

MELIOIDOSIS AND TRAVEL TO TROPICAL COUNTRIES

Written by Dr Tyrone Pitt, Microbiologist, Central Public Health Laboratory

**London and approved by the Cystic Fibrosis Trust Medical Advisory
Committee.**

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

This information has been written to assist you and your medical advisers and is not intended to replace any advice you may receive from your Specialist CF Centre or CF Clinic.

Introduction

People with Cystic Fibrosis (CF) 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 which might previously have not 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. A comprehensive and helpful internet site is National Travel Health Network and Centre, <http://www.nathnac.org/>, which provides travel health information for health professionals and the public.

www.cftrust.org.uk

11 London Road, Bromley, Kent BR1 1BY Tel: 020 8464 7211 Fax 020 8313 0472 enquiries@cftrust.org.uk

What is melioidosis?

People with CF travelling to tropical areas, especially south east Asia and northern Australia and some other regions, should be aware of the danger of contracting melioidosis. This is an infection caused by *Burkholderia pseudomallei*, which is a close relative of a group of more widely known CF pathogens called the *Burkholderia cepacia* complex. This disease is a potentially life-threatening infection that affects humans and a wide range of other animals.

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 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 CF**

Burkholderia pseudomallei infection has been described in a handful of people with CF following visits to south east Asia, Australia, the Caribbean and Brazil in the medical literature over the past few years; many cases involving co-infection with *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 generally 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 CF 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

If you have any questions that have not been answered in this factsheet, you can contact the Cystic Fibrosis Trust Support Service: ☎ **0300 373 1000**

For further general information and literature published by the Cystic Fibrosis Trust please contact:

Cystic Fibrosis Trust

11 London Road

Bromley

Kent BR1 1BY

☎ 020 8464 7211

Email: enquiries@cftrust.org.uk

To view or download Cystic Fibrosis Trust publications, visit our website:

www.cftrust.org.uk/aboutcf/publications

© Cystic Fibrosis Trust 2010. This factsheet may be copied in whole or in part, without prior permission being sought from the copyright holder, provided the purpose of copying is not for commercial gain and due acknowledgement is given.