



## **ISTM CERTIFICATE OF KNOWLEDGE™ IN TRAVEL**

**12 April 2024 EXAMINATION**

### **CANDIDATE INFORMATION**



ISTM will offer its 25th Certificate of Knowledge™ in Travel Medicine Online Examination on Friday, 12 April 2024. The certificate recognizes professionals who have demonstrated expertise in the unique body of knowledge associated with travel medicine care and consultation. Professionals passing the exam will be granted a Certificate in Travel Health™ or CTH®. ISTM members who receive the certificate will be given special recognition on the ISTM website and in the “ISTM Global Travel Clinic Directory”.

### **The International Society of Travel Medicine (ISTM)**

ISTM is a non-profit organization committed to the promotion of healthy and safe travel. In cooperation with international health care providers, academic centers, the travel industry, and the media, ISTM advocates for and facilitates education, service, and research activities in the field of travel medicine. Travel medicine includes preventive and curative medicine within many specialties, such as tropical medicine, infectious diseases, high altitude physiology, travel-related obstetrics, psychiatry, occupational health, military and migration medicine and environmental health.

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## HOW WAS THE CERTIFICATE OF KNOWLEDGE™ PROGRAM DEVELOPED?

The eligibility requirements and examination materials for the ISTM Certificate of Knowledge™ Program were developed based on studies of the current state of knowledge in travel medicine practice. In 1999, an international survey of expert travel medicine practitioners was conducted to define the body of knowledge for travel medicine and determine the content areas appropriate for the examination. The survey was designed to identify the knowledge used by travel medicine professionals in day-to-day practice. A representative panel of travel medicine practitioners reviewed the results of the survey and identified the body of knowledge for travel medicine based on these data. This process is conducted every few years and was most recently occurred in 2017 based on expert review and an extensive survey of almost 850 ISTM Members and CTH® Holders. A revised body of knowledge resulted, and the content of the examination is based on this revised body of knowledge.

The examination questions are written by travel medicine practitioners and reviewed and validated by a panel of experts prior to being selected for the examination. Great care has been taken to develop exam questions that are appropriate for professionals from different geographic regions and professional disciplines.

The examination question pool is updated on a regular basis to reflect current practice in travel medicine. Individual questions that are shown by statistical analysis to be unclear or unfair have been modified or deleted from the pool.

The ISTM Certificate of Knowledge™ examination is designed to meet testing industry standards for validity and reliability.

**Validity** is the degree to which the content of the examination reflects the knowledge required to competently perform the responsibilities of a travel medicine practitioner.

**Reliability** is the accuracy of the examination scores (i.e., the degree to which the examination scores are free from measurement error).

## WHAT ARE THE PURPOSES OF THE CERTIFICATE OF KNOWLEDGE™ PROGRAM?

The purposes of the ISTM Certificate of Knowledge™ Program are to:

- establish internationally recognized standards of knowledge for travel medicine practitioners;
- assess the level of knowledge demonstrated by travel medicine practitioners in a valid and reliable manner;
- encourage professional development in the field of travel medicine;
- formally recognize individuals who meet the requirements set by ISTM;
- serve the public by encouraging quality travel medicine practice services; and,
- demonstrate the global validity of epidemiological data and preventive strategies.

The ISTM Examination Committee, with the assistance and advice of an international panel of travel health experts representing a variety of professional disciplines, including pharmacy and nursing, has attempted to develop a Certificate of Knowledge™ Program that will recognize accepted levels of expertise in the profession, with the goal of improving professional standards in travel medicine. However, no Certificate of Knowledge™ program can guarantee professional competence. In addition, given the frequent changes in the field of travel medicine, ISTM cannot warrant that the examination materials will reflect, at all times, the most current state-of-the-art travel medicine guidelines. ISTM welcomes constructive comments and suggestions from the public and the profession.

## WHAT ARE THE BENEFITS OF THE ISTM CERTIFICATE OF KNOWLEDGE™?

Travel medicine practitioners who obtain the ISTM Certificate of Knowledge™ (CTH®) can benefit from:

- international recognition of your expertise and commitment to the field of travel health;
- continued professional development;
- enhanced professional credibility;
- increased patient referrals; and
- tools for promoting your travel clinic.

## WHO CAN TAKE THE EXAMINATION?

The ISTM welcomes applications from all qualified professionals who provide travel health-related services. If you currently provide such services on a full or part-time basis, and are a licensed healthcare professional (physician, nurse, pharmacist, physician assistant or other), we invite you to apply for the ISTM Certificate of Knowledge™ Exam.

ISTM highly recommends (but does not specifically require) that professionals applying for the Certificate have at least three (3) years of experience in travel medicine and/or formal training or education in the field.

## WHEN AND WHERE WILL THE 2024 25th CTH® EXAMINATION BE GIVEN?

The examination will be given online on Friday, 12 April 2024. Check-in is required 15 minutes prior to your start time.

## WHAT IS THE FORMAT FOR THE EXAMINATION?

In an effort to continually align with best practices, the 2024 25th ISTM Certificate of Knowledge Exam will be composed of 220 questions instead of the traditional 200 questions. The additional 20 items will be unscored and will not impact your exam score. These unscored items are embedded throughout the exam to assess their statistical characteristics and viability as future scored items.

The examination will be given online in a single five-hour session that consists of FOUR sections. You will have 15 minutes to complete the ProctorU security check process and then 4 hours and 45 minutes to complete the exam. Each section consists of 55 questions for a total of 220 multiple-choice questions. Each question contains four (4) options or choices, only one of which is scored as the correct answer. You will be asked to select the correct or best answer from these options. You are permitted to take a bio break, but only between sections and you will not be allowed to go back to the previous section. The examination is presented in British English. Sample questions can be found in the last section of this bulletin.

## HOW MUCH DOES IT COST?

The fees for taking the ISTM Certificate of Knowledge™ examination are as follows:

### Early Fees paid on or before 12 February 2024

#### **ISTM Members:**

Doctoral Level	USD 475.00
Non Doctoral Level	USD 350.00
<b>Non-Members:</b>	USD 675.00

### Regular Fees paid beginning 13 February 2024

#### **ISTM Members:**

Doctoral Level	USD 575.00
Non Doctoral Level	USD 450.00
<b>Non-Members:</b>	USD 775.00

**Fees are payable only in U.S. Dollars and payment must be made by VISA, MasterCard, Discover, or American Express.** All credit card payments will be charged in U.S. Dollars and currency conversions will be handled through the credit card company's billing arrangement with the cardholder.

Please contact the ISTM Secretariat at [ISTM@ISTM.org](mailto:ISTM@ISTM.org) should you require special payment arrangements.

**Note: The ISTM is offering special discounted fees for ISTM Members who are Associate Members (those residing in low and low-middle income countries as identified by the World Bank). These fees are USD 200 for Doctoral Associate ISTM Members and USD 100 for Non-Doctoral Associate ISTM Members throughout the registration period as long as space is available. If applicable to your application, these fees will appear in your online registration form.**

## CANCELLATIONS OR CHANGES:

A non-refundable processing charge of 75.00 USD is included in the application fee. This 75.00 USD charge is incurred upon receipt of your application by ISTM. If for some reason you are unable to sit for the exam and cancel before the cancellation date of **8 March 2024**, your fee will be refunded, less the 75.00 USD non-refundable charge. If you wish to take the examination at a future date, you must then submit a new application and application fee. You may also elect to forgo a refund and sit for a future examination, but you must email the ISTM Secretariat at [LEARNING@ISTM.ORG](mailto:LEARNING@ISTM.ORG) by **8 March 2024** of your intent to do so. You must sit for a subsequent in person or online examination within a 12-month period or forfeit your application fee.

## HOW DO I APPLY TO REGISTER?

The deadline to apply is **29 March 2024**. You must complete the online application no later than **29 March 2024** at the [Learning@ISTM.org](mailto:Learning@ISTM.org) website [here](#). There are three **REQUIRED** components to complete your application: (1) Applicant Questionnaire, (2) Terms of Service Acknowledgement, and (3) Photo Identification Upload. Photos must clearly present your full face, and not include anyone other than you. The image should be like one used in a passport or identification document. Please make sure your name on your applicant questionnaire matches your name on your passport or identification document.

Once your application has been reviewed and accepted, you will receive an email with your examination confirmation packet. The packet will contain specific information about the date, time and location of the testing site, onsite instructions and information about the test delivery, and your admissions sheet. Your admissions sheet will contain your individual identification/seat number and photograph. If for some reason, your photograph does not print on your admissions sheet, please contact the ISTM Secretariat at [LEARNING@ISTM.ORG](mailto:LEARNING@ISTM.ORG). You **MUST** bring a printed copy of the admissions sheet and a government issued photo identification (e.g. a passport or driver's license) with you to be admitted into the exam room.

You will receive your exam packet and any exam updates at the email address you used to complete the exam application. Please use the same email address for all ISTM correspondence. Please add the following email addresses to your email address book to be sure the spam filters on your email account will accept email from these addresses. Notice of your exam results when available will also come from one of these email addresses.

[ISTM@ISTM.ORG](mailto:ISTM@ISTM.ORG) and [LEARNING@ISTM.ORG](mailto:LEARNING@ISTM.ORG)

## HOW ARE SPECIAL TESTING ACCOMMODATIONS REQUESTED?

A candidate may request special accommodation due to disability, handicap, or other condition that may impair the ability of the candidate to take the exam. To request special accommodations, a candidate should contact ISTM as early as possible to request a Special Accommodations Request Form. A candidate must also provide written documentation from an appropriate health care professional, including a diagnosis of the health condition and a specific accommodation requested. The Request Form and medical documentation must be submitted with the application on or before the deadline of **29 March 2024**. ISTM will make reasonable efforts to accommodate eligible candidates. The accommodations may include auxiliary aids and services that do not present an undue burden to ISTM and do not fundamentally alter the measurement of the knowledge the examination is intended to test. If such a request is granted, ISTM will provide reasonable testing accommodations without charge to the candidate.

## WHAT ARE THE TESTING SITE REQUIREMENTS?

- You will need a private, well lit room with a closed door to take the exam.
- You must present your valid government issued photo identification (e.g., passport, driver's license) in the testing space in order to take the examination. The proctor will verify your documentation and verify your testing space.
- You may not use or have with you any devices with recording or memory capabilities, audible beepers, cellular phones, books, or papers in the testing room.
- Unauthorized visitors will not be allowed in the testing space.
- You may bring a bottle of water into the room with you. All other food and beverages are prohibited.
- When you take a bio break the proctor will again check your space upon return and you will not be able to go back and review any of the previous questions. You should be ready to submit final answers to that question section before you take a bio break.
- Purses, luggage, study materials and other objects may not be kept with you during the test.
- No testing aids or materials will be permitted in the examination room. ProctorU will allow access to the Google Translate online website if necessary.

- Before you take the examination, you will be asked to sign the following statement as part of the Applicant Questionnaire:

***Due to the confidential and secure nature of this examination, I agree that I will not copy or retain examination questions or transmit them in any form to any other person or organization.***

If you do not sign this statement, you will not be permitted to take the examination, or your examination results may be invalidated. The theft or attempted theft of the examination or the copying or disclosure of examination questions is punishable by law.

## **WHAT ARE THE REQUIREMENTS DURING THE EXAMINATION?**

The examination will be given under strict security. You will be required to show government issued photo identification in the testing space and trained proctors will supervise the examination. Irregularities observed during the examination, such as leaning off camera or speaking out loud may be sufficient cause to end your participation in the examination or to invalidate or cancel your scores. Examination proctors may identify irregularities by observation, evidence of subsequent statistical analysis of answer or other means. ISTM reserves the right to investigate each incident of possible misconduct or irregularity and to take appropriate response actions.

## **HOW IS THE EXAMINATION SCORED?**

Following the examination, the questions are analyzed statistically to identify any hidden flaws. Questions that appear to be flawed are discussed by the ISTM Examination Committee to determine if they should be deleted from scoring entirely or if credit should be given for more than one answer. Once these issues are resolved, the examination is scored.

Your performance on the examination will be measured against a predetermined standard of knowledge. This standard is the level of knowledge that can reasonably be expected of individuals with basic competence in travel medicine practice. You will NOT be measured against the performance of the other individuals taking the examination. This means that if everyone who takes the examination meets the knowledge standard, everyone will pass. It also means that there is no pre-determined passing score; the required number of questions answered correctly to pass the exam changes each time the exam is presented. Unfortunately, there will always be some people who miss passing by one or two correct answers. Please realize that to maintain the integrity of the examination, no exceptions can be made regarding the score required to pass the examination.

The passing score for the ISTM examination is set by an international panel of experts, representative of the field of travel medicine, supervised by the ISTM Examination Committee. These experts review each examination question, evaluate the difficulty of the question and judge how a professional with basic competence would perform on the question. These judgments are analyzed statistically to determine the passing score.

## **WHAT INFORMATION WILL I RECEIVE ABOUT MY SCORE?**

Passing Scores: The examination is designed only to distinguish those who have the basic level of professional knowledge from those who do not. A candidate who receives a high score on the examination will not necessarily be a better practitioner than another who passes with a lower score. Therefore, if you pass the examination, you will be informed only that you have successfully completed the Certificate of Knowledge™ process. You will NOT be notified of your actual score.

**Failing Scores:** If you fail the examination, you will be notified of your score and the minimum score required to pass that version of the exam. You will also receive a diagnostic report showing your performance in each content area. This information is provided to assist you in deciding whether to retake the examination and how to plan your study efforts for future examinations.

### **WHEN WILL I RECEIVE MY EXAMINATION RESULTS?**

Within **eight to ten weeks** after the exam date you will receive an email from [ISTM@ISTM.org](mailto:ISTM@ISTM.org) or [LEARNING@ISTM.org](mailto:LEARNING@ISTM.org) with your results. TO PROTECT THE CONFIDENTIALITY OF YOUR EXAMINATION SCORE, NO RESULTS WILL BE GIVEN OTHER THAN THROUGH THE EMAIL ADDRESS YOU PROVIDED ON THE EXAM APPLICATION. Again, please be sure to add [ISTM@ISTM.org](mailto:ISTM@ISTM.org) and [LEARNING@ISTM.org](mailto:LEARNING@ISTM.org) to your email address book to be sure the spam filters on your email account will accept email from these addresses.

#### Request for Hand Scoring

If you fail the examination, you may ask that your examination be re-scored by hand to verify the reported score. The cost to have your examination hand-scored is 100.00 USD. If you wish to request a hand-scoring of your exam, please email the ISTM Secretariat at [LEARNING@ISTM.org](mailto:LEARNING@ISTM.org) for more information. Requests for hand scoring can be honored only up to six (6) months after the testing date.

#### Cancellation of Scores

If, for any reason, you decide that you do not want your score reported, you may follow either of two procedures:

1. Tell an examination proctor before virtually signing off that you wish to cancel your scores, and complete and sign a Score Cancellation Form.
2. Write to the ISTM Secretariat at [ISTM@ISTM.org](mailto:ISTM@ISTM.org) requesting cancellation of your scores. Your written request must be signed and must be received within five (5) days after the date of the examination.

A cancelled score will not be reported to you or to ISTM, nor will a record be kept of your examination results. No refunds will be given for score cancellations. To retake the examination after a score cancellation, a new application and fee must be submitted.

#### Retaking the Examination

There is no limit on the number of times that you may apply for and take the examination. A new application form and all applicable fees must be submitted each time reexamination is requested.

#### Appeals

All complaints and appeals related to the Certificate of Knowledge™ Program are governed by the ISTM Certificate of Knowledge™ Program Appeals Procedures. This appeals process is the only way to resolve any application, eligibility, examination, qualification or other related challenge, complaint, and claim of irregularity. ISTM Examination Committee decisions concerning such requests are not subject to appeal.

#### Nondiscrimination Policy

ISTM does not discriminate against any person on the basis of age, gender, sexual orientation, race, religion, national origin, medical condition, physical disability, marital status or any other characteristic protected by the law.

### **WHAT ARE THE GUIDELINES FOR USE OF THE ISTM CERTIFICATE?**

Candidates who pass the examination will receive a Certificate in Travel Health™ suitable for framing and will be allowed to represent that they have received such a certificate and use the CTH® designation for ten years. Successful candidates will receive more detailed information concerning the CTH® mark use policy with the certificate. An individual who represents that he/she has received a Certificate in Travel Health™ or CTH® without having fulfilled the Certificate of Knowledge™ Program requirements may be denied future examination eligibility and/or be subject to legal action.

## HOW DO I PREPARE FOR THE EXAMINATION?

ISTM offers the following suggestions for preparing for the examination:

1. Review the ISTM Travel Medicine Body of Knowledge and ask yourself the following questions:
  - Do I have a good understanding of the content area?
  - Do I use this knowledge area regularly in my practice?

Plan your studying based on your answers to these questions. For example, for content areas in which you have a good understanding and use every day, you may only need to do a quick review to prepare for the examination. Whereas for areas in which you are less familiar, you may decide that you need more in-depth study or training before taking the examination.

When planning your studying, you should also think about the general percentage of the examination questions that may be devoted to each major content area. If you are not very familiar with a content area that may be included in a significant proportion of the examination questions, you probably should spend some additional time studying this area.

2. Decide which resources will best help you to prepare for the examination.  
You may choose to study on your own or you may decide to take a course or workshop to gain a better understanding of one or more content areas. **The ISTM provides both online and in-person courses to assist with your exam preparation. Information about these courses is available on the ISTM website at [www.ISTM.org](http://www.ISTM.org) or contact the ISTM Secretariat at [ISTM@ISTM.org](mailto:ISTM@ISTM.org) for more information.** If you know other travel medicine practitioners in your area who are taking the examination, you may want to form a study group.
3. Answer the sample questions at the end of this document to help familiarize yourself with the types of questions on the examination.

## WHAT DO I 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 ISTM 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
- 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
  - 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)
- 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**
- 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:**

- 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 may want to review before taking the ISTM Certificate of Knowledge™ in Travel Medicine Exam. 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 Bencephalitis
  - 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  $38.5^\circ\text{C}$  ( $101.3^\circ\text{F}$ ). 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
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

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 rainforests
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)