



Experiences from participation in the clinical study for arpraziquantel and the expected impact of the potential new pediatric treatment on patients

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*PZQ Consortium Phase III
Webinar*





Outline



- 1 Schistosomiasis situation in Kenya and KEMRI's role in disease control**
- 2 Experience through the clinical study
- 3 How Ped PZQ will bring positive impact?
- 4 Next steps for access of ped PZQ – ADOPT study



Consortium founded in 2012

International non-profit R&D Consortium with a focus on extended partnership into endemic countries

In kind and/or in cash contribution by partners

Continually seeking funding and advice from external experts and partners

International Expert Panel (World Health Organization) as observer

Grants :
Bill & Melinda Gates Foundation
GHIT Fund (3x)
EDCTP



Exited Oct 2017

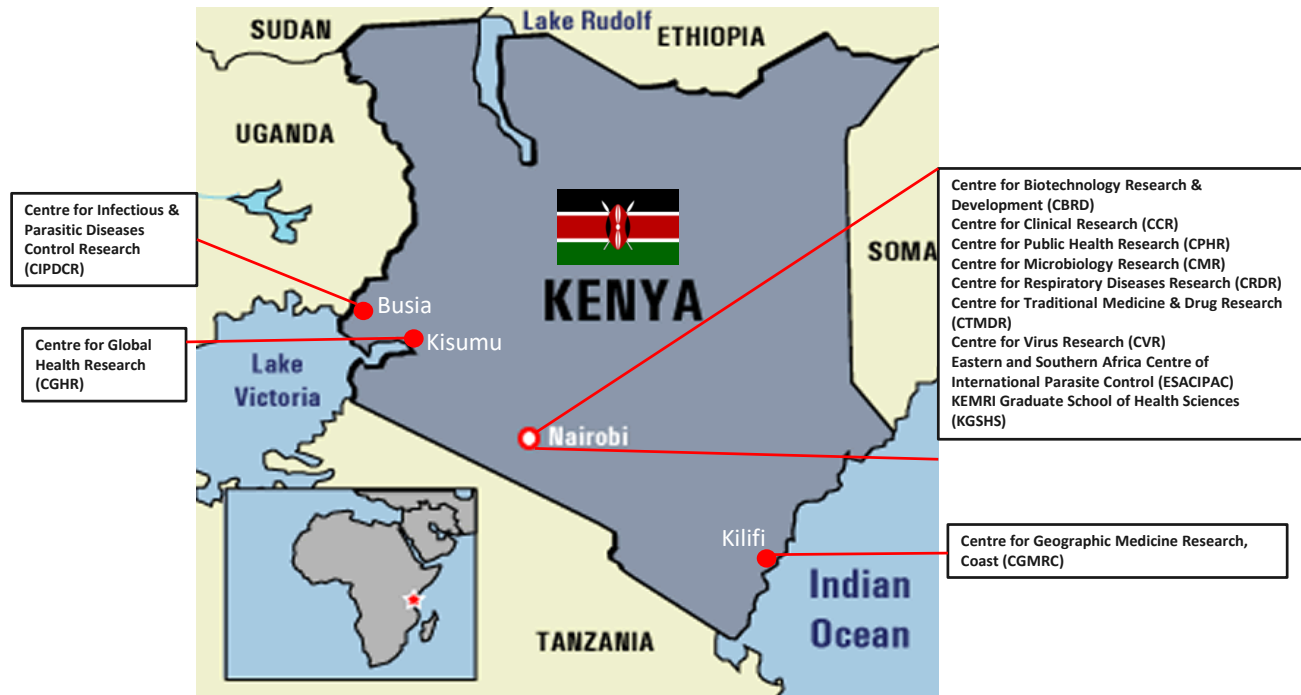


Kenya Medical Research Institute (KEMRI)



www.kemri.org

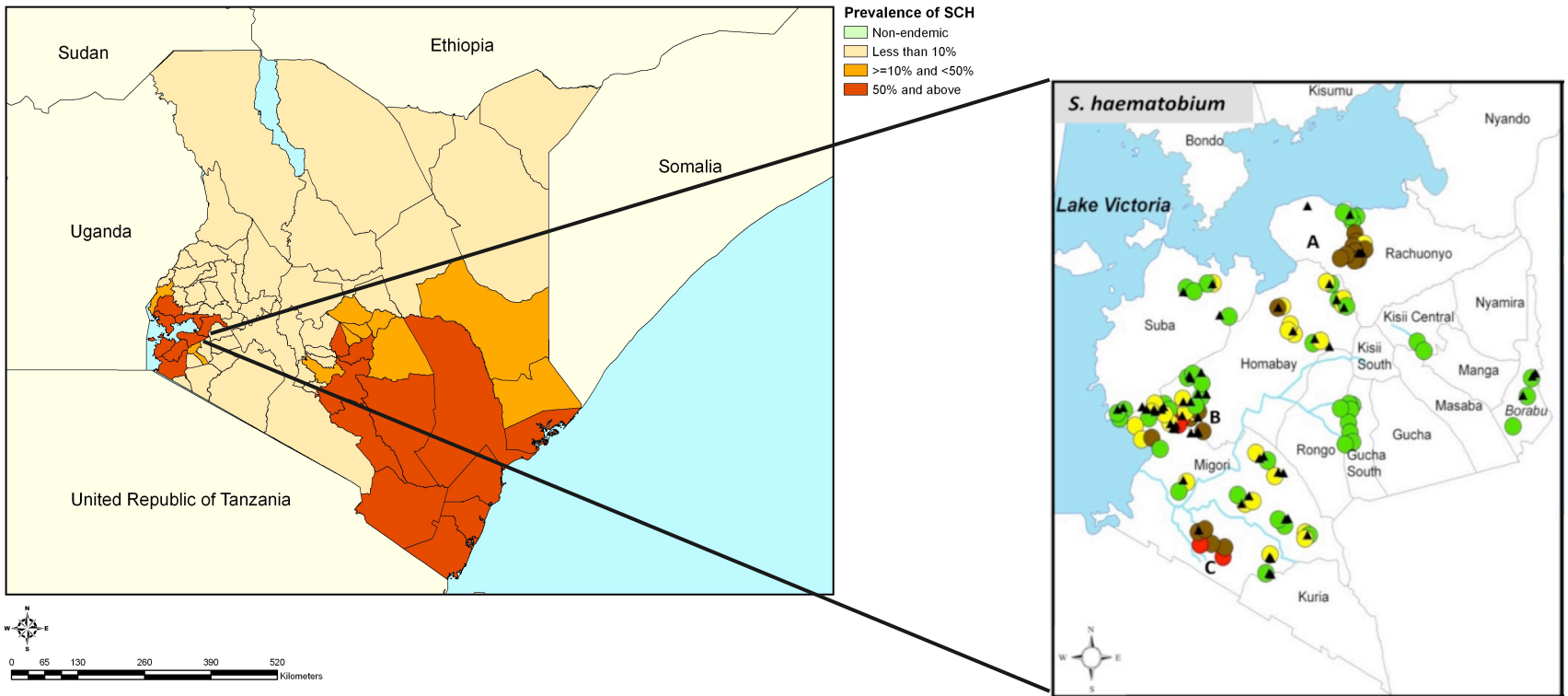
State Corporation responsible for carrying out research for human health in Kenya





Distribution of schistosomiasis in Kenya and the study site in western Kenya

Distribution of schistosomiasis in Kenya, latest data available



GAHI, 2010



Risk factors for Schistosomiasis transmission around Lake Victoria



Car was

Sand ha

Consequences of excluding PSACs in routine deworming for schisto...

Elimination



Reservoir

Regional Stakeholders' Consultative Meeting on Neglected Tropical Diseases

25-27 June 2012, Accra, Ghana



Working Better Together for Greater Impact on Neglected Tropical Diseases

LONDON DECLARATION ON NEGLECTED TROPICAL DISEASES

We, the undersigned, countries, academia, international organizations, donors, academic institutions and governments, recognize the need to address the burden of neglected tropical diseases (NTDs) and their impact on the health and development of the world's poorest populations. We are committed to the goal of eliminating the burden of these diseases by 2020.

1. We commit to:

- Support the development of evidence-based, cost-effective, and sustainable interventions for NTDs, including the development of new drugs, vaccines, and diagnostic tools.
- Strengthen health systems and surveillance systems for NTDs, including the training of health workers and the establishment of national NTD control programs.
- Promote research and innovation in NTDs, including the development of new drugs, vaccines, and diagnostic tools.
- Increase awareness and understanding of NTDs among the general public and policymakers.
- Foster collaboration and partnerships between governments, academia, international organizations, donors, and the private sector.
- Provide technical support, tools and resources to support NTD control activities in resource-poor settings.

2. We commit to:

- Address the burden of NTDs in the context of the Sustainable Development Goals (SDGs), particularly Goal 3 (Good Health and Well-being).
- Ensure that NTD control programs are integrated with other health and development programs.
- Ensure that NTD control programs are equitable and reach the most vulnerable populations.
- Ensure that NTD control programs are sustainable and financially viable.

ENDING the NEGLECT to ATTAIN the SUSTAINABLE DEVELOPMENT GOALS


A road map for neglected tropical diseases 2021-2030



ACCELERATING WORK TO OVERCOME THE GLOBAL IMPACT OF NEGLECTED TROPICAL DISEASES
A ROADMAP FOR IMPLEMENTATION



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Challenges in conducting clinical trials in an endemic country

Challenge	Remarks	Affected ped PZQ study? <i>(Mitigation measures)</i>
Unanticipated events	e.g. current COVID-19 pandemic, unpredictable political climate, weather etc	Yes – COVID-19. <i>(Temporal suspension for 6 months)</i>
Weak or Inadequate local clinical trial human resource capacities and clinical trial infrastructure in SSA	Required to host and manage clinical trials in accordance with ICH-E6 GCP compliant trials. Even when these are improved, there is often the secondary challenge of sustaining the established competent trial sites due to huge disparities and/or fluctuations in research funding which is largely from external sources (less from domestic) - hampers sustainability for future research	Somewhat <i>(Hiring staff with prior clinical trial experience, Regular trainings, Refurbishments of spaces, Equipment purchase)</i>
Weak or Inadequate regulatory capacity for Ethical and regulatory oversight	Strong regulatory and ethical infrastructure are critical in <u>ensuring both the safety of research subjects and the scientific integrity of clinical data</u>	No <i>(N/A)</i>
Challenges that can be enhanced by cultural and geographical differences – specific culturally-sensitive ethical issues	e.g. obtaining valid/adequate informed consent from trial participants, trial reimbursement as compensation for trial participation as well as trial insurance, collection of blood samples , issues around standard of care and reasonable availability of future interventions, differences in ages for legal consent , use of LAR vs guardian	Yes <i>(Revision of text in ICFs, proper Community sensitization & quick response to rumors/misinformation)</i>



Challenges in conducting clinical trials in an endemic country

Challenge	Remarks	Affected ped PZQ study? (Mitigation measures)
Institutional bureaucracies	Slow turnaround in procurement processes, full execution of contractual agreements	Yes <i>(Submission of requests early enough, Working closely with relevant departments)</i>
Delays in supply chain issues/Customs clearances	esp. International purchases (POC-CCA kits, urine filtration kits)	Yes <i>(Submission of requests early enough, Working closely with relevant departments & RA)</i>
Poor road infrastructure	Affects access to participants and participants access to clinical sites	Yes <i>(Use of 4x4 cars, extra field team, community support when cars got stuck)</i>
Mixed <i>S. mansoni</i> & <i>S. haematobium</i> infections	This was an exclusion criteria for ped PZQ study	Yes <i>(Leverage local knowledge on disease epidem by DVBNTD & Health facilities, extra field team)</i>
Managing different partner/stakeholder expectations	Partners (both International & local will have different expectations – some might be misplaced/unrealistic	Yes <i>(Providing accurate information, Regular meetings/dialogue, transparency)</i>



Village setting & Field work



Community members giving a helping hand



Challenges during Fieldwork.....



Field team navigating the community



Study clinical site - Homabay County Teaching & Referral Hospital





Study participant ward



Before study






Study Pharmacy room





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Current Challenges/needs for schistosomiasis control in pre-school age children (PSAC)

- Treatment issues with current PZQ (600mg) for **drug dosing** and **administration**:
 - Table size (dose splitting) and risk of choking
 - Palatability (bitter taste) and taste-masking (crushing and mixing)
- **Access** to treatment:
 - Operational challenges for large-scale treatment in view of the current PZQ (main targets = SAC using school platforms)
 - Lack of recommendations for inclusion of children <4 years in current WHO guidelines
- Regulatory: mostly **off-label use** and non-licensure of PZQ for use in PSAC



How will the ped PZQ bring positive impact?

1 New formulation represents an **unprecedented opportunity to improve the health and wellbeing of children and communities** as a whole while advancing Kenya's progress towards UHC and the SDGs

1

2 **Development of Clinical trial Infrastructure/capacity building** – Setting up/improvement of existing trial site ensures sustainable clinical trial infrastructure for future research - strong local scientific capabilities, ethical and regulatory oversight

2

Positive Impact

3 **Smooth downstream processes in relation to registration, procurement and delivery of medicines** including local manufacturing – **knowledge & tech transfer** to a local **CMO - Universal**. Tech transfer & training will lead to **self-sufficiency in terms of product manufacturing**, potentially allowing Kenya and other regional endemic countries to meet the needs of their communities timely **without external support**

3

4 **Fostered local credibility and trust, which will enhance uptake of medicines as the focus now shifts to access.**

Harnessing/Leveraging on the expertise on local disease epidemiology & experience - allowed study to be conducted according to GCP & local guidelines.

Benchmarking for future trials – not-for-profit PP partnership & also - country-level input in design to **reflect public health needs** and priorities of the country

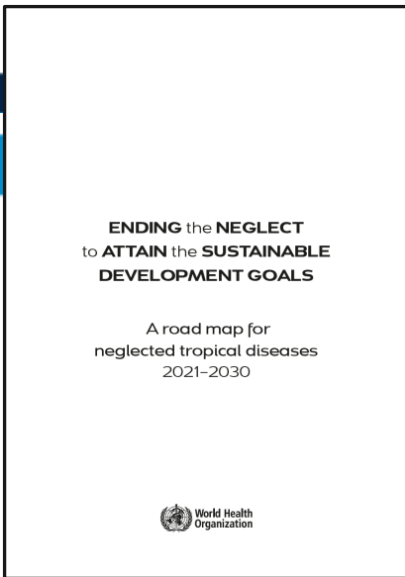
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Global & National Targets

Fig. 12. Critical actions for each disease and disease group to reach the 2030 targets

Critical action 1	Critical action 2	Critical action 3
TARGETED FOR ELIMINATION AS A PUBLIC HEALTH PROBLEM		
Schistosomiasis Define indicator for measuring morbidity.	Implement effective interventions, including extending preventive chemotherapy to all populations in need and ensuring access to the necessary medicines; implement targeted snail control with updated guidelines; continue micro-mapping and targeting.	Develop diagnostic tests, including standardized point-of-care diagnostic, and develop new interventions, including alternatives to praziquantel and methods of snail control.

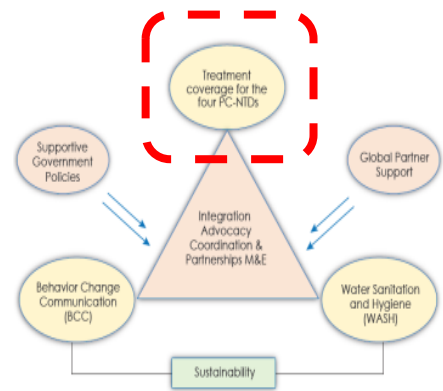
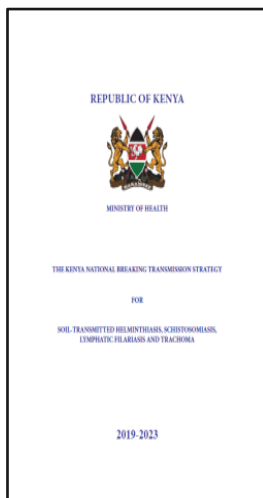


WHO, 2020

Fast tracking our vision
through a 5-year development plan under 4 key pillars

- Manufacturing
- Affordable Housing
- Universal Health Coverage
- Food Security

<https://big4.delivery.go.ke/>





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ADOPT program – KEMRI's participation

- **Implementation research** program bringing together relevant stakeholders from pharma, science and implementing countries
- Phases and activities relating to:
 - **Pre-licensure** (preparatory): social science, strategy development, planning (2 years)
 - **Post-licensure** (implementation): delivery, monitoring and (re-) evaluation (3 years)
- **Staged approach** based on findings of WPs: 1st identify → 2nd **pilot** & evaluate → 3rd **upscale** & evaluate
- Duration: 5 years, start NOW
- Dimension: 3 countries





ADOPT program – outcome

Final outcome of the ADOPT program

An **implementation plan** backed by policy and donors and supported by a **practical toolkit** to guide endemic countries through the preparatory steps leading up to the **introduction of Levo-Praziquantel** for paediatric schistosomiasis control through **routine practice in community settings**

GHIT5

- 2 years, start Q4 2020
- Supporting activities pre-licensure
- Uganda

EDCTP2

- 5 years, start Q1 2021
- Activities pre- and post-licensure
- Kenya and Côte d'Ivoire



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