

# **Infectious Disease and Travel Health**

# The Role of the GP and emerging issues in primary care

- Understand the local and global epidemiology of major infectious agents and their disease associations
- Diagnose and manage diseases of infectious origin commonly seen in UK general practice and in the prospective or returning traveller, including in vulnerable groups such as refugees, asylum seekers, victims of trafficking, homeless, the elderly, pregnant, etc.
- Recognise and appropriately refer rare but serious infectious diseases and medical emergencies including sepsis
- Take a thorough travel history and know how this may affect differential diagnoses.
- Encourage self-management of benign self-limiting illnesses
- Actively tackle the problem of antimicrobial resistance through measures such as appropriate prescribing and patient education
- Identify, assess, manage and communicate major risks associated with infectious diseases, travel, therapies, and immunisation
- Know how to access specialist input for people with infectious diseases and how to find appropriate travel health information
- Lead or participate in service delivery or transformation, including emergency response plans and emergency preparedness.

# **Knowledge and Skills Self-Assessment Guide**

## **Symptoms and Signs**

Infectious diseases may be asymptomatic. Symptoms and signs may include (but are not limited to):

- Cardiac symptoms
- Fatigue and non-specific symptoms
- Fever
- Gastrointestinal symptoms e.g. diarrhoea, vomiting, abdominal pain

- Genitourinary symptoms
- Hepatosplenomegaly
- Joint pains
- Lymphadenopathy
- Neurological symptoms
- Pruritus
- Respiratory symptoms e.g. cough, shortness of breath, haemoptysis
- Skin signs (including pathognomonic rashes)
- Weight loss.

## **Common and Important Conditions**

- Bone, joint and soft tissue infections (e.g. septic arthritis, osteomyelitis, necrotising fasciitis)
- Cardiovascular infections (e.g. endocarditis, rheumatic fever)
- Childhood infections (including viral, bacterial, fungal) (see RCGP Topic Guides Children and young people and Dermatology)
- COVID-19
- ENT infections (see RCGP Topic Guide Ear, Nose, Throat and Mouth Problems)
- Fever in the returning traveller and potential causes (e.g. malaria, dengue, typhoid/paratyphoid, chikungunya, viral haemorrhagic fevers)
- Gastrointestinal infections (e.g. amoebiasis, amoebic dysentery, food poisoning & causative organisms, giardiasis, hydatid disease, Travellers' diarrhoea, typhoid)
- Genitourinary infections including sexually transmitted and urinary tract infections
- Healthcare-associated infections (HCAI) (e.g. MRSA, Clostridium difficile)
- Helminth infections (e.g. schistosomiasis, hookworm, strongyloides)
- Hepatitis of infectious origin
- Human Immunodeficiency Virus (HIV)/AIDS including prevention, testing, transmission (including mother-to-child transmission), therapies, prophylaxis, and associated diseases (such as pneumocystis jirovecii, cryptococcus spp., cytomegalovirus, candida)
- Immune deficiency; infectious disease in the immune-compromised patient
- Malaria (including malarial prophylaxis)
- Multi-systemic infections e.g. bacterial (e.g. staphylococcal, streptococcal), viral (e.g. Epstein Barr Virus), fungal, parasitic (e.g. toxoplasma, Chagas disease),

- Neurological infections (e.g. meningitis, encephalitis)
- Occupational infections and their management (e.g. needle stick infections)
- Ocular infections (e.g. conjunctivitis, ophthalmia neonatorum)
- Pandemics (e.g. COVID-19, pandemic influenza)
- Post-operative infections
- Respiratory disease (e.g. pneumonia, Legionnaires' disease, influenza)
- Sepsis and the deteriorating patient
- Skin infections (e.g. bed bugs, cutaneous larva migrans, exanthemata, flea, louse, ringworm, scabies, threadworm, orf, leishmaniasis)
- Tick borne diseases including Lyme disease
- Trauma including injuries, animal bites and wounds
- Tuberculosis and its different manifestations
- Travel related conditions (e.g. altitude related sickness, DVT, PE, motion sickness, sun/cold exposure, water activities)
- Vaccine preventable communicable diseases including cholera, diphtheria, Haemophilus influenzae B, hepatitis A, hepatitis B, Human Papilloma Virus, influenza, Japanese encephalitis, measles, meningitis ACWY, meningitis B, meningitis C, mumps, pertussis, pneumococcus, poliomyelitis, rabies, rotavirus, rubella, shingles, tetanus, tick-borne encephalitis, tuberculosis, typhoid, yellow fever
- Zoonotic diseases (e.g. leptospirosis, brucellosis).

#### **Examinations and Procedures**

- Features of common and important infectious diseases through relevant, focused systems examination
- Rashes related to, or pathognomonic of, specific infectious diseases (e.g. meningococcal meningitis, erythema chronicum migrans, erythema multiforme, erythema nodosum, viral exanthemata)
- Assessment of an acutely unwell patient with possible infection (including signs of sepsis).

### **Investigations**

- Use, limitations and interpretation of investigations such as serological testing, swabs, blood films, urine and stool microscopy and culture, near patient testing (e.g. CRP)
- Colonisation versus infection
- Common laboratory tests e.g. haematology (including significance of eosinophilia in travellers or those born outside the UK) and biochemistry (including normal parameters)

- Genome sequencing of pathogens in outbreak detection
- Imaging such as chest X-ray
- Screening in asymptomatic patients (e.g. chlamydia, HIV, TB).

# How this might be tested in MRCGP

#### **AKT**

- Appropriate antibiotic therapy for specific infections
- Recognition and management of skin infections from photographs
- Interpretation of abnormal blood results.

#### **RCA**

- Student has been travelling in SE Asia and has returned last week with a high fever, headache and exhaustion. A thick film for malaria was negative yesterday
- Elderly woman has an itchy rash over her body and limbs. Symptoms are worse at night and persist despite a recent prescription of emollients
- A newly registered patient with HIV wants to discuss shared care arrangements with the local hospital and is concerned about the confidentiality of his medical records.

#### **WPBA**

- Consultation Observation Tool (COT) about a request for antibiotics to take on holiday in case they are needed for gastroenteritis
- Learning log about managing a man who had who a spider bite while on holiday and is now unwell with an ulcerated skin lesion
- Learning log about your involvement in the practice travel clinic.

# How to learn this topic

This section describes *examples* of opportunities for learning.

We recognise that Covid-19 restrictions have significantly affected their accessibility

# Other relevant specialties

- Travel Medicine (RCPSG)
- Genitourinary medicine
- Infectious diseases (adult, paediatric)
- Intensive Care
- Microbiology
- Occupational health
- Public health including health protection teams
- Respiratory medicine
- Surgery

# Community/MDT

- Community/specialist teams e.g. TB clinic, sexual health
- Specialist nursing teams, district nurses (e.g. wound care, parenteral antibiotics)
- Health visitors, physiotherapists, rehabilitation services
- Other bodies e.g. Civil Aviation
   Authority, regional centres for communicable disease control, WHO



### **Acute**

- Seeing & managing infectious diseases in hospital/ urgent care
- Following the patient journey e.g. via ward rounds, MDT meetings, discharge planning
- Observing infection control procedures
- Responding to public health emergencies



## **Core Themes**

Communication and Consultation - Risk-benefit conversations (e.g. screening, testing, travel, immunisation); appropriate communication of the status of a deteriorating patient; translation services; health literacy; diagnostic overshadowing

- **Prescribing** antimicrobial stewardship
- Co-morbidity many infectious diseases are multisystemic
- **Teamworking** learning from health professionals and patients who have trained in or used a health system outside the UK; role of private sector (e.g. travel health clinics); role of public health
- Ethical and medico-legal confidentiality/disclosure, data protection, consent, immunisation, rights of migrants to healthcare.

# **Primary Care**

- Day to day practice
- OOH/ on call
- Travel clinics
- Vaccination clinics
- NHS 111

# **Tips**

- Audit
- Significant Event Analysis
- Clinical governance
- Risk Assessment
- Dr as teacher
- Leadership/ advocacy
- BNF/ Fit for Travel
- NICE/SIGN/WHO guidelines