Traveller's adherence to atovaquone/proguanil malaria chemoprophylaxis after return from endemic areas

Jenny Schnyder[1], Myrthe Jarings[1], Christiaan Birkhoff[1], Martin Grobusch[1], Hanna De Jong[1]
[1] Amsterdam UMC

Introduction

Atovaquone/proguanil (AP) is a highly effective malaria chemoprophylaxis combination. According to current guidelines, AP is taken once daily during travels, and continued for seven days post-exposure. However, non-adherence to this regimen is estimated to be considerable.

Methods

In this retrospective questionnaire study adult travellers, who were prescribed AP chemoprophylaxis during a pre-travel consultation, were requested post-travel to complete an online questionnaire to determine adherence. The primary endpoint was the proportion of travellers being non-adherent to AP, respectively, during their stay in endemic areas and after return, defined as missing one tablet or more. Secondary endpoints were drivers for (non-)adherence and AP chemoprophylaxis regimen preferences.

Results

The questionnaire was completed by 59% (217/369) of contacted travellers, of whom 35% (76/217) reported non-adherence. Two out of 217 (3%) participants were exclusively non-adherent during the stay in endemic areas, 44/217 (58%) during the seven days post-travel, and 30/217 (76%) during both periods. Most frequently-reported reasons for non-adherence were: forgetfulness; low self-perceived malaria risk (especially after having left malaria-endemic areas); and adverse effects. An alternative AP regimen, where tablets could be discontinued upon return, was favorable in comparison to the current regimen.

Conclusion

Adherence was especially poor during the seven days after return. Strategies to improve adherence may include medication reminders and improving education on malaria risk, with a particular focus on continuing tablets after return. Future research shall be conducted to definitely answer the question whether AP could be discontinued upon return, as pharmacokinetic data suggest this to be the case.