

MEDICAL HISTORY FORM TRENDS

The Pros, Cons, & Potential Consequences



RECREATION
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Leah Corrigan — Recreation Law Center

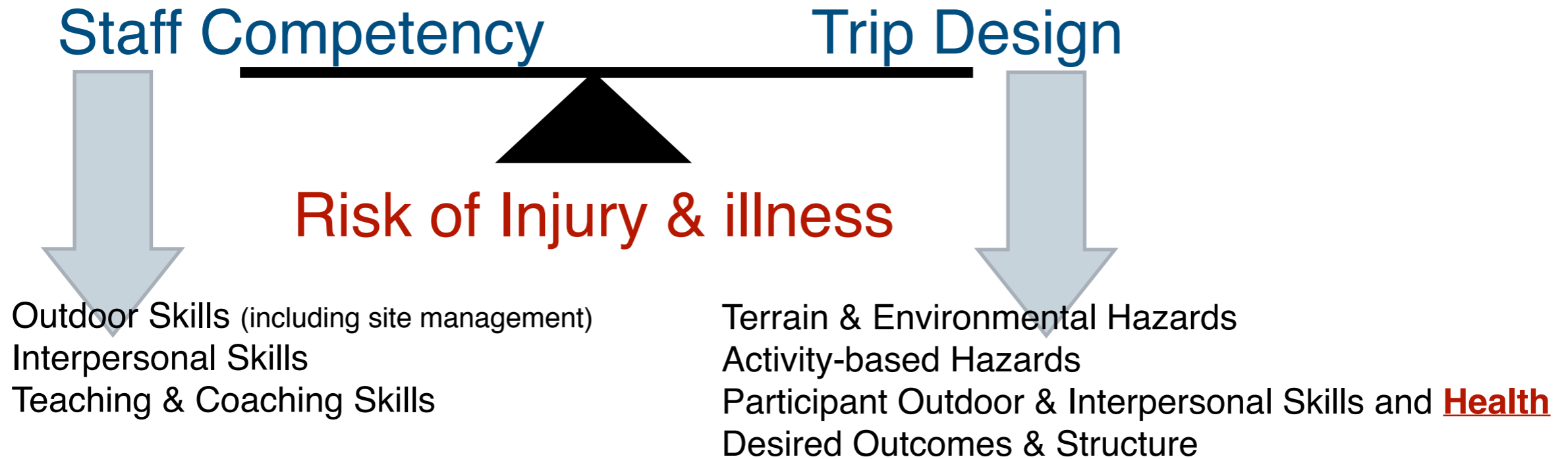
Nadia Kimmel — Desert Mountain Medicine



Paul Nicolazzo — Wilderness Medicine Training Center International

Why Collect Medical Information?

On the *macro* level, the potential for injuries and illnesses during an outdoor trip depend on the ability of the administration to balance risk inherent in the design of the trip with the competency of the field staff.



On the *micro* level, the risks associated with injuries and illnesses during an outdoor trip depend on the training and experience of the field staff.

Collecting medical information attempts to reduce the risk:

- through participant screening
- by changing the course design and/or structure
- by providing specific medical training for field staff (e.g.: diabetes, drug awareness)
- by requiring individual protective equipment (e.g.: ankle or knee brace)
- by requiring specific vaccines (recommended by the CDC or the program's medical advisor)
- by revising the Emergency Action Plan (including communication)

Medical Information Reported by

Medical Professional

Participant

Written

Oral

Content

- Relevant personal health & fitness information

Format

- Check Boxes or Yes/No Questions
- Open-ended Questions
- Combination
- ± other Information

Timing

- Day of Trip
- ≤ Week before Trip
- > Week before Trip
- > Month before Trip

The **Content** should contain personal health information that you will **use** to prevent, mitigate, or respond to injuries or illnesses and is based on the hazards inherent in the design of your trip and the competency of your staff.

Who submits the report, the **Type** of report, and the **Format** affects the depth and quality of the information received.

Timing affects the ability of the program administration to adequately screen participants, redesign the macro structure of the course (including their EAP), train staff—or substitute higher trained staff—to address a specific health issue.

Who

Medical Professional (physician, nurse practitioner, PA, RN)

- Typically used for longer, more remote trips
- Pro: Higher quality, especially if completed by the participant's primary health care provider who has a long history with the participant
- Pro: Current physical examination
- Con: Requires advance planning and can be expensive

Participant (self reporting)

- Typically used for short day or weekend trips with good emergency communication and rapid evacuation
- Pro: No cost to participant and does not require prior planning
- Con: May not include all important current health issues

Type

Written

- Typically used for multi-day trips
- Often includes additional activity-specific information
- Pro: Higher quality than oral reporting
- Time to complete the form varies with format and who completes it

Oral

- Typically used for partial and full day trips
- Pro: Fast
- Con: Typically mixed with other important safety information (where it can get lost)
- Con: Generally lower quality than written reporting
- Con: Requires field staff to write down pertinent information

Content

- The information MUST be *utilized* by the program to prevent, mitigate, or respond to injuries or illnesses.
- Each organization should have written procedures/protocols that define HOW the information will be used.
- Too much or too little? (See above)



Format

Check Boxes or Yes/No Questions

- Pro: Quick and easy to complete
- Can be used to focus participants' attention on specific problems related to the activity:
 - ankle/knee injuries for backpacking trips or shoulder/elbow/wrist injuries for paddling trips
 - medications that predispose the participant to an environmental injury; for example, heat stroke, phototoxic or photoallergic reactions, frostbite, altitude sickness, hypothermia, etc.
 - fitness level or swimming ability
- Con: Lacks detail if not used in combination with open-ended questions or followed up individually by program staff

Example

Do you smoke, vape or use tobacco products? Yes___No___

Do you drink alcohol? Yes___No___

Do you use marijuana products? Yes___No___

Do you have any disabilities or limitations that may endanger, alter or limit your abilities to participate in this trip. Yes___ No___

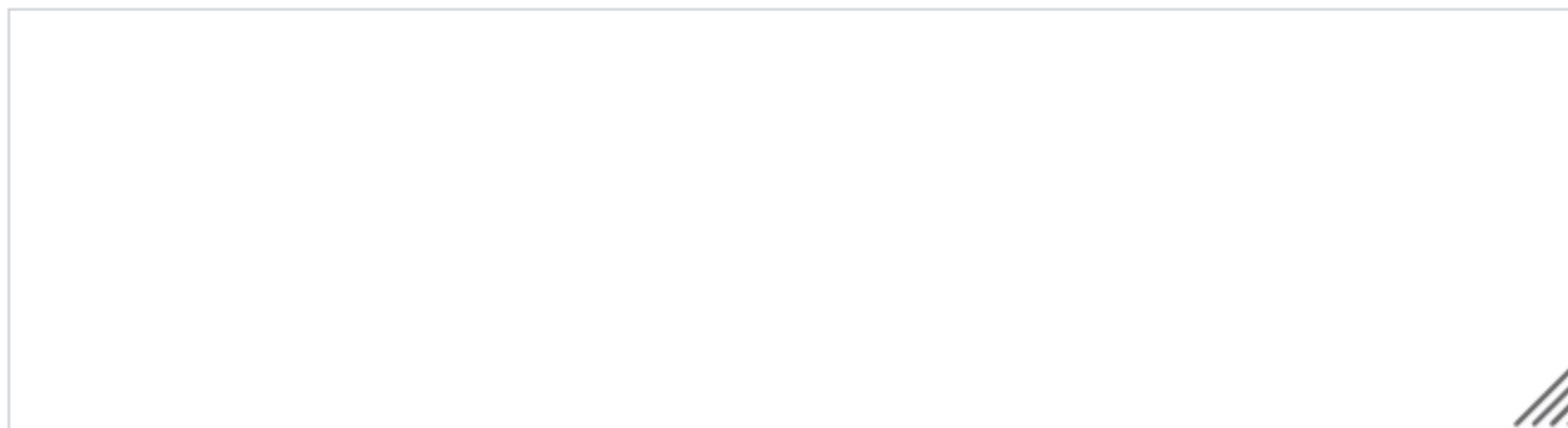
Format

Open-ended Questions

- Con: Often time-consuming to complete
- Con: May lack detail if short

Example

Please list any medications you currently take and the reason for taking them

A large empty rectangular box for text input, with a small icon in the bottom right corner.

Format

Combination

- Pro: If designed well, a written form with check boxes or Yes/No questions and open-ended questions is relatively easy to complete and contains relevant details.
- Con: Depending on the level of detail, it may take time to complete.

Example

Check **Yes** or **No** if you have had any of the following medical issues past or present.

Cardiac Hist

15. Any history of hypertension, unexplained chest pain (old)?

Depending on the patient's history, additional questions may be required.

Examiner's signature

- Y N**
- High Blood Pressure
 - Heart problem
 - High cholesterol
 - Alcohol/drug dependency
 - Depression
 - Anxiety
 - Insomnia
 - Psychological problem
 - Eating disorder
 - ADD/ADHD
 - Dyslexia
 - Allergy/hay fever
 - Ear & nose problem
 - Arthritis/joint pain
 - Back problems
 - Knee problems
 - Shoulder problems
 - Arm problems

- Y N**
- Leg problems
 - Foot Problems
 - Broken Bones
 - Bladder/kidney
 - Cancer/cyst/tumor
 - Clot in veins
 - Diabetes (sugar)
 - Dizziness/fainting
 - Seizures/epilepsy
 - Eye problem
 - Motion sickness
 - Head Injury
 - Heat stroke/ heat related injury
 - Anemia/blood disease
 - Gallbladder/intestinal
 - Hepatitis
 - Hypoglycemia
 - Liver disease/jaundice

- Y N**
- Malaria
 - Mononucleosis
 - Pregnancy
 - Respiratory problem
 - Rheumatic fever
 - Sexually transmitted disease
 - Shortness of breath
 - Sleepwalking
 - Swollen joints
 - Thyroid disease
 - Tuberculosis
 - Ulcer
 - Varicose Veins
 - Other: _____
 - _____
 - _____

Please provide additional details and dates for any 'yes' answers: _____

Format

Other

Many written medical forms include or are bundled with:

- Description of potential activity, environmental, & medical hazards
- Experience the trip activities and environment in order to evaluate the participants outdoor skills
- Primary health care provider contact information (physician, nurse practitioner, PA, RN) and permission to contact
- Insurance information
- Permission to treat
- Emergency contact information
- Assumption of Risk & Liability release

Example

Check if you have done these activities before:

- | | | | |
|--|--|---|--|
| <input type="checkbox"/> Day Hiking | <input type="checkbox"/> Camped Outdoors | <input type="checkbox"/> Snowshoeing | <input type="checkbox"/> Winter Camping |
| <input type="checkbox"/> Overnight Backpacking | <input type="checkbox"/> Sea Kayaking | <input type="checkbox"/> Cross-Country Skiing | <input type="checkbox"/> White water rafting |

Timing

Timing affects the ability of the program administration to:

- adequately screen participants
- redesign the macro structure of the course (e.g.: revise progressions, routes, activities, EAP, etc.) to accommodate an individual health issue
- train staff—or substitute higher trained staff—to address a specific health issue
- Carry additional equipment (e.g.: braces, storage/protect Rx meds, etc.)

Cataract Canyon

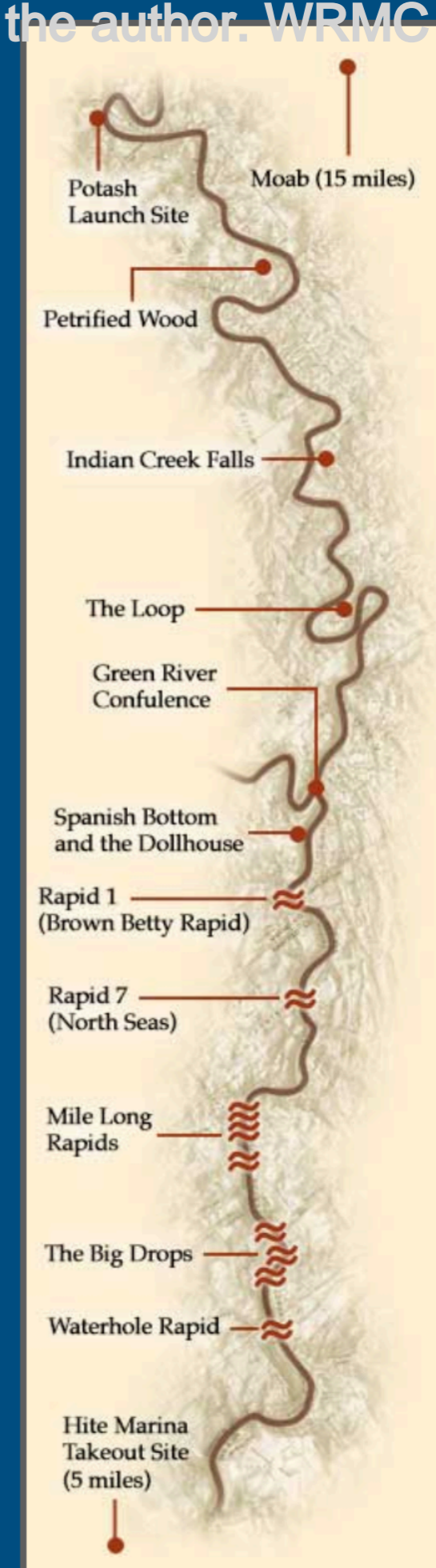
University Program

- 8-Day Geology Field Trip
- 12 Person Trip
- 4 River Guides
- Mid-August 90°-100°F



Evacuation Plan

- No Self Rescue
- NPS Helicopter
- Sheriff's Dept.



MEDICAL INFORMATION FORM

Trip/Activity: _____ Dates: _____

Name: _____

Address: _____

City: _____ St: _____ Zip: _____

Phone: Cell _____ Work _____ Home _____

=====
THIS INFORMATION IS VERY IMPORTANT AND USEFUL FOR US IN THE EVENT OF ANY EMERGENCY.

DATE OF BIRTH: _____

Health Insurance Carrier & Policy Number: _____

IF NONE WRITE "NONE" IN SPACE PROVIDED.
Allergies (Drugs, Food, Insects, Plants etc.) _____
Please indicate how your allergies are managed: _____
Have you had a severe allergic reaction? Yes ___ No ___ Do you carry Epinephrine? Y ___ N ___
Recent Illness, Injury, Surgery: Yes ___ No ___ (If yes, please describe and explain how it is currently managed)

Medications you currently take (Prescription or over the counter): _____

Do you wear: Glasses _____ Contact Lenses _____ Neither _____

Please list any medical conditions that could limit physical activity such as, but not limited to, diabetes, asthma, hay fever, back injuries etc. _____

=====
IN CASE OF EMERGENCY NOTIFY:

Name _____ Relationship _____

Address _____ Cell: _____

City _____ ST _____ Zip _____ Home: _____

Permission to release HIPAA protected medical information to your emergency contact? Yes ___ No ___

I verify that the above information is complete and correct.

SIGNATURE: _____ DATE: _____

Trip Roster - Red Flags

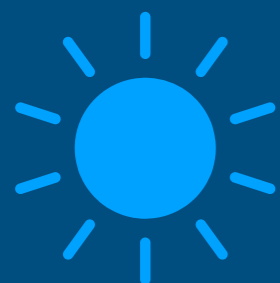
Name	Age	Allergies	Medical Condition	Medications
John	18	None	Depression	Zoloft & Wellbutrin
Lynne	24	Sagebrush	Bipolar Disorder & Allergies	Zyprexa & Benadryl
Matt	55	None	High BP & Congestive Heart Failure	Aspirin, Metoprolol & Lasix

What are some of your concerns during the trip, if any?

Trip Roster - Red Flags

Environmental Factors & Other Considerations

John	18	None	Depression	Zoloft & Wellbutrin
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- Heat Illness
- Dehydration

Antidepressants
Excessive Sweating

Lynne	24	Sagebrush	Bipolar Disorder & Allergies	Zyprexa & Benadryl
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- Heat Illness
- Dehydration

Mood Stabilizers +
Impairs
Thermoregulation

Antihistamines
Inhibits Sweating

WILDERNESS MEDICAL SOCIETY PRACTICE GUIDELINES

Wilderness Medical Society Practice Guidelines for the Prevention and Treatment of Heat Illness: 2019 Update

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The Wilderness Medical Society convened an expert panel in 2011 to develop a set of evidence-based guidelines for the recognition, prevention, and treatment of heat illness. We present a review of the classifications, pathophysiology, and evidence-based guidelines for planning and preventive measures, as well as best practice recommendations for both field- and hospital-based therapeutic management of heat illness. These recommendations are graded based on the quality of supporting evidence and balance the benefits and risks or burdens for each modality. This is an updated version of the original Wilderness Medical Society Practice Guidelines for the Treatment and Prevention of Heat-Related Illness published in 2013.

Keywords: heat stroke, hyperthermia, prevention, recognition, treatment

Introduction

Heat illness is a common occurrence worldwide. The European heat wave of 2003 resulted in at least 70,000 fatalities,¹ and in the last decade the United States averaged over 600 deaths annually associated with excessive heat exposure.² Currently, heat illness is the leading cause of morbidity and mortality among US high school athletes.³ Heat stroke mortality approaches 10%⁴ and when presenting with hypotension increases to 33%.⁵ Outcome is directly attributed to both the magnitude and duration of hyperthermia,^{6–8} making early recognition and treatment a priority. The Wilderness Medical Society convened an expert panel to develop a set of practice guidelines for the recognition, prevention, and treatment of heat illness. We present a review of the classifications, pathophysiology, and evidence-based guidelines for planning and preventive measures, as well as best practice recommendations for both field- and hospital-based

therapeutic management of heat illness. Although the spectrum of heat illness is discussed, this practice group's focus was on the exploration of exertional heat stroke (EHS), which is synonymous with the term "heat stroke" in this article unless otherwise specified.

Methods

Specialists in emergency medicine, primary care, and critical care from both civilian and military backgrounds were chosen based on their clinical or research experience. In 2011,⁹ and for subsequent practice guideline updates,¹⁰ relevant articles were identified through the PubMed database using the following key words: hyperthermia, heat stroke, heat illness, heat syncope, and heat exhaustion. This was supplemented by a hand search of articles from references in the initial PubMed search. Studies in these categories, including randomized controlled trials, observational studies, and case series, were reviewed. Abstract-only reports were not included. Conclusions from review articles were cited to provide background information but were not considered in the formulation of recommendation grades. The panel used a consensus approach to develop recommendations for

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Medications and Drugs that May Contribute to Heat Illness

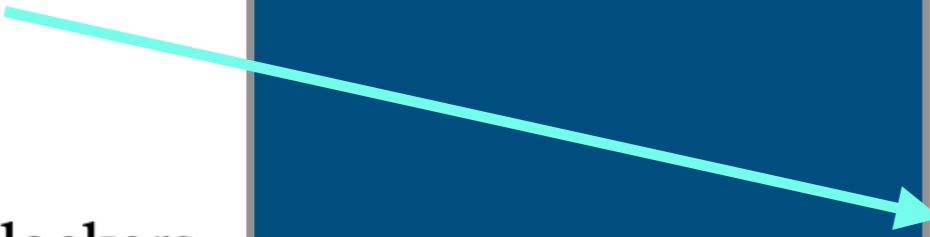
Wilderness Medical Society Practice Guidelines for the Prevention and Treatment of Heat Illness: 2019 Update

- Alcohol
- Alpha adrenergics
- Amphetamines
- Anticholinergics
- Antihistamines
- Antipsychotics
- Benzodiazepines
- Beta blockers
- Calcium channel blockers
- Clopidogrel
- Cocaine
- Diuretics
- Laxatives
- Neuroleptics
- Phenothiazines
- Thyroid agonists
- Tricyclic antidepressants

**Mood Stabilizers
Bipolar Disorder Agents**


MAJOR ANTIPSYCHOTIC MEDICATIONS

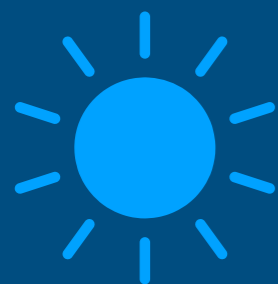
<u>Trade Name</u>	<u>Generic Name</u>
Abilify	aripiprazole
Clozaril/Fazaclo	clozapine
Fanapt	iloperidone
Geodon	ziprasidone
Invega/Sustenna	paliperidone
Latuda	lurasidone
Risperdal/Consta	risperidone
Saphris	asenapine
Seroquel	quetiapine
Zyprexa	olanzapine
Haldol	haloperidol
Loxitane	loxapine
Mellaril	thioridazine
Navane	thiothixene
Prolixin	fluphenazine
Serentil	mesoridazine
Stelazine	trifluoperazine
Thorazine	chlorpromazine
Trilafon	perphenazine



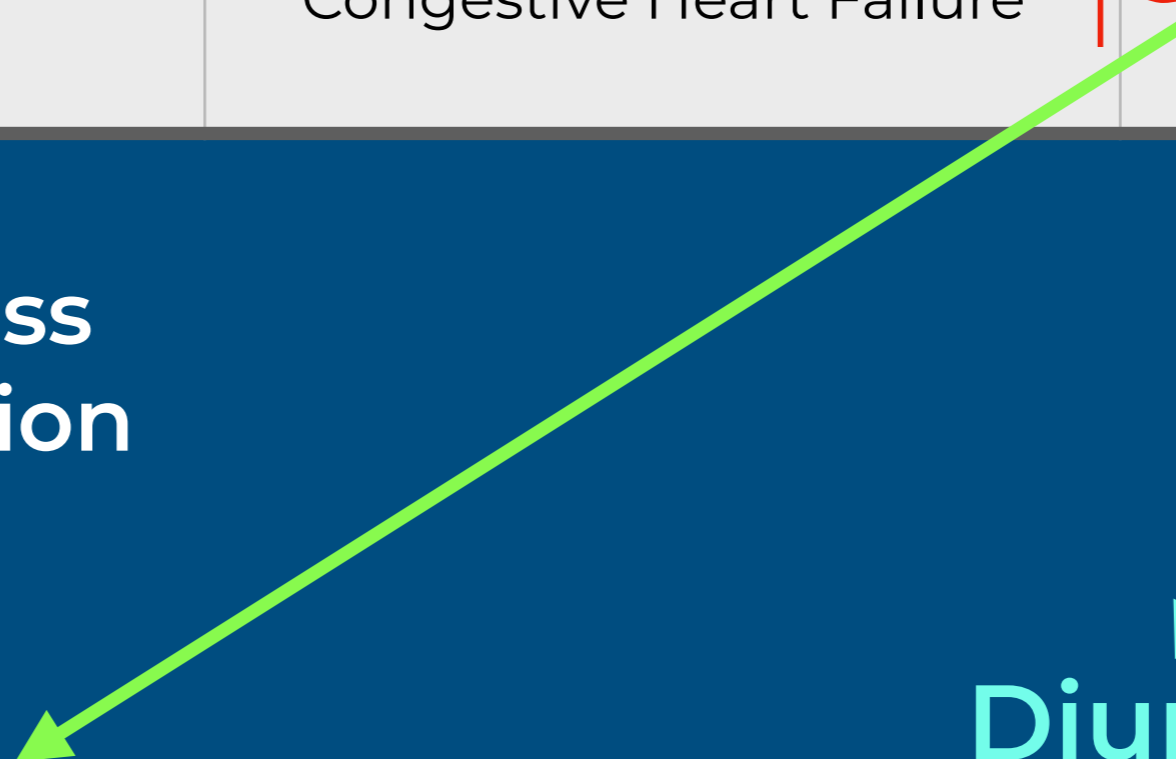
Trip Roster - Red Flags

Environmental Factors & Other Considerations

Matt	55	None	High BP & Congestive Heart Failure	 Aspirin, Metoprolol & Lasix
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- Heat Illness
- Dehydration



Betablocker
Inhibits sweating

+



Diuretic
Dehydration & Electrolyte Imbalance

Betablockers



Rx 

- High Blood Pressure
- Arrhythmia

↓ HR & BP
↓ Exercise Tolerance
↓ Heat Tolerance

Blocks one of the compensatory mechanisms in shock!

Acebutolol	Sectral
Bisoprolol	Tenormin
Atenolol	Zebeta
Metoprolol	Lopressor, Toprol XL
Naldol	Corgard
Nebivolol	Bystolic
Propranolol	Inderal, InnoPran XL

Medications and Drugs that May Contribute to Heat Illness

Wilderness Medical Society Practice Guidelines for
the Prevention and Treatment of Heat Illness:
2019 Update

Common Medications

Alcohol

Amphetamines

Anticholinergics

Antihistamines

Antipsychotics

Benzodiazepines

Beta blockers

Calcium channel blockers

Clopidogrel

Cocaine

Diuretics

Laxatives

Neuroleptics

Phenothiazines

Thyroid agonists

Tricyclic antidepressants

Field Resources

Medication Apps

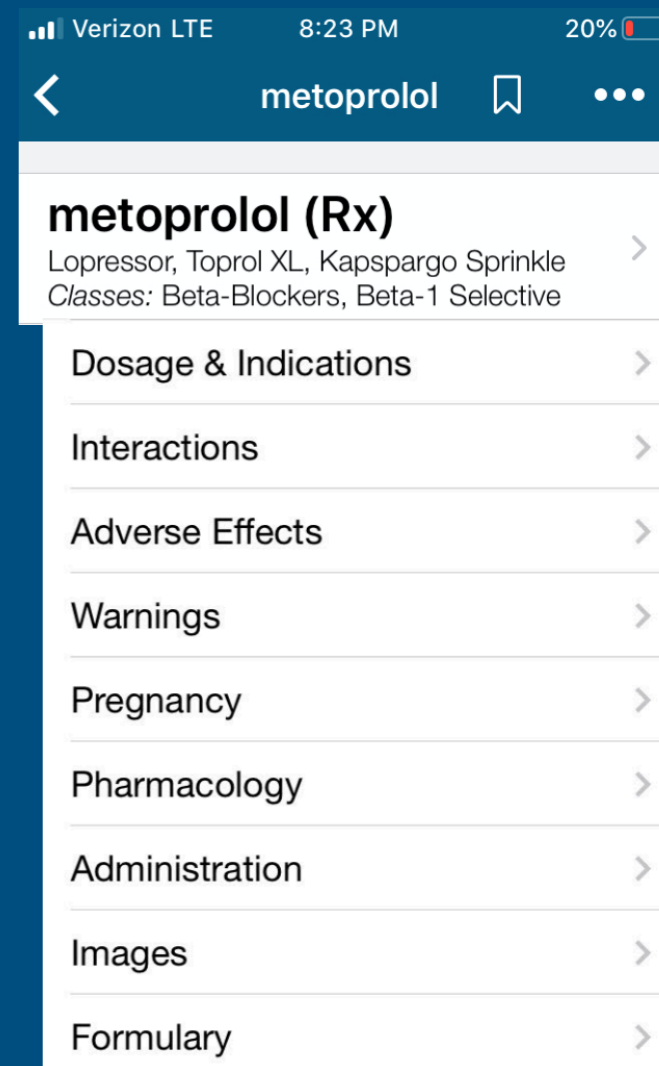
- Medscape
- Epocrates
- drugs.com

Wilderness Medicine

- E-Books
- Field Manuals

Medical Advisement

- In-House/On-Call
- Emergency Department
- Flights
- Medication reference list for your organization's demographics



Field Staff Support

If Medical Hx Form Required by Your Organization:

Red Flags Observed by Managers?

Field Staff Informed About Red Flags?

Pre-Trip Discussion with Client & Plan?

Field Staff Trained to Best Handle Medical Issues?

Are Field Staff Supported by Program Managers?

Health Insurance Portability and Accountability Act



- What is it: Protects privacy in personal health records
- Who does it apply to: Definition of “covered entity” likely excludes most organizations here
 - Except: Organizations with health clinics
 - BUT - where FERPA applies, HIPPA generally doesn't
- **No private right of action**
- Bottom line: Unless you are a program with a health clinic or a medical professional on site (who transmits health information electronically via billing, insurance claims, etc.). take this off your list of worries

Family Educational Rights and Privacy Act

- **What is it:** Precludes disclosure of student educational records without consent
- **Who does it apply to:** Any educational institution that accepts funds administered by the Department of Education (all public schools and universities, most private colleges and some private secondary schools)
- **Exceptions to non-disclosure rule:**
 - To a “school official” with a “legitimate educational interest”
 - Health and safety emergency - limited to actual emergency (34 CFR 99.31(a)(10))
- **Consent:** If an institution subject to FERPA obtains a signed and dated written consent to disclose a student’s records, you may disclose without an exception.
- **No private right of action**



Rule Number One




- Only ask for medical information that you **WILL** use to prevent and/or mitigate injury or illness in the field.
- Otherwise, you are arguably expanding your legal duty with no reasonable process to satisfy the duty of care!

3-Step Analysis to Determine Best Practices

- 1. What information do we NEED?**
- 2. What is our PROCESS?**
- 3. What are the LEGAL considerations?**

What Medical Information do we NEED?

With the help of a medical professional:

- What conditions could realistically become an issue on our trips?
- What medications/conditions could be impacted or exacerbated by environmental factors?
- What are other organizations like us asking for?
- How would we actually utilize this information to mitigate risk of injury or illness in the field?

What is our PROCESS for evaluating and disseminating important medical information?

- **What conditions/medications are flagged for follow up?**
- **Who evaluates the flags, what is their process?**
- **If a red flag = a participant should be screened, who decides, and how is it communicated?**
- **For red flag participants who can be accommodated, who evaluates how and what risk factors exist?**
- **How are red flags communicated to field staff, and how much info is provided specific to the red flag and treatments/considerations?**

What are the Legal Considerations/Paperwork our Process Requires?

- **Disclaimer regarding limited medical training and realities of providing care in a remote environment**
- **Consent to treatment, agreement to be responsible for evacuation costs**
- **ADA Considerations - Essential Eligibility Criteria**
- **Specific acknowledgement of risk for high-risk participant**
- **Privacy practices and data protection - written policies, acknowledged by all staff**

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Thanks for Participating



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