Hotter 'N Hell Hundred Medical Protocols

TITLE: **COLD WATER IMMERSION (CWI) FOR EXERTIONAL HEAT STROKE (EHS)**

RATIONALE: When the option is available, ice water immersion is the treatment of choice for exertional heat stroke (EHS). In more remote locations, shade, ice water-soaked towels, and fanning are also effective.

PURPOSE: To outline the responsibilities of Medical Tent personnel in recognizing and providing immediate treatment for EHS.

LOCATION: Any rest stop with ice water immersion equipment available.

SUPPORTIVE DATA:

1. Motivated athletes in hot environments are at risk for heat disease
   - 1.1. The Hotter 'n Hell is historically a hot venue; however, EHS has never been documented at the Hotter 'n Hell
   - 1.2. Cyclists are relatively protected
     - 1.2.1. Speed produces effective convective cooling
     - 1.2.2. Elevation off the road reduces conductive heat stress
     - 1.2.3. Mechanical advantage mitigates muscle workloads
     - 1.2.4. Regional Cyclists are better heat acclimated

2. Exertional heat stroke is a medical emergency
   - 2.1. Extent of pathology correlates with duration of elevated core temperatures
   - 2.2. Cold water immersion (CWI)
     - 2.2.1. produces the most rapid lowering of core temperatures
     - 2.2.2. is low risk

ASSESSMENT:

1. The cool down protocol mandates that a physician will be notified if the core temp is >104°F
   - 1.1. Increase clinical suspicion of EHS if core temp is > 105°F
   - 1.2. Assess for any sign of central nervous system dysfunction
   - 1.3. Document blood pressure and heart rate

2. If core temp is > 105°F with CNS dysfunction or if core temp >106 °F consider CWI

ACTION:

1. The CWI tub will be maintained in readiness partially filled with cool water and ice immediately available in appropriate storage.

2. For core temp ≥ 106°F and mental status changes suggestive of encephalopathy, initiate CWI
   - 2.1. The physician shall be physically present to direct care and monitor the patient's airway
   - 2.2. The patient shall be placed in ice water to the sternum
     - 2.2.1. Use enough personnel to ensure safe transfer

2.2.2. A lift sheet under the patient should be considered

2.3. The water will be circulated by stirring

2.4. Vital signs will be assessed at regular intervals

2.5. CWI shall last

2.5.1. Until core temperature is ≤102°F

2.5.2. Or 10-15 minutes if core temp monitoring is unavailable

3. After CWI, strongly consider transporting to the hospital

APPROVAL: _____

Brandon Ohman, DO
Medical Director, Hotter 'n Hell Hundred

Date of review: June 2021
Date of Review: May 2022

TITLE: # POST EXERCISE COLLAPSE

RATIONALE: After prolonged exercise, many athletes become syncopal upon cessation of exertion.

PURPOSE: To outline the responsibility of Medical Tent personnel in recognizing and treating post exertional collapse in riders.

LOCATION: Initiate at any Rest Stop throughout the route.

SUPPORTIVE DATA:

1. Post exercise syncope/collapse may be benign orthostatic symptoms
   1.1. Post exercise near syncope/collapse may be due to peripheral vasodilation to shed heat.
   1.2. Post exercise near syncope/collapse may be due to vasodilation providing preferential blood flow to the recovering muscles.
   1.3. Post exercise near syncope/collapse may be due to reassertion of vagal tone.

2. Post exercise collapse may represent significant pathology
   2.1. Heat disease
   2.2. Hyponatremia
   2.3. Dehydration
   2.4. Post Exercise sickling in Sickle Cell Trait
   2.5. Other significant pathology

3. Post exercise syncope/collapse on site may be a combination of the above physiologic and pathologic processes

ASSESSMENT:

1. Screen patient for serious pathology; respond as clinically indicated.
   1.1. Check airway, breathing and circulation.
   1.2. Screen for heat disease. Initiate the aggressive cool down protocol if indicated.
   1.3. Screen the patient for hyponatremia. Initiate the hyponatremia protocol if indicated.
   1.4. Assess need for transport to hospital emergency department for evaluation in a controlled environment

ACTION:

If the patient **does not** have pathology beyond orthostatic syncope/near syncope:

1. Place the patient in the Trendelenburg position.
2. Monitor
3. Offer fluids if thirsty
4. Patient may be discharged when he or she can pass urine.
   4.1. Use clinical judgement taking into account environmental conditions, the patient's recovery time, and the patient's fitness level, to determine if the rider may continue to ride.

APPROVAL: _____

Brandon Ohman, DO
Medical Director, Hotter ‘n Hell Hundred

Date of review: June 2021
Date of Review: May 2022

Hotter 'N Hell Hundred Medical Protocols

TITLE: **HYPONATREMIA PROTOCOL**

PURPOSE: To facilitate recognition and proper response to patients with hyponatremia by medical personnel at the Hotter 'n Hell Hundred

RATIONALE: Hyponatremia (low serum sodium) is recognized as a serious potential complication of endurance sports. The mechanism is thought to be the over-consumption of water and/or sports drinks in an overemphasized effort to avoid the risk of dehydration, and the loss of some sodium through sweat.

LOCATION: All rest stop medical tents.

ASSESSMENT:

1. Risk factors for hyponatremia include:
   1.1. On course greater than 3 hours
   1.2. Drinking before thirst
   1.3. Consumption of excessive amounts of fluid (drinking as "much as I can")

2. The signs and symptoms of hyponatremia include:
   2.1. Nausea and vomiting
   2.2. Confusion and dizziness
   2.3. Headache
   2.4. Paresthesias
   2.5. Puffiness/edema
   2.6. Weight gain since start of ride
   2.7. Worsening with hydration
   2.8. Seizure

ACTION:

If symptoms are mild, initiate IV fluid protocol and send to the finish line promptly. If the symptoms are severe, or if seizures occur:

1) Call the main medical tent who will arrange immediate evacuation.
2) Start IV for access only; run fluids slowly to keep the IV patent.
3) In the absence of other pathology (EG trauma, heatstroke, cardiovascular collapse), **DO NOT GIVE LARGE OR RAPID INFUSIONS OF FLUID.**

APPROVAL: _____

Brandon Ohman, DO
Medical Director, Hotter 'n Hell Hundred

Date of review: June 2021
Date of Review: May 2022

Hotter 'N Hell Hundred Medical Protocols

Title: **AGGRESSIVE MANAGEMENT OF HYPONATREMIA**

Purpose: To provide guidelines for the appropriate management of hyponatremia in the main medical tent.

Location: Main Medical Tent

Assessment:

The clinical findings are of greater importance than the actual measured sodium levels in exercise associated hyponatremia. It is useful to correlate the serum sodium with the clinical picture but should not be the sole arbiter of clinical decision making.

Severity	Symptoms	Sodium
Mild EAH	Dizziness, nausea & vomiting, headache, bloating, paresthesias. Weight gain if pre and post weights are known.	[Na] = 135-130
Moderate EAH	Irritability, personality changes, confusion, delirium, disorientation.	[Na] = 130-125
Severe EAH	Altered LOC, coma, seizures	[Na] < 125

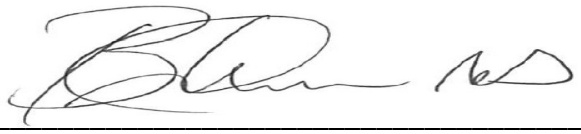
Treatment:

1. Mild EAH:
   1.1. IStat to check serum sodium.
   1.2. Salty food/beverage if able to take po.
   1.3. Monitor until onset of urination.
   1.4. If the patient fails to improve, reassess clinical level, clinical options, and consider transfer to ER.

2. Moderate EAH:
   2.1. IStat to check serum sodium.
   2.2. Salty food/beverage if able to take po.
   2.3. Monitor until onset of urination; consider hypertonic saline.
   2.4. If the patient fails to improve, reassess clinical level, clinical options, and consider transfer to ER.

3. Severe symptomatic EAH:
   3.1. 3% saline solution 100 cc IV rapid infusion
   3.2. If no response, may repeat 100 cc of 3% saline at 10 minute intervals up to a total of 300cc
   3.3. Transfer to ER if response is inadequate, obtundation persists, or for seizures

4. Consult HHH Medical Director for all [Na] < 130 or level 3 symptoms.

APPROVAL: 

Brandon Ohman, DO
Medical Director, Hotter ‘n Hell Hundred

Date of review: June 2021
Date of Review: May 2022

Hotter 'N Hell Hundred Medical Protocols

TITLE: **COOL-DOWN PROTOCOL**

PURPOSE: To outline responsibilities of Medical Tent personnel in the management of overheated riders.

ASSESSMENT:

1. Assess temperature rectally on admission to Medical Tent. Notify physician if temperature is greater than 104 degrees F and begin IV Management Protocol.
2. Cover body surface, esp. scalp, axillae, and groin area with clean cold disposable washcloths that are stored in ice water. Washcloths will be used on *individual rider only* then discarded in red bag trash if grossly contaminated.
3. Assess riders' temperature every 15 minutes until it lowers to acceptable limits.
4. Offer oral fluids to rehydrate and cool.
5. Assure that bicycle drinking bottles are full of water or sport drink.

INFECTION CONTROL:

1. To prevent contaminating ice water supply, do not reuse washcloths. Use fresh clean washcloths as needed.
    a. Dispose of grossly contaminated washcloths in the red bags
    b. Dispose of non-contaminated washcloths in the regular trash.

FOLLOW-UP ASSESSMENT:

1. Remove cold towels if any signs of chilling are noted:
    a. Shivering
    b. Piloerection (goose-bumps)
    c. Chattering teeth
2. Rider may re-enter ride after approval of physician.

TEACHING:

1. Recommend drinking according to thirst.
2. Fill water bottles with appropriate fluid.
3. Encourage stopping at every Rest Stop for cool down, hydration, and rest.

APPROVAL: _____

Brandon Ohman, DO
Medical Director, Hotter 'n Hell Hundred

Date of review: June 2021
Date of Review: May 2022

Hotter 'N Hell Hundred Medical Protocols

TITLE: **ANIMAL BITES**

PURPOSE: To outline the Responsibility of Medical Tent personnel and further provide continuity of treatment in the care of the rider with an Animal Bite.

LOCATION: Initiate at any location throughout the Route.

ASSESSMENT:

1. History of type of animal that caused the bite, description of the animal, when, and where the bite occurred.
2. Description and location of the wound to be documented.
3. Assure Tetanus is current. If not, rider may obtain instructions at the finish line tent.
4. Cleanse wound thoroughly with skin cleanser. Rinse if needed. Apply loose dressing to wound. Secure with Spandage/Tape.
5. Animal bites require an immediate report to animal control (see attachment for guidance).

NOTE: Avoid completely encircling appendage with tape.

TEACHING:

1. If the patient ends their ride: send them to the finish line tent for wound check and reinforce continuity and follow through with the animal bite report.
2. If patient continues to ride: instruct them to report to the finish line tent to have the dressing changed, obtain trauma instruction sheet, and to reinforce continuity and follow through with the animal bite report.
3. Instruct on signs of infection: redness, swelling, streaking down the extremity, fever, drainage, or foul smell.
4. Instruct the patient with regards to anticipated follow-up with animal control.

NOTE: Obtain patient's name, address, telephone number for follow-up relating to animal.

APPROVAL: _____

Brandon Ohman, DO
Medical Director, Hotter 'n Hell Hundred

Date of review: June 2021
Date of Review: May 2022

Hotter 'N Hell Hundred Medical Protocols

TITLE: **ANIMAL BITES ADDENDUM**

PURPOSE: To facilitate proper reporting of animal bits to the appropriate authorities.

LOCATION: The geographic location of the incident when the bite occurred dictates the appropriate authority to contact.

If the bite occurs:

1. In Wichita Falls city limits, OR in Wichita County outside an incorporated city
    a. Call Main Medical Tent
    b. Provide complete information regarding the rider and subsequent disposition (continuing or not continuing ride)
    c. Provide complete information regarding the animal (description and location)
    d. Main Medical will forward the information to the Wichita Falls City/County animal control officer on-call during the event

2. In Burkburnett city limits, call Burkburnett Police Department

3. In Iowa Park, call the Iowa Park Police Department.

4. In Clay County, call the Sheriff's Office

APPROVAL: _____

Brandon Ohman, DO
Medical Director, Hotter 'n Hell Hundred

Date of review: June 2021
Date of Review: May 2022

Hotter 'N Hell Hundred Medical Protocols

TITLE: **INITIATION OF INTRAVENOUS INFUSION PROTOCOL**

PURPOSE: To outline the responsibility of Medical Tent personnel in recognizing and treating pathology responsive to intravenous hydration.

LOCATION: Initiate at any Rest Stop throughout the route.

SUPPORTIVE DATA:

1. Possible dehydration can occur due to extreme heat, high winds, and training errors.
2. Simple dehydration usually responds promptly to oral fluids.
3. Hyponatremia can be worsened by hydration.
4. IV therapy to be performed only by licensed personnel.
5. Universal Precautions will be strictly followed.
6. Sharps containers and biohazard bags are available at each site for appropriate disposal of contaminated materials.

ASSESSMENT:

1. Suspicion of significant heat disease mandates a rectal temperature on admission to the medical tent.

2. Consider initiating IV therapy if any of the following signs or symptoms are noted.
   2.1. Rectal temperature greater than 104°F.
   2.2. Persistent cramps unrelieved by massage, cold towels, or fluids taken by mouth.
   2.3. Change in level of consciousness, e.g., confusion, irritability, or combative behavior.
   2.4. Inability to drink fluids related to nausea or vomiting.

3. Before initiating IV therapy, consider dehydration versus hyponatremia.
   3.1. Dehydration has decreased sweating, tacky mucous membranes, and thirst.
   3.2. Hyponatremia is characterized by puffiness, fluid sloshing in the gut, and encephelopathic symptoms.

APPROPRIATE FLUIDS:

1. Notify physician that an IV has been started.
2. Only use normal saline.
3. DO NOT USE D5W under any circumstances.

APPROVAL: _____

Brandon Ohman, DO
Medical Director, Hotter 'n Hell Hundred

Date of review: June 2021
Date of Review: May 2022

Hotter 'N Hell Hundred Medical Protocols

Title: Management of Intravenous Infusions Therapy

Field Protocol for Patients Receiving IV Fluids

1. Upon the initiation of infusion therapy, the rider MUST NOT BE ALLOWED TO CONTINUE THE RIDE. Transport the rider and their bicycle to the Finish Line Tent.
2. Assess for hyponatremia; if hyponatremia is suspected, refer to hyponatremia protocol.
3. Enteral replacement of fluids, food, and electrolytes is always preferred.
4. Normal saline is the only available intravenous fluid.

Finish Line Protocol for Patients Receiving IV Fluids

Assess ability to drink fluids without nausea or vomiting.

1. During or after first liter of fluid:
   1.1. If drinking, slow fluid to KVO rate and observe.
   1.2. If improved, but unable to take oral fluids, consider a second liter of fluid. **This should be a rare situation.**
   1.3. IV catheter may be removed following recovery of presenting symptoms and with the approval of a tent physician.
   1.4. Apply dressing.

2. During or after second liter of fluid:
   2.1. Assess recovery, especially change in LOC, absence/presence of nausea, vomiting, and inability to drink.
   2.2. If satisfactory, slow IV and observe.
   2.3. If unsatisfactory, consider transport to local emergency department with physician's approval.
   2.4. IV catheter may be removed following recovery of presenting symptoms and with the approval of tent physician.
   2.5. Apply dressing.

APPROVAL: _____

Brandon Ohman, DO
Medical Director, Hotter 'n Hell Hundred

Date of review: June 2021
Date of Review: May 2022

Hotter 'N Hell Hundred Medical Protocols

TITLE: **ROAD RASH PROTOCOL**

PURPOSE: To outline the responsibility of Medical Tent personnel and further provide continuity of treatment in the care of the rider with road rash.

LOCATION: Initiate at any Rest Stop throughout the route.
Indicates procedures appropriate at Finish Line Tent only.

ASSESSMENT:

1. Provide privacy as much as possible for each rider needing treatment.
2. Adhere to Universal Precautions by applying gloves.
3. Thoroughly clean abraded area with no-rinse wound cleanser until all debris (grass, tar, asphalt, dirt) is removed. If necessary, soak the involved area in water or water-soaked gauze first to aid in cleaning.
4. Consider 1% Lidocaine intradermally to anesthetize the area, if the abrasion is severe, to adequately clean the area.
5. Apply antibiotic ointment liberally to abraded area.
6. Cover the wound with occlusive dressing, Telfa if available, and/or gauze dressing.
7. Assure Tetanus is current. If not, ****rider may obtain instructions at the finish line tent.***
8. In the event of a rider sustaining an injury but wants to continue the ride:
   8.1. Tent physician must approve.
   8.2. Clean area as above, cover with telfa pad dressing, antibiotic ointment, and secure with tape or Spandage.
   8.3. ***Instruct to report to Finish Line Tent for dressing change, supplies, and possible tetanus.
   NOTE: Avoid completely encircling appendage with tape.

TEACHING:

1. Instruct in changing bandage after release from Medical Tent.
   1.1. To aid in old dressing removal, do so daily in shower.
   1.2. Apply liberal amounts of antibiotic ointment if not sensitive to it or use plain petroleum jelly.
   1.3. Apply clean dressing and secure.

2. Instruct to notify family physician immediately for signs of infection:
   2.1. Redness
   2.2. Swelling
   2.3. Streaking down extremity
   2.4. Temperature
   2.5. Yellow drainage or foul smell.

3. Give prescription for antibiotics, if indicated, per physician and document.

4. Dismiss rider with enough occlusive dressings, antibiotic ointment, and tape to last for 2 days. If more supplies are needed, instruct to contact family physician.

APPROVAL: 

Brandon Ohman, DO
Medical Director, Hotter ‘n Hell Hundred

Date of review: June 2021
Date of Review: May 2022

Hotter 'N Hell Hundred Medical Protocols

TITLE: **INFECTION CONTROL**

The following is a read and sign in-service regarding infection control issues relating to the Hotter 'n Hell Hundred Bike Ride. Please sign on the attached form that you have read and understand the below mentioned items. The charge nurse of the tent will be available to answer any questions.

1. **Disposable washcloths that are used for cooling are not to be re-dipped in the cold water.** To assure that cloths remain cool, replace as needed. In this manner, cold water for cloths is not contaminated by used towels soaked in blood, sweat, etc.

2. **Do not refill water bottles over water containers.** Filling water bottles away from the drinking water container will assure that dirty water droplets and contaminated drinking bottles do not come into contact with the clean drinking water container.

3. **Standard Precautions will be observed at all times when caring for patients.** Gloves will be worn at all times when caring for patients. Eye goggles are available if needed.

4. **Rectal thermometers will be used on all patients for measuring core temps.** Plastic shields can be used if available.

5. **Sharps containers are available for use for all sharps.** All sharps must be placed in the sharps container to avoid needle sticks. Sharps containers will be available around the supply table.

6. **Hand washing is necessary between each patient.** Non-rinse soap is available for use between each patient. Use the soap as often as possible.

APPROVAL: _____

Brandon Ohman, DO
Medical Director, Hotter 'n Hell Hundred

Date of review: June 2021
Date of Review: May 2022

Hotter 'N Hell Hundred Medical Protocols

TITLE: **GLUCOMETER PROTOCOL**

PURPOSE: To guide appropriate use of glucometers during the Hotter 'n Hell Hundred.

RATIONALE: Both type I and type II diabetics engage in endurance sports, and may be participating in the Hotter 'n Hell Hundred. Optimal performance and safety are attained with a pre-ride blood sugar of 120 to 180, and a blood sugar of 120 to 160 during activity. Abnormal blood sugars can affect alertness, coordination, and consciousness. As endurance exercise consumes glycogen and blood sugar, access to blood sugar measurement will improve the safety of diabetics in the Hotter 'n Hell Hundred.

LOCATION: All rest stop medical tents.

ASSESSMENT:

The glucometer may be used when:

1. The patient has confusion or an altered level of consciousness.
2. The patient is a diabetic and the tent physician feels testing is indicated.
3. The patient is a diabetic and requests glucometer testing.

ACTION:

If the patient is in no distress, and the blood sugar is:

1. Greater than 300 – arrange transport to the finish line medical tent for further evaluation

2. Less than 100, but greater than 70– encourage the patient to consume a high carbohydrate energy food or gel. Recheck blood sugar every 15 minutes until > 100.

3. Less than 70 – supply carbohydrate supplement and arrange transport to the finish line medical tent for further evaluation.

If the patient is distressed, and the blood sugar is:

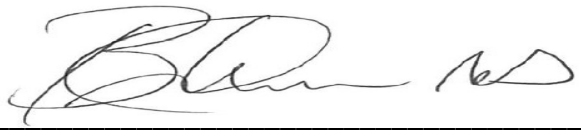
1. Greater than 200 – arrange for transport to the finish line medical tent for further evaluation and possible transport to hospital for testing of ketones

2. Less than 100, but greater or equal to 70– encourage the patient to consume a high carbohydrate energy food or gel. Recheck blood sugar every 15 minutes until > 100. If the patient does not feel adequately recovered, reassess for additional source of distress, or transport to the finish line tent for further evaluation.

3. Less than 70, arrange for immediate transport to final medical tent. If the patient is in marked distress, consult the final medical tent to arrange emergency transport.

Notes: No discernibly unstable patient should be transported by any means other than ambulance or helicopter. If a patient is transported for an abnormal blood sugar without distress, and the patient is

transported by a vehicle other than an emergency response vehicle, alert the driver to observe the patient and call the final medical tent for any concerns regarding changing condition.

APPROVAL: 

Brandon Ohman, DO
Medical Director, Hotter ‘n Hell Hundred

Date of review: June 2021
Date of Review: May 2022

Hotter 'N Hell Hundred Medical Protocols

Title: AGGRESSIVE MANAGEMENT OF INTRACTABLE CRAMPING

Purpose: To provide guidelines for the appropriate management of intractable cramping in the main medical tent.

Location: Medical support tent with adequate logistical support. Elements of adequate logistical support include:

1. Familiarity with and adherence to this protocol
2. Magnesium sulfate 2gm/50cc NS unit doses that are prepared by a pharmacist and stored in safe conditions
3. Availability of calcium gluconate
4. Ability to provide close supervision.

Assessment:
The etiology of exertion related cramps is unclear; it is likely multifactorial, resulting in the loss on normal neuromuscular control. Most cramps will resolve with rest, cooling, hydration, nutrition, and stretching. Refractory cramps, especially in multiple muscle groups, may require aggressive care.

Treatment:
On the recommendation of a physician, transfer the patient to the close supervision section of the tent.

A physician must review the situation, and assess for contraindications to magnesium sulfate therapy, including myasthenia gravis or renal disease

1. Preparation magnesium sulfate 2 grams in 50 ml NS (40 mg/ml)
2. Load: 2, 3, or 4 grams magnesium sulfate in 1, 1.5, or 2 bags per IVAC over 30 minutes

Monitoring

A. Check every 15 minutes (magnesium toxicity is heralded by loss of deep tendon reflexes)
    1. Deep Tendon Reflexes
        a. Loss of patellar reflex: 10-12 mg/dl Mg serum level
        b. Respiratory depression: 15-17 mg/dl Mg serum level
        c. Paralysis: 15-17 mg/dl Mg serum level
        d. Cardiac Arrest: 30-35 mg/dl Mg serum level

    2. Examination
        a. Mental status
        b. Respiratory status
        c. Lung exam

B. Intake and Urine output

C. Indications to stop magnesium
    1. Respiratory Rate <12 per minute
    2. Loss of Deep Tendon Reflexes

Antidote for Magnesium Toxicity

A. Calcium Gluconate 1 gram IV slowly over 3 minutes

All participants receiving magnesium sulfate must be transported to the main medical tent for evaluation.

APPROVAL: _____

Brandon Ohman, DO
Medical Director, Hotter ‘n Hell Hundred
Date of review: June 2021
Date of Review: May 2022

Hotter 'N Hell Hundred Medical Protocols

Title: **EQUIPMENT AND DISTANCE COMPATIBILITY**

Purpose: To reduce risk and promote safety for participants, organizers, and bystanders at the Hotter 'n Hell Hundred

Location: Entire Venue

Rationale: The Hotter 'n Hell Hundred is a physically challenging and involves inherent risk.

1. As environmental conditions at the HHH are frequently hazardous
2. As participants, organizers, and bystanders have been casualties in the past at the HHH
3. As the duration of exposure is related to morbidity
4. As participants sometimes set goals not compatible with experience, training, abilities, or mode of transportation

Action:

1. The Hotter 'n Hell Hundred limits all roller blades, unicycles, and hand powered vehicles to the 25 mile route.
2. Roller blades, unicycles, and hand powered vehicles official participation is automatically terminated if not on the 25 mile course.
3. Any support offered to non-participants is strictly compassionate in nature.
4. The Hotter 'n Hell Hundred medical support staff may advise participants to abandon further efforts at any time. The cyclist assumes full responsibility for the consequences of proceeding against medical advice.

APPROVAL: _____

Brandon Ohman, DO
Medical Director, Hotter 'N Hell Hundred

Date of review: June 2021
Date of Review: May 2022

Hotter 'N Hell Hundred Medical Protocols

TITLE: **SNAKE BITE PROTOCOL**

LOCATION: Initiate at patient location

PREVENTION:

1. Don't stop next to brush, tall grass, large boulders, or trees.
2. Don't put your hands into dark places, such as rock crevices, heavy brush, or hollow logs.
3. Don't step into a blind spot. Step on the obstruction and look to see if there is a snake on the other side.
4. Look where you are walking.
5. Don't pick up any snake. Don't pick up freshly killed snakes. The nervous system may still be active and a dead snake can deliver a bite.

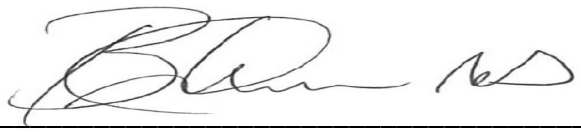
SIGNS AND SYMPTOMS:

1. A noticeable bite on the skin that may appear as a discolored area with two (but occasionally only one) puncture marks
2. Intense burning pain and swelling in the area of the bite (Swelling may take several hours to develop.)
3. Rapid pulse and labored breathing
4. Low blood pressure and increased heart rate
5. Progressive general weakness
6. Vision problems, nausea and vomiting
7. Seizures
8. Drowsiness or unconsciousness.

ACTION:

1. Act with calm and assurance to calm and reassure the victim.
2. Check to make sure the snake is not in the vicinity, move to safety.
3. Get medical assistance; transport by emergency services to the emergency room
4. Remove any constricting clothing or jewelry
5. Immobilize the patient until transport arrives
6. Keep the bitten area at a neutral position, neither above nor below the level of the heart.
7. Clean the wound with soap/skin cleanser and water

DO NOT APPLY ICE. DO NOT APPLY TOURNIQUET. <u>ALL</u> SNAKE BITE PATIENTS, GO TO ER.

APPROVAL: 

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