

The Suppression of *Plasmodium falciparum* and *Plasmodium vivax*  
Parasitemias by a Sulfadoxine—Pyrimethamine Combination

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**OBJECTIVE:** To study the effectiveness of the combination of sulfadoxine (S) 500 mg and pyrimethamine (Py) 25 mg given in two dose regimens in suppressing parasitemias in an area with known chloroquine resistant falciparum malaria.

**BACKGROUND:** The combination of a sulfone or sulfonamide with pyrimethamine in the chemosuppression of chloroquine resistant falciparum malaria has been previously shown to be efficacious. The longer half life of a long acting sulfonamide, such as sulfadoxine ( $t_{1/2} = 150-200$  hrs), should render this, in combination with a matched (in terms of  $t_{1/2}$ ) dihydrofolic acid reductase, a better chemosuppressive agent.

**DESCRIPTION:** Seven hundred and fifty six semi-immune study subjects from four villages in Prachinburi Province, Northeast Thailand were assigned to one of five drug study groups. Subjects received, under a double blind design, one of the following medications:

- a. Sulfadoxine 1000 mg — pyrimethamine 50 mg biweekly
- b. Sulfadoxine 500 mg — pyrimethamine 25 mg biweekly
- c. Diformyldapsone 200 mg — pyrimethamine 12.5 mg weekly
- d. Diformyldapsone 400 mg — pyrimethamine 25 mg weekly
- e. Placebo weekly

Each study subject was visited weekly, at which time the medication was given and swallowed under supervision, a capillary blood drawn for a thick—thin malaria smear, and a history of illness since the prior visit noted. For those subjects receiving a biweekly medication regimen, placebo tablets were given on the alternate weeks; thus study subjects received two tablets weekly.

**PROGRESS:** The twenty—six week course of medication phase of the study was concluded on 8 February 1975. Currently the study subjects are being monitored bimonthly for evidence of malaria transmission in the absence of chemosuppressive agents. At the termination of the medication phase, the average weekly study subject participation rate was approximately 88%. As the microscopy has not been completed, no data reduction is possible at this time.

**SUMMARY:** The combination of sulfadoxine and pyrimethamine has been given biweekly at two dosage levels for 26 weeks to semi-immune individuals in an area known to have chloroquine resistant falciparum malaria. The preliminary results of this study are not yet available.