

Medical Advisors, Standing Orders, and Protocols: What are they, how are they used, and why are they important?

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This article supports Wilderness Medicine Education Collaborative (WMEC) Scope of Practice (SOP) documents. Its purpose is to outline the potential role of a medical advisor and define and clarify standing orders and protocols.

Medical Advisors

The WMEC scope-of-practice documents are deliberately broad-based. Medical advisors use standing orders to authorize, amend, or clarify treatment and evacuation guidelines to meet an individual program's needs. In our SOPs, we recommend outdoor programs work with a medical advisor who is an avid outdoor person with experience in wilderness medicine and will:

- Be an active part of your organization's risk management team.
- Help your program managers identify predisposing terrain, environmental, and clinical conditions that may contribute to program-related accidents, injuries, and illnesses and suggest strategies to prevent them.
- Write standing orders authorizing your staff to administer medications or follow treatment protocols in the event of an injury or illness. Review existing standing orders and protocols regularly—once a year is standard—to ensure they align with current best practices.
- Assist in screening your trip participants.
- Provide advice during an incident.
- Annually, review the program's accidents and incidents.
- Help train staff.

Standing Orders & Protocols

For the purposes of this document, standing orders are written treatment and evacuation protocols—often in the form of algorithms—that authorize a certified WFA, WAFA, WFR, or WEMT graduate to complete specific clinical tasks usually reserved by law for licensed providers while in the backcountry. Standing orders may be specific to a patient or a condition and take two forms:

- Online protocols require verbal permission from a medical advisor to implement.
- Offline protocols do not require verbal permission from a medical advisor to implement and rely on the judgment of the field provider.

Many states or governing bodies have laws and rules regarding the use of "standing orders" or "protocols" for non-prescribers. Local laws may prohibit unlicensed persons from using techniques and treatments listed in the WMEC SOPs and taught in WFA, WAFA, WFR, or WEMS courses.

Best Practices

Standing orders and protocols should:

- Be written in clear, easily understood language.
- Be accessible to all who need to follow them.
- Be carefully chosen so they have little potential to cause patient harm.
- Be based on evidence-based guidelines and recommendations.
- Clearly define who is authorized to use the protocol. Standing orders imply training and certification. [Does the protocol apply to all currently certified staff—WFA, WAFA, WFR, WEMS—or only to graduates holding a WFR or WEMS certification?]
- Clearly define when—under what conditions—staff may use the protocol.

- Clearly define if the protocol is offline or online. In other words, may staff exercise their judgment, or must they obtain verbal permission from the medical advisor—or their appointee—before proceeding?
- Be periodically reviewed and revised; annual reviews are common.
- Be signed and dated by the medical advisor authorizing the order(s) and include their license number.

We recommend medical advisors review the Wilderness Medical Society (WMS) practice guidelines, the WMEC scope of practice documents, and all applicable laws before writing standing orders for their organization. Organizations must train their staff to follow their standing orders and protocols.

Examples

Examples of standing orders written for an outdoor program or guide service by their medical advisor include:

- Authorizing the field administration of prescription or over-the-counter medications by program staff. [Examples of prescription medications include epinephrine or prednisone to treat anaphylaxis or severe asthma, acetazolamide and dexamethasone for the prevention and treatment of Acute Altitude Sickness (AMS), antibiotics to treat infections, etc.]
- How to clean and debride wounds.
- How to treat impaled objects.
- When to start and stop cardiopulmonary resuscitation (CPR) in both normothermic and hypothermic patients:
 - Stop CPR in a normothermic patient after 30 minutes of continuous CPR.
 - When treating a severely hypothermic patient, do not initiate chest compressions if cardiac function is suspected.
 - When treating a drowned person in cardiac arrest with a documented submersion time greater than one hour, do not initiate CPR.
- How to rule out a potential spine injury in a person involved in a traumatic incident. [Consider the Canadian C-spine Rule, the modified NEXUS, or the Wilderness Medical Society protocol.]
- How to reduce a specific dislocation. [Protocols for reducing anterior shoulder dislocations may include the Cunningham technique, the baseball technique, hanging traction, or scapular manipulation.]
- How to treat persons who test positive for COVID in the field.

Examples of standing orders written for an individual by their personal physician or an organization's medical advisor include:

- Developing a sick day plan for an individual with Type 1 diabetes.
- The administration of prescribed medication for an underage individual.
- The assessment or treatment of an individual with a chronic condition.