OA-028 RANDOMIZED TRIAL TO ASSESS EFFECT OF REPEATED TREATMENT OF DHA-PQ AND AL ON QTC INTERVAL IN PATIENTS PRESENTING WITH UNCOMPLICATED MALARIA IN BOBO-DIOULASSO, BURKINA FASO

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Background Artemisinin combination therapies (ACTs) are widely used for the management of malaria and even tested for chemoprevention. In single episode efficacy studies, these drugs were clinically well tolerated but cardiac effects over repeated treatment are less investigated.

Methods We conducted a prospective randomised controlled trial in Bobo-Dioulasso from August to October 2013 where patients aged 6 months and over were randomly allocated to receive either dihydroartemisinin-piperaquine (DHAPQ) or artemether-lumefantrine (AL) on first and subsequent episodes. Each participant was screened against inclusion criteria including the ECG which was repeated again 2 hours after the last dose. We considered that a QTc interval more than 30 ms compared to the baseline value is abnormal, but a prolonged QTc interval over 450 ms was reported as adverse event. QTc values were categorised into less or greater or equal to 450 ms. Drug tolerance was compared using Chi-square test, and p-value of less than 0.5 is significant.

Results Patients were randomised to receive DHAPQ (n=224) or AL (n=236). During the 2 years follow-up we observed a total of 130 (in 1173 electrocardiogram performed on day 2 monitoring) prolonged QTc more than 450 ms (96/548 for DHAPQ and 34/625 for AL, p< 0.001). Irrespective of the drug, these proportions of prolonged QTc decreased over the subsequent episodes (50 QTc =450 in episode 1 to 0 in episode 8 up to episode 10).

Conclusions The proportion of prolonged QTc was higher in DHAPQ group compared to the AL group but decreased along with the number of retreatments. Otherwise, DHAPQ and AL were well tolerated despite repeated treatment of malaria, which seemed to improve over consecutive episodes.