Mr. Maurice A. Dionne (Parliamentary Secretary to Minister of National Defence): Mr. Speaker, in the process of deciding which is the most suitable tank for use by the Canadian Forces our specialists are keeping a close watch on the development and trials taking place in the tank field in many countries, including the United Kingdom, Germany, and the United States.

To put this into perspective one has to appreciate both the short term and the long term implications, and it should be noted that the *Economist* article to which the hon. member referred in his question on February 2 made the point that the trials of the Leopard II and XM 1 in the United States will not be completed until late 1976 at the earliest and that it will then take some time to select the winner. The competition winner is then still a long way from production. The hon. member should understand that the trial of the next generation of Leopard tank and its American competitor will not produce an in-service tank until the late 1980's, more than ten years from now.

The immediate problem for the Canadian Forces is that at the end of 1976 the existing Centurion tanks will require replacement or rebuilding, and therefore the military staff is examining two options.

The first option is the replacement of the Centurion tank by the Leopard I tank now used by Germany, Belgium, Italy, Norway, and Denmark. For your information, Mr. Speaker, there have been over 4,000 Leopard I tanks produced to date which have a useable life of about 20 years. Within the spirit of the NATO Alliance, acquisition of the Leopard I would strengthen our position through the procurement of an effective, current piece of equipment with logistic and standardization advantages.

The second option is to refit, that is to modernize, the existing Centurions to give them continued life, possibly an additional ten years. However, at the moment it is considered unwise to state any conclusions at least until the present technical assessment is complete and we have analyzed all aspects of the alternatives. We expect to receive the results of this analysis and the recommendations of the military staff early in April.

Again referring to the *Economist's* article, the cost of the new tank referred to was a general design estimate for the unit cost of the vehicle in 1972. As we all know, there has been considerable inflation in both Europe and North America, and we think it would be most unwise to put a firm price on the cost of a tank which we will not see in production for probably 8 to 10 years. Certainly our indications are that the Leopard II will be considerably more expensive than the Leopard I. Finally, I should point out that the figure which the hon. member quoted for the Leopard I was a gross estimate of the program costs per tank, that is, it includes such things as spare parts, manuals, training aids, and so on, whereas the price quoted for the Leopard II was obviously basic unit cost.

I would hope, Mr. Speaker, that the hon. member might procure more reliable figures than those one might expect to find in the Ottawa *Citizen* and in the Ottawa *Journal*.

Adjournment Debate

HEALTH—LASSA FEVER—POSSIBILITY OF INTERFERENCE WITH REGULATIONS BY WORLD HEALTH ORGANIZATION— EFFECTIVENESS OF QUARANTINE MEASURES

Mr. P. B. Rynard (Simcoe North): Mr. Speaker, they say there is nothing new under the sun. This does not apply in the field of medicine. Quite recently a new disease called Lassa, a virus, was discovered and isolated in 1970 at Columbia University.

It is true, we do know that viruses mutate. We also know that in a family, three or four children can come down with chicken pox and one of them will also come down with herpes zoster. We know that these viruses jump around like this. However, I have been very interested in this new disease which was discovered in 1970. It is a virus which was labelled Lassa fever. It is endemic, so far as I know, only in west Africa, which includes Ghana, Nigeria, and Sierra Leone.

This disease was first discovered, as I have said, in 1970 when three American nurses attended a sick patient in west Africa who was thought to have a flu-like disease. He was first treated with quinine because of his malaria-like symptoms; he had fever and chills. When that did not help him, he was given an anti-typhoid inoculation. All three of the nurses died one after the other, but before the third one died she was flown home to New York, and at Columbia University they were fortunate enough to isolate the virus which caused the sickness.

Lassa fever is hard to diagnose because it comes on with flu-like symptoms, high fever and chills, and then the disease continues on its course. It has a mortality rate of 20 per cent to 25 per cent among adults, and the mortality rate among pregnant women is as high as 50 per cent. It is generally believed that the immediate host is a rodent, but it is not known whether the disease is transmitted through food or through a bite. Certainly this lack of knowledge points out the necessity for a good deal of research to be carried out to find out a little more about this disease and its causes. Its existence was not discovered until the death of the three nurses. Blood samples were taken from the third nurse who was flown to the United States, and the virus was isolated at Columbia University. This was in

I understand that the United States has gathered some immune serum from known cases of Lassa fever. It is difficult to be sure how valuable this serum is at present. However, most of the pool of immune serum is banked in Nigeria, with small amounts being kept in New York City, Sierra Leone, and Ghana. Most of the immune serum on the North American continent is kept very carefully in Georgia.

One wonders whether the native population in these west African countries have developed any resistance to this endemic disease which might not be possessed by the North American population. This is my concern. A good example of it was when the white man came to North America and brought with him tuberculosis, measles, and other disease which almost exterminated the North American Indian.

• (2240)

Lassa fever is hard to diagnose and very serious if it is contracted. I feel that the Canadian people should be