RESCUE.EDUCATION

STUDENT HANDBOOK

Wilderness First Responder (WFR+)

Practical prevention, effective first aid and sound decisions when help is delayed.

Prevent first. Respond well.

PHEM D
Core competency level

18 core units
Prevention in every topic

13 electives
Specialist environments

DEVELOPMENT EDITION 0.2.2 · 13 NOVEMBER 2026

Prevent first. Respond well.

Use this handbook to prepare for practical sessions and revisit what you have learned. Begin with the prevention panel in each chapter, then work through assessment, care and communication with your instructor. Keep your course's current regional cards with the handbook: they give the exact resuscitation sequences, equipment steps and medicine instructions for your course. Save both for offline use.

The Rescue Education Wilderness First Responder award is designed to meet PHEM competency level D. To earn it, you must demonstrate every required core outcome. Most learners will need around 80 contact hours, with further practice where needed.

Before, during and after the course

Before	During	After
Describe your environment, usual kit and experience; read the learner agreement and support options.	Practise each skill, keep your outcome record and ask for feedback. Prepare and revise your prevention plan.	Rehearse skills, review updates and use the transcript to identify further learning.
No previous medical qualification is assumed. Tell the provider privately about adjustments that help you learn.	Assessment is explained in advance. Practice errors receive coaching; final checks require independent performance.	CPR/AED shares the WFR award date and three-year expiry. Keep practising between renewals; renewal includes practical reassessment.

Chapters

- C01 Prevention and expedition health systems
- C02 Patient assessment and changing decisions
- C03 Airway and basic life support
- C04 Major bleeding and shock
- C05 Head, spinal and chest injury
- C06 Limb injuries, wounds and burns
- C07 Medical emergencies and personal health plans
- C08 Heat, hydration and exertional illness
- C09 Cold exposure, hypothermia and cold injury
- C10 Altitude illness
- C11 Drowning, lightning and environmental hazards
- C12 Bites, stings, poisoning and regional hazards
- C13 Common illness, hygiene and minor problems
- C14 Psychological care, inclusion and vulnerable patients
- C15 Care during a prolonged delay
- C16 Evacuation, communication and working with rescue teams
- C17 Medicines, remote advice and regional practice
- C18 Integrated prevention and response
- X01 Equipment resilience and enhanced observations
- X02 Altitude and expedition medicine
- X03 Winter, avalanche and polar medicine
- X04 Maritime, coastal and water incident care
- X05 Diving incident first response
- X06 Tropical travel, infection and regional envenomation
- X07 Desert, heat and endurance activity medicine
- X08 Extended patient care and remote consultation
- X09 Children, families and inclusive expeditions
- X10 Pregnancy, childbirth and reproductive emergencies
- X11 Medical support to technical rescue
- X12 Remote medicines and expedition health logistics
- X13 Search teams, multiple casualties and incident support
- Immersion pulmonary oedema
- Field decision cards
- Specialist learning
- Guidelines and further reading
- Selected joint injuries
- Wounds, objects and tissue protection
- Fluids and cold: choose the right response
- Common problems still need sound decisions
- Personal medicines and changing guidance
- Assessment, records and movement

CORE C01

Prevention and expedition health systems

PREVENTION COMES FIRST

Build a trip health plan before departure: participant needs and consent; fitness and acclimatisation; food, water and hygiene; weather and terrain; fatigue and workload; kit, communications, rescue access and contingencies. Use inclusive screening that leads to adaptation or clinical referral rather than unsupported medical exclusion. Assign responsibility for each control and agree turnaround triggers.

Understand the problem

A useful prevention plan explains what you will do about each hazard, who will take responsibility and how you will check that the plan is working. Agree in advance when you will change or stop the activity. A guide cannot control the weather, but can control the route, exposure time, turnaround decision and availability of shelter. Ask what would make the plan fail: a lost radio, an exhausted helper, an inaccessible medicine or a participant unwilling to slow the group.

Decide what to do next

Use three briefings: before departure, at a meaningful change and before commitment to a harder-to-reverse section. Invite people to disclose concerns privately. Check understanding by asking someone to describe the plan in their own words. A safer alternative that preserves the purpose of the trip is often more useful than simply telling people to be careful.

Recognise and assess

Identify how time pressure, commercial pressure, language barriers, unequal access to equipment and reluctance to disclose symptoms create preventable harm. Use a likelihood and consequence assessment to prioritise three credible hazards; identify an uncertainty, a residual risk and a failed control.

Practise with your instructor

Brief the group, confirm understanding and make an achievable alternative plan when a control fails. Explain consent, privacy and the limits of a WFR award.

Reassess and arrange help

Recheck the plan at agreed decision points, after weather changes and after a near miss; document changes without blame. Plan emergency activation and safe retreat before starting; specify the circumstances in which the activity does not start or is stopped.

Field example

Your group has paid for a summit attempt. The forecast is deteriorating and the only satellite device has a low battery. The successful response may be to change the route before anyone needs first aid.

▼ What makes a turnaround trigger usable?

A specific observable condition, an agreed action and someone responsible for making and communicating the decision.

Learning outcomes C01-P, R, A, C, M, E.

WMEC WFR certification standards, 20 March 2024 · AMGA WFR minimum standards, 1 April 2024 · CDC Yellow Book 2026: adventure travel · IOL Outdoor First Aid statement and alignment scheme

Patient assessment and changing decisions

PREVENTION COMES FIRST

Prevent missed illness through daily buddy checks, accessible symptom reporting and an explicit no-blame rule for stopping. Prevent secondary injury with scene control, protective equipment, infection precautions and safe access. Prevent assessment error by checking equipment and using structured handovers.

Understand the problem

Assess the patient, deal with immediate threats, gather information and check whether your actions helped. Repeat this cycle as the situation changes. A detailed history is useful only after immediately dangerous problems are addressed. Ask permission, explain what you are doing and protect dignity. Examine enough to find important injury while limiting exposure. The patient's own account and a companion's description of change can be more useful than one device reading.

Decide what to do next

Write the time beside each observation. "Breathing harder than twenty minutes ago" is useful; "stable" without observations is not. SAMPLE is a memory aid for symptoms, allergies, medicines, past history, last intake and events. A SOAP record separates the patient's account, observed findings, your working assessment and the plan. Neither format substitutes for treating a life threat. Repeat the primary assessment after movement or any important change.

Recognise and assess

Recognise major bleeding, abnormal breathing, altered responsiveness and poor perfusion; distinguish a working impression from a confirmed diagnosis. Perform a structured primary assessment and treat life threats as found; obtain a relevant history, systematic examination and baseline observations. Explain limitations of skin signs across skin tones and of devices in cold, movement and altitude. Include AVPU responsiveness, pulse rate/rhythm, capillary refill and their limitations; preserve forensic evidence without delaying care and record objective observations. Individually demonstrate radial and carotid pulse assessment, temperature measurement and a systematic head-to-toe examination; pulse checks never delay lay-rescuer CPR.

Practise with your instructor

Prioritise immediate care, delegate tasks using closed-loop communication, seek assistance early and obtain consent or act under the applicable emergency framework.

Reassess and arrange help

Record time-stamped responsiveness, breathing, pulse, skin, pain and interventions; repeat assessment after treatment, movement and deterioration. Use trends rather than a reassuring single number. Produce a concise handover with location, mechanism or illness, trends, treatment, response, risks and requested resources; change urgency when the patient changes.

Field example

A walker says they are simply tired. Their companion reports that they normally walk much faster and have become unusually quiet. Treat the change as information rather than dismissing it as a personality issue.

▼ **What should happen after moving a patient onto a litter?**

Repeat immediate-threat and comfort checks, verify interventions and record any change.

Learning outcomes C02-P, R, A, C, M, E.

WMEC WFR certification standards, 20 March 2024 · FPHC pre-hospital provider competency descriptors and framework · Resuscitation Council UK first aid guidelines, 2025

Airway and basic life support

PREVENTION COMES FIRST

Reduce preventable arrest through early illness recognition, drowning prevention, safe eating and choking awareness, access to personal emergency medicines, maintained AEDs and rehearsed emergency calls. Prevent infection and ventilation failure through barrier-device selection and repeated practice.

Understand the problem

Effective breathing starts with an open airway and air reaching the lungs. Practise these basics until you can recognise when they are working. A mask that leaks or a bag squeezed too quickly can create the appearance of treatment without adequate ventilation. Practise watching chest rise, adjusting the seal and coordinating with your partner. Suction and simple adjuncts support basic airway care; they do not protect against every aspiration risk.

Decide what to do next

Use the resuscitation card taught for your region and age group. Recognise gasping as abnormal breathing. Send for help and an AED early. An AED does not replace compressions or ventilation. With two rescuers, allocate tasks clearly and change roles before fatigue degrades performance. Oxygen supports oxygenation but cannot overcome a completely obstructed airway. Secure cylinders, keep equipment away from ignition and oil, check supply, and know how to continue basic care if the system fails.

Recognise and assess

Recognise unresponsiveness, absent or abnormal breathing, agonal breathing and severe choking in adults, children and infants. Assess responsiveness and breathing without delaying emergency activation or CPR; distinguish the locally approved adult, child, infant and drowning algorithms.

Practise with your instructor

Demonstrate airway opening, appropriate positioning, choking care, rescue breathing, CPR and AED use on age-appropriate manikins. Use the approved regional resuscitation card. Mandatory core includes manual suction, appropriately sized simple oropharyngeal/nasopharyngeal adjuncts on manikins, oxygen-system safety and mask choice, pulse-oximetry limitations, and two-person bag-mask ventilation. Assess each learner on each skill, including indications, contraindications and failure recognition.

Reassess and arrange help

Reassess breathing, airway patency and CPR quality; use manikin feedback and safe rescuer changes. Demonstrate post-resuscitation monitoring and handover. Activate rescue promptly; explain ongoing care during delay and the limits on starting or stopping resuscitation. Specialist hypothermia or avalanche exceptions require an approved annex and training.

Field example

At a remote hut, an adult collapses while another person searches for the oxygen bag. Start the essential response immediately; equipment retrieval must not become a reason to wait.

▼ **Why assess chest movement during bag-mask ventilation?**

It helps establish whether breaths are effective and prompts correction of seal, position or obstruction.

Learning outcomes C03-P, R, A, C, M, E.

WMEC WFR certification standards, 20 March 2024 · AMGA WFR minimum standards, 1 April 2024 · AHA special circumstances of resuscitation, 2025 · RCUK education guidelines, 2025 · RCUK adult BLS, 2025 · RCUK paediatric life support, 2025 · ILCOR resuscitation consensus, 2026 (published 5 November 2026)

CORE C04

Major bleeding and shock

PREVENTION COMES FIRST

Prevent cutting, fall and tool injuries through equipment handling, route choices and work positioning; identify anticoagulant use confidentially when relevant. Keep bleeding-control equipment accessible, inspect it and practise opening it with gloves. Prevent hypothermia from the start of trauma care.

Understand the problem

With major bleeding, the immediate priority is to stop blood loss. Find the source, apply the taught method and confirm the bleeding has stopped. Suitable deep wounds can require packing; a limb tourniquet is a different tool with different indications. Never pack a chest or abdominal cavity. Recheck after movement because an intervention that worked while still may fail during transport.

Decide what to do next

Shock means inadequate circulation to meet the body's needs. There may be little visible blood when bleeding is internal. Deteriorating responsiveness, weakness and a worsening circulation pattern matter more than a confident estimate of lost volume. Keep the patient protected from the environment, request rescue and document interventions. Do not repeatedly remove an effective dressing to admire the wound. A pelvic binder requires correct indication and anatomical placement; a belt at the waist is not an adequate substitute.

Recognise and assess

Recognise life-threatening external bleeding, hidden bleeding risk and deteriorating perfusion; do not dismiss deterioration as anxiety. Find the bleeding source while protecting dignity; assess perfusion and mechanism without repeatedly disturbing effective control.

Practise with your instructor

Demonstrate direct pressure, dressings, packing on suitable wound trainers and a commercial tourniquet on a simulator. Record application time; apply the regional protocol and seek medical help. Core WFR does not authorise routine tourniquet release or conversion. Include junctional wound packing, limb splinting as bleeding support and commercial pelvic binder placement on a simulator. Limb elevation is never a substitute for effective bleeding control; assess whether movement would worsen injury.

Reassess and arrange help

Check control, recurrence, mental status and temperature after every move; anticipate limited supplies and prolonged evacuation. Request urgent evacuation for major bleeding or suspected internal haemorrhage; prepare a clear intervention timeline.

Field example

The team's bleeding kit is at the bottom of a sealed expedition barrel. The first learning point is how equipment access was designed before the injury.

▼ Why record tourniquet time?

It supports receiving clinicians' decisions and preserves an accurate treatment timeline; it is not an instruction to release it at a set interval.

Learning outcomes C04-P, R, A, C, M, E.

Resuscitation Council UK first aid guidelines, 2025 · ILCOR First Aid Consensus on Science, 2025

CORE C05

Head, spinal and chest injury

PREVENTION COMES FIRST

Reduce head, spine and chest trauma through terrain choice, helmets appropriate to the activity, equipment checks, fall prevention and stopping after concussion symptoms. Prevent additional cord injury, hypoxia and cooling during assessment and movement.

Understand the problem

A person may be walking and talking after a significant head or spine injury. Your task is to recognise risk and change, protect the airway and avoid preventable harm. Concussion affects judgement and balance; continuing the activity can expose the person to a second injury. Do not use a quick conversation as proof that the brain is uninjured.

Decide what to do next

Protecting the spinal cord requires careful assessment, positioning and movement. Consider the mechanism, symptoms, examination reliability and consequences of remaining where the patient is. Airway care takes priority. Use coordinated movement and support appropriate to the patient. Chest injury can interfere with breathing even without a visible wound. Support a comfortable breathing position and observe carefully. A chest seal requires continued reassessment; deterioration after application is an important finding, not a reason to ignore the patient while finishing packaging.

Recognise and assess

Identify concussion, worsening brain injury, suspected spinal injury, chest compromise and penetrating injury; recognise that an initially walking patient may still need urgent care. Assess mechanism, responsiveness, breathing, pain and neurological symptoms; explain why intoxication, distraction, age and communication affect reliability. Use an approved focused spinal assessment only within its taught population and exclusions. The named core method is WMS 2024 spinal cord protection, Figure 3, used in full with the taught examination and exclusions.

Practise with your instructor

Prioritise airway and ventilation while minimising harmful movement; practise supported positioning and coordinated transfers. Teach chest-wound care using the regional protocol and monitor any specialised dressing. No needle decompression or invasive chest procedures. Demonstrate a vented chest seal where indicated by the regional protocol, recognition of deterioration and the taught response. For flail injury support comfort and ventilation; do not bind the chest or apply weights. Explain the modern interpretation of the framework's older splintage wording.

Reassess and arrange help

Repeat neurological and respiratory assessment after movement; check comfort, pressure areas and airway access during packaging. Escalate for neurological change, breathing compromise, worsening head injury or concerning mechanism; explain why concussion prevents immediate return to the activity.

Field example

A helmeted rider is alert but repeatedly asks the same question. Friends want to continue because the helmet looks intact. Explain the concern and organise assessment and evacuation.

▼ **Why is a normal first assessment not the end of head-injury care?**

Symptoms can evolve; serial observations and return/evacuation decisions remain necessary.

Learning outcomes C05-P, R, A, C, M, E.

WMS spinal cord protection, 2024 · Resuscitation Council UK first aid guidelines, 2025

Limb injuries, wounds and burns

PREVENTION COMES FIRST

Prevent sprains and fractures through load, footwear, pacing and terrain selection; prevent blisters with fit checks and early hot-spot care. Prevent wounds through tool and animal-risk controls, and burns through stove stability, fuel handling, hot-water discipline, electrical safety and sun protection.

Understand the problem

For limb injuries, document circulation, sensation and movement beyond the injury before and after support. A splint should reduce painful movement while allowing reassessment; it must not create new pressure or loss of circulation. Recheck as swelling develops. A suspected open fracture needs wound protection and urgent evacuation. Never force a limb to match a textbook picture.

Decide what to do next

Clean simple wounds using a taught irrigation method and protect them with a suitable dressing. Deep, contaminated, infected, bite or function-threatening injuries need medical review. Burns require stopping the source and cooling the injury while protecting the rest of the patient from cold. Remove constricting items early when safe; do not pull away material stuck to a burn. Chemical exposure first requires safe access and substance-appropriate decontamination. “Small” is not necessarily minor when an eye, airway, hand or joint is involved.

Recognise and assess

Recognise fracture or dislocation, impaired limb circulation, open injury, infection, compartment-syndrome warning signs, major burns and inhalation injury. Assess pain, deformity, wound contamination and distal circulation, sensation and movement before and after splinting; estimate burn extent using a taught age-appropriate method. Include basic joint examination and distinguishing suspected dislocation from fracture without forcing movement.

Practise with your instructor

Demonstrate protective splinting, sling, wound irrigation and dressing, blister care and burn first aid on trainers. Protect amputated tissue appropriately. Do not close contaminated wounds. Selected joint reductions and superficial foreign-body procedures require the taught core technique, case selection and individual practical assessment. Assess protocol-limited gentle fracture realignment on a simulator only: indication such as impaired distal circulation, exclusions, pain support, stopping for resistance, and repeat distal checks. Selected simple dislocation reductions are compulsory core skills, with explicit exclusions and simulator assessment. Include chemical exposure isolation, protective equipment and safe decontamination. Core includes assessed simulator reductions of selected anterior shoulder, lateral patella and simple digit dislocations under the course procedure cards; also selected superficial foreign-body removal, evisceration protection, open-fracture care and amputated-tissue packaging.

Reassess and arrange help

Check splint pressure, distal function, pain, swelling, temperature and infection trends; balance burn cooling against whole-patient heat loss. Identify urgent evacuation triggers for neurovascular compromise, severe injury, deep or extensive burns, special sites, airway involvement and systemic infection; document tetanus-review need.

Field example

A comfortable splint becomes painful during a two-hour carry. Stop and reassess; worsening pain or altered distal function should not be dismissed as unavoidable.

▼ **What is a meaningful splint check?**

Ask about pain and tingling, inspect pressure areas, repeat distal circulation/sensation/movement and correct problems.

Learning outcomes C06-P, R, A, C, M, E.

WMS wilderness burns, 2025 · WMS acute pain in austere environments, 2024 · WMS clinical practice guideline collection: wound guidance

Medical emergencies and personal health plans

PREVENTION COMES FIRST

Prevent avoidable deterioration through confidential action plans for asthma, allergy, diabetes and cardiac disease; reliable access to medicines, food and communications; trigger reduction; medication-temperature planning; and early reporting. Avoid stigmatizing people with chronic illness.

Understand the problem

Personal action plans prevent many avoidable emergencies. The person who lives with asthma, diabetes or severe allergy often knows their usual pattern; listen without assuming that every event is routine. A new pattern, poor response or difficulty communicating can signal serious deterioration. Record the onset of neurological symptoms or the last time the person was known to be well.

Decide what to do next

Recognise anaphylaxis as a time-critical systemic reaction and use the taught adrenaline autoinjector response. An antihistamine does not replace it. With seizure, protect from injury, time the event and reassess breathing afterwards; do not restrain or put objects in the mouth. With suspected low blood sugar, establish safe swallowing before oral treatment. Fever with marked illness, altered responsiveness, breathing difficulty or concerning rash warrants urgent escalation. A FAST screen supports stroke recognition but a negative result does not exclude all strokes.

Recognise and assess

Recognise cardiac chest pain, stroke, severe asthma, anaphylaxis, hypoglycaemia, seizures, serious infection and sepsis, and unexplained collapse. Avoid assuming every distressed person has a psychological problem. Include hypoglycaemia, meningitis warning patterns, acute rash, nosebleed, pain and poisoning. Include hyperglycaemia and diabetic ketoacidosis warning patterns. Use focused history and assessment; establish symptom onset or last known well, personal medication use and relevant allergies. Distinguish safe swallowing from reduced responsiveness.

Practise with your instructor

Demonstrate autoinjector trainer use and assistance with a prescribed inhaler and spacer under the annex. Provide approved first aid, airway protection and seizure injury prevention. Give oral carbohydrate only when safe swallowing is established. Escalate medicine decisions outside the approved scope. Demonstrate the FAST stroke screen and immediate referral; simulated intramuscular adrenaline delivery through an autoinjector is mandatory. Include case-based rescue glucagon, aspirin and personal nitroglycerin decisions within the regional annex.

Reassess and arrange help

Track response and recurrence; reassess after every intervention. Do not allow a transient improvement or a normal device reading to cancel a necessary referral. Arrange urgent care for time-critical illness, recurrent anaphylaxis, persistent breathing difficulty, altered responsiveness, prolonged or recurrent seizure, or suspected sepsis.

Field example

A participant’s emergency inhaler is in a vehicle several hours away. Ask how the trip system allowed that to happen, then manage the current breathing problem using available resources and emergency support.

▼ Why can improvement after first aid still require evacuation?

The underlying problem may remain dangerous or recur; improvement does not erase the original warning signs.

Learning outcomes C07-P, R, A, C, M, E.

Resuscitation Council UK first aid guidelines, 2025 · WMS anaphylaxis, 2022, with correction

CORE C08

Heat, hydration and exertional illness

PREVENTION COMES FIRST

Plan heat acclimatisation, work-rest cycles, shade, clothing, water access and escape options. Adjust for illness, medicines and previous heat injury. Prevent dehydration without forced drinking; teach the risk of excess fluid intake and the need for an individual hydration strategy. Build pacing and recovery into strenuous activity.

Understand the problem

Heat strain reflects the environment, work, clothing and the person's ability to lose heat. Prevention starts with workload and timing, not a bottle of water alone. Plan acclimatisation, shade, rest and cooling resources. Excessive drinking can also be dangerous. Do not make a fixed drinking competition or assume all exercise-related collapse is dehydration.

Decide what to do next

Altered mental state during heat exposure or exertion is an emergency. Stop exposure, organise rapid effective cooling and emergency help, and protect the airway. Do not delay action while searching for a perfect thermometer. Oral fluids require safe swallowing. A person who has consumed large quantities of fluid and develops headache, vomiting or confusion may have exercise-associated hyponatraemia; forcing more water can worsen the problem. Severe muscle pain, weakness or dark urine after exertion also needs medical assessment.

Recognise and assess

Recognise heat exhaustion, heat stroke, exercise-associated hyponatraemia and possible rhabdomyolysis; confusion after exertion is an emergency even without extreme weather. Assess exposure, exertion, fluid history, neurological state, pain and urine changes; recognise overlap and uncertainty.

Practise with your instructor

Demonstrate a rapid cooling plan using available resources while protecting the airway and requesting help; avoid reflexively giving large volumes of water to every collapsed athlete. Invasive temperature measurement and hypertonic therapy are outside core practice. Prepare labelled commercial ORS and an accurately measured fallback solution. Include mild suspected hyponatraemia oral-sodium/fluid decisions and urgent escalation for neurological deterioration.

Reassess and arrange help

Monitor responsiveness and cooling response; plan ongoing safe cooling and record times and any fluid intake. Escalate urgently for altered mental state, collapse, severe weakness or suspected rhabdomyolysis; adapt transport so effective cooling is not needlessly interrupted.

Field example

An event volunteer praises a runner for drinking at every station. The runner becomes confused. Reconstruct the intake and exertion history while arranging urgent care; do not automatically prescribe another bottle.

▼ **What two systems belong in a heat-event plan?**

A prevention system controlling exposure/workload and a rapid response system with cooling, trained people and emergency access.

Learning outcomes C08-P, R, A, C, M, E.

WMS heat illness, 2024 · WMS exercise-associated hyponatraemia: 2019 update, published 2020

Cold exposure, hypothermia and cold injury

PREVENTION COMES FIRST

Plan insulation, wind and water protection, dry reserves, food, shelter and pace. Check extremities and footwear early; prevent tight clothing and prolonged wet exposure. Design evacuation to avoid continued cooling and thaw-refreeze injury.

Understand the problem

A wet, windy day can cause serious cold illness without snow. Reduce heat loss early: shelter from wind and rain, insulation beneath the patient and suitable dry or protected layers. Cold hands also affect the ability to use radios and medicines, so protect caregivers as well as the patient.

Decide what to do next

Look at responsiveness, coordination and the whole clinical picture. Do not assign an exact core temperature from shivering. More severely affected patients need gentle handling and urgent rescue with continued monitoring. Frostbite is frozen tissue; non-freezing cold injury follows prolonged cold/wet exposure without freezing and needs a different care plan. Do not rub damaged tissue or apply uncontrolled direct heat. Thawing frostbite is a significant decision when refreezing is possible. Protect the feet and plan evacuation before treating them as a walking problem.

Recognise and assess

Distinguish cold stress, deteriorating hypothermia, frostbite and nonfreezing cold injury; loss of shivering is not proof of recovery. Assess responsiveness, breathing, exposure and available rewarming resources without unnecessary movement; recognise limits of ordinary thermometers and clinical staging.

Practise with your instructor

Build a complete insulated wrap with ground insulation and environmental protection; handle gently and use approved rewarming methods. Explain when frostbite thawing is unsafe because refreezing cannot be prevented. Do not rub frozen tissue or use direct damaging heat. Distinguish frostnip, frostbite, immersion/trench foot and chilblains; demonstrate controlled frostbite thawing and explain why nonfreezing injury needs a different approach.

Reassess and arrange help

Reassess airway, responsiveness, breathing, skin and packaging; protect the patient throughout transfer. Seek urgent specialist advice and evacuation for significant hypothermia or deep frostbite; understand why severe cold changes resuscitation decisions and receiving-facility choice.

Field example

A patient is wrapped in a sleeping bag directly on cold wet ground. Add insulation and a weather barrier as a system; more clothing on top may not solve heat loss underneath.

▼ Why plan rescuer warmth?

Cold and fatigue impair judgement and dexterity, threatening both the team and continuity of care.

Learning outcomes C09-P, R, A, C, M, E.

WMS accidental hypothermia, 2019 · WMS frostbite, 2024 · WMS non-freezing cold injury, 2023; 2024 correction · ICAR revised Swiss hypothermia staging, 2021

CORE C10

Altitude illness

PREVENTION COMES FIRST

Audit ascent and sleeping-altitude profiles before booking; plan acclimatisation and descent options, avoid competitive symptom concealment, check previous altitude illness and obtain clinician advice where indicated. Medication cannot compensate for an unsafe itinerary.

Understand the problem

Altitude prevention depends primarily on a suitable ascent and acclimatisation plan. Build time for individual variation and an easy way to report symptoms. Allow the itinerary to change when someone needs more time to acclimatise. Exertion, cold, infection and altitude illness can overlap; do not let the setting provide a diagnosis before you assess the patient.

Decide what to do next

New headache and other symptoms after ascent require a pause and review. Worsening symptoms, abnormal coordination, altered responsiveness or breathlessness at rest are serious warnings. Do not continue upward with suspected altitude illness. Organise descent and rescue when indicated, with support for the affected person. Oxygen or a portable chamber can support care when available and taught, but a temporary improvement does not make an unsafe itinerary sensible. Preventing unacclimatised rescuers from becoming additional casualties is part of the plan.

Recognise and assess

Recognise acute mountain sickness, high-altitude cerebral oedema and high-altitude pulmonary oedema; understand that fitness does not confer immunity. Assess altitude history, symptoms, gait where safe, breathing at rest and competing causes; use oximetry cautiously and never as a sole clearance test.

Practise with your instructor

Explain stopping ascent, assisted descent and initial supportive care; prescribed altitude medicines and oxygen follow the approved annex. Do not send an impaired patient down alone.

Reassess and arrange help

Use buddy symptom checks and record response to rest or descent; escalate for deterioration. Identify when immediate descent and emergency assistance are required and how weather or terrain changes the safest achievable plan.

Field example

A porter is moving slowly and insists on carrying on because stopping may cost income. Create a decision process that protects health without punishing early reporting.

▼ **Why is one oxygen-saturation reading insufficient at altitude?**

Altitude, device limitations and individual variation affect it; symptoms, examination and trends guide urgency.

Learning outcomes C10-P, R, A, C, M, E.

WMS acute altitude illness, 2024 · UIAA altitude field-management advice

CORE C11

Drowning, lightning and environmental hazards

PREVENTION COMES FIRST

Prevent drowning through route and water assessment, flotation, supervision and competent activity leadership; prevent lightning exposure through forecast checks, timing and safe shelter choices. Prevent electrical and carbon-monoxide exposure through equipment, ventilation and exclusion zones. Include an immersion pulmonary oedema prevention briefing.

Understand the problem

Water incidents begin with exposure and access decisions: flotation that fits, suitable supervision, weather/tide awareness, a recovery plan and a realistic rescue limit. Cold-water shock can interfere with breathing before hypothermia develops. A strong swimmer is not immune. Offer flotation and summon trained help; entering hazardous water can create another casualty.

Decide what to do next

After safe recovery, assess breathing and provide the taught drowning resuscitation response. Ventilation is central to drowning care. Respiratory symptoms after immersion require assessment, even when the person says they feel better. Lightning planning starts before a storm is overhead: identify shelter, avoid exposed routes and act early. Once the scene is safe, lightning casualties can require immediate resuscitation; a person struck by lightning does not remain electrically charged. IPO has a separate learning card below because it can occur without inhaling water.

Recognise and assess

Recognise respiratory impairment after submersion, cold-water complications, lightning injury, electrical hazards and a potentially contaminated atmosphere. Recognise possible immersion pulmonary oedema (IPO/IPE/SIPE) in swimmers, snorkellers and divers. Assess from safety; identify whether a technical rescue team is required and whether a scene can be approached at all.

Practise with your instructor

Demonstrate land-based assistance and resuscitation priorities after safe recovery; apply the taught drowning protocol with ventilation. Explain lightning multiple-casualty priorities. Do not enter hazardous water or confined atmospheres under a WFR credential. Apply the IPO first-response card and arrange emergency assessment.

Reassess and arrange help

Monitor breathing, neurological state and temperature; identify delayed deterioration after apparent improvement. Arrange medical evaluation after significant drowning symptoms or lightning injury and activate specialist rescue for unsafe access.

Field example

A snorkeller is coughing and breathless but denies swallowing water. Do not dismiss the problem. Help them out, assess and use the IPO/emergency breathing pathway.

▼ **What is the boundary of WFR water care?**

First aid and safe assistance within competence; hazardous-water entry and technical rescue need separate skills and arrangements.

Learning outcomes C11-P, R, A, C, M, E.

WMS drowning, 2024 · WMS guideline collection: lightning · Resuscitation Council UK first aid guidelines, 2025 · SPUMS/UKDMC joint position statement on IPO, 2024 · DAN Southern Africa IPO education, November 2024 · DDRC Healthcare IPO advice

Bites, stings, poisoning and regional hazards

PREVENTION COMES FIRST

Research local species and poisons; choose camps, clothing, footwear and food storage accordingly. Use tick checks, repellents and locally appropriate bite prevention. Reduce accidental medicine ingestion, combustion exposure and substance-related risk.

Understand the problem

Start with local prevention: footwear, lighting, sleeping arrangements, food storage, protective clothing and avoiding animal handling. Obtain destination-specific advice before travel. A photograph of an animal may help identification only if it can be taken without approaching or delaying care. Never turn identification into a second exposure.

Decide what to do next

Assess the patient, time and place of exposure, symptoms and any first aid already given. Contact the regional poison or medical service. Species and geography change the correct response: a treatment recommended for one snake or jellyfish may be harmful for another. Animal bites also require infection and rabies-risk assessment, even when the wound looks small. Keep a record of progression and arrange urgent help for systemic effects, breathing difficulty, altered responsiveness or rapidly worsening illness. No cutting, sucking or improvised snakebite tourniquets.

Recognise and assess

Recognise local and systemic envenomation, anaphylaxis, tick-borne illness, toxic exposure and opioid-associated respiratory depression. Obtain exposure, location, timing and symptom history from safety; do not catch or handle the animal for identification.

Practise with your instructor

Provide supportive first aid and contact local poison or medical support. Demonstrate tick removal on a model. Apply the regional snakebite and marine-envenomation protocol; explain why one country's pressure-immobilisation or vinegar advice cannot be used globally. Naloxone requires the approved training and annex. Demonstrate a naloxone trainer with ventilation, reassessment and recurrence planning; identify rabies post-exposure referral.

Reassess and arrange help

Mark and record relevant progression where appropriate; reassess airway, breathing, neurological state and circulation. Escalate suspected venomous bites, systemic symptoms, significant inhaled poisons and recurrent respiratory depression.

Field example

A holiday handbook recommends the same jellyfish remedy everywhere. Use the regional annex and explain why the local species matters.

▼ What should a bite handover include?

Location/time, description or safe image, symptom progression, relevant history and all treatments already applied.

Learning outcomes C12-P, R, A, C, M, E.

WMS US and Canadian pit-viper envenomation, 2026 · ANZCOR marine envenomation, June 2025 · Resuscitation Council UK first aid guidelines, 2025

Common illness, hygiene and minor problems

PREVENTION COMES FIRST

Design safe drinking-water treatment, food handling, hand hygiene, sanitation and illness separation. Prevent foot and skin problems through daily checks; protect eyes from UV and debris; plan dental review and spare corrective lenses; reduce ear problems and motion sickness through activity planning.

Understand the problem

Common illness often ends expeditions before spectacular trauma does. Build handwashing, safe food, water treatment, toileting privacy, foot care and early reporting into daily routines. A treatment system must match the source water, likely hazards and equipment limitations. Clear water is not proof of safety.

Decide what to do next

Look for dehydration, spreading infection, severe pain, inability to eat/drink, visual loss or systemic deterioration. Eye protection prevents injury and ultraviolet damage; painful red eyes or reduced vision need particular care. Do not press on an injured eye or remove an embedded object. Dental and ear problems can disrupt eating, balance and travel. Severe sudden testicular pain is time-critical and must not be manipulated. Urinary or reproductive symptoms deserve privacy and the same seriousness as other illness. Avoid turning familiar symptoms into an unsupported diagnosis.

Recognise and assess

Recognise dehydration, gastrointestinal illness, spreading infection, persistent fever, acute abdominal pain, urinary symptoms, severe testicular pain, vision-threatening eye injury, significant ear injury, dental infection and persistent nosebleed. Include contact dermatitis, sunburn, photokeratitis, dental avulsion, lost fillings, respiratory infection, ear disorders, urinary and reproductive symptoms and motion sickness. Take a focused, respectful history; identify red flags without invasive examination or claiming a definitive diagnosis. Review pregnancy possibility where relevant and consented.

Practise with your instructor

Demonstrate safe eye irrigation on a model, simple nosebleed care, basic wound and foot care and preparation of oral rehydration using the product instructions. Protect an injured eye without pressure. Severe testicular pain needs urgent referral, not field correction.

Reassess and arrange help

Track intake, output where feasible, functional ability, fever and worsening symptoms; protect confidentiality and prevent cross-infection. Set explicit review and evacuation triggers; identify vision loss, severe abdominal or testicular pain, systemic infection and inability to maintain hydration as reasons to escalate.

Field example

Several team members develop diarrhoea. Treat individuals, then investigate the shared food, water and hygiene system while protecting confidentiality.

▼ Why discuss toileting in a professional course?

Avoidance and poor facilities can cause health problems and undermine dignity; practical prevention includes everyday needs.

Learning outcomes C13-P, R, A, C, M, E.

WMS water treatment, 2024 · WMS eye injuries and illness, 2024 · NHS testicular pain

CORE C14

Psychological care, inclusion and vulnerable patients

PREVENTION COMES FIRST

Build a psychologically safe group, predictable communication, accessible briefing and safeguarding arrangements. Plan for children, older adults, disability, pregnancy, language differences and chronic illness. Prevent staff fatigue, coercion, humiliation and avoidable exposure to distressing simulation. Build a respectful team culture, rest plans and an accessible route to report distress before exposure.

Understand the problem

A respectful team culture makes it easier to report symptoms, mistakes and distress before they become crises. Plan rest, workload and realistic support. People vary in communication, sensory needs, mobility, cultural expectations and prior experience. Ask what helps rather than guessing from a diagnosis or appearance.

Decide what to do next

First check for medical causes of unusual behaviour. Offer calm, practical support and choices that are safe and achievable. Explain what happens next, protect privacy and help the person connect with trusted support. Do not force emotional disclosure or promise secrecy you cannot maintain. Capacity relates to a particular decision at a particular time and can be affected by illness; follow the local consent framework and seek help when uncertain. After an incident, a factual learning review should not become compulsory reliving of distress.

Recognise and assess

Recognise acute distress, exhaustion, possible self-harm risk, safeguarding concerns and medical causes of altered behaviour. Listen without judgement, ask direct safety questions, assess immediate risks and recognise the limits of a WFR's capacity assessment and legal powers.

Practise with your instructor

Provide practical support, calm communication, privacy and appropriate help; maintain immediate safety without coercive or invasive intervention beyond legal authority. Use interpreters appropriately and obtain consent for touch. Use practical psychological first aid, choice and connection; avoid compulsory emotional retelling after an incident.

Reassess and arrange help

Monitor wellbeing and risk, arrange support for bystanders and rescuers, and document factual observations without stigmatizing labels. Escalate immediate danger, serious safeguarding concerns or suspected underlying illness through the local pathway; plan safe accompanied transfer when needed.

Field example

A quiet learner stops participating after a realistic scenario. Offer a private check-in, a pause and an equivalent learning route without demanding their personal history.

▼ **How can a team reduce silence about symptoms?**

Model respectful reporting, avoid blame, make private reporting possible and act on concerns without ridicule.

Learning outcomes C14-P, R, A, C, M, E.

Resuscitation Council UK first aid guidelines, 2025 · RCUK education guidelines, 2025 · IFRC international first aid, resuscitation and education guidelines, 2025 · ICAR stress resilience in alpine rescue, 2026 update

Care during a prolonged delay

PREVENTION COMES FIRST

Prevent deterioration with shelter, hygiene, pressure-area care, warming or cooling, adequate nutrition where safe, staffing rotation and a documented care plan. Anticipate shortages of water, light, battery power and medicine.

Understand the problem

When rescue is delayed, care becomes a system of shelter, observation, comfort, hygiene, supplies and rested people. Anticipate what will be needed at the next handover, not just the next five minutes. Agree responsibilities and a clear escalation plan.

Decide what to do next

Keep a time-stamped record of the patient's condition, interventions and response. Schedule reassessment according to condition and change, not a fixed habit that ignores deterioration. Provide food and fluids only when appropriate and swallowing is safe. Protect pressure areas, maintain warmth, support toileting and preserve dignity. Check every device and dressing after movement. Keep the wider group safe and avoid exhausting the only skilled helper. Long care does not mean inventing increasingly invasive treatments; use remote advice and make the best available evacuation decision.

Recognise and assess

Recognise deterioration, caregiver fatigue, pressure damage, aspiration risk and failure of the original evacuation plan. Create a problem list and timed observation plan; distinguish what can be measured reliably from what is estimated.

Practise with your instructor

Provide dignified comfort, safe positioning, toileting support and oral intake when appropriate; maintain infection control and communicate with remote medical support. No invasive fluids, urinary catheterisation or advanced analgesia in core WFR.

Reassess and arrange help

Maintain a serial record and scheduled reassessment; check every intervention, handover and environmental change. Reprioritise evacuation when thresholds are crossed; explain a safe holding plan when movement itself is more dangerous.

Field example

A patient remains on the same pressure point for hours because the team is afraid to disturb the packaging. Reassess the balance of safe movement, skin protection and comfort.

▼ What makes a care handover reliable?

Current problems, trends, treatment response, next checks, escalation triggers and explicit transfer of responsibility.

Learning outcomes C15-P, R, A, C, M, E.

WMEC WFR certification standards, 20 March 2024 · WMS medical direction of SAR teams, 2024

Evacuation, communication and working with rescue teams

PREVENTION COMES FIRST

Before departure verify communications, local rescue activation, coordinates and map datum, insurance constraints, safe access and realistic rescue delays. Plan manual handling and staffing to prevent rescuer injury; agree the group's role if communications fail. Prevent aircraft incidents with secure loose equipment, crew-directed approach, clear signals and grounded drones.

Understand the problem

Know how help reaches the location before you start. Position, communications, access, terrain, weather and daylight all affect evacuation. A phone signal at the car park does not prove a route has coverage. Brief the group on what happens if the main communication method fails.

Decide what to do next

Give emergency services a usable location and a concise clinical picture, then follow instructions and maintain contact. Choose movement by comparing the risk of staying with the risk of transport. A patient who needs urgent care does not make an unsafe rope system safe. Practise packaging, lifting commands and a stop command at ground level before adding complexity. Pregnancy, body shape, disability and breathing needs affect packaging. Aircraft work is crew-directed: secure loose objects, control bystanders and drones, and do not approach without instruction.

Recognise and assess

Recognise when rescue capability exceeds the team, when an evacuation route is becoming unsafe and when multiple casualties change priorities. Compare staying, assisted walking, carrying and specialist rescue; use a local triage approach at the taught level and identify its limitations. Perform the current regionally adopted initial triage method on a simulated multi-casualty incident, including repeated triage; explain its relationship to legacy triage-sieve terminology.

Practise with your instructor

Demonstrate a structured emergency message, coordinates, radio discipline, packaging and a short low-risk coordinated carry. Preserve evidence when relevant. Explain helicopter approach and landing-area behaviour under crew direction; no helicopter operations qualification is implied. Include medical support during safe extrication and specific pregnancy-related packaging/transport considerations; technical rescue remains with appropriately qualified personnel. Demonstrate both commercial-litter packaging and improvised carries.

Reassess and arrange help

Recheck patient access, circulation, thermal protection, straps, carrier fatigue and route after each move. Deliver a written and verbal handover, including unresolved risks and ongoing prevention measures. Record why a route or method was chosen.

Field example

The shortest route to the road crosses a rising river. The patient's condition is unchanged but the evacuation plan is no longer safe. Reassess the whole plan.

▼ What information is lost by saying only "send a helicopter"?

Exact position, hazards, clinical urgency, access options, group resources and the reason that a particular resource may help.

Learning outcomes C16-P, R, A, C, M, E.

FPHC pre-hospital provider competency descriptors and framework · WMS medical direction of SAR teams, 2024 · AMGA scope of practice · ICAR prevention for individuals and aircraft operators

CORE C17

Medicines, remote advice and regional practice

PREVENTION COMES FIRST

Prevent medication error through personal plans, original labels, allergy and expiry checks, secure temperature-aware storage, stock accountability and clear authorisation. Before the trip verify the applicable law, emergency service access, remote consultation arrangements and data handling.

Understand the problem

Medicine errors are prevented by preparation and checking. Understand what the patient normally uses, how it is carried and what your regional first-aid pathway allows. Storage temperature, expiry, labels and duplicated ingredients matter in the field.

Decide what to do next

Before assistance or administration, check the person, medicine, indication, dose, route, timing, allergies and relevant contraindications using the approved card. Record what was actually given and the response. Ask for clarification if an instruction is ambiguous. During remote advice, read back important instructions, including units and timing. Keep ordinary first aid simple; specific medicine rules belong to the local annex. Do not borrow another person’s prescription, improvise a dose or treat a certificate as permission to prescribe.

Recognise and assess

Recognise ambiguous instructions, duplicate ingredients, contraindication concerns, language or unit errors and requests outside personal competence. Check identity, indication, medicine, formulation, route, dose, time, permission and monitoring against the approved card; clarify uncertainty with an authorised clinician.

Practise with your instructor

Demonstrate a simulated medication check and a structured remote consultation with read-back. Differentiate assisting self-administration, administering under a lawful pathway and prescribing.

Reassess and arrange help

Record medicine, amount, time, authority, response and adverse effects; have a backup when communication fails. Escalate uncertainty or adverse effects; do not delay life-saving basic care while waiting for a phone connection.

Field example

A radio instruction is partially lost in static. Read it back and resolve the missing information before giving the medicine; guessing is not initiative.

▼ **What should you do when a medicine label and remote instruction appear inconsistent?**

Pause that medicine action, clarify with the advising clinician and continue appropriate supportive care.

Learning outcomes C17-P, R, A, C, M, E.

FPHC pre-hospital provider competency descriptors and framework · Resuscitation Council UK first aid guidelines, 2025 · WMS medical direction of SAR teams, 2024

CORE C18

Integrated prevention and response

PREVENTION COMES FIRST

Review the trip prevention plan, assign roles, check equipment and brief stop rules before all integrated scenarios. Learners identify a change that would have prevented the simulated incident and a control that prevents further harm.

Understand the problem

Field competence brings prevention, care and judgement together. Aim for a workable plan that protects the patient and the rest of the group. You may need to stop an activity, ask for help early, delegate, reconsider a diagnosis or change the evacuation route.

Decide what to do next

Before acting, identify the immediate problem and the most consequential uncertainty. Make a plan, communicate it and reassess. Afterwards, distinguish what was known at the time from what became clear later. Ask which control could have prevented the incident, which intervention helped and what you would change next time. Practise with your normal kit and with one resource removed. Keep a simple practice log after the course: the skill, the scenario, the feedback and the next improvement.

Recognise and assess

Recognise competing priorities and uncertainty across trauma, medical and environmental cases. Integrate the taught assessment system without instructor prompts and explain the evidence for a working decision.

Practise with your instructor

Complete independent examined scenarios and the broad knowledge examination; demonstrate teamwork, patient dignity and safe practice.

Reassess and arrange help

Respond to new information, document care and identify a personal learning need from evidence. Justify escalation, timing and handover, including an acceptable alternative when ideal rescue is unavailable.

Field example

The final exercise starts as a routine departure briefing. Good prevention may avert the planned incident; the instructor then introduces a different fair learning problem instead of punishing the safe decision.

▼ How do you know practice is transferring to real life?

You can adapt the skill to unfamiliar circumstances, explain the decision and still perform effectively without step-by-step coaching.

Learning outcomes C18-P, R, A, C, M, E.

WMEC WFR certification standards, 20 March 2024 · AMGA WFR minimum standards, 1 April 2024 · RCUK education guidelines, 2025

Immersion pulmonary oedema: IPO / IPE / SIPE

Prevent: discuss previous episodes and cardiovascular concerns with an appropriate clinician; avoid excessive pre-immersion drinking, excessive exertion and poorly managed cold exposure. Fitness does not eliminate risk. IPO can affect swimmers, snorkellers and divers without water aspiration.

DAN Southern Africa IPO education, November 2024 · DDRC Healthcare IPO advice

Recognise and act: sudden breathlessness, cough, noisy breathing or frothy/blood-stained sputum during immersion can be IPO. Not every sign is present. End the activity and arrange safe removal from water, emergency help and oxygen at the highest available concentration using trained equipment. Support an alert breathless person upright, remove constricting equipment and keep warm. If unresponsive or not breathing normally, prioritise airway/resuscitation. Do not delay hospital assessment because symptoms improve.

SPUMS/UKDMC joint position statement on IPO, 2024

Afterwards: SPUMS/UKDMC strongly advise against further compressed-gas diving after IPO. Specialist investigation is needed; a WFR cannot clear someone to return. Do not teach routine diuretics as first aid or assume a shallow dive prevents recurrence.

SPUMS/UKDMC joint position statement on IPO, 2024

Field decision cards

Card	Use it to act
Before departure	People → environment → activity → equipment → communications → escape options. For each: control, owner, check and stop trigger.
Immediate response	Make the scene safe. Recognise and act on immediate threats; summon help. Use the taught regional primary-assessment/BLS sequence. Reassess after every important intervention.
Observation record	Time; responsiveness; breathing; pulse/perfusion; pain; temperature/exposure; intervention; response; next review. Avoid invented precision.
Request help	Exact location and access hazards; incident and people affected; clinical state/trends; actions; resources; requested assistance; contact and backup.
Delayed rescue	Shelter, insulation, airway access, comfort, pressure areas, hygiene, appropriate intake, repeated observations, caregiver rota and evacuation alternatives.
Movement pause	Why move now? Is the route safer than staying? Who leads? How is the airway accessible? What is the stop command? What changes after the move?

Specialist learning pathways

The full core includes water emergencies and IPO awareness. The maritime/coastal and diving modules add substantial practical depth. All other extensions also have their own assessed syllabus. Your transcript shows the modules you completed and any additional instructor-delivered topics, including whether they were taught, practised or assessed.

Code	Learning focus	Planned additional hours
X01	Equipment resilience and enhanced observations	8

Code	Learning focus	Planned additional hours
X02	Altitude and expedition medicine	8
X03	Winter, avalanche and polar medicine	8
X04	Maritime, coastal and water incident care	12
X05	Diving incident first response	12
X06	Tropical travel, infection and regional envenomation	8
X07	Desert, heat and endurance activity medicine	6
X08	Extended patient care and remote consultation	12
X09	Children, families and inclusive expeditions	8
X10	Pregnancy, childbirth and reproductive emergencies	8
X11	Medical support to technical rescue	8
X12	Remote medicines and expedition health logistics	8
X13	Search teams, multiple casualties and incident support	8

Read the complete extension syllabuses.

Explore the specialist modules

Read these with the core handbook and the module-specific clinical cards. The same prevention-first sequence applies. The complete module includes supervised practice and its own assessment; reading alone does not earn an endorsement.

ELECTIVE X01

Equipment resilience and enhanced observations

Planned additional time 8 hours. Complete core WFR level D, including oxygen, suction, adjuncts and bag-mask ventilation; approved equipment pathway.

> **PREVENT BEFORE RESPONDING**
>
> Prevent oxygen fire, contamination, cylinder depletion, equipment mismatch and ventilation error through inspection, secure storage, supply planning and two-person practice.

What to notice and assess

Recognise inadequate ventilation, hypoxia and signs that a device is ineffective; understand pulse-oximeter bias and limitations. Select the approved device and assess indications, contraindications and monitoring requirements.

What to practise

Extend core equipment skills to prolonged transport, cold/altitude supply problems, manual blood-pressure measurement and simulated blood-glucose testing. Compare device readings with patient trends. No advanced airway authority.

Reassess and arrange help

Recognise failed seal, obstruction, supply loss or deterioration and return to effective basic airway care. Plan supply duration, resupply and supported transport; communicate intervention and response.

Demonstrate your learning

Demonstrate manual blood-pressure and simulated glucose measurement, interpret three conflicting observation sets, calculate cylinder duration from manufacturer data, and resolve a prolonged-transport equipment failure.

FPHC pre-hospital provider competency descriptors and framework · Resuscitation Council UK first aid guidelines, 2025

ELECTIVE X02

Altitude and expedition medicine

Planned additional time 8 hours. Current core WFR; C10 complete; Core oxygen competence is prerequisite; add device-specific altitude practice.

> **PREVENT BEFORE RESPONDING**
>
> Design conservative ascent, acclimatisation, workload and rescue plans; screen high-risk travellers through a clinician and challenge unsafe commercial itineraries.

What to notice and assess

Recognise subtle decline and mixed altitude, infection, exhaustion and cold presentations. Compare serial symptoms, gait and breathing with the itinerary and resources; avoid reliance on a single saturation value.

What to practise

Plan and rehearse supported descent, remote consultation and locally authorised oxygen. Teach portable chamber principles; equipment competence requires device-specific supervised practice. Prescription prophylaxis and treatment remain clinician-directed.

Reassess and arrange help

Document response and continuing descent need; monitor supplies and caregiver fatigue. Prepare a weather-constrained evacuation and specialist handover, including the risks of transporting unacclimatised rescuers.

Demonstrate your learning

Individual itinerary defence, deterioration scenario and equipment check where equipment is endorsed.

WMS acute altitude illness, 2024 · UIAA altitude field-management advice · ICAR rescue at very high altitude, 2025

ELECTIVE X03

Winter, avalanche and polar medicine

Planned additional time 8 hours. Current core WFR; winter field activity requires separately qualified technical leadership.

PREVENT BEFORE RESPONDING

Plan avalanche avoidance, terrain and weather decisions, cold protection, buddy checks, communications and a realistic rescue response; prevent unprotected rescuers becoming casualties.

What to notice and assess

Recognise burial-associated asphyxia, trauma and hypothermia and the significance of airway status and reliable timings. Gather burial and recovery information and assess using the approved current avalanche algorithm.

What to practise

Practise medical management after simulated recovery, airway access, insulation and coordination with specialist rescue. Search, probing and technical avalanche rescue are separate qualifications.

Reassess and arrange help

Maintain a time record and patient monitoring during packaging and team changes. Communicate burial history, airway findings and temperature information; specialist decisions and destination selection follow the regional rescue pathway.

Demonstrate your learning

Tabletop burial case, individual medical handover and cold packaging station with changed rescue timing.

WMS frostbite, 2024 · ICAR revised Swiss hypothermia staging, 2021 · WMS avalanche and snow burial, 2024

ELECTIVE X04

Maritime, coastal and water incident care

Planned additional time 12 hours. Current core WFR; technical water activity requires separate rescue or guiding qualification.

PREVENT BEFORE RESPONDING

Plan safe sites, supervision, flotation, immersion protection, tide and weather limits, safe food and species-specific exposure controls. Audit vessel falls, boom/line/propeller injuries, entrapment, fuel and carbon-monoxide hazards, burns, fatigue, potable water, seasickness prevention and medicine access. Plan retrieval, care space, oxygen reserve and maritime communications before departure.

What to notice and assess

Recognise cold-water responses, drowning, immersion pulmonary oedema, marine envenomation, injury and immersion complications. Assess from a safe platform and select the regional species, drowning or IPO pathway. Include sea-state effects on examination, motion-sickness dehydration, serious chest/abdominal symptoms, head injury and possible carbon-monoxide exposure; avoid unsafe enclosed-space entry.

What to practise

Practise care after safe recovery, thermal protection, prevention of aspiration during vomiting, secured patient positioning and species-specific first aid using simulation. Explain the boundary between providing care and entering hazardous water.

Reassess and arrange help

Track respiratory symptoms, temperature and systemic envenomation signs; maintain care through seasickness, vessel motion, noise, darkness and limited clean water. Plan shore or vessel evacuation and handover, safe transfer between craft, rendezvous and helicopter interfaces, current position and time to port; rehearse a coastguard/TMAS call using the local maritime annex. First aid does not replace statutory STCW or other flag-state medical qualifications.

Demonstrate your learning

Vessel prevention audit, drowning resuscitation station, moving-deck packaging simulation, maritime medical-advice call, marine-envenomation case and delayed-vessel-evacuation scenario. Each learner must pass every component.

WMS drowning, 2024 · ANZCOR marine envenomation, June 2025 · MCA Telemedical Advice Service, MGN 623 amendment 1, October 2026 · RNLI Float to Live and water safety · SPUMS/UKDMC joint position statement on IPO, 2024 · DAN Southern Africa IPO education, November 2024

ELECTIVE X05

Diving incident first response

Planned additional time 12 hours. Current WFR level D including core oxygen competence; diving/hyperbaric clinician approves content; no diving qualification conferred.

> **PREVENT BEFORE RESPONDING**
>
> Review emergency oxygen duration and reserve, buddy observation, no hyperventilation before breath-hold diving, surface support, gas/equipment problems, conservative dive planning and access to specialist advice; recognise fitness-to-dive questions requiring a clinician.

What to notice and assess

Recognise possible decompression illness, arterial gas embolism, barotrauma, immersion pulmonary oedema, drowning and other causes of post-dive illness. Obtain a dive and symptom history and perform a simple repeatable neurological screen without delaying referral.

What to practise

Demonstrate surface oxygen first aid and basic resuscitation under the approved protocol; communicate with a diving medical service. No in-water recompression. IPO requires emergency assessment; do not label unexplained breathlessness as panic or a faulty regulator.

Reassess and arrange help

Record response, neurological changes and oxygen supply; improvement does not establish fitness to dive or cancel referral. Arrange emergency medical evaluation and a specialist-advised transport plan accounting for altitude exposure.

Demonstrate your learning

Dive-site prevention audit, oxygen delivery for breathing and non-breathing divers, repeated neurological observations, retained dive-profile record and an evolving case with specialist handover and transport-altitude decision. Include breath-hold blackout and possible immersion pulmonary oedema recognition.

DAN decompression illness guidance · SPUMS/UKDMC joint position statement on IPO, 2024 · DAN Southern Africa IPO education, November 2024 · DDRC Healthcare IPO advice

ELECTIVE X06

Tropical travel, infection and regional envenomation

Planned additional time 8 hours. Current core WFR; country-specific clinical and public-health annex.

PREVENT BEFORE RESPONDING

Create a travel-health referral plan, vaccination and malaria-advice pathway, vector controls, sanitation, water treatment, animal-avoidance and wound-protection strategy.

What to notice and assess

Recognise fever during or after travel, severe diarrhoea, dehydration, possible rabies exposure and regionally important envenomation. Take location, timing, exposure and prophylaxis history; recognise that serious illness can present after return home.

What to practise

Demonstrate water-system selection, bite prevention and appropriate wound first aid; use local poison and medical consultation. No unsupervised antibiotics or antivenom.

Reassess and arrange help

Monitor hydration, consciousness and systemic deterioration; manage group infection control. Arrange prompt medical assessment and communicate travel history; identify time-critical post-exposure pathways.

Demonstrate your learning

Camp prevention design, febrile traveller case and region-specific bite case.

WMS US and Canadian pit-viper envenomation, 2026 · WMS water treatment, 2024 · CDC travel health guidance

ELECTIVE X07

Desert, heat and endurance activity medicine

Planned additional time 6 hours. Current core WFR; C08 complete.

PREVENT BEFORE RESPONDING

Develop acclimatisation, heat monitoring, pacing, shade, water logistics, work-rest and cooling plans; account for individual vulnerability and excessive drinking risk.

What to notice and assess

Recognise exertional heat illness, hyponatraemia, rhabdomyolysis and competing causes of collapse. Assess an event's cooling capacity and a patient's exposure, exertion, intake and neurological state.

What to practise

Rehearse rapid safe cooling, airway access and coordination with medical support; no invasive diagnostics or advanced fluid treatment.

Reassess and arrange help

Track cooling, responsiveness, water availability and staff heat strain. Design evacuation with continuing care, alternative access and a clear transfer trigger.

Demonstrate your learning

Event prevention plan and timed cooling-system deployment followed by a differential case.

WMS heat illness, 2024 · WMS exercise-associated hyponatraemia: 2019 update, published 2020

ELECTIVE X08

Extended patient care and remote consultation

Planned additional time 12 hours. Current core WFR; X01 required when BP/glucose equipment is included.

> **PREVENT BEFORE RESPONDING**
>
> Plan a 24-hour care system for shelter, infection control, pressure relief, staffing, communication and supply redundancy.

What to notice and assess

Recognise deterioration, caregiver fatigue and treatment or communication failure. Construct a prioritised problem list and monitoring schedule with explicit thresholds.

What to practise

Demonstrate non-invasive nursing care, respectful toileting support, comfort and structured remote consultation under a changing resource budget.

Reassess and arrange help

Complete a longitudinal patient record and two caregiver handovers; audit consistency and omissions. Reassess evacuation options after changing weather, supplies and symptoms; communicate a contingency plan.

Demonstrate your learning

Six-hour simulated care exercise in safe conditions plus portfolio and handover review; overnight exposure is optional and separately risk-assessed.

WMS medical direction of SAR teams, 2024 · RCUK education guidelines, 2025

ELECTIVE X09

Children, families and inclusive expeditions

Planned additional time 8 hours. Current core WFR with child and infant BLS demonstrated.

PREVENT BEFORE RESPONDING

Plan supervision, safeguarding, access needs, medicines, hydration, thermal protection and family communication; adapt activities to developmental ability.

What to notice and assess

Recognise age-related distress, dehydration, serious infection and breathing compromise; identify safeguarding concerns. Use age-appropriate observations and communication with child and caregiver; recognise when consent or safeguarding requires local escalation.

What to practise

Demonstrate child-focused assessment, positioning, supportive care and communication using manikins and role-play; drug calculations only within a separately approved professional scope.

Reassess and arrange help

Record changes and caregiver concerns without dismissing them; prevent loss of warmth and privacy. Escalate serious illness early and make a family-aware handover and transport plan.

Demonstrate your learning

Family trip plan, paediatric deterioration scenario and individual BLS refresh.

AHA special circumstances of resuscitation, 2025 · RCUK education guidelines, 2025 · CDC travel health guidance

ELECTIVE X10

Pregnancy, childbirth and reproductive emergencies

Planned additional time 8 hours. Current core WFR; midwifery or obstetric specialist reviews delivery content.

PREVENT BEFORE RESPONDING

Plan individual travel-health advice, antenatal access, hygiene, privacy and evacuation rather than a blanket exclusion of pregnant participants. Reduce delay caused by embarrassment or poor access to sanitary supplies.

What to notice and assess

Recognise urgent pregnancy-related bleeding, severe pain, seizures, labour and newborn compromise; include non-pregnancy reproductive emergencies. Take a sensitive history with consent and identify urgency without invasive examination.

What to practise

On manikins demonstrate support for an unavoidable birth, warmth and basic newborn care using the approved local protocol; no internal examination, traction or obstetric procedures.

Reassess and arrange help

Track maternal and newborn condition, bleeding and time; obtain remote specialist support. Arrange urgent specialist care with separate maternal and newborn handover and a safe transport plan.

Demonstrate your learning

Prevention plan plus birth-manikin scenario and emergency referral case; clinical reviewer sets age- and jurisdiction-specific resuscitation requirements.

AHA special circumstances of resuscitation, 2025 · CDC travel health guidance

ELECTIVE X11

Medical support to technical rescue

Planned additional time 8 hours. Current core WFR plus relevant separate rope, mountain, cave or water qualification for any exposed activity.

> **PREVENT BEFORE RESPONDING**
>
> Prevent secondary injury through joint medical and technical briefings, suspension avoidance, rapid access plans, safe packaging and role clarity.

What to notice and assess

Recognise suspension-related collapse, crush risk, hypothermia and deterioration during constrained rescue. Assess reachable priorities and agree the safest access and movement plan with the technical leader.

What to practise

Demonstrate patient care on a ground-level technical rescue simulation, airway access and packaging; no invasive crush therapy or new rope-rescue authority.

Reassess and arrange help

Monitor airway, neurovascular status, temperature and strap pressure through changes of position. Plan a specialist handover and identify when the medical objective requires a technical-plan change.

Demonstrate your learning

Joint prevention briefing, ground-level packaging and suspension-recovery case.

AMGA scope of practice · ICAR suspension syndrome review and recommendations, 2023

ELECTIVE X12

Remote medicines and expedition health logistics

Planned additional time 8 hours. Current core WFR; named authorised prescriber and region-specific medicine schedule required for any operational medicine endorsement.

> **PREVENT BEFORE RESPONDING**
>
> Build a lawful formulary and procurement, transport, storage, expiry, controlled-access, waste and replacement system; prevent concentration, translation and duplicate-ingredient errors.

What to notice and assess

Recognise adverse effects, contraindication uncertainty, counterfeit risk and a request beyond personal authority. Reconcile an individual's medicines and apply an approved decision card with identity, indication, route, dose, interval and maximum-dose checks.

What to practise

Use simulations for permitted medicine assistance or administration and communicate with the authorised clinician. No independent prescribing or automatic permission to inject.

Reassess and arrange help

Record response, adverse effects, remaining stock and deviations; protect patient data. Plan escalation, resupply and evacuation if treatment cannot safely continue.

Demonstrate your learning

Medicines-system audit, two error-detection cases and each separately authorised administration skill; any sharp technique uses a trainer only.

WMS medical direction of SAR teams, 2024 · Resuscitation Council UK first aid guidelines, 2025

ELECTIVE X13

Search teams, multiple casualties and incident support

Planned additional time 8 hours. Current core WFR; organisational induction for operational deployment remains separate.

> **PREVENT BEFORE RESPONDING**
> Plan team welfare, communications, searcher medical needs, fatigue, infection precautions and escalation before deployment.

What to notice and assess

Recognise unsafe tasking, resource saturation and casualty priorities. Use the locally approved triage method at the learner's authorised level; identify uncertainty and repeat triage.

What to practise

Demonstrate a safe incident briefing, first medical report, resource request and limited casualty coordination under the incident commander.

Reassess and arrange help

Track casualty status, team welfare, resource use and handovers. Support safe distribution and transfer decisions through the appropriate command system; no independent major-incident command credential.

Demonstrate your learning

Tabletop incident with evolving casualty cards, individual priority decisions and a team-welfare plan.

FPHC pre-hospital provider competency descriptors and framework · WMS medical direction of SAR teams, 2024

Keep your skills ready

- Within 30 days, rehearse a prevention briefing, patient assessment and emergency message using your normal activity kit.
- Every few months, practise CPR with feedback equipment and refresh rarely used skills with a competent partner or instructor.
- Before a new environment, check the regional annex, rescue access and personal health plans. A familiar certificate does not make an unfamiliar environment familiar.
- After an incident or near miss, review what changed and improve the system. Seek support when needed.
- Use the latest issued field cards. If advice conflicts, ask the provider to resolve the discrepancy against the evidence register.

Core practice: applying the baseline

These chapters are compulsory alongside C01–C18. They make the more detailed practical and decision requirements explicit.

Selected joint injuries

> **PREVENT FIRST**
>
> Check equipment, footwear, load and movement choices before an activity. Early reporting and a supported retreat can prevent a second injury.

Understand the decision

Reduction means returning a dislocated joint towards its normal alignment. It is a specific learned skill, not a general instruction to straighten anything that looks wrong. In this course you practise selected shoulder, kneecap and digit cases on task trainers. Your instructor demonstrates the complete named technique and checks your performance. You also practise recognising cases where reduction should not be attempted.

Act and reassess

Explain the plan and obtain agreement. Check the mechanism, skin and distal circulation, sensation and movement. Uncertain diagnosis, suspected fracture, open injury or a complex pattern needs protection and escalation. Use only the trained gentle method. Stop for increasing pain, resistance or worsening distal findings. Support afterwards, repeat and record checks, and arrange medical assessment even when the joint appears restored.

Field example

A walker twists, falls and has a deformed knee. Is the kneecap displaced, or might the knee joint itself be dislocated? Your decision changes urgently if distal circulation is impaired. Do not treat every knee deformity as a patella problem.

Show the skill

K26–K28 each require an independent simulator attempt and a separate decision not to reduce. No reduction forces on healthy classmates.

British Orthopaedic Association: first-time lateral patellar dislocation, December 2024 · Defence Medical Command: joint dislocations · Shoulder reduction by trained ski patrollers: Mulvey et al., 2021 · Structured EMT shoulder-reduction study, 2023

Wounds, objects and tissue protection

PREVENT FIRST

Plan tool handling, protected work areas, footwear, animal avoidance and accessible cleaning supplies. Check feet before a hot spot becomes a blister.

Understand the decision

Good wound care removes contamination without adding injury. Irrigate with suitable clean water, remove only accessible superficial debris using the taught method, and protect the wound. Deep contamination, uncertain structures, major pain, infection or impaired function require medical care. Debridement in this first-aid course does not mean cutting away tissue.

Act and reassess

Practise a splinter and superficial fishhook decision on a model. Know when to leave an object in place; do not remove objects penetrating an eye, neck or torso. Stop if removal increases bleeding, pain or resistance. Cover exposed abdominal organs without replacing them. Control the patient's bleeding before packaging amputated tissue. Keep the tissue bag cool, not frozen. Animal bites need prompt assessment for rabies and tetanus prevention.

Field example

A hook sits beside the eye; another is shallow in a synthetic fingertip. The same tool and technique are not suitable for both. Explain your selection and the referral plan before touching the trainer.

Show the skill

K11 and K29: cleaning and appropriate removal/retention decisions, followed by a second infection and function assessment.

WMS basic wound management guideline, 2014 · CDC Yellow Book 2026: adventure travel

Fluids and cold: choose the right response

PREVENT FIRST

Plan water quality and access, workload, weather protection, dry reserves and an achievable exit. Do not prescribe forced drinking or rely on wet boots being tolerable indefinitely.

Understand the decision

Commercial ORS is the first choice for appropriate oral rehydration; use the packet's stated water volume. When unavailable, a measured fallback is six level teaspoons of sugar and half a level teaspoon of salt in one litre of safe water. Accurate measures matter; do not guess with a random spoon. This mixture is not a treatment for every collapsed person.

Act and reassess

Compare dehydration with overdrinking and possible hyponatraemia. Neurological deterioration needs emergency help, not forced drinks. Separate frostbite from nonfreezing cold injury: a frostbite bath uses controlled 37–39°C water only when refreezing can be prevented. Wet, nonfrozen feet need protection, drying and a different warming plan. Do not rub damaged tissue or apply direct heat.

Field example

A runner has drunk repeatedly and is now confused. A partner proposes another litre of water. Separately, a walker with frozen toes faces another night outside. Explain why "more fluid" and "thaw now" can each be the wrong response.

Show the skill

K30: measured preparation. K31: bath control and thaw/no-thaw cases. Record mild and severe fluid-disorder decisions separately.

WMS exercise-associated hyponatraemia: 2019 update, published 2020 · WMS frostbite, 2024 · WMS non-freezing cold injury, 2023; 2024 correction · UNICEF heat-wave advice: fallback oral rehydration preparation

Common problems still need sound decisions

PREVENT FIRST

Plan hand hygiene, food safety, dental care, UV protection, spare eyewear, personal medicines and confidential reporting. Small symptoms are easier to manage before the group is committed to a remote route.

Understand the decision

Use a structured history rather than guessing a diagnosis from a single symptom. Check onset, severity, hydration, systemic illness and relevant personal history. Respiratory, ear, bowel, urinary, reproductive and dental complaints all need an appropriate referral threshold. Preserve privacy; offer a suitable chaperone for sensitive discussion.

Act and reassess

Sudden severe testicular pain is urgent: do not manipulate it. Nasal bleeding calls for forward posture and compression of the soft nose. With dental avulsion, distinguish permanent from primary teeth; handle a permanent tooth by its crown and keep it in a suitable medium such as milk while arranging urgent dental care. Never replant a primary tooth, scrub a root or discard a tooth merely because time has passed.

Field example

A traveller calls urinary pain “just dehydration”; another describes new severe abdominal pain. Ask what findings would change your plan and what makes waiting unsafe. A confident disease label is less useful than a safe decision.

Show the skill

Complete each common-illness check. Dental and nosebleed model demonstrations supplement case discussion.

CDC Yellow Book 2026: adventure travel · NHS testicular pain · CDC travel health guidance · RCH dental trauma guideline · NHS Inform nosebleed advice

Personal medicines and changing guidance

PREVENT FIRST

Review individual action plans privately before departure. Check accessible supplies, temperature limits, labelling, expiry, allergy information and the route to medical advice.

Understand the decision

Similar complaints can need different responses. Breathing difficulty from asthma is not automatically anaphylaxis. Diabetes can cause emergencies from low or high glucose. The relevant personal plan and the patient's ability to swallow matter. A normal-looking device result does not cancel worrying clinical signs.

Act and reassess

Use the taught medicine card and trainer. Oral glucose is inappropriate when swallowing is unsafe. Support inhaler/spacer use for asthma and prompt autoinjector use for anaphylaxis. Explain rescue glucagon, aspirin, personal nitroglycerin and naloxone within the regional plan. Naloxone does not replace ventilation and emergency help. Do not improvise insulin doses or give adrenaline routinely for isolated asthma.

Field example

An old handout says to put sugar inside an unconscious patient's cheek. Explain why you will not do that, state the correct immediate priorities and identify the current reference. Challenging an outdated instruction is a positive safety skill.

Show the skill

K12, K17, naloxone trainer and contrasting case checks. The examiner awards credit for an evidence-based decision not to intervene.

Resuscitation Council UK first aid guidelines, 2025 · WMS anaphylaxis, 2022, with correction · GINA strategy report, 2026

Assessment, records and movement

> **PREVENT FIRST**
>
> Plan communication, lighting, record sheets, carrying resources and protection from weather. Decide who can call for help and what happens if the primary device fails.

Understand the decision

A useful record makes change visible. SOAP separates the reported story, observed findings, working assessment and plan. Write at least two records during a changing case. Document uncertainty and the reason for changing evacuation urgency. Radial and carotid pulse learning supports assessment; it must not delay standard CPR.

Act and reassess

Use the complete WMS 2024 spinal assessment pathway supplied with your course. Reliability and neurological findings matter. Explain protection, movement and evacuation; do not promise that a field examination proves there is no injury. Practise both a commercial litter and an improvised carry, with airway access, pressure checks, insulation and a stop command.

Field example

A team prepares an impressive litter while the patient becomes less responsive. The assessment and airway problem take priority over finishing the straps. Reassess before and after any move.

Show the skill

K03: two SOAP records. K25: two contrasting spinal cases. K16: packaging, carry and two handovers.

WMS spinal cord protection, 2024 · FPHC pre-hospital provider competency descriptors and framework

Guidelines and further reading

Sources checked on 13 November 2026. Follow the current regional cards issued for your course. These references explain the evidence and provide further reading; some also describe specialist care beyond WFR.

The complete source register gives the reading depth, corrections and limitations for each source. A publication year describes that guideline's edition, not a guarantee that every topic was updated that year. Open the complete source register.

Resuscitation and first aid

ILCOR resuscitation consensus, 2026 (published 5 November 2026) [S59]
https://doi.org/10.1161/CIR.0000000000001473

Resuscitation Council UK: 2025 guideline library [S62]
https://www.resus.org.uk/professional-library/2025-resuscitation-guidelines

RCUK adult BLS, 2025 [S50]
https://www.resus.org.uk/professional-library/2025-resuscitation-guidelines/adult-basic-life-support-guidelines

RCUK paediatric life support, 2025 [S51]
https://www.resus.org.uk/professional-library/2025-resuscitation-guidelines/paediatric-life-support-guidelines

Resuscitation Council UK first aid guidelines, 2025 [S04]
https://www.resus.org.uk/professional-library/2025-resuscitation-guidelines/first-aid-guidelines

IFRC international first aid, resuscitation and education guidelines, 2025 [S30]
https://www.ifrc.org/document/international-first-aid-resuscitation-and-education-guidelines

Trauma and everyday care

WMS spinal cord protection, 2024 [S08]
https://doi.org/10.1177/10806032241227232

WMS wilderness burns, 2025 [S09]
https://doi.org/10.1177/10806032251345768

WMS acute pain in austere environments, 2024 [S10]
https://doi.org/10.1177/10806032241248422

WMS clinical practice guideline collection: wound guidance [S11]
https://www.wms.org/WMS/Research/WEM/Clinical-Practice-Guidelines.aspx

WMS anaphylaxis, 2022, with correction [S12]
https://doi.org/10.1016/j.wem.2021.11.009

WMS water treatment, 2024 [S27]
https://doi.org/10.1177/10806032231218722

WMS eye injuries and illness, 2024 [S28]
https://doi.org/10.1177/10806032231223008

Heat, cold and altitude

WMS heat illness, 2024 [S13]
https://doi.org/10.1177/10806032241227924

WMS exercise-associated hyponatraemia: 2019 update, published 2020 [S14]
https://doi.org/10.1016/j.wem.2019.11.003

WMS accidental hypothermia, 2019 [S15]
https://doi.org/10.1016/j.wem.2019.10.002

WMS frostbite, 2024 [S16]
https://doi.org/10.1177/10806032231222359

WMS non-freezing cold injury, 2023; 2024 correction [S17]
https://doi.org/10.1016/j.wem.2023.02.006

ICAR revised Swiss hypothermia staging, 2021 [S18]
https://pubmed.ncbi.nlm.nih.gov/33675869/

WMS acute altitude illness, 2024 [S19]
https://doi.org/10.1016/j.wem.2023.05.013

Water, maritime and diving

WMS drowning, 2024 [S23]
https://doi.org/10.1177/10806032241227460

SPUMS/UKDMC joint position statement on IPO, 2024 [S55]
https://www.ukdmc.org/wp-content/uploads/2025/01/SPUMS-UKDMC-IPO-Position-Statement-2024.pdf

DAN decompression illness guidance [S35]
https://dan.org/health-medicine/health-resources/diseases-conditions/decompression-illness-what-is-it-and-what-is-the-treatment/

MCA Telemedical Advice Service, MGN 623 amendment 1, October 2026 [S53]
https://www.gov.uk/government/publications/mgn-623-mf-amendment-1-telemedical-advice-service-tmas-for-ships-at-sea/mgn-623-mf-amendment-1-telemedical-advice-service-tmas-for-ships-at-sea

RNLI Float to Live and water safety [S54]
https://rnli.org/water-safety/float

Mountain rescue and local hazards

WMS guideline collection: lightning [S24]
https://doi.org/10.1016/j.wem.2014.08.011

WMS US and Canadian pit-viper envenomation, 2026 [S25]
https://doi.org/10.1177/10806032261451823

ANZCOR marine envenomation, June 2025 [S26]
https://www.anzcor.org/home/first-aid/guideline-9-4-5-first-aid-management-of-marine-envenomation

WMS avalanche and snow burial, 2024 [S34]
https://doi.org/10.1016/j.wem.2023.05.014

ICAR suspension syndrome review and recommendations, 2023 [S37]
https://link.springer.com/article/10.1186/s13049-023-01164-z

ICAR stress resilience in alpine rescue, 2026 update [S39]
https://www.alpine-rescue.org/articles/1899--icar-recommendations-for-stress-resilience-in-alpine-rescue-2026-update

ICAR prevention for individuals and aircraft operators [S40]
https://www.alpine-rescue.org/articles/62--prevention-for-individuals-and-aircraft-operators

Course standards and teaching

FPHC pre-hospital provider competency descriptors and framework [S03]
https://fphc.rcsed.ac.uk/media/2911/phem-competency-descriptors-and-framework.pdf

AMGA WFR minimum standards, 1 April 2024 [S02]
https://drive.google.com/file/d/1n1AnL4sMr4q6r88iXkf27bTqZZk7fjtv/view

Mountain Training first-aid requirements [S45]
https://www.mountain-training.org/help/frequently-asked-questions/do-i-need-to-do-any-particular-first-aid-course/

WMEC WFR certification standards, 20 March 2024 [S01]

https://www.wildmededucationcollaborative.org/uploads/1/1/1/5/111560115/%5Bwfr%5D_certification_standards_for_wilderness_first_responder_courses_3-20-24.pdf

RCUK education guidelines, 2025 [S06]

https://www.resus.org.uk/professional-library/2025-resuscitation-guidelines/education-guidelines

IOL Outdoor First Aid statement and alignment scheme [S22]

https://www.outdoor-learning.org/standards/iol-awards-and-accreditation/outdoor-first-aid.html

Find updates and practical resources

WMS current clinical practice guideline directory [S60]

https://www.wms.org/WMS/Research/WEM/Clinical-Practice-Guidelines.aspx

ICAR recommendations library [S61]

https://www.alpine-rescue.org/topics/161--recommendations

WMS practical guideline summaries [S63]

https://wms.org/WMS/magazine/Core-Columns/WMS%20CPG%20Summaries.aspx

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Rescue Education WFR+ • International programme design • Evidence checked 13 November 2026 • Programme design edition. Awarding body: Rescue Education. PHEM competency level D. External endorsement is a separate matter.