

# Guidelines for Assessment and Management of the Febrile Returned Traveller



## General principles

- Most febrile illnesses occurring soon after travel are travel related. Many require notification to the WA Department of Health if suspected or confirmed — see the [notifiable conditions list](#).
- The most common specific diagnoses in returned travellers are **malaria**, **dengue** and **typhoid**.
- Up-to-date region-specific information: WHO Disease distribution maps, Centre for Disease Control and Prevention, Geosentinel.

*Detailed assessment of exposures, symptoms and timing are invaluable in narrowing down the differential diagnoses.*

## Differential diagnosis

Four diagnoses make up the **majority** of non-focal febrile presentations:

- **Respiratory viral illnesses (incl. influenza & COVID)**
- **Malaria**
- **Dengue**
- **Typhoid**

## Infections to consider once these initial four are excluded:

- Other arboviruses
- Zoonotic bacteria (Leptospirosis, Rickettsiosis)
- Specific exposures – Q fever, Brucella, Borrelia
- HIV + STIs (disseminated gonorrhoea + syphilis)
- Hepatitis A
- Amoebic liver abscess
- Melioid: Thailand
- Bacterial dysentery (non-typhoid Salmonella / Campylobacter / Shigella / Amoeba)
- Cosmopolitan infections (eg EBV / Meningococcus / resistant urosepsis / pneumococcal pneumonia / legionellosis)
- Recent emerging / re-emerging diseases: measles, hantavirus
- Rare but high impact: viral haemorrhagic fever

## Important questions to ask on history

- **Symptoms** – timing, pattern, duration, pattern of fever, focal vs non-focal
- **Reasons for travel** – tourism, work, visiting friends/relatives, migrants, expats
- **Geographical exposures** – countries visited, travel dates for incubation periods
- **Insect precautions** – repellent, bed nets, malarial prophylaxis
- **Water/food** – drinking water source, cooked vs raw, unpasteurised dairy
- **Exposure** to rural, caves, farms, abattoirs, water sources
- **Medical care/hospitalisation** whilst overseas
- **Mass events** attended e.g. Hajj, concerts, Holi festival
- **Sexual contacts, drug use, tattoos**
- **Vaccination status**

## Travel destination influences diagnostic likelihood:

- **Africa:** malaria > rickettsial infection/arbovirus > typhoid
- **South East Asia:** dengue > malaria > typhoid
- **Indian Subcontinent:** typhoid > arbovirus > malaria
- **South America:** arbovirus (Zika/Dengue/Chikungunya) > malaria (vivax) > typhoid

## Investigations — all patients should have:

- FBC, LFTs, electrolytes, urea & creatinine, CRP
- Blood cultures
- Thick & thin blood films x3 + rapid antigen test for malaria (purple top – EDTA)
- NS1 antigen and serology for dengue
- Nasopharyngeal swab for influenza & other respiratory viral PCR
- Urine MC&S
- Chest X-ray

**!!! Specify on the request forms the travel destinations !!!**

## Further investigations — individualise by history/findings/destination:

- Serology for zoonosis – leptospirosis, rickettsia, Q fever, brucella, bartonella
- Other arboviral serology – Chikungunya, Zika, yellow fever, Japanese encephalitis
- Serology for HIV, Hepatitis A/B/C/D/E, and/or syphilis
- Viral haemorrhagic fever serology · Gonococcal/Chlamydia PCR
- Diarrhoeal illness – stools M/C/S, ova & parasites, faecal multiplex PCR
- Meningococcal/pneumococcal PCR (EDTA purple top)
- Sputum culture (specify melioidosis/atypical PCR) · STI screen · Swabs
- Cross sectional imaging (eg amoebic liver abscess) · Neuroimaging ± LP

# Guidelines for Assessment and Management of the Febrile Returned Traveller: Management



For further advice at any stage, contact the Infectious Diseases team via switchboard.

