The ISTM Body of Knowledge for the Practice of Travel Medicine, revised 2017

Introduction
The field of travel medicine has grown dramatically as greater numbers of people travel to exotic and remote destinations. Almost a billion travelers cross international borders annually. However, studies suggest that very few seek pre-travel health advice. Many of those who obtain pre-travel advice receive information from practitioners who are ill equipped to provide current and accurate information. Travel medicine has become increasingly complex due to dynamic changes in global infectious disease epidemiology, changing patterns of drug resistance, and a rise in the number of travelers with chronic health conditions.

Why do we need a Body of Knowledge?
This Body of Knowledge was created to guide the professional development of individuals practicing travel medicine and to shape curricula and training programs in travel medicine. It is also expected to serve as a vehicle for establishing the content validity of a credentialing process.

What is a Body of Knowledge?
It is the scope and extent of knowledge required for professionals working in the field of travel medicine. Major content areas include the global epidemiology of health risks to the traveler, vaccinology, malaria prevention, and pre-travel counseling designed to maintain the health of the traveling public.

How was the Body of Knowledge developed?
In September 1999, the ISTM Executive Board established a group of travel medicine experts from its membership to define the scope of knowledge in the field of travel medicine worldwide. The final draft of their report was converted to survey format and mailed to 110 ISTM members worldwide, who were representative of the diversity within the profession. The respondents provided further input into the relative importance of each of the content areas. The results of their efforts contributed significantly to the Body of Knowledge. Since its inception the Body of Knowledge was reviewed and updated in 2006, 2012 and most recently in 2017. Each update has been based on expert review and extensive surveys to hundreds of CTH Holders and ISTM Members.
01. **Epidemiology** (10%)
   - 01. Basic concepts (e.g. morbidity, mortality, incidence, prevalence)
   - 02. Geographic specificity/global distribution of diseases and potential health hazards

02. **Immunology/Vaccinology** (20%)
   - 01. Basic concepts and principles (e.g., live vs. inactivated vaccine, measurement of immune response)
   - 02. 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:

   03. Bacille Calmette-Guerin
   04. Cholera
   05. Diphtheria
   06. Encephalitis, Japanese
   07. Encephalitis, tick-borne
   08. Haemophilus influenzae type B
   09. Hepatitis A
   10. Hepatitis B
   11. Hepatitis A and B combined
   12. Human Papilloma Virus
   13. Immune globulin
   14. Influenza
   15. Measles
   16. Meningococcal
   17. Mumps
   18. Pertussis
   19. Pneumococcal
   20. Poliomyelitis
   21. Rabies
   22. Rotavirus
   23. Rubella
   24. Tetanus
   25. Typhoid
   26. Varicella
   27. Yellow Fever
   28. Zoster
   29. Other combined vaccines
   30. Other
03. **PRETRAVEL ASSESSMENT/CONSULTATION (35%)**

**Patient Evaluation**

01. Assessment of fitness/contraindications to travel (e.g. pre-existing illness, fitness to fly)
02. Evaluation of travel itineraries/risk assessment (e.g. pre-existing activities, travel to rural vs. urban areas)
03. Relevant medical history (e.g. previous vaccinations, allergies, chronic illness, mental health history and concurrent medications)
04. Screening for good mental health and personal resilience to stress in hostile environments

**Special Populations**

Unique management issues pertaining to the following populations:

05. Athletes
06. Business travellers
07. Elderly travellers
08. Expatriates/long term travellers
09. Immigrants
10. Infants and children
11. Travel for the purpose of international adoption
12. Missionaries/volunteers/health clinicians/humanitarian health workers
13. Pregnant travellers and nursing mothers
14. Teachers, trainers and students
15. Travellers with chronic diseases (diabetes, chronic obstructive pulmonary disease, cardiovascular disease, mental health illnesses)
16. Travellers with disabilities
17. Travellers to hostile environments to include: journalists, armed service personnel, scientists, academicians
18. Travellers who are immunocompromised, including AIDS and HIV
19. VFR's (those visiting friends and relatives in their countries of origin)
20. Other

**Special Itineraries**

Unique management issues associated with the following activities/itineraries:

21. Armed conflict zones
22. Cruise ship travel/Sailing
23. Diving
24. Extended stay travel
25. Extreme/wilderness/remote regions travel
26. High altitude travel
27. Last minute travel
28. Mass gatherings (e.g. the Hajj)
29. Travel for the purpose of medical care
30. Natural disaster areas
31. Sex Tourism
32. Travel to areas experiencing disease outbreaks
33. Other

**Prevention and Self-Treatment**

34. Chemoprophylaxis
   01. Altitude illness
   02. Leptospirosis
   03. Malaria
   04. Travellers' diarrhea
   05. Other
35. Personal protective measures (e.g. restriction of outdoor activity at dawn and dusk) and barrier protection (e.g., bed nets, insect repellents)
36. Self-treatment
   01. Diarrhea
   02. Malaria
   03. Other
37. Travel health kits
38. Other travel medicine medications and pharmacological issues

**Risk communications regarding:**

39. Animal contact (including birds)
40. Close interpersonal contact (e.g. sexually transmitted diseases)
41. Contact with fresh and salt water
42. Food consumption
43. Safety and security
44. Walking barefoot
45. Water consumption and purification
46. Antimicrobial resistance
47. Other (e.g., skin trauma, infection...)

**04. DISEASES CONTRACTED DURING TRAVEL (12%)**

Geographic risk, prevention, transmission, possible symptoms and appropriate referral/triage of:

**Diseases Associated with Vectors**

01. African Tick Bite Fever
02. Chikungunya
03. Dengue
04. Encephalitis, Japanese
05. Encephalitis, tick-borne
06. Filariasis (e.g. Loa loa, bancroftian, onchocerciasis)
07. Hemorrhagic fevers
08. Leishmaniasis
09. Lyme, anaplasma, babesia
10. Malaria
11. Plague
12. Rickettsia (typhus)
13. Rift Valley Fever
14. Trypanosomiasis, African
15. Trypanosomiasis, American, (Chagas disease)
16. West Nile
17. Yellow fever
18. Zika
19. Other (Emerging Infections)

**Diseases Associated with Person-to-Person Contact**

20. Diphtheria
21. Hepatitis B
22. Hepatitis C
23. Influenza
24. Measles
25. Meningococcal disease
26. Mumps
27. Pertussis
28. Pneumococcal disease
29. Rubella
30. Sexually transmitted diseases
31. Tuberculosis
32. Varicella
33. Other

**Diseases Associated with Ingestion of Food and Water**

34. Amebiasis
35. Brucellosis
36. Cholera
37. Cryptosporidiosis
38. Cyclosporiasis
39. Giardiasis
40. Hepatitis A
41. Hepatitis E
42. Norovirus
43. Poliomyelitis
44. Seafood poisoning/toxins
45. Travellers' diarrhea
46. Typhoid and Paratyphoid fever
47. Other

**Diseases Associated with Bites and Stings**

48. Envenomation (e.g. jelly fish, sea urchin, scorpion, snake, spiders)
49. Herpes B virus
50. Rabies
51. Other

**Diseases Associated with Water/Environmental Contact**

52. Cutaneous larva migrans
53. Legionella
54. Leptospirosis

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55. Schistosomiasis
56. Tetanus
57. Other

05. **OTHER CLINICAL CONDITIONS ASSOCIATED WITH TRAVEL** (10%)

**Conditions Occurring During or Immediately Following Travel**

Symptoms, prevention, and treatment of:

01. Barotrauma
02. Jet Lag
03. Motion sickness
04. Thrombosis/embolism
05. Other

**Conditions Associated with Environmental Factors**

Symptoms, prevention and treatment of:

06. Altitude sickness
07. Frostbite and hypothermia
08. Respiratory distress/failure (associated with humidity, pollution, etc.)
09. Sunburn, heat exhaustion and sun stroke
10. Other

**Threats to Personal Security**

Precautions regarding:

11. Accidents (e.g. motor vehicle, drowning)
12. Violence-related injuries
13. Other

**Psychological and Psycho-social Issues**

Unique management issues associated with:

15. Culture shock/adaptation (e.g., travellers, refugees)
16. Psychiatric and psychological sequelae of travel or living abroad
17. Other (e.g., flight phobia)

06. **POST-TRAVEL ASSESSMENT** (8%)

01. Screening/assessment of returned asymptomatic travelers
02. Screening/assessment of immigrants
03. Triage of the ill traveller

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Diagnostic and management implications of the following symptoms:

04. Diarrhea and other gastro-intestinal complaints
05. Eosinophilia
06. Fever
07. Respiratory illness
08. Skin problems
09. Other

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

Medical Care Abroad

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

Travel Clinic Management

05. Documentation and record-keeping (e.g. vaccination certificate requirements, reporting of adverse events)
06. Equipment
07. Infection control procedures
08. Management of medical emergencies
09. Resources for laboratory testing
10. Supplies and disposables including medications
11. Other

Travel Medicine Information/Resources

12. Accessing health information for travellers including commercial and proprietary sources
13. International Health Regulations
14. National/regional recommendations, including national/regional differences
15. Principles of responsible travel
16. Other

Conclusion

The field of travel medicine encompasses a wide variety of disciplines including epidemiology, infectious disease, public health, tropical medicine, immigrant and refugee health, and occupational medicine. As a unique and growing specialty, it has become necessary to establish standards of practice in the field. These standards have been established to identify the scope of competencies expected of travel medicine practitioners, guide their professional training and development, and ensure an acceptable level of patient care.

This Body of Knowledge serves as the basis for the Certificate of Knowledge examination that is available through the ISTM for all travel health professionals. This exam is currently administered at least once each year and always prior to the biennial ISTM conferences. Practitioners who

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successfully complete this examination will be awarded a Certificate in Travel Health (CTH®) by the ISTM. Information about the Certificate of Knowledge examination is available at www.ISTM.org.