CTropMed® 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 amebae; Babesiosis; Emerging topics

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

**Cestodes**
- Intestinal tapeworms; Cysticercosis and echinococciosis; 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 treponomal spirochetes, and
  borrellial infection; Trachoma and other nonvenereal diseases caused by chlamydia;
  Emerging topics
Diseases Caused by Fungi
- Histoplasmosis, blastomycosis, paracoccidioidomycosis, and coccidiodomycosis;
  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, cavitary 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 Techniques

- 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