



# e-POCT: Electronic Algorithms Using Point-of-Care Tests to Improve Management of Fever in Tanzanian Children

## Research objectives

Through the development and use of a novel electronic algorithm (e-POCT) integrating point-of-care technologies appropriate for implementation at primary care level we aim at:

- improving health outcomes of children with fever through rapid and accurate identification of those children at increased risk of life-threatening infections and those children that require antibiotics.
- increasing the rational use of antimicrobials and halting development of antibiotic resistance.

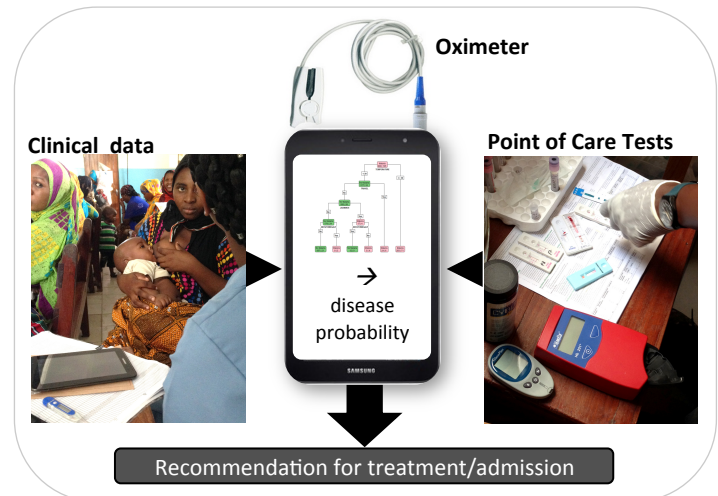


Figure 1: schematic representation of the ePOCT tool

## Expected scientific contributions

Through a controlled non-inferiority trial among 3700 febrile children aged 2 month to 5 years in Tanzania we will assess the performance of the new e-POCT tool compared to ii) the current gold-standard clinical algorithm and iii) routine care. Through ePOCT, we expect to reduce antibiotic prescription while maintaining the same clinical outcome.

## Development relevance

- Infectious diseases cause the majority childhood deaths in resource-poor settings. Adequate tools for managing febrile episodes at peripheral level are still lacking.
- Antibiotics are greatly overused in developing countries. This contributes significantly to antibiotic resistance, a major and rising public health challenge in resource-poor settings.

## Project organisation and team

- Principal investigators: Valérie d'Acremont and Kristina Keitel (Swiss TPH, Policlinique Médicale Universitaire Lausanne).
- Local investigators in Tanzania: Frank Kagoro (Ifakara Health Institute), Willy Sangu (Dar es Salaam City Council).
- Scientific Collaborators: Blaise Genton (Swiss TPH, Policlinique Médicale Universitaire Lausanne), Alain Gervaix (Hôpitaux Universitaires de Genève).