MEDICINE

Malaria Cure Announced

New drug, SN13276, permanently clears up the disease in white patients. Taken only once a week, it makes suppression in communities practicable.

➤ A POSITIVE cure for malaria exists. It has been tested sufficiently to prove that it will permanently clear up the worst Southwest-Pacific type vivax malaria cases in white patients. Its value as a cure for malaria in Negroes, Chinese and other dark-skinned peoples must be further tested before it can be confidently used for their treatment.

This announcement was made by Dr. James A. Shannon, director of the Squibb Institute for Medical Research, New Brunswick, N. J., at the close of a special symposium on antimalarial drugs held in connection with the meeting of the American Chemical Society. During the war Dr. Shannon was chairman of the panel for clinical testing of antimalarial agents of the Board for Coordinated Studies, with headquarters in Washington, D. C.

The new drug, which was synthesized only during the past year, is still designated only by a number, SN13276. It is chemically related to a previously known drug, pamaquin, also called plasmochin in Germany. This compound, first made about 20 years ago, had definite curative properties but it could not be used because it was too poisonous to the patients. In particular, it caused severe anemia in the dark-skinned races by dissolving their red blood corpuscles. The new malaria cure, whose molecular structure resembles that of pamaquin, but with modifications, is more effective against the malaria parasite, less toxic to human beings.

Considerably more research needs to be done, Dr. Shannon emphasized, before the new drug can be released for general medical use. Of special importance is the need to make sure it will not have bad effects on Negroes, who are among the most afflicted groups in this country. Important, too, is continued chemical search for related but still better drugs. These researches are at present badly slowed down because the Office of Scientific Research and Development, which supported the work during the war, is closing down as of July 1, and no new agencies to continue the researches have yet been provided for. Legislation that would help was introduced many months ago, but Congress has not yet acted on it.

Before the new curative drug had been developed, the wartime research teams that tackled the malaria problems had made notable contributions, Dr. Shannon stated. Before the end of 1943 they had rounded up information that showed synthetic atabrin to be superior to natural quinine as a malaria suppressant, and had also made possible the large-scale use of totaquine from cinchona bark, which was the only antimalarial drug available for civilian use during the war.

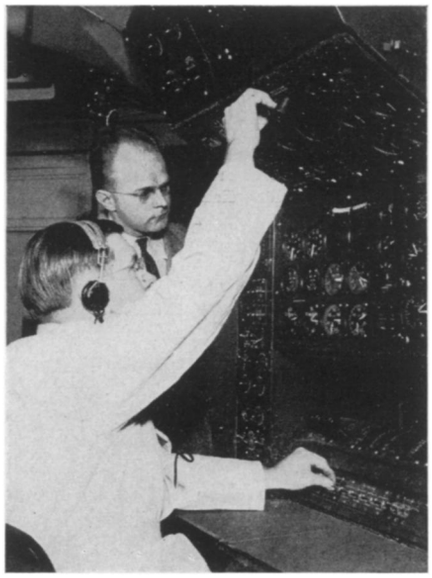
A second and more important contribution was the development of new synthetics better than atabrine, which would effectively suppress malaria even if they could not cure it. Two of these, chloroquin and oxychloroquin, can be taken in doses as much as 30 to 50 times the quantity needed to suppress malaria without causing distress to the patient. They also do not cause the skin discoloration that atabrin does. This makes it possible to keep down malaria by giving doses only once a week instead of once a day, as is necessary with atabrin.

A once-a-week regimen, Dr. Shannon pointed out, makes suppression of malaria in whole communities practicable, which is not the case with a drug that has to be swallowed once a day.

New Malaria Drug

➤ EFFECTIVE antimalaria results may also come from a new group of synthetic chemical compounds known as the alpha-aminocresols, which were introduced to members of the American Chemical Society at their meeting in Atlantic City by a research team led by J. H. Burckhalter of Parke, Davis and Company.

One compound in the group, tried on bird malaria in young chicks, has shown itself to be 75 times more effective than quinine, Mr. Burckhalter reported. Chicks usually take the place of guinea pigs in preliminary experiments on antimalarial drugs, because while bird malaria is not identical with the disease in man, it is enough like the human malarias to enable scientists to get at least an approximate range on new weapons in this warfare.



FLIGHT TEST—This portable flight engineer trainer duplicates the flight engineer's station in the Lockheed Constellation transport and enables student engineers to familiarize themselves with all aspects of their station without resorting to costly flight tests. The ground unit is also valuable in acquainting other crew members with the flight engineer's duties. Lighting effects and a loudspeaker reproduce the visual auditory aspects of flight.

More than 2,000 different chemicals have been tested for possible use against malaria during the past 10 years in his laboratory, the speaker stated. The alpha-aminocresol group has shown considerable promise, and more than 100 compounds belonging to it have already been tested.

The chemists started with the simpler forms, having the least effectiveness, and proceeded to synthesize increasingly complex ones. One of these complex, large-moleculed compounds gave the startlingly favorable results. It makes the necessary differentiation between the malaria germ and its victim, killing the former without poisoning the latter. It also has the desirable quality of not staining the skin, as atabrin does.

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Vegetable ivory is one of the best materials for buttons; it comes from the nuts of the jarina tree of the Amazon country which when ripe become hard as ivory and possess a similar durability.