

- Competing interests None declared.

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Commentary: Should patients with imported malaria routinely be admitted?

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Malaria remains an important infection in Europe, with several thousand cases imported each year. D'Acremont et al pose an important question—should these cases routinely be admitted for treatment? Most people agree that non-falciparum malaria can be treated without admission. Falciparum malaria has more serious implications. It claims over a million lives a year, including some in Europe. Several factors combine to make it difficult to assess severity at the time of diagnosis. If the parasites are mature almost all will be sequestered, giving a misleadingly low peripheral parasitaemia. Conversely, if the parasites are young the patient may seem well but deteriorate rapidly over 24 hours as the parasites mature and begin to sequester in vital organs. This can occur despite adequate treatment; drugs such as quinine have a limited effect on early stages. Patients may therefore deteriorate rapidly despite adequate antimalarial treatment.

D'Acremont et al present data that at first sight support treating patients with malaria as outpatients, provided that strictly applied criteria identify those needing admission. The finding—that only 6% treated as outpatients needed subsequent admission—is reassuring. This is, however, potentially misleading. Many of those treated as outpatients had non-falciparum malaria, and such patients almost never need admission. Overall, 34% of all patients with falciparum malaria met the study criteria for moderate to severe disease requiring admission. Of the 82 patients with falciparum malaria treated as outpatients five were readmitted, one requiring ventilation. It is also unclear from the paper in which patients malaria was diagnosed by a positive slide result and in which by immunological methods alone (a group with a different prognosis).

Additionally, study criteria used to identify moderate to severe disease may be difficult to generalise. Subjective criteria such as “poor general condition” are difficult to assess and standardise in patients with malaria, even for specialist centres. Busy casualty departments in general hospitals will find it no easier. Even the harder criteria have pitfalls; in particular the admission of patients with a parasitaemia of 2% seems reassuring, but in the last 100 consecutive patients with falciparum malaria seen at our hospital, 23% had an increase in parasitaemia over the first 24 hours of treatment, including eight increasing above 2%, one with increase from 1.3% to 32%, and one from 0.2% to 8.4%. As a minor point, mefloquine, the main drug used in this study, is not used as first line treatment for malaria in most centres and may well be better adhered to by patients than quinine—which, although safe and effective, has major short term side effects and has to be taken for longer.

Conventional practice is to admit all patients with falciparum malaria because initial assessment can be misleading—even for specialist centres—and otherwise fit patients can deteriorate markedly, despite appropriate treatment. This study opens this practice up for debate, but it does not provide adequate justification for changing practice—yet.