Cystic Fibrosis our focus

Melioidosis and tropical travel

Factsheet – May 2013

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Introduction

This factsheet provides information about melioidosis, an infection caused by the bacteria *Burkholderia pseudomallei*, which may pose a risk to people with cystic fibrosis (CF) who are visiting certain tropical countries.

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Travelling to foreign countries

People with cystic fibrosis are becoming increasingly adventurous in their lifestyles, including their choices of holiday destinations. Improved management of respiratory health has led to longer journeys by air, to destinations that might previously not have been considered, or even possible. If considering foreign travel, you are advised to consult your CF care team and be aware of the specific risks associated with some countries. National Travel Health Network and Centre, **www.nathnac.org**, is a comprehensive and helpful internet site that provides travel health information for health professionals and the public.

What is melioidosis?

Melioidosis is an infection caused by *Burkholderia pseudomallei*, which is a close relative of a group of more widely known cystic fibrosis pathogens (micro-organisms that cause diseases) called the *Burkholderia cepacia* complex. This disease is a potentially life-threatening infection that affects humans and a wide range of other animals. People with cystic fibrosis travelling to warm climates outside of Europe and in particular to tropical areas, especially in South East Asia, Northern Australia and some other regions, should be aware of the danger of contracting melioidosis.

Risk factors for infection

The bacteria live in soil and surface water, particularly in rural areas such as rice paddy fields. Contact with contaminated soil and water (for example through mud-contaminated wounds and abrasions or following near-drowning in fresh water) is a major risk factor for becoming infected, Individuals with diabetes and/or renal failure are also particularly susceptible to this infection. The disease is highly seasonal, with most cases developing during the rainy season of the country where the infection is found, and it looks increasingly likely that infection can also be acquired by inhalation during the very heavy rain and strong winds of the monsoon season.

Diagnosis, symptoms and treatment

Melioidosis is often difficult to diagnose, as the clinical features are very variable, including skin and soft tissue infections, pneumonia, abscesses, or a rapidly fatal form of blood poisoning. Following exposure to the organism the infection may lie dormant for months or several years before signs and symptoms appear. Definitive diagnosis is made by growing *B. pseudomallei* from tissues or body fluids but a high level of antibodies to the organism is also suggestive of infection, particularly in Europeans who have visited an area where the disease is common. Antibiotics such as ceftazidime and imipenem are the treatments of choice for acute infections and these must be given by injection for a minimum of two weeks in severe cases. Sometimes much longer courses are needed. Following this, antibiotics such as co-trimoxazole and doxycycline are given by mouth for 12–20 weeks in order to reduce the risk of relapse, which is otherwise very common.

Burkholderia pseudomallei and cystic fibrosis

Burkholderia pseudomallei infection has been described in a small number of people with cystic fibrosis following visits to South East Asia and Northern Australia (where this infection is endemic), but also to other countries with warm climates outside Europe. Some of these cases have occurred in people who are also infected with the *B. cepacia* complex. Generally speaking, these people have had chronic lung infections that have progressed over months or years rather than the acute overwhelming infections seen in classical non-CF disease, although it has usually been impossible to eradicate the infection once it has been acquired. There is some limited evidence of transmission from one person to another.

What should I do if considering travelling to the tropics?

Although it is not possible to quantify the level of risk for individual travelers, people with cystic fibrosis are advised to avoid travel to rural areas of the tropics during the rainy season, especially South East Asia and Northern Australia. It would be particularly advisable to avoid exposure to flooded areas, and to avoid going outside during heavy storms. If your respiratory health deteriorates following a trip to the tropics, consult your CF team without delay and ensure that you give full details of your travel history.

Further information

The Cystic Fibrosis Trust provides information about cystic fibrosis through our factsheets, leaflets and other publications.

Most of our publications can be downloaded from our website or ordered using our online publications order form.

Visit **www.cysticfibrosis.org.uk/publications**.

Alternatively, to order hard copies of our publications you can telephone the CF Trust on 020 8464 7211.

If you would like further information about cystic fibrosis please contact:

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We would welcome your feedback on this or any other of our publications. Please email publications@cysticfibrosis.org.uk.

More factsheets available at:
cysticfibrosis.org.uk/publications

The information included in this publication is not intended to replace any advice you may receive from your doctor or CF multidisciplinary team and it is important that you seek medical advice whenever considering a change of treatment.

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