Evidence Update

Summary of a Cochrane Review **Malaria Series**

Which drugs should be used against uncomplicated *falciparum* malaria in pregnant women?

Some drug combinations seem effective against malaria in pregnancy, but there is not much information about drug safety.

Background

Malaria in pregnant women can cause severe maternal anaemia and low birthweight babies. Drugs to be used must not be harmful for mothers or babies. There is widespread drug resistance of *P falciparum*.

Inclusion criteria

Studies:

Randomized and quasi-randomized controlled trials.

Participants:

Pregnant women with uncomplicated falciparum malaria confirmed by a blood slide.

Intervention:

Antimalarial drug combinations.

Outcomes:

In the mother: treatment failure.

In the babies: low birthweight, congenital abnormalities, stillbirths, abortions, pre-term delivery.

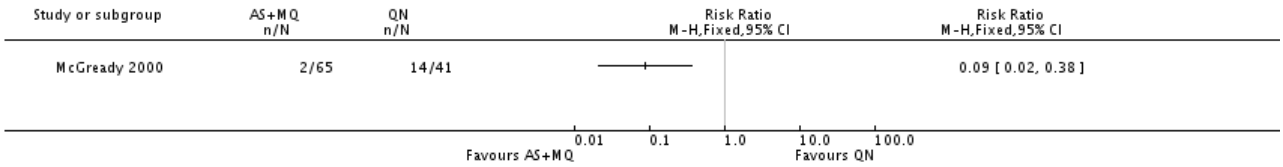
Results

Ten trials involving 1805 women were included (eight randomized and two quasi-randomized); three had adequate allocation concealment. Five trials were conducted in South-East Asia and five in different African countries:

- In a refugee camp on the Thailand-Myanmar border:
  - ◊ The following gave fewer treatment failures on day 63 compared with quinine: artesunate plus avatone-proguanil (relative risk 0.24, 95% confidence interval 0.10 to 0.57, 80 participants, 1 trial), and artesunate plus mefloquine (RR 0.09, 95% confidence interval 0.02 to 0.38; 106 participants, 1 trial).
  - ◊ Artesunate gave fewer treatment failures at 48 hours than quinine plus clindamycin (RR 0.21, 95% CI 0.12 to 0.38; 129 participants, 1 trial), but by day 42 all women were cured.
- In Southern Africa:
  - ◊ Compared with sulphadoxine-pyrimethamine alone, treatment failure at day 40 was reduced by adding artesunate (RR 0.21, 95% CI 0.07 to 0.70; 94 participants, 1 trial) or azithromycin (RR 0.29, 95% CI 0.10 to 0.80; 94 participants, 1 trial).
- In West Africa:
  - ◊ Compared with chloroquine, there were fewer treatment failures at day 28 with amodiaquine (RR 0.25, 95% CI 0.15 to 0.42; 420 participants, 1 trial), sulphadoxine-pyrimethamine (RR 0.46, 95% CI 0.33 to 0.64; 538 participants, 2 trials) or amodiaquine plus sulfadoxine-pyrimethamine (RR 0.02, 95% CI 0.03 to 0.19; 418 participants).
- There were no significant differences between any of the drug combinations in adverse outcomes for the babies.

Adapted from Orton LC, Omari AAA. Drugs for treating uncomplicated malaria in pregnant women. *Cochrane Database of Systematic Reviews* 2008, Issue 4. Art. No.: CD004912. DOI: 10.1002/14651858.CD004912.pub3. *Evidence Update* published in June 2010 (update of *Evidence Update* published in March 2006).

Artesunate plus mefloquine vs quinine: treatment failure at day 63



Authors' conclusions

Implications for practice:

In South-East Asia, artesunate plus mefloquine and artesunate plus atovaquone-proguanil may be better than quinine.

In Southern Africa, combinations of artesunate or azithromycin with sulfadoxine-pyrimethamine may be better than sulfadoxine-pyrimethamine alone.

In West Africa, amodiaquine or amodiaquine plus sulfadoxine-pyrimethamine may be better than chloroquine.

Implications for research:

Further randomized controlled trials evaluating different drug treatments for malaria in pregnancy are needed. These trials should assess both effectiveness and safety in the mother and baby.

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