whisper in the brain:
The star that fell at midnight will not shine forth again.*

*Below the cattle-crossing the calm beasts grazing stand;
He who comes back with different eyes must see a different land.
I lack the courage of the rock whom the waves wear in vain,
The courage of an easy heart will not return again.*

*Now in the autumn gullies the gorsefires thunder high:
The choked bird drops above them, he has no room to fly.
I praise the fire that burns to ash the old year and its pain,
I praise the stubborn root from which the green sprig grows again.*

—James K. Baxter

N.Z. LISTENER, AUGUST 17, 1956.

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(b) **Instrumental:** A set of variations on a theme.
The theme used need not be original. The work not to exceed 20 minutes in performance. The composition may be for any instrument or for any combination of instruments.

Entries close on 20th February, 1957. Full particulars are obtainable from the Secretary, Mr. L. F. de Berry, Christchurch Civic Music Council, P.O. Box 237, Christchurch.



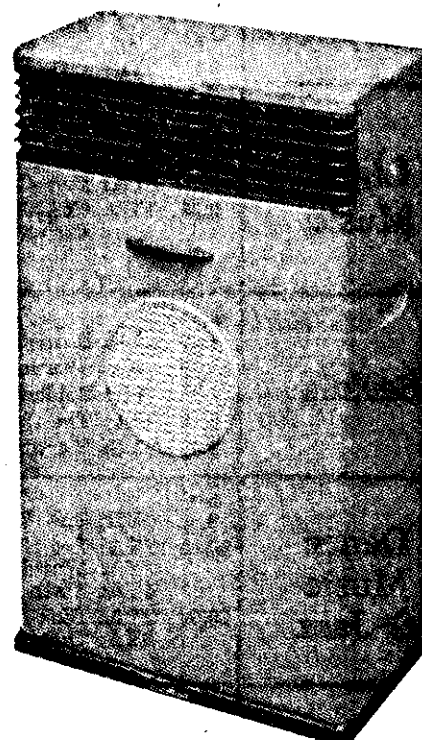
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