Evidence Update

Malaria Series *December 2005*

Is chlorproguanil-dapsone effective and safe for treating uncomplicated falciparum malaria?

We do not currently know whether chlorproguanil-dapsone is safe or useful for treating uncomplicated malaria.

Inclusion criteria

Studies:

Randomized and quasi-randomized controlled trials.

Participants:

Adults and children with uncomplicated falciparum malaria.

Intervention:

Intervention: chlorproguanil-dapsone.

Control: other drug regimens for treating uncomplicated malaria.

Outcomes:

Treatment failure: *Plasmodium falciparum* malaria parasites in the blood on or before day 14 and day 28; parasite clearance time; time to fever clearance; early or late treatment failure; antipyretic use; and mean haemoglobin.

Adverse events.

Results

- Six trials met the inclusion criteria (n = 3352). Two used adequate methods to conceal allocation.
- Chlorproguanil-dapsone as a single dose (with 1.2 mg chlorproguanil) performed better than chloroquine for treatment failure on day 28 (1 trial), but performed worse compared to sulfadoxine-pyrimethamine (3 trials). With a three-dose regimen (with 1.2 mg chlorproguanil) chlorproguanil-dapsone was inferior to sulfadoxine-pyrimethamine for treatment failure by day 28 (relative risk 2.27, 95% confidence interval 1.27 to 4.05; 1 trial).
- One multi-centred trial evaluated the currently recommended regimen of 2mg for 3 doses in new attendees to day 14. Chlorproguanil-dapsone was associated with fewer treatment failures than sulfadoxine-pyrimethamine (RR 0.36, 95% CI 0.24 to 0.53; n = 1709, 1 trial). No data on day 28 outcomes are available.
- Treatment Emergent Signs and Symptoms were more common with chlorproguanil-dapsone (RR 1.62, 95% CI 1.09 to 2.40; 1 trial), as were red blood cells disorders (RR 2.86, 95% CI 1.33 to 6.13; 1 trial). Chlorproguanil-dapsone was associated with more adverse events leading to discontinuation of treatment (RR 4.54, CI 1.74 to 11.82; n = 829, 1 trial).

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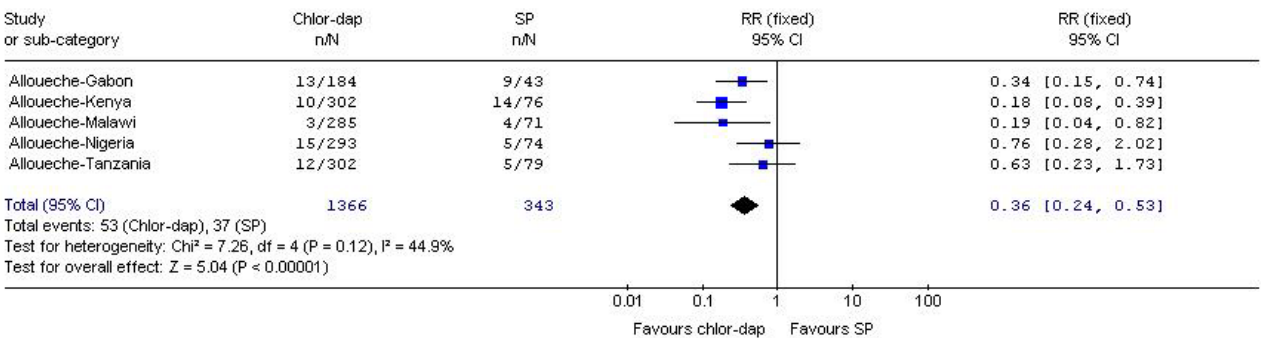
Chlorproguanil-dapsone (3 doses) vs sulfadoxine-pyrimethamine: treatment failure by day 14



Reviewers' conclusions

Implications for practice:

No data are available after day 14 for the current standard chlorproguanil-dapsone regimen (3 doses, 2 mg chlorproguanil). Such data would help inform whether this drug is inferior or superior to chloroquine or sulfadoxine-pyrimethamine.

Implications for research:

Additional rigorously conducted randomized controlled trials that compare chlorproguanil-dapsone with other antimalarial drug regimens are needed. Given current policies for using artemisinin drugs in combination with other antimalarial drugs, chlorproguanil-dapsone could be combined with artesunate in future trials. Rigorous procedures for monitoring and recording adverse events are also required.