

# Evidence Update

Malaria Series

January 2005

Should people with cerebral malaria receive mannitol or other osmotic diuretics in addition to standard antimalarial treatment?

There is no evidence to support or refute the use of mannitol or other osmotic diuretics as additional treatment for cerebral malaria.

## Inclusion criteria

### Studies:

Randomized and quasi-randomized controlled trials.

### Participants:

Hospitalized children and adults with parasitologically confirmed malaria and clinical syndromes of cerebral malaria, in whom meningitis and other causes of unconsciousness have been excluded (as defined by the World Health Organization); and who are receiving standard antimalarial treatment for cerebral malaria.

### Intervention:

Intervention: mannitol  
Control: placebo or no treatment.

### Outcomes:

Primary: death; life-threatening complications; major neurological problems 6 months or more after randomizing the participants to the interventions.  
Secondary: coma recovery time; length of stay in hospital; need to support ventilation; need for cardiopulmonary resuscitation.  
Adverse events.

## Results

No trials met the inclusion criteria.

## Authors' conclusions

### Implications for practice:

There is no evidence from trials to help guide decisions about using mannitol or urea as adjuncts for treating cerebral malaria.

### Implications for research:

Mannitol or urea may be effective treatments for intracranial hypertension, which is a complication of cerebral malaria that can cause neurological disability and death. This could justify large, multicentre, randomized controlled trials of mannitol or urea in cerebral malaria.



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Adapted from Okoromah CAN, Afolabi BB. Mannitol and other osmotic diuretics as adjuncts for treating cerebral malaria. *The Cochrane Database of Systematic Reviews* 2004, Issue 4. Art. No.: CD004615. DOI: 10.1002/14651858.CD004615.pub2.

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