

1st EUROPEAN LAW FORUM ON WINTER SPORTS

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1st EUROPEAN LEGAL SNOW FORUM

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“FIRST AID ON THE SNOW”

Introduction

Sport in combination with a snow-filled environment now attracts millions of people each year. The mountain territory is wonderfully fascinating and beautiful but it is also the source of traumatic events, or medical emergencies if they are not tackled with due preparation. Data on the frequency of accidents which occur during the practice of winter sports reveals approximately 30,000 events per year in Italy alone, with a mortality rate of one death every 1700 events (.20 deaths per year).

In order to monitor the problem, The Higher Institute of Health has started a surveillance system (the SIMON System: Surveillance of Mountain Accidents), which involves the Police, Ski Lift Managers, Regional Healthcare Systems and Insurance Companies). AINEVA (Interregional Snow and Avalanche Association) data regarding incidents caused by avalanches over the last 15 years in the Italian Alps, report 500 events with more than 300 deaths. The COEU (Emergency Urgency Operations Centre) 118 in the Province of Sondrio receives about 1000 calls for help on average each year involving winter sports.

Organising the rescue

In the Lombardy Region, rescues are organised through the SSUEm (Urgent and Emergency Medical Services) 118, made up of the coordination centre (COEU 118) and of a network of resources (men and vehicles) across the territory, which operate at the incident site following their own specific procedures. The resources available to the Centre are rescue vehicles, either basic or advanced (ambulances and helicopters) belonging to the SSR (Regional Healthcare System) and the National Health Service (e.g. the Italian Red Cross and the National Alpine and Cave Rescue Group). Cooperation with the Police, Magistrates and Corporate Rescue and in skiing areas, also with the rescue teams employed by the ski-lift companies, is essential. Management of an incident on snow-covered terrain follows the steps below:

1 – Managing the call

The call for help is an extremely delicate moment as the operator must identify quickly and precisely where the event has occurred, the number of persons involved, the injuries suffered and the most appropriate response to the incident. Since the

advent of mobile telephones, the call for help often arrives direct from the person involved or, if the incident has taken place in a ski-able area, from the ski lift manager. The COEU 118 operator must have excellent knowledge of the territory and be provided with cartographic and planimetric tools to enable him/her to quickly identify the place where the incident has occurred. The cooperation of the ski lift manager and the rescue team is fundamental and this is done by means of shared territorial communication systems (SSUEm 118 two-way radio transmitters).

2 – Rescue resources

The resources available to the COEU 118 to be used in rescue operations are as follows:

a) in unmanaged snow-covered areas:

- Basic and advanced (with a doctor on board) 118 ambulances
- 118 rescue helicopter (an anaesthetist/intensive care doctor, a nurse, a CNSAS [National Alpine and Cave Rescue Group] helicopter rescue technician and if necessary a Dog Unit for Avalanche Rescue)
- CNSAS Teams
- Specialist Police Teams

b) in managed “ski-able” areas:

- Ski-lift rescue staff (National and Regional regulations)
- Specialist Police Teams
- Basic and advanced (with a doctor on board) 118 ambulances
- 118 rescue helicopter (an anaesthetist/intensive care doctor, a nurse, a CNSAS [National Alpine and Cave Rescue Group] helicopter rescue technician and if necessary a Dog Unit for Avalanche Rescue)
- CNSAS Teams

The helicopter is the quickest and most efficient rescue method for reaching the injured persons directly at the place the incident occurred, and it carries a winch to land the rescue staff and then lift up the injured persons. As an alternative, motor sleds supplied to the ski-lift rescue staff have been shown to be important tools which can speed up the operation as they are specific for the snowy terrain.

3 – Coordinating the Rescue operations

The COEU 118 also has the task of coordinating all the rescue teams which, in some cases (such as in the event of an avalanche) are considerable, acting as a go-between amongst the rescuers, means of transport, contacting the Hospitals which are to receive the casualties, the Police and Magistrates. Communications between the coordination centre and the territory are fundamental for the success of the rescue and are carried out via radio repeater systems which cover the whole of the territory involved.

Problems encountered in rescue operations

Rescue staff find themselves working in a difficult, hostile environment making it mandatory to use specific clothing and aids such as ski boots, crampons or snowshoes, which are chosen according to the consistency of the snow cover to ensure safe movement. Personal protection devices such as helmets, harnesses and radio equipment are obligatory for each rescuer. It must be highlighted that the natural environment for skiing or other winter sports consists of snow-covered slopes or even icy rock faces (ice waterfalls) which can cause difficulties for an untrained or incorrectly equipped rescuer. The intense cold and/or wind can complicate matters further for the rescuers, making movement difficult. Both the assessment stage and the treatment stage of the rescue are therefore made difficult and medical staff are obliged to adhere to specific methods of approaching the patient. Medical supplies and equipment must respond to specific requirements regarding use and operation. Battery operated equipment must be guaranteed to work even at low temperatures. Medical staff must also have alpine knowledge and skills in order to operate in total safety even in a hostile environment.

Rescue staff training

Medical staff employed by the Helicopter Rescue Service undergo specific training courses which enable them to work on the helicopter, carrying out disembarking and embarking manoeuvres while the helicopter is hovering and also to use the winch. The delicacy of these manoeuvres means that staff undergo training and certification which is repeated every six months.

The ski lift manager is obliged to set up a rescue service with persons holding a rescue training qualification, with skiing abilities which are adequate for the ski areas they are required to operate in, according to Regional Regulation no. 10 dated December 10, 2004 by the Lombardy Region.

Conclusions

Problems encountered in rescue operations on snow-covered terrain lead to the following conclusions:

- A greater attention to and evaluation of epidemiological data found will be necessary in order to arrange prevention meetings for winter sports activities.
- Management of rescue operations deriving from winter sports activities must be coordinated by the rescue operation centres (118)
- Cooperation with the ski lift managers and specifically with the Piste Director in defining shared protocols is fundamental to the success of the rescue.
- The need for specific and continuous training for rescue staff operating in the mountain environment.

