THE QUALITY OF ANTIMALARIAL MEDICINES IN WESTERN CAMBODIA: A CASE STUDY ALONG THE THAI-CAMBODIAN BORDER

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Abstract. The prevalence, availability, and use of antimalarial medicines (AMLs) were studied in six Cambodian provinces along the Thai-Cambodian border. The study was divided into two parts: the first looked at the quality of AMLs available in Pursat, Pailin, Battambang, Bantey Meanchey, Oddar Meanchey, and Preah Vihear and the second obtained information about the availability and use of AMLs. A randomized sampling methodology was used to select locations and collect samples, which were screened using Global Pharma Health Fund (GPHF) Mini-labs®. A subset of samples was sent to quality control laboratories for confirmatory testing. For the second part of the study, face-to-face interviews were conducted using standardized surveys with members of randomly selected households and staff of health facilities in the villages with highest malaria incidence to find out where they acquired their AMLs and which were most frequently used. The results showed an overall failure rate of 12.3% (n=46 of 374 total AML samples). The causes of medication sample failure were low active pharmaceutical ingredient (API) content, failed dissolution properties, and unacceptably high levels of impurities. A total of 86.2% of survey respondents (n=1,648 of 1,912) reported a member of their household having malaria in the previous year. The most commonly used medicines were paracetamol (67.1% of respondents), Malarine® (A+M co-blistered, 28.6%), artesunate + mefloquine co-blistered (public sector product, 17.3%), quinine (16.7%), and artesunate monotherapy (11.9%). Health staff typically prescribed co-blistered artesunate plus mefloquine in the public sector (67.8%), the artesunate plus mefloquine “social marketing” product from Population Services International (PSI), Malarine® (50.3%) in the private sector, artemether (49.7%), chloroquine (39%) and paracetamol (72.9%) to reduce fever.

Keywords: antimalarial medicine, quality, availability, active pharmaceutical ingredient, western Cambodia

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Vol 44 No. 3 May 2013 349