SUMMARY

The choice of artemisinin based combination recommended by WHO for the treatment of uncomplicated malaria may depend on several factors. These include cost, efficacy, side effects and simplicity of administration. However, sulfadoxine/pyrimethamine (SP) and chloroquine are still being used in some parts of Nigeria despite increasing resistance of Plasmodium falciparum to these cheap and affordable antimalarial agents.

A comparative trial of Artemether/Lumefantrine (Coartem), an artemisinin based combination with Sulfadoxine/Pyrimethamine plus Chloroquine for the treatment of uncomplicated malaria in children at Plateau Specialist Hospital Jos was done.

Children aged 6 months to 12 years with uncomplicated P. falciparum infection and parasite density of 2,000/µL and above were enrolled following informed consent by parents. Eligible children were randomly assigned to receive a six dose regimen of artemether-Lumefantrine (20/120mg tablet) or a single dose of sulfadoxine/pyrimethamine (500/25mg tablet) plus a 3 day regimen of chloroquine (150mg base tablet).

Patients were followed up with clinical and Laboratory assessments until day 14 using standard WHO in-vivo antimalarial drug test protocol. A total of 294 eligible children were
enrolled but only 266 completed the study. One hundred and thirty-one in the Coartem group and 135 in the SP+CQ group.

Adequate clinical responses (ACR) were 93.9% and 70.4% for Coartem and SP + CQ group respectively. Early treatment failures were 2.3% and 11.9% for Coartem and SP + CQ respectively, while late treatment failure (LTF) were 3.8% for Coartem and 17.8% for SP + CQ.

The sensitivity of the parasite to SP + CQ was 70.1% while that to Coartem was 93.1%. The R1, RII and RIII resistance were 14.1%, 3.7% and 11:9% respectively for SP + CQ while that of Coartem were 4.5%, 0% and 2.3% for RI, RII and RIII, respectively.

Based on these findings, artemether/lumefantrine is considered very effective and is recommended for the treatment of uncomplicated falciparum malaria in children. Sulfadoxine/Pyrimetamine + CQ on the other hand should be considered obsolete.