



# **Feasibility and acceptability of Artemisinin Combined Therapeutic (ACT) use for malaria home management at Houéyogbé (Benin).**

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# 1. Problematic

- In Benin, since 2002, the malaria control is confronted with the resistance of *Plasmodium Falciparum* to chloroquine (therapeutic failure: 35,2%) and to Sulfadoxine-Pyrimethamine (therapeutic failure: 22,8%). Benin has adopted a new policy based on the Artemisinin Combined Therapeutic (Artemether-lumefantrine). This policy change supposes new challenges: availability, accessibility, acceptability, capacity to be used, perennality and thus feasibility. From where need for having data bases for the feasibility and the acceptability of ACT use.
- Research questions :
- Which perception the communities have about cost, color, form, taste, effectiveness, presentation (packing), accessibility of ACT?
- How the communities, in particular the mother of children under five, observe the fever treatment based on ACT?
- Which appreciations the communities have about adverse effects related to ACT use ?
- How to establish and maintain effective ACT use effective in the community?



## 2. Objectives

- **General objective:** To evaluate the feasibility and the acceptability of ACT use for malaria home management at Houéyogbé (Benin).
- **Specific objectives:**
  1. To determine the acceptability of ACT for fever treatment at home for children under 5 years;
  2. To measure the cover of fever treatment containing ACT by the mothers;
  3. To determine the compliance of the treatment containing ACT by the mothers ;
  4. To document the adverse effects associated with ACT use;
  5. To evaluate the ACT storage quality at community level;
- To document the questions related to the costs of ACT introduction and use.



## 3. Method (1)

- The study is qualitative and quantitative, transverse, descriptive and analytical. The study framework is the « commune » of Houéyogbé (Benin).
- Launched in June 2006, work consisted on activities organization based on basic data acquisition, IEC tools making and training modules, various actors capacities reinforcement (18 health workers, 60 Community Distributors and 6.896 pregnant women and mothers of children under 5 years) and the ACT installation at community level.
- The population: mothers of children under five at households level, drugs salesmen, health workers and traditional medicine experts.



## 3. Method (2)

- Probabilistic method used for the villages and households choice and non probabilistic method for others actors choice. Investigation related to 785 subjects on households level. The criteria of inclusion are mothers wich had of feverish child the two (2) weeks ago.
- Parameters of evaluation : acceptability, cover, compliance, harmlessness (safety), ACT storage quality at community level, cost of the principal activities and the health system performance.
- Research lasted fourteen months.
- To update data of nature qualitative and quantitative which underwent a manual processing (for the qualitative data) and a data-processing treatment (for the quantitative information).
- It received the Ministry of Health autorisation.



## 4. Results: cover

- Malaria remains the health priority problem. Mothers have a good knowledge about this disease identified by the fever (97,8% of the cases).
- Self medication is the first adopted recourse. This option does not prevent many women from resorting to the "drugs of White" (92,5%). The disease gravity seems to determine the required care type.
- In addition, among mothers having used "the drugs of White", 52,8% had recourse to the « study prepackaged drugs » (Coartem®).
- The care recourse decision-making for children under 5 emanates from mothers in the households (78,8% of the cases).
- Approximately 70,9% of the mothers obtained the treatment on the village level (fast access to the drugs for the children).
- The care access intervenes in a proportion from 75% in the 24 hours after the first symptoms appearance.



## 4. Results: compliance

- The majority of the mothers respected in a proportion of 89,1% the fever treatment with ACT during three days, which forecasts of a good prospect when one falls under a scaling logic.
- In spite of its recent introduction, the treatment with Coartem® is followed better than chloroquine. 94% of the mothers respect the two catches recommended by the national malaria policy.
- In a proportion of 96,5%, the mothers complete the entirety of the drugs plate. Thus, in spite of its greater action speed being able to lead the mothers to the second day to stop the treatment in front of a child clinical state improvement, Coartem® is taken systematically throughout all treatment (duration and amount respect).
- While it is observed that the chloroquine administration is often stopped before the treatment end envisaged by 42,5% of the mothers.



## 4. Results: Adverse effects and ACT storage

- For 95,4% of mothers, no adverse effect was noted. Only 18 mothers having announced adverse effects for their children treated with ACT, some evoked fever persistence (33,3%), weakness (11%), cutaneous eruptions (11%), and some other minor signs with knowing: itching, diarrhoea, etc. An analysis of these signs revealed by the mothers, shows that it is not a question of adverse effects related to the drug catch.
- Observation of storage conditions revealed that even if the Community workers do not have excellent ACT storage conditions, one notes everywhere that the storage places are raised of the ground and the drug are with bad weather shelter (water, air, sun, etc.), out of children range, etc.
- Very little out-of-stock condition was noted at community level; but it is frequent on health centres level which make sometimes regulations addressed to the Community workers.
- Investigation which took place in storerooms and other health centres places revealed that the drugs are rather well preserved, even if all safety conditions are not filled: lighting system failure, insufficiency of places for drug storage, failure of the ventilation system, absence of double lock, etc.



## 5. Suggestions and acknowledgements

Suggestions and recommendations :

- To ensure ACT scaling availability and accessibility at community level for adequate assumption
- To ensure ACT permanent availability in health centres;
- To consider the exemption from payment in ACT transfer ;
- To improve ACT storage conditions at health center level and to avoid the out-of-stock conditions;

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