

to mosquitoes are required to achieve malaria elimination. Primaquine (PQ) is the only antimalarial drug recommended against mature gametocytes; however, its use has been limited because it causes a dose-dependent haemolytic anaemia. A clinical trial was conducted in The Gambia to evaluate the impact of dihydroartemisinin-piperaquine (DP) with and without PQ on gametocyte carriage and infectiousness to mosquitoes. As an ancillary study, we compared the efficacy of the four different treatments in asymptomatic *Plasmodium falciparum*-infected individuals.

Methods The main study was a four-arm, open label, randomised-controlled trial comparing the effect of three different single doses of PQ (0.75 mg/kg, 0.4 mg/kg, and 0.2 mg/kg) on gametocyte carriage in malaria-infected, asymptomatic individuals with normal glucose-6-phosphate dehydrogenase status. All treatment arms received DP with the fourth arm acting as control. Our ancillary study aimed to determine the duration of gametocyte carriage in the PQ groups compared to the control group and to assess the adequate and clinical response of treatment (ACPR) at day 42 of follow-up.

Results A total of 694 individuals were enrolled; 175 were randomised to the control, 172 to the 0.75PQ, 175 to the 0.4PQ, and 172 to the 0.2PQ arms. The hazard ratio (HR) of gametocytes carriage was significantly longer in the control group compared to each of the PQ arms; 1.8 (1.2–2.6 $p=0.002$) in 0.75PQ, 1.5 (1.0–2.1 $p=0.03$) in 0.4PQ and 1.5 (1.0–2.1 $p=0.04$) in 0.2PQ. At day 42, ACPR was 97.04%; 95.48%; 92.45%; 99.37% in DP group; 0.75PQ; 0.4PQ and 0.2 PQ, respectively.

Conclusions Adding PQ to DP shortens the duration of gametocyte carriage and the adequate and clinical response of treatment (ACPR) is high.

PA-012 **GAMETOCYTE CARRIAGE AFTER A TREATMENT WITH PRIMAQUINE COMBINED WITH DIHYDROARTEMISININ-PIPERAQUINE IN MALARIA-INFECTED, ASYMPTOMATIC INDIVIDUALS**

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10.1136/bmjgh-2016-000260.50

Background With the decrease of malaria burden, additional interventions capable of interrupting transmission from human