

Malaria Project Managers' Meeting

November 14-16, 2018

Washington DC

Monitoring the effectiveness and resistance to
antimalarials

**RECOMMENDATIONS FOR SURVEILLANCE OF EFFICACY
AND RESISTANCE AND ANTIMALARIAL POLICY**

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**Pan American
Health
Organization**



**World Health
Organization**

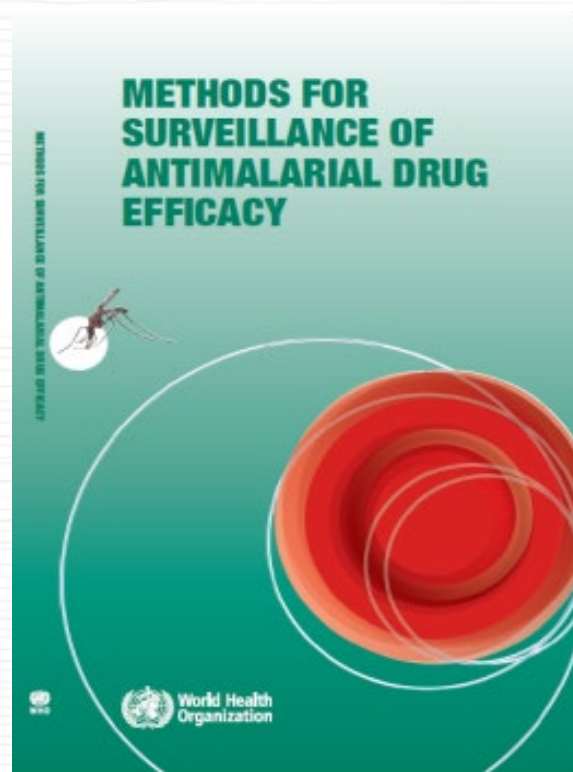
REGIONAL OFFICE FOR THE **Americas**

PAHO/WHO RECOMMENDATIONS



- The efficacy of first and second line treatments is warranted **every two years in high, moderate and low transmission areas**, and **every three years in very low transmission areas**.
- In this later setting, **studies with molecular markers should continue to be conducted systematically every year**, provided that the markers are known and validated.


AVAILABLE TOOLS



Organización Panamericana de la Salud | CDC | USAID

HSD/CD/M/065-10
Original: Español

Guía práctica revisada para estudios de eficacia de los medicamentos antimaláricos en las Américas.




* Documento actualizado con las recomendaciones de la Reunión Técnica Monitoreo in vivo de la eficacia de medicamentos antimaláricos, Iquitos, Perú, del 29 de septiembre al 3 octubre de 2005. Fecha de la versión anterior: enero 2005. OPS/EPIC/CDG40-10

** Documento revisado y actualizado con las recomendaciones de la reunión técnica de resistencia a los antimaláricos, Ciudad de Panamá, Panamá del 9 al 10 de julio de 2005.

Programa Regional de Malaria
Prevención y Control de Enfermedades Transmisibles
Vigilancia de la Salud, y Prevención y Control de Enfermedades
ORGANIZACION PANAMERICANA DE LA SALUD

**Amazon Malaria Initiative/
Amazon Network for the Surveillance
of Antimalarial Drug Resistance**

Strategic Orientation Document on Monitoring
the Efficacy of and Resistance to Antimalarials
in the Current Epidemiological Context



Logo of the Pan American Health Organization, CDC, msh, ILSI, and other partners.

Generic tools

http://www.paho.org/hq/index.php?option=com_content&view=article&id=2405&Itemid=3624

AVAILABLE TOOLS CONT.

Generic protocols

Therapeutic efficacy test protocol

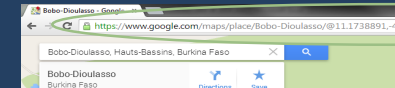
Title	Efficacy and safety of name of antimalarial drug(s) or drug combination(s) for the treatment of uncomplicated <i>Plasmodium falciparum</i> malaria in district, province, country
Study site(s)	Site 1: Name, city, district and province Treatments tested: antimalarial drug(s) or drug combination(s) Site 2: Name, city, district and province Treatments tested: antimalarial drug(s) or drug combination(s) Site 3: Name, city, district and province Treatments tested: antimalarial drug(s) or drug combination(s) Add more sites as needed
Protocol submission date	dd/mmm/yyyy
Protocol number	Unique protocol number/version number
Principal investigator	Name: Degree: Institution: Address: street, city, postal code, country Tel: Email:
Co-investigator (insert additional name(s) if needed)	Name: Degree: Institution: Address: street, city, postal code, country Tel: Email:
Medical monitor	Name: Degree: Institution: Address: street, city, postal code, country Tel: Email:
Participating institutions (insert additional institution(s) if needed)	Name: Complete postal address: street, city, postal code, country Tel: Email:
Planned study dates	From mmm/yyyy to mmm/yyyy
Sponsor	Ministry of Health, country Complete postal address: street, city, postal code, country Tel: Email:

Excel tool for analysis

Reference guide for data collection from antimalarial therapeutic efficacy studies

Study info

- 1 Enter site details (**facility name, site, district, province, country**)
- 2 Look up study site location on Google maps (<https://maps.google.com>) retrieve link, copy and paste in **maplink**
- 3 Enter study **start date** and **end date (mmm-yyyy)**



Study info

1 Health facility		3 Start date	
Site		End date	
District			
Province			
Country			
2 Maplink			

Drug info

See Index for description of variables collected

Drug info

	Drug name	Manufacturer	Batch no	Expiry date	Dosage per tablet
Drug 1					
Drug 2					
Drug 3					

Patient info (1)

AS WE MOVED...



Most patients with delayed parasite clearance are cured as long as the **partner drug remains effective**. Routine monitoring must continue to ensure that the recommended ACTs are effective, that **timely changes in national treatment policies can be implemented**, and that artemisinin resistance can be detected early. Assessment of Kelch-13 propeller region mutants will greatly facilitate the tracking of artemisinin resistance as it emerges.

KEY PRIORITIES



- ❑ **TES** needs to be conducted **every 2-3 years**
 - To evaluate the efficacy of 1 and 2 line treatment
 - Capacities needs to be strength at national level
 - Tools to be updated with new information (ea. K13)
- ❑ Surveillance with **molecular markers** should continue to be conducted systematically **every year**, specifically in very low transmission areas
- ❑ **Quality**: External evaluation of TES, and WHO CC for molecular markers
- ❑ Implementation of the ***Framework for artemisinin resistance containment and elimination in South America –Guyana Shield (P. falciparum elimination)***

GAPS AND OPERATIONAL CHALLENGES



- ❑ Capacity of NMP to institutionalize surveillance of resistance as a long-term action
- ❑ Operational aspects of surveillance (financing, sentinel sites structure, HR)
- ❑ Alliances within the countries to operationalize the surveillance (Ministry of Health - Academy- NIH – Reference Laboratories)
- ❑ Low number of cases for in vivo studies
- ❑ Interphase between routine malaria surveillance and resistance surveillance

PAHO/WHO

Thank you !

