

V-MAP assays. Laboratory-reared specimens were tested individually using 4,372 V-MAP assays. Assay performance depended on the species of *Plasmodium* and the number of sporozoites used as the cut-off. For *P. falciparum*, optimal performance was achieved using a cut-off of 150 sporozoites (sensitivity = 100%, specificity = 99.2%, and accuracy = 0.99). For *P. vivax* variant 210, optimal performance was also achieved using a cut-off of 150 sporozoites (sensitivity = 94.8%, specificity = 94.5%, and accuracy = 0.95). We were unable to develop a standard-curve for the CS-ELISA using *P. vivax* variant 247 because of a lack of sporozoites; however, using a cut-off of 30 pg *P. vivax* 247 antigen (mosquitoes with less than this amount of antigen were considered negative), assay performance (sensitivity = 94.3%, specificity = 99.2%, and accuracy = 0.99) was comparable to that achieved for *P. falciparum* and *P. vivax* 210. These results clearly demonstrate that the V-MAP assay performs at an acceptable level and offers practical advantages for field workers needing to make rapid surveys of malaria vectors.

J Med Entomol. 2004; 41(2): 209-14.

HEMATOLOGIC AND CLINICAL INDICES OF MALARIA IN A SEMI-IMMUNE POPULATION OF WESTERN THAILAND

Erhart LM, Yingyuen K, Chuanak N, Buathong N, Laoboonchai A, Miller RS, Meshnick SR, Gasser RA and Wongsrichanalai C

This study examines hematologic profiles of persons with acute *Plasmodium falciparum* or *P. vivax* infection in Maesod on Thailand's western border with Myanmar compared with febrile, non-parasitemic persons also reporting to malaria clinics. Nine hundred seventy-nine subjects were malaria-negative, 414 were infected with *P. falciparum*, and 646 were infected with *P. vivax*. Persons with patent parasitemia tended to have significantly lower white blood cell, red blood cell, platelet, and hemoglobin levels than those who were malaria-negative. For the first time, a parallel trend in thrombocytopenia with parasitemia was found to be associated with both *P. falciparum*, and *P. vivax* infection. Using logistic regression, persons with platelet counts < 150,000/ μ L were 12-15 times more likely to have malaria than persons with platelet counts \geq 150,000/ μ L. This study supplements previous literature on the hematologic effects of malaria and helps define those alterations for a semi-immune population. Thrombocytopenia is identified as a key indicator of malaria in these febrile patients.

Am J Trop Med Hyg. 2004; 70(1): 8-14.

HUMAN ANTI-SALIVARY GLAND PROTEIN ANTIBODIES: A NATURAL DEFENSE AGAINST MALARIA INFECTION

Waitayakul A, Somsri S, Prachumsri J, Looareesuwan S and Udomsangpetch R

Mosquito's salivary proteins can elicit antibody response in human. We demonstrated that anti-*Anopheles* salivary protein antibodies occurred strictly in the villagers living in malaria endemic area. Healthy persons from non-malaria endemic area had no antibody to the *Anopheles* salivary