Evidence Update

Malaria Series *April 2006*

Does the unit-dose packaging of antimalarial drugs reduce treatment failures in people with uncomplicated malaria?

There is some evidence that unit-dose packaging combined with training or information may increase adherence, but there are no data on treatment failure.

Inclusion criteria

Studies:

Randomized controlled trials (RCTs), cluster-RCTs, quasi-RCTs, and controlled before-and-after studies.

Participants:

People with uncomplicated malaria.

Intervention:

Intervention: treatment programme including antimalarial drugs packaged in units of a single dose (for example, blister packs, envelopes, or plastic bags).

Control: standard practice or an alternative packaging intervention.

Outcomes:

Treatment failure by day 14 or day 28 (primary); participants completing the full treatment regimen; adverse events.

Results

- Three quasi-RCTs (895 participants) and one cluster-RCT (6 health facilities) were included. Allocation concealment was inadequate in them all.
- Two trials compared blister-packed tablets with tablets in paper envelopes. Participants reported slightly higher adherence with blister packs (relative risk 1.18, 95% confidence interval 1.12 to 1.25; 596 participants).
- One trial compared tablets packed in sectioned polythene bags with syrup, and reported greater adherence with the sectioned bags (relative risk 2.15, 95% confidence interval 1.76 to 2.61; 299 participants).
- None of the trials assessed treatment failure.

Adapted from Orton L, Barnish G. Unit-dose packaged drugs for treating malaria. *Cochrane Database of Systematic Reviews* 2005, Issue 2. Art. No.: CD004614. DOI: 10.1002/14651858.CD004614.pub2.

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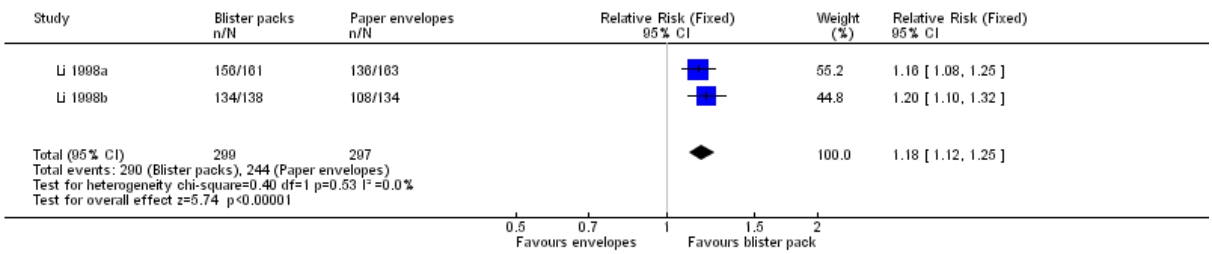
Blister-packs versus paper envelopes: patient-reported adherence



Authors' conclusions

Implications for practice:

The role of unit-dose packaging in reducing treatment failure in malaria is not known. It may increase adherence when combined with other interventions, such as prescriber training and patient information. Packaging interventions are complex and their effectiveness and optimal design may vary between settings.

Implications for research:

Well-designed trials of unit-dose packaged treatments for malaria should assess treatment failure. Studies should aim to identify the most effective packaging designs, examine acceptability of packaging options, and identify additional interventions that optimise the effectiveness of unit-dose packaging interventions.