POLICY BRIEF

POST DISCHARGE MALARIA CHEMOPREVENTION IN CHILDREN WITH SEVERE ANAEMIA: CALL TO ACTION

Source : www.ideal.kemri-wellcome-org

BACKGROUND

Severe anaemia contributes substantially to childhood mortality and is a leading cause of hospital admissions in areas of Africa in which malaria is endemic. [1,2,3] In areas with intense malaria transmission, a delay in haematologic recovery because of new or recurrent malaria infection is common and may contribute to the high burden of adverse health outcomes after discharge. Currently, other than haematinic agents, no routine preventive strategies are provided after hospital discharge.[4] We report on a randomized trial that informed the WHO 2022 recommendation on the post-discharge malaria chemoprevention in children with severe anaemia.

PROBLEM STATEMENT

Children who have been hospitalized with severe anaemia in malaria endemic areas of Africa have a high risk of readmission and death within 6 months after discharge.

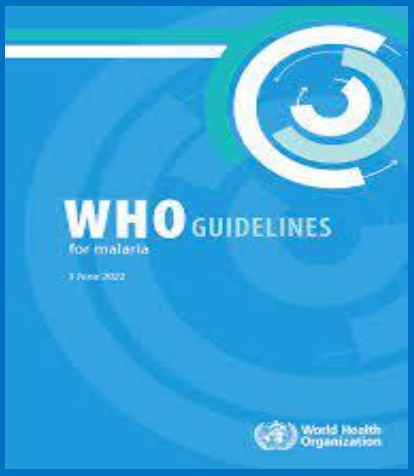
We assessed the efficacy of 3 months of post discharge malaria chemoprevention with monthly 3-day treatment courses of the long-acting antimalarial drug combination of dihydroartemisinin–piperaquine (DHA/PPQ) in preventing readmission or death after discharge in children less than 5 years of age with severe anaemia.[5] We conducted a parallel, two-group, individually randomized, double-blind, placebo-controlled, superiority trial in nine hospitals in Kenya and Uganda in areas with moderate-to-intense perennial malaria transmission. 1049 children less than five years of age who had been admitted with severe anaemia (defined as a haemoglobin level of <5 g per deciliter, a haematocrit of <15%, or clinical indication for blood transfusion not caused by sickle cell disease, cancer, trauma, or elective surgery) and received standard of care underwent randomization 2 weeks after discharge and were assigned to receive either post discharge malaria chemoprevention with oral DHA/PPQ or placebo. The children were followed up from time of randomization to week 26.

PRIORITY ACTIONS

1. In-line with the 2022 WHO malaria guidelines, the Kenyan Ministry of Health should introduce a post discharge malaria chemoprevention policy in children less than five-years of age admitted to hospital with severe anaemia.

2. The Ministry should ensure availability of oral dihydroartemisinin–piperaquine in malaria endemic regions for use in post discharge malaria chemoprevention in children.

3. The Ministry should sensitize health workers and the community in malaria endemic areas on the new guideline of post discharge malaria chemoprevention in children admitted to hospital with severe anaemia.



The 2022 WHO guidelines recommend post discharge malaria chemoprevention
Source : apps.who.int

KEY FINDINGS

1. Chemoprevention with DHA/PPQ resulted in 35% lower incidence of deaths or hospital readmission for any reason in 26 weeks of follow-up.
2. In the first 12-week intervention period, readmission and death were 70% lower in the chemoprevention group than placebo group.
3. Readmission for severe malaria was 87% lower, and readmission for severe malarial anaemia was 89% lower in the first 12 weeks.
4. The findings contributed to conditional recommendation of post discharge malaria chemoprevention in the 2022 WHO guidelines.

IMPLICATIONS

In children living in areas with intense malaria transmission who had undergone blood transfusion and had been discharged from hospital after treatment for severe anaemia, 3 months of post discharge malaria chemoprevention with dihydroartemisinin–piperaquine resulted in substantial benefits with respect to reducing the incidence of deaths or readmissions for any reason after discharge. Important implications for the Ministry of Health in implementing this guideline are:

Cost: There will be an expense when providing dihydroartemisinin piperaquine to all dicharged children under-five years in malaria endemic regions. This cost will however be offset by the savings made following lower hospital readmissions.

Time: The Ministry will need to factor in the time and resources required for sensitization of all health workers, community health volunteers, parents and caregivers in malaria endemic regions on the importance of the new guidelines.

Delivery mechanism: The Ministry will need to consider which delivery mechanism would work best for delivering the monthly 3-day course of oral treatment with DHA/PPQ after children have been discharged from hospital . The caregivers can either collect the medication at a health facility or a community health worker can deliver it to patients' homes. Reminders in the form of short message service (SMS) texts or visits by a community worker can also be explored.

References

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