



International Commission
for Mountain Emergency Medicine
ICAR MEDCOM

FALL MEETING 2010

STARY SMOKOVEC, SLOVAKIA

6-10 OCTOBER

Report to the Mountain Rescue Association

By Ken Zafren, MD, Vice President of the ICAR MEDCOM

Representing the MRA - United States

INTRODUCTION

The ICAR Medical Commission is one of the 4 commissions – Air Rescue, Avalanche, Medical and Terrestrial Rescue - that comprise ICAR, the International Commission for Alpine Rescue. The proper name for ICAR is CISA-IKAR, which is the acronym of its French and German names. Most of the member organizations of the ICAR are national, or in some cases, regional rescue organizations. These organizations send representatives to the different commissions. The 4 commissions meet together annually in early Fall, in a European country. This year's meeting was in Stary Smokovec, Slovakia at the base of the High Tatra Mountains. It was organized by the Mountain Rescue Service of the Slovak Republic

It has been my privilege to represent the Mountain Rescue Association in the ICAR MEDCOM for the last 15 years. The goal of our delegation to the 4 commissions of ICAR is to share knowledge and experience with the rest of the world. We contribute our expertise and we bring back a wealth of information and ideas from experts from other parts of the world.

The formal work of the ICAR MEDCOM is to develop guidelines for the medical aspects of mountain rescue. Past guidelines that have been very influential worldwide include a recommendation for the use of vacuum mattresses in mountain rescue and an algorithm for medical treatment of avalanche victims. All of the guidelines are freely available as downloadable PDF files on the ICAR web site. To insure quality, in the last several years we have required that every guideline be published in a peer-reviewed medical journal before it can be released.

The ICAR MEDCOM has a sister organization, the UIAA MEDCOM (Medical Commission of the International Association of Climbing Federations). The members of the UIAA MEDCOM represent national climbing federations. Like ICAR, the UIAA has a number of different commissions. The UIAA MEDCOM also publishes recommendations (guidelines), but is concerned with general mountain medicine, including preventive medicine and expedition medicine rather than mountain rescue medicine, which is the province of the ICAR MEDCOM.

MEMBERS

This year's meeting included 37 representatives from 21 countries.

SPRING MEETING 2010

President Fidel Elsensohn reported on the Spring meeting. The original plan to have the Spring meeting in Spitsbergen (Norway) was literally grounded by volcanic ash. Fidel was able to organize a scaled down meeting in Austria, attended by 8 people. The participants were able to finish the "helicopter" paper, discuss a paper on diagnosis of death in the field and prepare the program for the World Congress of Mountain Medicine.

WORLD CONGRESS OF MOUNTAIN MEDICINE – AREQUIPA, PERU

The World Congress of Mountain Medicine took place in Arequipa, Peru in August. During the Congress, the ICAR MEDCOM held a joint meeting with the UIAA MEDCOM. Many areas, including the International Diploma of Mountain Medicine, lend themselves to collaboration between the two commissions. The two commissions previously published a book with recommendations from both commissions. The past success of this collaboration promises to continue in the future. One agreement from this joint session was to have an observer from each commission at every meeting of the other. This plan was realized in Slovakia with Jana Kubalova from the Czech Republic representing the UIAA MEDCOM at the ICAR MEDCOM meeting.

SUBMITTED PAPERS

Elsensohn F, Soteras I, Paal P, Ellerton J, Brugger H. **Contents of a mountain doctor's rucksack.**

Elsensohn F, Zenruffinen G, Ellerton J, Sumann G, Zafren K. **Assessment of casualties in the mountains.**

Tomazin I, Ellerton J, Soteras I, Reisten **Operations using helicopters.** This paper was originally a joint paper with the Air Rescue Commission, but was not approved by the ICAR Executive Committee. Therefore, we revised the paper to limit it to medical considerations. We still hope to publish a more general paper in future.

PAPERS IN PREPARATION

Reiste O, Soteris I, Wiget U. **Personal first aid kits in the mountains.** This paper is intended to be an update of Urs Wiget's paper, **A modular first aid kit for alpinists, mountain guides and alpinist physicians.** We discussed an early draft of this paper. It has been returned to the authors for major revision.

Teale S, Milani M, Paal P, Forster H. **Diagnosis of death in a mountain rescue situation by medical and non-medical personnel.** We discussed a late draft of this paper. It will undergo minor further revision. The intent of this paper is to specify the conditions under which resuscitation efforts should be terminated in the field. While there is some original literature on which to base the recommendations in this paper, it will be necessary to base some of the conclusions on expert opinion.

SHORT COMMUNICATIONS

Trauma registry

Giacomo Strapazzon discussed the trauma registry of mountain rescue in Europe under the auspices of the Institute of Mountain Emergency Medicine of the European Academy (EURAC) in Bolzano, Italy. We discussed this concept in 2009. It is now under development as a web-based registry. Giacomo showed the work that is in progress with sample web pages. The trauma registry is intended as a quality control instrument as well as a research tool. It will be focused on seriously injured patients and will use simple prehospital data as well as hospital data.

Organization of mountain rescue in Greece

Theoharis Sinifakoulis presented a draft of his proposed survey of Greek mountaineers to be used to guide the organization of mountain rescue in Greece. The commission would be interested in using this instrument to help organize mountain rescue in other countries.

Mountain rescue on Mt. Everest

Lana Donlagic gave a presentation on the Croatian Mountain Rescue Everest Expedition. She was the physician on an all-women Croatian expedition and participated in an avalanche rescue. She also helped with management of several medical cases at the Himalayan Rescue Association Everest Base Camp Clinic.

NEW PAPERS

Ellerton J. **Epidemiology of rescuer injury and death.** We discussed the concept of this paper. We plan to do a survey to find out which regions would be able to obtain suitable data. This project will likely be of interest to the Mountain Rescue Association. I will keep the MRA informed of its progress and act as a liaison if the MRA would like to participate.

Boyd J, Brugger H. **Process of developing papers.** Although not a recommendation as such, the ICAR MEDCOM will formalize the process of using evidence from the scientific literature in developing our recommendations. This will help assure that our recommendations are based on the best possible evidence. This step is also necessary in for our recommendations to meet the evolving requirements for publication in peer-reviewed journals so that they may be disseminated as widely as possible to rescue organizations.

NEW RESUSCITATION GUIDELINES

On October 18, the new ILCOR (International Liaison Committee on Resuscitation) guidelines were released, but this had not yet occurred at the time of the meeting. Jeff Boyd and Hermann Brugger, two members of the ICAR MEDCOM, were the lead experts for the new avalanche resuscitation guidelines. We discussed the potential need to revise our recommendations for treatment of hypothermia and for avalanche rescue depending on the new guidelines. Prior to the embargo date nobody but the writing committees of the European Resuscitation Council (ERC) and the American Heart Association (AHA) knows what the recommendations will be. The resuscitation guidelines for basic life support (BLS) and advanced life support (ALS) are published simultaneously by the ERC in the journal *Resuscitation* and by the AHA in the journal *Circulation*.

The ERC chose to write very stripped-down guidelines and the AHA to publish more of the rationale behind the guidelines as well as a more algorithmic approach. There are substantial differences in the hypothermia guidelines between the two organizations. There is also a major difference between the two avalanche guidelines.

The avalanche guidelines published by the ERC are so basic that their usefulness is limited. Both guidelines recommend the use of serum potassium as a means to determine whether to continue to resuscitate an avalanche victim who was completely buried. Unfortunately the ERC guidelines recommend using a cutoff of 12 mmol/L while the AHA recommended a cutoff of 7 mmol/L in the summary and 8 mmol/L in the actual recommendation. The cutoff of 12 mmol/L is so high that to use it would result in attempts to most avalanche victims without eliminating very many victims who cannot possibly survive. Use of the lower guidelines is more realistic and would result in fewer futile attempts at resuscitation.

The ICAR MEDCOM will need to review our recommendations for treatment of hypothermia as well as for management of avalanche victims in the field to conform to the new ILCOR guidelines and to reconcile differences between the ERC and AHA guidelines. This process has just started. I will submit a further report on our revised recommendations. Until that time, we recommend that rescue organizations not alter their current protocols for hypothermia and avalanche resuscitation.

UPCOMING EVENTS

2010

November 5 – International Mountain Summit: "Rescue from the World's Highest Mountains" - Brixen, South Tyrol, ITALY. I will be attending this event and will submit a separate report to the Mountain Rescue Association. (Bruno Jelk and Gerold Biner presented their talk on helicopter rescue in Pakistan and Nepal as part of the ICAR General Assembly.)

2011

February 4-9 Wilderness Medical Society Winter Meeting: Park City, UT, USA.

March 21-24 Canadian Avalanche Association: First North American Avalanche Field Session: Revelstoke, BC, CANADA.

April FIPS (Federation Internationale de Patro du Ski) International Ski Patrol Federation) – JAPAN

May 1-8 ICAR MEDCOM Spring meeting: -Spitzbergen, NORWAY

July 29- August 3 Wilderness Medical Society Conference & Annual Meeting - Snowmass, CO, USA

October 18-23 ICAR MEDCOM and General Assembly – Are, SWEDEN

2012

ICAR MEDCOM Spring meeting (SPAIN)

July 13-17 Wilderness Medical Society: World Congress of Wilderness Medicine (Whistler, BC, CANADA)

ISMM – International Society of Mountain Medicine World Congress (TAIWAN)

ICAR MEDCOM and General Assembly – Grnica, POLAND

2013

ICAR MEDCOM Spring meeting (GERMANY?)

2014

ISMM – International Society of Mountain Medicine World Congress – Bolzano, South Tyrol, ITALY

Note: This report is based on the minutes of the Fall 2010 ICAR MEDCOM meeting, kindly provided by John Ellerton.