

## **Health Advisory**

### **Importation of Infectious Diseases and Current Outbreaks: Public Health Recommendations to Manage Travelers**

March 19, 2019

Regardless of the destination, traveling can increase the risk of contracting travel-related infectious diseases. In light of university and school spring breaks and associated travel, the Philadelphia Department of Public Health (PDPH) Division of Disease Control (DDC) encourages providers to consistently review travel history, maintain familiarity with infectious diseases acquired abroad, and implement infection prevention and control actions.

#### **Important Actions for Clinical Providers**

- Verify whether patients with upcoming travel plans are up-to-date on routine vaccinations and review the need for additional vaccines or medications.
- For returning travelers, assess travel history especially for patients with fever, rash, cough, gastrointestinal (GI) or severe respiratory illness. Consider travel itinerary and exposure history, illness onset and severity, medical history, and pre-travel immunizations or prophylaxis.
- Order appropriate diagnostic tests. PDPH can help coordinate specialized and confirmatory testing not routinely available through commercial laboratories.
- Report suspect and confirmed notifiable conditions to PDPH promptly. During business hours (8:30 – 5:00), call 215-685-6740. For urgent cases after hours, call 215-686-4514 and ask for DDC on-call staff.

#### **Health Risks and Current Outbreaks**

- There are large measles outbreaks in several countries in Europe, Asia, the Pacific and Africa and six ongoing measles outbreaks in various areas across the US. Exposed travelers may bring measles into their communities, which can then further spread within pockets of unvaccinated people. Domestic outbreaks have been linked to returning travelers who brought measles back from other countries. Exposure may also occur during travel to US states experiencing measles outbreaks.
- Travel-related arboviral infections (chikungunya, dengue, malaria, Zika, yellow fever) may occur in Philadelphia residents returning from subtropical and tropical regions. Dengue and untreated malaria infections can cause serious complications requiring hospitalization. Zika virus infection during pregnancy can result in microcephaly, fetal loss, or other birth defects.
- Other health risks associated with travel include influenza (flu) and norovirus that are widely circulating in several countries and can also spread among fellow passengers during transit.

#### **Essential Resources**

- To learn about current health issues in specific international destinations, visit the Centers for Disease Control and Prevention (CDC) Travel Health Notices webpage: <https://wwwnc.cdc.gov/travel/notices>
- CDC Yellow Book for travel health information: <https://wwwnc.cdc.gov/travel/page/yellowbook-home>
- PDPH developed a matrix entitled, "Infectious Disease Considerations for Patients with History of Travel" (See Attachment 1), that clinicians can reference when evaluating patients.
- PDPH Travel Health HIP page: <https://hip.phila.gov/DiseaseControlGuidance/TravelersHealth>

#### **SUMMARY POINTS**

- For patients with upcoming travel plans, verify receipt of routine vaccines and necessary travel vaccines or medications.
- Assess travel history in returning travelers presenting with acute illness and be familiar with diseases acquired abroad.
- Measles is common in several parts of the world, domestically and internationally. Other travel-associated health risks include influenza and norovirus.
- Report suspect and confirmed notifiable conditions to PDPH promptly. Call 215-685-6740 during business hours. For urgent cases after hours, call 215-686-4514.

*For after hours immediate reporting and consultation: (215) 686-4514— ask for Division of Disease Control on-call staff*

## INFECTIOUS DISEASE CONSIDERATIONS FOR PATIENTS WITH HISTORY OF TRAVEL

Disease	Mode of Transmission	Region of Interest <sup>1</sup>	Incubation Period (Range)	Signs & Symptoms		Initial Evaluation	Diagnostics	Treatment	Infection Control Precautions <sup>2</sup>
<b>Acute schistosomiasis (Katayama fever, bilharzia)</b>	Waterborne	<ul style="list-style-type: none"> <li>Parts of Africa</li> <li>South America</li> <li>Arabian Peninsula</li> <li>Asia</li> <li>Caribbean</li> </ul>	2-6 weeks (2-9 weeks)	<ul style="list-style-type: none"> <li>Fever</li> <li>Lethargy</li> <li>Myalgia</li> <li>Arthralgia</li> <li>Cough/wheezing</li> </ul>	<ul style="list-style-type: none"> <li>Headache</li> <li>Urticarial rash</li> <li>Diarrhea</li> <li>Eosinophilia</li> <li>Hepatosplenomegaly</li> </ul>	<ul style="list-style-type: none"> <li>CBC</li> </ul> <p><i>Consider stool ova &amp; parasite screen (often negative but may identify other causes of eosinophilia)</i></p>	<p><u>Sample</u> Stool; urine</p> <p><u>Diagnostic Test</u> Serology; IFA; ELISA</p>	<p>Praziquantel</p> <p>Consider empiric treatment</p>	Standard; Sanitary disposal of feces & urine
<b>Amebiasis (Amebic liver abscess)</b>	Fecal-oral; person-to-person (e.g., diaper-changing or sexual practices) or indirectly (e.g., eating or drinking contaminated food & water)	<ul style="list-style-type: none"> <li>Sub-Saharan Africa</li> <li>South Asia</li> <li>South America</li> </ul>	2-4 weeks (Up to several years)	<ul style="list-style-type: none"> <li>Fever</li> <li>Chills</li> <li>Abdominal pain</li> <li>Occasional history of dysentery</li> </ul>	<ul style="list-style-type: none"> <li>Hepatomegaly</li> <li>Elevated right hemidiaphragm on CXR</li> <li>Leukocytosis</li> <li>Elevated inflammatory markers</li> </ul>	<ul style="list-style-type: none"> <li>CBC</li> <li>CMP</li> <li>ESR</li> <li>CRP</li> </ul> <p><i>Consider abdominal CT, stool ova &amp; parasite screen (often negative)</i></p>	<p><u>Sample</u> Stool; serum</p> <p><u>Diagnostic Test</u> Stool O&amp;P; ELISA</p>	<p>Nitroimidazoles, mainly metronidazole</p> <p>Asymptomatic patients should also be treated</p>	Standard
<b>Chikungunya/ Dengue/Other arboviruses*</b>	Mosquito-borne	<ul style="list-style-type: none"> <li>Caribbean</li> <li>Central &amp; South America</li> <li>Western &amp; South Pacific</li> <li>Australia</li> <li>Asia</li> <li>Africa</li> </ul>	<p><u>Chikungunya</u> 3-7 days (1-12 days)</p> <p><u>Dengue</u> 4-8 days (3-13 days)</p>	<ul style="list-style-type: none"> <li>Fever</li> <li>Joint pain/swelling</li> <li>Headache</li> <li>Muscle pain</li> <li>Rash</li> <li>Leukopenia</li> <li>Thrombocytopenia</li> </ul>	<p><u>Dengue hemorrhagic syndrome:</u></p> <ul style="list-style-type: none"> <li>Bleeding from nose &amp; gums</li> <li>Shock</li> <li>Respiratory distress</li> <li>Severe bleeding</li> <li>Organ failure</li> </ul>	<ul style="list-style-type: none"> <li>CBC</li> <li>CMP</li> <li>Acute &amp; convalescent serologies</li> </ul>	<p><u>Sample</u> Serum</p> <p><u>Diagnostic Test</u> Serology; RT-PCR</p> <p><i>Also test for Zika &amp; other arboviruses</i></p>	<p>Supportive</p> <p>Avoid mosquito bites during first week of symptoms</p>	Standard
<b>Cholera*</b>	Waterborne	<ul style="list-style-type: none"> <li>Worldwide</li> <li>Asia</li> <li>Africa</li> <li>Haiti</li> </ul>	2-3 days (A few hours-5 days)	<ul style="list-style-type: none"> <li>Profuse, watery diarrhea</li> <li>Massive loss of fluids</li> <li>Nausea &amp; profuse vomiting</li> </ul>	<p><u>Severe cases:</u></p> <ul style="list-style-type: none"> <li>Hypoglycemia in children</li> <li>Rapid dehydration</li> <li>Acidosis</li> <li>Circulatory collapse</li> <li>Renal failure</li> </ul>	<ul style="list-style-type: none"> <li>CMP (cholera can cause severe electrolyte abnormalities &amp; acidosis)</li> </ul>	<p><u>Sample</u> Stool</p> <p><u>Diagnostic Test</u> Culture (stool); rapid antigen tests (do not replace stool culture)</p>	<p>Supportive; rehydration</p> <p>Antimicrobial agents for moderate &amp; severe cases</p>	Standard; Vaccine available for travelers to areas with active transmission
<b>Giardiasis</b>	Waterborne; person-to-person (fecal-oral route and anal sex)	<ul style="list-style-type: none"> <li>Worldwide</li> </ul>	7-10 days (3-25+ days)	<ul style="list-style-type: none"> <li>Diarrhea</li> <li>Abdominal cramps</li> <li>Frequent loose &amp; pale greasy stools</li> </ul>	<ul style="list-style-type: none"> <li>Bloating</li> <li>Fatigue</li> <li>Weight loss</li> </ul>	<ul style="list-style-type: none"> <li>Stool ova &amp; parasite screen to look for other potential causes of symptoms</li> </ul>	<p><u>Sample</u> Stool</p> <p><u>Diagnostic Test</u> EIA or DFA preferred over stool ova &amp; parasite screen</p>	<p>Metronidazole or tinidazole</p>	Standard

Disease	Mode of Transmission	Region of Interest <sup>1</sup>	Incubation Period (Range)	Signs & Symptoms		Initial Evaluation	Diagnostics	Treatment	Infection Control Precautions <sup>2</sup>
<b>Hemorrhagic fever (Ebola, Marburg, Lassa fever)*</b>	Animal exposure; person-to-person (direct contact with infected blood, urine, feces, vomiting, diarrhea, semen)	<ul style="list-style-type: none"> <li>West African countries (Guinea, Sierra Leone)</li> <li>Liberia</li> <li>Uganda</li> <li>Democratic Republic of Congo</li> </ul>	8-10 days (2-21 days)	<ul style="list-style-type: none"> <li>Fever</li> <li>Severe headache</li> <li>Muscle pain</li> <li>Weakness</li> <li>Fatigue</li> </ul>	<ul style="list-style-type: none"> <li>Diarrhea</li> <li>Vomiting</li> <li>Abdominal pain</li> <li>Unexplained hemorrhage (bleeding or bruising)</li> </ul>	<ul style="list-style-type: none"> <li>Lymphopenia</li> <li>Thrombocytopenia</li> </ul>	<u>Sample</u> Blood; tissue  <u>Diagnostic Test</u> PCR; ELISA	Supportive	Standard; High-level contact & droplet; Airborne precautions for aerosol-generating procedures
<b>Hepatitis A</b>	Person-to-person (fecal-oral)	<ul style="list-style-type: none"> <li>Worldwide</li> </ul>	28 days (15-50 days)	<ul style="list-style-type: none"> <li>Jaundice</li> <li>Fever</li> <li>ILI</li> <li>Fatigue</li> <li>GI symptoms</li> <li>Nausea vomiting</li> </ul>	<ul style="list-style-type: none"> <li>Abdominal pain</li> <li>Dark urine</li> <li>Tender hepatomegaly</li> </ul> <u>Severe cases:</u> <ul style="list-style-type: none"> <li>Fulminant hepatitis</li> <li>Liver failure</li> </ul>	<ul style="list-style-type: none"> <li>CMP (elevated LFTs &amp; bilirubin)</li> <li>Hepatitis serologies</li> </ul>	<u>Sample</u> Serum  <u>Diagnostic Test</u> Serology (IgM only)	Supportive  PDPH will coordinate post-exposure prophylaxis (PEP) for close contacts <sup>4</sup>  HepA vaccine: >12 mos HepA IG: <12 mos; may be co-administered w/ vaccine for high risk persons >40 yrs	Standard; Contact precautions if patient is diapered (gloves, gown)
<b>HIV*</b>  <i>*Consider acute HIV in all travelers presenting with fever*</i>	Person-to-person (sexual; bloodborne; in utero)	<ul style="list-style-type: none"> <li>Worldwide</li> </ul>	Acute seroconversion syndrome: 1-4 weeks post-exposure	<u>Acute seroconversion:</u> <ul style="list-style-type: none"> <li>Fever</li> <li>Malaise</li> <li>Sore throat</li> <li>Rash</li> </ul>	<ul style="list-style-type: none"> <li>Myalgia</li> <li>Mono-like syndrome</li> <li>Lymphadenopathy</li> <li>Maculopapular rash</li> </ul>	<ul style="list-style-type: none"> <li>HIV Ag/Ab</li> <li>HIV RNA qualitative if acute HIV infection is suspected</li> </ul>	<u>Sample</u> Blood; serum  <u>Diagnostic Test</u> Rapid test	ARVs; prophylaxis of opportunistic infections; viral load monitoring	Standard
<b>Leptospirosis</b>  <i>*Consider water exposures &amp; animal contacts*</i>	Ingestion of/contact with contaminated soil, vegetation, water, urine, fluids, or tissues of infected animals	<ul style="list-style-type: none"> <li>Worldwide, particularly in areas with recent flooding</li> </ul>	5-14 days (2-30 days)	<ul style="list-style-type: none"> <li>ILI (fever, myalgia)</li> <li>Vomiting</li> <li>Diarrhea</li> <li>Jaundice</li> <li>Rash</li> <li>Conjunctivitis</li> <li>Bleeding</li> <li>Jaundice</li> <li>Meningitis</li> <li>Myocarditis</li> </ul>	<ul style="list-style-type: none"> <li>Pancreatitis</li> <li>Leukocytosis</li> <li>Thrombocytopenia</li> <li>Anemia</li> <li>Proteinuria &amp; hematuria</li> <li>Renal failure</li> <li>Hepatic failure (elevated bilirubin &amp; LFTs)</li> <li>Occasionally GI or respiratory symptoms</li> </ul>	<ul style="list-style-type: none"> <li>CBC</li> <li>CMP</li> <li>UA</li> <li>Blood culture</li> <li>CSF culture</li> <li>Acute &amp; convalescent serologies</li> </ul>	<u>Sample</u> Serum; blood; CSF; urine  <u>Diagnostic Test</u> Microscopic Agglutination Test (MAT); PCR; culture  <i>PDPH can assist with laboratory testing<sup>4</sup></i>	Antibiotics (Doxycycline or Penicillin G)  Consider empiric treatment	Standard; Disinfection of articles soiled with urine
<b>Malaria</b>  <i>*Rule out malaria in febrile travelers coming from endemic areas, regardless of malaria prophylaxis use*</i>	Mosquito-borne; in utero; blood transfusions	<ul style="list-style-type: none"> <li>Africa</li> <li>Central &amp; South America</li> <li>Parts of the Caribbean</li> <li>Asia</li> <li>Eastern Europe</li> <li>South Pacific</li> </ul>	6-30 days (Weeks to >1 year, depending on species)	<ul style="list-style-type: none"> <li>Fever</li> <li>Headache</li> <li>Malaise</li> <li>Arthralgia</li> <li>Jaundice</li> <li>Cough</li> <li>Seizures</li> <li>Coma</li> <li>Splenomegaly</li> <li>Hypoxia</li> </ul>	<ul style="list-style-type: none"> <li>Tachypnea</li> <li>Altered mental status</li> <li>Leukopenia, left shift of WBC count</li> <li>Thrombocytopenia</li> <li>Hypoglycemia</li> </ul> <i>Children commonly present with GI symptoms (abdominal pain, nausea, vomiting, diarrhea)</i>	<ul style="list-style-type: none"> <li>Urgent blood parasite evaluation (includes rapid test &amp; smear)</li> <li>CBC</li> <li>CMP</li> </ul> <i>Consider antibiotic resistance testing</i>	<u>Sample</u> Blood; serum  <u>Diagnostic Test</u> <ul style="list-style-type: none"> <li>Microscopy</li> <li>RDT</li> <li>PCR</li> </ul> <i>False negative rapid test can occur, particularly for non-falciparum malaria</i>	Antimalarials	Standard

Disease	Mode of Transmission	Region of Interest <sup>1</sup>	Incubation Period (Range)	Signs & Symptoms		Initial Evaluation	Diagnostics	Treatment	Infection Control Precautions <sup>2</sup>
<b>Measles*</b>	Airborne (droplet spread, direct contact with nasal or throat secretions)	<ul style="list-style-type: none"> <li>Worldwide</li> </ul>	14 days (7-21 days)	<ul style="list-style-type: none"> <li>Prodromal fever</li> <li>Conjunctivitis</li> <li>Cough</li> <li>Coryza (prior to rash onset)</li> <li>Diarrhea</li> <li>Maculopapular rash</li> </ul>	<ul style="list-style-type: none"> <li>Koplik spots on buccal mucosa (prior to rash onset)</li> <li>Tachypnea, hypoxia</li> <li>May be complicated by pneumonia, diarrhea, &amp; encephalitis</li> </ul>	<ul style="list-style-type: none"> <li>CXR if respiratory symptoms present</li> <li>Clinical diagnosis</li> </ul>	<u>Sample</u> Nasopharyngeal mucus, urine; blood;  <u>Diagnostic Test</u> RT-PCR; serology	Vitamin A supplementation in children  PEP for contacts	Standard; Immediate airborne isolation
<b>Novel coronavirus (SARS, MERS-CoV)*</b>	Human-to-human; droplet	<u>SARS</u> <ul style="list-style-type: none"> <li>Asia (China)</li> </ul> <u>MERS-CoV</u> <ul style="list-style-type: none"> <li>Arabian Peninsula<sup>3</sup></li> </ul>	5-6 days (2-14 days)	<ul style="list-style-type: none"> <li>Fever</li> <li>Cough</li> <li>Shortness of breath</li> </ul>	<ul style="list-style-type: none"> <li>Other symptoms may include diarrhea, nausea, vomiting, renal failure, coagulopathy, or pericarditis</li> </ul>	<ul style="list-style-type: none"> <li>CXR</li> </ul>	<u>Sample</u> Sputum; bronchoalveolar lavage; bronchial wash or tracheal aspirate; nasopharyngeal swabs; stool (lower priority); serum  <u>Diagnostic Test</u> RT-PCR	Supportive  Treat for community-acquired pneumonia until ARDS & other infections are excluded	Standard; Droplet; Airborne
<b>Rickettsial infections (Rickettsiae africae, R. conorii, R. typhi)</b>	Tick-borne	<ul style="list-style-type: none"> <li><i>R. africae</i>: Sub-Saharan Africa &amp; eastern Caribbean</li> <li><i>R. conorii</i>: Mediterranean &amp; Caspian Littoral States, Middle East, India, &amp; Africa</li> <li><i>R. typhi</i>: Worldwide</li> </ul>	5-7 days (Up to 10 days)	<ul style="list-style-type: none"> <li>Fever</li> <li>Headache</li> <li>Myalgia</li> <li>Rash</li> <li>Eschar at bite site</li> <li>Lymphadenitis</li> </ul>	<u>Scrub typhus:</u> <ul style="list-style-type: none"> <li>Cough</li> <li>Bleeding</li> </ul>	<ul style="list-style-type: none"> <li>CBC</li> <li>CMP</li> <li>Acute &amp; convalescent serologies</li> </ul>	<u>Sample</u> Serum  <u>Diagnostic Test</u> Serology; IFA  <i>Other causes of fever &amp; eschar-like lesion: anthrax, African trypanosomiasis</i>	Consider empiric doxycycline	Standard
<b>Tuberculosis (Latent &amp; Active Pulmonary)</b>	Airborne (droplet spread, direct contact with nasal or throat secretions)	<ul style="list-style-type: none"> <li>Worldwide</li> </ul>	Weeks to years	<ul style="list-style-type: none"> <li>Fever</li> <li>Decreased appetite</li> <li>Weight loss</li> <li>Fatigue</li> <li>Cough or chest pain with pulmonary TB</li> </ul>	<ul style="list-style-type: none"> <li>Findings may be subtle or nonspecific</li> <li>Presentation varies based on age &amp; host immunity</li> <li>Young children at risk for disseminated TB &amp; TB meningitis</li> </ul>	<ul style="list-style-type: none"> <li>PPD</li> <li>CXR</li> </ul>	<u>Sample</u> Sputum  <u>Diagnostic Test</u> Latent TB: Skin test  Active Pulmonary: AFB	Contact ID & ICP immediately when TB is suspected  Drug susceptibility testing	Airborne for infectious individuals; Isolate family members with cough & evaluated for pulmonary TB
<b>Typhoid &amp; paratyphoid fever (enteric fever)*</b>	Foodborne; waterborne; sexual contact  <i>Pre-travel vaccine provides incomplete protection against typhoid &amp; does not protect from paratyphoid species</i>	<ul style="list-style-type: none"> <li>Worldwide in developing countries</li> <li>Asia (especially South Asia)</li> <li>Africa</li> <li>Latin America</li> </ul>	7-18 days (3-60 days)	<ul style="list-style-type: none"> <li>Fever</li> <li>Headache</li> <li>Constipation or diarrhea</li> <li>Dry cough</li> </ul>	<ul style="list-style-type: none"> <li>GI bleeding</li> <li>Intestinal perforation</li> <li>Altered mental status</li> <li>Leukopenia</li> </ul>	<ul style="list-style-type: none"> <li>Blood culture</li> <li>Stool culture</li> <li>UA</li> <li>Urine culture</li> <li>CBC</li> <li>CMP</li> </ul>	<u>Sample</u> Blood; urine; feces  <u>Diagnostic Test</u> Culture	Supportive; antibiotics  If clinically unstable & typhoid is suspected, start empiric ceftriaxone after blood cultures drawn	Standard

Disease	Mode of Transmission	Region of Interest <sup>1</sup>	Incubation Period (Range)	Signs & Symptoms		Initial Evaluation	Diagnostics	Treatment	Infection Control Precautions <sup>2</sup>
<b>Vibriosis</b>	Foodborne; water-borne	<ul style="list-style-type: none"> <li>Worldwide</li> </ul>	2-3 days (Hours-5 days)	<ul style="list-style-type: none"> <li>Watery stools</li> <li>Vomiting</li> <li>Nausea</li> <li>Abdominal pain</li> </ul>	<ul style="list-style-type: none"> <li>Cramping</li> <li>Fever</li> <li>Wound infection</li> </ul>	<ul style="list-style-type: none"> <li>Stool culture</li> </ul>	<u>Sample</u> Stool  <u>Diagnostic Test</u> Culture	Supportive; antibiotics for severe cases	Standard
<b>Yellow fever*</b>	Mosquito-borne; blood transfusions	<ul style="list-style-type: none"> <li>Parts of Africa</li> <li>Central &amp; South America</li> </ul>	3-6 days	<ul style="list-style-type: none"> <li>Fever</li> <li>Chills</li> <li>Headache</li> <li>Nausea, vomiting, dizziness</li> </ul>	<ul style="list-style-type: none"> <li>Faget sign</li> <li>Leukopenia</li> <li>Leukocytosis</li> </ul>	<ul style="list-style-type: none"> <li>CBC</li> <li>CMP</li> </ul>	<u>Sample</u> Serum  <u>Diagnostic test</u> Serology; RT-PCR	Supportive  Avoid mosquito bites during first week of symptoms	Standard; Vaccine available & recommended for travel to endemic areas
<b>Zika</b>	Mosquito-borne; sexual contact; in utero; blood transfusions	<ul style="list-style-type: none"> <li>Worldwide</li> <li>Parts of Africa</li> <li>Asia</li> <li>the Caribbean</li> <li>Central America</li> <li>Pacific Islands</li> <li>Mexico</li> <li>South America</li> </ul>	2-7 days (2-12 days)	<ul style="list-style-type: none"> <li>Mild illness with low-grade fever</li> <li>Maculopapular rash</li> <li>Conjunctivitis</li> <li>Arthralgia</li> </ul>	<ul style="list-style-type: none"> <li>Neurologic complications, rarely (GBS, encephalitis, meningitis, myelitis)</li> <li>Other symptoms may include myalgia, headache, or retro-orbital pain</li> </ul>	<ul style="list-style-type: none"> <li>CBC</li> <li>CMP</li> <li>Consider LP if signs of neurologic disease or congenital infection</li> </ul> <u>Congenital infection</u> <ul style="list-style-type: none"> <li>Head circumference</li> <li>Ophthalmology exam</li> <li>Automated ABR</li> </ul>	<u>Sample</u> Serum; urine  <u>Diagnostic Test</u> PCR; IgM  <i>Also test for dengue &amp; chikungunya</i>	Supportive; acetaminophen for initial treatment until dengue ruled out  Discuss prevention of sexual transmission (condom use)  Avoid mosquito bites during first week of symptoms	Standard

\*Report suspected & confirmed cases within 24 hours to PDPH.

- Contact PDPH or review CDC information if you have questions or are unsure of region of interest.
- Standard precautions refer to infection control practices that apply to all patient care (i.e. hand hygiene, use of personal protective equipment, cough etiquette, patient placement, & safe injection practices).
- Countries in or near the Arabian Peninsula with MERS-CoV cases: Bahrain, Iran, Jordan, Kuwait, Lebanon, Oman, Qatar, Saudi Arabia, United Arab Emirates (UAE), & Yemen.
- Contact the Philadelphia Department of Public Health (PDPH) Division of Disease Control (DDC) at 215-685-6748 (215-685-4514 after hours).

Abbreviations & Acronyms					
ABR	Auditory Brainstem Response	CXR	Chest X-Ray	MAT	Microscopic Agglutination Test
AFB	Acid-Fast Bacilli	DFA	Direct Fluorescence Antibody	PPD	Purified Protein Derivative
ARDS	Acute respiratory distress syndrome	EIA	Enzyme Immunoassay	PEP	Post-Exposure Prophylaxis
CAT scan (CT)	Computerized Axial Tomography	ELISA	Enzyme-Linked Immunosorbent Assay	RT-PCR	Reverse Transcription-Polymerase Chain Reaction
CBC	Complete Blood Count	ESR	Erythrocyte Sedimentation Rate	RDT	Rapid Diagnostic Test
CMP	Comprehensive Metabolic Panel	IFA	Immunofluorescent Assay	UA	Urinalysis
CRP	C-Reactive Protein	LFTs	Liver Function Tests	WBC	White blood cell
CSF	Cerebrospinal Fluid				

For more detailed health information regarding international travel, visit the [CDC Yellow Book](#).



This matrix was adapted from the reference document *Select Infectious Diseases to Consider in Febrile Patients with History of Travel* developed by Leslie Enane and CHOP.