Yellow Fever Recommendations for Tourists to Kenya: A Flawed Risk Assessment?

Ronald H. Behrens, MD
Department of Infectious and Tropical Diseases, London School of Hygiene and Tropical Medicine, London, UK
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Until recent political events, Kenya was a popular tourist destination for European and North American travelers. The International Health Regulations consider Kenya as an area or country with risk of yellow fever transmission as the vector and primary host are present. The World Health Organization (WHO) with a number of national bodies recommends that all visitors to the country receive yellow fever vaccine on the basis that yellow fever transmission can occur and all travelers should be protected. As a result of this pragmatic policy, many travelers from Western Europe and North America to Kenya are immunized against yellow fever. Clinicians can provide a waiver letter where there is a medical contraindication to immunization, but this has no legal mandate.

Before 1992 and since 1997, there have been no reported cases of yellow fever in Kenya. The first outbreak of yellow fever near Baringo between 1992 and 1993 led to a total of 72 cases being subsequently identified. Enhanced serosurveillance during 2004, undertaken well after the outbreak in coastal Kenya, did not detect presence of the virus in circulation. The ongoing surveillance of arboviral infections appears to be effective in detecting outbreaks such as the recent outbreak of Rift Valley fever. Although Kenya introduced global childhood yellow fever immunization following the outbreak, population coverage is unlikely to be greater than 50%. Recommendations need to be balanced against the recent reports of serious adverse events associated with the vaccine, particularly in naive recipients of the vaccine who are 60 years and older. The risk of adverse events leading to serious injury or death is around 1 event for every 200,000 to 400,000 vaccinations, but in persons aged 60 years and older, the incidence is approximately 1 in every 50,000 vaccinations.

This policy encompasses around 1.54 million tourists arriving in Kenya annually. From data provided by the UK passenger survey, one in three visits to Kenya by UK residents are travelers aged 55 years and older. The likely morbidity and mortality from pursuing the current policy of recommending immunization for all 1.5 million tourists (approximately 10–13 severe/fatal events at the above AE incidence per year) are likely to far outweigh both the historical risk of yellow fever infection in travelers (none) and the potential risk of an outbreak in Kenya leading to transmission to a traveler. The WHO travel policy is designed to contain and prevent threats of public importance, but the health consequences of this generic policy to the individual may have been overlooked. Travel medicine professionals have a duty to do no harm when prescribing a vaccine that has been described as “one of the least safe vaccines in use” for travel to a country where there is no current or foreseeable risk of infection. Policy can be rapidly adjusted if and where the yellow fever threat changes in Kenya or regionally, posing a threat to Kenya.

Declaration of Interests

The author states that he has no conflicts of interest.
References

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