Evidence Update

Malaria Series *October 2006*

Should pregnant women living in malarial areas use insecticide-treated nets?

In women having their first or second baby in Africa, insecticide-treated nets reduce maternal malaria, increase mean birthweight and reduce fetal loss.

Inclusion criteria

Studies:

Randomized controlled trials.

Participants:

Pregnant women in areas where malaria is common.

Intervention:

Insecticide-treated nets (ITNs) compared with no nets or untreated nets.

Primary outcomes:

Anaemia during pregnancy; measures of low birthweight.

Secondary outcomes:

Clinical malaria; parasitaemia; placental parasitaemia; fetal loss (abortion, stillbirth, or both).

Results

Five trials included with a total of 6759 participants.

The four trials conducted in Africa compared ITNs with no nets. They found that ITNs reduced the number of women with malaria parasites at delivery (relative risk 0.76, 95% confidence interval 0.67 to 0.86; 2 trials), with malaria parasites in their placenta at birth (RR 0.79, 95% CI 0.63 to 0.98; 3 trials), and, for those in their first or second pregnancy, who experienced fetal loss (RR 0.67, 95% CI 0.47 to 0.97; 3 trials).

Fewer babies born to women in their first or second pregnancy were of low birthweight (< 2500 g) (RR 0.77, 95% CI 0.61 to 0.98; 2 trials), and more had a higher mean birthweight (standardized mean difference 55 g, 95% CI 21 to 88; 4 trials).

For other outcomes there were no statistically significant differences, although ITNs tended to be favoured.

When ITNs were compared to untreated nets in one trial in Thailand, the pregnant women who used ITNs were less likely to be anaemic (RR 0.63, 95% CI 0.42 to 0.93), or experience fetal loss (RR 0.21, 95% CI 0.05 to 0.92).

Adapted from Gamble C, Ekwaru JP, ter Kuile FO. Insecticide-treated nets for preventing malaria in pregnancy. *Cochrane Database of Systematic Reviews* 2006, Issue 2. Art. No.: CD003755. DOI: 10.1002/14651858.CD003755.pub2.

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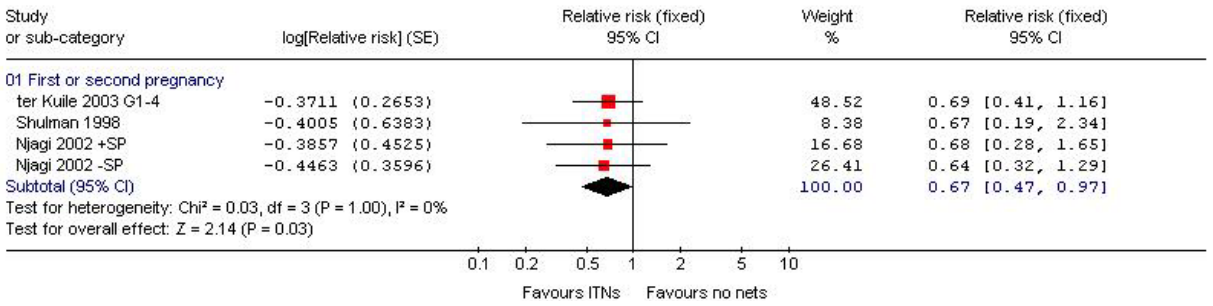
Insecticide-treated nets versus no nets: fetal loss



Authors' conclusions

Implications for practice:

In women in Africa in their first or second pregnancy, insecticide-treated nets reduce the risk of fetal loss, and increase mean birthweight and reduce low birthweight.

Implications for research:

Research efforts should now focus on improving the coverage of ITNs for pregnant women in areas with malaria. The potential impact of ITNs in pregnancy in Asia and Latin America requires further research.