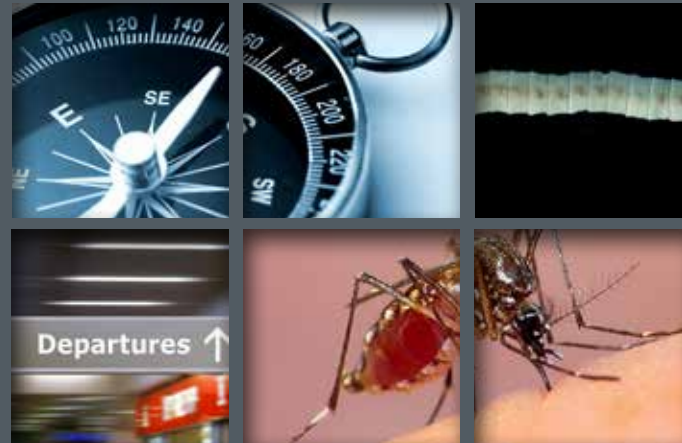


Certificate of Knowledge in Clinical Tropical Medicine and Travelers' Health (CTropMed®)

Striving for Professional Excellence in
Clinical Tropical Medicine and Travelers' Health

November 12, 2016
Atlanta Marriott Marquis
Atlanta, Georgia USA



#TropMed16

Sample
questions
included

see page 14 >>>>

Certificate of Knowledge in Clinical Tropical Medicine and Travelers' Health (CTropMed®)

Fostering professional development in the fields of clinical tropical medicine and travelers' health is one of the Society's highest priorities. To that end, ASTMH developed the Certificate in Clinical Tropical Medicine and Travelers' Health (CTropMed®) as a means to distinguish individuals who have demonstrated advanced knowledge and experience in clinical tropical medicine and travelers' health. The CTropMed® is conferred on licensed healthcare professionals who 1) have passed an ASTMH accredited training (diploma) course or have extensive professional experience in clinical tropical medicine, 2) have experience in a clinical setting in the tropics, and 3) have passed the ASTMH Examination in Clinical Tropical Medicine and Travelers' Health.

To support this process, ASTMH accredits specific diploma courses that meet rigorous standards for excellence in clinical training developed by the Society. Successful completion of one of these courses (see page 3) prepares the individual to sit for the examination. Established by ASTMH in 1995, the examination assesses and recognizes individual excellence in training and knowledge. Fulfilling these criteria confers eligibility for the CTropMed® and indicates that the candidate has achieved the ASTMH standard of excellence in knowledge and expertise in clinical tropical medicine and travelers' health.

About the Certificate of Knowledge in Clinical Tropical Medicine and Travelers' Health – CTropMed®

The eligibility requirements and examination materials are developed based on a review and analysis of the current state of medical and scientific knowledge in the fields of clinical tropical medicine and travelers' health.

Who Can Apply for the CTropMed® Examination

Open to any licensed healthcare professional (physician, physician assistant, nurse, nurse practitioner) in the United States or Canada or the equivalent elsewhere in the world. Physicians must have an unconditional, unrestricted license to practice medicine. Nurses must have a current, unencumbered license as a registered nurse valid through the date of the examination. Students may apply under specific circumstances, see page 3, Diploma Course Pathway.

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When:

November 12, 2016
8:00 a.m. – Noon
Atlanta Marriott Marquis
Atlanta, GA USA

Fees:

ASTMH Member
Early-bird rate \$475
(\$605 after July 6)

ASTMH Nonmember
Early-bird rate \$580
(\$710 after July 6)

1. Obtain Eligibility Through a) Diploma Course or b) Practice Pathway

Diploma Course

- Successful completion of an ASTMH-approved diploma course in tropical medicine. The course must have been accredited at the time the diploma was awarded. Course must be completed prior to August 10, 2016.
- If more than five years since completion of diploma course:
 - physicians and physician assistants must provide documentation of 15 hours of continuing medical education (American Medical Association Category 1) in tropical and/or travel medicine. Include a copy of the certificate(s) of attendance issued by the Continuing Education provider.
 - nurses must provide documentation of continuing nursing education (CNE Category 1) in a related field. Include a copy of the certificate(s) of attendance issued by the Continuing Education provider.
- A license is not required for students in healthcare professions who wish to sit for the examination and are applying via the diploma course pathway. However, ASTMH will hold the certificates of those who pass the examination until a copy of the unconditional, unrestricted license to practice has been received.

ASTMH-accredited diploma courses:

- Diploma in Tropical Medicine, Baylor College of Medicine
- Diploma in Tropical Medicine, Baylor International Pediatric AIDS Initiative
- Diploma in Tropical Medicine, Bernhard Nocht Institute
- Gorgas Memorial Institute of Tropical and Preventive Medicine
- Diploma in Tropical Medicine and Public Health, Charité University Medicine Berlin, Humboldt University and Free University Berlin
- Summer Institute in Tropical Medicine and Public Health, Johns Hopkins Bloomberg School of Public Health
- Diploma in Tropical Medicine & Hygiene, Liverpool School of Tropical Medicine
- Diploma in Tropical Medicine & Hygiene, London School of Hygiene and Tropical Medicine
- East African Diploma in Tropical Medicine and Hygiene, London School of Hygiene & Tropical Medicine
- Graduate Diploma in Tropical Medicine and Hygiene, Mahidol University
- Postgraduate Course in Tropical Medicine and International Health, Prince Leopold Institute of Tropical Medicine
- Diploma Course in Clinical Tropical Medicine and Travelers' Health, Tulane University
- Training in Tropical Medicine and Travelers' Health, Uniformed Services University of the Health Sciences
- Global Health Course: Clinical Tropical, Migrant and Travel Medicine, University of Minnesota/ Centers for Disease Control and Prevention
- Intensive Course in Tropical and Travel Medicine, University of Texas Medical Branch at Galveston
- Tropical Medicine and Global Health, University of Virginia Health System
- Clinical Tropical Medicine and Travelers' Health, West Virginia University

Practice Pathway

- Evidence of a minimum of five years of substantial, cumulative practice experience in the field of clinical tropical medicine following completion of residency training. Substantial practice experience is defined as at least 10 percent of total professional time devoted to clinical tropical medicine in at least two of the following areas:
 1. Assessment and management of illness in persons in, or returned from, the tropics.
 2. Diagnosis and treatment of infectious diseases.
 3. Health evaluation and treatment of tropical infectious diseases.
 4. Diagnosis and management of common parasitic infections.
 5. Pre-travel health advice. Time devoted to pre-travel health advice may be used to account for no more than one-half (5 percent total professional time) of the total time required for eligibility.
- For physicians, 30 documented hours of continuing medical education (American Medical Association Category I) in tropical and/or travel medicine within the five years prior to the application deadline. Include a copy of the certificate(s) of attendance issued by the CME provider.
- For nurses, 30 documented hours of continuing nursing education (Category 1) in a related field within the five years prior to the application deadline. Include copy of the certificate(s) of attendance issued by the CNE provider.

Cavitary lung lesions are seen in patients with tuberculosis and which of the following infections?

- (A) strongyloidiasis
- (B) paragonimiasis
- (C) ascariasis
- (D) filariasis

2. Demonstrate Two Months Clinical Experience in a Tropical Setting

All applicants, whether applying via the diploma or practice pathway, must have two months of clinical experience in a developing country/tropical setting. For physicians, overseas experience obtained during medical school may be used as long as the activities took place during the last part of medical school training and were meaningful to clinical tropical medicine and travelers' health training. If the two months' overseas experience has not been completed, one may still apply for the examination as long as the remaining criteria for the selected pathway is met. Upon passing the examination, ASTMH will hold certificates until documentation of two months' cumulative overseas experience is received by the Society.

For each overseas location, please format description as shown

Location: Arusha, Tanzania

Institution: Selian District Hospital

Duration: 8 Weeks

Dates: November – December 2010

Clinical Work: Infectious disease research, patient care, disease surveillance, etc.

Diagnoses Seen: Indicate diagnoses here

3. Pass the Examination

About the Examination

The examination design complies with the American Psychological Association's joint technical standards on testing and testing-industry standards.

To designate knowledge areas appropriate for testing in the examination, specialists and other experts in the fields of tropical medicine and travelers' health are surveyed. Their reports are used to develop specifications and content for the examination; an outline is provided on pages 11–13.

ASTMH offers the examination in even-numbered years prior to the ASTMH Annual Meeting. It consists of 200 multiple-choice questions, some of which are accompanied by diagrams or other images. Four hours are allowed to complete the examination. Each question contains four choices, with only one correct answer. The questions are developed and regularly reviewed by an ASTMH expert panel, with the assistance of Knapp and Associates International, Princeton, NJ, a firm that specializes in the development and administration of tests to measure professional competence.

Given the rapid changes in medical knowledge and scientific developments, ASTMH makes every reasonable effort to ensure that the examination reflects the current state of knowledge. However, it is important to note that no certificate program can guarantee medical competence, nor does this examination guarantee clinical competence.

The examination will be held **November 12, 2016, from 8:00 a.m. – Noon at the Atlanta Marriott Marquis in Atlanta, Georgia USA.**

Applying for the Examination


Non-Discrimination Policy

ASTMH 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 protected classification.

Special Testing Arrangements

The Society will make every reasonable effort to accommodate examination candidates who provide documented evidence of their specific testing arrangement need related to a disability. Candidates are asked to inform ASTMH of the needs in writing at least eight weeks prior to the scheduled examination.

Auxiliary aids and services will be provided if they do not present an undue burden to the Society, other test takers, the test environment and do not alter the measurement of knowledge that the examination is intended to test.



**Orbicularis h\ nēbi Zk\ I B
with lagophthalmos and
an insensitive cornea
frequently leads to
blindness in patients with**

- (A) leprosy
- (B) vitamin A deficiency
- (C) diabetes
- (D) trachoma

Online Application

All applications and payments must be submitted online by August 10, 2016. Once the submission site closes, applications will no longer be accepted. **ASTMH is unable to pre-review qualifications for the examination.**

Submission Requirements:

1. Online application and application fee online if paying by credit card. Payment may be made by credit card (Visa, MasterCard, American Express or Discover), money order, check (certified or personal) or wire transfer. Checks must be in U.S. funds and drawn on a U.S. bank. Make checks payable to the American Society of Tropical Medicine and Hygiene or ASTMH. Payment must be received prior to the application being reviewed. *If paying by check, money order or wire transfer, applications are still submitted online but payment must be received before application will be reviewed.
2. Upload:
 - copy of current professional healthcare license.
 - Description of the two months overseas experience, including institution name, location, dates, nature of clinical work and a description of common diagnoses seen at the facility (see example on page 4).
 - For diploma course pathway: documentation of successful completion of an accredited diploma course.
 - For diploma course pathway: documentation of 15 hours of continuing medical or nursing education (only if course was completed more than 5 years ago).
 - For practice pathway: description of the clinical tropical medicine experience during a minimum of five years (limit of two pages).
 - For practice pathway: documentation of 30 hours of continuing medical or nursing education.
3. Postal Mail two recent, original, high-resolution passport-size photographs with applicant's name printed on the front of both photos. Photos should be mailed to: Buffy Finn, Member Services Administrator, ASTMH, One Parkview Plaza, Suite 800, Oakbrook Terrace, IL 60181.

Helpful Tips:

1. Applicants are not required to disclose date of birth or gender. This is voluntary information. The Examination Committee seeks this information only for demographic purposes.
2. Please do not upload transcripts or *curriculum vitae*.
4. It is recommended that applicants print a copy of the completed application for their records.
5. Payment must accompany the application. A \$95 non-refundable fee is included in the application fee. If for any reason eligibility requirements are not met at the time of application, the fee, less \$95, will be returned.

If applicant is going to pay by check, mail the fee to:

Buffy Finn, *Member Services Administrator*
ASTMH Certificate Examination
One Parkview Plaza, Suite 800
Oakbrook Terrace, IL 60181 USA

For questions concerning the application procedure, contact Buffy Finn, Member Services Administrator, at bfinn@astmh.org, +1-847-686-2238, or fax +1-847-686-2253.

**Join ASTMH
and SAVE!**

Join now and
receive the member
rate for the
examination.

Approval to Sit for the Examination

Applicants will receive two notices: 1) confirmation that they have met the requirements and 2) **approximately 30 days before the examination**, approved applicant will receive an admission document that contains:

- Admission to the examination
- Unique identification (ID) number
- Specific information about the date, time and location of the test center

Please retain the unique ID number. Applicants will need it when reporting for the examination, when completing the answer sheet, and if there are any inquiries about test scores afterward.

Contact [Buffy Finn](#) if:

- the admission document gets misplaced
- the applicant has not received the admission document by October 27

Test Center Procedures

1. All examinees must present the ASTMH-issued admission document and a government-issued photo identification (e.g., driver's license, passport) at the test location.
NO EXCEPTIONS WILL BE MADE.
2. Due to the large number of examinees, please arrive at the test location approximately one hour prior to the testing time. Late arrivals (after 8 am) will not be admitted and the application fee will not be refunded.
3. Books, paper, notes and devices with memory capabilities (iPads, computers, notebooks, tablets and laptops) are not permitted in the testing room.
4. All cell phones must be turned off during the examination.
5. Examinees have four hours to complete the examination.
6. Unauthorized visitors will not be allowed at the test location
7. Trained proctors supervise the administration of the examination and maintain strict security throughout the testing period. Irregularities observed during the testing period, such as creating a disturbance, the perception of giving or receiving information or aid to or from other examinees, or attempting to remove test materials or notes from the test location, may be sufficient cause to terminate examinee participation or to invalidate or cancel scores. Irregularities may be identified by observation or suspicion by the examination proctors or may be evidenced by subsequent statistical analysis of testing materials. ASTMH reserves the right to investigate each incident of misconduct or irregularity.
8. Food and beverages are not allowed in the test location at any time.

If neither individuals nor population are treated, for how long must vector control be continued to eliminate onchocerciasis from a designated region?

- (A) Less than one year
- (B) Five years
- (C) 10 years
- (D) More than 10 years

Approved applicants will be notified on or before October 15.

Scoring

The passing score is set by a national panel of experts in tropical medicine and travelers' health. Each question is reviewed by a respective expert. An informed judgment is made as to what percentage of minimally competent tropical medicine specialists would answer each question correctly. This deliberative and thoughtful process establishes a minimum level of knowledge expected of passing candidates. The judgments made by the expert panel are subjected to statistical analyses that yield a passing score approved by the Certificate Examination Committee.

The passing score is based on an expected level of knowledge; it is not related to the distribution of scores obtained during a particular administration of the examination. In any given year an examinee has the same chance of passing the examination whether those taking the examination at that time tend to have high scores or low scores. Each examinee is measured against a standard of knowledge, not against the performance of the other individuals taking the examination.

Examination Results

ASTMH will notify examinees, by email in February, of their results. Results will not be given by phone.


Given that the examination is designed as a minimum professional competency test and not intended to distinguish between scores achieved above the passing point, no numeric scores will be reported to examinees who pass. Examinees who do not meet the minimum competency level will receive their score and the minimum passing score and an analysis of their test results showing subject areas needing strengthening.

For the purpose of scoring the examination and any subsequent discussions regarding the scores of individual examinees, each examinee will be assigned and identified by a number. No names will be linked with these numbers at any time.

Special Circumstances

Retaking the Examination

There is no limit on the number of times one may apply for and retake the examination. However, if an examinee does not pass after three attempts, he or she will be required to show proof of courses or seminars taken to remedy areas needing strengthening. A new application form and all applicable fees are required for each re-examination application.



Excluding underlying diseases, the most common cause of death for United States citizens traveling to tropical countries is:

- (A) malaria
- (B) typhoid fever
- (C) accidental injury
- (D) homicide

Appeals and Request for Hand Scoring

Examinees who do not pass the examination may request a re-scoring by hand to verify reported scores. Requests must be in writing and accompanied by a check in the amount of \$65 made payable to ASTMH. Requests for hand scoring must be made within 30 days of the candidate's receipt of the examination score. The results of the hand scoring will be considered the final examination results. Please allow 2-3 weeks for hand scoring results.

Request to Nullify

If the examinee does not want his or her test scored, two options are available:

1. Before leaving the test location, inform the test proctor that you wish to cancel your test and then complete and sign a score cancellation form.
2. On or before November 18, 2016, contact [Buffy Finn](#) requesting cancellation of examination. This request (postal mail, email, fax, overnight delivery) must be signed by the examinee. It is the examinee's responsibility to confirm that this request is received by ASTMH.


A canceled test will not be scored or reported to the examinee or ASTMH, nor will Knapp and Associates keep a record of examination results. No refunds will be issued due to test cancellations. To retake the examination after a test cancellation, a new application and fee are required.

Inability to Sit for the Examination

In the event an examinee is found ineligible or does not sit for the examination for which he/she is eligible, a refund of the examination fee less the \$95 non-refundable application fee may be requested within 30 days following the test. Future applications will need to meet all required fees and eligibility criteria.

Receiving the CTropMed®

Examinees passing the examination and fulfilling all requirements will be allowed—by law—to designate that they have “Received a CTropMed®” and will receive a certificate. Examinees passing the examination but not meeting all requirements will have their certificate held until all requirements are fulfilled. During this interim period, the examinee must not list or indicate in any way that he or she has “Received the CTropMed®.”



The most frequently identified pathogen in tropical pyomyositis is:

- (A) a Gram-negative organism
- (B) Staphylococcus aureus
- (C) Streptococcus pyogenes
- (D) the pneumococcus

Attend the Update Course, September 25 – 27, 2016, Doubletree – Greenway Plaza, Houston, TX.

This two-day condensed course provides a broad overview of core topics in clinical tropical medicine and travelers' health. For more information on the Update Course, visit the [ASTMH website](#).



Examination Application Checklist

**APPLY
NOW!**

- ✓ Complete online application
- ✓ Pay fee online or make check payable to ASTMH
- ✓ Upload copy of current professional healthcare license
- ✓ Upload description of overseas experience
- ✓ Upload documentation for pathway option: description of 5 years clinical experience
OR
- ✓ Upload documentation for diploma course pathway: diploma course certificate
- ✓ Upload documentation of continuing medical or nursing education
- ✓ Postal mail two recent, original, high-resolution, signed passport-size photographs. Please mail photos to: Buffy Finn, Member Services Administrator, ASTMH, 1 Parkview Plaza, Suite 800, Oakbrook Terrace, IL 60181

Incomplete applications will not be accepted

Examination Study Guide

- Carefully review the examination outline. The approximate percentage of the total examination allotted to each major content area is indicated in parentheses.
- Answering the provided sample questions on pages 14-15 will help familiarize you with the nature and format of the questions on the examination.
- The references provided on page 16 may be helpful in your preparation. This list is not intended to be exhaustive.

Examination Outline

Eight major content areas are covered in the examination.

Basic Science and Fundamentals (5%)

- Immunology
- Vaccinology
- Epidemiology and statistics
- Pharmacology
- Nutrition

Infectious Diseases (34%)

- Taxonomy
- Life cycles
- Epidemiology
- Pathology and pathogenesis
- Differential diagnosis
- Clinical manifestations
- Treatment and prevention

Intestinal Protozoa

- Amebiasis, giardiasis
- Infections due to coccidia, *D. fragilis*, nonpathogenic protozoa

Blood and Tissue Protozoa

- Malaria
- Leishmaniasis, trypanosomiasis
- Toxoplasmosis, pneumocystosis, infection with free-living amoebae

Nematodes

- Intestinal roundworm infections
- Filarial infections
- Larva migrans, dracunculiasis, trichinosis, anisakiasis, gnathostomiasis, angiostrongyliasis

Cestodes

- Intestinal and larval cestode infections

The instructions included in a medical kit for travel should remind the user to avoid taking which of the following combinations of drugs?

- (A) Doxycycline and bismuth subsalicylate
- (B) Loperamide and ciprofloxacin
- (C) Acetaminophen and mefloquine
- (D) Diphenhydramine, trimethoprim and sulfamethoxazole

Diagnosis and treatment of infected persons is an important means of interrupting transmission due to which of the following?

- (A) American cutaneous leishmaniasis
- (B) Mediterranean visceral leishmaniasis
- (C) Gambian trypanosomiasis
- (D) Chagas' disease

Trematodes

- Schistosomiasis
- Intestinal and liver fluke infections
- Paragonimiasis

Diseases Caused by Bacteria

- Typhoid fever and bacterial diarrheal syndromes
- Tuberculosis, including drug resistant tuberculosis, and leprosy
- Sexually transmitted diseases
- Tetanus, diphtheria, anthrax, plague
- Others (plague, brucellosis, etc.)
- Rickettsial and ehrlichial infections
- Leptospirosis
- Neisseria meningitides and bacterial meningitis agents

Diseases Caused by Fungi

- Deep mycosis
- Mycetoma
- Opportunistic mycoses

Diseases Caused by Viruses

- HIV and HTLV-1
- Hepatitis
- Dengue, yellow fever
- Other arboviral infections and viral hemorrhagic fevers
- Respiratory infections, including avian influenza
- Rotavirus infection and other viral causes of diarrhea
- Polio and measles in developing countries
- Smallpox
- Rabies
- Encephalitic viruses

Other Diseases and Conditions (6%)

- Nutritional disorders (principles, infection and nutrition, malnutrition, vitamin and mineral deficiencies)
- Environmental stress (heat, cold, barometric stress)
- Ectoparasites, poisonous plants and animals

Diagnostic and Therapeutic Approach to Clinical Syndromes (15%)

- Undifferentiated fever, eosinophilia, hepatosplenomegaly, etc.
- Tropical dermatology
- Tropical hematology
- Mental health in the tropics
- Tropical gastroenterology
- Tropical surgery, oncology
- Tropical neurology, cardiology, radiology, ophthalmology
- Urologic symptoms
- Radiologic diagnosis
- Manifestations of infection with agents of bioterrorism

Travelers' Health (18%)

- Clinical epidemiology of diseases of travelers, migrants and immigrants
- Pre-travel risk assessment
- Available vaccines
- In-travel prevention
- Special needs travelers
- Air travel and medical care abroad
- Post-travel evaluation and management
- Cultural considerations

Public Health in the Tropics (7%)

- Maternal child health, breastfeeding
- Preventable illness – children and adults
- Chronic diseases and disability
- Water supply/waste water management
- Sanitation
- Community approaches to primary healthcare
- Essential drugs

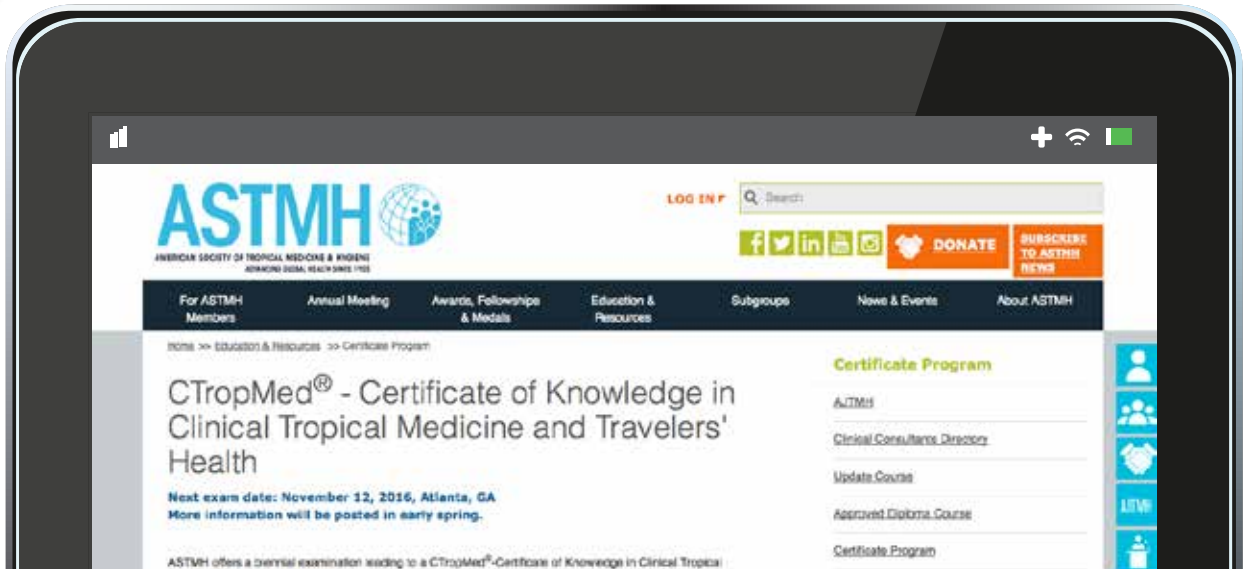
Epidemiology and Control of Disease (5%)

- Investigation and control of epidemics, disasters, international emergencies
- Principles of surveillance
- Disease control and implementation of strategies
- Biosafety: containment of current pathogens and emerging pathogens

Laboratory Diagnosis (10%)

- Microscopic identification of protozoa and helminths
- Laboratory techniques for identification of parasites
- Macroscopic identification of common helminths and arthropods
- Techniques for identifying bacteria, fungi, viruses
- Interpretation of serologic tests
- Routine procedures
- Molecular diagnosis

Check the [ASTMH website](http://astmh.org) for the most up-to-date CTropMed® information.



Sample Questions

Each question has only one correct answer.

1. **Cavitary lung lesions are seen in patients with tuberculosis and which of the following infections?**
 - (A) strongyloidiasis
 - (B) paragonimiasis
 - (C) ascariasis
 - (D) filariasis

2. **Which of the following is characteristic of helminths that infect human beings?**
 - (A) They usually do not multiply in the host.
 - (B) They rarely provoke an eosinophilia.
 - (C) They cause severe disease after infection with only a few parasites.
 - (D) They typically cause lifelong infections.

3. **Orbicularis oculi paresis with lagophthalmos and an insensitive cornea frequently leads to blindness in patients with:**
 - (A) leprosy
 - (B) vitamin A deficiency
 - (C) diabetes
 - (D) trachoma

4. **The most frequently identified pathogen in tropical pyomyositis is:**
 - (A) a Gram-negative organism
 - (B) *Staphylococcus aureus*
 - (C) *Streptococcus pyogenes*
 - (D) the pneumococcus

5. **A 40-year-old patient returns from a trip to Thailand with a four-day history of fever and a one-day history of hallucinations and bloody diarrhea. The temperature is 39°C; the rest of the physical examination is normal. A thick blood film reveals that 6% of erythrocytes are parasitized with *Plasmodium falciparum*. Appropriate initial management includes;**
 - (A) intravenous artesunate
 - (B) oral mefloquine
 - (C) oral chloroquine and pyrimethaminesulfadoxine
 - (D) oral quinine and doxycycline

6. **In a case-control (retrospective) study, an odds ratio of 1.3 was found for the association between exposure X and disease Y ($p < 0.001$). Having the combination of this odds ratio and p-value indicates that:**
 - (A) the association is very strong
 - (B) the association is likely to be causal
 - (C) a confounding factor is unlikely to account for the association
 - (D) the study in which the association was found is large

7. **Which of the following is the most appropriate advice for preventing acute mountain sickness?**
 - (A) Take acetazolamide beginning with onset of symptoms.
 - (B) Keep fluid intake low enough to prevent pulmonary and cerebral edema.
 - (C) Spend two to three nights at 2500 to 3000 meters before going higher.
 - (D) Rest in place at onset of symptoms and breathe emergency oxygen, if available.

8. **Excluding underlying diseases, the most common cause of death for United States citizens traveling to tropical countries is:**
 - (A) malaria
 - (B) typhoid fever
 - (C) accidental injury
 - (D) homicide

Sample Questions (cont.)

Each question has only one correct answer.

9. **A 25-year-old male presents with a three-day history of numbness and tingling in his right hand. One day preceding the development of these symptoms, he noted non-pruritic swelling of his entire forearm that lasted 36 hours and resolved spontaneously. Although he has been living in the United States for the past year, he spent the previous two years in rural Gabon, West Africa. Neurological evaluation and physical examination are significant only for decreased sensation in a glove-like distribution of the right hand. Which of the following is most likely to lead to the correct diagnosis?**
- (A) Skin snips
 - (B) C1 inhibitor levels
 - (C) Antifilarial antibody levels
 - (D) Giemsa-stained smears of blood drawn at night
10. **An adult presents with acute diarrhea and a temperature of 38.6°C two days after returning from a trip to Mexico. Which of the following is the most appropriate initial step?**
- (A) Culture of a fecal specimen for *Entamoeba histolytica*.
 - (B) Examine a stool specimen for leukocytes and presence of blood.
 - (C) Obtain a stool culture for enteropathogenic *Escherichia coli*.
 - (D) Treat with metronidazole for possible amebiasis or giardiasis.
11. **The instructions included in a medical kit for travel should remind the user to avoid taking which of the following combinations of drugs?**
- (A) Doxycycline and bismuth subsalicylate
 - (B) Loperamide and ciprofloxacin
 - (C) Acetaminophen and mefloquine
 - (D) Diphenhydramine, trimethoprim and sulfamethoxazole
12. **Which of the following is the most sensitive test for suspected chronic Chagas' disease?**
- (A) Serologic test for antibodies to *Trypanosoma cruzi*
 - (B) Culture of blood on LIT (liver infusion tryptose) medium
 - (C) Xenodiagnosis using 40 third-instar nymphs of *Triatoma infestans*
 - (D) Microscopic examination of peripheral blood for trypomastigotes
13. **If neither individuals nor population are treated, how long must vector control be continued to eliminate onchocerciasis from a designated region?**
- (A) Less than one year
 - (B) Five years
 - (C) 10 years
 - (D) More than 10 years
14. **Diagnosis and treatment of infected persons is an important means of interrupting transmission due to which of the following?**
- (A) American cutaneous leishmaniasis
 - (B) Mediterranean visceral leishmaniasis
 - (C) Gambian trypanosomiasis
 - (D) Chagas' disease

Answers :

1. (B), 2. (A), 3. (A), 4. (B), 5. (A), 6. (D),
 7. (C), 8. (C), 9. (C), 10. (B), 11. (A), 12. (A),
 13. (D), 14. (C)

References

This list is provided as a study aid only. ASTMH does not imply endorsement of these references, nor are test questions necessarily taken from these sources.

Texts:

Atlas of Human Parasitology. 5th ed. Ash LR, Orihel TC. Chicago: ASCP Press, 2007.

Color Atlas of Tropical Medicine and Parasitology: Text with CD ROM. Peters W, Pasvol G. Mosby, 2006.

Control of Communicable Diseases Manual. 18th ed. Heymann DL. Washington, D.C.: American Public Health Association, 2004.

Diagnostic Medical Parasitology. 5th ed. Garcia LS. American Society for Microbiology, 2006.

Health Information for International Travel 2010: CDC Yellow Book by CDC. Kozarsky P, Arguin P, Reed C. Elsevier, 2010. *Also available on line at www.cdc.gov under Travelers' Health.*

Hunter's Tropical Medicine. 8th ed. Strickland GT. Philadelphia: WB Saunders, 1999.

Infectious Diseases. 2nd ed. Cohen J, Powderly WG. Mosby, 2004.

Infectious Diseases. 3rd ed. Gorbach SL, Bartlett JG, Blacklow NR. Lippincott Williams & Wilkins, 2003.

Manson's Tropical Diseases. 22nd Ed. Cook GC, Zumla A. London: WB Saunders, 2009.

Markell and Voge's Medical Parasitology. 9th ed. John DT, Petri WA. Philadelphia: WB Saunders, 2006.

Parasites in Human Tissues. Orihel TC, Ash LR. Chicago: ASCP Press, 1994.

Principles and Practice of Infectious Diseases. 7th ed. Mandell GL, Bennett JE, Dolin R. Churchill Livingstone, 2010.

The Travel and Tropical Medicine Manual. 4th ed. Jong EC, Sanford C. Philadelphia: WB Saunders, 2008.

Travel Medicine: Expert Consult. 2nd ed. Keystone JS, Kozarsky P, Freedman DO, Nothdurft H, Connor B. Mosby, 2008.

Tropical Infectious Diseases: Principles, Pathogens & Practice. 2nd ed. Guerrant RL, Walker DH, Weller PF. Churchill Livingstone, 2006.

Tropical Medicine and Parasitology. 5th ed. Peters W, Pasvol G. London: Mosby, 2002.

Wilderness Medicine. Management of Wilderness and Environmental Emergencies. 5th ed. Auerbach PS. St. Louis, MO. Mosby, 2007.

Journals:

Advances in Parasitology
American Journal of Tropical Medicine and Hygiene
Bulletin of the Pan American Health Organization
Bulletin of the World Health Organization
Clinical Infectious Diseases
Emerging Infectious Diseases
Infectious Disease Clinics of North America
International Journal of Infectious Disease
Journal of Infectious Diseases
Journal of Travel Medicine
Journal of Travel Medicine and Infectious Diseases
Morbidity and Mortality Weekly Report
Transactions of the Royal Society of Tropical Medicine and Hygiene
Trends in Parasitology
Tropical Medicine and International Health

Online Resources:

Centers for Disease Control and Prevention

Multiple tropical medicine topics, including:

- [Travelers' Health](#)
- [HIV/AIDS Guidelines](#)
- [Tuberculosis Guidelines](#)
- [Malaria Guidelines](#)

World Health Organization

Multiple health topics, including:

- [International Health Regulations](#)
- [Travelers' Health](#)
- [HIV/AIDS Guidelines](#)
- [Tuberculosis Guidelines](#)
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One Parkview Plaza, Suite 800
 Oakbrook Terrace, IL 60181 USA

+1-847-686-2238

Fax +1-847-686-2253

bfinn@astmh.org

astmh.org