

medical insurance cover but were more inclined to seek medical advice than those who do.

Family physicians were the main source of pretravel advice, being preferred by 94% of respondents, followed by libraries and pharmacists, public-health departments, and places of worship. The content of advice was focused mainly on injections and immunisations followed by malaria prevention. The few individuals who did not take up malaria prophylaxis did not see the need for it. This survey supported the widely held incorrect view that growing up in an endemic area gives lifelong immunity to malaria. For some respondents, this belief extended to children even if they were born in the UK.

Most people thought it worthwhile to seek advice on travel health issues. The preferred format was one to one advice, followed by written information.

The main reasons for presenting to family physicians on returning were diarrhoeal disorders, followed by pyrexia of unknown origin, and malaria. Jaundice, typhoid, and hepatitis accounted for a few consultations.

After the withdrawal of the free National Health Service provision of malarial prophylactics in 1995, the number of notifications rose.³ Walsall Health Authority subsequently embarked on a media campaign directed at public education about the importance of malaria prophylaxis for visitors to endemic areas. The number of notifications fell after the campaign, although the response rate was poor. The proportion of people taking prophylaxis was higher in those notified after the campaign, raising the possibility of non-compliance.

For monitoring purposes, all people now notified to the Public Health Department in Walsall as having malaria are sent a questionnaire asking details of places visited, whether they had sought advice before travel, and whether they took the medications prescribed.

We need to be constantly reminded of the potential burden of travel-related disease and, therefore, the importance of advice before travel and its uptake.

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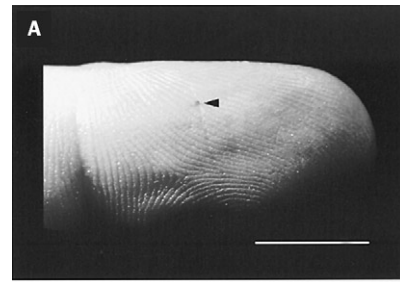
Human rabies and bat bites

Sir—Dog rabies continues to be an important public-health problem in many less-developed countries, but in the USA and Canada, rabies is a re-emerging disease, although the dog is an uncommon vector.

During the 1990s the number of human rabies cases in the North America rose;¹ during 2000, there were five human cases of rabies in the USA and one in Canada.^{2,3} Transmission of rabies virus in one of these US cases occurred outside the US (in Ghana), but bat rabies virus strains caused the other four US cases and the Canadian case.^{2,3} Since 1980, 42 cases of human rabies cases have been reported in the USA—13 imported (all dog rabies virus strains) and 29 acquired indigenously. 26 (90%) of the 29 indigenous cases were caused by bat rabies virus strains.^{1,3}

The bat rabies virus variant identified in 18 (69%) of 26 bat-transmitted cases since 1980 was associated with silver-haired bats (*Lasiurus noctivagans*) and eastern pipistrelles (*Pipistrellus subflavus*).^{1,3} Human beings do not frequently come into contact with these species of bats since they are not house bats. To further complicate matters, only two (8%) of these 26 bat-transmitted cases have been associated with bites, although about 50% of people had a history of contact with bats without a known bite.³ Bats bites, if noticed, are generally thought to be trivial injuries because of the small size of bats (figure); almost all temperate-zone species weigh less than 30 g as adults, and most less than 20 g.

The silver-haired bat rabies virus variant may have undergone biological adaptation to allow replication at 34°C in epithelial and fibroblastic cell types present in the skin, which would occur after bat bites.⁴ Unrecognised bites typically mean an absence of appropriate postexposure rabies prophylaxis, including wound cleansing and administration of rabies vaccine (five doses) and human rabies immune globulin in unimmunised patients.⁵ Current guidelines in the USA



Puncture wound of a bite from a silver-haired bat (A, arrow) and skull of silver-haired bat (B)

recommend postexposure rabies prophylaxis be started when there is a reasonable probability that exposure to a bat has occurred (eg, a bat is found in the room of a unattended infant).⁵

Physicians must be aware that bats can transmit rabies virus to human beings and that there may be no history of a bite or even contact with bats. An early suspicion of rabies by neurologists and other physicians is essential to prevent multiple exposures of health-care workers, which frequently occurs in North America.^{1–3}

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