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Assessment and impact of the new IPTp implementation strategy on maternal, fetal and neonatal outcome in Ghana

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On the back of wide spread sulphadoxine pyrimethamine resistance across Africa and its implication to malaria prevention among pregnant women and also the dose dependent beneficial effect of SP against malaria in pregnancy, WHO reviewed their guidelines to a monthly SP administration. Ghana adopted this amendment and the new policy is currently being implemented. To assess the implication of the new IPTp strategy to maternal and neonatal outcomes, 1,000 pregnant women visiting health facilities from a peri-urban (Kpone-on-sea) and urban (Maamobi) setting in the Greater Accra Region, for their first antenatal care (ANC) and another 1,000 for delivery were recruited. Plasma levels of antimalarial drugs including SP and artemisinin derivatives were measured using an HPLC/MS/MS method. Parasitemia was also determined using microscopy and real-time PCR. Of the 1,000 women recruited from the first ANC visit, the mean $\pm$ SD gestational age was 17 ± 7 weeks at Kpone-on-sea and 18 ± 7 weeks at Maamobi. At Kpone-on-sea, 40.9% of participants at ANC were PCR positive compared to 39% from Maamobi. Also, 4.2% of participants at delivery were PCR positive compared to 23.6% from Maamobi. At delivery, 96% of the women reported at least one SP uptake in Kpone-on-sea while 78% did in Maamobi. This corroborates with the high percentage of participants in Maamobi parasiticides compared to Kpone. This might be due to the fact that pregnant women are not given SP or any other antimalarial to prevent malaria. Also, high level of SP was measured in the cord blood, strongly suggesting placental barrier corsage. This observed phenomenon suggests that although IPTp is beneficial, its administration close to delivery could have negative impact on the new born. The detailed analysis and data will be discussed at the congress.

Biography

TORNYIGAH Bernard is currently a doctoral student of Universte Paris Descartes. His research theme is looking at infections that affect both mother and child health care with main emphasis on malaria. His theme stem from the vast literature on the failing malaria intervention specifically IPTp with sulfadoxine-pyrimethamine in eastern and southern Africa. Yet, WHO proposed a monthly uptake of this drug for malaria prevention during pregnancy, with understanding the effect the increased drug uptake will have on fetus development. His research is under the direction of Dr. Nicaise Ndam.

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