Evidence Update

Malaria Series *April 2005*

Is intrarectal quinine as effective as intravenous quinine for people with malaria?

It is not known whether intrarectal quinine is as effective as giving the drug intravenously.

Inclusion criteria

Studies:

Randomized and quasi-randomized controlled trials.

Participants:

Adults and children with uncomplicated or severe *Plasmodium falciparum* malaria, confirmed by blood slide.

Intervention:

Intervention: Intrarectal quinine.
Control: Intravenous or intramuscular quinine.
Quinine used as a single therapy or in combination.

Outcomes:

Death; people free of parasites by 48 hours and 7 days; parasite clearance time; fever clearance time; duration of hospital stay; coma recovery time; time to eating and drinking; adverse events.

Results

- Eight trials involving 1247 children; 5 trials in severe malaria; no trials were adequately concealed, and only 3 reported adequate randomization.
- For death, no statistically significant difference between intrarectal administration compared with intravenous administration (odds ratio 0.36, 95% confidence interval 0.10 to 1.28; 3 trials) or compared with intramuscular administration (odds ratio 0.92, 95% confidence interval 0.21 to 3.99; 6 trials).
- For parasite clearance by 48 hours or 7 days, parasite clearance time, fever clearance time, coma recovery time, duration of hospital stay, or time to drinking, no statistically significant difference between intrarectal and intravenous or intramuscular routes was found.
- One trial (898 children) reported that intrarectal was less painful than intramuscular administration.

Adapted from Eisenhut M, Omari AAA. Intrarectal quinine for treating *Plasmodium falciparum* malaria. *The Cochrane Database of Systematic Reviews* 2005, Issue 1. Art. No.: CD004009. DOI: 10.1002/14651858.CD004009.pub2

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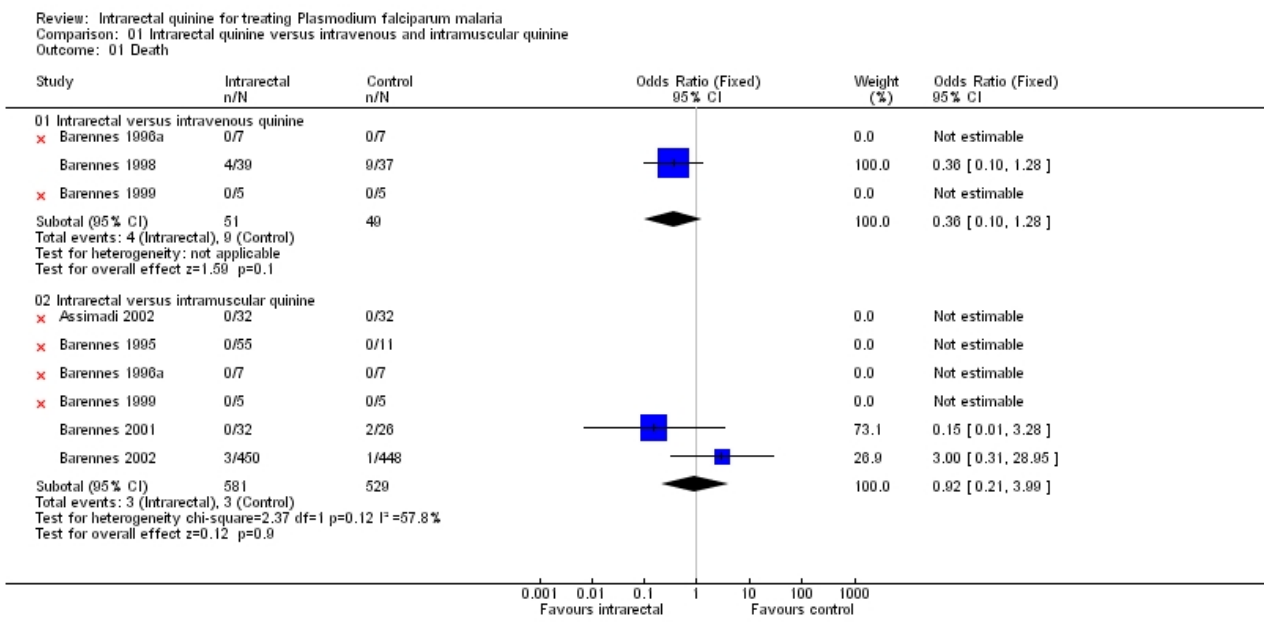

Authors' conclusions

Implications for practice:

Limited evidence from a series of small unconcealed trials in children suggests intrarectal quinine may be as effective as other routes and less painful to administer. There is insufficient evidence of the effectiveness of intrarectal quinine in severe *P. falciparum* malaria in children.

Implications for research:

Further large scale randomized controlled trials with adequately concealed allocation are required to investigate intrarectal quinine in severe *P. falciparum* malaria in children and in adults.