



Published in final edited form as:

Travel Med Infect Dis. 2015 ; 13(1): 8–9. doi:10.1016/j.tmaid.2014.12.006.

Malaria chemoprophylaxis: a proven public health intervention for international travelers

Nelli Westercamp, PhD, MPH, MBA^{1,2} and Paul M. Arguin, MD¹

¹Division of Parasitic Diseases and Malaria, Center for Global Health, Centers for Disease Control and Prevention, Atlanta, Georgia, United States of America

²Epidemic Intelligence Service, Centers for Disease Control and Prevention, Atlanta, Georgia, United States of America

The most notable finding in Luthi and Schlagenhauf's [1] recent review - that failure to use chemoprophylaxis while traveling to malaria-endemic areas is a major risk factor for severe malaria and death - is concerning, but not at all surprising. This conclusion should be so obvious to the travel medicine community that one might think it did not merit publication at all. But clearly it does.

Malaria chemoprophylaxis is an effective means of preventing both morbidity and mortality among international travelers to malaria endemic countries. It is a proven public health intervention, but unfortunately it is not being utilized sufficiently. There are, of course, many reasons for this. Some travelers are not aware of the risk or do not have access to appropriate preventive health services. People sometimes forget their medicines, or are non-adherent to the correct chemoprophylaxis schedule. Repeat and frequent travelers to malaria-endemic countries may become complacent about malaria prevention in general or may be reluctant to use specific medications for malaria prevention due to side effects they might have experienced, perceived, or simply heard about. But the more concerning one is the travel medicine health care provider who misses the opportunity to recommend effective chemoprophylaxis for the travelers who actually made it in to the clinic seeking such advice. Despite clear and consistent evidence that lack of chemoprophylaxis is a risk factor for severe malaria and death [1], risk-benefit analyses, special considerations for certain types of travelers and settings, promotion of standby emergency medicine, and cost-effectiveness calculations are proffered—all of which have the potential to undermine the use of malaria chemoprophylaxis [2–5]. Luthi and Schlagenhauf [1] demonstrated that even in instances where malaria was not prevented, suboptimal chemoprophylaxis (wrong medications or incorrect usage) reduced mortality and the risk of severe disease. The travel medicine specialist should be advocating for malaria prevention rather than looking for opportunities to avoid prescribing effective chemoprophylaxis. This should include educating the travelers on different available options and choosing the chemoprophylaxis that would be most suitable for each traveler.

When other proven public health interventions such as vaccination of children are rejected, it results in predictable and completely preventable outbreaks [6]. Similarly, the rejection of chemoprophylaxis for persons traveling to malaria endemic areas will result in increased numbers of cases, severe cases, and deaths. Malaria surveillance reports show us that

increased travel to malaria endemic countries correlates with increased numbers of cases in travelers [7]. Despite progress being made in malaria control programs worldwide, malaria remains a life-threatening, highly-prevalent tropical disease.

We are fortunate to be living in a time where we know how to prevent many diseases with proven public health interventions. There are simple things we can all do to prevent illnesses and deaths. Wash your hands. Don't smoke. Use condoms. Cover your cough. Vaccinate your children. And if you are traveling to a malaria endemic area, please take your malaria chemoprophylaxis.

References

1. Luthi B, Schlagenhauf P. Risk factors associated with malaria deaths in travellers: A literature review. *Travel Med Infect Dis*. 2014
2. Bannister B, et al. The role of standby emergency medication for falciparum malaria: current opinion. *Travel Med Infect Dis*. 2004; 2(3–4):119–126. [PubMed: 17291973]
3. Massad E, et al. Cost risk benefit analysis to support chemoprophylaxis policy for travellers to malaria endemic countries. *Malar J*. 2011; 10:130. [PubMed: 21586155]
4. Schwartz E. Prophylaxis of malaria. *Mediterr J Hematol Infect Dis*. 2012; 4(1):e2012045. [PubMed: 22811794]
5. Calleri G, et al. New Italian guidelines for malaria prophylaxis in travellers to endemic areas. *Infection*. 2014; 42(1):239–250. [PubMed: 24347205]
6. Omer SB, et al. Vaccine refusal, mandatory immunization, and the risks of vaccine-preventable diseases. *N Engl J Med*. 2009; 360(19):1981–1988. [PubMed: 19420367]
7. Cullen KA, Arguin PM. Malaria surveillance--United States, 2011. *MMWR Surveill Summ*. 2013; 62(5):1–17. [PubMed: 24172939]