

MEDICINE

Flu Vaccine Available

Is of the same type used by the Army this fall and winter, and is effective against Type B virus. If epidemic grows, demand may exceed supply.

► VACCINE against influenza Types A and B, the kind used to vaccinate all Army personnel this fall and winter, is now on the market for civilian use. This vaccine is effective against the Type B virus now causing outbreaks in various parts of the country, totalling some 150,000 reported cases during one week.

Replies to inquiries by telephone and telegram brought the following information: Eli Lilly and Company, the Lederle Laboratories and Pitman-Moore Company have the vaccine available now for civilian use. Pitman-Moore states all its branches are being supplied. Parke Davis will have its vaccine available to civilians before January. The Squibb vaccine will be available for civilian use about Feb. 15.

If the current epidemic grows and creates a sudden demand for large quantities of the vaccine, however, manufacturers may not be able to keep up with the demand. The vaccine cannot be produced overnight. Its production involves growing the influenza viruses on chick embryos and it takes from two to three months to get out a batch of vaccine.

When the manufacturers had supplied the Army's order, they slowed down or stopped production altogether because they had no idea whether there would be any civilian demand. The vaccine is barely out of the experimental stage, physicians were not expected to prescribe it for their patients unless an epidemic developed, and until the last week of November, no signs of an epidemic had appeared in official health reports. Consequently no company has a big supply of the vaccine on hand.

Lederle Laboratories, said to be the biggest producers of influenza vaccine, have enough on hand to vaccinate about 200,000, Dr. Herald R. Cox, associate director of research in charge of virus and rickettsial diseases, said. This company has started up production and will be making about 25,000 doses daily before Christmas, but it will be another month or two before they have any sizable quantities.

The vaccine must be given at least a week or 10 days before a person is ex-

posed to influenza to allow time for immunity to the disease to be built up in the body. At first the dose was set at a single "shot" but this may be changed to two injections each of half the amount or of the full amount. A better immune response is always obtained, Dr. Cox explained, if the immunizing substance, or antigen, is divided into two or three doses. The first one acquaints the body with the new protein material and after that it is used to it and more readily accepts the substance and develops the proper response to it.

The protection given by the vaccine will last six months to a year, it is hoped. Actually scientists are not certain about this point because they have not had enough experience with it.

The vaccine was developed by Dr. Thomas Francis, Jr., and associates of the University of Michigan. It got its first major trial during the influenza epidemic of 1943-44 when controlled studies of it were made by the Army's Commission on Influenza on thousands of men in the Army Specialized Training Program units at eight different universities in different parts of the United States.

Results showed that the ratio of influenza in the unvaccinated to that in the vaccinated was four to one. So authorities expect the vaccine to protect about 75% of those vaccinated and to reduce the severity of the illness in the other 25%.

Science News Letter, December 29, 1945

MEDICINE

Blood Plasma Supply Stretched by Using Gelatin

► THE SUPPLY of blood plasma, probably dwindling since donors are no longer stimulated by war's urgency, may be stretched by substituting a gelatin solution in some cases, it appears from a report by Drs. T. H. Seldon, J. S. Lundy, R. C. Adams and E. N. Cook of the Mayo Clinic.

Its use without adverse effects in more than 400 cases, they report in the Proceedings of the Staff Meetings of the Mayo Clinic, was not as a source of protein for nourishment but solely as

a plasma substitute to increase the blood volume.

Some of the patients had a little bleeding after operations but not enough to warrant transfusion of whole blood. Others had been given two to three pints of whole blood for shock or hemorrhage and needed more fluid in their veins but not necessarily blood or plasma. Elderly patients whose blood pressure tended to fall and other patients who needed supportive treatment after operations but not necessarily blood or plasma were also given the gelatin solution.

Science News Letter, December 29, 1945

CHEMISTRY

Naming New Elements Is Problem to Discoverer

► NAMING the two newest and heaviest chemical elements, numbers 95 and 96, is proving quite a problem to their discoverer, Dr. Glenn T. Seaborg of the University of California and the University of Chicago.

One difficulty is that the astronomers have not discovered any planets of the solar system beyond Pluto and therefore the newest transuranium elements cannot be named by following the system used in naming number 93, neptunium, named after planet Neptune, and number 94, plutonium, named after planet Pluto. Plutonium is one of the elements that can be used in making atomic bombs.

One possibility might be to rely on some property of the new elements in



DR. GLENN T. SEABORG