OBJECTIVE:

This review examines the best available evidence on the aetiology of childhood acute non-traumatic coma in resource-poor countries (RPCs), discusses the challenges associated with management, and explores strategies to address them.

METHODS:

Publications in English and French which reported on studies on the aetiology of childhood non-traumatic coma in RPCs are reviewed. Primarily, the MEDLINE database was searched using the keywords coma, unconsciousness, causality, aetiology, child, malaria cerebral, meningitis, encephalitis, Africa, Asia, and developing countries.

RESULTS:

14 records were identified for inclusion in the review. Cerebral malaria (CM) was the commonest cause of childhood coma in most of the studies conducted in Africa. Acute bacterial meningitis (ABM) was the second most common known cause of coma in seven of the African studies. Of the studies in Asia, encephalitides were the commonest cause of coma in two studies in India, and ABM was the commonest cause of coma in Pakistan. Streptococcus pneumoniae was the most commonly isolated organism in ABM. Japanese encephalitis, dengue fever and enteroviruses were the viral agents most commonly isolated.

CONCLUSION:

Accurate diagnosis of the aetiology of childhood coma in RPCs is complicated by overlap in clinical presentation, limited diagnostic resources, disease endemicity and co-morbidity. For improved outcomes, studies are needed to further elucidate the aetiology of childhood coma in RPCs, explore simple and practical diagnostic tools, and investigate the most appropriate specific and supportive interventions to manage and prevent infectious encephalopathies.