

Traveler Health Advice Handbook

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Welcome!

This small handbook was created to condense the literature necessary for travel advice and prophylactic treatment of refugees and others going abroad.

The handbook also provides a price list of the medications and vaccines at the Charlottesville-Albemarle Health Department and UVA (Appendix 1).

The current, temporary CDC advisory for travel polio prophylaxis is included as Appendix 2. The general guidelines for polio are part of the main body of the handbook.

For additional information, refer to the [CDC Yellow Book](#) or the 'Destinations' pages on www.cdc.gov/travel which were the major sources of information for this handbook.

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I. High-yield Advice

- If a patient mentions going abroad, it's very important to find out specifics about the patient's travel plans including: **exact destination(s), time of departure, route of travel, length of stay, and types of activities**. All of this will be necessary to plan any vaccines and management that are required.
- Any updates that can appropriately be made to the patient's standard vaccination regimen should be administered.
- **All travelers to developing countries require consideration for at least:** Hep A and typhoid vaccination along with advice about water precautions and antibiotics for potential traveler's diarrhea.
- Rabies risk should at least be mentioned, with the advice to seek medical attention if bitten.
- Exposure to certain parasites can be decreased by advising everyone to wear shoes and children to sit or play on blankets rather than the ground. Avoidance of fresh water in high-risk areas is also recommended.
- Hepatitis B vaccination series is necessary if there is risk for blood product exposure through healthcare work, medical/dental procedures, acupuncture, tattoos, unprotected sex, etc. Refugees who will be returning for more than a month should be vaccinated against Hepatitis B if they are not immune or have not previously been vaccinated.
- Payscale 1 patients can get a 3 month supply of their usual prescription meds for \$6 copay. Medicaid patients do not have this option, and generally only provides one month at a time.
- The Charlottesville-Albemarle Health Department Walk-in Vaccination Clinic is held Tuesdays between 8:30am-12 and Thursdays from 8:30am-12:00 and 1-4:30pm.

II. Recommended Routine Vaccines for Children and Adults

General guidelines:

- **If the traveler is not completely up-to-date** on age-appropriate routine vaccines, **administer *first or additional doses of:*** measles-mumps-rubella vaccine, polio vaccine, varicella vaccine, tetanus-diphtheria-acellular pertussis vaccine, pneumococcal vaccine and the seasonal influenza vaccine.
- Note that **if the traveler needs >1 live-virus vaccine** (yellow fever, measles-mumps-rubella, varicella, intranasal influenza), **they must be given on the same day OR separated by ≥ 28 days.**”

Circumstantial Requirements for Standard Vaccines:

Measles:

Children are eligible for early MMR vaccination if they are going to travel outside of the US. Infants can receive the first dose as early as 6 months if necessary. Children age 1 or older can receive the second MMR vaccine ≥ 28 days after the initial vaccination to fast-track full immunization prior to travel.

Polio Booster:

For adults who have not received a polio booster since school vaccinations, they should receive a **one-time booster before traveling to Afghanistan, Iraq, or Iran.** Additionally, **travelers to Iraq and Afghanistan may need to have a polio booster to meet exit requirements** at their time of exit from those countries.

*For new temporary guidelines for polio see Appendix 4.

Meningococcal Booster:

For travels going to the meningitis belt within sub-Saharan Africa during the dry season (December to June), an updated meningococcal (A, C, Y, W-135) vaccine is recommended. Patients who have not had a booster **in the past 5 years** should receive one (within 3 years for children <7yrs).

Muslims traveling to Saudi Arabia:

“**Meningococcal vaccine** is required of all adults and children aged >2 years traveling to Saudi Arabia for religious pilgrimage, including Hajj. **Hajj visas cannot be issued without proof that applicants received meningococcal vaccine ≥ 10 days and ≤ 3 years before arriving in Saudi Arabia.**”

III. Country-specific Recommendations

Country	Hep A	Typhoid	Malaria	Polio	Japanese Encephalitis	Yellow Fever	Meningitis
Afghanistan	X	X	X ^a	X ^b			
Bhutan	X	X	X ^a		X ^{a,d,e}	X ^c	
Burma	X	X	X ^a		X ^{a,d,e}	X ^c	
Cambodia	X	X	X ^a		X ^{a,d,e}	X ^c	
Colombia	X	X	X ^a			X ^a	
DR of Congo	X	X	X			X	X ^c
Haiti	X	X	X				
Iran	X	X	X ^{a,c}	X ^b		X ^c	
Iraq	X	X		X ^b		X ^c	
Nepal	X	X	X ^a		X ^{a,d,e}	X ^c	
Uganda	X	X	X			X	X ^{a,d}

Key

- a - need depends on location of destination/travel
- b - need depends on adult booster status
- c - need depends on countries recently visited (use Appendix 3)
- d - need depends on duration of stay
- e - need depends on time of year

IV. Specific Illnesses to Consider

A. Hepatitis A

Endemic in: *most developing countries*

Prophylaxis:

- **Hep A vaccine** (life-time protection), or
- **Hep A Immunoglobulin (IG)** (3-5 months of protection)

Dosing:

Vaccine: Two doses for lifetime prophylaxis, 6 – 18 months apart

- Note: If a patient has only received one vaccination for Hep A in the past, give second and consider the lifetime treatment **COMPLETE regardless of time period between first and second vaccinations.**

Immunoglobulin (IG): 0.2ml/kg for travel < 3 months; 0.6ml/kg for travel between 3-5 months; re-dosing needed at 5 months if still abroad.

Children: Patients <1 year of age should receive IG instead of vaccine.

Considerations:

- “All susceptible people traveling for any purpose, frequency, or duration to countries with high or intermediate HAV endemicity should be vaccinated or receive IG before departure.” (CDC Yellow Book)
- Hep A Vaccine use is preferable to IG prophylaxis in all patients *over 1 year of age* who present **> 1 week before departure.**
 - If a patient presents **< 1 weeks before departure**, IG (0.2ml/kg) should be given *along with vaccination* in patients who meet any of the following criteria:
 - Age > 40
 - Immunocompromised
 - Chronic medical conditions (liver disease, COPD, etc.)
- Testing for possible Hep A immunity in patients from endemic areas prior to travel is reasonable to decrease the administration of unnecessary vaccination.
- Another dose of vaccine or IG can be used as post-exposure prophylaxis *if given within 2 weeks of exposure.*

B. Traveler’s Diarrhea, general

Endemic in: *most developing countries*

Prevention:

1. Safe water
2. Hand hygiene
3. Safe food choices: “Boil it, Cook it, Peel it, or Forget it”

Prophylaxis:

Pepto-Bismol can be taken as a preventive measure--2 tabs PO QID for up to 3 weeks, warn against side effects of tongue discoloration and constipation; avoid in people with salicylate intolerance/allergy

Treatment:

- Minor to moderate symptoms: Pepto-Bismol or loperamide PRN
- Moderate to severe symptoms*: Ciprofloxacin or Azithromycin

Dosing:

- Ciprofloxacin: 500mg BID for 1-3 days
- Azithromycin: 1g one-time dose OR 500 mg per day for 1–3 days; since nausea often occurs with the one g dose, it is usually preferable to do the 500 mg dosing for 1-3 days
 - Children: 10mg/kg Azithromycin daily

Considerations:

* “Moderate to severe” symptoms may be considered as >3 watery stools a day PLUS a secondary symptom that renders the person incapacitated (cramping, fever, nausea, vomiting, pain, etc.)

- Most diarrhea resolves within 36 hours of onset regardless of antibiotic treatment, therefore **antibiotics can be stopped at resolution of symptoms**
- **Advise adults to not use antibiotics at the first sign of diarrhea since it is generally self-limiting**
- **For children, treatment with antibiotics is generally not needed**
- Ciprofloxacin resistance is likely in Southeast Asia
- See this CDC update for other good tips about resistant travelers diarrhea:
 - <http://wwwnc.cdc.gov/travel/news-announcements/multidrug-resistant-travelers-diarrhea>
- For travelers age 12 or older, Pepto-Bismol is your friend. Tablets can be purchased prior to

travel and can be taken either before or after consumption of possibly troubling foods. Some guide books recommend taking a dose before any “adventurous” meal to diminish later symptoms. You can also use it daily for prophylaxis, as noted above. As mentioned above, *until diarrhea is complicated by fever, pain, cramping, etc., no antibiotic therapy is necessary* – just symptomatic treatment with pepto or loperamide.

Children:

- Pepto-Bismol has a salicylate component and can potentially cause Reye Syndrome in children younger than 12 years.
- Avoid fluoroquinolones in children and pregnant women due to negative effects on cartilage and tendon development.

C. Typhoid/Enteric Fever (*salmonella typhi*)

Endemic in: Asia (East, South, Southeast), Africa, Caribbean, Central and South America

Prophylaxis:

- Same hygiene and food precautions as above, AND
- Typhoid vaccine: oral live attenuated or inactive IM options

Note: Patients should not self-treat for this. They need to be evaluated by a physician before antibiotics are prescribed.

Considerations:

- Vaccination (IM or oral) is only ~50-80% effective and **must begin at least 14 days before travel**. The IM vaccine takes two weeks to become fully active, while the oral vaccine takes a week to complete and 7-10 days to then become active. So the time necessary to schedule IM administration vs. the time available to take the week of oral doses must be considered when patients are traveling soon.
- Oral vaccination provides 5 years of immunity however it requires 4 scheduled doses over 7 days (1 dose every 48 hours). The vaccine pill contains live bacteria and therefore *pills must be refrigerated during the ENTIRE week of administration. Pills should be taken at the same time of day, preferably one hour before a meal and taken with cold water* (not morning coffee or other warm drinks that could inactivate the live bacteria prior to entry in the small intestine).

- IM vaccination only provides 2 years of immunity before needing to be readministered for travel; however, it is only a one time administration compared to the 4 doses necessary for the oral option.
- If the patient will not have time to complete the full 4 dose course of the oral medication before departure, they should be given the IM vaccine.

Children: Children must be 2 years old to receive the IM vaccine and 6 years old to take the oral vaccine.

D. Malaria

Endemic in: Asia, Sub-Saharan Africa, Afghanistan, Saudi Arabia, Yemen, Turkey, Central and South America (excluding Chile and Uruguay), Haiti & Dominican Republic

Non-medical prophylaxis:

- Cover skin
 - Mosquito nets for beds
 - Insect repellent with > 20% DEET on exposed skin
 - Permethrin spray for clothes
- DEET content of insect repellents should be at least **20-30%**, however > 50% DEET probably doesn't add much additional protection.
- Use <30% DEET product on children, and **avoid DEET for children under 2 months of age**
- Permethrin spray is applied to hanging clothes prior to travel and should provide insect repellent for 3-4 washes before needing to be reapplied. Permethrin impregnated clothing is now available and lasts for much longer.

Medical prophylaxis:

Antimalarials: Several anti-malarials are available for prophylaxis. For the most part, we recommend use of malarone, but there are certain circumstances where malarone is not recommended (see below).

Malarone (atovaquone/proguanil)

Dosing - Adults:

- 250mg/100mg daily
 - Start 1-2 days before travel, continue daily and for 1 week after return

Dosing - Children:

- **CDC recommends against using malarone for patients under 5 kg (11 lbs)** due to lack of data on side effects, though *AAP allows for use in children over 5 kg if necessary*. It is safe for breastfeeding mothers to use. Small amounts of medication get into the breast milk, so that is why it is necessary to treat the infant separately. Note the different dosing of the tablets for children. You may crush and put into pudding/applesauce. **Children over 40kg should take the adult dose.**

Considerations:

- The UVA Travelers Clinic almost exclusively recommends malarone over mefloquine due to fewer side effects. Malarone is contraindicated however in people with renal insufficiency. Mefloquine has a black box warning due to *contraindications in patients with a history of seizures or mental health disorders*.

Additionally, the once-a-week dosing of mefloquine may seem convenient but could lead to missed doses and inconsistent malaria protection. However, **mefloquine is the only malaria medication currently approved for use in pregnancy.**

- The FDA and CDC state that “**any traveler receiving a prescription for mefloquine must also receive a copy of the FDA medication guide**, which can be found at:
 - http://www.accessdata.fda.gov/drugsatfda_docs/label/2013/076392s008lbl.pdf. (Updated August 9, 2013)”

- Please see the table below for details on dosing in addition to other drugs used in the prophylaxis of malaria. **Note that all the countries of origin for our refugee patients have malaria resistant to chloroquine.** Of the countries listed previously, Haiti is the only one in which there is not resistance.

Table 3-10. Drugs used in the prophylaxis of malaria

DRUG	USAGE	ADULT DOSE	PEDIATRIC DOSE	COMMENTS
Atovaquone-proguanil	Prophylaxis in all areas	Adult tablets contain 250 mg atovaquone and 100 mg proguanil hydrochloride. 1 adult tablet orally, daily	Pediatric tablets contain 62.5 mg atovaquone and 25 mg proguanil hydrochloride.	Begin 1–2 days before travel to malarious areas. Take daily at the same time each day while in the malarious area and for 7 days after leaving such areas. Contraindicated in people with severe renal impairment (creatinine clearance <30 mL/min). Atovaquone-proguanil should be taken with food or a milky drink. Not recommended for prophylaxis for children weighing <5 kg, pregnant women, and women breastfeeding infants weighing <5 kg. Partial tablet doses may need to be prepared by a pharmacist and dispensed in individual capsules, as described in the text.
			5–8 kg: 1/2 pediatric tablet daily	
			>8–10 kg: 3/4 pediatric tablet daily	
			>10–20 kg: 1 pediatric tablet daily	
			>20–30 kg: 2 pediatric tablets daily	
			>30–40 kg: 3 pediatric tablets daily	

Chloroquine phosphate	Prophylaxis only in areas with chloroquine-sensitive malaria	300 mg base (500 mg salt) orally, once/week	5 mg/kg base (8.3 mg/kg salt) orally, once/week, up to maximum adult dose of 300 mg base	Begin 1–2 weeks before travel to malarious areas. Take weekly on the same day of the week while in the malarious area and for 4 weeks after leaving such areas. May exacerbate psoriasis.
Doxycycline	Prophylaxis in all areas	100 mg orally, daily	≥8 years of age: 2.2 mg/kg up to adult dose of 100 mg/day	Begin 1–2 days before travel to malarious areas. Take daily at the same time each day while in the malarious area and for 4 weeks after leaving such areas. Contraindicated in children <8 years of age and pregnant women.
Hydroxychloro-quine sulfate	Alternative to chloroquine for prophylaxis only in areas with chloroquine-sensitive malaria	310 mg base (400 mg salt) orally, once/week	5 mg/kg base (6.5 mg/kg salt) orally, once/week, up to maximum adult dose of 310 mg base	Begin 1–2 weeks before travel to malarious areas. Take weekly on the same day of the week while in the malarious area and for 4 weeks after leaving such areas.
Mefloquine	Prophylaxis in areas with mefloquine-sensitive malaria	228 mg base (250 mg salt) orally, once/week	≤9 kg: 4.6 mg/kg base (5 mg/kg salt) orally, once/week	Begin ≥2 weeks before travel to malarious areas. Take weekly on the same day of the week while in the malarious area and for 4 weeks after leaving such areas. Contraindicated in people allergic to mefloquine or related compounds (quinine, quinidine) and in people with active depression, a recent history of depression, generalized anxiety disorder, psychosis, schizophrenia, other major psychiatric disorders, or seizures. Use with caution in persons with psychiatric disturbances or a previous history of depression. Not recommended for persons with cardiac conduction abnormalities.
			>9-19 kg: 1/4 tablet once/week	
			>19-30 kg: 1/2 tablet once/week	
			>30-45 kg: 3/4 tablet once/week	
			>45 kg: 1 tablet once/week	
Primaquine	Prophylaxis for short-duration travel to areas with principally <i>P. vivax</i>	30 mg base (52.6 mg salt) orally, daily	0.5 mg/kg base (0.8 mg/kg salt) up to adult dose orally, daily	Begin 1–2 days before travel to malarious areas. Take daily at the same time each day while in the malarious area and for 7 days after leaving such areas. Contraindicated in people with G6PD deficiency. Also contraindicated during pregnancy and lactation, unless the infant being breastfed has a documented normal G6PD level.
	Used for presumptive antirelapse therapy (terminal prophylaxis) to decrease the risk for relapses of <i>P. vivax</i> and <i>P. ovale</i>	30 mg base (52.6 mg salt) orally, daily for 14 days after departure from the malarious area	0.5 mg/kg base (0.8 mg/kg salt) up to adult dose orally, daily for 14 days after departure from the malarious area	Indicated for people who have had prolonged exposure to <i>P. vivax</i> , <i>P. ovale</i> , or both. Contraindicated in people with G6PD deficiency. Also contraindicated during pregnancy and lactation, unless the infant being breastfed has a documented normal G6PD level.

E. Yellow Fever

Endemic in: Africa, Central and South America (see Appendix 3 for specific countries)

Prophylaxis:

- Cover skin.
- Mosquito nets for beds.
- Insect repellent with > 20-30% DEET on exposed skin
- Permethrin spray for clothes (duration of benefit depends on how often the clothes are washed) or permethrin impregnated clothing (commercially available, duration of benefit is longer)

Considerations:

- Vaccination is not considered active until 10 days after administration.

- Many countries have strict yellow fever vaccination requirements for travelers entering the country from endemic areas (and potentially for all travelers). **If a patient does not receive the vaccine 10 days prior to departure, it may be necessary to postpone the trip or change the order of destinations.** Otherwise, they may find themselves barred from entry to their country of arrival.
- Documentation is provided on the yellow travel vaccination record.

Pregnant Women: Risky in pregnant women. Review CDC Yellow Book and discuss risks and benefits with the patient before deciding to administer.

Children: Children can be vaccinated starting once they are 9 months old.

Table 3-24. Contraindications and precautions to yellow fever vaccine administration

CONTRAINDICATIONS	PRECAUTIONS
<ul style="list-style-type: none"> • Allergy to vaccine component • Age <6 months • Symptomatic HIV infection or CD4 T-lymphocytes <200/mm³ (or <15% of total in children aged <6 years)¹ • Thymus disorder associated with abnormal immune-cell function • Primary immunodeficiencies • Malignant neoplasms • Transplantation • Immunosuppressive and immunomodulatory therapies 	<ul style="list-style-type: none"> • Age 6–8 months • Age ≥60 years • Asymptomatic HIV infection and CD4 T-lymphocytes 200–499/mm³ (or 15%–24% of total in children aged <6 years)¹ • Pregnancy • Breastfeeding

CDC Yellow book 7/10/15

F. Japanese Encephalitis

Endemic in: East Asia, South Asia, Southeast Asia including island countries

Prophylaxis:

- Cover skin.
- Mosquito nets for beds
- Insect repellent with > 20-30% DEET on exposed skin
- Permethrin spray for clothes, provides variable length of protection depending on how often clothes are washed

Japanese Encephalitis vaccine series dosing:

2 doses over a month, last dose 10 days before travel

Considerations:

- If the patient does not have time to complete the full vaccination schedule, **they should not receive a partial course of vaccinations.**
→ Mosquito precautions are very important.
- The chance of infection with JE will vary depending on length of travel, country and region, season, and type of activities the patient will be engaging in. It is not usually needed for short term travel as the risk of infection is low. This is also a tricky vaccine for “blanket” recommendations and the individual circumstances need to be looked at carefully. Consult CDC Yellow Book.

Appendix 1. Vaccine and Oral Medication Price Lists (as of 5/20/2015): Prices are Subject to Change (Expect Increases)

Vaccinations	Price per dose	
	(add \$21 to administer each)	(no administrative fee)
Drug Name	UVA Traveler's Clinic	Health Department
Adacel- T-DAP	\$ 82.12	
Boostrix .5mL >7 yrs	\$ 71.50	
Diphth Pert Tet Polio Vac	\$ 71.31	
Diphtheria Tet Ped Syr .5mL	\$ 80.98	
Diphth-Tet Adult .5mL	\$ 50.16	
DPT (Acellular) .5mL (PHS)	\$ 42.88	
Gardasil Syr .5mL	\$ 263.58	
Haemophilus Vac .5mL	\$ 52.42	
Hepatitis A Adult 1mL	\$ 114.96	
Hepatitis A Ped .5mL	\$ 57.48	
Hepatitis B 1mL (Adult)	\$ 105.00	
Hepatitis B Vac (.5mL) Ped	\$ 42.63	
Flu Vaccine -under 65	\$ 11.00	\$ 25.00
Flu Vaccine- over 65-(double concentration)- High Dose	\$ 27.00	
Hepatitis A-Usu 2 doses		\$ 49.78
Hepatitis B-usu 3 doses	\$ 72.53	\$ 53.22
Japanese Encep .5mL (Age>17)	\$ 458.94	
Japanese Encep 1mL (Age 1-16)	\$ 348.33	
Meningococcal Vaccine- >55	\$ 196.80	\$ 151.46
Meningococcal Vaccine- 9 mon-55	\$ 225.86	
Mumps Vaccine	\$ 47.26	
Mumps, Measles and Rubella	\$ 112.28	\$ 85.46
Pediatric PF Syringe	\$ 141.45	
Pentacel Vaccine	\$ 156.00	
Inactivated Polio injectable .5mL	\$ 54.88	\$ 24.44
Prevnar 13 Valent 0.5 ml	\$ 239.00	
Proquad Vaccine	\$ 300.56	
Rabies- may be up to 3 doses	\$ 354.00	
TD		\$ 48.67
Twinrix-(Hep A/Hep B combo) 1mL-usu 3 doses	\$ 179.70	\$ 82.87
Typhoid Fever Injectable .5mL	\$ 123.76	\$ 92.01
Varicella	\$ 188.28	\$ 127.60
Yellow Fever .5mL	\$ 197.04	
Zoster Vaccine	\$ 21.00	

Oral Medications	CVS Price	Walmart Price	UVA Barringer Pharmacy Price
Malarone (brand) (one tab per day- 1-2 doses prior to arrival and 7 doses after departure) 20 tabs	\$184.00	\$184.00	\$78.00
Malarone (brand) 40 tabs	\$354.00	\$365.00	\$151.00
Atovaquone 250mg/proguanil 100 mg (generic) 20 tabs	\$129.00	\$66.00	\$71.00
Atovaquone 250mg/proguanil 100 mg (generic) 40 tabs	\$250.00	\$131.00	\$136.00
Azithromycin 250mg - 1g (needed once for traveler's diarrhea) 4 pills	\$6.00	\$19.00	\$20.00
Oral Typhoid - one series 4 capsules	\$73.00	\$79.00	\$56.00

Appendix 2. CDC 2015 Advisory on Polio Prophylaxis for Foreign Travel

Clinical Update

Interim CDC Guidance for Travel to and from Countries Affected by the New Polio Vaccine Requirements

Key Points

- The World Health Organization (WHO) declared the international spread of wild poliovirus (WPV) a public health emergency of international concern.
- New temporary polio vaccine requirements affect the following countries: **Afghanistan, Cameroon, Equatorial Guinea, Ethiopia, Iraq, Israel, Nigeria, Pakistan, Somalia, and Syria.**
- Long-term travelers (staying >4 weeks) to the polio-infected countries listed above may be required to show proof of polio vaccination when **departing** the polio-infected country. To meet these WHO requirements, long-term travelers should receive polio vaccine between 4 weeks and 12 months before the date of departure from the polio-infected country.
- Clinicians are encouraged to act on the side of caution and ensure patients are properly prepared for any requirements they may face exiting countries affected by the polio vaccine requirements.
- CDC reaffirmed and updated vaccine recommendations for health protection for travelers to countries where WPV has circulated during the last 12 months and adult workers in bordering countries where the risk of exposure to imported WPV may be high.

Situation Information

WHO held an emergency committee meeting at the end of April 2014 to address the international spread of WPV. Increasing evidence suggests adult travelers have contributed to the exportation of WPV from polio-endemic countries. The potential for exportation of WPV to additional countries exists unless more aggressive measures are taken to prevent infections (which are predominantly asymptomatic). As a result of the meeting, on May 5, the Director General of WHO [declared the international spread of WPV a public health emergency of international concern](#) (PHEIC) and is adding a new initiative (effective immediately) to reduce the risk of further international spread of WPV.

WHO Temporary Recommendations for Cameroon, Equatorial Guinea, Pakistan, and Syria

During 2014, there has already been international spread of WPV from 4 countries that are currently polio-infected: Cameroon, Equatorial Guinea, Pakistan, and Syria. WHO has defined these countries as **WPV-exporting countries**, having the greatest risk for further WPV exportation. As part of the elimination strategy, WHO is recommending that these 4 countries—

- **Ensure** that all residents and long-term visitors (staying >4 weeks) receive a dose of polio vaccine between 4 weeks and 12 months before international travel (exiting one of these 4 countries).
- **Ensure** that anyone who has not received a dose polio vaccine in the previous 4 weeks to 12 months receives a dose of polio vaccine at least by the time of departure.
- **Ensure** documentation of polio vaccine is on an [International Certificate of Vaccination](#) [or](#) [Prophylaxis \(ICVP\)](#) to serve as proof of identification.

Temporary Recommendations for Other Polio-Infected Countries

WHO has defined **countries with WPV but not currently exporting** as Afghanistan, Ethiopia, Iraq, Israel, Somalia, and particularly Nigeria (given the international spread from that country historically). These countries pose an ongoing risk for new WPV exportations in 2014. As part of the elimination initiative, WHO is recommending that these 6 countries—

- **Encourage** all residents and long-term visitors (staying >4 weeks) to receive a dose of polio vaccine between 4 weeks and 12 months before international travel (exiting one of these countries).
- **Encourage** anyone who has not received a dose polio vaccine in the previous 4 weeks to 12 months to receive a dose of polio vaccine at least by the time of departure.
- **Ensure** proper documentation of polio vaccine is given to the traveler.

Information for Clinicians

Ten countries (Afghanistan, Cameroon, Equatorial Guinea, Ethiopia, Iraq, Israel, Nigeria, Pakistan, Somalia, and Syria) are considered polio-infected; **CDC recommends that travelers to any country with WPV circulation in the last 12 months protect their health by being fully vaccinated against polio, including a single lifetime polio vaccine booster for adults.** For more information, see the [Clinical Update: Polio Vaccine Guidance for Travelers and Note on Travel to Israel, the West Bank, and Gaza](#). For specific information related to US travelers and guidance on interpreting any ad hoc doses of polio vaccine in relation to the individual's vaccine schedule, please consult the CDC MMWR, [Interim CDC Guidance for Polio Vaccination for Travel to and from Countries Affected by Wild Poliovirus](#), specifically the section titled *Interim Vaccination Guidance to Comply with WHO International Health Regulations Temporary Recommendations for Countries Designated as "Polio-Infected."*

As of June 12, 2014, Pakistan has implemented exit requirements for polio vaccination, but it has not been determined how the WHO recommendations will be enforced by the remaining polio-infected countries. In order for US residents to be properly prepared for any requirements they may face when exiting the polio-infected countries, clinicians are advised to ensure the following:

- All polio vaccination administration should be [documented on an ICVP](#).
- Infants and Children
 - Current recommendations for infants and children state that 4 doses of IPV should be given at ages 2, 4, and 6–18 months and 4–6 years.
 - Children and adolescents who are unvaccinated, incompletely vaccinated, or have an unknown vaccination status for polio should receive the complete schedule of IPV following the accelerated schedule and minimum ages and intervals outlined in the [Vaccine](#) section in [Chapter 3, Poliomyelitis, CDC Health Information for International Travel](#).
 - For children and adolescents who are up-to-date with IPV vaccination (including those who have completed the routine IPV series), who will be in a polio-infected country for >4 weeks, and whose last dose of polio vaccine was administered >12 months before the date they will be departing that country, an additional dose of IPV should be given. Children who receive this additional dose as a 4th dose between ages 18 months and 4 years will still require an IPV booster dose at age ≥ 4 years.
- Adults
 - In order to comply with the vaccination requirements described above, all adult travelers who have completed a routine series of polio vaccine and an adult IPV booster dose, who will be in a polio-infected country for >4 weeks, and whose last dose of IPV was administered >12 months before the date they plan to exit the polio-infected country should be given an additional dose of IPV.
 - Adult travelers who are unvaccinated, incompletely vaccinated, or have an unknown vaccination status for polio should receive 3 doses of IPV following the accelerated schedule and minimum intervals outlined in the [Vaccine](#) section in [Chapter 3, Poliomyelitis, CDC Health Information for International Travel](#).
- Travelers staying in a polio-infected country longer than 12 months may receive available poliovirus vaccine (IPV or OPV) in the infected country to meet the departure requirement.
- No serious adverse reactions to IPV have been documented; however, there is limited experience with administration of multiple additional doses.
- Clinicians should be aware that patients' travel plans may change and should discuss optional polio vaccination for travelers planning to stay <4 weeks.

WHO will be reassessing the situation periodically. As additional plans or modifications are announced regarding enforcement of the WHO recommendations, we will update this document and the polio vaccine information on our destination pages for affected countries.

Completing ICVPs for Polio

INTERNATIONAL CERTIFICATE OF VACCINATION OR PROPHYLAXIS
Certificat international de vaccination ou de prophylaxie

This is to certify that
 Nous certifions que

① Jane Mary Doe ② 22 March 1960 F United States
(name - nom) (date of birth - date de naissance) (sex - sexe) (nationality - et de nationalité)

[passport number] whose signature follows ③ Jane Mary Doe
(passport identification document, if applicable - document d'identification nationale, le cas échéant) (date of signature suit)

has on the date indicated been vaccinated or received prophylaxis against ④ Polio in accordance with the International Health Regulations.
a été vaccinée ou a reçu une prophylaxie à la date indiquée (name of disease or condition - nom de la maladie ou de l'affection) conformément au Règlement sanitaire international.

Vaccine or prophylaxis Vaccin ou agent prophylactique	Date	Signature of professional status of supervising clinician Signature et titre du professionnel de santé responsable	Manufacturer and batch no. of vaccine or prophylaxis Fabricant du vaccin ou de l'agent prophylactique et numéro de lot	Certificate valid from until Certificat valide à partir du jusqu'au	Official stamp of the administering center Cachet officiel du centre vaccinal
5 Polio (IPV)	⑥ 16 June 2014	⑦ <u>John M. Smith, MD</u>	[Batch (or lot) #]	⑧ 14 July 2014 15 June 2015	[⑨]

Clinicians should document polio vaccine administration in the section of the ICVP used to document required vaccines, such as yellow fever vaccine. Use the following figure and instructions to help complete the required information for the certificate.

1. The patient's name should appear exactly as on the patient's passport.
2. The patient's date of birth should be entered with the day in numerals, followed by the month in letters, then the year.
3. This space is for the patient's signature.
4. "Polio" should be written on this line. (If the ICVP is also being used to document other required vaccines or prophylaxis, each relevant disease or condition should be listed on this line. Other non-required vaccines may be listed on the other side of the card.)
5. "Polio (IPV)" or "Polio (OPV)" should be written in this space.
6. The date on which the vaccination is given should be entered with the day in numerals, followed by the month in letters, then the year.
7. A handwritten signature of the clinician who administered the polio vaccine should appear in this box. A signature stamp is not acceptable.
8. The polio vaccination certificate is valid between 4 weeks and 12 months after the date of vaccination. The ending date for a valid vaccination recorded on the ICVP is 1 calendar day before the calendar day on which the vaccine was given. For example, a vaccination given on 16 June 2014 will be valid between 14 July 2014 and 15 June 2015.
9. If the provider has a Uniform Stamp used to validate yellow fever vaccination, then place it in this box. If not, the name and contact information of the health care facility should be recorded in this box.

Appendix 3. CDC List of Countries With Risk of Yellow Fever Virus (YFV) Transmission¹

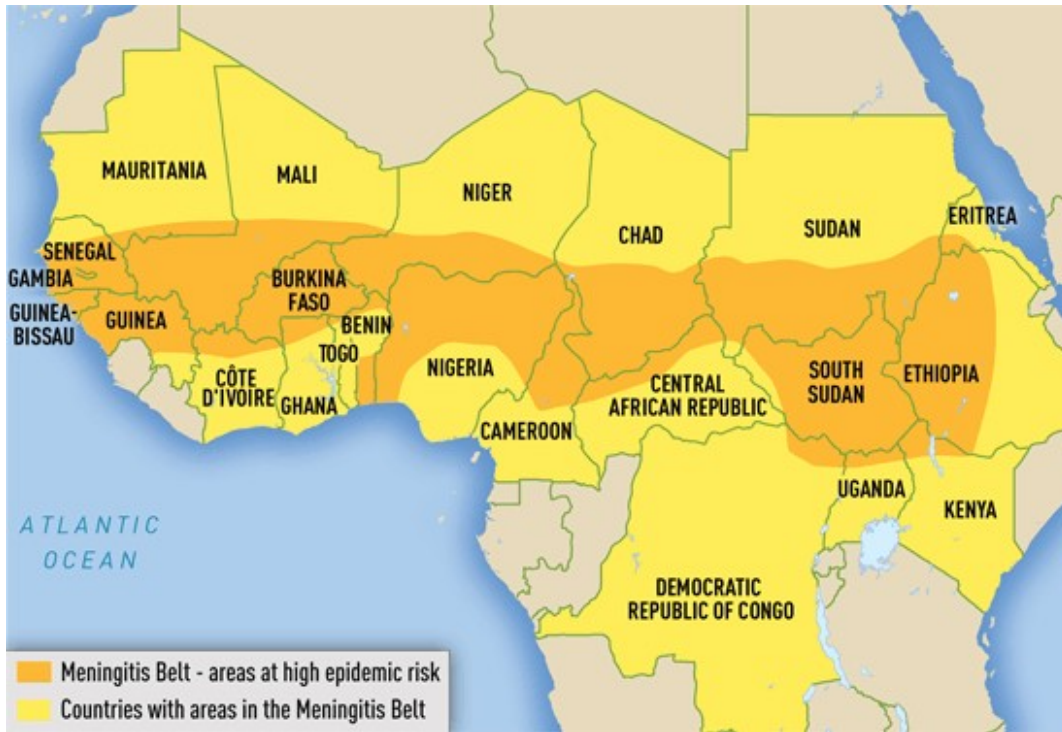
Table 3-21. Countries with risk of yellow fever virus (YFV) transmission ¹			
AFRICA			CENTRAL AND SOUTH AMERICA
Angola	Equatorial Guinea	Mauritania ²	Argentina ²
Benin	Ethiopia ²	Niger ²	Bolivia ²
Burkina Faso	Gabon	Nigeria	Brazil ²
Burundi	Gambia, The	Senegal	Colombia ²
Cameroon	Ghana	Sierra Leone	Ecuador ²
Central African Republic	Guinea	South Sudan	French Guiana
Chad ²	Guinea-Bissau	Sudan ²	Guyana
Congo, Republic of the	Kenya ²	Togo	Panama ²
Côte d'Ivoire	Liberia	Uganda	Paraguay
Democratic Republic of the Congo ²	Mali ²		Peru ²
			Suriname
			Trinidad and Tobago ²
			Venezuela ²

¹ Countries or areas where "a risk of YFV transmission is present," as defined by the World Health Organization, are countries or areas where "yellow fever has been reported currently or in the past, plus vectors and animal reservoirs currently exist" (see the current country list within the *International Travel and Health* publication (Annex 1) at www.who.int/ith/en/index.html).

² These countries are not holoendemic (only a portion of the country has risk of yellow fever transmission). See Maps 3-15 and 3-16 and yellow fever vaccine recommendations ([Yellow Fever & Malaria Information, by Country](#)) for details.

Source: CDC Yellow Book "Yellow Fever"
 Last Updated: July 10th, 2015

Appendix 4. CDC Map of African Meningitis Belt



Source: CDC Yellow Book “Meningococcal Disease”
Last updated: July 10th, 2015