
Downloaded from: http://researchonline.lshtm.ac.uk/2160149/

DOI: 10.1136/ebmed-2015-110173

Usage Guidelines

Please refer to usage guidelines at http://researchonline.lshtm.ac.uk/policies.html or alternatively contact researchonline@lshtm.ac.uk.

Available under license: http://creativecommons.org/licenses/by/2.5/
Monthly malaria chemoprevention shows potential in an area of very high, perennial malaria transmission
10.1136/ebmed-2015-110173

Matthew Cairns,1 Patrick G T Walker2
1MRC Tropical Epidemiology Group, London School of Hygiene and Tropical Medicine, London, UK; 2MRC Centre for Outbreak Analysis & Modelling, Department of Infectious Disease Epidemiology, Imperial College London, London, UK

Correspondence to: Dr Matthew Cairns, MRC Tropical Epidemiology Group, London School of Hygiene and Tropical Medicine, London WC1E 7HT, UK; matthew.cairns@lshtm.ac.uk


Context
New approaches are needed for malaria control where the burden has remained high despite scaled up coverage of long-lasting insecticide-treated nets (LLIN) and prompt access to artemisinin-based combination therapies (ACTs).1 Bigira and colleagues evaluated three regimens for chemoprevention of malaria in young children in eastern Uganda, in an area of very high year-round malaria transmission and high resistance to antifolate drugs, including sulfadoxine-pyrimethamine (SP) and sulfamethoxazole.

Methods
Between 6 and 24 months of age, children without chemoprevention experienced almost seven malaria episodes per person-year, despite apparently high LLIN use. Monthly SP provided no protection against clinical malaria by 28% (95% CI 7% to 44%) despite antifolate resistance. Monthly DP reduced clinical malaria by 58% (95% CI 45% to 67%) and possibly moderate–severe anaemia: PE 47% (95% CI 1% to 72%). Self-reported adherence was high but the reliability of this was unclear. There were no significant differences in incidence of complicated malaria or hospitalisation, although numbers were low. Between 24 and 36 months of age, children experienced close to 11 episodes per person-year, regardless of prior intervention group.

Findings
While it is unclear how widely year-round chemoprevention will be appropriate, it will be most cost-effective in areas with very high incidence: control policy needs to be tailored to local epidemiology. Focusing on fewer areas may also limit the impact of chemoprevention on resistance. This will require policymakers to have accurate and regularly updated information on malaria epidemiology and drug resistance markers.

Contributors
MC wrote the first draft of the commentary. PGTW revised the draft. Both the authors approved the final version.

Competing interests
None declared.

Provenance and peer review
Commissioned; internally peer reviewed.

Open Access This is an Open Access article distributed in accordance with the terms of the Creative Commons Attribution (CC BY 4.0) license, which permits others to distribute, remix, adapt and build upon this work, for commercial use, provided the original work is properly cited. See: http://creativecommons.org/licenses/by/4.0/

References