

30 December 2004

(with Thanks to Dr Matthew Dryden, Department of Microbiology, Royal Hampshire County Hospital)

Infection risks for people returning from the regions affected by south Asia earthquake and tsunamis –information for health professionals

The immediate health needs among people returning to the United Kingdom (UK) from the many countries around the Indian Ocean affected by the south Asia earthquake and tsunamis are likely to be physical and psychological resulting from the trauma, shock and loss that individuals have experienced. Although their risk of infectious disease is believed to be low at this time, there are some important infectious conditions that they might be at increased risk of acquiring. These are infections that are already prevalent in the countries concerned and which may occur at increased incidence as a result of the difficult environmental conditions and damage to local infrastructure following the tsunamis. Individuals returning from affected areas may be at higher risk of infectious disease because they will have been exposed to worse environmental circumstances than those that they expected and were prepared for.

It is not possible to compile a short definitive list of the infections that may occur, as so many countries are affected with different endemic infectious disease profiles. Some of the more relevant ones are listed in the table below, by country. In view of the wide range but low individual risk of these infections, screening for infection on arrival back in the UK (e.g. at ports) is not justified. However all those returning are advised that if they have health concerns they should seek advice from their general practitioner (GP), and should certainly do so if they experience symptoms. Advice for those travellers returning to the UK from affected areas is available [here](#).

Table; Infections in areas affected by the tsunami in the Indian Ocean, 26 December 2004.

Countries affected:

NB: Bangladesh, Madagascar, Tanzania, Kenya, Mauritius, and Seychelles also but only moderately affected

Country/area affected	Endemic diseases
Indonesia (west and north coast of Aceh province, northern Sumatra – not an area tourists are likely to go, especially as there has been civil unrest recently. The Foreign and Commonwealth Office (FCO) has already issued advisories against travel to this region)	Gastrointestinal infections (cholera, dysentery, <i>Escherichia coli</i> infection, typhoid, hepatitis A, hepatitis E, enteroviruses, intestinal parasitic infections), leptospirosis, dengue fever, malaria.
India (southern coast - Tamil Nadu, Andrah	Gastrointestinal infections (cholera, dysentery,

Pradesh, Kerala, Andaman and Nicobar Islands)	<i>Escherichia coli</i> infection, typhoid, hepatitis A, hepatitis E, enteroviruses, intestinal parasitic infections), leptospirosis, dengue fever, malaria.
Sri Lanka (eastern, southern and south eastern coast – including southern port town of Galle most affected)	Gastrointestinal infections (cholera, dysentery, <i>Escherichia coli</i> infection, typhoid, hepatitis A, hepatitis E, enteroviruses, intestinal parasitic infections), leptospirosis, dengue fever, malaria. NB. FCO information (29.12.04) advises that an exotic virus is being spread through seafood due to contaminated seawater, although signs and symptoms of the virus are not known at the time of writing.
Maldives (most resort islands)	Gastrointestinal infections (cholera (low risk), dysentery, <i>Escherichia coli</i> infection, typhoid, hepatitis A, hepatitis E, enteroviruses, intestinal parasitic infections), leptospirosis, dengue fever.
Thailand (islands and resorts off south western Thailand, including Phuket, Ko Phi Phi, Ko Lanta, Krabi, Pangna)	Gastrointestinal infections (cholera (low risk), dysentery, <i>Escherichia coli</i> infection, typhoid, hepatitis A, hepatitis E, enteroviruses, intestinal parasitic infections), leptospirosis, dengue fever, malaria (not usually a risk in the areas affected but could become so)
Malaysia (NW coast of peninsular Malaysia, including tourist resorts of Penang, Langkawi)	Gastrointestinal infections (cholera (low risk), dysentery, <i>Escherichia coli</i> infection, typhoid, hepatitis A, hepatitis E, enteroviruses, intestinal parasitic infections), leptospirosis, dengue fever.
Myanmar (unknown which areas affected but thought that Mergui archipelago off the southern coast may have been affected but the main tourist resorts of Ngwesaung, Chaungtha and Ngapali have not been affected)	Gastrointestinal infections (cholera, dysentery, <i>Escherichia coli</i> infection, typhoid, hepatitis A, hepatitis E, enteroviruses, intestinal parasitic infections), leptospirosis, dengue fever, malaria
Somalia (island of Hafun, off NE coast)	Gastrointestinal infections (cholera, dysentery, <i>Escherichia coli</i> infection, typhoid, hepatitis A, enteroviruses, intestinal parasitic infections), leptospirosis, dengue fever, malaria, yellow fever

Gastrointestinal diseases are the most common travel associated illness under normal circumstances and might be expected to occur with increased frequency in those returning from tsunami-affected areas (http://www.who.int/hac/crises/international/asia_tsunami/tsunami_sitrep2/en/), if safe drinking water is unavailable. Those with gastrointestinal symptoms should be reminded to practice good personal hygiene to minimise the risk of passing on disease to their close contacts, and microbiological diagnosis of cases should be attempted. The most likely infections that travellers may encounter directly after a flood are those transmitted through direct contact with polluted waters, such as leptospirosis, wound and skin infections, eye infections, and ear, nose and throat infections. Arthropod borne disease

such as malaria and dengue may also occur at increased frequency in poor environmental conditions, especially with stagnant water. Any fevers or flu-like illnesses in returning travellers to areas affected by the tsunami, particularly malaria/dengue endemic areas, should be investigated. Primary care practitioners should seek advice from their local infectious disease specialists as necessary.

More details on the types of infection that flood victims may encounter are available from the World Health Organization

(<http://www.who.int/hac/techguidance/ems/en/FloodingandCommunicableDiseasesfactsheet.pdf>)

Clinicians are reminded to record relevant travel histories on any microbiology request or disease notification forms to assist with the surveillance of imported infectious diseases. Normal infection control procedures should apply in the care of patients with suspected infections and advice concerning the public health aspects of infections in returning travellers can be sought from the local Health Protection Unit.

Further advice/information for health professionals

For clinical advice on individual cases please contact your local infectious disease specialist – Dr Dryden 01962 824451

For further public health advice please contact your local or regional Health Protection Unit (01962 824451), or the duty doctor at the Centre for Infections (020 82006868).

Press enquiries

Please contact the Health Protection Agency's, Colindale press office on tel: 020 8327 7098 / 7097 / 6647 / 6055.

30th December 2004

Infection risks for people returning from the regions affected by south Asia earthquake and tsunamis – advice from the Health Protection Agency for returning travellers

If you have recently returned from visiting a country that was affected by the south Asian earthquake and tsunamis we would like to offer you our sympathy for the frightening experience that you may have endured and our sincere condolences for any losses you may have suffered. We would also like to reassure you that your risks of having acquired an infectious illness as a result of this experience are currently believed to be low.

At this time you may be experiencing emotional or physical symptoms as a result of trauma and injury and you should seek advice from your GP if you have any health concerns at all. Although your risk of having acquired an infectious illness is believed to be low there are some sensible precautions to take if you do have symptoms. If you have any wounds that are failing to heal or getting worse, or if you have any diarrhoeal illness, you should see your doctor promptly to enable a diagnosis to be made and to receive appropriate treatment. It is also important to know that if you do have these symptoms then good personal hygiene (in particular hand washing) will help protect your friends and family. If you have been taking anti-malarial medicine you should complete the course on your return to the UK and if you develop any fever or flu-like illness then see your doctor immediately.

For more health advice you can contact NHS Direct on 0845 4647

We would once again like to extend our sympathy to you and assure you of our continued support at this difficult time.