# PREHOSPITAL and DISASTER MEDICINE

Médecine Pré-Hospitalière et Médecine de Catastrophe

#### Volume 9, Number 4

**October–December 1994** 

#### **Original Research**

Standing Orders Versus Direct Medical Command Job Injuries of Urban Providers Liability Litigation in EMS Emergencies in the School Setting Outcome When Limiting Use of "Lights and Siren" Transport Arrival-to-Patient Contact Interval Endotracheal Intubation by Basic EMTs

#### **Special Reports**

Critical Thinking in the Paramedic Curriculum EMS Systems in the U.S. and China

#### **Brief Reports**

Outcome After Air Medical Transport for Intracranial Bleeding Perceptions of a Rural EMS System

#### Continuing Education

Earthquakes

The Official Journal of the National Association of EMS Physicians and the World Association for Disaster and Emergency Medicine in association with the National Association of State EMS Directors

#### **Published Quarterly by Jems Communications**

# Expert Craftmanship ... Quality Products ... Comprehensive Service ...

These are our traditions, our goals, and most importantly, our promises.



Angeles • HARTSON MEDICAL SERVICES • SI	haron Henry • Imperial Beach • Chula Vista • Bonita • National City • Jamul • Spring Valley	• Lemon Grove • La Mesa • San Marco
Diego • Solana Beach • Encinitas • Cardiff • F	Rancho Santa Fe • EXPRESS PARATRANSIT • San Diego • MERCY SERVICES • Scott Br	ady • Ed Rose • Grand Rapids • Reno •
<mark>k County • aughlin •</mark> Henderson • Boulder Ci	ty • MEDSTAR • Douglas Key • Fort Worth • Burleson • Carswell • Lockheed • Haltom C	ity • Haslet • Lakeside • Lake Worm •
naw • Westpyer Hills • White Settlement • AM	ERICAN MEDTECH • Josef Penner • Seattle • Bellevue • Kent • Renton • BAYSTAR MEDIC	AL SERVICES • Steven Athey • San Ma
Jose • San <sup>E</sup> rancisco • Oakland • Berkeley • E	AYSTAR SACRAMENTO • Janet Abernathy • Carmichael • Citrus Heights • Elk Grove • F	air Oaks • Folsom • North Highlards •
cho Cordov. • Rio Linda • West Sacramento •	SUPERIOR AMBULANCE COMPANY • David Shrader • Anaheim • Artesia • Brea • Compto	n • Costa Mesa • Cypress • El Segundo
len Grove • Invine • Laguna • Lakewood • La I		tos • Lynwood • Norwalk • Orange •
entia • San C emente • Stanton • Seal Beach •		briel • Pasadena • Monterey Parl • L
IR THERE MORTH • Rosemead • San Gabriel •	Countless	iron Henry • Imperial Beach • Clula V
tional City • Jamul • Spring Valley • Lemon G		ancho Santa Fe • EXPRESS PARATR
• MERCY MEDICAL SERVICES • Robert For	Hours of	/IEDSTAR • Douglas Key • Fort Worth
well • Lockneed • Haltom City • Haslet • Lake		N MEDTECH • Josef Penner • Seuttle
Renton  BAYSTAR MEDICAL SERVICES	Research	NR SACRAMENTO • Janet Aberra hy •
rus Heights • Elk Grove • Fair Oaks • Folsom	and 'Analysis	RIOR AMBULANCE COMPANY • Dav
eim • Artesia • Brea • Compton • Costa Mes	AND ANALYSIS	ora • La Habra Heights • La Miranao •
Beach • L s Angeles • Los Alamitos • Lynw	SAVE LIVES	orrance • Tustin • Westminster • Whi
• LIFELINE • Rosemead • San Gabriel • Pasa		asadena • Los Angeles • RESCUE 1 •
RTSON MED CAL SERVICES • Sharon Henry	ΑΤ ΤΗΕ	e • La Mesa • San Marcos • Del Nar •
na Beach • Encinitas • Cardiff • Rancho Sar		County • HALEY AMBULANCE • De
ghlin • Herderson • Boulder City • MEDSTA	CRITICAL	Lakeside • Lake Worth • River Caks
over Hills • White Settlement • AMERICAN M		6 • Steven Athey • San Mateo County
Francisco • Øakland • Berkeley • BAYSTAR \$	Moment.	olsom • North Highlands • Orangeva
ova • Rio Linda • West Sacramento • SUPERI		Mesa • Cypress • El Segundo • <sup>E</sup> llert
e « Irvine » Laguna « Lakewood » La Habra » L		ood • Norwalk • Orange • Paramount
Clemente • Slanton • Seal Beach • Torrance • T	Fustin • Westminster • Whittier • Yorba Linda • FOOTHILLS AMBULANCE • Evelyn Jeffries	• Golden • EMERGICARE • Bob Philips
TH • Rosen ead • San Gabriel • Pasadena • Lo	s Angeles • RESCUE 1 • Los Angeles • HARTSON MEDICAL SERVICES • Sharon Henry • I	mperial Beach • Chula Vista • Boni a • I
nul • Sprint Valley • Lemon Grove • La Mesa •	San Marcos • Del Mar • S an Beach • Encinitas • Cardiff • Rancho Santa F	e • EXPRESS PARATRANSIT • San Die
ICAL SERV CES • Robert Forbuss • Las Vega		• Douglas Key • Fort Worth • Burleson
heed • Halton City • Haslet • Lakeside • Lake V	North • River Oaks • Sagin	t • Josef Penner • Seattle • Bellev⊯e • K
YSTAR MED CAL SERVICES • Steven Athey •	San Maleo County • San San San San Sach Sach Sach	RAMENTO • Janet Abernathy • Carmicl
hts • Elk G ove • Fair Oaks • Folsom • North	Highlands • Orangevale • Rancho Cordova • Rio Linda • Elk Grove • EMERGICARE • Bo	b Phillips • Cheyenne • David Shrader
sia • Brea • Opmpton • Costa Mesa • Cypress	9573 Chesapeake Drive San Diego, CA 92123 619.496.4200	a Heights • La Miradao • La Palm. • L
Angeles • Los Alamitos • Lynwood • Norwall https://doi.org/10.1017/51049023X00041340 Publis	C • Orange • Paramount • Placentia • San Clemente • Stanton • Seal Beach • Torrance hed online by Cambridge University Press	• Tustin • Westminster • Whittier • Yo

mead • PROFESSIONAL AMBULANCE • Glendale • CHAIR THERE NORTH • Rosemead • San Gabriel • Pasadena • Los Angeles • RESCUE 1 • Los Angeles • HARTSON MEDIC

Third Announcement and Call for Papers



### 9th WORLD CONGRESS ON EMERGENCY AND DISASTER MEDICINE

JERUSALEM, ISRAEL, MAY 28 - JUNE 2, 1995

Under the auspices of:

The World Association for Disaster and Emergency Medicine Association Mondiale pour la Medecine de Catastrophe et D'Urgence (founded in 1976 as the Club of Mainz)

#### Dear Friend and Colleague,

During the 7th World Congress on Emergency and Disaster Medicine in Montreal, it was decided that the 9th Congress will be held in Jerusalem, Israel on May 28–June 2, 1995. The Congress will focus on the interdisciplinary approach to disaster planning and management, facilitating exchange of views and experience between members of rescue, security, community and medical services.

The Motto of the Congress will be "Integration of Agencies—The Key for Successful Management of Disasters." The latest experiences in civil strife, war situations, industrial, transportation and natural disasters will be presented and discussed, with active participation of Congress members in "Table Top Exercises."

Jerusalem is a nodal point of history, both ancient and modern, and the birthplace of three great religions. Rich in archaeology, art and culture, and blessed with exquisite natural beauty and an ideal Mediterranean climate, it is perfect place to combine science and travel.

Here is an opportunity of a Lifetime! We look forward to welcoming you to Israel in 1995.

**Dr. Y. Adler** Chairman, Organizing Committee

#### MAIN TOPICS

- A. Different disasters and man-made accidents
  - Famine and Disease
  - Earthquakes
  - Floods
  - War and terrorist activities
  - Transportation accidents
  - Industrial (hazmat) incidents

- B. Cooperation and coordination between all participating agencies, bodies and organizations at the disaster site
  - To be presented by a field exercise on the last day of the Congress.
- C. Education of the general public
- D. Exhibitions including audio and visual means, computer self teaching program in rescue techniques etc. to be presented at the venue.

FOR ANY FURTHER INFORMATION, PLEASE CONTACT:

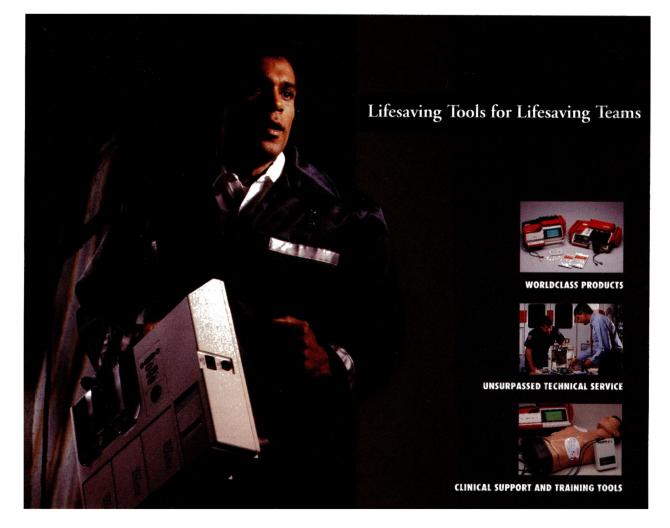
9th WORLD CONGRESS ON EMERGENCY AND DISASTER MEDICINE

P.O.BOX 50006, TEL AVIV 61500, ISRAEL, TEL: 972 3 5140014; FAX: 972 3 5175674, TLX: 341171 KENS IL

### TABLE OF CONTENTS

#### Volume 9, Number 4 October–December 1994

Editor's Corner Introduction, Courtship, Wedding, and Family Marvin L. Birnbaum, MD, PhD	200
Original Research Comparison of Interventions in Prehospital Care by Standing Orders Versus Interventions Ordered by Direct [On-Line] Medical Command C. James Holliman, MD, FACEP, Richard C. Wuerz, MD, FACEP, Gaspar Vazquez-de Miguel, MD, Steven A. Meador, MD, FAC	<b>202</b> EP
Disabling Job Injuries Among Urban EMS Providers Bartholomew J. Tortella, MTS, MD, FACS, Robert F. Lavery, BA, MICP	210
Emergency Medical Services Liability Litigation in the United States: 1987 to 1992 David L. Morgan, MD, FACEP, Michael P. Wainscott, MD, FACEP, Heidi C. Knowles, BS	214
<b>Emergencies in the School Setting: Are Public School Teachers Adequately Trained to Respond?</b> Monte Gagliardi, EdD, NREMT-P, Marianne Neighbors, EdD, RN, Caile Spears, MS, Scott Byrd, MS, REMT-A, Jamin Snarr, AD, NREMT-P	222
Patient Outcome Using Medical Protocol to Limit "Lights and Siren" Transport Douglas F. Kupas, MD, David J. Dula, MD, FACEP, Bruno J. Pino	226
System Implications of the Ambulance Arrival-to-Patient Contact Interval on Response Interval Compliance	230
<b>Teaching Basic EMTs Endotracheal Intubation: Can Basic EMTs Discriminate between</b> <b>Endotracheal and Esophageal Intubation?</b> <i>Michael R. Sayre, MD, FACEP, John Sakles, MD, Alan Mistler, RN, BSN, NREMT-P, Janice Evans, RN, MSN,</i> <i>Anthony Kramer, RN, BSN, NREMT-P, Arthur M. Pancioli, MD</i>	234
Special Reports Critical Thinking: Incorporation into the Paramedic Curriculum Judy Janing, RN, BSN, EMT-P	238
<b>Emergency Medical Services Systems in the United States and China: A Developmental Comparison</b> Frederick M. Burkle, Jr., MD, MPH, FAAP, FACEP, Xiaoping Zhang, MD, MPH, Walter Patrick, MD, PhD, Edward Kalinowski, BSN, Med, Zonghao Li, MPH	244
<b>Brief Reports</b> Outcome of Patients After Air Medical Transport for Management of Nontraumatic, Acute Intracranial Bleeding Robert Silbergleit, MD, Richard E. Burney, MD, Janine Draper, RN, Kris Nelson, RN	252
Public Perceptions of a Rural Emergency Medical Services System Lawrence H. Brown, EMT-P, N. Heramba Prasad, MD, Kirk Grimmer	257
Continuing Education Natural Hazards: Causes and Effects Lesson 2—Earthquakes Eddie Perez, Paul Thompson	260
Calendar	
Guidelines for Advertisers	
Index for Volume 9	273





Physio-Control is the world leader in the development and manufacture of the external defibrillator/monitor/pacemakers you need to help save lives. Worldclass products used daily in more than 75 countries.

Our instruments are technologically advanced, yet simple to use, so you can defibrillate, monitor, and pace, quickly and effectively, with confidence.

Our reputation for revolutionary products extends beyond manufacturing to the superior service we give every device we make. We back all our products with the largest network of field technical service representatives in the industry.

Run with the leader. Call Physio-Control.



Customer Support Center 800-442-1142 Telephone 206-867-4000 USA Fax 206-867-4146 International Fax 206-885-6507

01994 Physic-Control Corporation. PHYSIO-CONTROL and LIFEPAK are registered trademarks of Physic-Control Corporation.

### **NAEMSP** Annual Meeting

January 20-22, 1995 Registry Resort Naples, Florida

### DEBATES IN EMS Patient Care Administration Systems

Pre and Post Conference January 16 - 19, 23 - 24, 1995

National EMS Medical Director Course 
Pediatric Instructor Course - EMT- Basic Curriculum
Team Rollout - EMT-Basic Curriculum



For more information, call the NAEMSP Office at (412) 578-3222.

Editorial Office University of Wisconsin-Madison, USA

Marvin Birnbaum, MD, PhD, Editor-in-Chief James Pointer, MD, Associate Editor-in-Chief Kathleen Adler, Editorial Assistant

Advertising, Production, Subscription Jems Communications, Carlsbad, Calif., USA

Laura M. Gilbert, Executive Editor Tracy Michael, Managing Editor Max Weaver, Technical Editor Debbie Ruiz, Editorial Assistant/Reprints Elizabeth Coyne DiPinto, Graphics Specialist Cindy Baker, Marketing Manager

Richard Bilger, Advertising Sales Manager Marte Reavis, Advertising Sales MaryBeth Locastro, Advertising Sales Meg Davis, Advertising Sales Noel Godfrey, Fulfillment Coordinator Harriet Wilcox, Production Manager Janene Long Forman, Production Supervisor Georgette Bomar, Advertising Coordinator Ariel Handley, Classified Sales

Keith Griffiths, President

James O. Page, Publisher

Prehospital and Disaster Medicine (ISSN 1049-023X) is published quarterly in the months of December, March, June, and September by Jems Communications, 1947 Camino Vida Roble, Carlsbad, CA 92008-6513, USA; (619) 431-9797. 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, MD, Editor, Prehospital and Disaster Medicine, Clinical Science Center, 600 N. Highland (E5/615), Madison, WI 53792, USA; Phone/Fax 608/263-9641

Subscription Information: One year (four issues)—Institutions: (U.S.)\$78; Individuals: \$48; Residents/In Training: \$35; Paramedic, Nurse, EMT: \$35. Canadian subscribers must add \$10 per year, and international subscribers add (U.S.) \$20 per year for postage. Claims of non-receipt or damaged issues must be filed within three months of cover date.

Advertising Information: Contact Jems Communications, P.O. Box 2789, Carlsbad, CA 92018; (619) 431-9797; Fax (619) 431-8176

Abstracts: Abstracts available in the National Association of EMS Physicians Electronic Database and the Emergency Care Information Center (ECIC). Indexed in the Cumulative Index to Nursing and Allied Health (CINAHL). The database is available online via BRS, Data-Star, and DIALOG, and on CD-ROM through CD Plus, Compact Cambridge and Silver Platter.

Copyright © 1994 by the National Association of Emergency Medical Services Physicians (USA) and the World Association for Disaster and Emergency Medicine.

Postmaster: Send address changes to Prehospital and Disaster Medicine, P.O. Box 2789, Carlsbad, CA 92018.

Second-class circulation postage paid at Carlsbad, Calif., and at additional mailing offices.

# PREHOSPITAL and DISASTER MEDICINE

#### Médecine Pré-Hospitalière et Médecine de Catastrophe

THE OFFICIAL JOURNAL OF THE WORLD ASSOCIATION FOR DISASTER AND EMERGENCY MEDICINE (WADEM), THE NATIONAL ASSOCIATION OF EMERGENCY MEDICAL SERVICES PHYSICIANS (NAEMSP), IN ASSOCIATION WITH THE

THE NATIONAL ASSOCIATION OF STATE EMERGENCY MEDICAL SERVICES DIRECTORS (NASEMSD)

#### **EDITOR-IN-CHIEF**

Marvin L. Birnbaum, MD, PhD EMS Program University of Wisconsin–Madison Madison, Wisconsin, USA

#### ASSOCIATE

#### EDITOR-IN-CHIEF

James Pointer, MD North Broward Medical Center Pompano Beach, Florida, USA

#### ASSOCIATE EDITORS

Kimball Maull, MD Baltimore, Maryland, USA

Steven Rottman, MD Department of Emergency Medicine UCLA Hospitals and Clinics Los Angeles, California, USA

Martin Silverstein, MD Department of Surgery Uniformed Services University of the Health Sciences Bethesda, Maryland, USA

#### PAST EDITORS

R Adams Cowley, MD Deceased (JWAEDM 1986–87)

Peter Safar, MD International Resuscitation Research Center University of Pittsburgh Pittsburgh, Pennsylvania, USA (JWAEDM 1981–85)

Michael Gunderson, REMT-P Pinellas County EMS System Largo, Florida, USA (JPM 1987–88)

#### **CONSULTING EDITORS**

Peter Safar, MD International Resuscitation Research Center University of Pittsburgh Pittsburgh, Pennsylvania, USA

Ronald Stewart, MD Victoria Hospital Halifax, Nova Scotia, Canada

#### EDITORIAL BOARD

Jakov Adler, MD Shaare Zedec Medical Center Jerusalem, Israel Fritz Ahnefeld, MD

University of Ulm Ulm, Germany

Paul B. Anderson Boise, Idaho, USA

Jack Ayres, JD, REMT-P University of Texas Health Science Center Dallas, Texas, USA

Peter Baskett, MD Frenchay Hospital Bristol, UK

Jeff Clawson, MD Medical Priority Consultants, Inc. Salt Lake City, Utah, USA

Richard O. Cummins, MD University of Washington Seattle, Washington, USA

Craig DeAtley, PA-C George Washington University Medical Center Washington, D.C., USA

Wolfgang Dick, MD Johannes Gutenberg Universität Mainz, Germany

Norm Dinerman, MD Eastern Maine Medical Center Bangor, Maine, USA

James DuCharme, MD Royal Victoria Hospital Montréal, Quèbec, Canada

Eelco Dykstra, MD Center for International EMS Wiesbaden, Germany

Morgan Fahey, MD, OBE Shirley Medical Centre Christchurch, New Zealand

Judith Fisher, MD British Association for Immediate Care London, UK

Malcolm Fisher, MD Royal North Shore Hospital Sydney, Australia

George Foltin, MD Bellevue Hospital Center New York University Medical Center New York, New York, USA S. William A. Gunn, MD European Centre for Disaster Medicine Medical Society of the WHO Geneva, Switzerland

Mark S. Johnson EMS Section, Alaska Dept. Public Health Juneau, Alaska, USA

Alexander Kuehl, MD, MPH Cornell University Medical College New York, New York USA

Per Kulling, MD Swedish Poison Information Centre

Stockholm, Sweden

John C. Lane, MD University of Campinas Medical Center Sao Paolo, Brazil

Baxter Larmon, PhD, EMT-P UCLA Medical Center Los Angeles, California, USA

Prof. Li Zhong-Hao, MD Beijing Emergency Medical Center Beijing, China

cijing, onnu

Susan D. McHenry EMS Division, Virginia Dept. of Health Richmond, Virginia, USA

Norman E. McSwain, Jr., MD Tulane University Medical Center New Orleans, Louisiana, USA

Sergio Magalini, MD Universita Cattolicà del Sacro Cuore Rome, Italy

Ronald F. Maio, DO University of Michigan Medical Center Ann Arbor, Michigan, USA

Michael Moles, MD Prince Philip Hospital Hong Kong University Hong Kong

Prof. Bernard Nemitz, MD Service d'Aide Medicale Urgente Centre Hospitalier Regionale et Universitaire Amiens, France Eric Noji, MD United States Centers for Disease Control & Prevention Atlanta, Georgia, USA

Judy Olson, BSN University of Wisconsin–Madison Madison, Wisconsin, USA

James O. Page, JD Emergency Care Information Center

Carlsbad, California, USA Paul Paris, MD University of Pittsburgh

Pittsburgh, Pennsylvania, USA Jirí Pokorny, MD, DrSc Post-Graduate Medical School Prague, Czech Republic

Lawrence W. Rose, MD Bethesda, Maryland, USA

Leonid B. Roshal, MD Institute of Pediatrics Academy of Medical Sciences Moscow, Russia

Sandra M. Schneider, MD University of Rochester Medical Center

Rochester, New York USA

Victor Semenov, MD Reanimatology Institute Academy of Medical Sciences Moscow, Russia

Carol J. Shanaberger, JD, EMT-P Attorney at Law Lakewood, Colorado, USA

Shao Xiaohong, MD Peking Union Medical College Chinese Academy of Medical Science Beijing, China

Daniel Spaite, MD University of Arizona Tucson, Arizona, USA

Takashi Ukai, MD Osaka City General Hospital Osaka, Japan

Donald Yealy, MD University of Pittsburgh Pittsburgh, Pennsylvania USA

# There is only one automatic Epinephrine Injection.

For self administration in any allergic emergency...

### EpiPen® EPĪNEPHRINE AUTO-INJECTORS

### Just remove safety cap and press into thigh.

Brief summary: Before prescribing, please consult package insert. DESCRIPTION: The EpiPen Auto-Injectors contain 2 mL Epinephrine Injection for emergency intramuscular use. Each EpiPen Auto-Injector delivers a single dose of 0.3 mg epinephrine from Epinephrine Injection, USP, 1:1000 (0.3 mL) in a sterile solution. Each EpiPen Jr. Auto Injector delivers a single dose of 0.15 mg epinephrine from Epinephrine Injection, USP, 1:2000 (0.3 mL) in a sterile solution. Each 0.3 mL also contains 1.5 mg sodium of toribation. The pH range is 2.5-5.0. CLINICAL PHARMACOLOGY: Epinephrine is a sympathomimetic drug, acting on both apha and beta receptors. It is the drug of choice for the emergency treatment diseveral elirgic reactions (Type 1) to insect times or bits, nodo, drugs, and other allergens. It can also be used in the treatment of idiopathic or exercise-induced anaphylaxis. Epinephrine when of actors. INDICATIONS AND USAGE: Epinephrine is indicated in the emergency treatment

anaphylaxis. Epinephrine winen given sudcutariedusy un intra intracutary was a traver sonest and short duration of action. INDICATIONS AND USAGE: Epinephrine is indicated in the emergency treatment of allerçic reactions (anaphylaxis) to insect stings or bites, foods, drugs and other allergens as well as idiopathic or exercise-induced anaphylaxis. The EpiPen Auto-injector is intended for immediate self-administration by a person with a history of an anaphylactic reaction. Synche tactiveraria, thready or unoblatinable pulse associated with a fall in blood pressure, convulsions, vomiting, diarrhea and abdomial cramps, involuntary voiding, whereing, dyspene due to larynpeal spasen. pruritis, rashes, urticaria or angioedema. The EpiPen is designed as emergency supportive therapy only and is not a replacement or substitute for immediate medical or hospital care. **CONTRAINDICATIONS:** There are no absolute contraindications to the use of elinephrine in al fle-threatening situation.

CONTRAINDIGATIONS: There are no absolute contraindications to the use of epimephrine in allef-threatening situation. WARNINGS: Epimephrine is light sensitive and should be stored in the tube provided. Store at room temperature (15~30°C59°-66°F). Do not refrigerate. Before using, check to make sure solution in Auto-injector is not discolored. Replace the Auto-injector if the solution is discolored or contains a precipitate. Avoid possible indevertent intravascular administration. Select an appropriate injection site such as the thingh. DO NOT INLECT INTO BUTTOCK. Large doese or accidental intravenous injection of epimephrine may result in cerebra the morrhage due to sharp rise in blood pressure. DO NOT INLECT INTRAVENOUSLY. Rapidly acting vasodilators can coun-terart the marked to resour effects of epimephrine. Pressure. DO NOT INJECT IN HAVENUUSE 1. Inspired sounds teract the marked pressor effects of epinephrine. Epinephrine is the preferred treatment for serious allergic or other emergency

situations even though this product contains sodium metabisulfite, a sulfite that may in other products cause allergic-type reactions including ana-phylactic symptoms or life-threatening or less severe asthmatic episodes in certain susceptible persons. The alternatives to using epinephrine in a life-threatening situa-tion may not be astificatory. The presence of a sulfite in this product should not deter administration of the drug for treatment of serious allergic or other emergency situa-tions.

administration of the drug for treatment of serious allergic of other emergency situa-tions. Accidental injection into the hands or feet may result in loss of blood flow to the effected area and should be avoided. If there is an accidental injection into these areas, go immediately to the nearest emergency room for treatment. EpiPen should ONLY be injected into the anteriolateral aspect of the thigh. **RECAUTIONS:** Epinephrine is ordinarily administered with extreme caution potatients who have heat diseases. Use of epinephrine with drugs that may sensitize the heat to archythmias, e.g., digitalis, mercural diuretics, or quindine, ordinarily is on recommended. Angoing login may be induced by expinephrine in a platents with coronary insufficiency. The effects of epinephrine may be potentiated by tricyclics, individuals with cardiovascular disease, hypertension, or diabetes, elderly individuals, individuals with cardiovascular disease, hypertension, or diabetes, elderly individuals, individuals with cardiovascular disease, hypertension, or diabetes, enderly individuals, individuals with cardiovascular disease, hypertension, or diabetes, elderly individuals, individuals with cardiovascular disease, hypertension, or diabetes, elderly individuals, individuals with cardiovascular disease, hypertension, or diabetes, elderly individuals, individuals with cardiovascular disease of a platient experiment of anaphytixis. Therefore, patients with these conditions, and/or any other person who might be in a solution be out be used. **ACCINGENESIS, MUTAGENESIS, IMPAIRMENT OF FERTILITY:** Studies of membring in animate to interast the test.

CARCINOGENESIS, MUTAGENESIS, IMPAIRMENT OF FERTILITY: Studies of

CAACINUGENESIS, MUIAGENESIS, IMPAIRMENT OF FERTILITY: Studies of epinephrine in animals to evaluate the carcinopenic and mutagenic potential or the effect on fertility have not been conducted. USAGE IN PRECONACY: Pregnancy Category C: Epinephrine has been shown to be teratogenic in rats when given in doses about 25 times the human dose. There are no adequate and well-controlled studies in pregnant womer. Epinephrine should be used during pregnancy only if the potential benefit justifies the potential risk to the feus.

used during pregnancy only if the potential benefit justifies the potential risk to the fetus. PEDIATRIC USE: Epinephrine may be given safely to children at a dosage appropriate to body weight (see Dosage and Administration). ADVERSE REACTIONS: Side effects of epinephrine may include palpitations, tachycardia, sweating, nausea and vomiting, respiratory difficulty, pallor, dizziness,

akness, tremor, headache, apprehension, nervousness and anxiety. Cardiac arrythmias may follow administration of

OVERDOSAGE: Overdosage

WERDOSAGE: Overdosage of epinephrine may cause cerebral hemorrhage resulting from a sharp rise in blood pressure. Fatalities may also result from pulmonary dema because of peripheral vascular constriction together with cardiac stimulation. DOSAGE AND ADMINISTRATION: Usual epinephrine adult dose for allergic emergencies is 0.3 mg. For pediatric use, the appropriate dosage may be 0.15 or 0.30 mg depending upon the body weight of the patient. However, the prescribing physi-cian has the option of prescribing more or less than these amounts, based on careful assessment of each individual patient and recognizing the life-threatening nature of the reactions for which this drug is being prescribed. With severe persistant anaphy-laxis, repeat injections with an additional EpiPen Jr. Auto-Injectors are available singly or in packages of twelve.

packages of twelve. CAUTION: Federal (U.S.A.) law prohibits dispensing without a prescription. Issued: April 1992

#### Center (Ø 0 **Center Laboratories** Division of EM Industries, Inc.

35 Channel Drive, Port Washington, NY 11050 Tel. 800-2-CENTER or 516-767-1800 Distributed in Canada by Allerex Laboratories, Ltd., Kanata, Ontario. Tel. 613-592-8200

Manufactured for Center Laboratories by Survival Technology, Inc. Rockville, MD 20850 U.S. Patent Nos. 3,882,863, 4,031,893 and 3,712,301



The National Association of EMS Physicians announces

### Cerebral Resuscitation Paper Competition for 1995

Naples, Florida \$5,000 Awarded to Four Finalists Deadline: November 15, 1994

#### **General Information**

Four finalists will be selected, and papers presented at a special showcase session at the NAEMSP Annual Meeting. The meeting will take place in Naples, Florida, January 19-22, 1995, at the Registry Resort. The first place winner will receive a \$2,000 cash award and a plaque. The three runners-up will each receive \$1,000 and a plaque.\*

Finalists must present their papers at the meeting to win the awards. Finalists may have presented at another meeting as well.

### **Submission Deadline**

Abstracts must be submitted on the official abstract form and must be received (not postmarked) by November 15, 1994 at the NAEMSP National Office. To obtain official abstract forms, please call the NAEMSP Office at (412) 578-3222.

### Criteria

Eligible abstracts must pertain to brain resuscitation, and can be either basic science or clinical research. Topics include, but are not limited to:

- Global Ischemia/Cardiac Arrest
- Shock/Low Flow States
- Head Trauma
- Stroke/Focal Ischemia
- Intracranial Hemorrhage

#### **Eligibility**

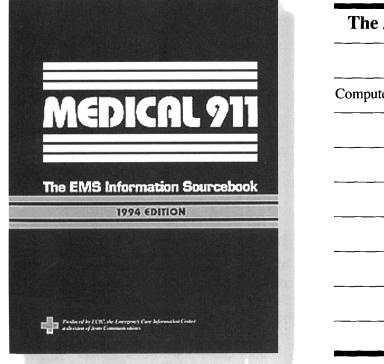
Abstracts may be new or may have been previously presented provided they were presented after January 1, 1993 and have not been published in manuscript form by January 1995.

\*This award has been made possible through an educational grant given by The Upjohn Company.

To obtain official NAEMSP abstract forms or for more information, please call the NAEMSP Office at (412) 578-3222.

### You can have the Jems Emergency Care Information Center right at your fingertips

24 hours a day, seven days a week



The JEMS EMS Information Sourcebook		
	Agencies and Organizations	
Computer S	oftware, Data Bases and Bulletin Board Services	
	Consultants and Attorneys	
	Literature Index	
	Reports and Studies	
	Books	
	Journals	
	Audiovisual Materials	
	Products and Services	

Produced by the Jems Emergency Care Information Center (ECIC), this updated version of *Medical 911* is the most comprehensive EMS sourcebook on the market.

Information changes quickly and the ability to access the information you need quickly and accurately is vital to staying on top of your profession. The 1994/95 edition of *Medical 911* is packed with information sources capable of enhancing the

planning, implementation and administration of EMS transportation, training and service programs. Thousands of current listings, cross-referenced and indexed for your convenience, are divided into nine sections.

*Medical 911* is priced right at only \$59.95. It's like having the Jems Emergency Care Information Center right at your fingertips, whenever you need it.

## **30-Day FREE Trial Offer**

# You need to see it to believe it!

To order this lifesaver for a free trial review, call the JEMS Bookstore at the toll-free number (800) 266-JEMS. We'll send your copy immediately! If for any reason, you are dissatisfied, simply return the book within the 30-day trial period, and you won't be billed.

### **Be part of the solution** Join THE WORLD ASSOCIATION FOR DISASTER AND EMERGENCY MEDICINE



(founded in 1976 as The Club of Mainz) ASSOCIATION MONDIALE POUR LA MÉDECINE DE CATASTROPHE ET D'URGENCE

The management science of mass emergencies and disasters is evolving very rapidly. As a member of the World Association for Disaster and Emergency Medicine, you'll quickly see that we are in the exhilarating position of pioneers — ground-floor witnesses and participants in a profound change that signals hope in today's troubled world.

Our members are involved—and informed. Our international meetings provide an excellent means for both scientific advancement and social interaction. And the fellow-members you will meet are active participants in prehospital and disaster medicine and emergency care, from a variety of different medical specialities, worldwide.

WADEM Membership includes:

- An annual subscription to *Prehospital and Disaster Medicine*
- A membership certificate
- A biannual newsletter
- A directory listing all members
- International recognition at the World Congresses and other WADEM meetings
- Preferred rates on registration at the Congress
- Special Affiliated Society Membership advantages

9th WADEM World Congress 28 May-2 June, 1995 • Jerusalem, Israel

For more information, please call Pam McMaster (US) at 619/431-6975 or fax at 619/431-8135.

> The World Association for Disaster and Emergency Medicine 1947 Camino Vida Roble, Suite 202 Carlsbad, California 92008 USA Tel: (619) 431-6975 FAX: (619) 431-8135

### HAZMAT MEDICAL ASSOCIATES

- Full line of **Hazmat** products for hospital use (i.e. protective clothing kits, sample kits, decon kits wall flow chart).
- Training for hospital personnel on the management of the **Hazmat** patient(s).
- Written procedures for the management of the **Hazmat** patient in the emergency department.
- And of course...



- Burns
- Trauma
- Bathing
- Seizures
- Decontamination
- Hyperthermia
- Febrile Children
- Flushing Wounds
- Eye Injury
- Pediculosis

"The Cat" helps put hospitals in compliance of: • JCAHO • OSHA • EPA • standards for bloodborne pathogens, and hazardous materials collection & disposal.

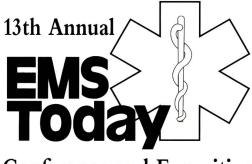
 $\star \star \text{Review} \star \star$ 

"The Cat" is the "BEST" contamination control product available for hospitals and nursing homes on the market today."

Ind. Risk Management Consultant

#### HAZMAT MEDICAL ASSOCIATES 8501 W. 191ST ST. Suite 10 Mokena, Illinois 61360 800-HMA-4002

### Picture yourself at EMS Today!



March 11–14, 1995 Baltimore, Maryland

**Conference and Exposition** 

### This year will be different.



Baltimore is less than a day's drive from many of the nation's major prehospital services and agencies.

### We're going East.

Baltimore's the place for EMS Today '95—the conference of choice for EMTs, paramedics, nurses, physicians, instructors, medical directors and administrators.

### We've lowered prices.

This EMS Today will be the most affordable yet. Get 4 full days of education, networking and fun for only \$365. You'll save even more if you register as a group.

# We're letting you design your conference schedule.

Picture yourself attending for 1, 2 or 3 days at our new lower rates. Or choose the special gold passport for 4 full days—the ultimate educational experience.



You'll get answers you need and CE credits, too.



And you'll still get high-quality educational sessions from powerful speakers on topics most critical to you with take-home, put-to-use solutions. Plus a huge exhibit hall with the latest product and service innovations.

### Set aside time now to attend EMS Today '95.

**Baltimore will be the best EMS Today ever.** Call **800/266-JEMS** today for a FREE brochure and find out how truly affordable EMS Today is.

# naemsp database

a valuable resource for practicing ems physicians and all ems personnel

### Computer Database Project

- Retrieve medical literature relevant to pre-hospital and inter-hospital emergency medical care.
- Send and receive electronic mail with other EMS professionals.
- Modem speeds up to 14.4k baud with compression on our dial in phone lines.
- Accessible through INTERNET, the current computer information superhighway.

### NEW!! Policies, Procedures and Position Papers. . .

- This is the second "data base" of information which offers a unique resource to EMS professionals charged with writing, reviewing and implementing EMS operating policies.
- We are collecting and cataloging policies, medical orders and operating guidelines in use in the EMS systems of many of the largest cities in the United States.
- In addition, all position papers to date of the National Association of EMS Physicians as well as other recognized professional organizations impacting on EMS, including the State EMS Directors are included. This information is catalogued and key word searchable, on-line.

To receive more information about the NAEMSP Computer Database, call (412) 578-3222.

