

**EDITORIAL****THE ROLE OF DRUGS IN CONTROL OF MALARIA**

In the early 1960s, President Kwame Nkrumah, the then doyen of Pan African politics, suggested that it would be appropriate to erect a monument in honour of mosquito which had frustrated European colonization of the West Coast of Africa. The inference was that the mosquito-borne malaria parasite was killing the Europeans but had minimal effect on the indigenous people. The Europeans, some of them missionary doctors, had access to antimalarial drugs. In contrast, the Africans had no access to such drugs as there were no health facilities or infrastructure to enable them move freely. Up to 1940, the only antimalarial in use was quinine, either in pure form or as Cinchona bark preparations. Chloroquine was introduced later after the World War II. Extensive control measures targeting mosquito using dichloro-diphenyl-trichloroethane (DDT) aerial spray led to elimination of malaria in Southern European countries such as Italy and Spain. In the 1950s and 1960s, malaria was under control and even total eradication was considered possible.

Between 1960 and 1980, several new antimalarial drugs were introduced into the market. These included mefloquine, halofantrine, sulphonamide/pyrimethamine (SP) combinations, and chlorproguanil, among others. Paradoxically, this is the period when malaria problem worsened, affecting even the indigenous people living in the malaria endemic countries (MEC) of East, Central, West and South Africa. It is not clear what factors were at play but one can speculate that loss of immunity to the parasite was a contributory factor. Common antimalarial drugs such as chloroquine, amodiaquine and SP were readily available in village kiosks and market shops. They were deliberately over-promoted even in high altitude areas where malaria was not a problem.

Up to 1990s, malaria did not receive much attention from the World Health Organisation (WHO) and other international agencies. In 1998, the WHO and the United Nations Children Fund (UNICEF) jointly launched a programme popularly referred to as Roll Back Malaria (RBM). This programme was endorsed by African Heads of States summit meeting in Abuja on 25 August, 2000. RBM was multifaceted and included use of insecticide treated nets (ITN), indoor insecticide residue spraying, and use of intermittent preventive treatment (IPT) in which pregnant women were given antimalarial drugs during antenatal clinics. It also included use of heavily subsidized drugs. The United Nations declared 2001-2010 the decade to roll back malaria in developing countries. Malaria also features prominently in the United Nations Millennium Development Goals (MDG).

An important cornerstone of RBM was the promotion of artemisinin combination therapy (ACT). The following combinations were approved for use by WHO: artemether/lumefantrine, artesunate/amodiaquine, artesunate/mefloquine, and dihydroartemisinin/piperaquine. At the same time, the WHO discouraged the use of chloroquine, SP drugs, and monotherapy with artemisinin derivatives. About the same time, a Global Fund to fight AIDS, Tuberculosis and Malaria (GFATM) was established and funded by member states of the United Nations. This fund attracted a lot of non-governmental organizations (NGOs). Some pharmaceutical companies jumped into the bandwagon and offered to provide drugs "at cost". To put it bluntly, GFATM became a "cash cow" for several NGOs. Today, these NGOs continue to spew dubious statistics suggesting that discontinuation of this fund as intimated by some leading donors would lead to an apocalypse. The truth is that ACT has made little contribution to the containment of malaria. Indeed, there is ample evidence that ACT is not as effective as claimed. Several patients and clinicians can attest to therapeutic failure with ACT. Unfortunately there seems to be a conspiracy of silence, a kind of professional "omerta" where this fact is rarely acknowledged.

A critical evaluation of management of parasitic diseases such as malaria, leishmaniasis, and trypanosomiasis show that drugs play a relatively minor role in their control. More important are the

public health measures targeting the vectors. This explains why aerial spraying of malarious areas with insecticides had such great impact in the 1950s and 1960s. There is ample evidence that the ITN provided under the GFATM and which are relatively cheap have made a bigger impact than the expensive ACT. The majority of people in malarious rural areas manage acute attacks of malaria with analgesic/antipyretics such as paracetamol, ibuprofen and aspirin, most of which are available in the village kiosks. Others resort to herbal remedies. Acute attacks of falciparum malaria require immediate intervention and the antipyretics are usually adequate even without antimalarials. Over reliance on antimalarials by people in MEC is therefore unjustified. An article appearing in this issue of the journal authored by Tاتفeng gives information on the attitude towards the treatment of malaria in Nigeria. Surprisingly, chloroquine, SP (maloxime, fansidar), and monotherapy with artemisinin derivative (artemether) all of which were discredited by WHO in favour of ACT are widely used in Nigeria, the host of "Abuja declaration". Nigeria is one of the most advanced countries in Africa and it defies logic why they would fail to accept WHO recommendations based on sound reasoning. The same article indicates wide use of herbal remedies all of which were found to be ineffective.

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