

CARL ALEXANDER SIRIO, MD, FACP, FCCP, FCCM

EDUCATION

- 1976-1980 AB, Columbia College, Columbia University, New York, NY
1980-1984 MD, University of Medicine and Dentistry of New Jersey-Rutgers Medical School, (now Robert Wood Johnson Medical School), Piscataway, NJ
1987 MPH Degree Candidate – Health Administration, Columbia University School of Public Health, New York, NY
2007 UPMC Physician Services Division/Katz Physician Leadership and Management Certificate Program, Joseph M. Katz Graduate School of Business, University of Pittsburgh, Pittsburgh, PA

POST GRADUATE TRAINING

- 1984-1987 Resident, Department of Medicine, University Hospital, The Milton S. Hershey Medical Center, The Pennsylvania State University, Hershey, PA
1988-1992 Medical Staff Fellow/Clinical Associate, Critical Care Medicine, The National Institutes of Health, Bethesda, MD
Lieutenant Commander (O-4), US Public Health Service
1991-1992 Senior Staff Fellow
Under the auspices of The National Institutes of Health:
1989-1992 Research Scientist, ICU Research Unit, George Washington University School of Medicine, Washington, DC
1992 Pulmonary Fellow, George Washington University Medical Center, Washington, DC

CERTIFICATION

- 1985 Diplomate, National Board of Medical Examiners
1985 Advanced Cardiac Life Support (Recertified 1991, 2005, 2008)
1985 Advanced Trauma life Support (Recertified 1998)
1987 Diplomate, American Board of Internal Medicine
1993 Critical Care Medicine Subspecialty Certification, American Board of Internal Medicine (recertified through 2016)

MEDICAL LICENSURE

1985 Commonwealth of Pennsylvania
1988 State of Maryland
1989 District of Columbia
2012 State of Ohio

AWARDS AND PROFESSIONAL HONORS

1990 DuPont Critical Care/Young Investigator Award – American College of Chest Physicians
1990/1992 Henry Christian Award – American Federation for Clinical Research
1995 DuPont Critical Care/Young Investigator Award – American College of Chest Physicians (co-author)
1995 Fellow, American College of Chest Physicians (FACCP)
1995 Fellow, American College of Physicians (FACP)
1995-1996 Member, Leadership Pittsburgh XII. This program is comprised of professionals in the Pittsburgh area dedicated to understanding and improving the Pittsburgh community through sharing their diverse backgrounds and skills. Participants are awarded membership based on their professional abilities and community involvement.
1996 Young Investigator Award – American College of Chest Physicians (PI)
1997 Fellow, American College of Critical Care Medicine (FCCM)
2004 2003 Frederick M. Jacob Outstanding Service Award – Allegheny County Medical Society (ACMS)

ACADEMIC APPOINTMENTS

1987-1990 Assistant Professor of Medicine, School of Medicine, The Pennsylvania State University, Hershey, PA
1993-2000 Assistant Professor of Anesthesiology/Critical Care Medicine, School of Medicine, University of Pittsburgh, Pittsburgh, PA
1994-2000 Assistant Professor of Medicine (secondary appointment), School of Medicine, University of Pittsburgh, Pittsburgh, PA
2000-2002 Associate Professor of Anesthesiology/Critical Care Medicine, School of Medicine, University of Pittsburgh, Pittsburgh, PA
2000-2007 Associate Professor of Medicine (secondary appointment), School of Medicine, University of Pittsburgh, Pittsburgh, PA
2001-2007 Associate Professor of Pharmacy & Therapeutics (secondary appointment), School of Pharmacy, University of Pittsburgh, Pittsburgh, PA
2002-2007 Associate Professor of Critical Care Medicine, School of Medicine, University of Pittsburgh, Pittsburgh, PA
2007-2009 Professor of Critical Care Medicine, School of Medicine, University of Pittsburgh, Pittsburgh, PA
2007-2009 Professor of Medicine (secondary appointment), School of Medicine, University of Pittsburgh, Pittsburgh, PA
2007-2009 Professor of Pharmacy & Therapeutics (secondary appointment), School of Pharmacy, University of Pittsburgh, Pittsburgh, PA

2009-2011 Professor, Thoracic and Cardiovascular Surgery, Drexel University College of Medicine (Pittsburgh Campus), Philadelphia, PA
 2011 Professor of Medicine, Temple University School of Medicine (Pittsburgh Campus) Philadelphia, PA
 2012-2017 Professor of Medicine, Department of Medicine, The University of Toledo, Toledo, OH

MEDICAL STAFF APPOINTMENTS

1987-1990 Attending Staff Physician, University Hospital, The Milton S. Hershey Medical Center, Pennsylvania State University, Hershey, PA
 1988-1992 Active Junior Medical Staff Officer/Surgeon, The Clinical Center, The National Institutes of Health, Bethesda, MD
 1989-1998 Courtesy Attending Staff, Washington County Hospital, Hagerstown, MD
 1993-2009 Attending Staff Physician, University of Pittsburgh Medical Center (UPMC) Presbyterian/Shadyside Hospital and UPMC Montefiore), Pittsburgh, PA
 1994-2009 Attending Staff Physician, Veteran’s Administration Medical Center, Pittsburgh, PA
 1998-2002 Attending Staff Physician, Magee-Women’s Hospital, Pittsburgh, PA
 2002-2009 Courtesy Attending Staff Physician, Magee-Women’s Hospital, Pittsburgh, PA
 2009-2011 Attending Staff Physician, Allegheny General Hospital, Pittsburgh, PA
 2010-2011 Attending Staff Physician, Western Pennsylvania Hospital, Pittsburgh, PA
 2012-2017 Attending Staff Physician, The University of Toledo Medical Center, Toledo, OH

UNIVERSITY OF PITTSBURGH MEDICAL CENTER/UNIVERSITY OF PITTSBURGH SCHOOL OF MEDICINE APPOINTMENTS

1993-2009 Pharmacy and Therapeutics (P & T) Committee (Chair 1997-2009)
 1993-1995 P & T Antibiotics Ordering Ad Hoc Subcommittee
 1993-1995 P & T Antibiotics Subcommittee
 1994-1995 Department of Pharmacy Drug Expense Reduction Task Force
 1995-1998 Chair, Therapeutics Evaluation and Modification Subcommittee
 1997 Medical Use Multidisciplinary Task Force
 1997-1998 Nutrition Subcommittee
 1997-1999 Medical Quality Improvement Subcommittee
 1998-2009 Co-Chair, Medical Quality Improvement Subcommittee
 1999-2009 Formulary Subcommittee
 2000-2009 P & T Antibiotics Subcommittee
 2002-2009 Co-Chair, Safe Medication Practices and Quality Improvement Subcommittee
 1993-2009 Critical Care Services Committee (formerly ICU Committee)
 1993-1995 Chair, ICU Operational Effectiveness Subcommittee
 1994-1995 Co-Chair, Outcomes Steering Committee
 1994-1995 Medicine, Ethics and Law Steering Committee (2nd year medical student course)
 1994-1997 Total Quality Council
 1995-1997 Physician Advisory Board on Clinical Outcomes
 1995-2000 Critical Care Information Systems Executive Committee

1995-2002 Medical Director, APACHE Management System Project
 1995 Co-Chair, APACHE Steering Committee
 1997 UPMC Medical Intensive Care Continuous Process Improvement Team
 1998-2000 Electronic Medical Record Committee
 1998-2005 Utilization Review Committee
 2000-2001 University of Pittsburgh Physicians Association (UPPA) Credentials Committee
 2000-2002 Associate Director, UPMCHS Institute for Performance Improvement
 2004-2009 Medical Executive Committee – Ex-Officio
 2005-2009 Faculty Representative, Health Sciences Committee of the Board of Trustees
 2005-2009 Core Faculty, Center for Research on Health Care (Evaluation and Survey Research and Outcomes Effectiveness)
 2005-2009 Medical Director, Pharmacy Vaccination Program

UNIVERSITY OF PITTSBURGH SCHOOL OF PHARMACY APPOINTMENT

2001-2009 Medical Director, Center for Pharmacoinformatics and Outcomes Research

UNIVERSITY OF PITTSBURGH/DEPARTMENTS OF ANESTHESIOLOGY AND CRITICAL CARE MEDICINE APPOINTMENTS

1993-2001 Co-Associate Director, Internal Medicine Critical Care Fellowship Training Program
 1993 Education Committee, Multidisciplinary Critical Care Training Program (MCTP)
 1993-1998 Fellowship Issues Committee
 1993-1996 Montefiore University Hospital SICU Committee
 1994-1995 Real Time Patient Tracking System Steering Committee
 1994-1996 Clinical Trials Steering Committee
 1994-1997 ICU Directors Committee

ALLEGHENY GENERAL HOSPITAL/DREXEL UNIVERSITY COLLEGE OF MEDICINE

2009-2011 Program Director, Internal Medicine/Critical Care Medicine Residency Fellowship - responsible for creation of a new training program
 2009-2011 Pharmacy & Therapeutics Committee (Chair 2010)
 2010-2011 Ethics Committee
 2010-2011 Quality Management Committee

WEST PENN ALLEGHENY HEALTH SYSTEM (WPAHS)

2010-2011 Medical Directory, Pharmacy
 2010-2011 Co-Chair, WPAHS Pharmacy & Therapeutics Committee

THE UNIVERSITY OF TOLEDO COLLEGE OF MEDICINE AND LIFE SCIENCES

- 2014-2016 **Chief Operating Officer and Clinical Officer/ Chief Medical Officer**
Responsible and accountable for strategic and operational planning of all clinical services within the University of Toledo Medical Center which includes budgetary control in excess of \$230M. Span of responsibility includes: medical staff affairs, nursing, ancillary support services, emergency department, cancer center, operative services; quality, safety and patient experience; clinical health information technology integration; clinical growth; and clinical effectiveness and efficiency for 230+ full-time faculty in a fully owned faculty practice plan; 1000+ volunteer faculty; 2700 employees.
- 2012-2014 **Vice President for Medical Affairs/Chief Medical Officer**
Responsible for medical staff affairs, quality, safety and patient experience; clinical growth; and clinical effectiveness and efficiency for 230+ full time faculty in a fully owned faculty practice plan; 1,000+ volunteer faculty.
- 2014-2016 **Senior Associate Dean for Clinical Affairs**
2012-2014 **Associate Dean for Clinical Affairs**
Responsible for strategic integration of clinical educational programs with clinical delivery systems, ensuring an exemplary learning environment for our medical students (170/class) and ~350 residents and Lfellows across multiple specialties, as well as nursing, pharmacy and allied health profession students.
- 2012-2014 **Chief Medical Information Officer**
Responsible for leading the ongoing implementation of the UTMC “digital campus project” across all clinical sites including: Computerizing Physician Order Entry (CPOE); ongoing optimization of clinical HIT systems; compliance with all components of inpatient and outpatient “Meaningful Use.”

LEAVITT PARTNERS

- 2017- Senior Advisor – Health care provider services; quality/safety; public policy

PUBLIC SERVICE INITIATIVES AND HEALTH AND PUBLIC POLICY SCHOLARSHIP

- 1991-2004 **Pennsylvania Health Care Cost Containment Council** (*Appointed by Governor Thomas Ridge, November 13, 1996*)
- 1994-1995 Task Force on Future Directions. A task force charged with developing recommendations regarding current and future programs of the Pennsylvania Health Care Cost Containment Council
- 1995 Strategic Planning Task Force
- 1997-1998 Severity Adjustment Assessment Panel. A panel charged with developing recommendations regarding appropriate programs for severity stratification within Pennsylvania hospitals

1998-2004	Physician Representative, Pennsylvania Health Care Cost Containment Council
1995-2004	Data Systems Committee. A Work Group responsible for initiating and evaluating recommendations for statewide improvements in ongoing quality and cost evaluations undertaken by HC4
1998-2004	Education Committee
1998-2000	Vice Chair, Education Committee
2000-2001	Chairman, Education Committee
2003-2004	Vice Chair, Education Committee
1999-2004	Mandated Benefits Review Committee
2003-2004	Act 14 Compliance Task Force
1996-2008	Pennsylvania Department of Health Health Policy Board. (Confirmed by Pennsylvania State Senate November 13, 1996). Sole physician representative responsible for providing the Secretary of Health counsel and recommendations on a broad range of public health and health policy initiatives.
1997-2001	Chairman, Data and Information Committee, State Health Improvement Planning (SHIP) Responsible for generating policy recommendations to the Secretary of Health regarding current and future data collection and reporting needs for state-wide and local public health initiatives. The aim was to facilitate better coordination of health resources along the spectrum of prevention, acute care, and long-term care. The committee membership included Health Policy Board leadership, executive staff of the Department of Health, other government departments and agencies, and representatives of a diverse set of local and public health organizations
2001	State Health Improvement Plan (SHIP) Steering Committee
2001-2008	Co-chair, Data and Information Working Group
1997-2005	Pittsburgh Regional Healthcare Initiative (PRHI) Founding Member, The PRHI is a coalition of healthcare stakeholders united in their mission to establish Southwestern Pennsylvania's healthcare outcomes and values as the benchmark for the nation. To this end, more than 40 Western Pennsylvania health care organizations and other institutional providers, several hundred clinicians, regional payors, healthcare professional organizations, CEOs from the community's largest corporations, and organized labor have publicly committed to the elimination of medication errors and hospital-acquired infections, as well as clinical initiatives in five major areas of care (obstetrics, orthopaedics, cardiac care, psychiatry and internal medicine). [see AHRQ, #1U18HS13690-01]
1997-1998	Planning Group
1998-1999	Co-Chair, Improving Quality and Reducing Cost Through Outcome Measurement: Reengineering Medicine Subcommittee
1999-2004	Leadership Obligation Group
1999-2004	Clinical Advisory Committee
1999	Chairman
2000-2004	Co-chair
1999-2001	Patient Safety Committee
1999-2004	Medication Advisory Committee
1999-2004	Nosocomial Infection Work Group

1999-2004 Buying Value Committee
2001-2005 Principal Investigator: AHRQ, #1U18HS13690-01, (See Grants and Contracts Section)

CLINICAL PERFORMANCE AND STANDARDS SETTING, PATIENT SAFETY

1998-2000 Member, American Medical Accreditation Program (AMAP)
1998-2000 Member, Performance Measurement Advisory Committee
1999-2000 Chair, Risk Adjustment Work Group
1998-2000 Performance Measurement Coordinating Council (PMCC). Joint AMA, NCQA, JCAHO coordinating group on performance measurement standards
1998-2010 US Pharmacopeia (USP) (representing the University of Pittsburgh School of Medicine)
2005-2010 Safe Medication Use Expert Committee
2000-present The Consortium for Physician Performance Improvement
2000-2005 Co-Chair, Guidelines and Measures Work Group
2001 Asthma Work Group
2001 Major Depression Work Group
2001 Preventive Medicine Work Group
2002-2012 Planning Advisory Committee (PAC)
2004 Child and Adolescent Major Depressive Disorder Work Group
2005-2006 Measures Methodology Technical Advisory Panel
2006-present Executive Committee
2006-2012 Chair, Measures Development, Methodology and Oversight Advisory Committee
2001-2010 The Joint Commission – Board of Commissioners [formerly Joint Commission on Accreditation of Healthcare Organizations (JCAHO)]
2001-2010 Patient Safety Advisory Committee
2001-2010 ICU Advisory Committee
2002 Contributing Member, Institute of Medicine: Professions Education Summit
2005-2006 National Quality Forum Medication Management Technical Advisory Panel
2006 Center for Medicare and Medicaid Services (CMS) Technical Expert Panel, Measures Methodology
2008 EPITOME, (Enhanced Patient Safety Intervention to Optimize Medication Education), Web site development for public use: <http://www.ccm.upmc.edu/epitome>
2008-2009 Lucian Leape Institute at the National Patient Safety Foundation Roundtable on The Need for Reform in Medical Education
2008-2009 Special Advisor, Director Agency for Healthcare Research and Quality (AHRQ), Carolyn Clancy, M.D.
2011-2017 Measures Application Partnership (NQF sponsored)

EDUCATIONAL POLICY AND ACCREDITATION

1986-1990 National Board of Medical Examiners

1994-1997 Graduate Medical Education Advisory Committee (GMEAC), American Medical Association (AMA). The GMEAC is responsible for developing recommendations to the AMA Council on Medical Education regarding appropriate policy positions concerning post-graduate medical education. This responsibility includes evaluating general and specialty training requirements (general and special essentials), post-graduate medical education manpower issues, ACGME and RRC proposals.

1997 Chair

1999-2005 Internal Medicine Residency Review Committee (IMRRC)
2000-2002 Blue Sky (Strategic Planning) Work Group
2003-2005 Pilot Project Work Group
2003 Chair, Pilot Project Work Group

2001-2009 Council on Medical Education (CME)
2001-2007 Nominating Committee
2003 Chair
2000-2006 Graduate Medical Education Subcommittee
2004-2005 Chair-Elect
2004-2007 Executive Committee
2005-2010 Chair, Initiative to Transform Medical Education
2005-2006 Chair
2006-2007 Immediate Past Chair
2006-2009 Undergraduate Medical Education Subcommittee

2002-2008 Liaison Committee on Medical Education (LCME)
2003-2008 Subcommittee on Standards
2003-2006 Task Group on the Learning Environment
2003-2006 Working Group on International Activities
2007-2008 Executive Committee

LCME Site Survey Teams
2003 Columbia University College of Physicians and Surgeons
2004 University of North Carolina School of Medicine
2005 SUNY – Downstate Medical School
2006 University of Arizona College of Medicine
2007 University of Southern Illinois School of Medicine
2008 Touro University College of Medicine, Chair
2009 Dalhousie University Faculty of Medicine, Chair
2010 University of Ottawa School of Medicine
2011 Tulane University, Chair
2012 University of Minnesota Medical School
2012 Queens University School of Medicine
2013 Northwestern University Feinberg School of Medicine, Chair
2014 University of Alabama School of Medicine, Chair

2005-2010 Chair, Initiative to Transform Medical Education – Comprehensive evaluation and work plan to transform medical education to meet the needs of today assessing: admissions, the learning environment, curriculum, retraining, reentry accreditation/certification/licensure, evaluation, faculty development, and funding

- 2009-2011 Board Member, National Resident Matching Program (NRMP)
Data and Research Committee
- 2009-present Accreditation Council for Graduate Medical Education (ACGME)
Critical Care Medicine Appeals Committee

AMERICAN MEDICAL ASSOCIATION – BOARD OF TRUSTEES

- 2010-present Member
- 2010-11,14-16 Audit Committee
- 2010-2011 Membership Committee
- 2011-present Finance Committee (Chair 2014-2016)
- 2011-2012 Business Strategy Committee (Chair 2012)
- 2013 Executive Committee, Secretary
- 2014 Board Secretary

THE JOINT COMMISSION – BOARD OF COMMISSIONERS

- 2011-present Governance Committee (Chair 2014)
- 2011-present Standards and Survey Procedures

PROFESSIONAL MEMBERSHIPS

- 1980-1999 American Association for the Advancement of Science
- 1981-present American Medical Association
- 1983-1984 American Medical Student Association
- 1984-present Pennsylvania Medical Society
- 1986-present American College of Physicians
- 1991-present Society of Critical Care Medicine
- 1991-1993 Medical Society of the District of Columbia, Associate Member
- 1993-present Allegheny County Medical Society
- 1994-present American College of Chest Physicians
- 1994-2000 American Thoracic Society

ADDITIONAL PROFESSIONAL ACTIVITIES

- 1980-1984 UMDNJ-Rutgers Medical School
- 1981-1982 Member, Admissions Committee
- 1981-1982 Representative, Association of American Medical Colleges–Organizations of Student Representatives
- 1984-present Pennsylvania Medical Society (PMS)
- 1984-1989 Delegate, House of Delegates
- 1993-1998 Delegate, House of Delegates
- 2003-2017 Delegate, House of Delegates
- 1984-1991 Member-at-Large, Governing Council, Resident Physician Section
- 1985-1989 Commission on Manpower
- 1989-1991 Trustee
- 1989-1990 Committee of the Board of Trustees on Conflict of Interest

1989-1990	Ad Hoc Committee to Study Health Awareness Task Force
1989-1991	Director, PennMed, Inc. (A Pennsylvania Medical Society Subsidiary)
1990-1991	Publications Committee
1990-1991	Liaison, Council on Membership
1989-1990	Task Force on AIDS
1989	Reference Committee on Education and Science
1991-1998	Task Force on Health Care Cost Containment
1992-1996	Vice Chairman
1996-1998	Consultant
1998-2001	Executive Committee, AMA Delegation, Delegate at Large
2000-2001	Chair, Subcommittee on Quality
1984-present	American Medical Association
1984-1991	Delegate, Resident Physicians Section
1986	Reference Committee (RPS) Interim
1989	Candidate, Board of Trustees
1990	Alternate Delegate
1991-1994	Alternate Delegate
2003-2004	Alternate Delegate
1993-1994	Delegate, Young Physicians Section
1995-2002	Delegate, AMA House of Delegates
2004-2010	Delegate, AMA House of Delegates
1994-2002	Medical Forum Steering Committee
1994	Reference Committee C, Interim Meeting
1997	Reference Committee B, Interim Meeting
1998-2000	Reference Committee F
2000-2009	Council on Medical Education
2010-present	Board of Trustees
1987-1988	Resident Selection Committee, Department of Medicine, The Pennsylvania State University, Hershey, Pennsylvania
1988-2002	Keystone Peer Review Organization (KePRO)
1988-1993	Physician Advisor
1995-2002	Steering Committee
1989-1990	Member, American Society of Internal Medicine Committee on Health Care Financing
1989-1992	Project Director, APACHE Medical Systems, Inc., Greater Cleveland Health Quality Choice Coalition (CHQC). The CHQC is a cooperative, greater metropolitan Cleveland effort, enlisting physicians, hospitals and business, in an effort to create the nation's first voluntary system for measuring and comparing the quality of individual hospitals on a community-wide basis by, in part, assessing clinical outcomes from critical care.
1992-1993	Scientific Advisory Committee, APACHE Medical Systems, Inc. Washington, DC
1993-2001	Allegheny County Medical Society
1994-1996	Substance Abuse Committee
1994-1997	Chair, Managed Care Committee

- 1999-2001 Board of Directors
- 1994-1995 Relative Work Value Survey Group, American College of Physicians
- 1995-1996 Editorial Board, Pittsburgh Health Pages
- 1996 American College of Chest Physicians Workshop on Cardiopulmonary Management in the Perioperative Period

CONSULTANT

1992-2009 Consultant, providing an evaluation of the organization and management of medical and surgical intensive care services at:

- 1992 St. Vincent Charity Hospital & Health Center, Cleveland, Ohio
- 1992 St. John & West Shore Hospital, Westlake, Ohio
- 1992 ICU sedation, Stuart Pharmaceuticals, Chicago, Illinois
- 1994 Dominican Hospital, Santa Cruz, California
- 1994 Kaiser Permanente Medical Center, Bellflower, California
- 1995 Kaiser Permanente Medical Center, Anaheim, California
- 1995 Northshore University Hospital, Manhassat, New York
- 1995 Baptist Medical Center, Columbia, South Carolina
- 1995 University of Maryland Medical Center, Baltimore, Maryland
- 1995 Spartanburg Memorial Medical Center, Spartanburg, South Carolina
- 1995 St. Luke's Medical Center, Milwaukee, Wisconsin
- 1995 Kaiser Permanente Medical Center-Los Angeles, Hollywood, California
- 1995-1996 Salinas Valley Memorial Hospital, Salinas, California
- 1995 Kaiser Permanente Medical Center, Fontana, California
- 1996 Kaiser Permanente Medical Center, Woodland Hills, California
- 1996 Kaiser Permanente Medical Center-Panorama City, Los Angeles, California
- 1996 Kaiser Permanente Medical Center-Harbor City, Long Beach, California
- 1996 University of Kentucky Chandler Medical Center, Lexington, Kentucky
- 1997 Huntsville Hospital, Huntsville, Alabama
- 1997 Medical Center of Central Georgia, Macon, Georgia
- 1997 Hospital of St. Raphael, New Haven, Connecticut
- 1997 DynCorp/DynKePro and KePRO, Harrisburg, Pennsylvania and Reston, Virginia
- 1998 Moses Cone Hospital, Greensboro, North Carolina
- 1998 St. Francis Hospital, Hartford, Connecticut
- 1998 St. Mary's Medical Center, Huntington, West Virginia
- 1998 Richland Memorial Hospital, Columbia, South Carolina
- 1999 Lenox Hill Hospital, New York, New York
- 1999 Piedmont Hospital, Atlanta, Georgia
- 2000 Dura Pharmaceuticals
- 2000-2006 McKesson Corporation, San Francisco, California
- 2000-2008 Cerner Corporation, Kansas City, Missouri
- 2006-2008 Innovation Works, Pittsburgh, Pennsylvania
- 2009 Ohio State University Health System
- 2017- Leavitt Partners, LLC
- 2017- TRG, LLC

2017- LifeWings, LLC

GRANTS AND CONTRACTS

- 1994-1997 BAA/RFP, No. NLM 93-105/PSP, \$2,301,608.00. Implementation of a teleradiology system to enhance consultative services between primary and secondary care hospitals and a tertiary care facility. (PI: Yonas H, Co-I: **Sirio CA**)
- 1994-1996 Health Services Institute, \$250,000.00. Cost-effectiveness of inhaled nitric oxide therapy in the treatment of adult respiratory distress syndrome: analysis of the Phase II study, NO-04-05. (PI: Angus DC, Co-I: **Sirio CA**)
- 1994-1996 AHCPR, RO1-HS06594-03. A randomized trial of computerized ICU protocols. (PI: East TD, Co-I: **Sirio CA**)
- 1996-2002 NIH, 1 RO1 AG11979-01A2, \$1,340,617.00. Quality of life after mechanical ventilation in the aged. (PI: Chelluri L, Co-I: **Sirio CA**)
- 1996 Nellcor, Inc., \$68,000.00. Using pulse oximetry monitoring to optimize patient care. (PI: Rotondi A, Co-I: **Sirio CA**)
- 1997-2002 NIA, RO1 AG11979-01A3, \$120,000.00. Outcome of Critically Ill Patients with Acute Renal Failure. (PI: Reeder S, Co-I: **Sirio CA**)
- 1997-1999 NIA, 5 RO1 HD36075-02, \$585,983.00. Supporting Traumatic Brain Injury Caregivers. (PI: Rotondi AJ, Co-I: **Sirio CA**)
- 1998-2000 Novartis, \$168,119.13. PMX 622: Multiple Dose Safety, Tolerability, Pharmacokinetics and Pharmacodynamics of PMX 622 in patients with Severe SIRS and Evidence of Infection. (PI: **Sirio CA**)
- 1998-2002 Eli Lilly, \$82,856.50. A Phase III Study to Determine the Efficacy and Safety for Recombinant Human Activated Protein C in Severe Sepsis. (PI: Kellum J, Co-I: **Sirio CA**)
- 1998-2000 The Jewish Healthcare Foundation, \$30,000.00. Evaluating Outcomes, Treatment Patterns and Cost of Care for Patients with AMI using PHC4 Data. (PI: **Sirio CA**)
- 1998 Eli Lilly. LY33328 vs. Vancomycin in Skin/Skin-Structure Infections. (PI: Tisherman S, Co-I: **Sirio CA**)
- 1998-1999 Eli Lilly. A Phase II Study to Determine the Efficacy and Safety of LY315920 in Patients with Severe Sepsis. (PI: Bowles S, Co-I: **Sirio CA**)
- 1999-2003 NIH, 1 RO1 05204-01, \$1,127,249.00. Improving Outcomes in Mechanically Ventilated Patients. (PI: Hoffman LA, Co-I: **Sirio CA**)
- 2000-2002 AHA, #0051048U, \$69,030.00. Evaluating Outcomes, Treatment Patterns and Cost of Care with AMI using a Statewide Database. (PI: **Sirio CA**)

- 2000-2001 The Federation of Independent School Alumnae, \$39,865.00. Improving Services to those with a Traumatic Brain Injury and their Families. (PI: Rotondi AJ, Co-I: **Sirio CA**)
- 2001-2005 AHRQ, #U18HF11926, \$5,386,290.00. Systems Approach for Improving Region-Wide Patient Safety. (PI: **Sirio, CA**) (*Supplemental funding received September 2002 – August 2003: \$512,006*)
- 2001-2005 AHRQ, #1U18HS13690-01, \$99,506.00. Effecting Change in Chronic Care: The Tipping Point. (PI: Kmetik K, Co-I: **Sirio CA**)
- 2004-2005 Amgen, Inc., #200423436, \$100,000.00. Support of an Educational Program to Improve Patient care and Drug-Use Utilizing a Disease State Management and Evidence-Based Model.”
- 2005-2006 Amgen, Inc., #200423436, \$115,000.00. Support of an Educational Program to Improve Patient care and Drug-Use Utilizing a Disease State Management and Evidence-Based Model.”
- 2005-2007 AHRQ, #U18HS015851, \$600,000.00. Enhanced Patient Safety Intervention to Optimize Medication Education (EPITOME). (PI: **Sirio CA**)

LITERATURE AND GRANT REFEREE (Periodic)

- 1990 Critical Care Medicine
 1991 Cleveland Clinic Journal of Medicine
 1992 Chest
 1992 Journal of Intensive Care Medicine
 1993 The Physicians' Services Incorporated Foundation, North York, Ontario, Canada
 1994 American Journal of Respiratory and Critical Care Medicine
 1994 Journal of Critical Care
 2001 Joint Commission Journal on the Quality of Healthcare
 2004 American Journal of Medical Quality
 2004 Health Affairs
 2004 Medical Care
 2007 Journal of General Internal Medicine
 2009 Academic Medicine

EDITORIAL BOARD

- 2004-2014 American Journal of Medical Quality

MEDIA EXPERIENCE

Interview, WITF-TV (PBS), Harrisburg, PA: AIDS education and awareness in high school students. April 5, 1988.

Photo essay, Patriot News, Harrisburg, PA: Adolescent health issues. April 21, 1991.

Editorial Board Interview, Pittsburgh Post Gazette, Pittsburgh, PA: June 12, 1996; Interview, WDUQ-FM (PBS), Pittsburgh, Pennsylvania. Pennsylvania Health Care Cost Containment Council - Focus on Heart Attacks. June 19, 1996.

Interview, WJAC-TV (NBC), Johnstown, PA. Managed Care and Quality in Health Care Delivery. August 27, 1997.

Editorial Board Interview, Pittsburgh Post Gazette, Pittsburgh, PA. Coronary Artery Bypass Graft Surgery Statewide Outcomes. April 28, 1998.

Host, Patient Education Series. Twelve one-half hour programs on medical topics (e.g., anemia, Parkinson's disease, incontinence, Alzheimer's disease, gallbladder disease). RTN, Inc. Fall 1998.

Host, Patient Education Series. Twelve one-half hour programs on medical topics. RTN, Inc. Fall 1999.

Interview, Pittsburgh Post Gazette, Pittsburgh, PA. Pennsylvania Health Care Cost Containment Council Reauthorization, June 26, 2003.

Interview, Pittsburgh Tribune-Review, Harrisburg, PA. Pennsylvania Health Care Cost Containment statement on Nosocomial Infection Data Collection, November 6, 2003.

Interview, WSPD Radio, WGTE TV, WTOL TV, Toledo, OH. Implementation of the Affordable Care Act, September 26-30, 2013.

VOLUNTEER ACTIVITIES

- | | |
|-----------|---|
| 1988-1993 | Physician Service Program - Pennsylvania Medical Society Educational Program for School Age Children on topics in public health. |
| 1991-1993 | American Medical Association - American Bar Association Cooperative Educational Project for school age children on the dangers of drug use. |
| 1995 | Member, Advisory Board on Community Health Outcomes Initiatives, The Jewish Healthcare Foundation, Pittsburgh, Pennsylvania. |
| 1996 | Member, Planning Committee, Health Care Session, Leadership Pittsburgh. |
| 1997 | Advisor, Health Systems Assessment, The Jewish Healthcare Foundation, Pittsburgh, PA. |

PUBLICATIONS

REFEREED ARTICLES:

1. **Sirio CA**, Smith JS, Graham WP. High pressure injection injuries of the hand. Am Surg 1989, 55:714-718.

2. Knaus WA, Wagner DP, Draper EA, Zimmerman JE, Bergner M, Bastos PG, **Sirio CA**, Murphy DJ, Lotring T, Damiano A, Harrell F. The APACHE III prognostic system: Risk prediction of hospital mortality for critically ill hospitalized adults. Chest 1991, 100(6):1619-1636.
3. **Sirio CA**, Tajimi KA, Tase C, Knaus WA, Wagner DP, Hirasawa H, Sakanishi N, Katsuya H, Taenaka N. An initial comparison of critical care in Japan and the United States. Crit Care Med 1992, 20(9):1207-1215.
4. Tajimi K, **Sirio CA**, Sakanishi N, Tase C, Hirasawa H, Taenaka N, Wagner DP, Knaus WA, Katsuya H, Yoshiya I. Severity and outcome evaluation using the APACHE II scoring system: A multicenter prospective study to evaluate critical care in 6 Japanese tertiary care ICUs and test the applicability of APACHE II in Japan. Intensive Care Med (Japanese) 1992, 16(8):765-775.
5. Shulkin DJ, Glick H, Kinoshian B, **Sirio CA**, Glen-Puschett C, Daly J. Explaining cost variations in clinical trials using severity of illness measures. Clinical Performance and Quality Health Care 1993, 1(3):134-37.
6. Knaus WA, Thompson DI, **Sirio CA**. The expanding role of ICU medical directors: from patient management to unit management. Quality Management in Health Care 1995, 3(4):31-36.
7. Angus DC, Linde-Zwirble WT, **Sirio CA**, Rotondi AJ, Chelluri L, Newbold RC III, Lave JR, Pinsky MR. The effect of managed care on ICU length of stay: Implications for Medicare. JAMA 1996, 276(13):1075-1082.
8. Angus DC, **Sirio CA**, Clermont G, Bion J. International comparisons of critical care outcome and resource consumption. Crit Care Clin 1997, 13(2):389-407.
9. Rosenthal GE, **Sirio CA**, Shepardson LB, Harper DL, Rotondi AJ, Cooper GS. Use of intensive care units for patients with low severity of illness. Arch Int Med 1998, 158(10):1144-1151.
10. **Sirio CA**, Shepardson LB, Rotondi AJ, Cooper GS, Harper DL, Rosenthal GE. Community-wide assessment of intensive care outcomes using a physiologically-based prognostic measure: implications for critical care delivery from Cleveland Health Quality Choice. Chest 1999, 115(3):793-801.
11. **Sirio CA**. Patient management strategies to contain cost in the ICU. Sem Resp Crit Care Med 1999, 20(3):253-261.
12. Cooper GS, **Sirio CA**, Rotondi AJ, Shepardson LB, Rosenthal GE. Are readmissions to the intensive care unit a useful measure of hospital performance? Med Care 1999, 37(4):399-408.
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58. Chelluri L, Wisniewski S, Donahoe M, **Sirio C**, Schulz R, Rotondi AJ, Belle SH. End of life care: Decision making characteristics regarding limitation of therapy in patients requiring prolonged mechanical ventilation (MV). Chest 1998, 114(4):328S. (Presented, American College of Chest Physicians, November 10, 1998, Toronto, Ontario)
59. Rotondi AJ, Schulz R, **Sirio CA**, Wisniewski S, Belle SH, Donahoe M, Pinsky M, Chelluri L. The experiences of patients receiving prolonged mechanical ventilation in the ICU. Chest 1998, 114(4):328S. (Presented, American College of Chest Physicians, November 10, 1998, Toronto, Ontario)
60. **Sirio CA**, Lave JR, Sasser HC, Wisniewski SR. Acute myocardial infarction (AMI) statewide outcomes for urban/rural admissions: Experience from the Pennsylvania Health Care Cost Containment Council (PHC4). J Am Coll Cardiol 1999, 33(2):313A.
61. Chelluri L, Wisniewski S, Belle SH, Donahoe M, Pinsky MR, Reeder S, Rotondi AJ, Schulz R, **Sirio CA**. Are age and gender associated with outcome in patients receiving prolonged mechanical ventilation? Am Rev of Resp and Crit Care Med 1999, 159:80A. (Presented, American Thoracic Society, April 25, 1999, San Diego, CA)
62. Chelluri L, Mendelsohn AB, Belle SH, Donahoe M, Pinsky MR, Reeder S, Rotondi AJ, Schulz R, **Sirio CA**, Wisniewski S. Does age predict hospital costs in patients receiving prolonged mechanical ventilation? Am Rev of Resp and Crit Care Med 1999,159:80A. (Presented, American Thoracic Society, April 25, 1999, San Diego, CA)
63. DeVita MA, **Sirio CA**, Paronish R, Michalec D, Welfer K, Arnold R. ICU patients are unlikely to receive council regarding levels of support. Chest 1999, 116(4):239S-240S. (Presented, American College of Chest Physicians, November 1, 1999, Chicago, IL)
64. **Sirio CA**, DeVita MA, Michalec D, Welfer K, Paronish R, Arnold R. Potential value of using probability estimates and clinical events to identify patients at high risk for hospital mortality. Chest 1999, 116(4):368S. (Presented, American College of Chest Physicians, November 3, 1999, Chicago, IL)
65. Reeder SJ, Chelluri L, Belle SH, Shire J, **Sirio CA**, Schulz R, Rotondi AJ, Donahoe M, Pinsky MR. Prehospital functional status associated with two months outcome in patients receiving prolonged mechanical ventilation. Chest 1999,116(4)2:313S. (Presented, American College of Chest Physicians, November 1, 1999, Chicago, IL)
66. Fleegler BM, Jackson D, Martin H, Turnbull J, Honeycutt C, **Sirio CA**. Identifying potentially ineffective care in a community hospital. Am J Respir Crit Care Med 2000, 161(3):237A. (Presented, American Thoracic Society, May 7, 2000, Toronto, Ontario)
67. Chelluri L, Mendelsohn AB, **Sirio CA**, Belle SH, Donahoe M, Pinsky MR, Reeder S, Rotondi AJ, Schulz R, Angus D, Wisniewski S. Age and hospital costs in patients receiving prolonged mechanical ventilation. Am J Respir Crit Care Med 2000, 161(3): 556A. (Presented, American Thoracic Society, May 10, 2000, Toronto, Ontario)
68. Chelluri L, Im K, **Sirio CA**, Donahoe M, Belle SH, Pinsky MR, Reeder S, Rotondi AJ, Schulz R, Angus D, Mendelsohn AB, Wisniewski S. Impact of insurance status on reimbursement for

- patients requiring prolonged mechanical ventilation (MV). Am J Respir Crit Care Med 2000, 161(3):556A. (Presented, American Thoracic Society, May 10, 2000, Toronto, Ontario)
69. Alzola CF, Watts C, **Sirio CA**, Honeycutt C, Shaffer V. Predicting hospital mortality for critically ill patients upon admission to the ICU. Updating APACHE III. Am J Respir Crit Care Med 2000, 161(3):238A. (Presented, American Thoracic Society, May 7, 2000, Toronto, Ontario)
 70. Alzola CF, Watts C, **Sirio CA**. Performance of APACHE III Equations in Coronary Artery Bypass Graft Patients. Chest 2000, 118:86S.
 71. Alzola CF, Shaffer V, Honeycutt C, Watts C, **Sirio CA**. Predicting ICU length of stay (LOS) in hours upon admission for critically ill patients. Updating APACHE III. Am J Respir Crit Care Med 2000, 161(3):237A. (Presented, American Thoracic Society, May 7, 2000, Toronto, Ontario)
 72. Watts C, **Sirio CA**, Zhang B, Alzola CF, Honeycutt C, Shaffer V. Reestimating ICU length of stay (LOS) for patients with prolonged ICU stays on ICU day 5: predicting the tail. Am J Respir Crit Care Med 2000, 161(3):237A. (Presented, American Thoracic Society, May 7, 2000, Toronto, Ontario)
 73. Sakallaris B, Alzola CF, **Sirio CA**, Fleegler BM. Practice variations and utilization changes in pulmonary artery catheterization (PAC). Am J Respir Crit Care Med 2000, 161(3):398A. (Presented, American Thoracic Society, May 8, 2000, Toronto, Ontario, Canada)
 74. **Sirio CA**, Jones J, Webster G, English D. Assessing regional variation in C-section and VBAC rates in a major metropolitan area – improving health service delivery. Obstet Gynecol 2000, 95(4):78S. (American College of Obstetricians and Gynecologists, May 20-24, 2000, San Francisco, CA)
 75. **Sirio CA**, Jones J, Webster G, English D. Risk stratification for C-section using a regional database. Obstet Gynecol 2000, 95(4):8S. (American College of Obstetricians and Gynecologists, May 20-24, 2000, San Francisco, CA)
 76. **Sirio CA**, Jones J, Webster DG, English D, Roberts MS. Assessing regional variation in caesarean section (C-Section) and vaginal delivery after C-Section (VBAC) in a major metropolitan area utilizing a statewide database and risk stratification tool. (Presented, Association for Health Services Research, June 26, 2000, Los Angeles, California)
 77. **Sirio CA**, Jones J, Pei Y, Webster DG, Roberts MS. Assessing regional variation in the utilization of and outcomes from hip arthroplasty using a statewide clinical and administrative database. (Presented, Association for Health Services Research, June 26, 2000, Los Angeles, California)
 78. **Sirio CA**, Jones J, Pei Y, Webster DG, Meacock K, Roberts MS. Total knee replacement in southwest Pennsylvania – assessing utilization, post-operative complications and hospital readmission using a statewide database. (Presented, Association for Health Services Research, June 26, 2000, Los Angeles, California)

79. Harbrecht BG, Peitzman AB, Townsend RN, Clancy KD, Doyle SR, **Sirio CA**, Zenati MS. Does the magnitude of hepatic dysfunction in trauma patients matter? Am Assoc for Surg of Trauma 2000.
80. Mendelsohn AB, Belle SH, Fischhoff B, Degenholtz H, Wisniewski SR, Pinsky MR, **Sirio CA**, Schulz R, Reeder S, Chelluri L. The decision to mechanically ventilate: what is important to patients? Crit Care Med 2000, 28:60A. (Presented, Society for Critical Care Medicine, February 12, 2001, San Francisco, California)
81. Reeder SJ, Chelluri L, Im K, Belle SH, Mendelson A, **Sirio CA**, Schulz R, Pinsky M, Rotondi AJ, Donahoe M. Two-month mortality and functional status of critically ill patients with acute renal failure. Crit Care Med 2000, 28(12):195A. (Presented, Society for Critical Care Medicine, February 12-13, 2001, San Francisco, California)
82. Smitherman TC, **Sirio CA**, Jones JL, Wolf FE, Meacock KA, Pei Y, Culig MH, Shannon RP, Lloyd JC, Itzkoff JM. Complication and rehospitalization rates following isolated coronary artery bypass graft surgery (ICABG) from the Advanced Cardiac Care study of the Pittsburgh Regional Healthcare Initiative (PRHI): potential value for performance improvement. (Presented, American Heart Association 3rd Scientific Forum on Quality of Care and Outcomes Research in Cardiovascular Disease and Stroke, September 30-October 1, 2001, Washington, DC)
83. Chelluri L, Im K, Belle SH, Mendelsohn A, Schulz R, **Sirio CA**, Rotondi AJ, Donahoe MP, Pinsky MR. One year mortality and functional status among patients mechanically ventilated for at least 48 hours in an intensive care unit. Crit Care Med 2001, 29:133A.
84. Kmetik K, **Sirio CA**. Effecting change in chronic care: Toward achieving a US tipping point. (Presented, International Society for Quality in Health Care (ISQua) 20th International Conference, November 3, 2003, Dallas, TX)
85. Wang HE, Lave JR, **Sirio CA**. Errors in Prehospital Endotracheal Intubation. Prehospital Emergency Care 2006, 10;107. (Presented at the National Association of EMS Physicians Annual Meeting, January 2006, Tucson, AZ)
86. Hall E, **Sirio CA**. T75 – The Perfect Storm: A System Approach to Reducing Variation in Transplant Surgery (Presented, UHC Annual Conference 2013, October 17-18, 2013, Atlanta, GA).

OTHER PUBLICATIONS

1. **Sirio CA**, Bastos P, Knaus WA, Wagner DP. [Letter to the editor]. Arch Surg 1991, 126:528.
2. Chelluri L, **Sirio CA**, Angus DC. Thrombolytic therapy for acute myocardial infarction: GUSTO Criticized. [Letter to the editor]. N Eng J Med 1994, 330(7):505.

3. Friedman HS, Chelluri L, **Sirio CA**, Angus DC, Ogunyankin K, Topol EJ, Califf RM, Van de Werf F, Frans. Furster V. Thrombolytic therapy for acute myocardial infarction: GUSTO criticized. N Engl J Med 1994, 330(7):504-506.
4. **Sirio CA**. The risks of lowering the Caesarean delivery rate. [Letter to the editor]. N Eng J Med 1999, 341(1):54-55.
5. Kochanek PM, Snyder JV, **Sirio CA**, Saxena S, Bircher NG. Specialty neurointensive care – Is it just a name or a way of life? Crit Care Med 2001, 29(3):692-693.
6. Cobin RH, Rosof BM, **Sirio CA**, Williams JR. Physician performance management for quality improvement. [Letter to the editor]. JAMA 2003, 290(24):3194-3195.
7. Rosof BM, **Sirio CA**, Kmetik KS. Pay-for-Performance System for English Physicians. (Letter to the editor). N Engl J Med 2008, 359(20): 2176-2177.
8. Whalen TV, Jenson HB, **Sirio CA**, Signer MM. The NRMP's perspective on positions offered outside-the-match residency offers: The possible extent and implication of "pre-matching" in post-graduate education. [Letter to the editor]. J Grad Med Educ 2010, 2(3): 334-5.

PROFESSIONAL PRESENTATIONS AND LECTURES

1. Panelist, "Education and the Changing Environment of Medical Practice." Annual Meeting of the Association for the Behavioral Sciences and Medical Education, Chevy Chase, MD. October 5, 1986.
2. "A Comparison of the French and United States Medical Education Systems." Comparative Health Systems Graduate Seminar, Columbia University School of Public Health, New York, NY. December 15, 1987.
3. "Ionizing Radiation in the Hospital: An Occupational Health Care Risk?" Medical Grand Rounds The Pennsylvania State University, Hershey, PA. January 14, 1988.
4. "Hypertensive Emergencies." Emergency Medical Grand Rounds, The Pennsylvania State University, Hershey, PA. February 17, 1988.
5. "APACHE and ICU Resources." Symposium on Critical Care Medicine, sponsored by Merck, Sharpe and Dohme, Newport, RI. March 4, 1990.
6. "Potential Roles for Severity of Illness in the Management of ICU Resources." Anesthesia Grand Rounds, George Washington University Medical Center, Washington, D.C. March 28, 1990.
7. "Update on Severity of Illness Research." Research Symposium, Critical Care Medicine Department, The National Institutes of Health, Bethesda, MD. May 18, 1990.
8. "The Value of Measuring Severity of Disease in Clinical Research on Acutely Ill Patients." Infectious Diseases, Health Science Associate Mid-year Training and Development Symposium, Merck, Sharpe, and Dohme, Point Clear, AL. May 22, 1990.

9. "Quality in Critical Care: What Determines Outcome?" Risk Management Perspectives on Critical Care Medicine -- A Delicate Balance Between Technology and The Human Dynamic - National Seminar, MMI Companies. San Antonio, TX. September 7, 1990. Nashville, TN. October 5, 1990.
10. "APACHE III and Quality Assessment - Practical Applications." St. Vincent's Hospital and Health Care Center, Indianapolis, IN. September 18, 1990.
11. "An International Study of Critical Care Medicine - A Comparison between the U.S. and Japan." Fukushima Medical College, Fukushima City, Japan; Osaka University Hospital, Osaka, Japan; Hyogo College of Medicine, Hyogo, Japan; Chiba University Hospital, Chiba, Japan; Tokyo Medical and Dental University Hospital, Tokyo, Japan; Teikyo University Hospital, Tokyo, Japan. October 29-November 2, 1990.
12. "ICU Clinical Scoring Systems in Surgical Patients." 1st Annual Conference on Surgical Infections and Critical Care, sponsored by The University of Virginia and The Medical College of Virginia, Charlottesville, VA. November 8, 1990.
13. "Critical Care Medicine - Prognosis in Sepsis." George Washington University Symposium sponsored by Merck, Sharpe, and Dohme, Washington, DC. November 27, 1990.
14. "Risk-Adjusted Analysis of Hospital Outcomes - The Greater Cleveland Health Quality Choice Project." Greater Cleveland Hospital Association, Cleveland, OH. November 28, 1990
15. "Risk-Adjusted Analysis of Hospital Outcomes - The Greater Cleveland Health Quality Choice Project." Cleveland Society of Critical Care Medicine, Cleveland, OH. December 11, 1990.
16. "Preliminary Findings from the APACHE III Study - Report to a Participating Hospital" and "Technology Assessment in Medicine" as Visiting Chief - Memorial Hospital, Easton, MD. December 20-21, 1990.
17. "Data Collection for The Greater Cleveland Health Quality Choice Project," Greater Cleveland Hospital Association, Cleveland, OH. January 17-18, 1991.
18. "Update in Critical Care Medicine." 72nd Annual Session of the American College of Physicians, New Orleans, LA. April 12, 1991.
19. "Prognostic Factors in ICU Patients: APACHE III." Duke University Critical Care Symposium, Durham, NC. April 30, 1991.
20. "Multiple Organ Failure: Definition, Epidemiology, and Prognosis." 1991 International Conference - American Thoracic Society, Anaheim, CA. May 13, 1991.
21. "Prognostic Information and Clinical Decision Making." Medical Grand Rounds, Presbyterian Medical Center of Philadelphia, Philadelphia, PA. June 14, 1991.
22. "APACHE III - Adult Medical and Surgical Intensive Care." Business Workshop - Are You Choosing Your Health Care Services Wisely? - Greater Cleveland Health Quality Choice Coalition, Cleveland, OH. October 9, 17, and 23, 1991.

23. "Multiple System Organ Failure and Sepsis - Clinical Update." 1991 American Society of Internal Medicine Annual Meeting, Washington, DC. October 11, 1991.
24. "Controversies in Risk Stratification." University of Kentucky Chandler Medical Center, Department of Surgery Symposium on New Concepts in Surgical Critical Care, Lexington, KY. November 20, 1991.
25. "Update on APACHE III and Its Utility in Clinical Medicine - Focus on Quality Evaluation - Report to a Participating Hospital" and "Sepsis - New Therapeutic Modalities" as Visiting Chief - Memorial Hospital, Easton, MD. November 21-22, 1991.
26. "Designing an Approach for Understanding and Evaluating Utilization of Critical Care Services in the Province of Alberta." The Council of Teaching Hospitals of Alberta, Edmonton, Canada. February 4, 1992.
27. "A Coordinated Approach to Understanding Health Care and Effecting Improvements in the Delivery of High Technology Care." The Greater Milwaukee Business Group on Health, Milwaukee, WI. February 26, 1992.
28. "Assessing Hospital Outcome - Focusing on the Critically Ill." Bethesda Hospitals, Cincinnati, OH. March 17, 1992.
29. "Measuring Patient Severity of Illness and Outcome in the Intensive Care Unit." Foundation for Advanced Education in the Sciences, Inc., National Institutes of Health, Bethesda, MD. April 24, 1992.
30. "APACHE III - Adult Medical and Surgical Intensive Care." Insurance Workshop -Are You Choosing Your Health Care Services Wisely? - Greater Cleveland Health Quality Choice Coalition, Cleveland, OH. May 1, 1992.
31. "Case Presentations." Diagnostic Approaches to Occupational Lung Disease - 1992 Occupational Health Conference - 77th Annual Meeting of the American College of Occupational and Environmental Medicine, Washington, DC. May 4, 1992.
32. "Predicting Survival vs. Flipping Coins." Society of Critical Care Medicine - 21st Educational and Scientific Symposium, San Antonio, TX. May 28, 1992.
33. "Potential Applications of Outcome Assessment in Clinical Medicine." Trauma and Surgical Critical Care Grand Rounds, The Washington Hospital Center, Washington, DC. July 28, 1992.
34. "The Future Role of Outcome Assessment in Clinical Practice, Research and Management." Department of Anesthesiology, Division of Critical Care Medicine, University of Pittsburgh, Pittsburgh, PA. September 9, 1992.
35. "Predicting Survival vs. Flipping Coins." Division of Pulmonary Medicine Seminar, Northwestern University School of Medicine, Chicago, IL. September 24, 1992.

36. "Outcome Prediction Models: Useful or Useless for Allocating Critical Care Resources? - A Debate." Current Issues and Controversies in Critical Care sponsored by Tufts University School of Medicine and Harvard Medical School, Boston, MA. October 21, 1992.
37. "Predicting Survival vs. Flipping Coins." Division of Pulmonary Medicine Seminar, Washington Veterans Administration Hospital, Washington, DC. November 25, 1992
38. "The Value of Outcome Assessment in Critical Care Nursing." Tokyo Women's Medical College, Tokyo, Japan. January 13, 1993.
39. "Predicting Outcomes in Critical Care - The State of the Art." Teikyo University School of Medicine, Tokyo, Japan. January 13, 1993.
40. "Developing a Japanese National Critical Care Database - The First Steps." Symposium sponsored by Teikyo University School of Medicine, Tokyo, Japan. January 14, 1993.
41. "An Update on ICU Outcomes Research." Mini symposium and Surgical Grand Rounds. Department of Surgery, University of Kentucky, School of Medicine, Lexington, KY. December 4, 1993.
42. "Research Update". Division of Critical Care Medicine, University of Pittsburgh Medical Center, Pittsburgh, PA. April 4, 1994.
43. "The Use of Prognostic Systems in Cost-Effective Critical Care." Controversies in Critical Care. ALA/ATS post-graduate course, Boston, MA. May 21, 1994.
44. "Big Brother in a Box." Medical Grand Rounds. Department of Medicine, Jeanes Hospital, Philadelphia, PA. October 12, 1994.
45. "Clinical Severity Scoring: Can it Play a Role in Trauma Care Experience with APACHE III." Japanese Association for Acute Medicine Annual Meeting, Tokyo, Japan. November 4, 1994.
46. Moderator, "Local and Regional Demonstration Projects - Panel Presentation on Outcome Initiatives." The Pittsburgh Business Group on Health, Pittsburgh, PA. November 17, 1994.
47. "The Utility of Outcome Assessment in Critical Care - Predicting Outcome Versus Flipping Coins." Grand Rounds, Kaiser Permanente Medical Center, Moanalua; Critical Care Conference, Kuakini Medical Center; Department of Medicine Training Conference, Tripler Army Medical Center, Honolulu, HI. December 7-8, 1994.
48. "The Utility of Monitoring ICU Outcome in a University Hospital." Grand Rounds, University of Pittsburgh, Department of Medicine, Division of Pulmonary, Allergy and Critical Care Medicine, Pittsburgh, PA. January 4, 1995.
49. Moderator, "From Research to Applications." The Third Annual APACHE User Group Meeting, Miami, FL. March 11, 1995.
50. "Severity of Illness Scores." Current Controversies in Critical Care Medicine, Taos, NM. April 2, 1995.

51. "The Evaluation of Intensive Care Unit Outcomes: The UPMC Experience Using APACHE III." Grand Rounds, University of Pittsburgh, Department of Surgery, Pittsburgh, PA. April 8, 1995.
52. "The Evaluation of Intensive Care Unit Outcomes: The UPMC Experience Using APACHE III." Grand Rounds, University of Pittsburgh, Division of Critical Care Medicine. April 12, 1995.
53. Moderator, "Designing the Optimal Assessment System: the Future is Now." Pennsylvania Health Care Cost Containment Council Symposium on Outcomes and Quality Assessment: State of the Art and Future Directions, Harrisburg, PA. June 1, 1995.
54. "Data Needs of Health Care Stakeholders." Pennsylvania Health Care Cost Containment Council Symposium on Outcomes and Quality Assessment: State of the Art and Future Directions, Harrisburg, PA. June 2, 1995.
55. "Overview of Risk Stratification in the ICU." Medical Staff Conference, Baptist Medical Center, Columbia, SC. July 19, 1995.
56. "Impact of Risk Stratification - Clinical Application of Scoring Systems and Risk Stratification." American College of Chest Physicians 61st Annual International Scientific Assembly, New York, NY. October 31, 1995.
57. "Clinical Outcome Prediction in Critical Care: From "Bench" to Bedside: The Implications for UPMC." Research Conference. Division of Critical Care Medicine, University of Pittsburgh Medical Center, Pittsburgh, PA. November 27, 1995.
58. "Use of Risk Adjusted Data in the ICU." Grand Rounds. Kaiser Permanente Fontana Medical Center. Fontana, CA. November 28, 1995. Grand Rounds. Kaiser Permanente Los Angeles Medical Center. Hollywood, CA. January 5, 1996, Grand Rounds. Kaiser Permanente Woodland Hills Medical Center. Woodland Hills, CA. May 15, 1996, Medicine Grand Rounds. Kaiser Permanente West Los Angeles Medical Center, Los Angeles, CA. June 4, 1996, Family Practice Grand Rounds. Kaiser Permanente Los Angeles Medical Center, Los Angeles, CA. August 1, 1996.
59. "Evaluation of the Healthcare System - Helpful Hints." Leadership Pittsburgh XII Health Care Session, Pittsburgh, PA. January 11, 1996.
60. "Controversies: APACHE III and Other Scoring Systems: A Discussion of Applications in the Cleveland Experience." Society of Critical Care Medicine 25th Annual Scientific Symposium, New Orleans, LA. February 6, 1996.
61. "Continuous Quality Improvement - Focus on Outcomes." Acute Care Nursing Practitioner Role Seminar, University of Pittsburgh School of Nursing, Pittsburgh, PA. February 15, 1996.
62. "Severity Adjusted Outcome Data in the ICU." Department of Critical Care Medicine lecture series, University of Pittsburgh Medical Center, Pittsburgh, PA. May 16, 1996.
63. "Risk Adjusted ICU Outcome Data in Clinical Practice." Medical Grand Rounds. St. Luke's Medical Center, Milwaukee, WI. June 20, 1996.

64. Pulmonary/Critical Care Conference. University of Kentucky Chandler Medical Center, Lexington, KY. September 13, 1996.
65. "The Clinical Role of ICU Severity of Illness Data in a University Hospital." Grand Rounds. University of Maryland Medical System, Baltimore, MD. October 25, 1996.
66. "ICU Outcomes: Can We Measure How Well We are Doing?" Continuing Medical Education Conference, Latrobe Area Hospital, Latrobe, PA. January 25, 1997.
67. "Outcomes Analysis." Acute Care Nurse Practitioner Role Seminar, University of Pittsburgh School of Nursing, Pittsburgh, PA. March 13, 1997.
68. "Clinical Applications of Scoring Systems and Risk Stratification." Grand Rounds, Division of Critical Care Medicine, University of Pittsburgh Medical Center, Pittsburgh, PA. March 23, 1997.
69. "A Comparison of Intensive Care in Japan and the United States." Japanese Society of Intensive and Critical Care Medicine Annual Meeting, Morioka, Japan. May 17, 1997.
70. Moderator, "Measures of Quality - Looking for a Better Solution." Symposium on Healthcare Quality in Pennsylvania, Pennsylvania Medical Society, Harrisburg, PA. June 4, 1997.
71. "Employers as Health Care Providers: Quality and its Impact on Care - Doing Well by Doing Good." Johnstown Business Council on Health Care, Johnstown, PA. August 27, 1997.
72. "Achieving Sustainable Quality and Cost Improvements in Critical Care." University of California-San Diego, San Diego, CA. December 11, 1997.
73. "ICU Scoring Systems." Grand Rounds, Division of Allergy, Pulmonary and Critical Care Medicine, University of Pittsburgh Medical Center, Pittsburgh, PA. January 30, 1998.
74. Moderator, "Information to Action." Donald A.B. Lindberg Symposium, University of Pittsburgh School of Medicine, Pittsburgh, PA. June 19, 1998.
75. "Healthcare Guidelines and Outcomes: Examples of the Use of Risk Adjusted Data in Clinical Practice and Hospital Resource Management." Carnegie Mellon University H. John Heinz School of Public Policy and Management, Pittsburgh, PA. June 24, 1998.
76. "Research Emphasis: Evaluation of Health Care Delivery." Acute Care Nurse Practitioner Program, University of Pittsburgh School Of Nursing, Pittsburgh, PA. February 11, 1999.
77. "Your Report Card: Coming to a Newspaper Near You." Healthcare Informatics Expo and Conference. Sponsored by Healthcare Informatics, a publication of the McGraw-Hill Companies, Chicago, IL, April 29, 1999.
78. "National Developments in Physician Accreditation." Grand Rounds, Division of Critical Care Medicine, University of Pittsburgh Medical Center, Pittsburgh, PA. June 16, 1999.

79. "Measuring Medical Outcomes: Does it Really Matter?" Grand Rounds, Division of Critical Care Medicine, University of Pittsburgh Medical Center, Pittsburgh, PA. September 29, 1999.
80. "Keeping Our Eye on the Ball: Improving Patient Care Delivery." Research Conference, Division of Critical Care Medicine, University of Pittsburgh Medical Center, Pittsburgh, PA. January 10, 2000.
81. "Positioning Pittsburgh's Largest Industry for the Future: The Economics of Healthcare." Leadership Pittsburgh Healthcare Forum, Pittsburgh, PA. February 16, 2000.
82. Panelist, "Quantifying Quality: Can it Be Done and Who Is Doing It?" Spotlight on Healthcare: Real Problems, Real Solutions. Sponsored by the Pittsburgh Business Times, Pittsburgh, PA. March 9, 2000.
83. "The Pittsburgh Regional Healthcare Initiative – Collaboration to Improve the Quality of Care." Center for Research on Healthcare, University of Pittsburgh School of Medicine, Pittsburgh, PA. March 21, 2000.
84. "Comparing Clinical Performance: Improving Clinical Decision-Making (Avoiding the Pitfall of Pointing Fingers)." Ninth Annual Current Controversies in Medical Ethics: Medical Mistakes: What Every Provider and Patient Should Know, University of Pittsburgh Medical Center, Pittsburgh, PA. May 15, 2000.
85. "Can Predictive Equations Help? Ethical Dilemmas in the Acute Care Setting." Sarasota Memorial Hospital, Sarasota, FL. May 20, 2000.
86. Panelist, "Clinical Outcomes Studies: What's the Big Deal (For Purchasers)?" Sponsored by the Pittsburgh Business Group on Health, Pittsburgh, PA. December 14, 2000.
87. "Using PHC4 Data to Assess Health Care Outcomes." Nursing Research Development course, (NUR 3030), University of Pittsburgh School of Nursing, Pittsburgh, PA. February 8, 2001.
88. "Using Large Databases to Answer Quality Issues in Healthcare." Nursing Research Development course, (NUR 3030), University of Pittsburgh School of Nursing, Pittsburgh, PA. February 14, 2002. Outcomes and Research Methods Course. Clinical Research Methods Course (CLRES 2100), University of Pittsburgh Clinical Research Training Program, Pittsburgh, PA. April 30, 2002.
89. "Medication Safety Manager Improves Patient Safety in an Academic Medical Center." 36th Annual ASHP Midyear Clinical Meeting, Atlanta, GA. December 9-12, 2002.
90. "Professionalism: The Role and Responsibilities of Physicians in Assuring Safe, Effective, Quality Care – 2003." Lecture to the Scranton-Temple Residency Program, Scranton, PA. September 24, 2003.
91. "Improving Patient Safety Through Region-Wide Shared Learning: Implementation Lessons from the Pittsburgh Regional Healthcare Initiative (PRHI)." 2004 Agency for Healthcare Research and Quality (AHRQ) 3rd Annual Patient Conference, Washington, DC. September 28, 2004.

92. "Pay for Performance: Opportunities and Challenges to Improve Care - Developing Clinically-based Performance Measures" Pennsylvania Medical Society Organized Medical Staff Annual Meeting, Hershey PA. October 14, 2005.
93. "How to Enhance Communications with RRC Appointees" American Medical Association Council on Medical Education Briefing Session for Appointees to Residency Review Committees, Washington, DC. February 10, 2006.
94. "Current Events in Quality and Safety in Clinical Care" St. Mary's Hospital and Medical Center Grand Rounds, Grand Junction, CO, February 13, 2007.
95. Boot Camp for Fellowship Program Leaders "An Update on the RRC and the ACGME Guidelines," Society of Critical Care Medicine 36th Critical Care Congress, Orlando, FL. February 19, 2007.
96. "Enhanced Patient-Safety Intervention to Optimize Medication Education," Annual National Patient Safety Congress, Washington, DC. May 2-4, 2007.
97. "Initiative to Transform Medical Education: Discussion of Results and Future Plans," Continuing Physician Professional Development Town Hall Meeting, American Medical Association, Chicago, IL. June 23, 2007.
98. "Current Events in Quality & Safety in Clinical Care," AAMC Group on Faculty Practice Summer Symposium, San Francisco, CA. July 20, 2007.
99. "Enhanced Patient-Safety Intervention To Optimize Medication Education (EPITOME)," AHRQ 2007 Annual Conference: Implementing Medication Safety Tools at Critical Junctures, North Bethesda, MD. September 27, 2007.
100. "Safety & Quality in the US Health System: Reflections, Direction & Opportunities," Agency for Healthcare Research and Quality (AHRQ), North Bethesda, MD. October 11, 2007.
101. "The Physician Consortium for Performance Improvement (PCPI) – Current Environment," American Medical Association – Organized Medical Staff Section (AMA-OMSS), Honolulu, HI. November 9, 2007.
102. "Update on AMA's Initiative to Transform Medical Education," American Medical Association – Section on Medical Schools, Honolulu, HI. November 9, 2007.
103. "Incorporating Physician Consortium on Performance Improvement (PCPI) Measures into Physician Improvement (PI) Continuing Medical Education (CME) Offerings," Alliance for Continuing Medical Education (ACME) 34th Annual Conference, Orlando, FL. January 21, 2008.
104. "Safety & Quality in the US Health System: Reflections, Direction & Opportunities," Agency for Healthcare Research and Quality (AHRQ), Vanderbilt University Health System, Nashville, TN. July 31, 2008.

105. Panelist, "The Use of EBM for Guidelines Development – Lessons Learned from the Physician Consortium for Performance Improvement (PCPI): Striving to Improve the Quality of Care." Drug Information Association, Alexandria, VA. September 23, 2008.
106. Panelist, "Transforming Medical Education." American Association of American Medical Colleges, Annual Meeting, San Antonio, TX. November 3, 2008.
107. Keynote Speaker, "Health System Reform – What it all Means, Separating Fact and Fiction!" AMA MSS Region 5 Annual Meeting, Toledo, Ohio. February 17, 2012.
108. Panelist, "Comprehensive Quality Management Systems – Ensuring High Quality." Midwest Healthcare Executives Group and Associates, Perrysburg, Ohio. September 11, 2012.
109. Panelist, "CME 2013 – Accreditation of Hospitals and Chronic Disease Management." NRI Medical College, Chinnakakani, Guntur District, Andhra Pradesh, India. January 12, 2013.
110. "Affordable Healthcare Act." Mercy-St. Charles Hospital, Toledo, Ohio. November 21, 2013.
111. "Healthcare Reform Update." Ohio State Medical Association (OSMA) Annual Meeting, Columbus, Ohio, April 5, 2014.
112. "Healthcare Reform Update." Michigan State Medical Society (MSMS) 2014 House of Delegates Meeting, Dearborn, Michigan, April 26, 2014.
113. "Healthcare Reform Update." National Indian Health Board 34th Annual Meeting, Bellevue, Washington, September 26, 2017.