CURRENT MALARIA CLINICAL TRIALS ACTIVITY ON THE PAN AFRICAN CLINICAL TRIALS REGISTRY AND COMPARISON WITH A HISTORICAL COHORT.

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Background

Ninety percent of the estimated malaria deaths occur in sub-Saharan Africa, with 77% of these in children younger than 5 years. Although estimated African malaria mortality rates decreased by 54% between 2000 and 2013[1], much needs to be done to ensure optimization of life-saving malaria interventions. The Pan African Clinical Trial Registry (PACTR, www.pactr.org) launched in 2007, and was endorsed by the WHO as a primary registry in 2009. It provides online information about completed, ongoing and planned clinical trials in Africa, including a live GIS map of trial locations.

Objectives

To analyse interventions reported in African based malaria trials registered on www.pactr.org between 2007 and 2014, and to compare them against those included in a cohort of pre-2007 completed and published trials[2], to highlight research trends and possible gaps in interventions.

Methods

We conducted a cross-sectional analysis of trials currently registered on www.pactr.org and extracted those reporting malaria interventions. Data extraction included number of trials, location, intervention studied, and participants' age range. Descriptive analysis was conducted using MS Excel.

Results

Of 388 studies registered on www.pactr.org from 1 May 2007 – December 2014, 51 trials reported planned or ongoing research on malaria interventions at trial sites in Africa. Of these, 24 reported on treatment, 26 on prevention and one on a community intervention. For the prevention trials, seven included drug interventions (Intermittent preventive treatment, mefloquine), 15 reported vaccines, 2 mosquito nets, and 2 other methods. Compared to the historical cohort, within the prevention trials there was an increase in the number of vaccine trials (from 6/38 to 15/26) and a decrease in the number of mosquito control trials (from 10/38 to 2/26). Between 2007-2014 there was also an increase in the number of trials which included pregnant women and adults, although the majority of trials were conducted in children.

Conclusions

We compared malaria trials conducted in sub-Saharan Africa and published before 2007 with those registered on www.pactr.org between 2007-2014. The number of antimalarial drug trials in the two periods was similar, but there was an increase in the number of trials testing vaccines, and fewer trials testing vector control measures. There was an increase in the number of trials enrolling adults and in particular pregnant women during the more recent period. Ongoing trials registers such as www.pactr.org constitute valuable tools to monitor up-to-date trial activity and to allow appropriate planning for future research.

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Figure 1. Participants' age groups

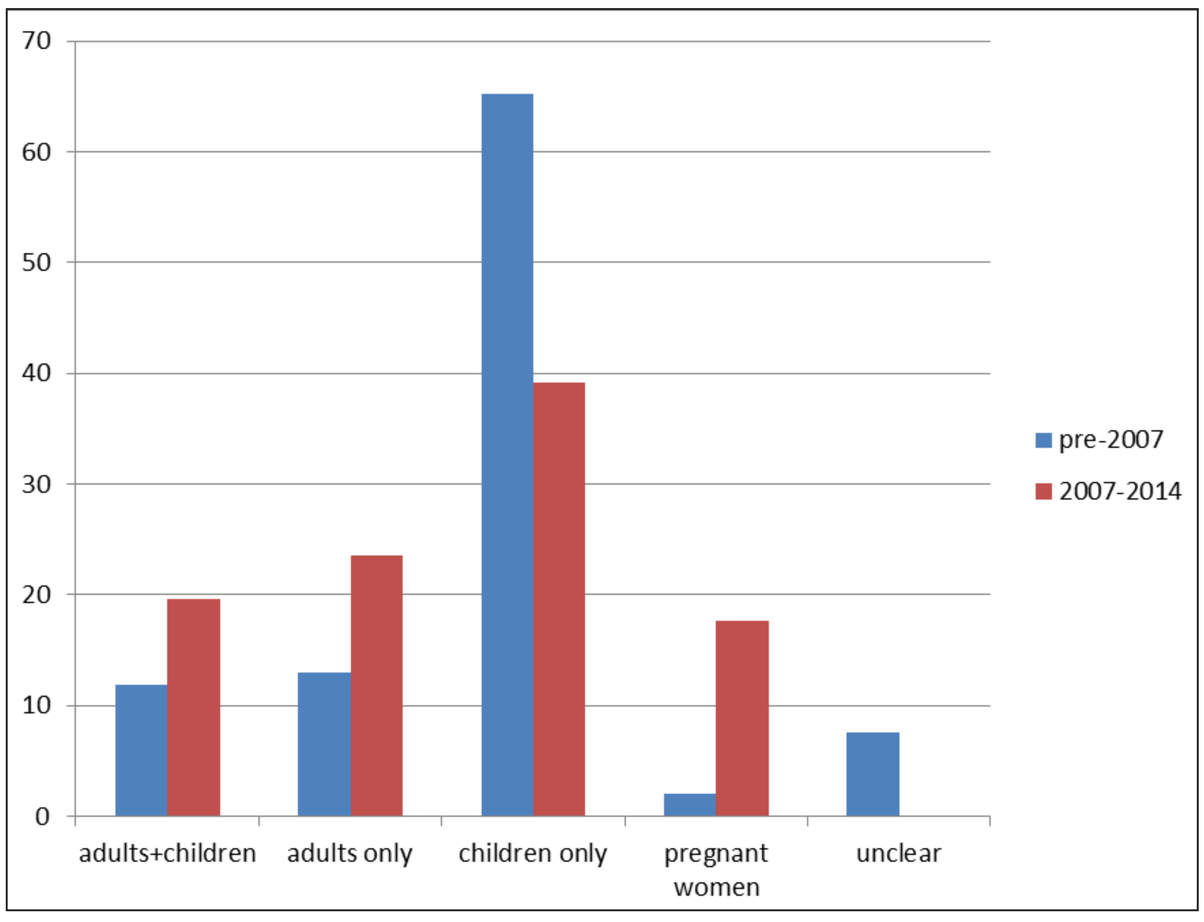

Figure 2. Country distribution of malaria RCTs

Figure 3. Types of interventions

	Prevention - n (%)	Treatment n (%)	Unclear n(%)
Pre-2007 trials (n = 92)	38 (41.3%)	53 (57.6%)	1 (1.0%)
2007-2014 trials (n = 51)	26 (50.9%)	24 (47%)	1 (1.9%)

Malaria prevention trials				
	Drugs (n/%)	Vaccines (n/%)	Mosquito control (n/%)	Other (n/%)
Pre-2007 trials (n = 38)	10 (26.3%)	6 (15.7%)	10 (26.3%)	12 (31.5%)
2007-2014 trials (n = 26)	7 (26.9%)	15 (57.3%)	2 (7.6%)	2 (7.6%)