https://researchonline.lshtm.ac.uk/id/eprint/17851

Downloaded from: http://researchonline.lshtm.ac.uk/17851/

DOI:

Usage Guidelines:

Please refer to usage guidelines at https://researchonline.lshtm.ac.uk/policies.html or alternatively contact researchonline@lshtm.ac.uk.

Available under license: Creative Commons Attribution Non-commercial http://creativecommons.org/licenses/by-nc/3.0/
What do doctors working in the United Kingdom need to know about arthropod transmitted infections? Only two are endemic in the British Isles.

A febrile patient who has recently been rolling in the heather in the Scottish Highlands may be suffering from louping ill, a tick borne virus endemic in sheep and red grouse; but this is unlikely, as only 40 human cases have been reported.

A patient who has been walking in the New Forest, presenting with a localised, spreading skin lesion, accompanied by headache, myalgia, arthralgia, or neurological symptoms, may be suffering from Lyme disease, caused by *Borrelia burgdorferi*. This tick borne spirochaete normally infects birds, small rodents, and red deer. It has become endemic in the leafy suburbs of the eastern United States, where about 15 000 human cases are reported annually.
Imported arthropod transmitted infections are increasingly important. Travellers to Africa are at risk of malaria (more than 2000 cases are reported every year in England and Wales), African tick typhus, trypanosomiasis, and many other diseases. Travellers to North America and continental Europe may also be at risk. A number of arthropod transmitted infections are endemic in the US, including Rocky Mountain spotted fever, first described in settlers of the Bitterroot Valley in Montana in the 1890s. Howard Ricketts discovered the causative organism, named *Rickettsia rickettsii* in his honour, and showed that it was transmitted to humans by ticks from its usual reservoir in small rodents. Ricketts was unlucky enough to die of the infection that bears his name. It is a disease not to miss, as it has a high mortality, but can be cured with a single dose of doxycycline.

Continental Europe also has its share of endemic arthropod borne infections, from leishmaniasis and Mediterranean spotted fever in southern France, Italy, and Spain, to tick borne encephalitis in the Baltic states. But before we feel too smug about living on an island, we should reflect on the outbreak of West Nile encephalitis that occurred in 1999 in New York. This virus, first isolated in Uganda in the 1930s, had never before been seen in the West; it is transmitted by mosquitoes, but endemic in birds, including several migratory species, and was presumably taken to the Americas by an infected bird. Can we be sure that we would have recognised an outbreak in this country?

This scholarly encyclopaedia covers arthropod transmitted diseases of both animals and humans, from African horse sickness to Zika virus. It is a mine of interesting and recondite information, written by the leading authorities in their fields. It is intended more for the natural historian than the clinician. But it is a useful reference work for those interested in infectious diseases, and fascinating to dip into.