

# Malaria Drug Promising

A single injection of a new antimalarial drug offers protection for five to six months —

By Faye Marley

➤ A SINGLE INJECTION of an experimental antimalarial drug developed in the United States has been found to be effective in the treatment of malaria in Gambia, West Africa.

The drug, called cycloguanil pamoate, was developed at the Parke Davis laboratories in Ann Arbor, Mich., by Drs. Paul E. Thompson and K. O. Courtney.

After animal experiments, it was tried out on volunteer prisoners at the Federal Penitentiary, Atlanta, Ga., under the auspices of the National Institutes of Health, Bethesda, Md.

Dr. G. Robert Coatney, chief of the laboratory of parasite chemotherapy of the National Institute of Allergy and Infectious Diseases, who supervised the work with prisoners, told *SCIENCE SERVICE*, "I never expected in my lifetime to see such a drug, in which patients with one injection could be free of malaria for five or six months."

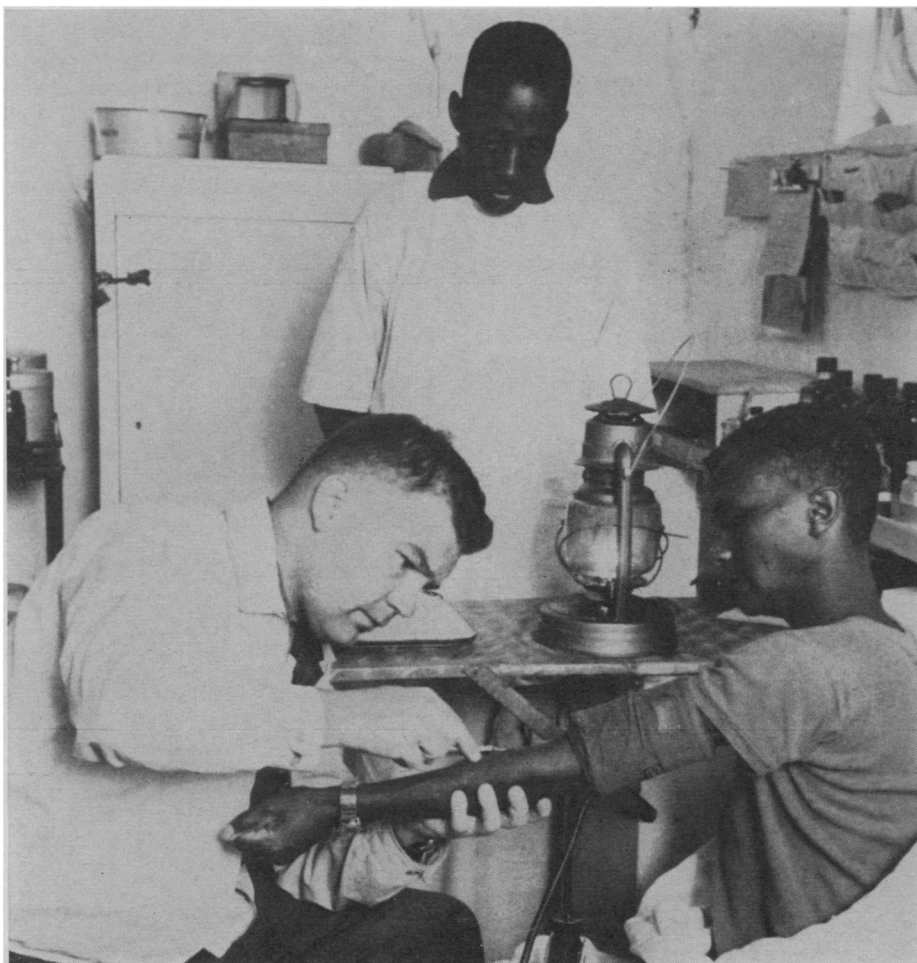
Dr. Ian A. McGregor and his colleagues at the Medical Research Laboratories, Gambia, tried the drug in a field trial involving 245 persons. They found that it was effective for a shorter time.

Reporting in the *British Medical Journal*, March 19, 1966, Dr. McGregor's group said "the Gambian adults and older children were actively engaged in prolonged arduous agricultural activity" that could explain a faster rate of absorption of the drug from the injection site than was present in the Atlanta prisoners.

"This may explain why African children aged six to 13 years appeared to possess substantial immunity and yet, despite a high rate of cycloguanil dosage, remained protected for no longer than younger children and for considerably less than their adult counterparts."

The trials were in Kafuta, a moderately prosperous village in the Kombo East district of Gambia, and the drug remained surprisingly popular among the villagers. No one refused a second injection, and the pain and tenderness that commonly occurred in the first few days after the injection were accepted with good humor.

A number of reports have been made of other field trials with the drug, and Australia was particularly enthusiastic about it. Unfortunately it will have no use in Viet Nam because the malarial parasite *Plasmodium falciparum* there is resistant to it.



Smith Kline and French Laboratories

**LEARNING MEDICAL TECHNIQUES**—An Ethiopian "dresser" (center) is learning a useful technique as he observes Dr. David E. Hutchinson drawing blood from a patient in an Ethiopian hospital. The dresser assigned to the laboratory has learned to perform various routine procedures accurately, thus helping fill the gap between medical need and the availability of personnel.

The *British Medical Journal* states editorially that although the drug cannot yet be recommended for mass prevention of malaria, it is obviously of considerable significance to the treatment of the disease, and that further work on it and its successors will be awaited with interest.

Working with Dr. McGregor were K. Williams, G. H. Walker and A. K. Rahman, all of the Gambian medical research laboratories.

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## Drug for Viet Nam

➤ ANOTHER RESEARCH TEAM has found an antimalarial drug it believes is effective against the resistant strains prevalent in Viet Nam.

High hopes for the drug, called DDS for diaminodiphenylsulfone, were expressed by Col. William D. Tigertt, director of the Walter Reed Army In-

stitute of Research, Washington, D.C. Walter Reed and the University of Chicago collaborated on the search.

DDS has been used for some time against leprosy. Scientists knew the drug had some effect on malaria but bypassed it for chemicals more active against those types dominant during and after World War II.

When the resistant strains appeared some five years ago in South America and Southeast Asia, research began for a new preventive drug.

The University-Army project rediscovered DDS as an antimalarial agent during experimentation on volunteer inmates at the Stateville Branch of the Illinois State Penitentiary in Joliet.

Since 1962 some 400 inmates have been injected with the resistant strains.

Dr. Paul E. Carson and Dr. Robin D. Powell, assistant professors of medicine at the University of Chicago head the project.

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