

ICAR Medical Commission  
Cortina d' Ampezzo, Italy  
October 12-16, 2005

Report to the Mountain Rescue Association  
Respectfully submitted by Ken Zafren, MD  
United States Representative  
Vice President for the Americas, ICAR Medical Commission

With 38 members and guests of the commission present, this was the best attended meeting of the ICAR Medical Commission ever. The ICAR meeting was organized by the Italian Rescue Society CSNAS at Cortina d' Ampezzo, site of the 1956 Winter Olympics, a beautiful venue, nestled in a high valley in the Dolomite Alps.

The following papers are finished or in preparation. Our working rules now require that all papers be published in a peer-reviewed, indexed journal.

### **FINISHED PAPERS**

**Lightning injuries** has been published in *Resuscitation*.

Zafren, K, Durrer B, Herry, J-P, Brugger H, Lightning injuries: prevention and on-site treatment in mountains and remote areas. *Resuscitation* 65:369-372, 2005

**Survey of mountain emergency medical services** has been published in *High Altitude Medicine and Biology*.

Brugger H, Elsensohn F, Syme D, Summann G, Falk M. A survey of emergency medical services in mountain areas of Europe and North America: official recommendations of the International Commission for Mountain Emergency Medicine (ICAR Medcom). *High Alt Med Biol.* 2005 Fall;6(3):226-37

**Use of Automated External Defibrillators (AEDs) in the mountains** has been accepted by *Wilderness and Environmental Medicine*.

**Snakebite injuries in the mountains: prevention and treatment** has been submitted for publication to a peer-reviewed, indexed journal.

### **PAPERS IN PREPARATION**

**Eye problems: prevention and on-site treatment in mountains and remote areas** – in final preparation. The prevention aspects will be reviewed by the UIAA MedCom and the paper submitted to a peer-reviewed, indexed journal.

**Statement on use of mouth-to-mask ventilation** – has been approved, but will be held until the December 2005 of the new ILCOR (international advanced life support) guidelines. It will be re-reviewed if modifications are necessary based on the new ILCOR guidelines. After formal approval it will be submitted to a qualifying journal. The conclusion of the paper, based partly on not-yet-published research, is that mouth to mask ventilation is better than bag valve mask ventilation in field situations.

c) The Use of Extrication Devices in Crevasse Accidents (Jacomet, Zen Ruffinen, Winterberger, Syme, Ledoux, Jelk)

Agreed to change the title to Use of *Extrication Devices*, rather than specifically the *Kendrick Extrication Device*, as other makes are now on the market. The text was agreed after minor changes. Greg Zen Ruffinen showed revised pictures, which were agreed. The use of a second suspension point is recommended. Greg will liaise with Bruno Jelk from the Terrestrial Commission.

d) Medical Training DVD for avalanche (Brugger, Durrer, Etter, Jelk, Habringer)

This project is almost complete. Only the French audio file is awaited. Sponsorship will cover the whole production cost. Members who have contributed narration should check that the narration fits the pictures by 25<sup>th</sup> October. The picture can be ordered through the ICAR website and shipping will be arranged by the distributor in Bruneck.

## **2<sup>nd</sup> Session 14<sup>th</sup> October**

### **10. Papers in Preparation (continued)**

e) The Use of Extrication Devices in Crevasse Accidents (Jacomet, Zen Ruffinen, Winterberger, Syme, Ledoux, Jelk) (*continued*)

Bruno Jelk from the Technical Commission attended the first part of the meeting. He had been asked for his opinion on the use of double suspension. He felt that the primary suspension point should be to the rescue belt. An adjustable line to the head of the Extrication Device would only be used for positioning. When using a cantilever (tripod) system it is not possible to lift a patient in a vertical position to the edge of the crevasse, without fouling the hoisting system. So, it is important to be able to adjust the casualty's position. Greg Zen Ruffinen, will adapt the pictures and circulate the statement for comments and final approval.

f) Volume Replacement in Mountain Rescue (Sumann, Zen Ruffinen, Brugger, Ellerton, Paal, Dahlberg, Zafren)

Gunther Sumann apologised that he had not had time to work much on this paper over the summer. He presented an outline of the proposed paper. There was extensive discussion as to the title and scope of this paper. Gunther and his co-authors will produce a draft paper for the Spring Meeting

g) Training of First Responders (Swangard, Dahlberg, Ellerton, Elsensohn, Forster, Jacomet, Ledoux, Paal, Sumann, Svajda, Winterberger)  
Fidel Elsensohn outlined the questionnaire, which will be sent out by e-mail. It should be completed electronically and returned by e-mail. After discussion and some amendments, the paper was accepted for circulation, subject to review by a statistician.

**11.** Arthur Morgan presented his discussion group on mountain medicine. Any member who wishes to join this group can e-mail him [morgan@icon.cp.za](mailto:morgan@icon.cp.za)

## **12. Presentations by members of CNSAS**

a) Portable telemedicine system using satellite information transfer (Milani M). This has some good and bad points but, overall, is not recommended, especially if a doctor is present.

b) Mountain rescue, the pre-hospital phase (Spaziani F). Formation and subsequent progress of the system in Belluno area were outlined. About 500 volunteers operate from 20 stations with one helicopter base. More than 800 missions per year.

c) In-hospital treatment of polytrauma from mountain accidents (Bucciarelli R). Site of accident may affect journey time. The importance of various aspects of emergency room care was outlined. Several clinical cases were presented which illustrated these points.

c) Use of alternative airway devices (Cipolotti G). Use of laryngeal tube suggested.

## **3<sup>rd</sup> Session 15<sup>th</sup> October**

### **10. Papers in Preparation (continued)**

h) Statement on "Ideal" Air Rescue Service (HEMS) in Terms of Integration Between Services Involved (Tomazin)

Iztok Tomazin presented an initial draft of this paper. He would like to make a comparison of different services with a view to making recommendations. Members are asked to provide data about rescue missions from Helicopter Emergency Medical Services in their area. At least 100 consecutive cases would be necessary for statistical validity. No conclusions will be drawn about specific organisations but the data will be aggregated. There is also a more general questionnaire about organisation in different countries.

After extensive discussion, it proved impossible to cover the whole paper. Members are asked to provide rescue mission details. The general questionnaire will be circulated via the listserver by Iztok Tomazin and discussed further at the Spring Meeting.

i) Evaluation of Avalanche Safety Equipment

Hermann has been unable to complete this work, so far. Comparison between different devices has proved very difficult. Hermann Brugger will prepare information as soon as possible, probably for the Spring Meeting.

## 11. New Papers

Some of these are now “Old” New papers, as the schedule is now quite overloaded.

### 2006

- Ellerton J, Elsensohn F, Demetz F, Jacomet H, Svajda D, Tomazin I, Paal P. **Splinting: KED, C-collars, spine board, SAM, vacuum mattress.**
- Elsensohn F, Zenruffinen G, Ellerton J, Sumann G, Zafren K, Brugger H. **Initial assessment of casualties in the mountains.**

Hermann suggested that the structure of these should be outlined and discussed at the Spring Meeting, with a view to completion next year.

### 2007

- Ledoux X, Zenruffinen G, Kosinski S, Brugger H. **Medical assistance at mass events in the mountains.**
- Elsensohn F, Demetz F, Chioconni R, Zuljan I, Tomazin I, Brugger H. **Post-traumatic stress disorders in mountain rescue.**
- Cipolotti G, Demetz F, Agazzi G, Paal P, Sumann G. **Airway management and intubation including alternative devices in mountain rescue.**

These should continue on schedule

### Unclear time scale

- Kovacs T. **Guidelines for triage and dispatch for technical SAR incidents.** *The commission agreed that this is outwith the scope of the commission and will not be continued.*
- Zafren K, Mair P, Ledoux X. **Prevention and on-site treatment of the “suspension syndrome”.** Also external assistance may be sought (e.g. Matthias Hohlrieder, Innsbruck).
- Sumann G, Dahlberg T, Swangard M, Zafren K, Syme D, Brugger H. **Medical Aspects of Search for Missing Persons in Mountainous and**

**Remote Areas** Gunther Sumann proposes a paper on this topic. In the interests of speed it may be possible to discuss this on the listserver.

- **Update of old papers (?)**

**12. Spring Meeting 2005 15<sup>th</sup> -18<sup>th</sup> March 2006**, in Leukerbad, Switzerland  
Greg Zen Ruffinen presented the details. The meeting will be held in a hut on the Gemmi Pass. Travel details will be sent later  
Papers to be discussed are:

- Volume Resuscitation in Mountain Rescue (draft, **Sumann**)
- Training of First Responders (draft, **Swangard, Elsensohn**)
- Evaluation of Avalanche Safety Equipment (draft, **Brugger**)
- "Ideal" Air Rescue Service (HEMS) in Terms of Integration Between Services Involved (draft, **Tomazin**)
- Case report on an avalanche accident (**Brugger, Paal**)
- and more.....

### **13. Forthcoming events**

#### **ICAR**

- 2006 ICAR MEDCOM spring meeting 15-18 March (Leukerbad, Switzerland)
- 2006 ICAR general assembly and fall meeting 11-15 October (Kranjska Gora, Slovenia)
- 2007 (April) ICAR MEDCOM spring meeting (England)
- 2007 ICAR general assembly and fall meeting 17-21 October (Pontresina, Switzerland)
- 2008 ICAR MEDCOM spring meeting (?)
- 2008 ICAR general assembly and fall meeting (France)
- 2009 ICAR general assembly and fall meeting (Valais, Switzerland)

#### **Others**

- 2005 Nov 5<sup>th</sup> Innsbruck (A) 19<sup>th</sup> Int. Congress Mountain Rescue Medicine (German)

- 2006 May Selva Gardena (I) Int. Congress Mountain Medicine (Italian-German)
- 2006 November Spanish Association for Mountain Medicine
- 2007 October 4-7 ISMM World Congress (Aviemore, Scotland)

#### **14. Miscellaneous**

Specialty Course on Mountain Medicine Argentina November 14-18 2005.

This course will be given according to UIAA, ISMM and ICAR MedCom guidelines by Brugger, Elsensohn, Forster, Ledoux, Sumann.

Günther Sumann is preparing a Specialty Mountain Rescue Medicine Course to be run in Austria. It may be extended to English in future.

Iztok Tomazin proposes to look at Mountain Rescue at High Altitude but there is no clear timescale for this, at present.

A presentation was given by Wenoll on a way of maximising duration of oxygen using a closed-circuit system. Although this should work well, it requires to be tested in the mountains.