MEDICINE

Brief Malaria Treatment

Effective method advocated by naval officer with 20 years experience in anti-malarial work in southeast Asia would save quinine and time.

➤ MALARIA-STRICKEN soldiers can be treated just as effectively by giving less quinine over a shorter period of time than in the standard method. This plan is advocated by Dr. Aubrey H. Hamilton, lieutenant commander, U. S. N. R., who has had 20 years experience in anti-malarial work in the war zone of southeast Asia.

Huge savings of war-scarce quinine and valuable time of hurried physicians is foreseen in a report just issued in collaboration with the Board of Economic Warfare and Department of Commerce.

Only about a third as much quinine would be required to complete treatment of a hundred typical cases as compared to the standard treatment. This amounts to a saving of over 50,000 grains. Treatments would require 4,859 fewer days.

The hydrochloride form of quinine was most used by Dr. Hamilton and his associates. It does not upset the soldier's stomach as readily as other forms. The tablets also are not likely to harden into pellets that remain unabsorbed by the body, as occurs with quinine sulfate in tropical climates.

Quinine hooked onto hydrogen and chlorine atoms can also be taken either by mouth or injection.

"Experience in the Philippines and in Santo Domingo tends to indicate that the danger of using the intravenous route for administering quinine has been overstated in standard textbooks," Dr. Hamilton declares.

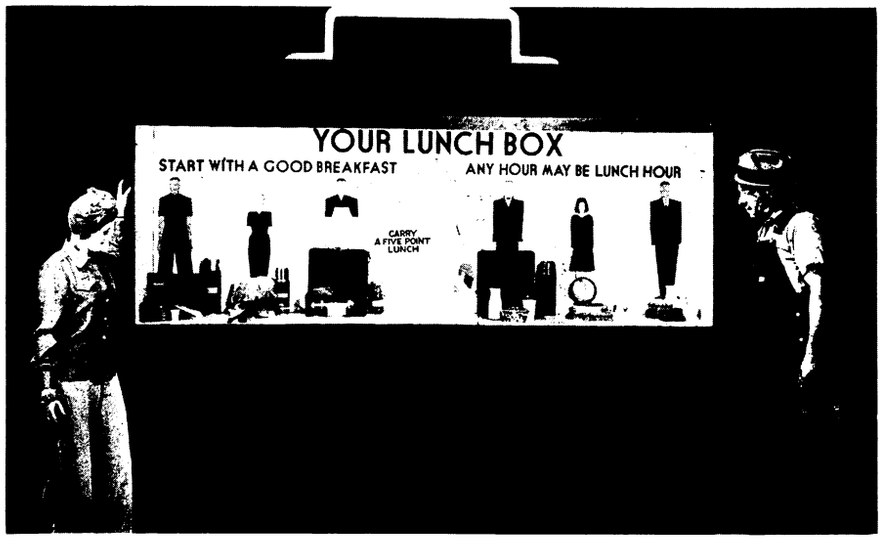
Although preferring quinine, Dr. Hamilton also evaluates the use of other anti-malarials. For cinchona bark from which we get quinine cannot supply all the anti-malarial units needed during the war. Cinchona, or "Jesuit's Bark," obtained from South America does not contain as much quinine as that from Jap-held territory. But other components from this bark with anti-malarial action can be inexpensively and efficiently extracted to augment our supply of anti-malarials.

This product, called totaquine, "is a reliable and well-tried antiplasmodial agent capable of replacing quinine in almost all instances," Dr. Hamilton maintains. It is about half as potent as quinine, requiring doses of 30 grains a day.

Quinacrine hydrochloride (atabrine), the synthetic anti-malarial, is an effective treatment but more dangerous than quinine. Its undesirable reactions are somewhat unpredictable, Dr. Hamilton warns. The American product is not more toxic than German-made atabrine, however, as was suggested by reports from South America where both had been used.

Clinical material upon which Dr. Hamilton bases his report amounts to about 750,000 malaria cases. Observations were made by several hundred physicians in the hospitals of Netherland Indies. He has now been called back to active duty where his professional knowledge and experience will be of help to American fighters.

Science News Letter, January 23, 1943



***LUNCH BOX**—Visitors to the Cleveland Health Museum learn from this exhibit what should go into the daily lunch box of America's industrial army to keep up health and morale.*

PUBLIC HEALTH

Decline in TB Death Rate Almost Halted in Cities

➤ THE DECLINE in the tuberculosis death rate in 42 of the largest American cities was almost halted during the last year before America entered the war, the National Tuberculosis Association announces.

In that same year, 1941, figures only now available show that the tuberculosis death rate for the entire country was 3.3% lower than in 1940, but that in the cities it was only 0.3% less than in 1940.

The tuberculosis death rate decreased during 1941 in 19 cities, increased in 17 and remained the same in six. The association points out that wartime migration and industrial activities had by no means reached their present level at the time these deaths occurred.

The most significant increases occurred in Providence, R. I.; Seattle, Wash.; Columbus, O.; Atlanta, Ga.; and Buffalo.

San Antonio continued to have the highest rate among the cities, 150 per 100,000 population. The next three highest rates occurred in Atlanta, 105; Memphis, 93; Baltimore, 90. The Mexican population in San Antonio and the Negro population in the other three cities are among the reasons for the high rates, says the association.

Akron had the lowest rate, 25 per 100,000 population. The next lowest rates occurred in Minneapolis, with a rate of 26, and Omaha, with a rate of 29.

Science News Letter, January 23, 1943