MedicalXpress

Acceptability of alternative drugs and strategies to prevent malaria in pregnancy in Kenya

March 18 2016

Researchers at LSTM, working with colleagues at the Centres for Disease Control and Prevention (CDC) USA, the Kenya Medical Research Institute, and from the London School of Hygiene and Tropical Medicine, have completed a study to assess the acceptability among pregnant women and health providers in Kenya of a new drug as an alternative to the standard drug used to prevent malaria in pregnancy.

The study was embedded in a clinical trial which looked at the efficacy of using dihydroartemisinin-piperaquine (DP) for either intermittent preventive treatment (IPTp-DP), or intermittent screening with malaria rapid diagnostic tests (RDTs) and treatment (ISTp-DP), as alternatives to the current World Health Organization (WHO) policy of IPTp with sulfadoxine-pyrimethamine (IPTp-SP).

LSTM's Dr Jenny Hill, from the Malaria in Pregnancy (MiP) Consortium, was first author on the study which has been published today in the journal *PLOS One*. The study collected qualitative data through focus group discussions with pregnant women participating in the main trial in western Kenya as well as carrying out in-depth interviews with health workers responsible for providing routine antenatal care in the trial facilities.

Malaria infection during pregnancy is a significant health problem to both the mother and the unborn child. It has been associated with

chronic anaemia in the mother, and with loss of the pregnancy due to miscarriage or stillbirth and with low birth weight in pregnancies that result in livebirths, which in turn results in an increased risk of infant death. SP is currently the only antimalarial drug that is recommended by WHO for this IPTp strategy, however high levels of resistance from the malaria parasite to this drug threatens its efficacy.

Dr Hill and her team found that, within the trial context, ISTp-DP and IPTp-DP were generally acceptable among both users and providers although several challenges were identified. Dr Hill explained: "The clinical trial results were very promising showing that intermittent preventive treatment with dihydroartemisinin-piperaquine (DP) was a good alternative to using sulfadoxine-pyrimethamine (SP), however the test and treat approach was not a suitable alternative, and this was echoed in our study. Health providers lacked the confidence in the reliability of the rapid diagnostic tests used in the test and treat approaches. While trial staff reported full adherence to the new drug in the trial setting, health providers were not as confident that women would adhere to multi-day regimes in non-trial settings as this requires a switch from a single day regimen with SP, for which coverage is already sub-optimal, to more complicated regimens. With multi-day regimens only the first dose can be given under direct observation at clinics and the remaining 2 doses will need to be taken at home." The study by Hill suggests that feasibility studies of IPTp with DP in operational settings are now needed to determine how to support programmes to implement new multi-day regimens to address potential issues with adherence.

More information: Jenny Hill et al. User and Provider Acceptability of Intermittent Screening and Treatment and Intermittent Preventive Treatment with Dihydroartemisinin-Piperaquine to Prevent Malaria in Pregnancy in Western Kenya, *PLOS ONE* (2016). DOI: 10.1371/journal.pone.0150259