No-regrets actions to address Drug-Resistant Malaria in Africa for immediate ministerial decision/ malaria program action

All actions are feasible within existing WHO and country policies, reversible, and cost far less than responding after treatment failure occurs.

1 **Treat Artemisinin Partial Resistance (ART-R) as an immediate health security risk, a serious obstacle for achieving universal health coverage, and long-term economic threat with implications for cross-border transmission and regional stability.**

- **ART-R malaria parasite mutations are early warning signals** sufficient to trigger nationally owned and led, targeted, sub-national and national responses and not deferred as a technical problem.
- **ART-R action is a high-return investment protecting prior malaria investments and avoiding costly emergency responses.**

  Existing economic analyses show that early mitigation delivers strong return on investment, supporting efficient resource allocation across domestic and partner funding, by preventing treatment failure, excess morbidity and mortality, resurgence, and the long-term costs of inaction.

2 **Reduce artemether–lumefantrine (ALU) drug pressure in areas with confirmed or high risk of ART-R.**

- **Switch first-line antimalarial treatment and diversify to alternative artemisinin-based combination therapies (ACTs)** within existing case-management policies.
- In most countries, a second-line ACT is already specified and should be deployed rapidly **in areas with confirmed resistance or high risk of ART-R.**
- This **approach should be implemented proactively-before ACT Treatment Failure occurs** - 'Protect the Cure' now.
- Multiple first-line therapies (MFTs) and other more complex strategies can be implemented when financing allows.
- New malaria treatments, Triple ACTs (TACTs) and novel non-ACT, are coming in 2-5 years. **Malaria programs should prepare for their arrival supporting accelerated evaluation, regulatory review, plan procurement readiness and test efficacy in TES.**

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3 **Coordinate responses across borders and sub-regions; Centre patients and communities in ART-R decisions.**

- ART-R is a regional problem; coordination led by countries or regional bodies on surveillance, treatment policy, and mitigation strategies are essential to avoid fragmented and inefficient national responses.
- Communicate directly with patients, district-level managers, distributors, inventory managers, doctors, and community health professionals. Communities have trusted malaria programmes because diagnosis and treatment have consistently worked. As resistance spreads, they will be the first to experience treatment failure and its consequences. Policy responses must therefore be grounded in frontline realities and implemented with urgency.

4 **Deploy transmission-reducing interventions in ART-R hotspots.**

Single low-dose primaquine and optimised vector control reduce onward transmission, including of resistant parasites, lowering future caseloads and costs. Where available, malaria vaccines can complement these efforts by reducing overall transmission and drug pressure. Vaccines do not replace the need for treatment (ACT) diversification, resistance mitigation and effective vector control.

5 **Strengthen community-level diagnosis and treatment as a containment strategy.**

Expand and improve access to quality diagnosis and treatment. Use community health workers to reach mobile and border populations. Provide training for quality test and treat services in community, public and private sectors. Close access gaps in areas where resistance is spreading fastest.

6 **Link surveillance directly to action.**

Ensure surveillance investments deliver programmatic return by requiring that molecular surveillance and therapeutic efficacy study (TES) results trigger predefined responses. **The trigger for ACT diversification/ first-line switch is identification of ART-R parasite mutations (valid and/or candidate markers) through molecular surveillance.** Use TES to confirm ART-R and to check efficacy of potential antimalarial drugs to be used in first-line switch, drug rotation or MFT strategy. **Do not delay early ACT diversification in ART-R high risk areas.** Critical gaps exist in TES and molecular surveillance coverage and capacity likely requiring Regional technical assistance.

7 **Authorise preparation and costing of first-line treatment switches or MFT policies.**

Where immediate first-line switch is not needed, proactively plan regulatory alignment, guideline updates, training, procurement, and financing for ACT diversification and/ or MFT policies. This approach is already under implementation in demonstration projects in several countries.