Using the Pan African Clinical Trials Registry to monitor TB-related research on the African continent

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The Pan African Clinical Trials Registry

In 2004, the World Health Assembly called for the development of a network of clinical trial registers to feed data to a single point of access thereby pooling information and creating a system for unambiguous identification of trials (1). The World Health Organization (WHO) developed the International Clinical Trial Registry Platform (ICTRP), as this single point of access, which collects data from the members of the WHO Network of Primary Registries. Clinical trial registries can curb publication bias or selective reporting by ensuring that trial protocols are transparent and freely available to stakeholders. The registry collects a standard 20-item data set on registered trials before the inception of the trial and recruitment of the first participant. When trials are prospectively registered the outcomes as stated in the protocol can be tracked all the way through the course of the trial thereby ensuring that objectives cannot be changed without a public record of those changes.

Clinical trial registration can also be a valuable method of monitoring trial activity in a particular region or field of study. The trial landscape on the African continent is growing with increasing momentum. The challenge is to ensure that all new trials are identified and that trial information is made widely available in an open-access repository. The Pan African Clinical Trials Registry (PACTR, www.pactr.org) was born out of the need to meet this challenge. The PACTR is a prospective clinical trials registry, which aims to increase clinical trial registration in Africa by developing awareness of the need to register trials and supporting trialists during registration.

PACTR is the first African open-access resource collecting the 20-item data set advocated by the WHO and presently the only African member of the WHO Network of Primary Registers. PACTR provides a platform for prospective registration of trials; and a publicly accessible, searchable database of all trials conducted in Africa. PACTR was formally launched in 2009, but had previously been known, from its inception in 2007, as the AIDS, Tuberculosis (TB) and Malaria (ATM) registry due to its specific disease focus, a result of the burden of disease in sub Saharan Africa. From 2009, PACTR began accepting registrations from trials conducting research in all diseases, but continued to be home to trials primarily focused on HIV, TB and malaria. At present, although other conditions are increasingly being researched in the region, the majority of trials registered on PACTR continues to be focused on these 3 (2).

PACTR, as a member of the WHO Network of Primary Registries, gives researchers in Africa the opportunity to register their trials with the registry of choice for the African region thereby ensuring that African trial data contributes to global data on clinical trials through the ICTRP. PACTR is a valuable resource to understand the clinical trial landscape throughout Africa, and provides an opportunity to monitor the conduct of clinical trials. PACTR provides valuable information on the current TB trials being conducted, the focus of the TB research in specific areas throughout the region, and contact information for principle investigators. PACTR can be used to understand the changing trial landscape, and thereby research trends, while providing users with insight on regional capacity development (2).

Monitor TB related research

The PACTR database was searched on 8 July 2012 to identify TB-related trials. Data were extracted, including whether the trial intervention was treatment, prevention or diagnosis, the participants' age range, location of trial, location of principal investigator (PI) and trial site type (multi- or single-centre). A descriptive analysis was conducted using excel, and a spatial analysis of registered TB applications on the PACTR database is presented.

Of the 111 trials registered in PACTR, 22 (20%) are TB related (see Figure 1). Of 14 trials that research TB alone, eight focus on treatment, two on diagnosis, two explore prevention using medication as prophylaxis, one evaluates patient support and one that explores a TB vaccine. Seven trials investigate patients with both HIV and TB - five focus on treatment and two on diagnosis. One trial explores a brief intervention for alcohol-use disorders among TB patients. Five of 22 trials recruit child (18 years or younger) participants (see Figure 2).

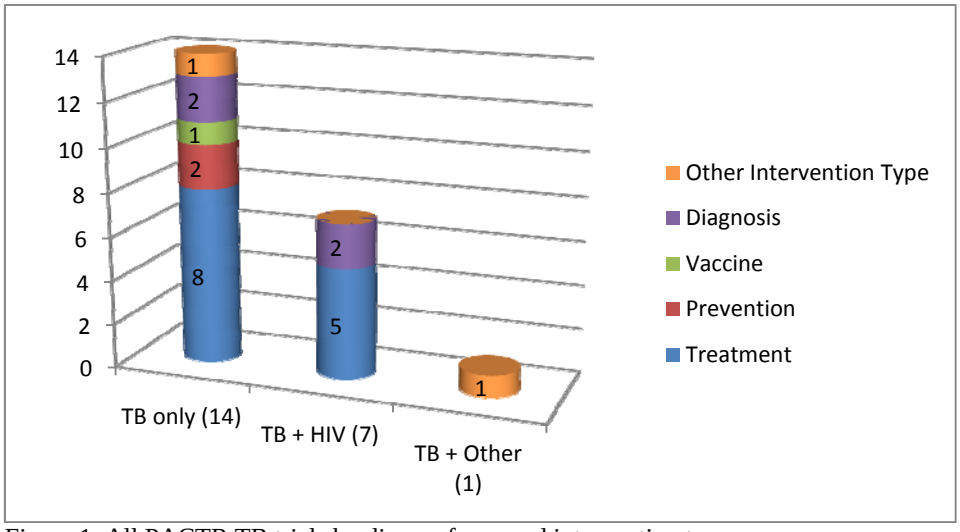

Figure 1. All PACTR TB trials by disease focus and intervention type

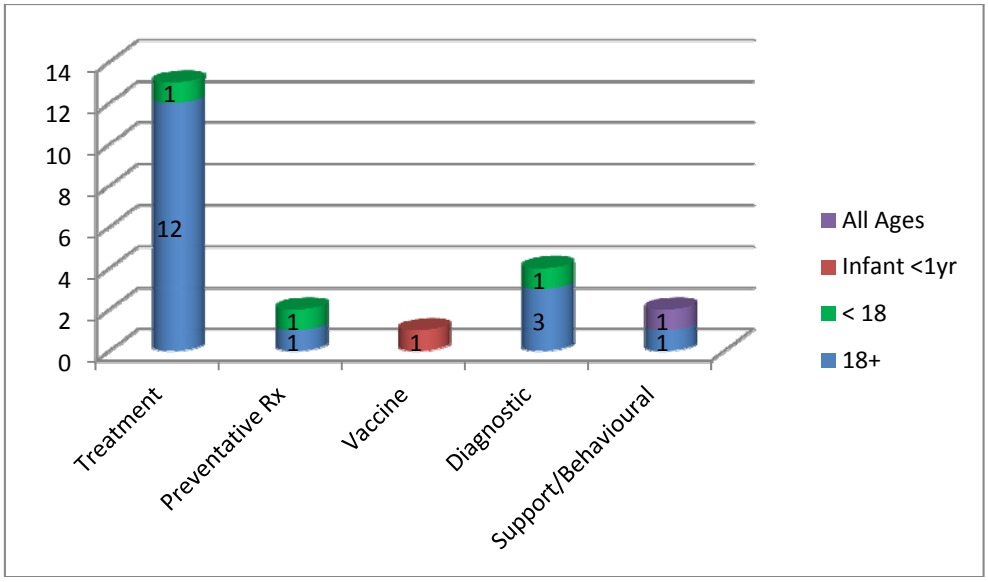

Figure 2. All PACTR TB trials by intervention type and participant age

Eight of 22 trial sites are single-centred, the remaining 14 are multi-centred. Trial sites are located in 11 African countries and in India: South Africa (15), Zimbabwe (5), Zambia (4), Tanzania (3), Guinea-Bissau (2), Mozambique (2), Benin, Ethiopia, Guinea, Nigeria and Senegal (see Figure 3). Nineteen of 24 (note that 1 trial has 3 PI's) PI's are from Africa: South Africa (12), Guinea-Bissau (2), the United Kingdom (2), Zimbabwe(2), Germany, Kenya, the Netherlands, Sweden, Uganda and Zambia (see Figure 4).

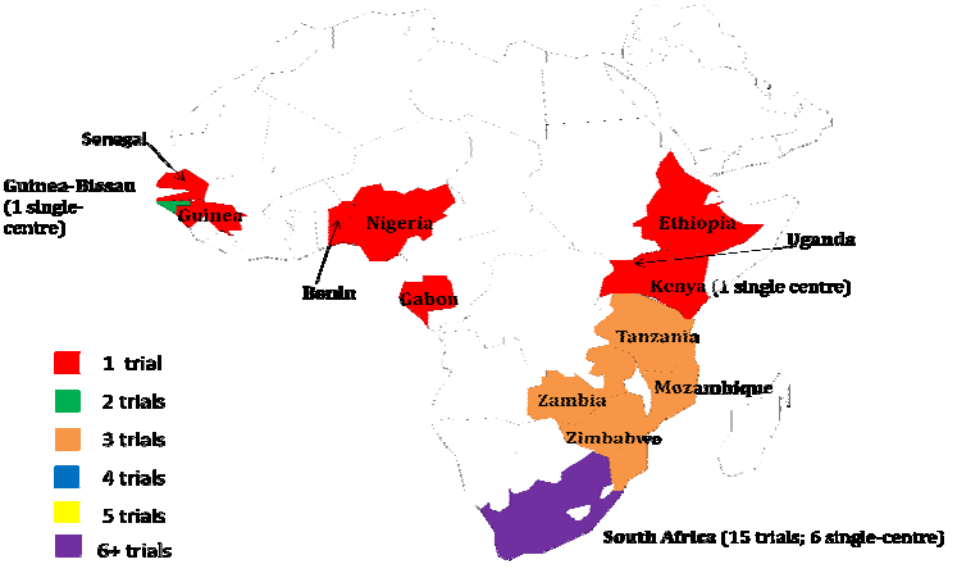

Figure 3. All PACTR TB trials by trial location

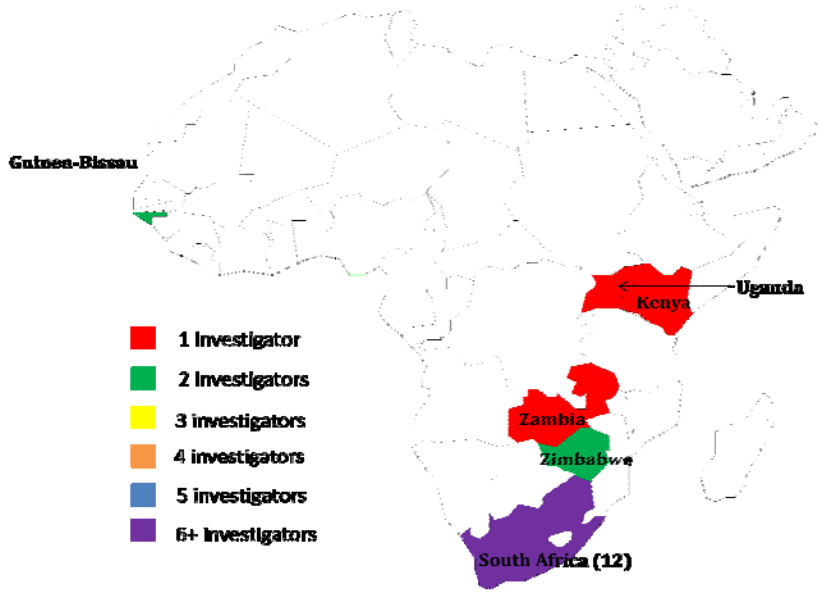

Figure 4. All PACTR TB trials by African PI location

Sample sizes of the registered TB trials range from 24 to 4192 participants with a median sample size of 766 participants. The majority (n=14) of these trials are funded (partially or fully) by the European and Developing Countries Clinical Trials Partnership with the remainder funded through universities, governments, non-governmental organizations and industry partnerships.

What does PACTR add?

As registration in PACTR increases, the registry will be able to offer an increasingly comprehensive mechanism for monitoring the clinical trial environment in Africa. Regular analysis of PACTR data can track trial activity on the continent. For example, the registry facilitates understanding of regional research patterns (i.e., where research is over-done and participants are spread thin versus places where research has not been conducted), enables the identification of research gaps for future studies, and facilitates the investigation of the scope, quality and funding patterns of African trials. Research on the clinical trial landscape is further facilitated through PACTR's Global Information Systems (GIS) mapping component. The first of its kind for a clinical trial registry, PACTR launched this component in August 2011 to provide users with a real-time visual display of clinical trial sites throughout the continent.

The registry can be a valuable resource for networking: PACTR provides users with the contact details for those involved in similar research, and can be a resource to search for funders who supported topics in their area of interest. PACTR provides a resource for potential trial participants to find specialists researching their condition, and an opportunity to be involved with the trial. Additionally, African trialists face challenges to registration that others in resource rich settings may not. One challenge is limited, unreliable and costly internet access. PACTR seeks to provide feasible ways of overcoming this by allowing trialists to register by postal mail or facsimile in addition to online and via e-mail. We also provide dedicated telephonic and e-mail support to registrants.

What does the future hold for PACTR?

PACTR supports increasing trial registration demands and activity in trial research through dissemination of the aims of PACTR. Additionally awareness raising activities aiming to increase the knowledge of trialists about the need for transparency regarding planned or ongoing clinical trials has been and will continue to be a central objective in our dissemination strategy. We continue to encourage partnership with African countries that want to provide data to WHO but have not developed primary registries, and as such maintain our commitment to assist in harmonising the efforts to regulate, register and review clinical trials on the African continent through the Pan African Clinical Trials Alliance initiative developed by the WHO.

Perhaps the greatest achievement of PACTR in the last year has been the growth of the registry – it has nearly tripled since PACTR's formal launch at the 2009 African Vaccines and Regulatory Forum (AVAREF) meeting. Today we have over 180 applications to the registry and 111 registered trials. Although the registry has begun to grow rapidly, we do face some challenges and limitations, which include limited staff, a single language of access, low awareness amongst trialists of need to register and sustainable funding.

In conclusion, this analysis of currently registered trials on PACTR shows that nearly twenty percent of the research topics are related to TB. Registered trials researching TB focus on treatment, while diagnostic trials are increasingly being conducted in the region. Nearly a quarter of the TB-related trials recruit pregnant mothers or children to assess the effects of interventions on pregnancy and children. Trial sites throughout Africa are represented (although the majority in South Africa) and more than half of the trials list an African PI. PACTR fills a service gap as a resource on trial information, networking and oversight. As a data provider to the WHO ICTRP, PACTR provides information on African trials which had previously not been represented on the Platform, and thus, the majority of these trials had previously been absent from global analysis of trials conducted.

Note that the above has been presented at the 3rd Southern African TB Conference, 12-15 June 2012, Durban.

References:

1. Ghersi D, Pang T. From Mexico to Mali: four years in the history of clinical trial registration. Journal of Evidence Based Medicine. 2009; 2;1 - 7.
2. Abrams A, Siegfried N. Growing Everyday: The Pan African Clinical Trials Registry. Journal of Evidence Based Medicine.2011;4:172 - 78.