

## CTropMed<sup>®</sup> Examination Outline

Seven major content areas are covered in the examination.

### **DOMAIN I: LIFE CYCLES, EPIDEMIOLOGY, PATHOLOGY AND PATHOGENESIS OF INFECTIOUS DISEASES (15%)**

(see specific topics below)

### **DOMAIN II: DIAGNOSIS, CLINICAL MANIFESTATIONS, TREATMENT, AND PREVENTION OF INFECTIOUS DISEASES (25%)**

(see specific topics below)

#### **Intestinal Protozoa**

- Amebiasis; Giardiasis; Cryptosporidiosis and other coccidial infections; Nonpathogenic protozoa; Emerging topics

#### **Blood and Tissue Protozoa**

- Malaria; Leishmaniasis; Toxoplasmosis; Trypanosomiasis (African); Trypanosomiasis (American); Free-living amoebae; Babesiosis; Emerging topics

#### **Nematodes**

- Ascariasis, trichuriasis, enterobiasis, hookworm, strongyloidiasis, and intestinal capillariasis; Lymphatic filariasis, onchocerciasis, loiasis, mansonellosis, and dracunculiasis; Trichinosis; Larva migrans: toxocariasis, creeping eruption, etc.; Other zoonotic nematodes: anisakiasis, angiostrongylosis, gnathostomiasis, oesophagostomum; Emerging topics

#### **Cestodes**

- Intestinal tapeworms; Cysticercosis and echinococcosis; Other larval cestode infections; Emerging topics

#### **Trematodes**

- Schistosomiasis; Intestinal flukes; Liver flukes; Paragonimiasis; Emerging topics

#### **Diseases Caused by Bacteria**

- Typhoid fever; Other salmonellosis; Cholera and other secretory diarrheas; Other vibrios; Shigellosis; *Campylobacter*, *Yersinia*, *E. coli*, and other bacterial causes of diarrhea; *Neisseria meningitidis* and other causes of meningitis; Tuberculosis; Leprosy; Atypical mycobacterial infections; Respiratory infections (bacterial); Tetanus; Diphtheria; Streptococcal infections including rheumatic fever; Melioidosis; Brucellosis; Bartonellosis; Sexually transmitted infections (syphilis, gonorrhea, chancroid, lymphogranuloma venereum, granuloma inguinale, and nongonococcal urethritis); Plague and tularemia; Anthrax; Q fever; Rickettsia infections including typhus, spotted fevers, scrub typhus; Ehrlichiosis and anaplasmosis; Leptospirosis, nonvenereal treponemal spirochetes, and borreliosis; Trachoma and other nonvenereal diseases caused by chlamydia; Emerging topics

### **Diseases Caused by Fungi**

- Histoplasmosis, blastomycosis, paracoccidioidomycosis, and coccidioidomycosis;  
Subcutaneous mycoses: mycetoma, sporotrichosis, and chromoblastomycosis;  
Opportunistic mycoses: Candida, Cryptococcus, talalaromycosis, and pneumocystosis;  
Emerging topics

### **Diseases Caused by Viruses**

- HIV infection; Hepatitis; Yellow fever; Dengue; Other flaviviruses: Zika, Japanese encephalitis, West Nile, tickborne encephalitis; Rabies; Bunyaviruses: Rift Valley fever, Crimean Congo hemorrhagic fever, hantaviruses, sandfly fever, and Oropouche; Lassa and other arenaviruses; Filovirus: Ebola, Marburg; Chikungunya; Other Alphaviruses: Venezuelan equine encephalitis, Ross River, Mayaro; Smallpox and monkeypox; HTLV-1; Avian influenza; Respiratory infections (viral); Rotavirus and other causes of diarrhea; Polio; Measles; Emerging topics

### **Ectoparasites**

- Lice; Scabies; Myiasis; Emerging topics

## **DOMAIN III: NONINFECTIOUS DISEASES (10%)**

### **Nutritional Disorders**

- Principles of nutrition; Infection and nutrition; Malnutrition and refeeding; Vitamin and mineral deficiencies

### **Environmental Disorders**

- Heat; Cold; Altitude and diving

### **Poisonous and Toxic Plants and Animals**

- Poisonous plants; Shellfish and fish poisoning; Venomous reptiles and marine animals; Biting and poisonous arthropods

### **Post-infectious Sequelae**

- Complications requiring surgery; Oncologic; Post-inflammatory (e.g., lymphedema, irritable bowel syndrome)

## **DOMAIN IV: APPROACH TO CLINICAL SYNDROMES (16%)**

### **Cardiovascular Symptoms and Signs**

- Heart failure; Valvular disease; Arrhythmia

### **Dermatologic Symptoms and Signs**

- Cutaneous ulcers; Cutaneous nodules; Fever and rash; Pruritus; Pigmentary disorders

### **Gastrointestinal Symptoms and Signs**

- Acute diarrhea; Chronic diarrhea; Abdominal pain; Jaundice; Hepatobiliary

### **Neurologic Symptoms and Signs**

- Seizures; Paralysis; Altered mental status; Meningitis and encephalitis; Chorea and other movement disorders

#### **Ocular Symptoms and Signs**

- Vision loss; Inflammation

#### **Genitourinary Symptoms and Signs**

- Hematuria, sterile pyuria, and chyluria; Ulcers, discharge, and lymphadenopathy; Cervical or bladder lesions

#### **Respiratory Symptoms and Signs**

- Fever and acute cough; Chronic cough; Hemoptysis, cavitory lung lesions, and pulmonary nodules; Wheezing

#### **Hematologic Symptoms and Signs**

- Anemia; Eosinophilia; Leukopenia and thrombocytopenia; Splenomegaly

#### **Other Fever Syndromes**

- Undifferentiated fever; Fever and arthritis; Manifestations of agents of bioterrorism

### **DOMAIN V: TRAVELERS' HEALTH (15%)**

#### **Clinical Epidemiology and Distribution of Diseases**

- Travelers; Migrants

#### **Preventive Medicine**

- Pre-travel risk assessment; Available vaccines: indications, dosing, adverse effects; Prophylaxis; Prevention of diseases transmitted by food, water and soil; Prevention of diseases transmitted by arthropods and animals

#### **High-risk Travelers**

- Pregnant; Pediatric; Immunocompromised; Chronic disease

#### **Air and Sea Travel**

- Jet lag; Motion sickness; Spread of infection; On-board care

#### **Other Conditions**

- Cultural adaptation; Mental health; Altitude sickness; Air pollution; Trauma and injury

#### **The Ill Traveler**

- Self-treatment; Medical care abroad; Post-travel assessment and screening

### **DOMAIN VI: PUBLIC HEALTH IN THE TROPICS (9%)**

#### **Maternal and Child Health**

- Epidemiology of maternal mortality and morbidity; Epidemiology of childhood mortality and morbidity; Breastfeeding (including HIV transmission)

#### **Water, Sanitation, and Hygiene**

- Water supply; Wastewater management; Sanitation

#### **Community Approaches to Primary Healthcare**

- Preventable illness: children and adults; Chronic diseases and disability; Essential drugs; Vaccine-preventable diseases; Mass supplementation and chemotherapy programs

### **International, Government, and Nongovernment Organizations in the Tropics**

- International Health Regulations; Professional standards; Ethics; Health systems structure

### **Disease Control**

- Investigation and control of outbreaks and epidemics; Principles of surveillance; Approach to disasters, international emergencies; Biosafety: containment of current pathogens and emerging pathogens; Pest and vector control

## **DOMAIN VII: DIAGNOSTIC TOOLS (10%)**

### **Laboratory Procedures and TecÚiques**

- Smears of blood and other fluids; Biopsy specimens (e.g., skin, bone marrow); Stool specimens for microscopic examination; Cultures for bacteria, fungi, and parasites

### **Laboratory Interpretation and Identification**

- Routine tests (e.g., complete blood count, urinalysis); Microscopic identification of bacteria, fungi, viruses, protozoa, and helminths; Macroscopic identification of common helminths (e.g., Ascaris, tapeworms, pinworms) and ectoparasites; Interpretation of serologic tests for protozoa, helminths, bacteria, fungi, and viruses; Special tests (e.g., molecular diagnosis, histopathology, point-of-care testing)

### **Radiologic Image Interpretation**

- Radiograph; MRI/CT scan; Ultrasound