### CURRICULUM VITA

Frank R. Lewis, Jr.

### ADDRESS

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## MEDICAL LICENSURE AND CERTIFICATION

Licensure: California Medical License C-28485

Maryland Medical License D-06048 Michigan Medical License 4301060679

Certification: American Board of Surgery - 1973

National Board of Medical Examiners-Parts I,II,III Advanced Trauma Life Support - 1990, 1994, 1998

Fellowship: American College of Surgeons - 1974

#### BIOGRAPHICAL

Born: February 23, 1941

Willards, Maryland

Military: United States Army Medical Corps

Active Reserve, 1966-72

**High School:** Wicomico High School

Salisbury, Maryland Academic Diploma - 1958

College: Princeton University

A.B.-Physics, cum Laude - 1961

Medical School: University of Maryland Medical School

Baltimore, Maryland

M.D. - 1965

Graduate School: Ph.D. Coursework and Thesis Research in

Medical Physics - 1966-67 and 1969-70 UC, Berkeley

### POSTGRADUATE TRAINING

Internship: Mixed Medical-Surgical - 1965-66

San Francisco General Hospital

Residency: General Surgery - 1967-71

Univ of California, San Francisco

Chief Resident: General Surgery - 1971-72

Univ of California, San Francisco J. Englebert Dunphy, M.D., Chairman

Fellowship: NIH Trauma Research Fellow - 1972-73

Univ of California, San Francisco F. William Blaisdell, M.D., Advisor

## ACADEMIC APPOINTMENTS and EMPLOYMENT

| 1972-73   | Instructor in Surgery<br>Univ of California, San Francisco          |
|-----------|---|
| 1973-79   | Assistant Professor of Surgery<br>Univ of California, San Francisco |
| 1979-83   | Associate Professor of Surgery<br>Univ of California, San Francisco |
| 1983-1992 | Professor of Surgery<br>Univ of California, San Francisco           |
| 1987-1992 | Vice Chairman, Dept of Surgery<br>Univ of California, San Francisco |
| 1994-2002 | Professor of Surgery<br>Case Western Reserve University             |
| 2002-2017 | Executive Director, American Board of Surgery                       |

#### HOSPITAL APPOINTMENTS

### San Francisco General Hospital

| 1973-80 | Surgical Director<br>Medical-Surgical Intensive Care Unit |
|---------|---|
| 1980-83 | Director, Emergency Department                            |
| 1983-85 | Chief of Staff  |
| 1981-86 | Assistant Chief of Surgery                                |

1986-1992 Chief of Surgery

## Henry Ford Hospital

| 1992-2002 | Chairman, Dept of                      | Surgery                                    |
|-----------|--|--|
| 1993-99   | Program Director,                      | Surgical Residency                         |
| 1998-99   | Medical Director,<br>Hospital (Level I | Trauma Services, Henry Ford Trauma Center) |

## Hurley Hospital, Flint, MI

1999-2002 Administrative oversight, Trauma Services, Hurley
Hospital, (Level I Trauma Center), Flint, MI

## HONORS, AWARDS, AND FELLOWSHIPS

| 1958            | National Merit Scholar  |
|-----------------|---|
| 1961            | cum Laude, Physics  |
| 1961            | Society of the Sigma Xi (scientific honorary society)                                 |
| 1969-71         | NIH Surgical Training Fellowship  |
| 1972-73         | NIH Special Fellowship in Trauma  |
| 1990            | UCSF Surgery Residents' Recognition for Excellence in Teaching                        |
| 1991<br>Faculty | AOA Chapter Award for Outstanding UCSF<br>Teacher - 1990-91                           |
| 1991            | UCSF Surgery Residents' Recognition for Excellence in Teaching                        |
| 1992            | UCSF Class of 1992 Award for Excellence in Teaching                                   |
| 1994            | Outstanding teacher award, from Univ of Michigan students at Ford Hospital, June 1994 |

# PROFESSIONAL ACTIVITY

| SCIENTIFIC ORGANIZATIONS  |   |  |
|---|---|--|
| 1972-present  | Howard C. Naffziger Surgical Society  |  |
| 1974-1996   | Critical Care Medicine Society  |  |
| 1975-1992<br>1985-86  | San Francisco Surgical Society<br>Program Chairman  |  |
| 1977-present<br>1980-82   | Association for Academic Surgery<br>Program Committee   |  |
| 1977-present<br>1990-94<br>1997-99<br>1998-03<br>1998-99<br>1999-2000       | American Assoc for the Surgery of Trauma<br>Program Committee<br>Scholarship Committee<br>Board of Managers<br>President-Elect<br>President |  |
| 1978-present<br>1989-90<br>1988-91  | Shock Society<br>President<br>Council   |  |
| 1981-present  | Society of University Surgeons  |  |
| 1982-present  | Surgical Infection Society  |  |
| 1982-1996<br>1984-90  | Pacific Coast Surgical Association<br>PCSA Representative to GS Advisory Council  |  |
| 1982-present  | Surgical Biology Club II  |  |
| 1986-present  | American Surgical Association   |  |
| 1988-present  | Western Surgical Association  |  |
| 1993-present<br>1997-2000   | Central Surgical Association<br>Councillor  |  |
| 1993-2002   | Academy of Surgery, Detroit, MI   |  |
| 1993-2002   | Detroit Surgical Association  |  |
| EDITORIAL BOARDS  1982-88 1988-2002 1988-1993 1992-1996 1993-2000 1994-2008 | Journal of Surgical Research Journal of Trauma Circulatory Shock Critical Care Medicine Shock Journal of the American College of Surgeons   |  |
| 1998-2000   | Journal of Surgical Outcomes  |  |

# PROFESSIONAL STANDARDS/REGULATORY ORGANIZATIONS

| 1988-1995  | Chairman, Trauma Indicators Development Task Force<br>Joint Commission on the Accreditation of Health<br>Care Organizations   |
|--|---|
| 1989-1995<br>1993-1995   | Residency Review Committee for Surgery<br>Chairman  |
| 1990-1995  | Consultants' Committee for the Development of the<br>General Surgery Board Examination, American<br>Board of Surgery  |
| 1995-2001<br>1996-1999<br>1998-2000<br>1999-2000<br>2000-2001<br>2002-2017 | American Board of Surgery (representative of the American Surgical Association) Chairman, Qualifying Examination Committee Chairman, Issues Committee Vice Chairman Chairman Executive Director |
| 1999-2000  | Surgery RRC Ad Hoc Committee for Development of Resident Operative Registry   |
| 1981-92<br>1984-87<br>1987-89  | California Emergency Medical Services Commission<br>Vice-Chairman<br>Chairman   |
| 1984-85  | Chairman, California Task Force to Develop<br>Trauma Care Regulations   |

## RESEARCH REVIEW COMMITTEES

| 1986-1992 | Injury Research Grant Review Committee<br>Division of Injury Epidemiology and Control<br>Centers for Disease Control                            |
|-----------|---|
| 1987-89   | Chairman, Project Steering Committee<br>U.S. Army - Pharmacia - Hypertonic Saline-<br>Dextran Solution for Trauma Resuscitation                 |
| 1988      | Committee to Review the Injury Control Program<br>at the Centers for Disease Control<br>National Academy of Sciences<br>William Foege, Chairman |
| 1991      | Institute of Medicine, Task Force on Clinical<br>Research in Surgery  |
| 1994      | NIH Task Force for the development of a strategic plan for NIH for trauma research, Washington, DC 1/31-2/2/94. Chair, Resuscitation Com        |

## AMERICAN COLLEGE OF SURGEONS

| <u>National</u><br>1980-1990  | Dwg and Dogton Come Committee  |  |
|---|--|--|
|   | Pre and Postop Care Committee  |  |
| 1984-1990   | Advisory Council for General Surgery   |  |
| 1987-1998<br>1988-92<br>1988-2002<br>1989-96<br>1991-93<br>1991-98<br>1993-98 | Committee on Trauma Executive Committee Verification Program Surveyor Trauma Registry Committee Resources Document Revision Committee Membership Committee Chairman        |  |
| 1988-1993<br>1989-93<br>1989-93<br>1989-93<br>1990-91<br>1991-93              | Governor, American College of Surgeons Executive Committee Committee on Hospital Practice Committee on AIDS Vice Chairman, Board of Governors Chairman, Board of Governors |  |
| 1992-1994   | RVS Update Committee   |  |
| 1995-96   | First Vice President, ACS  |  |
| <u>Local</u><br>1974-1992<br>1984-1992  | Northern California Chapter member<br>Council member   |  |
| 1980-1984<br>1980-81  | Program Committee<br>Chairman, Trauma Section  |  |
| 1981-1992<br>1982-89  | Northern California Committee on Trauma<br>Chairman  |  |
| 1993-2001<br>1994-2001  | Program Committee, Michigan Chapter, ACS<br>Council, Michigan Chapter, ACS   |  |
| Committee on Trauma Activities  |  |  |
| 1985, 1986  | Site Visit Team for Regional Trauma Planning and Trauma Center Evaluation, Santa Clara County  |  |
| 1985  | Site Visit Team for Regional Trauma Planning and Trauma Center Evaluation, Fresno County   |  |
| 1987  | Site Visit Team for Regional Trauma Center<br>Evaluation, State of Pennsylvania  |  |
| 1988  | COT Verification Site Visit, Wm. Beaumont Army<br>Hospital, El Paso, TX  |  |

| 1990 | COT Verification Site Visit, University of New Mexico, Albuquerque, NM  |
|------|---|
| 1991 | COT Consultation Site Visit, Dallas Fort Worth Medical Center, Grand Prairie, TX, 6/91  |
| 1991 | Consultant, Department of Defense, Civilian<br>External Peer Review Program, Trauma Care<br>Evaluation, Washington, DC, 6/91 and 8/91 |
| 1991 | NHTSA Site Visit Team to review the Maryland<br>Institute of Emergency Medicine and the<br>Maryland EMS System, 8/91                  |
| 1991 | COT Verification Site Visit, Deaconess Medical<br>Center, Billings, Montana, 9/9-10/91  |
| 1992 | COT Consultation Site Visit, San Jose Medical<br>Center, San Jose, California, 7/13/92  |
| 1993 | COT Consultative Site Visit, Creighton University, Omaha, Nebraska, 1/4/93  |
| 1994 | COT Verification Visit, Ohio State University, Columbus, Ohio.  |
| 1994 | COT Verification Visit, LSU Medical Center,<br>Shreveport, LA, 8/94   |
| 1994 | COT Consultative Site Visit, Baystate Medical<br>Center, Springfield, Massachusetts, 10/31/94   |
| 1995 | COT Verification Site Visit, Mother Francis<br>Hospital, Tyler TX, 2/95   |
| 1996 | Consultant to Lewin/VHI Corporation in designing, executing global trauma review of Sacramento Cty, CA, 8/96                          |
| 1996 | COT Verification Site Visit, University of Cincinnati Hospital, Cincinnati, OH, 9/96  |
| 1996 | COT Verification Site Visit, Medical College of Wisconsin, Milwaukee, WI, 11/96   |
| 1997 | COT Verification Site Visit, Marian Health System,<br>Sioux City, IA 12/97  |
| 1998 | COT Consultative Site Visit, St. Mary's Hospital, Waterbury, CT 2/98  |
| 1998 | Consultant to review critical care services at  |

|      | Cook County Hospital, Chicago. 2/98  |
|------|--|
| 1998 | COT Verification Site Visit, North Memorial<br>Hospital, Minneapolis, MN 5/98      |
| 1998 | ATLS Instructor Course lecturer, 6/98  |
| 1999 | COT Verification Site Visit, St. Vincent's Hospital, Toledo, OH 1/99               |
| 1999 | ATLS Instructor Course lecturer, 10/99   |
| 1999 | COT Verification Site Visit, Truman Medical<br>Center, Kansas City, Missouri 12/99 |

## OTHER ADMINISTRATIVE PROFESSIONAL ACTIVITY

| California<br>1983-92<br>1983-88                               | California Medical Association<br>Emergency and Disaster Care Committee   |
|--|---|
| 1976-84<br>1976-82<br>1976-81<br>1977-78<br>1977-80<br>1980-84 | San Francisco Peer Review Organization Data Advisory Committee Chairman Surgical Criteria Committee Monitoring Committee Board of Directors |
| 1982-1992<br>1982-92   | San Francisco Medical Society<br>Emergency and Disaster Care Committee  |
| 1978-92  | SF Emergency Medical Care Committee   |
| State of Michiga<br>1993-1999                                  | <u>un</u><br>Reviewer, Michigan Peer Review Organization  |
| 1995-1996  | Michigan State Medical Society representative to<br>the Certificate of Need Ad Hoc Advisory<br>Committee on Surgical Facilities             |

## Institutional Committee Service

| UCSF Medical  | School   |
|---------------|--|
| 1974-87       | Screening Committee                                |
| 1976-87       | Core Clerkship Committee                           |
| 1979-90       | Ad Hoc Review Committees for Peer Review and       |
|               | Promotion (yearly)                                 |
| 1981-92       | Advisory Committee, Clinical Study Center, SFGH    |
| 1986          | Search Committee for Chair of Surgery, UCSF        |
| 1989          | Review Committee (5 yr review), Chair of           |
| Obstetrics-Gy | ynecology, UCSF                                    |
| 1990          | Chairman, Search Committee for Chair of Orthopedic |
|               | Surgery, UCSF                                      |

# UCSF Department of Surgery

| 1986-89 | Compensation Plan Task Force               |  |
|---------|--|--|
| 1987-92 | Executive Committee                        |  |
| 1987-92 | Education Committee                        |  |
| 1987-92 | Resident Coordination and Review Committee |  |

## San Francisco General Hospital

| Product Evaluation Committee  |
|-------------------------------|
| Executive Committee           |
| Chairman                      |
| Operating Room Committee      |
| Long Range Planning Committee |
|                               |

| 1986-92 | Professional Services Executive Committee |
|---------|---|
| 1990-91 | Chairman                                  |
| 1989-92 | Trauma Quality Assurance Committee        |
| 1989-92 | Chairman                                  |

# Henry Ford Hospital and Medical Group

|           | The state of the s |  |  |
|-----------|--|--|--|
| 1992-2002 | Board of Governors   |  |  |
| 1992-2002 | Operations Council   |  |  |
| 1992-2002 | Academic Council   |  |  |
| 1992-2002 | Operating Room Executive Committee   |  |  |
| 1992-2002 | Chairman   |  |  |
| 1992-95   | Computer Steering Committee  |  |  |
| 1992-99   | Trauma Committee   |  |  |
| 1993-97   | Institutional Critical Care Committee  |  |  |
| 1994-2002 | Hospital Medical Executive Committee   |  |  |
| 1994-98   | Research Committee   |  |  |
| 1994-99   | Budget and Finance Committee   |  |  |
| 1995-97   | Computer Vision and Policy Committee   |  |  |
| 1995-99   | HFHS Board of Trustees   |  |  |
| 1998-99   | Chair, Anesthesia Chair Search Committee   |  |  |
| 1998-2002 | Legal Case Review Committee  |  |  |
|           |  |  |  |

### RESEARCH ACTIVITY

#### RESEARCH GRANTS

- 1. Principal Investigator, NHLI Contract #NIH-71-2363, Development of an Improved Pump Oxygenator for Prolonged Use in Man. 1971-72, \$92,256.
- 2. Co-Principal Investigator, NIH Multicenter Study #NIH-73-20, Long-Term Extracorporeal Support for Acute Respiratory Insufficiency. 1974-76. \$555,952.
- 3. Principal Investigator, NIH Grant #RO1-GM27229, Lung Water and Pulmonary Capillary Permeability, 1980-85, \$323,365.
- 4. Multicenter study, Immune Enhancement by Gamma Interferon in Traumatized Patients. Genentech Corporation. 1989-91 \$80,000.
- 5. Principal Investigator, Injury Prevention and Research Center, Centers for Disease Control. 1989-92, \$500,000 yearly.
- 6. Principal Investigator, Phase 2B safety and efficacy study of Hu23F2G monoclonal antibody in subjects with hemorrhagic shock: Randomized multicenter study of monoclonal antibody to granulocyte adhesion receptor complex in hemorrhagic shock patients, ICOS Corporation, Redmond, WA. 1997-1999.
- 7. Co-Investigator, National Study on the Costs and Effectiveness of Trauma Center Care. Multicenter study funded by CDC Center for Injury Control. Principal investigators: Ellen Mackenzie, PhD, Jerry Jurkovich, MD, Fred Rivara, MD, MPH, 2000-2005.

### POSTDOCTORAL FELLOWS

| 1000      |  |
|-----------|--|
| 1977-78 J | ohannes Stürm, M.D.                            |
|           | Awards: Residents Research Award, Association  |
|           | for Academic Surgery-1978                      |
| 1000      |  |
|           | uis Oppenheimer, M.D.                          |
| 1978-79 S | teven Hill, M.D.                               |
| 1979-81 F | lobert Tranbaugh, M.D.                         |
|           | Awards: Residents Research Award, National     |
|           | Competition, ACS Committee on Trauma-1981      |
|           | Young Investigator's Award-Am Trauma           |
|           | Society-1981                                   |
|           | Best Research Paper-Am College Chest           |
|           | Physicians-1981                                |
| 1981-83 F | obert Mackersie, M.D.                          |
| 1982-84 F | red Bongard, M.D.                              |
| 1983-84 I | ouis Ostrow, M.D. (sponsored by U.S.Air Force) |
|           | Awards: Resident's Research Award, Region IX,  |
|           | ACS Committee on Trauma-1984 Resident's        |
|           | Research Award, Military Region, ACS Committee |
|           |  |

| 1984-85 | Arun Gosain, M.D.  |
|---------|--------------------|
| 1985-87 | Nic Nelken, M.D.   |
| 1987-89 | Bruce Barker, M.D. |
| 1987-89 | Johannes Böck, M.D |
| 1990-92 | Paul Hansen, M.D.  |

## CURRENT RESEARCH INTERESTS

- 1. Investigation of microvascular occlusion in the lung following sepsis, and its effect on capillary residence time, oxygen uptake by RBC's, and pulmonary shunting.
- 2. Mathematical quantitation of afterload effects in the two circulations on cardiac output regulation.
- 3. Effect of inverse changes in pulmonary and systemic afterload (as seen in sepsis) on pressures in the pulmonary and systemic circulations; implications for understanding of septic shock.
- 4. Effect of pulmonary hypertension on right ventricular performance, and the effects of ventricular interdependence.
- 5. Evaluation of the effectiveness of trauma centers in reducing trauma mortality and morbidity; volume-outcome comparisons at trauma centers.
- 6. Evaluation of specific prehospital therapies in improving outcome of traumatized patients.

#### PRESENTATIONS

### INTERNATIONAL

Central European Society of Anesthesiologists, Annual Congress, Berlin, 9/81, invited lecture

International Symposium on Emergency Medicine and Intensive Care, Ludwig Maximilian University, Munich, 4/82, invited lecture

Institute for Experimental Surgery, Technical University of Munich, 5/82, invited lecture

International Workshop on Lung Water Measurement, Vienna, 9/82

Japanese Society of Intensive Care Medicine, Tokyo, Japan, 1984, invited lecturer

Nippon Medical School, Tokyo, Japan, 1984, visiting professor

Keio Medical School, Tokyo, Japan, 1984, visiting professor

Nagoga University, Nagoga, Japan, 1984, visiting professor

National Cardiovascular Center, Osaka, Japan, 1984, invited lecture Society of Intensive Care Medicine, Sydney, Australia, 1984, invited lecturer

Royal Perth Hospital, Australia, 1984, visiting professor

Sir Charles Gairdner Hospital, Perth, Australia, 1984, visiting professor

Royal North Shore Hospital, Sydney, 1984, visiting professor

International Symposium on the Pulmonary Circulation in Acute Respiratory Failure, Barcelona, Spain, 1984, invited lecturer

New Zealand Intensive Care Society, Annual Meeting, Hastings, New Zealand, 1984, invited lecturer

First Vienna Shock Forum, Boltzmann Institut für Experimentelle Traumatologie, Vienna, 5/86, invited lecture

Technische Universitat München, Symposium on Pathologic Mechanisms in Shock, Munich, 5/86

European Congress of Anaesthesiology, Annual Congress, Vienna, 9/86, invited lecture

First Antwerp International Trauma Symposium, Antwerp, Belgium, 11/87, invited lecturer

International Congress on Shock Research, Vienna, 5/88, invited lecturer

Australasian College of Surgeons, Foundation Visitor, Annual Meeting, Melbourne, Australia, 5/89

Canadian Medical Association, Annual Meeting, Quebec, Canada, 8/89, invited lecturer

American College of Surgeons, First Asian Symposium, Bangkok, Thailand, 1/90, invited speaker

Shock Society, Second International Symposium, Vienna, Austria, 6/91, invited lecture

International Symposium on Advanced Critical Care Monitoring; Institute for Experimental Surgery of the Technical University of Munich, Munich, Germany, 12/91, invited speaker and panelist

Royal College of Surgeons of Edinburgh and American College of Surgeons, Joint Scientific Meeting, Edinburgh, Scotland 5/92, invited lecturer.

German Surgical Society and American College of Surgeons Joint International Congress, Berlin, Germany, 5/96, invited lecturer

Consensus Conference to develop guidelines for treatment of familial gastric cancer, including prophylactic total gastrectomy. Invited lecture: Methods of surgical reconstruction, Cambridge, England 6/99

### NATIONAL (1986-present)

Pan Pacific Surgical Association, Annual Congress, Honolulu, 1/86, "Physiology of Hypovolemic Shock" and "Resuscitation and Transportation in the Field"

ACS Western States Committee on Trauma, <u>Trauma 1986</u>, Las Vegas, 3/86, "Blood Components in Trauma Resuscitation" and "Scoop and Run in Prehospital Resuscitation"

Medical College of Wisconsin, Milwaukee, WI, 4/86, Visiting Professor, "Prehospital Care in Trauma-What is Appropriate" and "Myocardial Depression in Sepsis"

Third Annual Northwest Trauma Symposium, Seattle, 6/86, "The Golden Hour: Urban Reality" and "Invasive Prehospital Care Devices: Do They Save Lives?"

ACS Region VII, Advances in Trauma, Kansas City, MO, 12/86, "Controlled Studies of Prehospital Care" and "Preventable Mortality: The Need for Trauma Centers"

2nd Annual Symposium on Hypertonic Resuscitation, Monterey, CA, 6/87, "Hypertonic Saline in Prehospital Use"

University of Oregon Northwest Trauma Symposium, Bend, OR 8/87

American College of Surgeons Clinical Congress, San Francisco, 10/87, "Effective Prehospital Fluid Resuscitation: Fantasy or Fact"

University of Iowa Postgraduate Course in Emergency Medicine, Cedar Rapids, IO 10/87, "Critical Issues in Planning for a Regional Trauma System", and "Update on Trauma Severity Scoring"

Wayne State University Annual Trauma Symposium, Detroit, MI 11/87, "Prehospital Treatment of Injured Patients", "Post-Traumatic Respiratory Failure", and "Pancreatico-Duodenal Trauma"

Wesley Medical Center, Wichita, Kansas 4/88, Visiting Professor, "Pancreatic and Duodenal Trauma"

27th Annual Critical Care Medicine Symposium, San Francisco, 2/89, "Hypertonic Saline in Prehospital Resuscitation", "Treatment of Myocardial Failure", and "Initial Management of Traumatic Injuries"

ACS Western Regional Trauma Course, Las Vegas, NV 3/89, "Surgical vs. Radiological Drainage of Intraabdominal Abscesses", "Pathophysiology of the Catabolic Response to Trauma", and "Hypothermia in Surgical Patients"

University of Miami School of Medicine, Miami, FL, 3/89, Visiting Professor, "Myocardial Depression in Sepsis: Fact or Artifact"

American Surgical Association, Annual Meeting, Colorado Springs, CO, 4/89, "Post-traumatic changes in, and effect of colloid osmotic pressure on, the distribution of body water"

Postgraduate Course in Trauma, University of Oregon, Ashland, OR 6/89, "Causes of Respiratory Failure after Trauma", "Diagnosis of Posttraumatic Myocardial Injury", and "Long Term Consequences of Inadequate Resuscitation from Shock"

Presidential Address, Shock Society, Marco Island, FL, 6/89, "Advances in the Understanding of the Physiology of Hypovolemic Shock"

New Jersey Medical School, Saint Barnabas Medical Center, Livingston, NY, 10/89, Visiting Professor, "The Physiology of Septic Shock"

ACS Region VII - <u>Advances in Trauma</u>, Kansas City, MO, 12/89, "Quality Assurance in Trauma Centers" and "Differential Effects of Colloid, Crystalloid, and Hypertonic Saline"

University of Washington, Seattle, 2/90, Visiting Professor, "Fluid Balance in the Critically Ill"

ACS Western States Regional Trauma Conference, Las Vegas, 3/90 ,invited lecturer

Univ of Maryland Medical School, Invited Alumni Lecture, 5/90, "Advances in Understanding of the Physiology of Hypovolemic Shock"

Boston University Medical School, Third Annual Clowes Lecture, 5/90

NIH/NIGMS Trauma Burn Research Conference, 9/90, invited presentation, "Critique of Extravascular Lung Water Measurement"

ACS Clinical Congress, San Francisco, 10/90, Postgraduate Course

Association of Academic Surgery, 11/90, invited presentation, "Intraoperative Teaching of Surgical Residents"

Hawaiian Islands Trauma Symposium, Maui, Hawaii, 12/90, Invited lecturer

Society of University Surgeons, Galveston, TX, 2/91, invited presentation, "Effects of Ambulatory Surgery on Residency Training: Requirements of the RRC"

Committee on Trauma, American College of Surgeons, Denver, CO, 2/91

Society of Critical Care Medicine, Annual Meeting, Washington, DC, 5/91, invited lectures.

Visiting Professor, University of Louisville Dept of Surgery, Louisville, KY, 7/91

AAST Annual Scientific Meeting, Philadelphia, PA, 9/91, paper on quality of pediatric care in adult trauma center.

Committee on Trauma, American College of Surgeons, Dallas, TX, 3/92

American College of Surgeons, Western States Trauma Symposium-Trauma 92, Las Vegas, NV, 3/92, invited lectures

University of Texas Southwestern Medical School, Dallas, TX, Trauma Postgraduate Course, 5/92, invited speaker

Arkansas Chapter, American College of Surgeons, Little Rock, AR, 6/92, invited lectures

National Medical Association Annual Meeting, San Francisco, CA 8/5/92, Critical Care Symposium, invited lecture.

AAST Annual Scientific Meeting, Louisville, KY, 9/17-19/92, presented paper re: furosemide effects on lung water.

Visiting professor, Case Western Reserve University, Cleveland OH, 12/1/92

Original paper, Pacific Coast Surgical Association Annual Scientific Meeting, February 1993. Knudson MM, Lewis FR, Atkinson K, Clinton AG. "The role of duplex ultrasound arterial imaging in patients with penetrating extremity trauma"

Visiting Professor, University of Medicine and Dentistry of New Jersey, Newark, NJ, 5/22/93

Original paper, American Associtaion for the Surgery of Trauma, annual meeting, 9/23-25/93, New Orleans, LA. Hansen PD, Coffey SC, and Lewis FR. Changes in oxygen consumption relative to oxygen delivery in normal dogs given adrenergic agents.

Los Angeles Surgical Association, invited speaker, 10/7/93

Visiting professor, surgical grand rounds, King-Drew Medical School, Los Angeles, CA, 10/8/93

University of New Mexico, Albuquerque, NM, Surgery Postgraduate Course, presented two papers, July 29, 1994.

Visiting professor, Yale University Medical School, New Haven, CT, Jan 5, 1995.

State of the Art Lecturer; Society of Black Academic Surgeons, annual meeting, Denver, CO, April 1, 1996.

Thromboprophylaxis Advisory Board, Rhone Poulenc Rohrer, New York, NY 2/97

Thromboprophylaxis Advisory Board, Rhone Poulenc Rohrer, New York, NY 10/97

Visiting professor, Maine Medical Center and Maine Committee on Trauma, Portland ME 11/97

Invited lecturer, California Trauma Symposium, San Francisco, CA, sponsored by Univ of Calif, SF 12/98

Invited lecturer, UCSF Surgery Postgraduate Course, San Francisco, CA 4/99

Keynote speaker, Ohio Trauma Symposium, Dayton, OH 5/99

Holden Lecturer and invited professor, Case Western Reserve University and Metro Hospital, Cleveland, OH, 5/99

Visiting Professor, invited lectures, Univ of Indiana Medical School, Dept of Surgery resident graduation ceremonies 6/99.

Invited lecture, Trauma Systems and Health Care Policy Consensus Conference, organized by Oregon Health Services University, Portland, OR 7/99

Invited speaker, Trauma Postgraduate Course, Long Island Jewish Hospital, Great Neck, NY 8/99

## REGIONAL (1986-present)

UCSF Postgraduate Course in General Surgery, San Francisco, 4/86

Orange County Trauma Society, Modern Concepts in Trauma Care, 5/86

UCSF Pediatric Grand Rounds, San Francisco, 6/86

UC Davis Postgraduate Course, <u>Care of the Critically Ill Surgical</u> Patient, 10/86.

UCLA Postgraduate Course, <u>Emergencies in Medical Practice</u>, Hollywood, CA, 11/86

Grand Rounds, Oral and Maxillofacial Surgery, UCSF, 11/86

Grand Rounds, St. Josephs Hospital, Stockton, 12/86

Postgraduate course in Trauma, UC San Diego, 2/87

Postgraduate course in General Surgery, UCSF, San Francisco, 4/87

UCSF Orthopedic Review Course, 5/87

Family Practice Grand Rounds, Community Hospital of Santa Rosa, 5/87

Postgraduate course in Gastroenterology, UCSF, San Francisco, 6/87

Grand Rounds, Seton Medical Center, San Francisco, 6/87

Invited lecture, UCSF Dept of Epidemiology, "Trauma: An Unresolved Health Issue", San Francisco, 6/87

Postgraduate course in Pediatric Trauma, UCSF, San Francisco, 8/87

UCLA Postgraduate Course, <u>Critical Surgical Illness</u>, Santa Monica, CA 12/87.

UCSF Postgraduate Course in Dentistry, San Francisco, 1/88

UCSF Postgraduate Course in General Surgery, San Francisco, 4/88

Grand Rounds, John Muir Hospital, Walnut Creek, CA 5/88

UC Davis, Course in Emergency Medicine, Martinez, CA 8/88

UC San Diego, Postgraduate Course in Trauma, San Diego, CA, 2/89

USC School of Medicine Annual Symposium on Critical Care, 2/89

UC Davis, East Bay, Highland Hospital, Oakland, 8/89, Visiting Professor

Course Director, First Annual California Trauma Symposium, San Francisco, CA 12/89

UCLA Dept of Surgery, 3/90, Visiting Professor

Orange County Trauma Postgraduate Course, Orange County Trauma Society, 5/90, invited lecturer

Postgraduate Course in General Surgery, Orange County Surgical Congress, Orange, CA, 11/90

Grand Rounds, Alta Bates Hospital, Oakland, CA 12/90

California Trauma Symposium, San Diego, 2/91

California Trauma Symposium, Sacramento, 1/92

"Proving Effectiveness of Trauma Centers", Postgraduate Course in Emergency Medicine, 1/17/92, California American College of Emergency Physicians, Yosemite, CA

Trauma, Tots, and Trends. Trauma Symposium for California Shock/Trauma Air Rescue, Santa Clara, CA, 5/8/92. Two lectures.

Cleveland Surgical Society, Cleveland, OH, invited lecture.

The California Trauma Conference, San Diego, CA 1/14-16/93. Invited lecture and panel discussion.

International College of Surgeons, Scientific Program, "Maximizing oxygen delivery in the critically ill", Sinai Hospital, Detroit, 2/3/93.

California Trauma Conference, San Francisco, CA 1/20-22/94.

International College of Surgeons, Scientific Program, "Newer diagnostic modalities in trauma", Sinai Hospital, Detroit, 2/8/95.

Invited lecture, Wayne State University Trauma Postgraduate Course, Detroit, MI 11/98

### **BIBLIOGRAPHY**

- 1. Lewis FR. Practical differential filter for optical pumping with sodium light. Rev Sci Inst 1961;32:861-2.
- 2. Lewis FR. Development of a membrane pump oxygenator. Research Thesis, Unpublished.
- 3. Lewis FR, Lim RC, Blaisdell FW. Hepatic artery ligation: Adjunct in management of massive hemorrhage from the liver. J Trauma 1974;14:743-55.
- 4. Lewis FR, Tylke JA, Winchell HS. A combined membrane pump-oxygenator: Design and testing. Transact Am Soc Artif Int Organs 1974;20:253-60.
- 5. Lewis FR. Current concepts in cardiovascular monitoring. West J Med 1975;122:339-44.
- 6. Lewis FR, Holcroft JW, Boey J, Dunphy JE. Appendicitis: Critical review of diagnosis and treatment in 1,000 cases. Arch Surg 1975;110:677-84.
- 7. Lewis FR, Thomas AN, Schlobohm RM. Control of respiratory therapy in flail chest. Ann Thor Surg 1975;20:170-6.
- 8. Koehler RE, Korobkin M, Lewis FR. Arteriographic demonstration of collateral arterial supply to the liver after hepatic artery ligation. Radiology 1975;117:49-54.
- 9. Deveney CW, Lewis FR, Schrock TR. Surgical treatment for radiation injury to the intestine. Dis Colon Rectum 1976;19:25-9.
- 10. Lewis FR. Cold injury in a trauma patient. West J Med 1976;125:237-40.
- 11. Drake D, Lewis FR, Newmeyer W, Kilgore E. An unusual ring injury. J Hand Surgery 1977 March; 2:111.
- 12. Blaisdell FW, Lewis FR Jr. Respiratory distress syndrome of shock and trauma: post-traumatic respiratory failure. Major Probl Clin Surg. 1977;21:1-237.
- 13. Lewis FR, Blaisdell FW, Schlobohm RM. Incidence and outcome of post-traumatic respiratory failure. Arch Surg 1977;112:436.
- 14. Guiliano A, Lewis FR, Hadley K. Bacteriology of necrotizing fasciitis. Am J Surg 1977;134:52.
- 15. Lewis FR, Schlobohm RM, Thomas AN. Prevention of complications from prolonged tracheal intubation. Am J Surg 1978;135:452.

- 16. Wilson JM, Thomas AN, Goodman PC, Lewis FR. Severe chest trauma: Morbidity implication of 1st or 2nd rib fracture. Arch Surg 1978;113:846-9.
- 17. Lewis FR, Blaisdell FW. The role of microaggregates in the respiratory distress syndrome Presented at U.S. Army Symposium, "Microaggregates: Experimental and Clinical Aspects". June 20-21, 1977. Symposium Proceedings, Warren Green & Co., St. Louis, 1978.
- 18. Thomas AN, Blaisdell FW, Lewis FR, Schlobohm RM. Operative stabilization for flail chest after blunt trauma. J Thor Cardiovasc Surg 1978;75:793-801.
- 19. Lewis FR, Elings VB. Microprocessor determination of lung water using thermal-green dye double indicator dilution. Surg Forum 1978;29:182-4.
- 20. Oppenheimer L, Elings VB, Lewis FR. Extravascular lung water measured by thermal-dye indicator dilution. Clin Res 1978 December; 26:880A. (abst.)
- 21. Lewis FR. Preoperative and postoperative care: II. Pulmonary disease, <u>Handbook of Surgery</u>, Schrock TR, Ed., Jones Medical Publications, 6th edition, 1978;43-6.
- 22. Lewis FR. Preoperative and postoperative care: IV. Pulmonary complications, <u>Handbook of Surgery</u>, Schrock TR, Ed., Jones Medical Publications, 6th edition, 1978;69-73.
- 23. Sturm JA, Lewis FR, Trentz O, Oestern H, Hempelman G, Tscherne H. Cardio-pulmonary parameters and prognosis after severe multiple trauma. J Trauma 1979;19:305-18.
- 24. Oppenheimer L, Elings VB, Lewis FR. Thermal-dye lung water measurements: Effects of edema and embolization. J Surg Res 1979;26:504-16.
- 25. Sturm JA, Carpenter MA, Lewis FR, Graziano C, Trunkey DD. Water and protein measurement in the sheep lung after septic shock: Effect of colloid versus crystalloid resuscitation. J Surg Res 1979;26:233-48.
- 26. Lewis FR, Elings VB. Bedside measurement of lung water. J Surg Res 1979;27:250-61.
- 26a.Sturm JA, Lewis FR, Elings VB. [Bedside determination of extravascular lung water]. Chir Forum Exp Klin Forsch. 1979:73-7. German
- 27. Lewis FR. Perspective on pre-hospital care for trauma patients. In: <u>Management of Acute Trauma</u>, Proctor HJ, Ed., Yearbook Medical Publishers, 1979;81-92.

- 28. Lewis FR. Restoration of blood pressure. In: <u>Management of</u>
  <u>Acute Trauma</u>, Proctor HJ, Ed., Yearbook Medical Publishers, 1979;189200.
- 29. Lewis FR. Assessment of thoracic trauma. In: <u>Management of Acute</u> Trauma, Proctor HJ, Ed., Yearbook Medical Publishers, 1979;229-40.
- 30. Hill SL, Elings VB, Lewis FR. Changes in lung water and capillary permeability following sepsis and fluid overload. J Surg Res 1979;28:140-50.
- 31. Hill SL, Elings VB, Lewis FR. Changes in lung water and capillary permeability changes on hydrostatic pressure and time after septic insult. Crit Care Med 1980;8:225. (abst.)
- 32. Hill SL, Elings VB, Lewis FR. Microprocessor determination of lung water using thermal-green dye double indicator dilution. Crit Care Med 1980;8:269. (abst.)
- 33. Tranbaugh RF, Lewis FR, Christensen JM, Elings VB. Lung water changes after thermal injury: The effects of crystalloid resuscitation and sepsis. Ann Surg 1980;192:479-90.
- 34. Lewis FR. Management of atelectasis and pneumonia. Surg Clin N Am 1980;60:1391.
- 35. Trunkey DD, Lewis FR. Chest trauma. Surg Clin N Am 1980;60:1541.
- 36. Sturm JA, Oestern HJ, Trentz O, Neubauer M, Trentz OA, Lewis FR. [Extravascular lung water in traumatic shock of the dog (author's transl)]. Chir Forum Exp Klin Forsch. 1980:95-9. German.
- 37. Simon RP, Bayne LL, Tranbaugh RF, Lewis FR. Postictal pulmonary edema: Altered capillary permeability outlasts elevated microvascular pressure. Circ 1980;62:Suppl III-58. (abst.)
- 38. Simon RP, Bayne LL, Tranbaugh RF, Lewis FR. Mechanisms of neurogenic pulmonary edema following seizures in sheep. Transact Am Neurol Assoc 1980;105:78-82.
- 39. Baker CC, Oppenheimer L, Stephens B, Lewis FR, Trunkey DD. Epidemiology of trauma deaths. Am J Surg 1980;140:144-50.
- 40. Lewis FR, Trunkey DD, Steele MR. Autopsy of a disaster: The Martinez bus accident. J Trauma 1980;20:861-6.
- 41. Hill SL, Elings VB, Lewis FR. Effect of cardiac output on extravascular lung water. Amer Surgeon 1981;47:522-8.
- 42. Tranbaugh RF, Lewis FR, Beckman A, Simon RP, Waldman F, Hohn D. Pulmonary response to complement activation: The role of the leukocyte. Clin Res 1981;29:453.

- 43. Lewis FR, Trunkey DD. Management of major liver trauma. In: **Trauma**, Carter D, Polk HC Jr, Eds., Butterworth and Co., 1981;99-109.
- 44. Lewis FR, Christensen JM, Elings VB. The effect of PEEP on non-cardiogenic pulmonary edema. Crit Care Med 1981;9:258. (abst.)
- 45. Tranbaugh RF, Lewis FR, Beckman A, Simon RP, Waldman F, Hohn DC. Pulmonary response to complement activation: The role of the leukocyte. Clin Res 1981;29:453. (abst.)
- 46. Mihm FG, Feeley TW, Rosenthal MH, Lewis FR. Measurement of extravascular lung water in dogs using the thermal green-dye indicator dilution method. Anes 1982;57:116-22.
- 47. Elings VB, Lewis FR, Briggs J. Indicator dilution using a fluorescent indicator. J Appl Phys 1982;52:1368-74.
- 48. Taylor SP, McAninch JW, Lewis FR. Measurement of extravascular renal water by the thermal dye indicator dilution technique. J Urol 1982;128:209-12.
- 49. Simon RP, Bayne LL, Tranbaugh RF, Lewis FR. Elevated pulmonary lymph flow and protein control during status epilepticus in sheep. J Appl Phys 1982;52:91-5.
- 50. Lewis FR, Elings VB, Hill SL, Christensen JM. The measurement of extravascular lung water by thermal-green dye indicator dilution. Ann NY Acad Sci 1982;384:394-410.
- 51. Elings VB, Lewis FR. A single indicator technique to estimate extravascular lung water. J Surg Res 1982;33:375-85.
- 52. Graham BH, Walton RL, Elings VB, Lewis FR. Quantification of skin surface fluorescence as a predictor of flap viability. Surg Forum 1982;33:595-7.
- 53. Tranbaugh RF, Lewis FR, Beckman A, Waldman FM, Hohn DC. Pulmonary effects of complement activation in sheep. Curr Surg 1982;39(2):96-9.
- 54. Tranbaugh RF, Elings VB, Christensen JM, Lewis FR. Determinants of pulmonary interstitial fluid accumulation after trauma. J Trauma 1982;22:820-6.
- 55. Lewis FR. Thoracic trauma. Surg Clin N Am 1982;62:97-104.
- 56. Tranbaugh RF, Lewis FR. Respiratory insufficiency. Surg Clin N Am 1982;62:121-32.
- 57. Lewis FR. Peritoneal lavage is <u>not</u> a definitive diagnostic tool for blunt trauma. In: <u>Controversies in Trauma Management</u>, Callaham M, Dailey R, Eds., Churchill-Livingston, 1983.

- 58. Mackersie RC, Lewis FR. Preferred method of evaluating penetrating wounds of the torso. In: <u>Controversies in Trauma</u>

  Management, Callaham M, Dailey R, Eds., Churchill-Livingston, 1983.
- 59. Graham BH, Walton RL, Elings VB, Lewis FR. Quantification of skin surface fluorescence as a predictor of flap viability. J Plast Reconst Surg 1983;71(6):826.
- 60. Tranbaugh RF, Lewis FR, Christensen JM, Elings VB. Effect of inhalational injury on lung water accumulation. J Trauma 1983;23:597-604.
- 61. Tranbaugh RF, Lewis FR. Crystalloid versus colloid for fluid resuscitation of hypovolemic patients. Adv Shock Res 1983;9:203-16.
- 62. Lewis FR. Prehospital Care: The role of the EMT paramedic. In: Trauma Care Systems: Clinical, Financial, Political Considerations, West JG, Ed., Praeger Company Publishers, 1983;77.
- 63. Tranbaugh RF, Lewis FR. Mechanisms and etiologic factors of pulmonary edema. Surg Gyn Obst 1983;158:193-206.
- 64. Mackersie RC, Christensen JM, Pitts LH, Lewis FR. Pulmonary extravascular fluid accumulation following intracranial injury. J Trauma 1983;23:968-75.
- 65. Meyer AA, Lewis FR. Post-traumatic respiratory insufficiency. Curr Concepts in Trauma Care 1983;6:10-15.
- 66. Border JR, Lewis FR, Aprahamian C, Haller JA, Jacobs LM, Luterman A. Panel: prehospital trauma care--stabilize or scoop and run. J Trauma. 1983 Aug;23(8):708-11.
- 67. Meyer AA, Lewis FR. Hemodynamic monitoring in the trauma patient. Seminars in Anesthesia 1984;3:143-54.
- 68. Lewis FR. Initial assessment and resuscitation. Emer Med Clin N Am 1984;2:733-48.
- 69. Lewis FR, Trunkey DD. Pupillary reactivity in circulatory arrest. Surgery. 1984 Mar; 95(3):380.
- 70. Trunkey DD, Lewis FR, Eds., <u>Current Therapy of Trauma</u>, B.C. Decker/C.V. Mosby Companies, 1984.
- 71. Lewis FR. Prehospital trauma care. In: <u>Current Therapy of Trauma</u>, B.C. Decker/C.V. Mosby Companies, 1984;1-6.
- 72. Lewis FR, Trunkey DD. Emergency Department Care. In: <u>Current</u> Therapy of Trauma, B.C. Decker/C.V. Mosby Companies, 1984;7-20.
- 73. Lewis FR. Special Problems in Trauma. In: <u>Current Therapy of Trauma</u>, B.C. Decker/C.V. Mosby Companies, 1984;159-166.

- 74. Lewis FR, Tranbaugh RF, Christensen JM, Elings VB. Determination of lung water after major trauma. In: <u>Organversagen Wahrend</u>
  Intensivtherapie, Georg Thieme Verlag 1984;52-61.
- 75. Lewis FR, Elings VB, Christensen JM. The use of thermal-green dye indicator dilution to determine extravascular lung water. In: **Lungenwasserbestimmung, Teil II, Klinische Bedeutung**, Verlag Wilhelm Maudrich, Vienna, 1984;141-158.
- 76. Mackersie RC, Christensen JM, Lewis FR. The prehospital use of external counter-pressure: Does MAST make a difference? J Trauma 1984;24:882-8.
- 77. Bongard FS, Lewis FR. Crystalloid resuscitation of patients with pulmonary contusion. Am J Surg 1984 July;148:145-51.
- 78. Bongard FS, Matthay M, Mackersie RC, Lewis FR. Morphologic and physiologic correlates of increased extravascular lung water. Surgery 1984 August; 96:395-403.
- 79. Bongard FS, Upton RA, Elings VB, Lewis FR. Digital cutaneous fluorometry: Correlation between blood flow and fluorescence. J Vasc Surg 1984;1:635-41.
- 80. Lewis FR. Adult Respiratory Distress Syndrome. In: <u>Current</u> Surgical Therapy, B.C. Decker/C.V. Mosby, Toronto, 1984;483-8.
- 81. Bongard FS, Landers DV, Lewis FR. The differential diagnosis of appendicitis and pelvic inflammatory disease: A prospective analysis. Am J Surg 1984 July;150:90-6.
- 82. Lewis FR. Prehospital intravenous fluid therapy: Physiologic computer modelling. J Trauma 1986;26(9):804-11.
- 83. Trunkey DD and Lewis FR, Eds., <u>Current Therapy of Trauma II</u>, B.C. Decker/C.V. Mosby Companies, Toronto, 1986.
- 84. Ellyson JH, Bezmalinovic Z, Parks SN and Lewis FR. Necrotizing amebic colitis: A frequently fatal complication. Am J Surg 1986;152:21-26.
- 85. Tranbaugh RF and Lewis FR. Crystalloid vs. colloid in the initial fluid resuscitation of the acutely injured patient. In: Fluid and Electrolyte Management in Critical Care, Askanazi J, Starker PM, Weissman C, Eds., Butterworths, 1986.
- 86. Geehr EC, Lewis FR, Auerbach PS. Failure of open-heart massage to improve survival after prehospital nontraumatic cardiac arrest. N Engl J Med. 1986 May 1;314(18):1189-90.
- 87. Lewis FR. Gunshot wounds of the chest and abdomen. Unfallchirurg 1986;89:499-507.

- 88. Jeffrey RB, Laing FC and Lewis FR. Acute appendicitis: High-resolution real-time U.S. findings. Radiology 1987;163:11-14.
- 89. Lewis FR and Tranbaugh RF. Crystalloid vs. colloid in the resuscitation of the acutely injured patient. In: <a href="https://doi.org/lem.10.10">The</a>
  <a href="Pathophysiology of Combined Injury and Trauma">Pathophysiology of Combined Injury and Trauma</a>, Gruder D, et al, Eds., Academic Press, 1987;335-48.
- 90. Lewis FR. Pulmonary contusion. In: <u>Current Therapy in Emergency</u> Medicine, Callaham ML, Ed., B.C. Decker, Toronto, 1987;123-6.
- 91. Mackersie RC, Christensen J and Lewis FR. The role of pulmonary lymphatics in the clearance of hydrostatic pulmonary edema. J Surg Res 1987;43:495-504.
- 92. Lewis FR. Appendix. In: Clinical Surgery, Davis JH, Drucker WR, Foster RS Jr, et al, Eds., C.V. Mosby Company, Toronto, 1987:1581-98.
- 93. Eastman AB, Lewis FR, Champion HR, Mattox KL. Regional trauma system design: Critical concepts. Am J Surg 1987;154:79-87.
- 94. Lewis FR. Delayed diagnosis of splenic injury: A challenge for management. Corres Soc Surg Nov. 1988;11:4-8.
- 95. Lewis FR, coauthor. Injury Control: A Review of the status and progress of the injury control program at the Centers for Disease Control. Nat'l Academy Press, Washington, DC, 1988.
- 96. Nelken N and Lewis F. The influence of injury severity on complication rates after primary closure or colostomy for penetrating colon trauma. Ann Surg 1989;209(4):439-447.
- 97. Böck JC, Barker BC, Tranbaugh RF and Lewis FR. Cardiac output measurement using femoral artery thermodilution in patients. J Crit Care 1989;4(2):106-111.
- 98. Doherty GM and Lewis FR Jr. Appendicitis: Continuing diagnostic challenge. Emer Med Clin N Amer 1989;7:537-53.
- 99. Böck JC, Barker BC, Clinton AG, Wilson MB and Lewis FR. Post-traumatic changes in, and effect of colloid osmotic pressure on, the distribution of body water. Ann Surg 1989;210(3):395-405.
- 100. Böck JC, Barker BC, and Lewis FR. Plasma colloid osmotic pressure in trauma patients: Direct measurement versus indirect estimates from plasma proteins and solids. J Crit Care 1989;4:266-72.
- 101. Longaker MT, Stevens MB, Crombleholme TM, Langer JC, Ferrell LD and Lewis FR Jr. Kaposi's sarcoma presenting as acute appendicitis. Contemp Surg 1989;35:18-20.

- 102. Lewis FR and Champion HR. Prehospital trauma care and triage. in Operative Surgery, Trauma Surgery, Fourth Edition, Eds. Champion HR, Robbs JV, and Trunkey DD. Butterworths and Co., London 1989, pp.1-5.
- 103. Lewis FR. Chest tube placement. in <u>Operative Surgery, Trauma Surgery, Fourth Edition</u>, Eds. Champion HR, Robbs JV, and Trunkey DD. Butterworths and Co., London 1989, pp. 23-26.
- 104. Lewis FR and Pfeiffer UJ. (eds) <u>Practical Applications of</u> <u>Fiberoptics in Critical Care Monitoring</u>. Springer-Verlag. Heidelberg, Germany, 1990.
- 105. Böck J and Lewis FR. Clinical relevance of lung water measurement with the thermal-dye dilution technique. IN: <a href="Practical Applications of Fiberoptics in Critical Care Monitoring">Practical Applications of Fiberoptics in Critical Care Monitoring</a>.

  Springer-Verlag. Heidelberg, Germany, 1990, pp. 164-180.
- 106. Böck JC, Barker BC, Federle MP, and Lewis FR. Iodinated contrast media effects on extravascular lung water, central blood volume, and cardiac output in humans. Invest Radiol 1990;25(8):938-941.
- 107. Böck JC and Lewis FR. Clinical relevance of lung water measurement with the thermal-dye dilution technique. J Surg Res 1990;48(3):254-265.
- 108. Böck JC, Barker BC, Lim AD, Eichstadt H, Pollycove M, and Lewis FR. Independence of intrapericardial right and left ventricular performance in septic pulmonary hypertension. Nucl Med 1990;29:246-251.
- 109. Lewis FR. HIV Testing in the Health Care Practitioner. Bull. Am College of Surgeons December 1990, Vol. 75.
- 110. Lewis FR. Chest Trauma. IN: <u>Pediatric Emergency Medicine: A</u>
  <u>Clinician's Reference</u>. Grossman M and Dieckmann RA (eds.). J.B.
  Lippincott, Co., Philadelphia, PA, 1991, pp. 274-277.
- 111. Horn JK and Lewis FR. Acute Lung Injury: Pathophysiology and Diagnosis, in <u>Critical Care: State of the Art, Volume 12</u>, edited by William Shoemaker and Robert Taylor, 1991.
- 112. Horn JK and Lewis FR. Respiratory Insufficiency, in <u>Trauma</u>, 2nd Edition, ed. by Moore EE, Mattox KL, and Feliciano DV. Appleton & Lange, 1991.
- 113. Lewis FR. Improved outcomes from tertiary center pediatric intensive care: a statewide comparison of tertiary and nontertiary care facilities. Crit Care Med. 1991 Nov;19(11):1452-4.

- 114. Gosain AK, Upton RA and Lewis FR. The relationship between skin fluorescence and blood flow in normal and in chronically ischemic subjects dosed with fluorescein. J Pharm Sciences 1991;80:632-637.
- 115. Trunkey DD and Lewis FR, Eds., <u>Current Therapy of Trauma III</u>,
- B.C. Decker/C.V. Mosby Companies, Toronto, 1991.
- 116. Lewis FR. Primary Assessment, in Current Therapy of Trauma III,
- B.C. Decker/C.V. Mosby Companies, Toronto, 1991, pp. 135-139.
- 117. Trunkey DD and Lewis FR, Elements of a Trauma System and Preventable Mortality, in <u>Current Therapy of Trauma III</u>, B.C. Decker/C.V. Mosby Companies, Toronto, 1991, pp.1-4
- 118. Trunkey dd and Lewis FR, Great Vessel Injury, in <u>Current Therapy</u> of <u>Trauma III</u>, B.C. Decker/C.V. Mosby Companies, Toronto, 1991, pp. 234-236.
- 119. Lewis FR. HIV Testing of Health Care Workers. Bull Am Coll of Surg 1991;76:17-18.
- 120. Davis JM, Demling RH, Lewis FR, Hoover E, Waymack JP. The Surgical Infection Society's policy on human immunodeficiency vieus and hepatitis B and C infection. Arch Surg 1992;127:218-221.
- 121. Knudson MM, Shagoury C, and Lewis FR. Can adult trauma surgeons care for injured children? J Trauma 1992;32:729-39.
- 122. Lewis FR, Elings, VB, and Christensen JM. Extravascular lung water measurements. in **Adult Respiratory Distress Syndrome**, Ed. by A Artigas, F Lemaire, PM Suter, and WM Zapol. Churchill Livingstone, 1992, pp.215-225.
- 123. Knudson MM, Lewis FR, Atkinson K, Clinton AG. The role of duplex ultrasound arterial imaging in patients with penetrating extremity trauma. Arch Surg 1993; 128:1033-38.
- 124. Dries DJ, Jurkovich GJ, Maier RV, Clemmer TP, Struve SN, Weigelt JA, Stanford GG, Herr DL Champion HR, Lewis FR, Hoyt D, Hansbrough J, Yellin AE, Berne TV, Trunkey DD, Jaffe HS, Munera C, Fisher P, and Starko KM. Effect of interferon gamma on infection-related death in patients with severe injuries. A randomized, double blind, placebo controlled trial. Arch Surg 1994; 129:1031-41.
- 125. Hansen PD, Coffey SC, and Lewis FR. Changes in oxygen consumption relative to oxygen delivery in normal dogs given adrenergic agents. J Trauma 1994; 37:283-91
- 126. Hansen PD, Coffey SC, and Lewis FR. Changes in oxygen consumption relative to oxygen delivery in endotoxemic dogs given adrenergic agents. J Surg Res 1994; 57:156-63.

- 127. Knudson MM, Lewis FR, Clinton A, Atkinson K, Megerman J. Prevention of venous thromboembolism in trauma patients. J Trauma. 1994 Sep;37(3):480-7.
- 128. Lewis FR. Commentary on Transmissible Diseases, by Tom Esposito, in Textbook of Penetrating Trauma, ed by Ivatury RR and Cayten CG. Lea & Febiger 1995.
- 129. Gerberding JL, Lewis FR Jr, Schecter WP. Are universal precautions realistic? Surg Clin North Am. 1995 Dec;75(6):1091-104.
- 130. Lewis FR. The management of small and large bowel injuries. In Current Surgical Therapy, 5th Edition, Mosby-Year Book Publishers, 1995.
- 131. Lewis FR, Short LJ, Howard RJ, Jacobs AJ, and Roche NE. Epidemiology of injuries by needles and other sharp instruments. Surg Clin N Amer 1995; 75:1105-1121
- 132. Herrmann ME, Gipson C, Ansari MR, Lewis FR, Talpos GB. Cytogenetic analysis of thyroid tumors after cryopreservation. Cancer Genet Cytogenet 1995; 85:20-25.
- 133. Weigelt JA and Lewis FR. <u>Surgical Critical Care</u> WB Saunders Co, Philadelphia, PA, 1996.
- 134. Provost DA, Weigelt JA, Lewis FR. Cardiorespiratory physiology and oxygen delivery. in <u>Surgical Critical Care</u>, WB Saunders, Philadelphia PA, 1996. pp. 49-65
- 135. Lewis FR. Editorial: Pressure-Driven Hemorrhage does not model uncontrolled hemorrhage. Shock 1996; 6:307
- 136. Trunkey DD and Lewis FR, editors. Current Therapy of Trauma IV, CV Mosby, Co. 1999
- 137. Lewis FR., <u>Primary Assessment</u>, in <u>Current Therapy of Trauma IV</u>, CV Mosby 1999.
- 138. Velanovich V, Yood MU, Bawle U, Nathanson SD, Strand VF, Talpos GB, Szymanski W, and Lewis FR. Racial differences in the presentation and surgical management of breast cancer. Surgery 1999;125:375-79
- 139. Velanovich V, Lewis FR, Nathanson SD, et al. Comparison of mammographically guided breast biopsy techniques. Ann Surg 1999; 229:625-33.
- 140. Caldas C, Carneiro F, Lynch HT, Yokota J, Wiesner GL, Powell SM, Lewis FR, et al. Familial gastric cancer: overview and guidelines for management. J Med Genet 1999;36:873-880.

- 141. Lewis, FR. Editorial Comment re: Chang MC, Meredith JW, Kincaid EH, and Miller PR. Maintaining survivors values of left ventricular power output during shock resuscitation. J Trauma 2000; 49:26-37. p.36-37.
- 142. Clarke JR, Spejewski B, Gertner AS, Webber BL, Hayward CA, Santora TA, Wagner DK, Baker CC, Champion HR, Fabian TC, Lewis FR, Moore EE, Weigelt JA, EAstman AB, Blank-Reid C. An objective analysis of process errors in trauma resuscitations. Acad Emerg Med 2000;7:1303-1310.
- 143. Lewis, FR. Costs, Competence, and Consumerism: Challenges for Medicine in the New Millenium. Presidential Address, AAST, October 8, 2000. J Trauma 2001; 50:185-94.
- 144. Huntsman DG, Carneiro F, Lewis FR, et al. Early gastric cancer in young, asymptomatic carriers of germ-line E-cadherin mutations. NEJM 2001;344:1904-9.
- 145. Lewis FR, Jackson CE, Mellinger JD, Lorelli DR, Caldas C. Prophylactic total gastrectomy for familial gastric cancer: Therapy based on gene mutation analysis. Presented at Central Surgical Association March, 2001. Surgery 2001;130:612-19
- 146. Lewis FR. p.544. Discussion of manuscript: Rodriguez JL, Peterson DJ, Muehlstedt SG et al. The impact of managed care and current governmental policies on an urban academic health care center. Surgery 2001; 130:539-545.
- 147. Velanovich V, Gabel M, Walker EM, Doyle TJ, O'Bryan RM, Szymanski W, Ferrara JJ, Lewis FR Jr. Causes for the undertreatment of elderly breast cancer patients: tailoring treatments to individual patients. J Am Coll Surg. 2002 Jan;194(1):8-13.
- 148. Lewis FR Jr. Surgical fellowships and specialization. Surgery. 2002 Sep;132(3):529-30.
- 149. Lewis FR Jr. Should we limit resident work hours? Ann Surg. 2003 Apr; 237(4):458-9.
- 150. Gruen RL, Arya J, Cosgrove EM, Cruess RL, Cruess SR, Eastman AB, Fabri PJ, Friedman P, Kirksey TD, Kodner IJ, Lewis FR, Liscum KR, Organ CH, Rosenfeld JC, Russell TR, Sachdeva AK, Zook EG, Harken AH; American College of Surgeons Task Force on Professionalism.

  Professionalism in surgery. J Am Coll Surg. 2003 Oct;197(4):605-8.
- 151. Debas HT, Bass BL, Brennan MF, Flynn TC, Folse JR, Freischlag JA, Friedmann P, Greenfield LJ, Jones RS, Lewis FR Jr, Malangoni MA, Pellegrini CA, Rose EA, Sachdeva AK, Sheldon GF, Turner PL, Warshaw AL, Welling RE, Zinner MJ; American Surgical Association Blue Ribbon Committee Report on Surgical Education: 2004. Ann Surg. 2005 Jan; 241(1):1-8.

- 152. Napolitano LM, Cioffi WG, Lewis FR Jr. Surgical Critical Care (SCC). J Trauma. 2006 Apr;60(4):923.
- 153. Lewis, FR. Maintenance of certification: American Board of Surgery goals. Amer. Surg 2006; 72:1092-96.
- 154. Rhodes RS, Biester TW, Bell RH Jr, Lewis FR Jr. Assessing surgical knowledge: a primer on the examination policies of the American Board of Surgery. J Surg Educ. 2007 May-Jun;64(3):138-42.
- 155. Bell RH Jr, Banker MB, Rhodes RS, Biester TW, Lewis FR. Graduate medical education in surgery in the United States. Surg Clin North Am. 2007 Aug;87(4):811-23, v-vi.
- 156. Bell RH Jr, Biester TW, Tabuenca A, Rhodes RS, Cofer JB, Britt LD, Lewis FR Jr. Operative experience of residents in US general surgery programs: a gap between expectation and experience. Ann Surg. 2009 May; 249(5):719-24.
- 157. Lewis FR. Comment of the American Board of Surgery on the recommendations of the Institute of Medicine Report, "Resident Duty Hours: Enhancing Sleep, Supervision, and Safety". Surgery. 2009 Sep;146(3):410-9.
- 158. Lewis FR Jr. Commentary. J Am Coll Surg. 2009 Sep;209(3):404-5.
- 159. Yeo H, Bucholz E, Ann Sosa J, Curry L, Lewis FR Jr, Jones AT, Viola K, Lin Z, Bell RH Jr. A national study of attrition in general surgery training: which residents leave and where do they go? Ann Surg. 2010 Sep;252(3):529-34.
- 160. Malangoni MA, Jones AT, Rubright J, Biester TW, Buyske J, Lewis FR Jr. Delay in taking the American Board of Surgery qualifying examination affects examination performance. Surgery. 2012 Oct;152(4):738-43; discussion 743-6.
- 161. Lewis FR, Klingensmith ME. Issues in general surgery residency training--2012. Ann Surg. 2012 Oct; 256(4):553-9.
- 162. Lewis FR, Malangoni MA. Board certification and medical school graduates. J Am Coll Surg. 2012 Nov;215(5):741-2; author reply 742-3.
- 163. Lewis FR Jr. Commentary on: The benefits of international rotations to resource-limited settings for U.S. surgery residents. Surgery. 2013 Apr;153(4):455-6.
- 164. Lewis FR. Presentation of survival data: a plea for use of logarithmic scales. Surgery. 2013 May;153(5):605-7.
- 165. Malangoni MA, Biester TW, Jones AT, Klingensmith ME, Lewis FR Jr. Operative experience of surgery residents: trends and challenges. J Surg Educ. 2013 Nov-Dec;70(6):783-8.

- 166. Klingensmith ME, Lewis FR. General surgery residency training issues. Adv Surg. 2013;47:251-70.
- 167. Lewis FR. Commentary on "Resident work-hour restrictions and responsibilities to patients". Ann Surg. 2014 Jun; 259(6):1054-5.
- 168. Jones AT, Biester TW, Buyske J, Lewis FR, Malangoni MA. Using the American Board of Surgery In-Training Examination to predict board certification: a cautionary study. J Surg Educ. 2014 Nov-Dec;71(6):e144-8.
- 169. Rajaram R, Chung JW, Jones AT, Cohen ME, Dahlke AR, Ko CY, Tarpley JL, Lewis FR, Hoyt DB, Bilimoria KY. Association of the 2011 ACGME resident duty hour reform with general surgery patient outcomes and with resident examination performance. JAMA. 2014 Dec 10;312(22):2374-84.
- 170. Jones AT, Biester TW, Lewis FR Jr, Malangoni MA. Review courses for the American Board of Surgery certifying examination do not provide an advantage. Surgery. 2015 Oct;158(4):890-6; discussion 896-8.
- 171. Klingensmith ME, Cogbill TH, Luchette F, Biester T, Samonte K, Jones A, Lewis FR, Malangoni MA. Factors influencing the decision of surgery residency graduates to pursue general surgery practice versus fellowship. Ann Surg. 2015 Sep; 262(3):449-55.
- 172. Bilimoria KY, Chung JW, Hedges LV, Dahlke AR, Love R, Cohen ME, Hoyt DB, Yang AD, Tarpley JL, Mellinger JD, Mahvi DM, Kelz RR, Ko CY, Odell DD, Stulberg JJ, Lewis FR. National Cluster-Randomized Trial of Duty-Hour Flexibility in Surgical Training. N Engl J Med. 2016 Feb 25;374(8):713-27.
- 173. Abdullah F, Salazar JH, Gause CD, Gadepalli S, Biester TW, Azarow KS, Brandt ML, Chung DH, Lund DP, Rescorla FJ, Waldhausen JH, Tracy TF, Fallat ME, Klein MD, Lewis FR, Hirschl RB. Understanding the Operative Experience of the Practicing Pediatric Surgeon: Implications for Training and Maintaining Competency. JAMA Surg. 2016 Aug 1;151(8):735-41
- 174. Bilimoria KY, Hoyt DB, Lewis FR. Surgical Resident Duty Hours. N Engl J Med. 2016 Jun 16;374(24):2402-3.
- 175. Napolitano LM, Biester TW, Jurkovich GJ, Buyske J, Malangoni MA, Lewis FR Jr; General surgery resident rotations in surgical critical care, trauma, and burns: what is optimal for residency training? Am J Surg. 2016 Oct;212(4):629-637. J Am Coll Surg. 2017 Feb;224(2):103-112.

- 176. Yang AD, Chung JW, Dahlke AR, Biester T, Quinn CM, Matulewicz RS, Odell DD, Kelz RR, Shea JA, Lewis FR, Bilimoria KY. Differences in resident perceptions by postgraduate year of duty hour policies: An analysis from the Flexibility in Duty Hour Requirements for Surgical Trainees (FIRST) Trial. J Am Coll Surg. 2017 Feb; 224(2):103-112.
- 177. Bilimoria KY, Quinn CM, Dahlke AR, Kelz RR, Shea JA, Rajaram R, Love R, Kreutzer L, Biester T, Yang AD, Hoyt DB, Lewis FR. Use and Underlying Reasons for Duty Hour Flexibility in the Flexibility in Duty Hour Requirements for Surgical Trainees (FIRST) Trial. J Am Coll Surg. 2017 Feb; 224(2):118-125.
- 178. Blay E Jr, Hewitt DB, Chung JW, Biester T, Fiore JF, Dahlke AR, Quinn CM, Lewis FR, Bilimoria KY. Association Between Flexible Duty Hour Policies and General Surgery Resident Examination Performance: A Flexibility in Duty Hour Requirements for Surgical Trainees (FIRST) Trial Analysis. J Am Coll Surg. 2017 Feb; 224(2):137-142.