June 23, 2016

**Marvin A. Wayne, MD, FACEP, FAAEM, FAHA**

**Curriculum Vitae**

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**Personal Data**

Place of Birth: Detroit, Michigan

**Education**

1961-1968 University of Michigan (accelerated 6 years program with medical school: pre-medical education)

1964-1968 MD, University of Michigan Medical School

**Postgraduate Training**

1-6/1968 Fellowship, St. Bartholomew’s Hospital, London, England

1968-1971 Specialty Training (Surgery), University of Colorado Medical Center, Denver, Colorado

1971-1973 Major, U.S. Army Medical Corps, Dept. of Surgery (Republic of Vietnam and Ft. Carson, Colorado) Recipient, Bronze Star for Valor

1973-1974 Specialty Training (Surgery), Virginia Mason Hospital, Seattle, Washington, 1973-1974

**Faculty Positions Held**

1982-1990 Clinical Assistant Professor, University of Washington School of Public Health

1990-1994 Clinical Associate Professor, University of Washington School of Public Health

1994-2015 Clinical Associate Professor, Dept. of Family Medicine, University of Washington School of Medicine

Present Clinical Associate Professor, Division of Emergency Medicine, Dept. of Medicine, University of Washington School of Medicine

1997-2007 Clinical Assistant Professor, Yale University School of Medicine

**Prehospital Positions Held**

1974-present Medical Program Director, Emergency Medical Services, Bellingham/Whatcom County, Washington

1980-1987 Medical Director, Institute for Pre-Hospital Medicine, Bellingham, Washington

1984-1999 Medical Director, Med-Flight Air Medical Service, Bellingham, Washington

1998-present Medical Director, Bellingham Technical College Paramedic Training Program

2004-present Medical Consultant, Airlift Northwest

**Hospital Appointment**

1974-present Attending Physician, Emergency Department PeaceHealth St. Joseph Medical Center

**Honors**

1980 Nominee, Jefferson Award

1980 Outstanding Achievement in EMS, Awarded by Whatcom County Emergency Medical Services Council

1982 Outstanding Educational Achievement Award, American College of Emergency Physicians/Abbott Laboratories

1982 Elected to “Who’s Who in American Science and Health Care”

1983 EMS Research Award, Washington Association of EMT’s and Paramedics

1983 Outstanding Advanced Life Support System Award, State of Washington

1987 Elected to “Who’s Who in the West”

1989 15-year special award for “Outstanding Achievement in EMS” from Whatcom County EMS Council

1990 Chosen as one of 100 most influential people of past century in Whatcom County

1994 Elected to “Who’s Who in America”

1994 Twenty years “Special Achievement Award”, City of Bellingham, Washington

2000 American Red Cross Lifetime Achievement “Real Heroes” Award

2008 “Heroes of Emergency Medicine” Life Achievement Award 2008 by American College of Emergency Physicians

2010 Recipient, 2010 American College of Emergency Physicians National EMS Award

2010 “Physician of Excellence Award” St. Joseph PeaceHealth Medical Center

2010-2011 Mt. Baker Ski Patrol – “Patroller of the Year 2010-2011”

2015 Recipient, Nancy Auer Meritorious Achievement Award Presented by Washington Chapter American College of Emergency Physicians

2015 American College of Emergency Physicians “Longevity Award”

**Board Certification**

1980-present Diplomate, American Board of Emergency Medicine (Recertification 1989, 1998, and 2008)

1995-2010 American Board of Forensic Medicine

1995-2010 American Board of Forensic Examiners

**Current Licenses to Practice**

1969-present Colorado State Medical License (inactive)

1970-present California State Medical License (inactive)

1973-present Washington State Medical License

**Professional Organizations**

1974-present Member, Washington State Medical Society

1974-present Member, Whatcom County Medical Society

1978-present Founding Member, American Trauma Society

1982-present Life Fellow, American College of Emergency Physicians (FACEP)

1986-present Founding Member, National Association of EMS Physicians

1990-present Member, American Heart Association

1992-present Fellow, Royal Society of Medicine (England) (FRSM)

1997-2010 Founding Member, Society of Pediatric Emergency Medicine (Now AAP-ACEP)

1997-present Fellow, American College of Forensic Medicine

1998-present Member, Society for Academic Emergency Medicine

1998-2010 Member, International Trauma Anesthesia and Critical Care Society

2000-present Member, Society of Critical Care Medicine

2003-present Fellow, American Academy of Emergency Medicine (FAAEM)

2012-present Fellow, American Heart Association (FAHA)

2014-present Pediatric Trauma Society

**Teaching Responsibilities**

1980-present Instructor, Pediatric Advanced Life Support

1978-present Instructor, Advanced Cardiac Life Support

1980-present Instructor, Advanced Trauma Life Support

1990-present Continuing EMS CME Whatcom Medic One

2000-present Instructor, Advanced Hazmat Life Support

2014-present Director Airway Monitoring and Management Course National Association of EMS Physicians

2016 Planned EMS Fellow Rotation Div. of EM University of Washington

***Major Lectureships***

I annually speak at about fifteen or more national and international educational programs.

A summary of some of the most recent:

1. 2014: Keynote Speaker, Society of Airway Management
2. 2016: Keynote Speaker, 2nd Israeli Society of Resuscitation
3. Director Airway Course National Association of EMS Physicians
4. Coordinator and key presenter, American Academy of Emergency Medicine EMS Section
5. Presenter and course coordinator, Current Concepts in Emergency Care multiple years.
6. 2014.2015 Pediatric Trauma Society Key plenary presentations

**Editorial Responsibilities**

1981-2006 Consulting and Contributing Editor - *Emergindex*. Micromedex, Denver, Colorado

1986-1994 Editor, *Emergency Medical Update*

1999-present Member, Editorial Board, *Trauma Care*

2000-present Member, Editorial Board 24/7 Emergency Medical Update

**Special National Responsibilities**

1979 Medical Coordinator for Breaking Sound Barrier on Land

1980-1981 Member, Long Range Planning Committee, American College of Emergency Physicians

1980-1982 Member, Council Steering Committee, American College of Emergency Physicians

1980-present Member, Joint Review Committee on the Education of the EMT-Paramedics

1984-1986 Member, Scientific Meetings Committee, American College of Emergency Physicians

1986-1989 Program Coordinator, National Association of EMS Physicians

1986-1990 Board of Directors, National Association of EMS Physicians

1988-1991 Chairman, Pediatric Trauma Subcommittee

1988-1994 Board of Directors, Society for Pediatric Emergency Medicine

1990-2008 Consultant Physician, Divers Alert Network

2007-present Reviewer, *Resuscitation*

2016 Board of Directors, “Take Heart America”

**Special Local Responsibilities**

1974-present Medical Advisor, Mt. Baker Ski Patrol, Whatcom County, Washington

1977-1984 Member, Board of Directors, Washington Chapter, American College of Emergency Physicians

1978 President, Washington Chapter, American College of Emergency Physicians

1978-present Member, Washington State Medical Society, EMS Advisory Committee

1979 President, Emergency Medical Services Council, Whatcom County, Washington

1980-1983 Vice Chairman, Department of Emergency Medicine, St. Luke’s Hospital, Bellingham, Washington

1982-1986 Chairman, Emergency Medical Services Committee, State of Washington

1982-1983 Vice Chairman, Emergency Medical Services Committee, State of Washington

1984-1986 Chairman, Department of Emergency Medicine, St. Luke’s Hospital, Bellingham, Washington

1988-2002 Member, Governors EMS-Trauma Committee, Washington State

1990-present Member, Washington State Pre-Hospital Care Committee

**Research Funding**

2005-2011 “ResQ Trial” Site PI. Funded by NIH NHLB Institute Published Lancet 2011. Several follow-up publications.

2008-2012 “IMMEDIATE Trial” Site PI Funded by NIH, NHLB Institute. Published in JAMA 2012. Several follow up publications.

2013 “Beat ACS” Study of high specific troponin for ACS Site PI Funded by Abbott Laboratories

2015-present I Stat “Validation Trial” multiple components for rapid electrolyte assessment. Funded by Abbott Laboratories

2015-present “MERCURY Trial” Study of outpatient management of PE. Site PI, Funded by Janssen Pharmaceutical

2016 “BASE Study” POC Biomarker Trial for Stroke Predication and stroke mimickers. Site PI, Funded by Ischemia Care

**Bibliography**

***Publications in Refereed Journals***

1. Middleton, C.E., **Wayne, M.A.** Treatment of High Velocity Missile Wounds of the Colon by Closure and Exteriorization. *J.of Trauma*. June 1975.
2. **Wayne, M.A.** Treatment of PAT by Facial Immersion in Ice Water. *JACEP.* June 1976.
3. **Wayne, M.A.** The MAST Suit in Cardiogenic Shock. *JACEP*. March 1978.
4. **Wayne, M.A.** The How To of Urban Rural E.M.S. *Emergency Products News*. March 1978.
5. Diack, A., Welborn, S.T., Rullman, R.B., **Wayne, M.A.** Automatic Device for Cardiac Resuscitation. *Medical Instrumentation*. March 1979.
6. Borscheneck, A.G., **Wayne, M.A.** Sager Emergency Traction Splint - A New Splinting Device for Lower Limb Fractures. *NAEMT Journal*. March 1980.
7. **Wayne, M.A.,** McSwain, N.E. Clinical Evaluation of a New Device for the Treatment of Tension Pneumothorax. *Annals of Surgery.*  June 1980.
8. **Wayne, M.A.** Tension Pneumothorax - A Life Threatening Emergency and a New Way to Treat.  *Current Concepts in Trauma Care.* Fall 1980.
9. **Wayne, M.A.**, MacDonald, S.C. Clinical Evaluation of the Anti-Shock Trousers, Retrospective Analysis of Five Years Experience. *Annals of Emergency Medicine*. June 1983.
10. **Wayne, M.A.** A Clinical Evaluation of Epi-LockTM...A New Semi-Occlusive Dressing. *Annals of Emergency Medicine*. January 1985.
11. **Wayne, M.A.**, Carrero, R.C. Thoracic Trauma. *Emergency Medicine Clinics of North America.* May 1988.
12. **Wayne, M.A.** The Other Side of the Coin. J*ournal of Emergency Medical Services*. October 1993.
13. **Wayne, M.A.**, Levine, R.F., Miller, C.C. The Use of End Tidal CO2 to Predict Outcome in Pre-Hospital Cardiac Arrest. *Annals of Emergency Medicine*. June 1995.
14. Levine, R.L., **Wayne, M.A.**, Miller, C.C. End Tidal CO2 and Outcome in Out of Hospital Cardiac Arrest. *New England Journal of Medicine*. July 31, 1997.
15. **Wayne, M.A.**, Friedland, B.T. Pre-Hospital Use of Succinylcholine - A 20 Year Review. *Prehospital Emergency Care*. April-May 1999.
16. **Wayne, M.A.**, Slovis, C.M., Pirrallo, R.G. Management of Difficult Airways in the Field. *Prehospital Emergency Care*. October-December 1999.
17. **Wayne, M.A.**, Delbridge, T.R., et al. Concepts and Application of Prehospital Ventilation. *Prehospital Emergency Care*. January-March 2001.
18. **Wayne M**, Tupper D, Swor R et al. Improvement of long-term neurological function after sudden cardiac death and resuscitation: Impact of CPR method and post-resuscitation care. *Resuscitation.*  2001; 81(1): S3.
19. **Wayne, M.A.**, Racht, E.M., et al. Prehospital Management of Cardiac Arrest: How useful are the Vasopressor and Antiarrythmic Drugs? *Prehospital Emergency Care*. January-February 2002.
20. Wang, H.E., Davis, D.P., **Wayne, M.A.** Prehospital Rapid-Sequence Intubation-What Does the Evidence Show? *Prehospital Emergency Care*. October-November 2004.
21. **Wayne, M.A.** New Concepts in the Prehospital and ED Management of Pelvic Trauma. *Israel Journal of Emergency Medicine*. February 2006.
22. Fowler, R, Gallagher, J, Isaccs, M, Ossman, E, Pepe, P, **Wayne, M**. The Role of Intraosseous Vascular Access in the Out-of-Hospital Environment (Resource Document to NAEMSP Position Statement). *Prehospital Emergency Care*. Jan 2007.
23. **Wayne, MA.** Intraosseous Vascular Access, Devices, Dites, and Rational, State of the Science. *JEMS Supplement*. Oct 2007.
24. **Wayne, MA**. Use of Video Laryngoscopy in a Ground EMS System. *JEMS Supplement*. Sept 2008.
25. **Wayne, MA**, Singer, A. Advanced Wound Management: Myths and Realities. *Emergency Medicine*. March 2009.
26. **Wayne, MA.** Adult Intraosseous Vascular Access in Emergency Medicine. *European Critical Care & Emergency Medicine*. Nov 2009; Volume 1.
27. **Wayne, MA**, McDonnell, MM. Comparison of Traditional vs. Video Laryngoscopy in Out of Hospital Tracheal Intubation. *Prehospital Emergency Care*. March 2010.
28. Aufderheide TP, Frascone RJ, **Wayne MA**, et al.  Standard cardiopulmonary resuscitation versus active compression-decompression cardiopulmonary resuscitation with augmentation of negative intrathoracic pressure for out-of-hospital cardiac arrest: results of a randomized trial. *The Lancet.* Jan 25, 2011.
29. **Wayne, M**, McDonnell, M. Mechanical matters: consistent chest compressions help save patient. *JEMS*. Nov 2011.
30. Mahoney B, Frascone R, **Wayne M** et al. Use of an impedance threshold device with active compression decompression cardiopulmonary resuscitation improves survival with good neurologic function following cardiac arrest from non-traumatic etiologies.  *Resuscitation*. 2011; 82(1): S1-S2.
31. Frascone R, **Wayne M**, Mahoney B et al. Active compression decompression cardiopulmonary resuscitation and augmentation of negative intrathoracic pressure is neuro-protective in patients with an out-of-hospital cardiac arrest. *Resuscitation.* 2011; 82(1): S3.
32. Selker, H, Beshansky, J, Sheehan, P, **Wayne, M**, et al. Out of Hospital Administration of Intravenous Glucose-Insulin-Potassium in Patients with Suspected Acute Coronary Syndromes, The IMMEDIATE Randomized control trial. *JAMA*. March 27, 2012.
33. Franscone R, **Wayne M**, Swor R, et al. Treatment of Non-Traumatic Out-of-Hospital Cardiac Arrest with Active Compression Decompression Cardiopulmonary Resuscitation plus an Impedance Threshold Device. *Resuscitation*. May 2013.
34. N. Segal, T.-R. Matsuura, **M. Wayne** et al. Évaluation de la synergie hémodynamique entre une valve d’impédance inspiratoire. *Annales Françaises d Anesthésie et de Réanimation.* Sept 2014.
35. Goodloe J, **Wayne MA**, Proehl J et.al, Optimizing Neurologically Intact Survival from Sudden Cardiac Arrest: A Call to Action. *Western Journal of Emergency Medicine*. Nov 2014.
36. Guillaume, D, Nicholas, S, **Wayne, MA** et al. Hemodynamic improvement of a LUCAS 2 automated device by the addition of an Impedance Restriction Device in a pig model of cardiac arrest. *Resuscitation*. Dec 2014.
37. N. Segal, T.-R. Matsuura, **M. Wayne** et al.Hemodynamic improvement of a LUCAS 2 automated device by addition of an impedance threshold device in a pig model of cardiac arrest. *Resuscitation*. Dec 2014.
38. Guillaume Debaty MD, PhD, Jose Labarere, MD, PhD, Nathan Burkhart, Ralph J. Frascone, **Marvin A. Wayne**, Robert A. Swor, Brian D. Mahoney, Robert M. Domeier, Michael L. Olinger, David E. Tupper, Lucinda Klann, Joshua G. Salzman, Sandi S. Wewerka, Brian J. O’Neil, Richard G. Holcomb, Tom P. Aufderheide, Demetris Yannopoulos. Gasping During CPR is associated with a higher likelihood of one-year survival after cardiac arrest. *NEED PUBLICATION INFO*

***Book Chapters***

1. **Wayne, M.A.**, McSwain, N.E. (Editor) - Using Antishock Trousers. *Emergency Training*. Westport, Connecticut, 1982.
2. **Wayne, M.A.,** Carrero, R.C. Chest Pain. In Schwartz’s *Textbook of Emergency Medicine*. Lea and Febiger, May 1992, revised 1998.
3. Margolis, G.S., **Wayne, M.A.**, Berlin, P. The role of the Paramedic in Prehospital Trauma Care. In *Prehospital Trauma Care*. Marcel Decker Inc.: August 2001.
4. Thomas, S.H., Wedel, S.K., **Wayne, M.A.** Oxygenation, Ventilation, and Monitoring. In *Prehospital Trauma Care*. Marcel Decker Inc.: August 2001.
5. Cone, D.C., Cahill, J.C., **Wayne, M.A**. Cardiopulmonary Resuscitation. In *Capnography: Clinical Aspects*. Cambridge University Press: Nov 2004.
6. **Wayne, M.A**., and Mosesso, V.N., Jr. The Out of Hospital Management of Acute Heart Failure. In *Observation Unit Management of Acute Heart Failure*. Published May 2006.
7. **Wayne, M**, Mosesso, V, Wesley, K. The out of hospital management of Acute Heart Failure. In *Short Stay Management of Acute Heart Failure*, 2nd edition. Humana Press: Feb 2012.
8. McCoy, A, Ultarnachitt, R, **Wayne, M**. The out of hospital management of Acute Heart Failure. In *Short Stay Management of Acute Heart Failure,* 3rd edition. Springer Press: July 2016.

***Published Books, Videos, Software, etc.***

1. **Wayne, M.A.**, Rotastein, R.F. (Editors) - *Emergency Management of the Multiple Trauma Patient*. American College of Emergency Physicians; 1982.
2. **Wayne, M.A.**, McSwain, N.E., Skeleton, M.B., Butman, A. (Editor) - *Advanced Skills for the E.M.T.* 1980
3. **Wayne, M.A.** *Dr. Cookie’s Cookbook*. Liberty Publishing Co., Deerfield Park, FL: 1987.
4. **Wayne, M.A.**, Yarnall, S.R. *The New Dr. Cookie Cook Book*. Wm. Morrow Jan 1994.

***Other Publications***

1. **Wayne, M.A.** Development of an Urban-Rural E.M.S. System and Its Application to Natural Disaster. Proceedings of Bicentennial E.M.S. and Trauma Meeting, Baltimore, 1976.
2. **Wayne, M.A.** Development of an Urban-Rural E.M.S. System. Proceedings of Bicentennial E.M.S. and Trauma Meeting, Baltimore, 1976.
3. **Wayne, M.A.**, Salenger, E. Procedures in Emergency Medicine. A Laboratory Syllabus for U.C.L.A. Post Graduate Institute. February 1978.
4. **Wayne, M.A.**, Hedberg, G. Development of an Urban Rural Paramedic System. Paramedics International, March 1978.
5. **Wayne, M.A.** Out of Hospital Resuscitation from Ventricular Fibrillation in an Urban Rural Community. Proceedings of D.H.E.W. Evaluation Symposium, Seattle, July 1978.
6. **Wayne, MA.** Intubation with Ongoing CPR. Letter to editor, *Resuscitation.* Nov 2013.
7. **Wayne, MA**. The Efficacy and Employment of Targeted Temperature Management. *Critical Connections*. June 3, 2015.

***Other: Audiovisual***

1980 Tension Pneumothorax and Use of McSwain Dart, Medical Dynamics

1980 Using the Anti-Shock Trousers, Western Washington University

1983 Editor, Using Anti-Shock Trousers, *Emergency Training*

1983 Editor, Cardiac Care Units 1, 2, 3, *Emergency Training*

2001 Editor, 24/7 Emergency Medical Updates for EMS Evaluation and Management of Chest Pain in a Community ED Virginia Commonwealth University, MCV Campus

***Other: Films***

1982 Emergency Management of the Multiple Trauma Patients, American College of Emergency Physicians

10/2009 Technical advisor and story consultant “21 and A Wakeup” – A story of Vietnam, DMZ Productions

***Manuscripts Submitted***

1. McCoy, A, Ultarnachitt, R, **Wayne, M**. The out of hospital management of Atrial Fibrillation. In *Short Stay Management of Atrial Fibrillation,* 2nd edition. Springer Press.

***Abstracts***

1. **Wayne, M.A.,** Brown, D.C. Catecholamine Levels in Cardiac Arrest. Presented First International Meeting on Emergency Medicine, London, England, March 1986.
2. Danzl, D., Pozos, R., **Wayne, M.A.**, et al. Multi-center Hypothermia Survey. Presented 3rd UAEM-IREM Meeting, Tampa, Florida, March 1987. *Annals of Emergency Medicine*. September 1987.
3. **Wayne, M.A.** Use of ETCO2 in Cardiac Arrest. Proceedings of International Emergency Medicine Conference, London, England, May 1994.
4. Aufderheide TP, Frascone RJ, **Wayne MA**, et al.  Treatment of out-of-hospital cardiac arrest with an impedance threshold device and active compression decompression cardiopulmonary resuscitation improves survival with good neurologic function:  Results from the ResQTrial.  (Oral abstract presentation at Resuscitation Science Symposium (ReSS) at American Heart Association 2010 Scientific Sessions, Chicago, Illinois, November 13-14, 2010).  *Circulation.* November 23, 2010; 122(21): S2225.
5. **Wayne, MA**, Tupper, D, et al. Modified Rankin Score at Hospital Discharge is Predictive of One Year Neurologic Function in Survivors After Cardiac Arrest. Best Abstract: *NAEMSP*. Jan 2013.
6. K. Grasso1, B. Wise1, J. Rogers1, D. Geiger, M. Fischer, S. Roth, **M. Wayne**, Abbott Diagnostic Division, Abbott Laboratories, Abbott Park, IL., John T. Mather Hospital, Port Jefferson, New York, Pennsylvania State University Hershey Medical Center, Hershey, Pennsylvania, The Cleveland Clinic, Cleveland, Ohio, PeaceHealth, Bellingham, Washington. Clinical Evaluation of the Next Generation i-STAT Point-of-Care Instrument using a Sodium Test. 2016 American Association of Clinical Chemistry Annual Meeting, Philadelphia, PA August 2-3 2016.