

WHAT DO CANDIDATES NEED TO KNOW FOR THE EXAMINATION?

The examination is based on the following ISTM Travel Medicine Body of Knowledge, a detailed outline of the seven major content areas of the examination with an indication (in parentheses) of the approximate percentage of the examination devoted to each area. The final content of each examination is determined by the Examination Committee alone and is subject to modification.

Please note that the questions from each content area will be mixed throughout the examination. The questions will NOT be presented in content area order on the examination.

ISTM BODY OF KNOWLEDGE FOR THE PRACTICE OF TRAVEL MEDICINE

- I. EPIDEMIOLOGY (10%)
 - A. Basic concepts (e.g., morbidity, mortality, incidence, prevalence)
 - B. Geographic specificity/global distribution of diseases and potential health hazards

- II. IMMUNOLOGY/VACCINOLOGY (20%)
 - A. Basic concepts and principles (e.g., live vs. inactivated vaccine, measurement of immune response)
 - B. Handling, storage, and disposal of vaccines and related supplies
Types of Vaccines/Immunizations/Immunobiologics
Indications/contraindications, routes of administration, dosing regimens duration of protection, immunogenicity, efficacy, potential adverse reactions and medical management of adverse reactions associated with the following vaccinations/combination vaccinations:
 - C. Bacille Calmette-Guerin
 - D. Cholera
 - E. Diphtheria
 - F. Encephalitis, Japanese
 - G. Encephalitis, tick-borne
 - H. Haemophilus influenzae type B
 - I. Hepatitis A
 - J. Hepatitis B
 - K. Hepatitis A and B combined
 - L. Human Papilloma Virus
 - M. Immune globulin
 - N. Influenza
 - O. Measles
 - P. Meningococcal
 - Q. Mumps
 - R. Pertussis
 - S. Pneumococcal
 - T. Poliomyelitis
 - U. Rabies

ISTM BODY OF KNOWLEDGE FOR THE PRACTICE OF TRAVEL MEDICINE (continued)

- V. Rotavirus
 - W. Rubella
 - X. Tetanus
 - Y. Typhoid
 - Z. Varicella
 - AA. Yellow Fever
 - BB. Zoster
 - CC. Other combined vaccines
 - DD. Other
- III. PRETRAVEL ASSESSMENT/CONSULTATION (35%)
- Patient Evaluation
 - A. Assessment of fitness/contraindications to travel (e.g. pre-existing illness, fitness to fly)
 - B. Evaluation of travel itineraries/risk assessment (e.g. pre-existing activities, travel to rural vs. urban areas)
 - C. Relevant medical history (e.g. previous vaccinations, allergies, chronic illness, mental health history and concurrent medications)
 - D. Screening for good mental health and personal resilience to stress in hostile environments
 - Special Populations
 - Unique management issues pertaining to the following populations:
 - E. Athletes
 - F. Business travellers
 - G. Elderly travellers
 - H. Expatriates/long term travellers
 - I. Immigrants
 - J. Infants and children
 - K. Travel for the purpose of international adoption
 - L. Missionaries/volunteers/health clinicians/humanitarian health workers
 - M. Pregnant travellers and nursing mothers
 - N. Teachers, trainers and students
 - O. Travellers with chronic diseases (diabetes, chronic obstructive pulmonary disease, cardiovascular disease, mental health illnesses)
 - P. Travellers with disabilities
 - Q. Travellers to hostile environments to include journalists, armed service personnel, scientists, academics
 - R. Travellers who are immunocompromised, including AIDS and HIV
 - S. VFR's (those visiting friends and relatives in their countries of origin)
 - T. Other
 - Special Itineraries
 - Unique management issues associated with the following activities/itineraries:
 - U. Armed conflict zones
 - V. Cruise ship travel/Sailing
 - W. Diving
 - X. Extended stay travel

ISTM BODY OF KNOWLEDGE FOR THE PRACTICE OF TRAVEL MEDICINE (continued)

- Y. Extreme/wilderness/remote regions travel
 - Z. High altitude travel
 - AA. Last minute travel
 - BB. Mass gatherings (e.g. the Hajj)
 - CC. Travel for the purpose of medical care
 - DD. Natural disaster areas
 - EE. Sex Tourism
 - FF. Travel to areas experiencing disease outbreaks
 - GG. Other
 - Prevention and Self-Treatment
 - HH. Chemoprophylaxis
 - 1. Altitude illness
 - 2. Leptospirosis
 - 3. Malaria
 - 4. Travellers' diarrhea
 - 5. Other
 - II. Personal protective measures (e.g. restriction of outdoor activity at dawn and dusk) and barrier protection (e.g., bed nets, insect repellents)
 - JJ. Self-treatment
 - 1. Diarrhea
 - 2. Malaria
 - 3. Other
 - KK. Travel health kits
 - LL. Other travel medicine medications and pharmacological issues
 - Risk communications regarding:
 - MM. Animal contact (including birds)
 - NN. Close interpersonal contact (e.g. sexually transmitted diseases)
 - OO. Contact with fresh and salt water
 - PP. Food consumption
 - QQ. Safety and security
 - RR. Walking barefoot
 - SS. Water consumption and purification
 - TT. Antimicrobial resistance
 - UU. Other (e.g., skin trauma, infection...)
- IV. DISEASES CONTRACTED DURING TRAVEL (12%)
- Geographic risk, prevention, transmission, possible symptoms, and appropriate referral/triage of:
Diseases Associated with Vectors
- A. African Tick Bite Fever
 - B. Chikungunya
 - C. Dengue
 - D. Encephalitis, Japanese
 - E. Encephalitis, tick-borne
 - F. Filariasis (e.g. Loa loa, bancroftian, onchocerciasis)

ISTM BODY OF KNOWLEDGE FOR THE PRACTICE OF TRAVEL MEDICINE (continued)

- G. Hemorrhagic fevers
- H. Leishmaniasis
- I. Lyme, anaplasma, babesia
- J. Malaria
- K. Plague
- L. Rickettsia (typhus)
- M. Rift Valley Fever
- N. Trypanosomiasis, African
- O. Trypanosomiasis, American, (Chagas disease)
- P. West Nile
- Q. Yellow fever
- R. Zika
- S. Other (Emerging Infections)
Diseases Associated with Person-to-Person Contact
- T. Diphtheria
- U. Hepatitis B
- V. Hepatitis C
- W. Influenza
- X. Measles
- Y. Meningococcal disease
- Z. Mumps
- AA. Pertussis
- BB. Pneumococcal disease
- CC. Rubella
- DD. Sexually transmitted diseases
- EE. Tuberculosis
- FF. Varicella
- GG. Other
Diseases Associated with Ingestion of Food and Water
- HH. Amebiasis
- II. Brucellosis
- JJ. Cholera
- KK. Cryptosporidiosis
- LL. Cyclosporiasis
- MM. Giardiasis
- NN. Hepatitis A
- OO. Hepatitis E
- PP. Norovirus
- QQ. Poliomyelitis
- RR. Seafood poisoning/toxins
- SS. Travellers' diarrhea
- TT. Typhoid and Paratyphoid fever
- UU. Other
Diseases Associated with Bites and Stings

ISTM BODY OF KNOWLEDGE FOR THE PRACTICE OF TRAVEL MEDICINE (continued)

- VV. Envenomation (e.g. jelly fish, sea urchin, scorpion, snake, spiders)
 - WW. Herpes B virus
 - XX. Rabies
 - YY. Other
 - Diseases Associated with Water/Environmental Contact
 - ZZ. Cutaneous larva migrans
 - AAA. Legionella
 - BBB. Leptospirosis
 - CCC. Schistosomiasis
 - DDD. Tetanus
 - EEE. Other
- V. OTHER CLINICAL CONDITIONS ASSOCIATED WITH TRAVEL (10%)
- Conditions Occurring During or Immediately Following Travel
- Symptoms, prevention, and treatment of:
- A. Barotrauma
 - B. Jet Lag
 - C. Motion sickness
 - D. Thrombosis/embolism
 - E. Other
- Conditions Associated with Environmental Factors
- Symptoms, prevention, and treatment of:
- F. Altitude sickness
 - G. Frostbite and hypothermia
 - H. Respiratory distress/failure (associated with humidity, pollution, etc.)
 - I. Sunburn, heat exhaustion and sun stroke
 - J. Other
- Threats to Personal Security
- Precautions regarding:
- K. Accidents (e.g. motor vehicle, drowning)
 - L. Violence-related injuries
 - M. Other
- Psychological and Psycho-social Issues
- Unique management issues associated with:
- N. Acute stress reactions, post-traumatic stress disorder
 - O. Culture shock/adaptation (e.g., travellers, refugees)
 - P. Psychiatric and psychological sequelae of travel or living abroad
 - Q. Other (e.g., flight phobia)
- VI. POST-TRAVEL ASSESSMENT (8%)
- A. Screening/assessment of returned asymptomatic travelers
 - B. Screening/assessment of immigrants
 - C. Triage of the ill traveller
- Diagnostic and management implications of the following symptoms:

ISTM BODY OF KNOWLEDGE FOR THE PRACTICE OF TRAVEL MEDICINE (continued)

- D. Diarrhea and other gastro-intestinal complaints
- E. Eosinophilia
- F. Fever
- G. Respiratory illness
- H. Skin problems
- I. Other

VII. ADMINISTRATIVE AND GENERAL TRAVEL MEDICINE ISSUES (5%)

Medical Care Abroad

- A. Aeromedical evacuation (including repatriation of deceased)
- B. Blood transfusion guidelines for international travellers
- C. Procedures and considerations regarding medical and mental health care and recommendations regarding access of medications in resource-poor areas
- D. Other

Travel Clinic Management

- E. Documentation and record-keeping (e.g. vaccination certificate requirements, reporting of adverse events)
- F. Equipment
- G. Infection control procedures
- H. Management of medical emergencies
- I. Resources for laboratory testing
- J. Supplies and disposables including medications
- K. Other

Travel Medicine Information/Resources

- L. Accessing health information for travellers including commercial and proprietary sources
- M. International Health Regulations
- N. National/regional recommendations, including national/regional differences
- O. Principles of responsible travel
- P. Other

SAMPLE QUESTIONS

Below are sample test questions that examinees want to review before taking the ISTM Certificate of Knowledge™ in Travel Medicine Examination. An international panel of travel medicine experts, representing a variety of professional disciplines, developed the questions. Each question has only one correct answer. An answer key appears on the final page of this document. Please note that the difficulty of these sample questions may not be representative of the overall difficulty of the examination, nor of the full content.

1. According to International Health Regulations, national governments must report which of the following diseases to the World Health Organization (WHO) for maintenance of an infected area list?
 - A. Meningococcal meningitis
 - B. Ebola hemorrhagic fever
 - C. Yellow fever
 - D. Human immunodeficiency virus

2. Which of the following vaccinations is contraindicated for a traveller who has the Acquired Immunodeficiency Syndrome (AIDS) and a CD4 count of $<200/\mu\text{L}$ (normal range $400/\mu\text{L} - 1500/\mu\text{L}$)?
 - A. Japanese B encephalitis
 - B. Hepatitis A
 - C. Pneumococcal
 - D. Varicella

3. A traveller to Mexico develops sudden onset of severe, watery diarrhea, with four bowel movements in the first hour and a fever of 38.5 C° (101.3° F). The best treatment at this time is
 - A. metronidazole
 - B. ciprofloxacin
 - C. oral rehydration solution
 - D. bismuth subsalicylate tablets

4. Malaria chemoprophylaxis should always be recommended to travellers who are going for a 2-week visit to oceans or beaches in which of the following countries?
 - A. Kenya
 - B. Morocco
 - C. Thailand
 - D. Fiji

5. The most common cause of death among travellers to developing countries is
 - A. malaria
 - B. motor vehicle accidents
 - C. drowning
 - D. hepatitis A

6. Plasmodium falciparum resistance to mefloquine is found primarily in
 - A. sub-Saharan Africa
 - B. Central America
 - C. South America
 - D. Southeast Asia

7. A family of four is leaving in January for a 2-year stay in Chad. The family consists of a 46-year-old father, a 34-year-old mother who is 5 months pregnant, a 4-year-old boy, and a 2-year-old girl. They have learned of a meningitis epidemic that has just begun in Chad. Assuming that the epidemic strain is covered by an available vaccine, which members of the family should be vaccinated?
 - A. Father and mother only
 - B. Father, mother, and 4-year-old boy
 - C. Father and the two children
 - D. The entire family

SAMPLE QUESTIONS (continued)

8. A traveller who has had no prior rabies immunization is bitten by a dog in Nepal. The traveller does not seek rabies postexposure treatment in Nepal, but presents 2 weeks after the bite. The recommended treatment at this point is to administer
- A. A series of rabies vaccine, but do not give human rabies immune globulin (HRIG) as more than 7 days has elapsed between the bite and the start of the vaccine
 - B. Nothing as more than 7 days have elapsed since the bite
 - C. HRIG alone since more than 7 days have elapsed since the bite
 - D. HRIG and begin a series of injections of rabies vaccine
9. The statement "A missionary organization reports that 10 new cases of typhoid fever occur annually among their 1,000 overseas volunteers" is an example of the
- A. Incidence rate of typhoid
 - B. Prevalence rate of typhoid
 - C. Magnitude of typhoid
 - D. Relative risk of typhoid
10. Which of the following countries is free of Yellow Fever?
- A. Ghana
 - B. Congo
 - C. Botswana
 - D. Burundi
11. Which of the following types of vaccines is associated with failure to obtain a booster response to subsequent doses?
- A. Live-virus
 - B. Live-bacterial
 - C. Polysaccharide
 - D. Inactivated, whole-bacterial
12. Yellow fever vaccination is contraindicated for infants less than 4 months old because of
- A. A lack of antibody response
 - B. Induction of hepatic failure
 - C. The risk of encephalitis
 - D. Interference from maternal antibodies
13. A potential disadvantage of using only a simple filter as a method of field water disinfection is failure to protect against infection with
- A. Helminth ova
 - B. Protozoa
 - C. Bacteria
 - D. Viruses

SAMPLE QUESTIONS (continued)

14. Epilepsy is a possible problem in travel medicine because it is a contraindication for
- A. The use of mefloquine for prevention of malaria
 - B. The administration of yellow fever vaccine
 - C. Travelling to altitudes higher than 3,048 metres (10,000 feet)
 - D. Drinking water that has been disinfected using iodine-based techniques
15. A healthy, 24-year-old female in her 20th week of pregnancy is planning to travel to Peru. If she chooses to use antibiotics for self-treatment of travellers' diarrhoea, the best choice is
- A. Ampicillin
 - B. Azithromycin
 - C. Ciprofloxacin
 - D. Nalidixic acid
16. A scuba diver should not fly for a certain length of time following a dive because of the risk of
- A. Arterial embolism
 - B. Decompression sickness
 - C. Nitrogen narcosis
 - D. Hypoxaemia and bronchospasm
17. Which of the following is a risk factor for American trypanosomiasis (Chagas' disease)?
- A. Swimming in freshwater lakes and rivers
 - B. Ingestion of undercooked pork
 - C. Sleeping in thatched roof huts in rural areas
 - D. Contact with Aedes mosquitoes in rain forests
18. A 25-year-old traveller returning from 3 weeks in South Africa presents with high temperature (39.0° C), a papular rash and 2 small dark lesions on his left leg. The most likely diagnosis is which of the following?
- A. Malaria
 - B. Typhoid fever
 - C. Rickettsial infection
 - D. Measles
19. Which of the following diseases is the most likely diagnosis for a traveller with a fever of 40°C (104°F) who recently returned from a 2-week stay in the capital city of Costa Rica?
- A. Malaria
 - B. Tick-borne encephalitis
 - C. Dengue fever
 - D. Yellow fever

Sample Questions Answer Key

1(C) 2(D) 3(B) 4(A) 5(B) 6(D) 7(D) 8(D) 9(A) 10(C)
11(C) 12(C) 13(D) 14(A) 15(B) 16(B) 17(C) 18(C) 19(C)