Cystic Fibrosis our focus

Melioidosis and world-wide travel

Factsheet – October 2016

Fighting for a Life Unlimited

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Introduction

Melioidosis is a bacterial infection that can pose a risk to people with cystic fibrosis when visiting some countries. This factsheet explains where the bacterium, *Burkholderia pseudomallei*, is found, how to protect against infection and what to do if infection is suspected.

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As understanding of cystic fibrosis (CF) improves and new treatments become available, people with the condition are able to be increasingly adventurous in their choice of holiday destination. Improved management of respiratory health has led to longer journeys by air, to destinations that might previously not have been possible.

If you're considering foreign travel, you're advised to consult your CF team and be aware of the specific risks associated with some countries. A comprehensive and helpful internet site providing general travel health information for health professionals and the public is http://travelhealthpro.org.uk/.

What is melioidosis?

Melioidosis is a potentially life-threatening infection caused by *Burkholderia pseudomallei*, a close relative of a group of more well-known *Burkholderia cepacia* complex, which also affects people with cystic fibrosis. You should be aware of the danger of contracting this infection when travelling to warm climates outside Europe, and in particular tropical areas, especially in South East Asia and Northern Australia. New evidence[1] suggests that *B. pseudomallei* may be found in the environment in parts of West and South Africa, parts of South America and some areas of the Caribbean; it may pose a risk to people travelling to these countries, especially during the rainy season.

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 (eg through getting mud into wounds or following near-drowning in fresh water) are major infection risks. 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 country's rainy season; it looks increasingly likely that infection can also be inhaled during the very heavy rain and strong winds of the monsoon season.

[1]Limmathurotsakul,D et al. (2016). Predicted global distribution of Burkholderia pseudomallei and burden of melioidosis. Nature Microbiology. 1(1), pp 1-5. Article number: 15008 DOI: 10.1038/NMICROBIOL.2015.8.

Symptoms, diagnosis and treatment

Symptoms

Melioidosis is often difficult to diagnose, as the symptoms are very variable and can include skin and soft tissue infections, pneumonia, abscesses, and 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.

Diagnosis

Definitive diagnosis can be made by growing the bacteria from the body tissue/fluid of the infected person. When infected, the body produces antibodies to fight off the bacteria; a high level of antibodies in the blood also indicates infection, particularly in Europeans who have visited an area where the disease is common.

Treatment

Antibiotics such as ceftazidime and imipenem are the treatments of choice for acute infections; 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 orally for 12–20 weeks in order to reduce the risk of relapse, which is otherwise very common.

Burkholderia pseudomallei and CF

Burkholderia pseudomallei infection has been identified in a small number of people with CF following visits to South East Asia and Northern Australia (where this infection is regularly found), 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. These people have generally had long-term lung infections that have progressed over months or years, rather than the short but overwhelming infections seen in people without cystic fibrosis. It is usually very difficult to eradicate the infection once it has been acquired. Although there have been reports of melioidosis being passed from one person with CF to another these are extremely rare and therefore there is no requirement to change standard cross-infection advice of not mixing with other people who have cystic fibrosis.

What should I do if considering travelling to high-risk countries?

Although it is not possible to quantify the level of risk for individual travellers, people with CF are advised to avoid travel to rural areas of the country, particularly during the rainy season. This is advised if traveling to South East Asia, Northern Australia, parts of West and South Africa, parts of South America and parts of the Caribbean. 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 these areas, 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 are available through our helpline and can be downloaded from our website. Visit cysticfibrosis.org.uk/publications.

The Cystic Fibrosis Trust helpline can help you with a range of issues, no matter how big or small. Our trained staff can provide a listening ear, practical advice, welfare/benefits information or direct you to other sources of support. The helpline can be contacted on 0300 373 1000 or helpline@cysticfibrosis.org.uk and is open Monday to Friday, 9am – 5pm.

Calls to 0300 numbers cost no more than 5p per minute from a standard BT residential landline. Charges from other landlines and mobile networks may vary, but will be no more than a standard geographic call and are included in all inclusive minutes and discount schemes. If you are worried about the cost of the call please let us know and we'll call you back.

You can also find more information at our website cysticfibrosis.org.uk.

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More factsheets available at:
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