Curriculum Vitae

NAME: Dr. Mark A. Merlin

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Websites: <u>www.emsfellowship.com</u> www.MD1program.org

UNDERGRADUATE EDUCATION:

B.S. Psychology/Biology University of Pittsburgh 9/84 - 9/89

GRADUATE EDUCATION:

Doctor of Osteopathic Medicine (Physician) Philadelphia College of Osteopathic Medicine Philadelphia, PA

9/89 - 6/94

POSTGRADUATE EDUCATION:

Graduate Hospital Philadelphia, Medical Internship 6/94-7/95

Thomas Jefferson University Hospital/Geisinger Medical Center, PA-Internal

Medicine 7/95 -7/96

Newark Beth Israel Medical Center, Emergency Medicine

Residency 7/96 -6/99

PRESENT TITLES:

Envision Physician Services (EMA/EMCare) 1999-Present

Medical Director, GEM Ambulance 2018-Present

Chief Medical Officer & System Medical Director, MONOC EMS (NI

Largest EMS System. Approx ½ of NJ) 2015-Present

Chief Medical Officer, Medway Air Ambulance, Georgia 2018-Present Chair NJ State EMS Council, Department of Health 2018-Present (Highest elective position in NJ interacting with Governor and Commissioner of

Health

EMS Fellowship Director, Newark Beth Israel (NJ Only ACGME Accredited EMS Fellowship-*Largest in U.S.*) 2015-Present

PAST TITLES: Past Chair, NJ MICU (EMS) Advisory Board, Department of Health and

Senior Services 2008-2011

Medical Director, NJ EMS Task Force (state disaster response)

2008-2011

Board of Directors, American Heart Association, NJ 2012-2015 Faculty, School of Public Health, Rutgers, Piscataway, NJ 2007-2016 (Mentor to approximately 14 MPH students) Member, NJ State Institutional Review Board, Department of Health (Appointment by Commissioner of Health) 2011-2013

HOSPITAL APPOINTMENTS:

Jersey Shore University Medical Center 2018-Present

Newark Beth Israel Medical Center, NJ 4/11-Present

Attending Physician, Robert Wood Johnson University Hospital 5/06 -4/11

Attending Physician, Saint Barnabas Medical Center, NJ 6/99---7/04

ACADEMIC APPOINTMENT:

Professor, Emergency Medicine-Rutgers/NJ Medical School 5/1/19-Present
Associate Professor, Rutgers School of Public
Health 6/11-9/17

CERTIFICATION: American Board of Osteopathic Emergency Medicine 4/02-Present Expiration Date: 12/31/24

PROFESSIONAL SOCIETY MEMBERSHIPS:

National Association of EMS Physicians Member 1999 --- Present

Society of Academic Emergency Medicine, Member 1999 --- Present

American College of Emergency Physicians Member 1996 – Present Section Member EMS 1996 – Present Section Member Tactical 2014–Present

Member 1996-Present

Section Member EMS 1996 - Present

American Medical Association Member 1992 - Present

American Osteopathic Association Member 1990 - Present

New Jersey Medical Society Member 1994 - Present

EDITORIAL POSITIONS

Reviewer, Annals of Emergency Medicine

Reviewer, The American Journal of Emergency Medicine

Reviewer, Journal of Emergency Medicine

Reviewer, Postgraduate Medicine

Reviewer, Prehospital Emergency Care

Reviewer, Canadian Journal of Emergency Medicine

Reviewer, Internal and Emergency Medicine

HONORS AND AWARDS:

National Association of EMS Physicians Abstract of the Year 2019

EMS Provider of the Year-New York Yankees/EMS Night Out 2014

Recognition for Committee Chair and Accomplishments 2011

Department of Health and Senior Services

Rutgers University, President Recognition Award Rutgers, the State University of New Jersey	2008
EMS Medical Director of the Year NJ Department of Health and Senior Services	2007 2008
Clinical Instructor of the Year Morristown Memorial Hospital Emergency Medicine Residency, Morristown NJ	2005
NJ American College of Emergency Physicians, EMS Physician of the Year	20052006
Attending of the Year Newark Beth Israel Emergency Medicine Residency Newark, New Jersey	2000

Resident of the Year in Emergency Medicine Newark Beth Israel Medical Center 1999

Dr. Herbert Steinberg Internal Medicine Award for Superior Clinical Understanding in Internal Medicine-given to one Intern each year at Graduate Hospital-Parkview Division 1995 Philadelphia, PA

Recognition of Distinguished and Devoted Service as 1990 Paramedic Educator by The Center for Emergency Medicine of Western Pennsylvania

Other Professional Activities

Chair, NJ MICU Advisory Board, Department of Health and Senior Services (12/06-present)

Medical Director, NJ EMS Task Force, Department of Health and Senior Services.(12/08-12/16)

Medical Consultant, TV Series "House" (12/09-2/12)

Medical Director, New Jersey State Police SWAT Team TEAMS C.(6/10-Present)

Medical Director, Approximately 63 New Jersey First Aid Squads

Medical Education, Monthly Education Experience to Federal Agents from ATF (1/10-2/13)

Physician on site to President Obama for New Jersey Visit. August 2010. Secret Service Clearance (4/10)

TEACHING RESPONSIBILITIES: (2006-Present)

Education and supervision of housestaff, medical students and physician assistants during duties as an emergency medicine physician, as well as pre-hospital. Teaching first-year medical student Microbiology course and Advanced Life Support classes to all medical students. Course Director Venipuncture, IV, Basic Life Support I and II. Program Director, EMS/Disaster Medicine Fellowship

Evidence Based Lecturer to Attendings on Renal Diseases, Hematology Diseases, Hospital operations and The Affordable Care Act lecture series

Education of all Internal Medicine Residents at noon conferences on cardiac/pulmonary emergencies.

Conduct weekly Journal Club on latest literature in medicine for all residents/fellows/medical students at NJ EMS Fellowship- Viewed by 7000 people each week on facebook live. 2016-Present

I Lecture at approximately 15 academic centers and PEER reviewed meetings per year including National Association of EMS Physicians, NJ Emergency Nursing Association, NJ Department of Health Conference, Jersey Shore Trauma Conference,

National AirMedical Conferences. Over 500 lectures given in last 15 years. Specifically lecture to residents and leadership on Emotional IQ and effective leadership qualities. Additionally, numerous lectures on hospital and Emergency Department finances.

GRANT/RESEARCH SUPPORT:

NIH RO1 Agency for Healthcare Research and Quality (AHRQ) Correlating Hospital Databases with Prehospital Information. \$1,400,000. Cantor J, DeLia D, Wang HE, **Merlin MA**. 9/10-8/14.

MPACT Biochemical Solutions Manufacturer, "Use of a New Chemical Solution to prevent Inoculation of Stethoscopes with Methicillin Resistant Staphylococcusaureus," \$1500. PI Merlin MA, Alter SM. June 1, 2009-May 1, 2010.

American Heart Association, "Correlation of Advanced Life Support Written Scores with Skills Performance at 3 and 6 month intervals," \$124,997. **PI Merlin MA**, Fischberg B, Pryor PE. April 1, 2008-March 31, 2010

COMMUNITY SERVICE ACTIVITIES

CEO, www.MD1Program.org 501c3 Charitable Organization

Bibliography

The initial case of Out of Hospital Transesophageal Echocardiogram: Accepted for Publication in Prehospital Emergency Care.

The initial case of Out of Hospital Bronchoscopy: Submitted to Annals of Emergency Medicine.

Opioid crisis at the Jersey Shore-special report.

Dudley LS, Konomos D, Robbins V, Qiu L, Bauter R, Merlin MA. J Public Health (Oxf). 2018 Jun 1;40(2):e112-e117. doi: 10.1093/pubmed/fdx106. PMID:28977468

- 1. Klebacher R, Harris MI, Ariyaprakai N, Tagore A, Wasserman E, Korneu S, Hill R, **Merlin MA**. Incidence of Naloxone Redosing In The Age of The New Opioid Epidemic. Prehosp, Emerg. Care. 2017 PMID 28686547
- 2. Westrol MS, Koneru S, McIntyre N, Caruso AT, Arshad FH, **Merlin MA**. Music genre as a predictor of resource utilization at outdoor music concerts. Prehosp Disaster Med. 2017;32:1-8. PMID 28215192
- **3. Merlin MA**, Tagore A, Bauter R, Arshad FH. A Case Series of Double Sequence Defibrillation. Prehosp. Emerg Care 2016; 5: 1-4. PMID 26848018
- 4. **Dudley LS, Madonna I. Mansour MI, Merlin MA** Epinephrine for Anaphylaxis:

Underutilized and Unavailable West J Emerg Med. 2015;16:385–387. PMID 25987911

- 5. Bucher J, Dos Santos FD, Frazier D, **Merlin MA**. Rapid Extrication versus the Kendrick Extrication Device (KED): Comparison of Techniques Used After Motor Vehicle Collisions. West J Emerg Med. 2015; 16: 453-458 PMID 25987929
- 6. Delia D, Wang HE, Kutzin J, **Merlin M**, Nova J, Lloyd K, Cantor JC. Prehospital Transportation to Therapeutic Hypothermia Centers and Survival From Outof-Hospital Cardiac Arrest. BMC Health Serv Res. 2015; 15: 533-540.

Nieves LC, Mehrtens GM, Pores N, Pickrell C, Tanis J, Satty T, Chuang M, Young TC, **Merlin MA**. The Effect of Furosenmide Dose Administered In The Out of Hospital Setting on Renal Function Among Patients With Suspected Decompensated Heart Failure. *Prehosp Disaster Med* 2015; 30: 38–45. PMID 25592809

Kotora JG, Westrol MS, **Merlin MA**. Use Of a Fiberoptic Camera To Perform A Trauma Assessment During A Confined Spaced Rescue. Am J Disaster Med. 2014;9: 151–156. PMID 25068944

Kotora JG, Clancy T, Manzon L, Malik V, Louden RJ, **Merlin MA**. Active Shooter In The Emergency Department: A Scenario-based Training Approach For Healthcare. Am J Disaster Med. 2014; 9: 39-51. PMID 24715643

Sterling M, Echeverria SE, **Merlin MA**. The Effect of Language Congruency on the Out-of Hospital Management of Chest Pain. *World Medical and Health Policy*. 2014

Merlin MA, Carluccio A, Raswant, DosSantos FD, Lehrfeld DP, Ohman-Strickland PO, Prehospoital Hypoglycemiic Patients Receiving IV Thiamine Loading Prior to Glucose vs. Glucose Alone. *Western J of Emerg Med 2012*; 13: 406–409 PMID 23359624

Shiroff AM, Gale SC, **Merlin MA**, Crystal JS, Linger M, Shah AD, Beaumont E, Lustiger E, Tabakin E, Gracias VH. Enhancing the Tissue Donor Pool through Donation after Death in the Field. *Prehosp Disaster Med* 2013;28:187–190. PMID 23331873

- 14.McKinney JS, Mylavarapu K, Lane J, Robert V, Ohman-Strickland PO, Merlin MA. Hospital Prenotification of Stroke Patients by Emergency Medical Services Improves Stroke Time Targets. J Stroke Cerebrovasc Dis. 2013; 22: 113-118. PMID 21820919
- 15. Merlin MA, Ciccosanti C, Saybolt MD, Bockoff O, Mazzei, Shiroff AM. A Prospective Observational Analysis of Ambulation After Motor Vehicle Collisions. Prehosp Disaster Med. 2013; 28: 76-78.
- 16 Merlin MA, Baldino KT, Lehrfeld D, DosSantos FD. Use Of A Limited Lights and Siren Protocol In The Prehospital Setting Versus Standard Usage The American Journal of Emergency Medicine. Am I of Emerg Med 2012; 30: 519-525. PMID 21570233
- 17 Arya R, Dossantos F, Ohman-Strickland P, Merlin MA. Impact of Trauma Activation on the ED Length of Stay for Nontraumatic Patients. Am J Emerg Med. 2012; 30: 311-316. PMID 21296528
- 18 Merlin MA, Kaplan E, Schlogl J, Suss H, DosSantos F, Ohman-Strickland P, Shiroff AM.Study of Placing a Second Intravenous Line In Trauma (SITS Investigators). Prehospital Emerg Care. 2011; 15: 203-213. PMID 21294630
- **19 Merlin MA**, Safdar H, VanPelt S, Calabrese S, Manfre J, Lewinsky A, Liu J. Prehospital Rapid Sequence Intubation in a System with two Advanced Life Support Providers- A Preliminary Report. *Prehospital and Disaster Medicine*. 2010;25: 341–345
- **20 Merlin MA**, , Marques-Baptista A, Yang, I, Aquina CT, Ohman-Strickland P, Buckley B. Evaluating Degradation with Fragment Formation of Prehospital Succinylcholine by Mass Spectrometry. *Academic Emergency Medicine* 2010; 17: 631-637.
- **21** Arya R, Salovich DM, Ohman-Strickland P, **Merlin MA**. Impact of Scribes on Performance Indicators In The Emergency Department. Acad Emerg Med 2010; 17; 5: 490-494.
- 22 Saybolt MD, Alter SM, DosSantos FD. Calello DP, Rynn KO, Nelson DA, Merlin MA, Naloxone in Cardiac Arrest with Suspected Opioid Overdose. Resuscitation. 2010; 81: 42-46.
- 23 Merlin MA, Saybolt MD, Kapitanyan R, Alter SM, Jeges J, Liu J, Calabrese S, Rynn KO, Perritt RA, Prvor PM. Intranasal Naloxone is as effective as Intravenous Naloxone. Am I Emerg Med. 2010; 28: 296-303.
- **24** Livingston D, Marques-Baptista A, Brown RI, Liu J, **Merlin MA**. Prehospital Intervention Probability (PIP) Score: A Novel Method for Determining Necessity of Emergency Medical Service Units. Am J Emerg Med. 2010; 28: 552-560.
- **25 Merlin MA**, Moon J, Krimmel J, Marques-Baptista A. Improving Medical Students Understanding of Emergency Medical Services (EMS) through a Mandatory 4th Year EMS Experience. *Emergency Medical Journal*. 2010; 27: 147-150.

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- **26** Alter SM, **Merlin MA**. Nosocomial and Community-acquired Infection Rates Among Ambulance Patients. Am J Emerg Med. 2011; 29: 57-64.
- 27 Marques-Baptista A, Baldino K, Prasto M, Cascio A, Merlin MA. Utilization of Warning Lights and Siren Based On Hospital Time-Critical Interventions. Prehospital and Disaster Medicine. 2010;25: 335-339.
- 28 Dos Santos FD, Schnakofsky R, Cascio A, Merlin MA. Disposable Stainless Steel vs. Plastic Laryngoscope Blades Among Paramedics.. Am l of Emerg Med 2011; 29: 590-593.
- 29 Merlin MA, Alter SM, Raffel B. Determining External Blood Loss by Use of The MAR Method. Am J Emerg Med. 2009; 27:1085-1090.
- **30 Merlin MA**, Wong ML, Pryor PW, Marques-Baptista A, Stanescu C. Prevalence of Methicillin Resistant Staphylococcus aureus (MRSA) on Stethoscopes of Prehospital Providers. *Prehospital Emerg Care*. 2009; 13: 71-74.
- **31** Brodsky R, **Merlin MA**, Leva EG, Levy R, Leva J, Sabile J. Febrile Seizures Can Be Safely Transported by Basic Life Support Emergency Medical Technicians. *Pediatric* Emergency Care. 2009; 25: 317-320

Published Abstracts

- **1 Merlin MA**, Fischberg B, Marques-Baptista, Pryor PW, Liu J. Correlation of Advanced Life Support Written Scores with Performance Skills at 0, 3 and 6 month Intervals. Acad Emerg Med. 2010 S312. Presented at the Society of Academic Emergency Medicine National Meeting. Washington D.C 2010.
- 2 Merlin MA, Moon J, Krimmel J, Marques-Baptista A. Improving Medical Students Understanding of Emergency Medical Services (EMS) through a Mandatory 4th Year EMS Experience. Acad Emerg Med 2009; 16: S212. Presented at. CORD (Committee of Residency Directors), Society of Academic Emergency Medicine, Annual Meeting, Las Vegas, Nevada, 2009
- 3 Veysman BD, Carluccio A, Ohman-Strickland P, Arya R, Ostro B, Merlin MA. Cephalagia in The Emergency Department Responds to Oxygen Decreasing Time to Relief, Length of Stay, CT Utilization and Need for Narcotic Pharmacotherapy (CEDRO Investigators). Annals of Emergency Medicine 2009; In Press Presented at the American College of Emergency Physicians Research Forum, Boston Massachusetts, October, 2009.
- 4 Yang A, Liu J, Merlin MA. An Analysis of Emergency Department Revisit Rates Based on Patient Satisfaction Scores. Annals of Emergency Medicine 2009 Presented

- at the American College of Emergency Physicians Research Forum, Boston, Massachusetts, October 2009.
- 5 Saybolt MD, Alter SM, DosSantos FD, Calello D, Rynn KO, Nelson DA, **Merlin MA**. Naloxone in Cardiac Arrest with suspected Opioid Overdose. *Clinical Toxicology* 22009; S312. Presented at the North American Conference on Clinical Toxicology, San Antonio TX, September 2009.
- 6 Merlin MA, Yang I, Ohman-Strickland P, Marques-Baptista A, Calello D, Rynn KO, Buckley B. Degradation wit Fragment Formation of Succinylcholine in the Prehospital Environment Using Mass Spectrometry. Clinical Toxicology 2009; S312. Presented at the North American Conference on Clinical Toxicology, San Antonio TX, Sept 2009.
- 7 **Merlin MA**, Marques-Baptista A, Yang, I, Aquina CT, Ohman-Strickland P, Buckley B Degradation with Fragment Formation of Prehospital Succinylcholine by Mass Spectrometry. *Academic Emergency Medicine* 2009; 16: S193. Presented at the Society of Academic Emergency Medicine Annual Meeting, New Orleans, LA, May 2009.
- Dos Santos FD, Schnakoofsky R, Cascio A, **Merlin MA**. Improved Rates of Successful Prehospital Intubations with Metal Versus Plastic Laryngoscope Blades. *Academic Emergency Medicine* 2009; 16: S201. Presented at the Society of Academic Emergency Medicine Annual Meeting, New Orleans, LA, May 2009.
- 9 Nelson DA, **Merlin MA**, Tinti M. Overutilization of Medical Evacuation Helicopter for Trauma. *Academic Emergency Medicine* 2009; 16: S232–233. Presented at the Society of Academic Emergency Medicine Annual Meeting, New Orleans, LA, May 2009.
- 10 Arya R, Salovich DM, **Merlin MA**. Impact of Scribes on Performance Indicators in the Emergency Department. Academic Emergency Medicine 2009; 16: S246. Presented at the Society of Academic Emergency Medicine Annual Meeting, New Orleans, LA, May 2009.
- 11 Pryor PW, **Merlin MA**, Stanescu CG, Salovich DM, De Los Santos JD, Marques-Baptista A. Clean Your Bell: A Quick Method of Decontaminating Your Stethoscope of Methicillin Resistant Staphylococcus Aureus (MRSA). Academic Emergency Medicine 2009; 16: S270. Presented at the Society of Academic Emergency Medicine Annual Meeting, New Orleans, LA, May 2009.
- 12 **Merlin, MA**, Wong ML, Pryor PW, Marques-Baptista A. Methicillin Resistant Staphylococcus Aureus Prevalence on Stethoscopes of EMS Professions. Prehospital Emergency Care 2008; 12: S116. Presented at the National Association of Emergency Medicine Physicians Annual Meeting, Naples, FL, January 2008.

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- 13 **Merlin MA**, Alter SM, Raffel B. A Quick and Easy Determination of External Blood Loss Using the MAR Method .*Prehospital Emergency Care* 2008; 12: S 137. Presented at the National Association of Emergency Medicine Physicians Annual Meeting, Naples FL, January 2008
- 14 Eget D, Lavery RF, Salo D, **Merlin MA** Can patients accurately interpret the numerical value of a visual analog pain scale designed for home use? Academic Emergency Medicine 2000; S8. Presented at the Society of Academic Emergency Medicine Annual Meeting 2000, New Orleans, LA May 2000.
- 15 **Merlin MA**, Swan KG, Swan SA: Leukocytosis in Trauma Patients, *Clinical Research*. 1989; 37:834A.

Review Articles/Presentations/Textbook Chapters (Additional 16 abstracts pending publication)

(Of The Top 30 EMS Articles in 2018, 3 of my articles were in the top 10 in Journal of Emergency Medical Services)

- 1. <u>DiCorpo JE, Schwester D, Dudley LS, Merlin MA</u>. A Wave As A Window Using Wave Capnography To Achieve A Bigger Physiological Patient Picture. JEMS. 2015 Nov;40:32-5.
- 1. Textbook Chapter in Cole: From Bioterrorism to Earthquakes: Local Preparedness for Terror and Disaster. The Role of The Hospital Receiver. Chapter 11. Wiley Publishing. 2013
- 2. **Merlin MA**, Shah CN, Shiroff AM. Evidence-based Appendicitis: The Initial Work-up. *Post-Graduate Medicine*. 2010; 122: 189-195
- 3. **Merlin MA**, Kaplan E, Schlogl J, Suss H, DosSantos F, Ohman-Strickland P, Shiroff AM. Second Intravenous Line In Trauma Study (SITS Investigators). Presented at the Atlanticare Trauma Symposium. Atlantic City New Jersey 6/2010.
- 4. Zenenberg RD, Carluccio A, **Merlin MA**. Hyponatremia: Evaluation and Management. *Hospital Practice* 2010; 38: 38-42.
- 5. **Merlin MA**, Frazier D, Bridgeman P, Maslowski B. Keeping It Down In There: Stopping Prehospital Nausea and Vomiting. *EMS Responder*. 2010; May 5.
- **6. Merlin MA**, Cortacans HP, Bucher J. U.S. Airways Flight 1549 Hudson River Crash: The New Jersey Experience. *Am Journal of Disaster Medicine*. 2009:4: 189–191
- **7. Merlin MA,** Ondeyka A, Marques-Baptista A. Decompression Illness: What You Need to Know. *Emergency Medicine*. 2009; 6: 18-22.

8.	Aquina CT, Marques-Baptista A, Bridgeman P, Merlin MA . Oxycontin Abuse and Overdose. <i>Postgraduate Medicine</i> . 2009; 121: 163-167.