MEDICINE

Antibiotics Barred for Colds

Antibiotics are usually useless in treating common colds and unless remedies containing these drugs are proved effective, they will be banned from the market.

➤ IT IS EASIER to cure pneumonia than the common cold.

Penicillin, Aureomycin, Terramycin, chloramphenicol and streptomycin are among the antibiotics used in treating pneumococcal pneumonia. However, antibiotics in prescription drugs for the common cold with its multitude of virus types are usually useless and are about to be taken off the drugstore market by Federal Drug Administration action.

FDA's action (Aug. 17) followed a previous move in which drug manufacturers were told to prove that nonprescription antibiotics in such remedies as lozenges, nose drops, mouth washes, deodorants and skin lotions are effective. If the proof is not forthcoming, these easy-to-buy drugstore remedies must be off the market by Sept. 6. Up to 200 companies are involved.

The products affected by the new ruling are taken into the body, not applied locally.

For some time, medical authorities have feared that doctors are giving antibiotics too often for lesser ailments, thus building up a tolerance to the antibiotics that makes them useless when they are really needed.

What chance is there for a common cold cure or vaccine?

The 50 to 100 different viruses that cause the common cold are still as elusive as ever, Dr. Robert M. Chanock of the Laboratory of Infectious Diseases, National Institutes of Health, Bethesda, Md., told SCIENCE SERVICE.

"We are working toward a vaccine or vaccines that will eventually be effective," Dr. Chanock said, "but so far there is no cure or prevention."

Dr. Maurice R. Hilleman, virologist of Merck Sharp & Dohme Company, said that he had hopes of a vaccine eventually that would be effective against specific viruses.

Dr. Chanock with a group of scientists at the National Institutes of Health, and Dr. Henry Bloom of the Naval Medical Research Laboratory, Camp LeJeune, N. C., recently reported that Coxsackie A-21, a virus usually found in man's intestines, was discovered in the throats of U. S. Marine Corps cold sufferers at that camp. A vaccine could conceivably be made that would be effective against this one virus, but not against the numerous others.

Until it is proved that this virus is a substantial contributor to the occurrence of common colds, a general vaccine would be almost useless, however.

Dr. Hilleman and his co-workers at Merck, along with University of Pennsylvania School of Medicine researchers, reported a study of more than 200 industrial workers at Rahway, N. J., in which the cold virus coryzavirus was found in 14% of 141 volunteers suffering from colds.

These scientists believe that with the identification of coryzaviruses, along with rhinoviruses and the Eaton agent, the most important causes of respiratory illnesses among adults have been found, which is a step forward in finding treatment.

"Right now," Dr. Hilleman said, "you can take your choice of treatment for two weeks, or no treatment for 14 days and your cold will be over about the same time."

The FDA, acting on recommendations of an advisory panel of medical experts, has changed its regulations on drugs for colds.

The story behind the new regulations:

The antibiotic regulations were amended by FDA in 1952 to permit optional use of analgesics, antihistamines and caffeine as ingredients of penicillin tablets for relief of common cold symptoms and the prevention of complications of the common cold and other acute respiratory infections.

Later these same ingredients were permitted for use in other oral dosage forms of penicillin and in certain oral dosage forms of the drug chlortetracycline and its derivatives.

Since then, the experts have raised questions about the efficacy of such drugs for these purposes.

The symptomatic relief that may be provided by the other ingredients of preparations containing both antibiotics and analgesics, or pain killers, antihistaminics and possibly decongestants, would be no justification for any such product to contain an antibiotic, the FDA statement says.

The following advisory panel met with representatives of FDA's Bureau of Medicine and Division of Antibiotics before making its recommendations:

Dr. Harry Dowling, University of Illinois School of Medicine, chairman; Drs. Maxwell Finland, Harvard University School of Medicine; Paul Beeson, Yale University School of Medicine; Carl Schmidt, University of Pennsylvania School of Medicine; and William Jordan, University of Virginia School of Medicine.

• Science News Letter, 84:130 Aug. 31, 1963

MEDICINE

Europe Conquers Malaria

See Front Cover

➤ MALARIA, the chills and fever scourge that still takes an estimated million and a half lives each year throughout the world, has been virtually driven out of Europe.

The world's foremost tropical disease is on the run in the remaining 140 countries where it still plagues some 200 million persons, especially in Asia, South America and Africa.

Less than 100 cases were reported in the U.S. last year, with not more than half a dozen indigenous, but this country is in the foreground in scientific projects to stamp out the disease that comes and goes with a terrific toll of lives and energy.

Dr. G. Robert Coatney, chief of the laboratory of parasite chemotherapy, National Institutes of Health, told SCIENCE SERVICE that the new experimental drug CI501 looks very good after tests on volunteer prisoners at the Atlanta, Ga., penitentiary.

"We can't see any flaws in the drug now," he said, "but it would be unrealistic to expect as good results in big field trials."

Dr. Coatney returned in July from Pakistan, where field testing of the long-acting anti-malarial drug is being readied for a 30-month run beginning early in 1964.

A report of Dr. Coatney's and his collaborators' work with CI501's protection of the prison volunteers appeared in the American Journal of Tropical Medicine and Hygiene, 12:506, 1963. Out of 24 volunteers exposed to vivax malaria by the bites of infected mosquitoes, 20 were protected by the drug. The tests continue.

On a swampy island a few miles from Savannah, Ga., the Communicable Disease Center of the U.S. Public Health Service has set up a laboratory that includes study of malaria-causing mosquitoes. Sometimes radioactively labeled insects are released to determine how far and how fast they disperse. Seen on this week's front cover is the separation of tagged mosquitoes from normal mosquitoes by means of a Geiger counter.

The World Health Organization's eradication program for malaria began in 1955, when 250 million persons were affected by malaria. Thorough planning has divided the war on the disease into four phases.

The pre-eradication phase determines the nature and extent of the problem so the national health service of each country can plan the next steps scientifically.

The attack phase includes spraying with insecticides the interior surfaces of all dwellings throughout the country where Anopheles mosquitoes are likely to bite humans. If the sprayed surfaces are not painted, washed or treated in such a way as to weaken the strength of the insecticide, they retain their mosquito-killing capacity for months after application.

Next comes the consolidation phase, in which massive spraying shifts to spraying only against the remaining malaria foci. This phase lasts until such mop-up spraying is completed and every malaria case of local origin is found and cured. A case-finding organization must prove that malaria is really absent from the area during three consecutive years.

The final and fourth phase is the maintenance period when there remains only the problem of reentry from other countries.

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