

the water supply showed the wide presence of the tularemia bacilli.

Retrospective analysis indicated that two other persons had probably incurred the infection. They had suffered from a protracted and undiagnosed illness.

Public Health Service scientists had been expecting something like this for some time. All cases of tularemia are referred to them by local doctors as requested. They had observed the contamination of natural waters with the tularemia bacillus and these waters are used as rural water supply systems. Just why the tularemia infection from drinking water had not turned up before, as it had in Russia, they were not certain. They suspected, however, that tularemia strains in Montana water, at least, were weak. In another investigation they found that during a 14-month period a majority of the streams in Montana were contaminated.

Commenting on this finding in Montana, Dr. Carl Larson, director of the Rocky Mountain Laboratory of the National In-

stitutes of Health, said that "while stronger strains of tularemia might appear in local water supplies through contamination by heavily infected animals, if that is the mode of contamination, it is still not probable that water-borne tularemia will become a widespread public health problem. Both town and city water supply systems kill the tularemia bacillus through the usual process of chlorination. And in rural areas, if need be, home chlorination or boiling of water would constitute an effective means of control.

"The number of cases is not very great at the present time. Some 1,500 to 3,000 cases, I should say, occur yearly. On the other hand it is not to be dismissed lightly. Its victims suffer badly and for a long period. Tularemia tends to spread rapidly from the point of infection to attack the lymph nodes, spleen, liver, kidney or lung and frequently develops into a typhoid-like state or a typical pneumonia or both."

Science News Letter, October 21, 1950

in the mouse, but since the chemical has been synthesized there doubtless will be plenty of it for human patients if clinical tests show it is effective.

Scientists reporting the new vitamin are: John A. Brockman, Jr., Barbara Roth, H. P. Broquist, Martin E. Hultquist, James M. Smith, Jr., Marvin J. Fahrenbach, Donna B. Cosulich, Robert P. Parker, E. L. R. Stokstad and T. H. Jukes.

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MEDICINE

Vitamin B Leukemia Aid

► ISOLATION and synthesis of a new B vitamin that may help patients with leukemia, though it is not itself a cure or treatment for leukemia, is announced by scientists of the Lederle Laboratories in Pearl River, N. Y., and the Calco Chemical Division, Bound Brook, N. J., of the American Cyanamid Company.

The new vitamin is not given any name in the scientists' report to the JOURNAL OF THE AMERICAN CHEMICAL SOCIETY (Sept.). They merely call it "a substance active for *Leuconostoc citrovorum* and the chick." *Leuconostoc citrovorum* is a bacterium important in the dairy industry. The vitamin is otherwise identified by the Roman numeral I.

The importance of the new vitamin for leukemia patients is that it "competitively reverses the toxicity" of one of the anti-folic acid vitamin chemicals now used in treating leukemia. This anti-folic acid chemical is called 4-aminopteroylglutamic acid.

Patients getting large amounts of the 4-amino chemical sometimes suffer toxic reactions such as painful inflammations and ulcers of the mouth, diarrhea and hemorrhage from stomach and intestines. The new vitamin may overcome these severe toxic reactions and enable doctors to give more of the chemical that helps the leukemia patients. The report in the chemical society journal states only that it reverses toxicity

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