NOLS WILDERNESS MEDICINE

Curriculum Updates for WFR Recertification Courses
January 2026

Medicine is dynamic. We stay abreast of changes in practices and knowledge, and regularly update our curriculum. These are summaries of recent updates. NOLS Wilderness Medicine Curriculum Updates and resources are available at: https://www.nols.edu/en/wilderness-medicine/resources/

CPR Updates: To align with the 2025 American Heart Association CPR updates, we have changed the following curriculum:

- **Foreign Body Airway Obstruction Removal in Adults & Children**: To remove a foreign body airway obstructions for an adult or child, the current recommendation is to give 5 back blows followed by 5 abdominal thrusts. To deliver a back blow, stand behind the person with one foot in front of the other for stability. Place one hand on the person's shoulder and lean them slightly forward. Using the heel of your other hand, strike firmly between their shoulder blades 5 times. For abdominal thrusts, make a fist with the thumb side directly above the naval. Brace yourself and give a quick, hard thrust. Continue to give 5 back blows followed by 5 abdominal thrusts until the obstruction is removed or the patient becomes unresponsive.
- **Infant CPR Hand Technique**: It is no longer recommended to use 2 fingers to give chest compressions during CPR to an infant. The current recommended techniques are either the 2 thumbs encircling technique or using the heel of one hand. For foreign body airway obstructions in infants, give 5 back blows followed by 5 chest thrusts, using the heel of your hand.

Anaphylaxis: If someone is experiencing any signs and symptoms of a severe allergic reaction/anaphylaxis (e.g., systemic hives, large areas of swelling, difficulty swallowing, respiratory distress, gastrointestinal symptoms, or s/s of shock–especially if the patient is feeling lightheaded or thinks they might pass out), we should administer epinephrine. If we suspect systemic progression, epinephrine is warranted sooner rather than later. If a reaction reoccurs, continue to administer epinephrine. Whenever the patient can swallow, give oral antihistamines; they can ease itching and hives but they do not prevent, reverse, or slow anaphylaxis. Allegra®, Zyrtec® and Claritin® are often preferred due to their non-drowsy effect. Anyone experiencing anaphylaxis should be evacuated, even if symptoms resolve.

Nasal Epinephrine: We recognize the potential of nasal epinephrine, which now has FDA approval and shows absorption comparable to intramuscular injections. The current name brand is Neffy®. While conclusive data on its effectiveness in treating anaphylaxis is still limited due to ethical challenges in clinical trials, future developments will bring more clarity. As with any treatment in wilderness medicine, the key is using what the patient has available. Patient preference and real-life usage will likely determine whether nasal or intramuscular epinephrine becomes the go-to option in patient care. None of this changes our existing Anaphylaxis curriculum.

Lightning Position: Only use lightning position when all other risk management tactics (e.g., reacting at the first sound of thunder, descent, avoiding isolated tall objects, etc.) have been exhausted. Historically, lightning position included crouching or sitting on a pad with your feet together. Insulating yourself from the ground (e.g., sitting on a pad, pack, coil of rope) with your feet together, and no other body part touching the ground, was thought to protect against ground current. This is debatable amongst experts. Insulating oneself from the ground is still an acceptable practice to prevent hypothermia.

Ground current is most dangerous when there is distance separating body parts touching the ground, creating a voltage differential, thus the advice to keep your feet together. The important concept is to keep your feet together, reducing the voltage differential and minimizing contact with the ground. Standing is permissible. Crouching may feel less exposed, yet this position is difficult to maintain and may be impractical. When in a tent during a lightning storm, crouching or sitting is fine and a pad to keep yourself dry and warm is reasonable. Laying down is highly discouraged.

Head Injury Evac Guidelines: There is a new head injury evacuation guideline: *If the patient is on anticoagulants, they are at a higher risk of bleeding with a head injury and evacuation is recommended*. Examples of anticoagulants include: heparin, warfarin, apixaban (Eliquis®) and rivaroxaban (Xarelto®). A low-dose aspirin and other NSAIDs are generally not a risk factor.

Asthma: For a severe asthma attack, it is recommended to give 4-6 puffs every 20 minutes for up to 4 hours. We highly encourage the use of a spacer to optimize drug delivery.

Ingested Poisons: It is no longer recommended to induce vomiting for any ingested poisons. Call Poison Control (1-800-222-1222) for advice and consider evacuation.

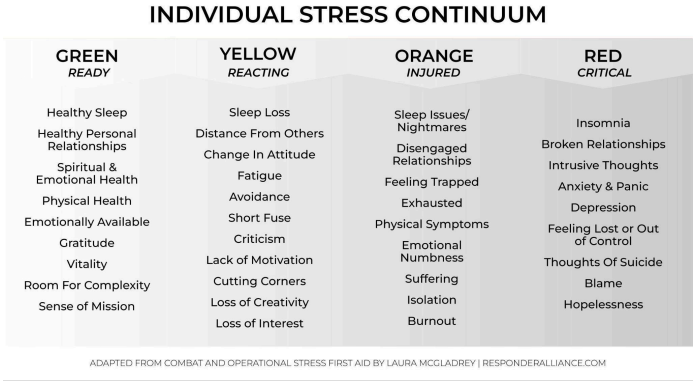
Stroke Assessment: We have incorporated the BEFAST Stroke Assessment into our neurological curriculum. This tool can help recognize if someone is having a stroke.

Balance: Does the patient have a sudden or recent loss of balance or difficulty walking? Are they dizzy?
Eyes: Can the patient see out of both eyes? Do they have blurry vision, double vision, or vision loss?
Facial Droop: Have the patient smile or show their teeth. It should be symmetrical.
Arm Weakness: Have the patient hold both arms out straight for 10 seconds with their eyes closed. Arms should not drift.
Speech Difficulty: Have the patient repeat back a phrase such as, "You can't teach an old dog new tricks." Should repeat correctly and without slurring speech.
Time: Document the onset of signs and symptoms.

Jaw Dislocations: We have historically taught how to reduce jaw dislocations in the WFR curriculum. After some research and many discussions, we have decided to remove jaw dislocations from our WFR courses.

Communicable Diseases and Patient Approach: During the COVID-19 pandemic, we recommended donning a mask before every patient interaction. Today, we recommend evaluating your patient and making an informed decision about whether or not you need to wear a mask, the patient should wear a mask, or you should use additional PPE. If your patient is showing signs of a respiratory infection, it may be wise to put on a mask.

Stress Continuum: Responders are at an elevated risk for stress injuries. One of the first steps in prevention is recognition. Many responders are using a stress continuum to monitor the predictable pattern of injury formation after exposure to stress and impactful events. A stress continuum is an awareness tool utilized in operations to support identification and care of stress injury before it progresses. For additional training and tools, please visit responderalliance.com.



Cardiac Emergencies Presentation: We have historically described "typical" versus "atypical" cardiac presentations. We have updated our language to be more inclusive of the wide range of cardiac emergency presentations we might see. Cardiac emergencies that have often been described as "silent" or "unusual" may, in fact, make up a significant portion of presentations.

Circulation, Sensation, Motion: Over recent years, we have experimented with different CSM language. Moving forward:

Hands: Circulation: palpable radial pulses
Sensation: identify finger being touched on each hand, no odd sensations
Motion: wiggle fingers, grip strength equal bilaterally
Feet: Circulation: palpable pedal pulses or warm feet
Sensation: identify toe being touched on each foot, no odd sensations
Motion: wiggle toes, push/pull equal bilaterally

Narcan: Like the AED, understanding how to use Narcan is valuable for us in our urban lives. Narcan, commonly administered via intranasal spray (2.0 - 4.0 mg per spray), is a narcotic antagonist which blocks narcotic effects by occupying, without activating, narcotic receptor sites. The duration of action is 30-90 minutes. It is used for the reversal of narcotic effects such as unresponsiveness/altered mental status, and especially respiratory depression, due to known or suspected overdose of narcotic drugs. All fifty states have passed laws to increase access to Narcan® (naloxone) and to legally protect people such as first responders, family and friends, police officers and others who administer it. Naloxone is now over-the-counter in the USA.