

Principal Investigator (*Last, first, middle initial*): Wang, Henry E.

BIOGRAPHICAL SKETCH

Provide the following information for the key personnel and other significant contributors in the order listed on Form Page 2.
Follow this format for each person. **DO NOT EXCEED FOUR PAGES.**

NAME Henry E. Wang, M.D., M.P.H., M.S.		POSITION TITLE Assistant Professor, Emergency Medicine	
eRA COMMONS USER NAME HWang813			
EDUCATION/TRAINING (<i>Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.</i>)			
INSTITUTION AND LOCATION	DEGREE (if applicable)	YEAR(s)	FIELD OF STUDY
Princeton University, Princeton, New Jersey	BSE	1986-1990	Mechanical Engineering
UMDNJ – Robert Wood Johnson Medical School Piscataway, New Jersey	MD	1993-1997	Medicine
University of Pittsburgh, Pittsburgh, Pennsylvania	MPH	2000-2003	Public Health
University of Pittsburgh, Pittsburgh, Pennsylvania	MS	2004-2006	Clinical Research

A. Positions and Honors

Employment/Professional Positions

1997–2000 Resident, Dept of Emergency Medicine, Christiana Care Health System, Newark, Delaware
2000–2002 Research Fellow, Dept of Emergency Medicine, University of Pittsburgh, Pittsburgh, PA
2000–Present Attending Physician, UPMC-McKeesport Hospital, Pittsburgh, PA
2002–Present Assistant Professor, Dept of Emergency Medicine, University of Pittsburgh, Pittsburgh, PA
2005–Present Attending Physician, UPMC-Presbyterian Hospital, Pittsburgh, PA

Honors

1999 Lewis B. Flinn Award, for outstanding scientific paper by a resident, Christiana Care Health System
2000 Lewis B. Flinn Award, for outstanding scientific paper by a resident, Christiana Care Health System
2000 Research Award, Department of Emergency Medicine, Christiana Care Health System
2001 Best Basic Science Fellow Presentation, Society for Academic Emergency Medicine
2002 Best Fellow/Resident Presentation, National Association of EMS Physicians
2005 Excellence in Education Award (Nominee), University of Pittsburgh School of Medicine
2005 Young Investigator Award, Society for Academic Emergency Medicine

Professional Societies

1995–Present Member, Society for Academic Emergency Medicine
1999–Present Member, National Association of EMS Physicians
2000–Present Standards and Practices Committee, National Association of EMS Physicians
2000–Present Peer Reviewer, Prehospital Emergency Care
2002–Present Peer Reviewer, Annals of Emergency Medicine
2003–Present Peer Reviewer, Academic Emergency Medicine
2003–Present Member, AcademyHealth
2003–Present Peer Reviewer, Critical Care Medicine
2005–Present Senior Reviewer, Annals of Emergency Medicine
2005–Present Editorial Board, Academic Emergency Medicine
2006–Present Peer Reviewer, Critical Care
2006–Present Board of Directors (Member-at-Large), National Association of EMS Physicians
2007–Present Editorial Board, Prehospital Emergency Care

B. Selected Peer-Reviewed Publications

Original Research (Selected)

1. **Wang HE**, O'Connor RE, Megargel RE, Bitner M, Stuart R, Bratton-Heck B, Lamborn M, Tan L: The Utilization of Midazolam as a Pharmacologic Adjunct to Endotracheal Intubation by Paramedics. *Prehospital Emergency Care* 2000;4:14-18.
2. **Wang HE**, Sweeney TA, O'Connor RE, Rubinstein H: Failed Paramedic Intubations – an Analysis of Emergency Department Courses and Outcomes. *Prehospital Emergency Care* 2001;5:134-41.
3. **Wang HE**, O'Connor RE, Megargel RE, Schnyder, ME, Morrison, DM, Barnes TA, Fitzkee A: The Use of Diltiazem for Treating Rapid Atrial Fibrillation in the Out-of-Hospital Setting. *Annals of Emergency Medicine* 2001;37:38-45.
4. **Wang HE**, O'Connor RE, Schnyder, ME, Barnes TA, Megargel RE: Patient Status and Time to Intubation in the Assessment of Prehospital Intubation Performance. *Prehospital Emergency Care* 2001;5:10-18.
5. **Wang HE**, Menegazzi JJ, Lightfoot CB, Callaway CW, Fertig KC, Sherman LD, Hsieh M: Effects of Biphasic and Monophasic Defibrillation on the Scaling Exponent in a Swine Model of Prolonged Ventricular Fibrillation. *Academic Emergency Medicine* 2001;8:771-780.
6. **Wang HE**, Kupas DF, Paris PM, Bates RR, Yealy DM: Preliminary Experience with a Prospective Multi-centered Evaluation of Out-of-Hospital Endotracheal Intubation. *Resuscitation* 2003;58:49-58.
7. **Wang HE**, Kupas DF, Paris PM, Bates RR, Yealy DM: Multivariate Predictors of Failed Out-of-Hospital End tracheal Intubation. *Academic Emergency Medicine* 2003;10:717-24.
8. Menegazzi, JJ, **Wang HE**, Lightfoot CB, Fertig KC, Sherman LD, Callaway CW: Immediate Defibrillation versus Interventions First in a Swine Model of Prolonged Ventricular Fibrillation. *Resuscitation* 2003 Nov;59(2):261-70.
9. **Wang HE**, Kupas DF, Paris PM, Yealy DM: Factors Associated With the Use of Pharmacologic Agents to Facilitate Out-Of-Hospital Endotracheal Intubation. *Prehospital Emergency Care* 2004;8:1-9.
10. **Wang HE**, Peitzman AB, Cassidy L, Adelson PD, Yealy DM: Out-of-Hospital Endotracheal Intubation and Outcome after Traumatic Brain Injury. *Annals of Emergency Medicine* 2004;44:439-45.
11. Miller D, Guimond G, Hostler DP, Platt TE, **Wang HE**: Feasibility of Sternal Intraosseous Access by EMT-Basic Rescuers, *Prehospital Emergency Care* 2005;9:73-78.
12. O'Shea JK, Pinchalk ME, **Wang HE**: Reliability of Paramedic Ratings of Laryngoscopic Views During Endotracheal Intubation. *Prehospital Emergency Care* 2005;9:167-171.
13. **Wang HE**, Seitz SR, Hostler DP: Defining the "Learning Curve" for Paramedic Student Endotracheal Intubation, *Prehospital Emergency Care* 2005;9:156-162.
14. **Wang HE**, Callaway CW, Peitzman AB, Tisherman SA: Admission Hypothermia and Outcome after Major Trauma. *Critical Care Medicine* 2005 Jun;33(6):1296-301.
15. **Wang HE**, Kupas DF, Hostler D, Cooney R, Yealy DM, Lave JR: Procedural Experience with Out-of-Hospital Endotracheal Intubation. *Critical Care Medicine* 2005 Aug;33(8):1718-21.
16. **Wang HE**, Min A, Hostler DP, Callaway CW: Differential Effects of Out-of-Hospital Interventions on Short and Long-Term Survival after Cardiopulmonary Arrest. *Resuscitation* 2005 Oct;67(1):69-74.
17. DeVita MA, Schaefer J, Lutz J, **Wang HE**, Dongilli T: Improving Medical Emergency Team (MET) Performance Using a Novel Curriculum and a Computerized Human Patient Simulator. *Quality and Safety in Health Care* 2005 Oct;14(5):326-31.
18. **Wang HE**, Yealy DM: How Many Attempts are Required to Accomplish Out-of-Hospital Endotracheal Intubation? *Academic Emergency Medicine* 2006 Apr;13(4):372-7.

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19. **Wang HE**, Lave JR, Sirio CA, Yealy DM: Errors in Out-of-Hospital Endotracheal Intubation – Isolated Events or Symptoms of Larger Problems? *Health Affairs* 2006 Mar-Apr;25(2):501-9.
20. Cole CD, **Wang HE**, Abo BN, Yealy DM. Drug-Assisted Effects on Protective Airway Reflexes During Out-of-Hospital Endotracheal Intubation. *Prehospital Emergency Care* 2006 Oct-Dec;10(4):472-5.
21. Johnston BD, Seitz SR, **Wang HE**: National Limitations in Operating Room Training for Paramedic Student Endotracheal Intubation. *Academic Emergency Medicine* 2006;13(10):1051-5.
22. Abo BN, Hostler DP, **Wang HE**: Does the Type of Out-of-Hospital Airway Interfere with Other Cardiopulmonary Resuscitation Tasks? *Resuscitation* (in press).

Non-Experimental Articles (Peer-Reviewed, Selected)

1. **Wang HE**, Sweeney TA: Subclavian Central Venous Catheterization Complicated by Guidewire Looping and Entrapment. *Journal of Emergency Medicine* 1999;17:721-724.
2. **Wang HE**, O'Connor RE, Domeier RM: Prehospital Rapid Sequence Intubation. Position statement of the National Association of EMS Physicians. *Prehospital Emergency Care* 2001;5:40-48.
3. **Wang HE**: Street Drug Toxicity Resulting from Opiates Combined with Anticholinergics. *Prehospital Emergency Care*;2002 2002;6(3):351-4.
4. **Wang HE**, Yealy DM: Out-of-Hospital Rapid-Sequence Intubation: Is This Really the "Success" We Envisioned? (Invited Editorial) *Annals of Emergency Medicine* 2002;40:168-171.
5. **Wang HE**, Yealy DM: The Challenge of Defining the "Science" of Airway Management – What is the Right Outcome Measure? (Invited Editorial) *Academic Emergency Medicine* 2003;10:644-645.
6. **Wang HE**, Domeier RM, Kupas DF, Greenwood MJ, O'Connor RE: Recommended Guidelines for Uniform Reporting of Data from Out-of-Hospital Airway Management: Position Statement of the National Association of EMS Physicians. *Prehospital Emergency Care* 2004;8:58-72.
7. **Wang HE**, Davis DP, Wayne MA, Delbridge TE: Rapid Sequence Intubation – Proceedings from the 2004 NAEMSP Annual Meeting. *Prehospital Emergency Care*.
8. **Wang HE**, Kupas DF, Greenwood MJ, Pinchalk ME, Mullins T, Gluckman W, Sweeney TA, Hostler DP: An Algorithmic Approach to Prehospital Airway Management. *Prehospital Emergency Care* 2005;9:145-155.
9. **Wang HE**, Davis DP, O'Connor RE, Domeier RM: Prehospital Drug-Assisted Intubation (Position Statement and Resource Document). *Prehospital Emergency Care* 2006 Apr-Jun;10(2):261-71.
10. **Wang HE**, Yealy DM: Out-of-Hospital Endotracheal Intubation – Where are We? *Ann Emerg Med* 2006;47(6):532-41.
11. Davis DP, Fakhry SM, **Wang HE**, Bulger EM, Domeier RM, Trask AL, Bochicchio GV, Hauda WE, Robinson L. Paramedic rapid sequence intubation for severe traumatic brain injury: perspectives from an expert panel. *Prehosp Emerg Care*. 2007 Jan-Mar;11(1):1-8.
12. Guyette FX, Greenwood MJ, Neubecker D, Roth R, **Wang HE**. Alternate Airways in the Prehospital Setting (Resource Document to NAEMSP Position Statement). *Prehosp Emerg Care*. 2007 Jan-Mar;11(1):56-61.
13. **Wang HE**, Katz S: Prehospital Endotracheal Intubation and Cognitive Psychology. (Concepts) *Prehospital Emergency Care* (in press)
14. Thomas JB, Abo BN, **Wang HE**: Paramedic Perceptions of Challenges in Out-of-Hospital Endotracheal Intubation. *Prehospital Emergency Care* (in press)

Textbook Chapters

1. **Wang HE**: Rapid-Sequence Intubation, In Traynor OT, Coonan PR, Rahilly TJ, Rubens JS: *The Streetmedic's Handbook*, Second Ed., Thomson Delmar Learning, Clifton Park, NY, 2005.

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2. Wang HE, Yealy DM: Airway Management, in Peitzman AB, et al: *The Trauma Manual*. (in press).

C. Research Support

Ongoing Support

1 K08 HS013628 Wang (PI) 4/01/04 – 3/31/09
Agency for Healthcare Research and Quality
“Effect of Out-of-Hospital Intubation Errors”
In this Clinical Scientist Career Development Award, we will identify the system characteristics associated with out-of-hospital endotracheal intubation errors, and we will evaluate their connections with in-hospital outcomes and course of care. Role: PI (65%)

1 R21 HL084528-01 Wang (PI) 12/01/06 – 11/30/08
National Heart Lung and Blood Institute
“Effect of Paramedic Airway Experience on Patient Outcomes”
This effort involves the probabilistic linkage of Pennsylvania ambulance, hospital admission and death records to determine if paramedic airway management experience impacts patient outcomes. Role: PI (10%)

1U01NS056975-01 Barsan (PI) 12/1/06 – Present
National Institute for Neurological Diseases and Stroke
“Neurological Emergencies Treatment Trial”
The goal of this Initiative is to create a clinical research network to efficiently develop treatments for patients with acute neurological disorders through execution of NINDS-sponsored clinical trials. Role: Consultant

Pittsburgh Emergency Medicine Foundation 11/01/05 – Present
“An Evaluation of EMS Malpractice”
In this collaborative evaluation with the University of Rochester, we will review EMS malpractice and liability cases to identify the prevalence of EMS errors. Role: PI (In-kind)

Completed Support

Pittsburgh Emergency Medicine Foundation 03/01/05 – 03/01/06
“Paramedic Perceptions of Intubation Adverse Events and Errors”
In this effort we will conduct focus group sessions to identify how paramedics perceive adverse events and errors in endotracheal intubation. Role: PI

Pittsburgh Emergency Medicine Foundation 06/01/05 – 06/01/06
“Effect of Airway Interventions on Cardiac Arrest Resuscitation”
In this effort utilizing human simulators, we will evaluate how key resuscitation tasks are impacted by the selected airway management device. Role: PI

Laerdal Foundation 06/01/02 – 12/31/05
“Prehospital Airway Collaborative Evaluation, Phase II”
This is a prospective, multi-centered evaluation of prehospital endotracheal intubation. The purpose of this study is to improve methodology pilot-tested in the Phase I effort and to evaluate new questions about field airway management. Role: PI