

Intermittent presumptive treatment of malaria to prevent low birth weight in newborns in a cohort of pregnant women from a malaria endemic area

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Abstract:

OBJECTIVE: To determine and describe the patterns of low birth weight in newborns of a cohort of mothers given intermittent presumptive treatment (IPT) for malaria prevention in a malaria endemic area of Kenya. **DESIGN:** A longitudinal prospective cohort study. **SETTING:** Got Agulu Health Centre in Usigu Division, Bondo District, Nyanza Province. **SUBJECTS:** Pregnant women of all parities attending antenatal care services. Only women who gave informed consent for themselves and their newborns after birth were eligible to participate in the study. **RESULTS:** Parity was highly predictive of birth weight in the study subjects. Primigravidae and secondigravidae had a significantly lower mean birth weight (2952g) than women of higher gravidity (3214g) p -value <0.0001 . Regardless of IPT administration, women who became positive for malaria infection at any point during pregnancy delivered 73.7% of the LBW infants. There was no significant difference in mean birth weights between primigravidae and multigravidae who had parasitaemia at baseline and at delivery (means 2906g and 3062g respectively, $p=0.11$). However, there was a significant difference between the parasitaemia negative primigravidae and multigravidae at baseline and at delivery (means 2952g and 3204g respectively, $p=0.006$). Infection with helminths did not have an effect on birth weight. Overall, low birth weight was observed in 9% of the newborns and was most commonly found in primigravidae and secondigravidae (14.8% and 13.1% respectively). **CONCLUSION:** Although many factors have been known to play a role in the causation of low birth weight (LBW <2500 g), parity status and malaria infection in malaria endemic areas still play a major role regardless of IPT administration.