A-26: Early diagnosis and treatment of malaria in a refugee population in Sri Lanka

D A R Premasiri[1], W van der Hoek[2], A R Wickremasinghe[3]

(*[1]Anti-Malaria Campaign, Puttalam, [2]Dept. of Parasitology, Faculty of Medicine, Univ.of Leiden, Netherlands, [3]Dept. of Community Medicine, Faculty of Medicine Univ. of Peradeniya*)

The new Global Malaria Control Strategy, adopted in 1992, confirmed early diagnosis and prompt treatment as the mainstay of malaria control.

An important social factor to be considered in the control of malaria in Sri Lanka is the high number of displaced persons due to the conflict in the North and East of the country.

Establishment of field laboratories or training of health volunteers (HVs) are 2 possibilities to provide early diagnosis and treatment for communities that have no easy access to existing health facilities.

This study was done to assess how malaria can best be controlled in communities of displaced persons along the new policy guidelines.

The study took place in Kalpitiya, one of the 15 Divisional Secretariats of Puttalam District. The Kalpitiya peninsula has a regular population of 41,000, and an additional 20,000 displaced persons, living in 78 camps. The displaced persons are Muslims, mainly from Mannar District, and most of them came to Kalpitiya in October 1990.

In 11 camps (total population 2196), health volunteers (HVs) were selected and given a 2 day training in the clinical diagnosis of malaria based on a simple fever protocol, and in the management of malaria. The HVs were supplied with chloroquine, primaquine and paracetamol. In a cluster of 4 camps (population 3191), a field laboratory was established during the December 1994 to March 1995 transmission season. Treatment at the laboratory was only given to blood film positive cases.

In March 1995 a household questionnaire was used to obtain information on awareness of malaria, treatment seeking behaviour and acceptance of the interventions.

From November 1994 to March 1995 the field laboratory was visited by 425 patients, of which 78 were positive for *Plasmodium vivax* and 10 for *P.falciparum* (slide positivity rate 20.7%).

In the same period 476 patients came for treatment of fever to the HVs. Blood films were collected of a random sample of these patients, giving a slide positivity rate of 25%. The household survey revealed that knowledge of transmission, signs and symptoms, and treatment of malaria was quite good in the study population. Most respondents found it very useful to have a HV in the camp, but in the 11 camps with a trained HV only 57 (45%) of the respondents were aware that a trained HV was already present. There was a general opinion that the HVs should not only treat malaria but other diseases as well.

Asked about the best way to treat malaria in the camp, 43% of the respondents preferred treatment by a HV, 45% preferred treatment at a laboratory after a blood test, while 12% had no opinion. There was a general awareness in the study population,even among the ones with poor knowledge about the disease that treatment for malaria should preferably take place after a blood test. Average waiting time at the field laboratory was reported as 42 min (range 5 min to 3 h). Although the service was very much appreciated, there were some complaints about the long delays in receiving the result of the blood test. About half the respondents stated they had saved money on transport, blood test and/or drugs by visiting the field laboratory. Average amount saved: Rs.46/-.

Acceptance of both the field laboratory and the HVs was high in this population of displaced persons. The establishment of a field laboratory on a permanent basis would probably not be cost effective with the reported workload. Training of HVs might seem a cheaper alternative. However, HV programmes are only successful if adequate supervision and support can be provided. The catchment area of the HVs in this study was small, and more than one HV would have to be trained in each camp to cover all families. HVs give presumptive treatment, whereby some 75-80% of the patients will receive anti-malarial drugs unnecessarily.