

PREVENTIVE CARE

TRAVEL MEDICATIONS

STATEWIDE DRUG THERAPY MANAGEMENT PROTOCOL for the OREGON PHARMACIST

AUTHORITY and PURPOSE: Per [ORS 689.645](#), a pharmacist may provide patient care services pursuant to a statewide drug therapy management protocol.

- Following all elements outlined in [OAR 855-020-0110](#), a pharmacist licensed and located in Oregon may prescribe pre-travel medications.
 - Malaria prophylaxis
 - Traveler's diarrhea
 - Acute mountain sickness
 - Motion sickness
- **STANDARDIZED PATIENT ASSESSMENT PROCESS ELEMENTS:**
 - Utilize the standardized Travel Medications Patient Intake Form (pg. 2-3)
 - Utilize the standardized Travel Medications Assessment and Treatment Care Pathway (pg. 4-10)

PHARMACIST TRAINING/EDUCATION:

- APhA Pharmacy-Based Immunization Delivery certificate (or equivalent); and
- Minimum of 4 hour comprehensive training program related to pharmacy-based travel medicine services intended for the pharmacist (one-time requirement); and
- A minimum of 1 hour of travel medication continuing education (CE), every 24 months.

Travel Medication Self-Screening Patient Intake Form

(CONFIDENTIAL-Protected Health Information)

PATIENT INFORMATION

Date ____/____/____ Date of Birth ____/____/____ Age ____
 Legal Name _____ Name _____
 Sex Assigned at Birth (circle) M / F Gender Identification (circle) M / F / Other ____
 Pronouns (circle) She/Her/Hers, He/Him/His, They/Them/Their, Ze/Hir/Hirs, Other _____
 Street Address _____
 Phone () _____ Email Address _____
 Healthcare Provider Name _____ Phone () _____ Fax () _____
 Do you have health insurance? Yes / No Insurance Provider Name _____
 Any allergies to medications? Yes / No If yes, please list _____

TRAVEL SPECIFICS

Purpose of Trip: _____

Activities: _____

Departure Date: _____ Return Date: _____

Countries <u>AND</u> Cities to be Visited (In Order of Visits)	Arrival Date	Departure Date

Have you traveled outside the United States before? Yes No

If yes, where and when?

1.	Will you be ONLY using airplane as your mode of transportation If no, explain: _____	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not sure
2.	Will you be ONLY visiting major cities? If no, explain: _____	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not sure
3.	Will you be ONLY staying in hotels? If no, explain: _____	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not sure
4.	Will you be visiting friends and family?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not sure
5.	Will you be ascending to high altitudes? (> 7,000 ft or 2,300 meters) in the mountains	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not sure
6.	Will you be working in the medical or dental field with exposure to blood or bodily fluids?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not sure

Travel Medication Self-Screening Patient Intake Form

(CONFIDENTIAL-Protected Health Information)

ALLERGIES

No known drug allergies No known food allergies

Drug Allergies: _____

Food Allergies: _____

VACCINE MEDICAL INFORMATION

Please complete the table below *(please bring your vaccination record to the pre-travel consult)*

Vaccinations	Yes – (Enter vaccination date below)	No	Not Sure
COVID (Manufacturer): _____	Dose 1: 2:		
Hepatitis A	Dose 1: 2:		
Hepatitis B	Dose 1: 2: 3:		
Influenza			
Japanese Encephalitis			
Meningococcal Meningitis	Dose 1: 2:		
MMR (Measles, Mumps, Rubella)	Dose 1: 2:		
Pneumonia	PPSV23: PCV13:		
Polio (Adult Booster)			
Rabies			
Shingles			
Tetanus (Tdap/Td/DTaP/DT)			
Typhoid (Oral / Shot)			
Varicella			
Yellow Fever			
Other:			
Other:			

MEDICAL HISTORY

List your current prescription medications and medical conditions treated (include birth control pills and anti-depressants):

Current Medical Conditions: _____

Current Prescription Medications: _____

Regularly used Non-Prescription Medications (over the counter, herbal, homeopathic, vitamins, and supplements including those purchased at health-food stores): _____

7.	Are you currently using steroids?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not sure
8.	Are you currently receiving radiation therapy?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not sure
9.	Are you currently receiving immunosuppressive therapy?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not sure
10.	Are you pregnant or are you planning to become pregnant within the next year?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not sure
11.	Are you currently breast-feeding?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not sure

QUESTIONS/CONCERNS

Please list additional questions or concerns that you might have regarding your travel:

Signature: _____ Date: _____

Travel Medications - Assessment and Treatment Care Pathway

STEP 1: Assess routine and travel vaccinations

STEP 2: Choose and issue prescription for appropriate prophylaxis medication, in adherence to the CDC's 2020 Yellow Book: Health Information for International Travel (06/11/2019) and this protocol, to include documented screening for contraindications (see pgs. 6-7).

STEP 3: Prescribe medications and administer vaccinations.

STEP 4: Provide a written individualized care plan to each patient.

1. Malaria Prophylaxis

a. Patient assessment

- i. Review detailed itinerary
- ii. Identify zones of resistance
- iii. Review recommendations by the CDC
- iv. Discuss planned activities
- v. Assess risk of acquiring malaria and body weight (kg)

b. Prophylaxis

- i. Discuss insect precautions and review signs/symptoms of malaria with patient
- ii. Screen for contraindications
- iii. Assess travel areas for resistance:

1. Non-chloroquine resistant zone

a. Chloroquine (Aralen®)

Adult dosing: Chloroquine 500 mg

- Begin 1-2 weeks prior to travel-1 tablet weekly
- Taken once weekly during trip and for 4 weeks after leaving

Pediatric dosing:

8.3 mg/kg (maximum is adult dose)

- Begin 1-2 weeks prior to travel-1 tablet weekly
- Taken once weekly during trip and for 4 weeks after leaving

OR

b. Hydroxychloroquine (Plaquenil®)

Adult Dosing: Hydroxychloroquine 400 mg

- Begin 1-2 weeks prior to travel-1 tablet weekly
- Taken once weekly during trip and for 4 weeks after leaving

Pediatric Dosing:

6.5 mg/kg (maximum is adult dose)

- Begin 1-2 weeks prior to travel-1 tablet weekly
- Taken once weekly during trip and for 4 weeks after leaving

2. Chloroquine-resistant zone

a. Atovaquone/Proguanil (Malarone®)

Adult Dosing: Atovaquone/Proguanil 250mg/100mg

- Begin 1 tablet daily 1-2 days prior to travel
- Taken daily during trip and 7 days after leaving

Pediatric Dosing: Atovaquone/Proguanil 62.5mg/25mg

5–8 kg: 1/2 pediatric tablet daily

9–10 kg: 3/4 pediatric tablet daily

11–20 kg: 1 pediatric tablet daily

21–30 kg: 2 pediatric tablets daily

31–40 kg: 3 pediatric tablets daily

Travel Medications - Assessment and Treatment Care Pathway

> 40 kg: 1 adult tablet daily

- Begin 1 tablet daily 1-2 days prior to travel
- Taken daily during trip and 7 days after leaving

OR

b. *Doxycycline monohydrate (Monodox®) or hyclate (Vibramycin®) (≥8 years)*

Adult Dosing: Doxycycline 100mg

- Begin 1 tablet or capsule daily 1-2 days prior to travel
- Taken daily during trip and for 4 weeks after leaving

Pediatric Dosing:

≥8 years old: 2.2 mg/kg (maximum is adult dose) daily

- Begin 1 dose daily 1-2 days prior to travel
- Taken daily during trip and for 4 weeks after leaving

OR

c. *Mefloquine (Lariam®)*

Adult Dosing: Mefloquine 250mg

- Begin 1-2 weeks prior to travel-1 tablet weekly
- Taken once weekly during and for 4 weeks after leaving

Pediatric Dosing:

≤9 kg: 5 mg/kg

10-19 kg: ¼ tablet weekly

20-30 kg: ½ tablet weekly

31-45 kg: ¾ tablet weekly

> 45 kg: 1 tablet weekly

- Begin 1-2 weeks prior to travel-1 tablet weekly
- Taken once weekly during and for 4 weeks after leaving

3. Mefloquine-Resistant zone

a. *Doxycycline monohydrate (Monodox®) or hyclate (Vibramycin®) (≥8 years)*

Adult dosing: Doxycycline 100 mg

- Begin 1 tablet or capsule daily 1-2 days prior to travel
- Taken daily during trip and 4 weeks after leaving

Pediatric dosing:

≥8 years old: 2.2 mg/kg (maximum is adult dose) daily

- Begin 1 dose daily 1-2 days prior to travel
- Taken daily during trip and 4 weeks after leaving

OR

b. *Atovaquone/Proguanil (Malarone®)*

Adult dosing: Atovaquone/Proguanil 250mg/100mg

Pediatric Dosing: Atovaquone/Proguanil 62.5mg/25mg

5–8 kg: 1/2 pediatric tablet daily

9–10 kg: 3/4 pediatric tablet daily

11–20 kg: 1 pediatric tablet daily

21–30 kg: 2 pediatric tablets daily

31–40 kg: 3 pediatric tablets daily

> 40 kg: 1 adult tablet daily

- Begin 1 tablet daily 1-2 days prior to travel
- Taken daily during trip and 7 days after leaving

Travel Medications - Assessment and Treatment Care Pathway

2. Traveler's diarrhea (TD)

- a. Patient assessment
 - i. Review detailed itinerary and identify travel areas of increased risk
 - ii. Assess patient's risk of acquiring traveler's diarrhea and body weight (kg)
 - iii. Screen for contraindications
 - iv. Consult CDC guidelines for list of high-risk factors for TD
- b. Prophylaxis education
 - i. Discuss dietary counseling, avoidance of high-risk foods, food and beverage selection and sanitary practices, oral rehydration
 - ii. Educate patient on how to recognize symptoms and severity of traveler's diarrhea
 1. **Mild:** diarrhea that is tolerable, not distressing, and does not interfere with planned activities
 2. **Moderate:** diarrhea that is distressing or interferes with planned activities
 3. **Severe:** dysentery (bloody stools) and diarrhea that is incapacitating or completely prevents planned activities
 - iii. Pharmacotherapy prophylaxis

Pepto-Bismol®: Two 262-mg tablets or 2 fluid oz (60 mL) QID for up to 3 weeks
Note: Avoid in patients <12 years old, patients taking doxycycline for malaria prophylaxis, anticoagulants, allergic to aspirin, probenecid, methotrexate
- c. Treatment (*Note: while Yellow Book includes ciprofloxacin, this protocol only permits azithromycin*)
 - i. First line for mild TD and adjunctive treatment for moderate TD
 1. *Loperamide (OTC- Imodium® AD)*

Adult Dosing: Loperamide 2 mg

 - Take 4 mg at onset of diarrhea, followed by additional 2 mg after each loose stool (Max of 16 mg per day)

Pediatric Dosing:

 - 22 to 26 kg: Take 2 mg after first loose stool, followed by 1 mg after each subsequent stool (Max of 4 mg per day)
 - 27 to 43 kg: Take 2 mg after first loose stool, followed by 1 mg after each subsequent stool (Max of 6 mg per day)
 - ii. Antibiotic treatment (for moderate or severe TD)
 1. Consult CDC guidelines for resistance rates to antibiotics
 2. Empiric treatment for moderate TD and severe TD (age <18 requires a prescription form PCP)
 - a. *Azithromycin 500mg*
 - 1 tablet daily for 1-3 days
 - 1 course/14 days, Max 2 courses for trips >14 days

OR

- b. *Azithromycin 1000mg:* Single dose of one tablet (if symptoms are not resolved after 24 hours, continue daily dosing for up to 3 days)

Travel Medications - Assessment and Treatment Care Pathway

3. Acute Mountain Sickness

- a. Patient assessment/Education
 - i. Review detailed itinerary and identify travel areas of increased risk
 - ii. Assess patients' risk of acquiring Acute Mountain Sickness (AMS) and body weight (kg)
 - iii. Review signs/symptoms of AMS, discuss safe ascent rates and tips for acclimating to higher altitudes (alcohol abstinence, limited activity)
 - iv. Screen for contraindications
 1. AcetaZOLAMIDE
 - a. Hypersensitivity to acetazolamide or sulfonamides
- b. Prophylaxis
 - i. Consult CDC guidelines for list of risk factors for AMS. If risk factors are present and warrant prophylaxis:
 1. *AcetaZOLAMIDE (Diamox®)*

Adult Dosing: Acetazolamide 125 mg

 - Take 1 tablet twice daily starting 24 hours before ascent, continuing during ascent, and 2-3 days after highest altitude achieved or upon return

Pediatric Dosing:
2.5 mg/kg/dose every 12 hours before ascent, continuing during ascent, and 2-3 days after highest altitude achieved or upon return. (Maximum of 125 mg/dose)

Travel Medications - Assessment and Treatment Care Pathway

4. Motion Sickness

- a. Patient assessment
 - i. Review detailed itinerary and identify travel areas of increased risk
 - ii. Assess patients' risk of acquiring motion sickness and body weight (kg)
 - iii. Review signs/symptoms of motion sickness, discuss tips for reducing motion sickness: being aware of triggers, reducing sensory input
 - iv. Screen for contraindications
- b. Prophylaxis
 - i. Consult CDC guidelines for list of risk factors for Motion sickness. If risk factors present and warrant pharmacologic prevention:
 - ii. Adults
 1. **First-line:** *Scopolamine transdermal patches* (Age <18 Requires prescription from PCP)
 - Apply 1 patch (1.5 mg) to hairless area behind ear at least 4 hours prior to exposure; replace every 3 days as needed

AND/OR

2. **Second-line:**

- a. *Promethazine 25mg Tablets*: Take one tablet by mouth 30 – 60 minutes prior to exposure and then every 12 hours as needed
- b. *Promethazine 25mg Suppositories*: Unwrap and insert one suppository into the rectum 30-60 minutes prior to exposure and then every 12 hours as needed
- c. *Meclizine 12.5-25mg* (OTC/Rx):
Take 25 to 50 mg 1 hour before travel, repeat dose every 24 hours if needed

iii. Pediatrics

1. **First-line:**

- a. 7-12 years old
 - *DimenhydrINATE* (OTC *Dramamine*®) 1-1.5mg/kg/dose: Take one dose 1 hour before travel and every 6 hours during the trip. (Maximum 25 per dose)
 - *DiphenhydrAMINE* (OTC *Benadryl*®) 0.5-1mg/kg/dose: Take one dose 1 hour before travel and every 6 hours during the trip. (Maximum 25 mg per dose)
- b. ≥ 12 years old
 - *Meclizine 12.5-25mg* (OTC/Rx): Take 25 to 50 mg 1 hour before travel, repeat dose every 24 hours if needed

Travel Medications - Assessment and Treatment Care Pathway

Screen for Contraindications:

Malaria Prophylaxis

1. Chloroquine
 - c. Age < 7 years old
 - d. Hypersensitivity to chloroquine, 4-aminoquinolone compounds, or any component of the formulation
 - e. Presence of retinal or visual field changes of any etiology
2. Hydroxychloroquine
 - a. Age < 7 years old
 - b. Hypersensitivity to hydroxychloroquine, 4 aminoquinoline derivatives, or any component of the formulation
3. Atovaquone/proguanil
 - a. Age < 7 years old
 - b. Weight < 5 kg
 - c. Hypersensitivity to atovaquone, proguanil or any component of the formulation
 - d. Prophylactic use in severe renal impairment (CrCl < 30 mL/min)
4. Doxycycline
 - a. Age < 8 years old
 - b. Hypersensitivity to doxycycline, other tetracyclines
 - c. Use in infants and children < 8 years old
 - d. During second or third trimester of pregnancy
 - e. Breast-feeding
5. Mefloquine
 - a. Age < 7 years old
 - b. Hypersensitivity to mefloquine, related compounds (i.e. quinine and quinidine)
 - c. Prophylactic use in patients with history of seizures or psychiatric disorder (including active or recent history of depression, generalized anxiety disorder, psychosis, schizophrenia, or other major psychiatric disorders)

Traveler's Diarrhea

1. Loperamide
 - a. Age < 7 years old
 - b. Hypersensitivity to loperamide or any component of the formulation
 - c. Abdominal pain without diarrhea
 - d. Acute dysentery
 - e. Acute ulcerative colitis
 - f. Bacterial enterocolitis (caused by *Salmonella*, *Shigella*, *Campylobacter*)
 - g. Pseudomembranous colitis associated with broad-spectrum antibiotic use
 - h. OTC—do not use if stool is bloody or black
2. Azithromycin
 - a. Age < 18 years old will require a prescription from a PCP
 - b. Hypersensitivity to azithromycin, erythromycin or other macrolide antibiotics
 - c. History of cholestatic jaundice/hepatic dysfunction associated with prior azithromycin use

Acute Mountain Sickness

1. AcetaZOLAMIDE
 - a. Age < 7 years old
 - b. Marked hepatic disease or insufficiency
 - c. Decreased sodium and/or potassium levels
 - d. Adrenocortical insufficiency
 - e. Cirrhosis
 - f. Hyperchloremic acidosis
 - g. Severe renal dysfunction or disease

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h. Long term use in congestive angle-closure glaucoma

Motion Sickness

1. Scopolamine
 - a. Age < 18 years old will require a prescription from a PCP
 - b. Hypersensitivity to scopolamine
 - c. Glaucoma or predisposition to narrow-angle glaucoma
 - d. Paralytic ileus
 - e. Prostatic hypertrophy
 - f. Pyloric obstruction
 - g. Tachycardia secondary to cardiac insufficiency or thyrotoxicosis
2. Promethazine
 - a. Age < 7 years old
 - b. Hypersensitivity to promethazine or other phenothiazines (i.e. prochlorperazine, chlorproMAZINE, fluPHENAZine, perphenazine, etc)
 - c. Treatment of lower respiratory tract symptoms
 - d. Asthma
3. Meclizine
 - a. Age < 12 years old
 - b. Hypersensitivity to meclizine
4. DimenhyDRINATE
 - a. Age < 7 years old
 - b. Hypersensitivity to dimenhyDRINATE or any component of the formulation
 - c. Neonates
5. DiphenhydrAMINE
 - a. Age < 7 years old
 - b. Hypersensitivity to diphenhydrAMINE or other structurally related antihistamines or any component of the formulation
 - c. Neonates or premature infants
 - d. Breast feeding