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The 'hidden' burden of malaria: cognitive impairment following infection.

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Source

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Abstract

BACKGROUND:
The burden of post-malaria cognitive impairment is often overlooked. Given the large number of infections occurring worldwide, the magnitude of the problem is likely to be substantial. The objectives of this paper are; (i) to assess the evidence on post malarial cognitive impairment or impact on school education; (ii) to assess the possible positive impact of malaria drug prophylaxis on cognition; and (iii) to suggest recommendations on minimizing the burden of post-malarial cognitive impairment.

METHODS:
PUBMED and SCOPUS were searched for all articles with the key word 'Malaria' in the title field and 'cognitive impairment' in any field. Google Scholar was searched for the same keywords anywhere in the article. The search was restricted to articles published in English within the last 15 years (1995-2010). After filtering of abstracts from the initial search, 44 papers had research evidence on this topic.

RESULTS & DISCUSSION:
Cognitive abilities and school performance were shown to be impaired in sub-groups of patients (with either cerebral malaria or uncomplicated malaria) when compared with healthy controls. Studies comparing cognitive functions before and after treatment for acute malarial illness continued to show significantly impaired school performance and cognitive abilities even after recovery. Malaria prophylaxis was shown to improve cognitive function and school performance in clinical trials when compared to placebo groups. The implications of these findings are discussed.