

HISTORY: FEVER IN A RETURNED TRAVELLER

This is a common scenario and a wide range of differentials need to be ruled out. Good, precise history taking skills can narrow down the differential significantly.

OSCE scenario: *This 36 year old lady has presented to A+E with a fever. She has returned from West Africa 5 days ago. Please take an appropriate history.*

History of presenting complaint

- **Symptoms** – *clarify exactly what symptoms the patient has had*
 - Fever:
 - Any patterns to the fever, e.g. cyclical?
 - Have they measured it?
 - Organ-specific symptoms:
 - Respiratory – SOB, cough, chest pain, haemoptysis
 - Abdominal – diarrhoea, vomiting, abdominal pain, constipation
 - GU – dysuria, frequency, haematuria
 - Neurological – neck stiffness, headaches, seizures
 - Skin – localised rash, erythema, swelling
 - Other important symptoms:
 - Generalised rash
 - Weight loss
 - Night sweats
 - Bleeding

- **Timing of symptoms**– *this is extremely important as you can work out the probability of certain infectious diseases based on the incubation periods*
 - Onset – exactly when did the symptoms start?
 - What was the course of the symptoms e.g. prodrome, relapsing, progressive
 - Duration

- **Travel history** – *this gives you an idea of their exposure to certain infectious diseases*
 - Which countries?
 - Urban/rural environment
 - Types of accommodation
 - Dates of entering each country/returning home

- **Risk factors** – *there are many possible risk factors that need to be asked about, an easy mnemonic to help you get through them quickly is SPACES*
 - **Sexual**
 - Sexual intercourse whilst away?
 - If so needs full sexual history
 - **Procedures**
 - Any hospitalisation
 - Any blood products received
 - Any vascular access lines
 - Piercings
 - Intravenous drug-use

- **Animal contact**
 - Any bites received (animals or insects)
 - Close household contact with animals
- **Contacts**
 - Any close contacts also unwell?
 - Known diagnosis? Treatment?
- **Eating & drinking**
 - Did they eat any high-risk foods e.g. street meat, unpasteurised milk,
 - Did they drink unsterilized water?
- **Swimming**
 - Any swimming in natural lakes/rivers
 - Any activity involving water e.g. white water rafting, canoeing
- **Prevention – how protected were they against disease:**
 - Vaccinations up to date
 - Malarial prophylaxis (and compliance – did they complete the full course?)

Past medical and surgical history

- HIV – when was their last test and what was the result?
- Any previously treated infectious diseases (including malaria)?
- Any other chronic conditions (e.g. diabetes mellitus, malignancy)

Drug history

- Immunosuppressants
- Antiretroviral therapy
- Antimalarials – which ones?
- Recent chemotherapy

Family history

- HIV
- TB
- Malaria

Social history

- Smoker (increased risk of respiratory infections)
- Alcohol
- Intravenous drug use
- Living situation – *this is useful to know if you need to do contact tracing and also to understand support network*
 - How many people live with?
 - Shared bathroom/kitchen?
 - Dependants?

Causes of fever in the returned traveller

There are a huge number of weird and wonderful infectious diseases that could be causing the fever but don't forget about the COMMON causes of a fever, e.g. pneumonia, UTI, influenza.

The list of differentials for infectious causes are listed below. Many of them have a wide incubation period, but their most common time of presentation is listed. Incubation times can really help you with your diagnosis and are important to know. For example if the fever has presented < 7 days after exposure then malaria can be ruled out. The incubation period of malaria is typically 7 days - 3 months, but can be even longer in *P. vivax* and *P. ovale* subtypes).

The important, common diagnosis in a returned traveller are highlighted in bold.

	Short (< 10 days)	Medium (< 1 month)	Long (> 3 months)
Bacterial	Leptospirosis Typhoid and paratyphoid Meningococcal disease Rickettsial infections Anthrax	Brucellosis	Syphilis Amoebic liver abscess Lyme disease
Viral	Influenza Viral haemorrhagic fevers Dengue Yellow fever Acute HIV Japanese encephalitis Zika	Hepatitis A CMV EBV	HIV Hepatitis B and C TB Rabies
Parasitic	Malaria (> 7 days)	Malaria Visceral Leishmaniasis Fascioliasis Schistosomiasis (acute)	African trypanosomiasis Filariasis
Fungal	Toxoplasmosis		Histoplasmosis

References

<https://www.uptodate.com/contents/evaluation-of-fever-in-the-returning-traveler>

Oxford Handbook of Tropical Medicine