

## MEDICINE

# Penicillin and Syphilis

**It is the best and safest treatment for the disease. There is no need for alarm over relative inefficiency of one kind of the drug.**

► **PENICILLIN** is the best and safest treatment for syphilis yet devised. Patients who have been treated with it during the past several years and their doctors need not be alarmed by reports of its being ineffective, the syphilis study section of the U. S. Public Health Service declared in a statement.

Military secrecy necessary during the war was responsible for some of the confusion over penicillin and its effectiveness in treating syphilis. During the war only a very few persons were allowed to know anything about the chemical studies of penicillin. Those studies revealed the fact that there are at least four kinds of penicillin, called G, X, K and F in this country.

Manufacturers, meanwhile, were producing penicillin as fast as they could and were trying, quite laudably, to make their product as pure as possible. In the course of these efforts to get more and purer penicillin, they began getting and marketing penicillin containing substantial amounts of penicillin K.

Penicillin K, Dr. Alan Chesney of Johns Hopkins Medical School announced in mid-February of this year, is completely ineffective in treatment of syphilis in rabbits.

That bombshell startled scientists and manufacturers. A meeting was called. Immediately after, manufacturers began taking steps to decrease the amount of penicillin K in their products.

Dr. Chesney's studies were made with pure penicillin K. Commercial penicillin, however, has not consisted of pure K. So patients treated with the commercial product, even since 1944 when K was predominant in some of the penicillins marketed, probably got some of the other kinds as well as K. They may relapse or they may not. If they relapse, they can be treated again.

They are in no more danger of getting paresis, or syphilis of the brain, than if they had been treated by any other method, Dr. Joseph Earle Moore, of Johns Hopkins Medical School and chairman of the syphilis study section of the U. S. Public Health Service, declared in discussing the situation at the National Academy of Sciences meeting.

Less than one in a hundred are in danger of getting paresis, he said.

Every patient with syphilis should return for retesting at regular intervals throughout his life, no matter what treatment he has had, Dr. Moore continued.

Patients treated at the U. S. Public Health Service rapid treatment centers are routinely asked to return for retesting. This has nothing to do with whether or not they were treated with penicillin. If on retesting it is found that any have relapsed, they will be retreated.

Larger doses of penicillin given at more frequent intervals are suggested by Dr. Moore as one way doctors can be sure they are getting enough of the drug at present while there is any question of its containing much of the relatively ineffective penicillin K.

Penicillin K, he said, is one-tenth as effective as penicillin G in syphilis. It is one-sixth as effective as G in treating pneumonia in mice and one-fourth as active as G in treating streptococcus infection in mice. Patients with these acute infections, however, are not in any danger of not getting enough penicillin to get them well.

The reason penicillin K is less effective than the other varieties is that it is more rapidly destroyed in the body.

Resistance to penicillin which some disease germs have developed and the difficulty in curing subacute bacterial endocarditis, a chronic heart ailment, with penicillin may both be due to the increased amounts of K in penicillin since 1944, Dr. Moore said.

*Science News Letter, May 4, 1946*

## SOCIOLOGY

## Atoms May Revolutionize World Social Order

► **LIVING** with atomic energy in peacetime may be as revolutionary to world society as the first nuclear fission bomb explosion was to warfare, a University of Chicago sociologist declared.

If we do succeed in outlawing war, Dr. Louis Wirth told the Illinois Association for Applied Psychology that social implications of peaceful atomic

energy may be just as powerful, if not so destructive, as the new bombs were.

He said that atomic energy used as power could change the pattern of agriculture and industry in the world by making possible the development of outlying virgin areas of the earth. This could either raise the world's standard of living or at least more nearly equalize it, the sociologist asserted.

With atomic energy to serve them, men would have much shorter working hours, he predicted.

"We can only contemplate vaguely," Dr. Wirth warned, "what problems will be created when the masses of men will be emancipated from drudgery and will have at their disposal the leisure of which the Utopians have dreamed."

Social benefits from the peaceful atomic age forecast by the sociologist include a closer world with new institutions of human collaboration and the end of insecurity, prejudice and bigotry.

He warned against defensive measures in the future, asserting that efforts to disperse cities or build industry underground are "measures of short-sighted desperation."

"Most important of all in our neglect of the social implications of atomic energy development," he charged, "is the fact that unless the military use of it is controlled, there may not be a civilization with problems of adjustment."

*Science News Letter, May 4, 1946*

## AERONAUTICS

## Carrier-Based Planes Helped To Steer Vessels

► **WHEN COMBAT** planes do ordinary stunts in the air, it is not news. But when Navy carrier-based planes helped to steer their mother-ship, it is something different. It works when the vessel is traveling at low speeds in narrow waters.

Two rows of planes were lined up facing each other along the forward part of the flight deck, and firmly anchored in position. By turning up to full speed propellers of the airplanes in the left row at the same time, the bow of the vessel was swung to the right. The other row swings it to the left. The tugboat has a rival.

*Science News Letter, May 4, 1946*

*Calcium* is the mineral element most likely to be lacking in the American diet.

*Clothes* in a storage closet can be freshened up by using an electric fan for an hour a week to change the air; in summer the process discourages moths.