

# Policy brief on improving access to artemisinin-based combination therapies for malaria in Central African Republic

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## THE PROBLEM

In the Central African Republic (CAR) malaria is a major public health problem and hampers socioeconomic development. It accounts for 40 percent of complaints and 10 percent of deaths in health facilities (15;17). Pregnant women, who make up 4 percent of the population, and children under 5 years of age, who represent 17.3 percent, are the groups most vulnerable to malaria owing to their low levels of immunity.

For many years, uncomplicated malaria was treated with chloroquine, amodiaquine, and a sulfadoxine-pyrimethamine combination. Resistance to these drugs has developed since 1986, as several studies have documented (3;8;9). Between 2002 and 2004, there was a steady increase in resistance to 40.9 percent in the case of chloroquine and 22.8 percent in the case of sulfadoxine-pyrimethamine. Following the recommendation of the World Health Organization, the national health authorities reviewed the national malaria management guidelines and opted for the use of artemisinin-based combination therapies (ACTs) as the front-line drug instead of the

formerly recommended sulfadoxine-pyrimethamine combination (10–14).

Several factors limit implementation of the revised national malaria management guidelines, including (i) unavailability of ACTs in CAR owing to high cost and supply problems; (ii) nonadherence of health professionals, community health workers, and licensed dispensers (private-sector and community-based pharmacies); and (iii) continued availability of antimalarials formerly used in single-drug therapy.

Any strategy designed to facilitate access to treatment must take account of the rural poor who are particularly ill served by the health system. It is this problem of accessibility that is being addressed by the home management of malaria (PECADOM) strategy. This is a community-based strategy that enlists the participation of community health workers, mothers, and traditional practitioners in the home management of uncomplicated malaria. It relies on the services provided by the private, formal, and informal health sectors. Home management complements and extends the outreach of public health services (1;2;5).

**Table 1.** Policy Options

Policy option	Make artemisinin-based combination therapies (ACTs) available at all levels of the health system	Involve all healthcare providers in prescribing ACTs and motivating them appropriately	Regulate the import of antimalarials
Description	<ul style="list-style-type: none"> <li>Secure funding for ACTs to ensure they are provided free of charge in public and private health facilities and in the community</li> <li>Subsidize the cost of ACTs at private dispensaries</li> <li>Set up a drugs solidarity fund</li> </ul>	<ul style="list-style-type: none"> <li>Provide training for health professionals, community health workers and traditional practitioners</li> <li>Motivate health-service providers through incentives (availability of medicines and drug administration tools)</li> <li>Monitor and evaluate prescribing by trained providers</li> </ul>	Take antimalarials used in single-drug therapy for the treatment of uncomplicated malaria off the market
Advantages	<ul style="list-style-type: none"> <li>Reduction or elimination of user fees would make ACTs affordable</li> </ul>	<ul style="list-style-type: none"> <li>Reduction of malaria-related morbidity and mortality through early, appropriate treatment</li> </ul>	<ul style="list-style-type: none"> <li>Reduction or elimination of the availability of medicines used in single-drug therapy</li> </ul>
Disadvantages	<ul style="list-style-type: none"> <li>The principle of exemption from user fees is contrary to the Bamako Initiative and compromises the long-term future of the strategy</li> </ul>	<ul style="list-style-type: none"> <li>High cost of training healthcare providers</li> </ul>	<ul style="list-style-type: none"> <li>Possible emergence of parallel supply routes for unlicensed antimalarials</li> <li>Possible failure of healthcare providers to follow national guidelines</li> </ul>
Estimated cost	<ul style="list-style-type: none"> <li>CFAF 5 billion over 5 years<sup>a</sup></li> </ul>	<ul style="list-style-type: none"> <li>CFAF 200 million over initial 5 years<sup>b</sup></li> </ul>	<ul style="list-style-type: none"> <li>CFAF 20 million<sup>c</sup></li> </ul>
Acceptability	<ul style="list-style-type: none"> <li>Government—favorable</li> <li>Development partners—currently favorable through Global Fund</li> </ul>	<ul style="list-style-type: none"> <li>Government—favorable</li> <li>Healthcare providers favorable</li> <li>Development partners—favorable</li> </ul>	<ul style="list-style-type: none"> <li>Government—favorable</li> <li>Healthcare providers—mixed</li> </ul>

<sup>a</sup>US\$11.4 million.<sup>b</sup>US\$450,000.<sup>c</sup>US\$46,000.

## POLICY OPTIONS

Scaling up the treatment of uncomplicated malaria through the use of ACTs could be achieved through three policy options (described in Table 1): (i) Make ACTs available at all levels of health system; (ii) Involve all healthcare providers in prescribing ACTs and motivating them appropriately; and (iii) Regulate the registration import and local production of antimalarials.

### Make ACTs Available Nationally

The government, supported by its development partners, could tap funds to ensure national availability of ACTs and subsidize ACTs provided by private health facilities. Funding is currently provided by the Global Fund to Fight AIDS, Tuberculosis, and Malaria. The major challenges are geographical accessibility due to poor road access during rainy season and security factors in the north of the country and ensuring that the private sector follows national guidelines designed to make ACTs affordable at all levels of health system.

The role of private healthcare providers in malaria control is now widely recognized. If private-sector facilities can provide subsidized ACTs at low cost, this will facilitate access to them and deliver rapid, effective treatment for un-

complicated malaria. This policy option takes account of the distribution of private facilities and patients' health-seeking behavior. To guarantee the long-term future of free treatment, the government could establish a solidarity fund for drugs to control malaria, tuberculosis and HIV/AIDS. Exemption from user fees would make ACTs affordable but is not a sustainable long-term option (6;16).

### Involve All Healthcare Providers in Prescribing ACTs and Motivating Them Appropriately

To ensure early case management, all healthcare providers could be involved in prescribing ACTs. Several initiatives have already been explored as part of home management of malaria, including (i) capacity-building with a view to applying norms and standards in the areas of case management and drug administration through training for health professionals,; and (ii) national training for community health workers, traditional practitioners, and mothers

Providing training for all categories of providers—including health professionals in public and private health facilities, community health workers, and traditional practitioners—would help to ensure that all healthcare providers are knowledgeable about the use of ACTs. To enable these providers and ensure that they manage malaria

**Table 2.** Implementation of the Policy Options

Policy option	Make artemisinin-based combination therapies (ACTs) available nationally	Involve all healthcare providers in prescribing ACTs and motivating them appropriately	Regulate the import of antimalarials
Barriers to implementation	<ul style="list-style-type: none"> <li>It is difficult for the government to provide funding. Current funding is provided by the Global Fund. Arrangements are needed to ensure ACTs are available on a long-term basis</li> </ul>	<ul style="list-style-type: none"> <li>It would be difficult to organize large numbers of training seminars for a variety of different types of healthcare providers (modules would need to be adapted for each type, including the duration of training)</li> <li>It is difficult to change healthcare provider behaviors</li> </ul>	<ul style="list-style-type: none"> <li>The existence of numerous informal sources of medicines is a major obstacle to regulating the import of antimalarials</li> </ul>
Strategies for implementation	<ul style="list-style-type: none"> <li>In the short term, health authorities could lobby the government, development partners, Nongovernmental organizations (NGOs), and civil society for funding to ensure ACTs are available nationwide</li> <li>In the medium and long term, the government could set up a solidarity fund, for example using revenue from taxes on alcohol and cigarettes, to purchase ACTs</li> </ul>	<ul style="list-style-type: none"> <li>Organize tailored training for all healthcare provider categories, including health professionals, community health workers, and traditional practitioners</li> <li>Ensure conditions for appropriate malaria case management, including: <ul style="list-style-type: none"> <li>Ensure that health facilities are regularly supplied with ACTs;</li> <li>Make management tools available;</li> <li>Introduce incentives</li> </ul> </li> <li>Monitor and evaluate malaria treatment</li> </ul>	<ul style="list-style-type: none"> <li>Instruments that either limit or prohibit the import of unlicensed antimalarials <ul style="list-style-type: none"> <li>Official texts such as décrets or formal letters prohibiting the import of unlicensed drugs</li> </ul> </li> </ul>

cases appropriately, it is also necessary to (i) ensure that health facilities are regularly supplied with ACTs, (ii) make malaria management tools available, (iii) introduce appropriate sustainable incentives, and (iv) monitor and evaluate performance of those who have received training.

This option could help to reduce malaria-related morbidity and mortality by improving early case management of uncomplicated malaria at the community level (1;4;7). Education of the population through awareness-raising campaigns in the mass media would be an essential component of this option.

### Regulate the Import and Local Production of Antimalarials

The existence of various informal sources of antimalarials fosters continuing inappropriate management of malaria. Regulation of the importation of antimalarials into CAR could reduce this problem by removing from the national drug list and banning drugs used in single-drug therapy for uncomplicated malaria from the market. However, important obstacles that would need to be addressed include the potential of (i) parallel supply routes for unlicensed antimalarials emerging and (ii) healthcare providers failing to adhere to national guidelines.

### Implementation of the Policy Options

Barriers to implementing the three policy options and strategies for addressing these are described in Table 2.

## DISCUSSION

The policy brief summarized here was discussed in a 1-day policy dialogue in June 2009. Several priority actions were proposed and discussed by the participants. During the discussion, a consensus was obtained that the first priority action is to ensure the availability of ACTs at all levels of the health system. To do this the government, with the help of development partners, needs a budget of more than 5 billion CFAF (US\$11.4 million) for the next 5 years to secure ACTs in public and private health facilities. The second priority action is related to the involvement and the motivation of healthcare providers in the prescription of ACTs. The involvement of traditional healers in prescribing ACTs was hardly discussed. Their involvement was obtained because of their high impact on health care in rural areas. Finally, the regulation of the importation of antimalarials was retained as the third priority action. This action will reduce or eliminate the availability of unwanted medicines used in single-drug therapy.

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