



ICAR

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International Commission for Alpine Rescue

Commission for Mountain Emergency Medicine

**Recommendation REC M 0006 of the Commission for Mountain
Emergency Medicine**

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Equipment for Canyoning Rescue Doctors

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Intended for Emergency Physicians

Preamble:

Canyoning rescue takes place in a very hostile environment. Any doctor who undertakes canyoning rescue requires very good physical fitness, a good knowledge of canyoning, especially rope techniques, and the ability to work in difficult conditions in the water. The doctor may have to spend a long time swimming or static in water and can become cold very quickly.

A canyoning accident can rapidly become very serious because of the combination of water and cold. The doctor may commonly be faced with a patient who will die during the rescue, no matter what is done.

Equipment

Equipment kept in specific canyoning bags with positive buoyancy. Equipment must be kept dry in special containers. Sterile equipment must be kept in sealed individual plastic bags and changed regularly.

Waterproof torch with spare batteries

Intubation and ventilation materials. (See IKAR recommendation on Intubation and Ventilation in the field, 1999)

Ventilation bag connected by wide tube 1.5m long with interposed bacterial filter

Manual suction apparatus with stiff tube aspirator (e.g. Res-q-vac or Vitalograph)

Gastric catheter, to empty stomach in near drowning

Nasopharyngeal airway

Equipment for neck stabilisation (Formal collar or improvised)

Splinting and immobilisation equipment - 4 SAM™ splints, consider Scotchcast™

Bandages - Elastic bandages are best. Adhesive tape does not work

Temperature measurement: Tympanic thermometer is best available

(Electronic thermometers are not reliable at low temperatures and infra – red – type measurements of the tympan are not accurate)

Drugs

Antibiotics iv: (e.g. Metronidazole, Rocephine) (risk of contamination of wounds by river water)

Adrenaline

Steroids (Treatment of spinal injury)

Analgesics - Local anaesthesia (nerve blocks) may be useful

Fluid replacement 1 litre of "Amidone"

Scissors or scalpel blades

Syringes I-V cannulas and I-V giving sets.

Chemical warm packs – to be placed inside the wetsuit
Floating stretcher and Kendrick Extrication Device™ should be brought by team. A hammock which can be lifted out of the water with the casualty horizontal has been found useful)

Prevention of Hypothermia

Use of neoprene hood or cap for the patient
Expose the patient as little as possible. (Slits in neoprene suit can provide access and be reclosed with bandages)
High calorie food and warm sweet fluids (for patients and rescuers).

Fractures and Wounds

Be aware of contamination of water. Prophylactic antibiotics.
Most common are lower limb fractures, then spinal injury, then upper limb, finally facial injuries.
Shoulder dislocations can result from use of flotation bags or in jumping. They should be reduced immediately. (See IKAR recommendation on treatment of shoulder dislocation)