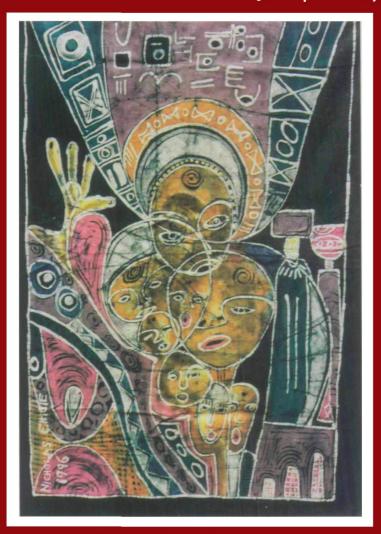
PREHOSPITAL and DISASTER MEDICINE

Médecine Pré-Hospitalière et Médecine de Catastrophe Medicina Prehospitalária y de Catástrofes 病院にかかる前の処置と 災害医療

Volume 21, Number 1

January-February 2006



http://pdm.medicine.wisc.edu

The Official Journal of the
World Association for Disaster and Emergency Medicine
and the
Nordic Society of Disaster Medicine





THE "DIDN'T YOU PUT THE DEFIBRILLATOR AWAY?" TEST

Test subject is the first defibrillator designed specifically to endure the crash-tumble-bounce world of EMS. Test subject's efficient shape and size make it easier to stow and carry, while world of EMS. Test subject's efficient shape and size make it easier to stow and carry, while rugged roll bars help ensure its survival when left unstowed and prone to the rugged roll bars help ensure its survival when left unstowed and prone to the rugged roll bars help ensure its survival when left unstowed and prone to the rugged roll bars help ensure its survival when left unstowed and prone to the rugged roll bars help ensure its survival when left unstowed and prone to the rugged roll bars help ensure its survival when left unstowed and prone to the rugged roll bars help ensure its survival when left unstowed and prone to the rugged roll bars help ensure its survival when left unstowed and prone to the rugged roll bars help ensure its survival when left unstowed and prone to the rugged roll bars help ensure its survival when left unstowed and prone to the rugged roll bars help ensure its survival when left unstowed and prone to the rugged roll bars help ensure its survival when left unstowed and prone to the rugged roll bars help ensure its survival when left unstowed and prone to the rugged roll bars help ensure its survival when left unstowed and prone to the rugged roll bars help ensure its survival when left unstowed and prone to the rugged roll bars help ensure its survival when left unstowed and prone to the rugged roll bars help ensure its survival when left unstowed and prone to the rugged roll bars help ensure its survival when left unstowed and prone to the rugged roll bars help ensure its survival when left unstowed and prone to the rugged roll bars help ensure its survival when left unstowed and prone to the rugged roll bars help ensure its survival when left unstowed and prone to the rugged roll bars help ensure its survival when left unstowed and prone to the rugged roll bars help ensure its survival whe



Unique roll bar protects electronics and ensures the E Series will roll with the toughest punches.



ZOLL's Rapid Cable Deployment SystemTM eliminates those annoying "cable spaghetti" problems.



ZOLL's EasyRead
Tri-Mode DisplayTM
offers maximum readability
even in the most adverse
conditions. Choose from
three different screen options
on-the-fly to optimize
visibility for any given situation.

E Series-We put it through the wringer in the lab so you can be sure it will survive whatever you put it through in the field.



A

For additional details on how the new E Series can stand up to-and live up to-your "worst case scenarios," contact your ZOLL sales rep today or call 800-804-4356.

Table of Contents

Editor's Corner Disaster Myths and Hurricane Katrina 2005: Can Public Officials and the Media Learn to Provide Responsible Crisis Communication during Disasters? Jeffrey L. Arnold, MD	1
Original Research Surviving Collasped Structure Entrapment after Earthquakes: A "Time-to-Rescue" Analysis Anthony G. Macintyre, MD; Joseph A. Barbera; Edward R. Smith	.4
Precision of In-Hospital Triage in Mass-Casualty Incidents after Terror Attacks	20
Integrated Decision-Making in Response to Weapons of Mass Destruction Incidents: Development and Initial Evaluation of a Course for Healthcare Professionals	24
Enhancing Local Health Department Disaster Response Capacity with Rapid Community Needs Assessments: Validation of a Computerized Program for Binary Attribute Cluster Sampling	32
Special Report On-Site Physicians at a Major Sporting Event in Nigeria E. Oluwabunmi Olapade-Olaopa, MD, FRCS, FWACS; Temitope O. Alonge, MD, FRCS, FWACS; Simbo D. Amanor-Boadu, MBBS, FWACS; Arinola A. Sanusi, MBBS, FWACS; Olatunji B. Alese, MBBS; Olufunmilade O. Omisanjo, MBBS; Abiodun O. Adeyinka, MBBS, FWACS; Arinola O. Sanya, PhD; Paul A. Ogunbunmi, MBBS, FWACP; Isaac F. Adewole, MBBS, FWACS	40
Comprehensive Review Burns Assessment Team as Part of Burn Disaster Response	4 5
Supplement: Special Reports regarding the Health Aspects of the 2004 Earthquake and Tsunami Post-Tsunami Medical Care: Health Problems Encountered in the International Committee of the Red Cross Hospital in Banda Aceh, Indonesia	
Coordination and Resource Maximization during Disaster Relief Effortss Vernon J. Lee, MBBS, MPH, MBA; Edwin Low, MBBS, FRCA, MPH	8
Barriers to Disaster Coordination: Health Sector Coordination in Banda Aceh following the South Asia Tsunami	13

Team Echo: Observations and Lessons Learned in the Recovery Phase of the 2004 Asian Tsunami	s20
Franklin H.G. Bridgewater, FRACS; Edward T. Aspinall, PhD; Joy P.M. Booth, BNsg; Roger A. Capps, FANZCA; Hugh J.M. Grantham, FRACGP; Andrew P. Pearce, FACEM; Brett K. Ritchie, FRACP	
Central System of Psychosocial Support to the Czech Victims Affected by the Tsunami in Southeast Asia	s27
Response of Thai Hospitals to the Tsunami Disaster Maj. Adi Leiba, MD; Col. Isaac Ashkenasi, MD, MPA, MSc; Capt. Guy Nakash, MD; Maj. Rami Pelts, MA; Dagan Schwartz, MD; Col. (res) Avishay Goldberg, PhD; Brig. Gen. Yeheskel Levi, MD;	s32

Editorial Office

University of Wisconsin-Madison USA

Editors-in-Chief Jeffrey L. Arnold, MD Marvin L. Birnbaum, MD, PhD

> **Editorial Assistant** Dana Schmidman

Production Editor Dana Schmidman

Production Consultant Donna Schaan

Advertising

Mary Duss Subscriptions Mary Duss

Web Editor Dana Schmidman

Publisher World Association for Disaster and Emergency Medicine Madison, Wisconsin USA

Prehospital and Disaster Medicine (ISSN 1049-023X) is published bimonthly in the months of January, March, May, July, September, and November by the World Association for Disaster and Emergency Medicine. Prehospital and Disaster Medicine incorporates the Journal of the World Association for Emergency and Disaster Medicine and the Journal of Prehospital Medicine.

Editorial Information: Submit manuscripts and editorial inquiries to: Marvin L. Birnbaum, PhD, MD, Editor, *Prehospital and Disaster Medicine*, Clinical Science Center, 600 N. Highland Ave, Mail Code 6733, Madison, WI 53792 USA; Telephone (+1) (608) 263-9641; Facsimile (+1) (608) 265-9290; E-mail: mlb@medicine.wisc.edu or pdm@medicine.wisc.edu.

Subscription Information: One year (six issues)—Institutions: [US] \$400; Individuals: \$100; International subscribers add \$6 per year for postage. Claims of non-receipt or damaged issues must be filed within three months of cover date. POSTMASTER: Send address changes to Prehospital and Disaster Medicine, PO Box 55158, Madison, WI 53705-8958 USA.

Advertising Information: Mary Duss; Prehospital and Disaster Medicine, Clinical Science Center, 600 N. Highland (6733), Madison, WI 53792 USA; E-mail: pdm@medicine.wisc.edu.

Comprehensively indexed by the National Library of Medicine (MEDLINE), Cumulative Index to Nursing and Allied Health (CINAHL) and Health Star Cumulative Index. The database is available online via BRS, Data-Star, and DIA-LOG, and on CD-ROM through CD Plus, Compact Cambridge and Silver Platter. Abstracts and search capability available on the Internet at http://pdm.medicine.wisc.edu.

Copyright © 2006 by the World Association for Disaster and Emergency Medicine. Periodicals postage paid at Madison, WI and at additional mailing offices.

STATEMENT OF OWNERSHIP

Statement of Ownership - Management and Circulation - Required by 39 U.S.C. 3685

1. Publication title: Prehospital and Disaster Medicine
2. Publication number 1049-023X

- Filing date: 06 October 2005 Issue frequency: Bi-Monthly

Issue frequency: Bi-Monthly
 Number of issues published annually: 6
 Annual subscription price: \$100 Individual/\$400 Institution
 Mailing address of known office of publication: 3330 University Avenue Suite 300, (Dane County) Madison, WI 53705-2167 USA
 Mailing address of the headquarters of the general business office of the publisher: Same
 Publisher: The World Association for Disaster and Emergency Medicine, 3330 University Avenue, Suite 300, (Dane County) Madison, WI 53705-2167 USA, Editor: Marvin L. Birnbaum, 3330 University Avenue, Suite 300, Madison, WI 53705-2167 USA
 Owner: World Association for Disaster and Emergency Medicine, 3330 University Avenue, Suite 300, Madison, WI 53705 USA
 Known: bondholders, mortgages, and other security holders owning or holding 1 percent or more of total amount of bonds, mortgages or other securities: None

- ecurities: None
- 12. The purpose and function and nonprofit status of this organization and the exempt status for federal income tax purposes have not changed during the preceding 12 months.

Extent and Nature of Circulation:

- A. Total copies: 1000-avg. per issue during proceeding 12 months/1500 last issue B. Paid/Requested Circulation: Outside country mail subscriptions 175 C. Others mailed through USPS 236. Free distribution outside the mail 6 D. Copies not immediately distributed 325 (used for education and promotion)

I certify that all information furnished is true and complete. Marvin L. Birnbaum, MD, PhD, Editor-in-Chief and Director of the WADEM Business Office

Col. Yaron Bar-Dayan, MD, MHA

ADVERTISING POLICY AND GUIDELINES

General Statement

Prehospital and Disaster Medicine (PDM) is a scientifically based, peer-reviewed, medical journal. It is the policy of the Editorial Board of PDM that all advertising material be sound scientifically, and thus, meet the following guidelines:

- 1. Claims must be supported scientifically, and references provided—either within the advertisement or made available upon request;
- 2. Every effort must be directed to minimize the likelihood of possible erroneous interpretations of the claims; and
- 3. Advertisements should be aimed at a sophisticated, medical audience.

Further information and rates available at our website: http://pdm.medicine.wisc.edu.

Review

Each advertisement considered for publication is submitted to the Editorial Office for review. Any advertisement that does not meet the guidelines will be returned to the advertiser with suggestions for revisions; the Editorial Office is available for consultation.

Use of these guidelines and the process used for review add to the credibility of PDM and of the product. Questions may be directed to Marvin L. Birnbaum, MD, PhD, Editor-in-Chief; (+1) (608) 263-9641; E-mail: mlb@medicine.wisc.edu.

Subscription Prices (6 issues)

Institutional [US] \$400 Individual \$100

"Institutional Subscribers" are defined as multiple reader subscribers and include public and private libraries, schools, hospitals, and clinics; city, county, state, provincial, and national government bureaus and departments; and all commercial and private institutions and organizations.

Individual subscriptions must be in the name of, billed to, and paid by individuals.

Send all subscription orders and questions to: *Prehospital and Disaster Medicine*, PO Box 55158, Madison, WI 53705-8958 USA.

Subscription by E-mail: pdm@medicine.wisc.edu; call (+1) (608) 263-2069; or fax (+1) (608) 265-3037. Credit cards are welcome.

INFORMATION FOR READERS

Change of Address or Missing Issues

Inform the *Prehospital and Disaster Medicine* office as soon as possible when you plan to move. (Four to six weeks notice is required for uninterrupted service.) Send (1) old address; (2) new address; and (3) effective date of change.

Back Issues

A limited supply of back issues not included in your subscription is available. Available back issues are listed on the website or a list can be obtained without charge from the *Prehospital and Disaster Medicine* office.

On-Line Version

Issues are posted on the *Prehospital and Disaster Medicine* website. Except for the two most current issues, articles can be downloaded without charge. The two most current issues are password protected for subscribers.

Abstracts

All of the abstracts of papers through the most recent volume are available on the *Prehospital and Disaster Medicine* website.

Cover Artwork:

The Agony of Disaster

By:

Nick Ehige

INSTRUCTIONS FOR AUTHORS

Organization of Manuscripts

Manuscripts in one of five different categories can be submitted for review and publication in *Prehospital and Disaster Medicine* (PDM): (1) Original Research; (2) Special Report; (3) Comprehensive Review; (4) Case Report; or (5) Brief Report. All manuscripts submitted for publication must include an abstract that summarizes the work. Other types of manuscripts must have the approval of the Editor before being submitted or may be invited by the Editor or a member of the Editorial Board. All Abstracts submitted by the Secretariat of a Congress will be edited by the Editorial Staff into the best English possible prior to publication. The characteristics specific to each of these categories are described briefly below:

 Original Research—structured research that uses quantitative and/or qualitative data collection and processing methods to establish a hypothesis or prove a cause:effect relationship(s) is included in this category. The manuscript must be structured as follows:

Abstract—Concise summary in the following format (not to exceed 375 words):

Introduction: need for the study.

Hypothesis/Problem: what was tested (experimental studies only) If qualitative, statement of problem addressed.

Methods: summary of methods used with subsections as appropriate (type of subjects, number of subjects, study design, statistical tests). If the work is qualitative, the types of instruments used and the scope and type of work must be described. If a disaster is involved, the dates, type of event, location, scope, magnitude, and numbers of casualties and deaths must be summarized in tabular form for indexing.

Results: summary of principal findings.

Conclusion: implications of findings.

Introduction—Provide justification for the effort with appropriate references annotated. If quantitative, the concluding sentence should define the hypothesis. If qualitative, the problem being addressed should be stated clearly.

Methods—Descriptive to a degree that other investigators would be able to reproduce the study. Statistical methods used must be annotated. Approval by an Institutional Review Committee must be included when appropriate.

Results—Results must be written in text and may be accompanied by tables and figures. The text must explain all data included in tables and figures, but should not be unnecessarily redundant. All direct results from the study must appear in this section. No discussion of the results may be included.

Discussion—The Discussion should provide an interpretation of the Results in terms of meaning and application. Results should not be repeated. Computations or extrapolations that may help explain the results may be provided. Limitations of the study should be defined and suggestions for future research should be included. References that support or negate explanations provided are appropriate.

Conclusion—The findings in terms of implications for the practice of prehospital, emergency, and/or disaster (humanitarian) medicine should be summarized in a few sentences.

- 2. Special Report—describes some aspect of our science or activities that provide information necessary for the progression of the science. The *Introduction* should highlight the problem being addressed and the reasons that it needs to be addressed. Sections of the report should be subtitled. The presentation should include citations as to the sources of the material and should be followed by a *Discussion* that includes the significance of the report in terms of the science. The manuscript should be finished with the *Conclusions* reached.
- 3. Comprehensive Review—a review of the literature to be used to clarify areas in which there seems to be disagreement. Comprehensive Reviews seek to establish the evidence-base for the area being addressed. The format used should be identical to that described for Special Reports.
- 4. Case Report—uses one or more cases of specific patients or events/responses to highlight a current aspect of medical care or of a phenomenon. Case Reports also may have value in the development of definitive research projects by the same or other investigators. The *Introduction* should describe the reasons for the report. The actual *Case Report(s)* should be described in the next section, and like the above, the *Discussion* should describe the significance of the reports including a comprehensive review of the pertinent literature. The *Conclusion* should be similar to the format noted above.
- 5. Brief Report—a short report that may predict a trend, but the work does not meet all of the criteria required for Original Research. Preliminary reports also are included in this category. The format used should be identical to that used for the Original Research described above.

General Submission Requirements

Manuscripts—Manuscripts are preferred in electronic form (disk, CD, or e-mail) with a cover letter, cover page and manuscript. Electronic format: the cover letter, cover page, and manuscript should be sent as separate electronic files on one diskette or CD in Word or WordPerfect. Please label the diskette or CD and include the paper's title and the primary author's surname. Electronic files may be submitted to our office via e-mail to the following address: pdm@medicine.wisc.edu or ds5@medicine.wisc.edu. If the manuscript is submitted by mail, please include paper version of the cover letter, cover page, and one paper copy of the manuscript to accompany the disk. If submitting the article in paper form only, please send one cover letter, the cover page, and manuscript. If electronic format is not available, we will accept manuscripts in paper form.

Previous Publication—A manuscript will be considered only if it has not been published previously and is not under consideration for publication elsewhere.

Copyrights—After acceptance for publication, the copyright to the manuscript, including all tables and figures, rests with *Prehospital and Disaster Medicine*.

Instructions for Authors

Cover Letter-Each manuscript should be accompanied by a signed cover letter from the primary author who attests to the original nature of the material, that the paper has not been published elsewhere, is not under consideration by any other publication, and that the authors agree to transfer copyright to Prehospital and Disaster Medicine if accepted for publication. The institution(s) in which the work was performed, the sponsoring institution(s), and the respective departments must be annotated. If the work was supported all or in part by grants or endowments, the granting institution(s) should be indicated. If the paper has been, or is to be presented in a forum orally or as a poster, indicate the title of the forum, sponsoring institution, and the date of presentation. Specify the name of the author with whom any correspondence should be directed, and, correspondence street address, telephone number, facsimile (fax) number, and e-mail address if appropriate.

Cover Page—Include a cover page that includes the title of the paper, first names, middle initials, last names, and highest academic degrees of all authors. Reiterate from the cover letter the name of the author with whom any correspondence should be directed and the street address, telephone number, facsimile (fax) number, and email address if appropriate. Do not indicate author names or institutions anywhere in the manuscript other than on the cover page.

Language—All manuscripts must be submitted in English. Also, do not use I, We, or Our when describing the researchers. The fact that the research was conducted by the authors is implicit.

Abbreviations for groups of words may be used only for unusually cumbersome titles or for commonly accepted abbreviations. Whenever such abbreviations are used, they must be annotated with the initial mention of words within the manuscript followed by the abbreviation in parentheses. In addition, list eight or more keywords or phrases in alphabetical order separated by semicolons to facilitate indexing or electronic searches.

Paper, Margins, and Type Style-Manuscripts should be submitted on plain white paper, letter size up to A4, 8.27" by 11.69" (210 mm by 297 mm). Do not right justify the margins. Use standard type styles. Double space all text.

Generic Names—Whenever possible, use generic names. Brand names may be indicated parenthetically and the name and location of the manufacturer must be provided in parentheses followed by a generic description of the medication, drug, product, or equipment.

References-References must be cited in the sequential order in which they appear in the text. All references should be parenthetically cited by full-sized Arabic numbers in the text, tables, and legends for illustrations. Repeated use of a reference must bear the number of the first time this reference is used. Titles of journals referenced must be annotated using standard Index Medicus abbreviations and must be underscored. Unpublished data or personal communications should be indicated in parentheses directly following the reference and should include the dates of such correspondence (Personal Communication, Safar P, October 1989). The following format for references must be used:

Journals-White SJ, Hamilton WA, Veronesi JF: Comparison of field techniques used to pressure infuse intravenous fluids. Prehosp Disast Med 1991;6:429-434.

Books-Schwartz GR, Safar P, Stone JH, et al (eds), Principles and Practice of Emergency Medicine. 2d ed. Philadelphia: WB Saunders Co., 1985, pp 1198-1202.

Chapters-Lindberg R: Pathology of Head Injuries. In: Cowley RA, Trump BF (eds), Pathophysiology of Shock. Baltimore: Williams and Wilkins, 1982, pp 588-592.

Website-International Crisis Group: Impact of the Bali bombings. In: Indonesia Briefing, Jakarta/ Brussels. Available at http://www.crisisweb.org/projects/asia/indonesia/reports/A400804 _24102002.pdf. Accessed 09 June 2003.

Tables—Tables must be numbered as referenced in the text and each typed on a separate page, placed at the end of the manuscript. Do not include tables in the body of the text.

Figures-Illustrative materials must be of professional quality, should be submitted as large as possible, up to 8.27" by 11.69" (A4 210 mm by 297 mm), and be at least 600 dpi resolution. Color illustrations must be discussed with the editor. All graphs and charts must be saved in a JPG/TIFF format and are to include a legend. TIFF files are preferred

Permissions-Illustrations or tables from other publications must be accompanied by written permission from the author and publishers of the document in which they originally appeared.

Publication Schedule-Manuscripts should be published within 6 to 9 months of acceptance and receipt of revisions.

Additional Information

Contact Marvin L. Birnbaum, MD, PhD, Editor, Prehospital and Disaster Medicine, Clinical Science Center, 600 N. Highland (6733), Madison, WI 53792 USA, Express Mail/FedEx, mail to: 3330 University Avenue, Suite 300, Madison, WI 53705 (+1) (608) 263-9641; E-mail: mlb@medicine.wisc.edu.

Visit our Website: http://pdm.medicine.wisc.edu.

EDITORIAL BOARD

Prehospital and Disaster Medicine

EDITORS-IN-CHIEF

Jeffrey Arnold, MD

Medical Director, Emergency Department Medical Director of Quality Natividad Medical Center Salinas, California USA

Marvin L. Birnbaum, MD,

University of Wisconsin-Madison Madison, Wisconsin USA

ASSOCIATE EDITORS Wolfgang Dick, Dr Med

Johannes Gutenberg Universität Mainz, Germany

Kimball Maull, MD

Carraway Injury Control Institute Birmingham, Alabama USA

Steven Rottman, MD

University of California-Los Angeles Los Angeles, California USA

Samuel Stratton, MD

University of California-Irvine Los Angeles, California USA

SECTION EDITORS

International Health Law and Ethics Michael Hoffman, JD Washington, DC UŚĂ

PAST EDITORS Peter Safar, MD

Deceased (JWAEDM 1981-1985)

R. Adams Cowley, MD Deceased

(JWAEDM 1986-1987)

CONSULTING EDITORS

Peter Baskett, MD

Editor: Resuscitation Frenchay Hospital Bristol, UK

S. William A. Gunn, MD

European Centre for Disaster Medicine Geneva, Switzerland

Martin Silverstein, MD

Uniformed Services University of the Health Sciences Bethesda, Maryland USA

Ronald Stewart, MD

Victoria Hospital Halifax, Nova Scotia, Canada

EDITORIAL BOARD

Jakov Adler, MD

Jerusalem, Israel

Ahmed Ammar, MD King Fahd Medical Complex

Riyadh, Saudi Arabia

V. Anantharaman, MD Singapore General Hospital

Singapore

Frank Archer, MD

Monash University Melbourne, Australia

Jan Babik, MD

Kosice Burn Center Kosice-Saca, Slovakia

Richard A. Bissell, PhD

University of Maryland-**Baltimore County** Baltimore, Maryland USA

David A. Bradt, MD, MPH

Royal Melbourne Hospital Melbourne, Australia

Fredrick M. Burkle, MD, MPH

Johns A. Burns School of Medicine Houston, Texas and Honolulu, Hawaii USA

Felipe Cruz-Vega, MD

Social Security Mexico City, Mexico

Richard O. Cummins, MD

University of Washington Seattle, Washington USA

Craig DeAtley, PA-C

George Washington University Medical Center Washington, DC USA

Claude de Ville de Goyet Consultant WHO/PAHÓ

James DuCharme, MD

Royal Victoria Hospital Montréal, Quèbec, Canada

Judith Fisher, MD

Consultant, Disaster Medicine Pleasant Hill, California USA

Malcolm Fisher, MD

Royal North Shore Hospital Sydney, Australia

Alain Flaujat, MD

Editor, Amelisap Olonzao, France

Erik S. Gaull

George Washington University Washington, DC USA

Sergey Goncharov, MD

All-Russian Disaster Medicine Center Moscow, Russia

Michael Gunderson

Health Analytics Lakeland, Florida USA

Keith Holtermann, MD

George Washington University Washington, DC USA

Mark S. Johnson, MPA

Retired Chief of EMS Juneau, Alaska USA

Mark Keim, MD

Centers for Disease Control and Prevention Atlanta, Georgia USA

Mark Klyachko, PhD

Center on Earthquake Engineering Petropavlovek, Kam, Russia

Per Kulling, MD

National Board of Health and Welfare Stockholm, Sweden

Baxter Larmon, PhD, EMT-P

University of California-Los Angeles Medical Center Los Angeles, California USA

Todd J. LeDuc, EMT-P

Deputy Fire Chief Broward Sheriff Fire Rescue Ft. Lauderdale, Florida USA

Mauricio Lynn, MD Miami, Florida USA

Graeme McColl

St. John Ambulance Service Christchurch, New Zealand

Susan D. McHenry

National Highway Traffic Safety Administration Washington, DC USA

Eric Noji, MD Centers for Disease Control and Prevention, Atlanta, Georgia Washington, DC USA

Muneo Ohta, MD

Senri Medical Center Osaka, Japan

Paul Paris, MD

Center for Emergency Medicine University of Pittsburgh Pittsburgh, Pennsylvania USA

Georg Petroianu, MD

University of Heidelberg Mannheim, Germany

R. Abdul Radjak, MD

Ministry of Health Jakarta, Indonesia

Edward Ricci, PhD

University of Pittsburgh Pittsburgh, Pennsylvania USA

Daniel Rodriguez, MD

San Jose, Costa Rica

Leonid B. Roshal, MD

Institute of Pediatrics Academy of Medical Sciences Moscow, Russia

Don Schramm

University of Wisconsin-Madison Madison, Wisconsin USA

Shao Xiaohong, MD

Peking Union Medical College Beijing, China

Edita Stok, MD

Ministry of Health Ljubjana, Slovenia

Knut Ole Sundnes, MD

Baerum Hospital Oslo, Norway

Frank Thomas, MD

Latter Day Saints Hospital Salt Lake City, Utah USA

Takashi Ukai, MD

Hyogo Emergency Medical Center Hyogo, Japan

Michael Van Rooyen, MD

Associate Professor, Harvard Medical School, Brigham and Women's Hospital Boston, Massachusetts USA

Yasuhiro Yamamoto, MD

Department of Emergency and Critical Care Medicine Tokyo, Japan

Harsh Wardhan, MD

Sundar Lal Jain Hospital Delhi, India