

GERARDO P. CARINO, MD PhD
Curriculum Vitae

Business Address: The Miriam Hospital
Critical Care Medicine
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Providence, RI 02906

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EDUCATION

Medical School MD/PhD. 1999
Brown University School of Medicine,
Providence, Rhode Island
Sept. 1992 – May 1999
Ph.D. Thesis: “The Uptake of Orally Administered Bioadhesive Microspheres
Improves the Bioavailability of Insulin and is a Vehicle for Oral Gene Therapy”

Undergraduate BS, 1992, Engineering Sciences (Chemical)
Yale University
New Haven, Connecticut
Sept. 1988 – June 1992

POSTGRADUATE TRAINING

Chief Medical Officers (CMO) Leadership Academy
American Association of Medical Colleges
January 2017 – May 2018

American Leadership Development for Physicians in Academic Medical Centers Course
Harvard School of Public Health
October 2008

Fellowship in Pulmonary and Critical Care Medicine
Brown University, Providence, RI
July 2002 – June 2005

Residency in Internal Medicine
Brown University, Providence, RI
June 1999 – June 2002

POSTGRADUATE HONORS AND AWARDS

Association of Pulmonary and Critical Care Medicine Program Directors Award for Medical Education Research “Advancing Justice, Equity, Diversity, and Inclusion in Fellowship Training”	2021
American Thoracic Society Innovations in Fellowship Education Award	2016
Elected to Alpha Omega Alpha Honor Medical Society Chapter of Alpert Medical School of Brown University	2015
Beckwith Family Award for Outstanding Teaching Department of Medicine Rhode Island Hospital	2014
Annual Education Specialty Award Society of Critical Care Medicine	2013
Rhode Island Top Doc Award Rhode Island Monthly Magazine	2010-2022
Dean’s Excellence in Teaching Award Warren Alpert Medical School of Brown University	2009-2011
Associates Forum Competition Winner RI Chapter, American College of Physicians for	2008
Elected Fellow to American College of Chest Physicians	2008
Fellow Teaching Award Brown University School of Medicine, Department of Medicine	2005
New England Respiratory Research Competition Finalist	2003
<i>Sigma Xi</i> Research Honor Society Yale University	1996

PROFESSIONAL LICENSES AND BOARD CERTIFICATION

Licensure:	State of Rhode Island MD11676	1995 – Present
	State of Massachusetts 261311	2014 – Present
Board Certification:	Certified by ABIM in Internal Medicine, 2002. Recertified 2012	
	Certified by ABIM in Critical Care Medicine, 2005. Recertified 2014	
	Certified by ABIM in Pulmonary Medicine, 2004. Recertified 2015	

ACADEMIC APPOINTMENTS

Acting Designated Institutional Officer Rhode Island Hospital	2021 - 2022
Associate Professor of Medicine, Clinician Educator Warren Alpert School of Medicine at Brown University	2017 - present
Associate Professor of Medicine (Clinical) Warren Alpert School of Medicine at Brown University	2015 - 2016
Interim Director of Graduate Medical Education Rhode Island Hospital	2015
Assistant Professor of Medicine (Clinical) Warren Alpert School of Medicine at Brown University	2014 – 2015
Assistant Director of Graduate Medical Education Rhode Island Hospital	2013 – Present
Fellowship Director Critical Care Medicine Fellowship Program Warren Alpert School of Medicine at Brown University	2011 – 2017
Assistant Professor of Medicine Warren Alpert School of Medicine at Brown University	2009 – 2014
Associate Director Critical Care Medicine Fellowship Program Warren Alpert School of Medicine at Brown University	2007 – 2010
Assistant Professor of Surgery and Medicine Warren Alpert School of Medicine at Brown University	2006 – 2009
Teaching Fellow Pulmonary and Critical Care Medicine Brown University School of Medicine	2002 – 2005

HOSPITAL APPOINTMENTS

Director of Intensive Care Unit Miriam Hospital	2008 – Present
Director of Continuing Medical Education Rhode Island and Miriam Hospital	2014 – Present
Medical Director Department of Respiratory Care, Miriam Hospital	2008 – Present

Associate Director Intensive Care Unit Miriam Hospital	2007 – 2008
Medical Director Blood Gas Laboratory, Miriam Hospital	2006 – Present

OTHER APPOINTMENTS

Association of Pulmonary and Critical Care Medicine Program Directors Justice, Equity, Diversity, and Inclusion (JEDI) Committee	2022-
Journal Reviewer for PLOS One, BMJ, BMJ Case reports, The Joint Commission Journal on Quality and Patient Safety and RI Medical Journal	
Editor, Special Issue “Update in Critical Care Medicine” Rhode Island Medical Journal	2020
Residency Selection Committee, Department of Internal Medicine, Brown University	2017 - Present
Adjunct Clinical Assistant Professor Johnson and Wales University	2015- Present
Clinical Competency Committee, Critical Care Fellowship Program, Brown University	2013 – Present
Adjunct Associate Professor College of Nursing, University of Rhode Island	2012 – Present
Continuing Medical Education Committee Rhode Island Medical Society	2015 – 2020

HOSPITAL COMMITTEES

GME Diversity, Equity and Inclusion Committee, Chair Rhode Island and the Miriam Hospital	2019 – Present
GME Wellness Committee, Chair Rhode Island and the Miriam Hospital	2017 – Present
GME Quality and Safety Committee, Chair Rhode Island and the Miriam Hospital	2013 – Present
Continuing Medical Education Committee, Chair Rhode Island and the Miriam Hospital	2014 – Present
M and M/Event Review Committee	2016 – Present

The Miriam Hospital	
Clinical Management Group The Miriam Hospital	2008 – 2012
Patient Care Committee The Miriam Hospital	2007 – 2013
Inter-ICU Council The Miriam & Rhode Island Hospitals	2007 – 2013
Clinical Quality Council The Miriam Hospital	2007 – 2016
Infection Control Committee The Miriam Hospital	2007 – 2016
Chairman, ICU Quality Improvement Committee The Miriam Hospital	2006 – Present
ICU Collaborative Team Committee The Miriam Hospital	2006 – 2013
Pharmacy and Therapeutics Committee Focus Group The Miriam and Rhode Island Hospitals	2006 – Present
Chairman: CPR Sub-Committee The Miriam Hospital	2005 – Present

UNIVERSITY COMMITTEES

Alpert Medical School Clinical Learning Environment Committee	2021 - Present
Alpert Medical School Admissions Committee	2011 – 2013
Residency Selection Committee Brown University Internal Medicine Residency	2011 – Present
Graduate Medical Education Committee The Rhode Island Hospital / Brown University	2006 – Present
Internal Review Committee, Hematology Oncology Fellowship The Miriam & Rhode Island Hospitals	2007

MEMBERSHIP IN SOCIETIES

SCCM Graduate and Resident Education Committee	2015 – 2019
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Member Society of Critical Care Medicine (SCCM)	2002 – Present
SCCM Membership Committee	2010 – 2012
Fellow of the American College of Chest Physicians	2009 – Present
Member of Association of Pulmonary and Critical Care Medicine Program Directors	2013 – 2017
Affiliate Member American College of Chest Physicians	2003 – 2008
Member Rhode Island Thoracic Society	2007 – Present
Member New England Chapter, American Thoracic Society	2006 – Present
Member European Respiratory Society	2006 – 2010, 2016-Present

Editorial Boards or Reviewer

Reviewer for Plos One, Chest, Brown Journal of Hospital Medicine, Journal of Internal Medical Research, BMJ Case Reports
 Guest Editor Rhode Island Medical Journal 2020
 Editorial Board: Frontiers in Medicine

ORIGINAL PUBLICATIONS IN PEER-REVIEWED JOURNALS

1. Mathiowitz, E, Jacob JS, Jong YS, **Carino GP**, Chickering D, Santos C, Chaturvedi P, Vijayaraghavan K, Montgomery S, Bassett M, Morrell C: “Bioadhesive Microspheres as Potential Oral Drug Delivery Systems” Nature , Vol 386, March 27, 1997. pp 410–414
2. **Carino GP**, Jacob JS, Mathiowitz E: “Nanosphere Based Oral Insulin Delivery”, Journal of Controlled Release, Vol 65, 2000. pp 261–269
3. Klinger JR, Warburton R, **Carino GP**, Murray J, Murphy C, Napier M, Harrington EO: “Natriuretic Peptides Differentially Attenuate Thrombin-Induced Barrier Dysfunction in Pulmonary Microvascular Endothelial Cells”, Experimental Cell Research, Vol 312, 2006. pp 401–410
4. **Carino G**, Ricci D, Bartula D, Manzo E, Sargent, J: “The HAPU Bundle: A Tool to Reduce the Incidence of Hospital-Acquired Pressure Ulcers in the Intensive Care Unit” International Journal of Nursing Science 2012, 2(4): 34–37
5. **Carino GC**, Tsapenko AV, Sweeney, JD: “Central Line Placement in Patients with and Without Prophylactic Plasma” Journal of Critical Care, Vol 27, 2012 529.e9–529.e13
6. Lau E, Mazer J, **Carino G**, “Inhaled β -agonist therapy and respiratory muscle fatigue as under-recognized causes of lactic acidosis” BMJ Case Reports, 2013 Oct 14 doi:10.1136/bcr-2013-201015
7. Banerjee D, Hussain R, Mazer J, and **Carino G**, “A prophylactic fresh frozen plasma transfusion leads to a possible case of transfusion-related acute lung injury” BMJ Case Reports 2014: published online 21 July 2014, doi:10.1136/bcr-2014-204101
8. Cohen D, Levinson A, Mazer J, Lueckel S, **Carino G** and Mermel L, “Insertion and use of arterial catheters: A survey of clinician antiseptic technique” RI Medical Journal, August 2014 pp 24-27

9. Simon T, Bradley, J, Jones A and **Carino G**, “Massive Intravascular Hemolysis from Clostridium Perfringens Septicemia; A Review” *Journal of Intensive Care Medicine*, 2014 29(6) pp 327-333
10. Rojas-Suarez J, Bello-Munoz C, Paternina-Cacedo A, Bourjeily G, **Carino G** and Duenas C, “Maternal mortality secondary to acute respiratory failure in Colombia: A population-based analysis” *Lung*. ePub ahead of print, 15 Dec 2014
11. Cohen D, **Carino G**, Heffernan D, Lueckel S, Mazer J, Skierkowski D, Machan J, Mermel L, and Levinson A, “Arterial Catheter Use in the ICU: A National Survey of Antiseptic Technique and Perceived Infectious Risk” *Critical Care Medicine*, November 2015 • Volume 43 • Number 11 pp 2346-2353
12. Musfeldt D, Levinson, A, Nykiel, J and **Carino G**, “Lithium Toxicity after Roux-en-Y Bariatric Surgery” *BMJ Case Rep*: published online 18 Mar 2016. doi:10.1136/bcr-2015-214056
13. Raghunathan V, Pelcovits A, Gutman D, **Carino G**, “Cardiogenic shock from coronary vasculitis in granulomatosis with polyangiitis” *BMJ Case Reports* June 2017; doi:10.1136/bcr-2017-220233
14. Schnirman R, Nur N, Bonitati A, **Carino G** “A case of legionella pneumonia caused by home use of continuous positive airway pressure” *Sage Open Medical Case Reports* Vol 5:1-2, 2017. doi: 10.1177/2050313X17744981
15. Hui C, Cagle G, **Carino G** “Red Blood Cell Transfusions in the ICU” *RI Med J*(2019) Dec 2: 102 (10): pp 26-29
16. **Carino GP** and Levinson AT “Updates in Critical Care Medicine: Evidence-Based Practice in 2020” *RI Med J*(2019) Dec 2: 102 (10): pp 16-17
17. Decarli K, Arabiat M, Ward C, Levinson A, **Carino G** “A Case of Vaping-Associated Lung Injury in Rhode Island” *RI Med J*(2013) Feb: 102 (11): pp 38-41
18. Kaur A, Levinson AT, Monteiro JFG, **Carino G** “The impact of errors on healthcare professionals in the critical care setting” *J Crit Care* 2019 Aug;52: pp 16-21. doi: 10.1016/j.jcrc.2019.03.001.
19. Nassikas N, Monteiro JFG, Pashnik, Lynch J, **Carino G** and Levinson AT “Intensive care unit rounding checklists to reduce catheter-associated urinary tract infections” *Infection Control and Hospital Epidemiology* (2020), 1-4
20. Nahar R, Jain S, **Carino G**, Shea B “A Case of Interstitial Pneumonia with Features of Autoimmunity” *RI Med J*(2013) 2020 Dec 1;103(10):32-34.
21. Yee D, Fu D, Dharmadhikari N, **Carino G**, “A Rare Case of 4 Ps: Bilateral Pneumothoraces and Pneumomediastinum in Pneumocystis Pneumonia.” *Rhode Island Medical Journal* (2013), vol. 103, no.5, 2020, pp 52-54.
22. Cheves J, DeMarinis S, Sorin C, **Carino G**, Sweeney J “Causes of Elevated International Normalized Ratio in the Intensive Care Unit and the Implications for Plasma Transfusion” *Transfusion* 2021 <https://doi.org/10.1111/trf.16599>

23. Salem A, Aly A, Al-Aghil A, Soliman M, **Carino, G** (September 08, 2021) Celiac Artery Compression Syndrome Presenting As Recurrent Diabetic Ketoacidosis: A Diagnostic Challenge. *Cureus* 13(9): e17818. doi:10.7759/cureus.17818
24. Sorin C, Min S, **Carino G** (March 16, 2022) “Patient with Prior COVID-19 Infection Presenting with Acute Upper Airway Obstruction: A Case Report” *Cureus* 2022 14(3): e23214. doi:10.7759/cureus.23214
25. Selvaraj V, Finn A, Lal A, Khan M, Dapaah-Afriye K, **Carino G** “Baricitinib in hospitalised patients with COVID-19: A meta-analysis of randomised controlled trials” *E Clinical Medicine* 2022 Jul;49:101489. doi: 10.1016/j.eclinm.2022.101489. Epub 2022 Jun 3.
26. Hui C, Filipe Monteiro J, Trivedi D, Vasant D, **Carino G**. Effect of Ketamine on Vasopressor Needs in Mechanically Ventilated Patients: A Retrospective Study. *Brown J Hosp Med*. 2022;1(3). doi:10.56305/001c.36988
27. Nouredine B, Mrad A, Sorin C, **Carino G**. In-Hospital Cardiac Arrest Outcomes During the Early COVID-19 Pandemic in RI: A Qualitative Analysis. *R I Med J* (2013) 2022 Sep 1;105(7):58-61.
28. Kim KW, Wheeler M, Schneider F, **Carino G**. Mechanical Thrombectomy for a Clot in Transit with Adherence to the Tricuspid Valve. *Cureus*, Oct 2023 15(10) DOI: [10.7759/cureus.46636](https://doi.org/10.7759/cureus.46636)
29. Brill L, Li N, **Carino G**. Spontaneous Pneumothorax in a Healthy Young Woman: Discussion About Treatment Options. *Cureus*, 2024 Mar 6;16(3):e55633.

BOOKS AND BOOK CHAPTERS

1. **Carino GP**, “Vaccine Delivery”, *The Encyclopedia of Controlled Release Delivery Systems*, ed: E. Mathiowitz, McGraw-Hill, New York, 1999. pp 993–1005
2. **Carino GP**, Jacob, JS, Chen CJ, Santos, CA, Hertzog, BA and Mathiowitz, E ,”Bioadhesive, Bioerodible Polymers for Increased Intestinal Uptake” *Bioadhesive Drug Delivery Systems* Marcel-Dekker, NY, 1999. pp 459–475

OTHER PEER-REVIEWED PUBLICATIONS

Carino GP and Mathiowitz E: “Oral Insulin Delivery”, *Advanced Drug Delivery System Reviews*, Vol 34, 1999. pp 249–257

PUBLICATIONS SUBMITTED OR IN PREPARATION

ABSTRACTS

1. Valentini, R.F., Zou, L., **Carino, G.**, Ehrlich, M.G., “Enhanced Osteoblast Attachment to Amine- and RGD-Immobilized Fluoropolymer Surfaces.” Poster presentation at Orthopaedic Research Society, 1994

2. J. Jacob, C. Santos, **G. Carino**, D. Chickering and E. Mathiowitz. "An *In Vitro* Bioassay for Quantification of Bioadhesion of Polymer Microspheres to Mucosal Epithelium." Poster presentation at 22nd International Symposium on Controlled Release of Bioactive Materials, 1995
3. **G. Carino**, C. Santos, C.J. Chen, and E. Mathiowitz. "A Radiographic Study of Intestinal Transit Times of Various Spray-dried Polymer Microspheres." Oral Presentation at 22nd International Symposium on Controlled Release of Bioactive Materials, Seattle, WA, July 30–August 2, 1995
4. **G. P. Carino**, E. Mathiowitz, K. Vijayaraghavan, M. Bassett and J. Jacob., "Polymer Nanospheres for the Oral Delivery of Antigens and Drugs." Poster Presentation at 11th Annual National MD/PhD Student Conference, 1996
5. E. Mathiowitz, **G.P. Carino**, J.S. Jacob, Y.S. Jong, C. Santos and D.E. Chickering. "Bioadhesive Microspheres for Increased Bioavailability." Poster Presentation at 24th International Symposium on Controlled Release of Bioactive Materials, 1997
6. **G. Carino**, J. Jacob, E. Mathiowitz, "Uptake of Biodegradable, Bioadhesive Polyanhydrides for Drug Delivery." Poster presentation at 11th World Conference of the International Society for Artificial Organs, 1997
7. E. Mathiowitz, J. Jacob, Y. Jong, **G. Carino** and C. Santos, "Bioadhesive Polymers for Oral DNA Delivery." Poster Presentation at Keystone Symposia on Molecular and Cellular Biology of Gene Therapy, 1998
8. **G. Carino**, J. Jacob, C. Santos and E. Mathiowitz, "Uptake of Two Biodegradable Polymers: Poly(Lactide-Co-Glycolide) and Poly(Fumaric-Co-Sebacic) Anhydride." Poster presentation at 25th International Symposium on Controlled Release of Bioactive Materials, 1998
9. **G. Carino**, J. Jacob, C. Santos, C.J. Chen, B. Hertzog and E. Mathiowitz, "Bioadhesive Properties of Polymers Affect Intestinal Uptake." Poster presentation at 25th International Symposium on Controlled Release of Bioactive Materials, 1998
10. E. Mathiowitz, J. Jacob, Y. Jong, **G. Carino** and C. Santos, "Development of Oral Delivery Systems of Proteins and Genes." Poster presentation at the Ninth International Symposium on Recent Advances in Drug Delivery Systems, 1999
11. **G. Carino**, R. Warburton, M. Napier, E. Harrington, and J. Klinger, "Natriuretic Peptides Blunt Thrombin-induced Increases in Pulmonary Endothelial Permeability." Poster presentation at the American Thoracic Society, 2004
12. Farooqi S, **Carino G**, Feller E., "Elevated intra-abdominal pressure and organ failure in abdominal lymphoma." Poster Presentation at the American College of Gastroenterology Scientific Session, 2006
13. Kumar S, **Carino G**, Dhupa A, Yodice PC "Exchange transfusion therapy in acute respiratory distress syndrome (ARDS) due to plasmodium falciparum malaria" Chest 2006: 130;4 Supplement 297S. Poster presentation at ACCP Annual International Scientific Assembly, 2006

14. Ansa F, Kanaparthi L, **Carino G**, Dhupa A, Daoud E, Yodice, PC “Rapid-onset pulmonary edema after routine elective surgery: A review of Two Cases”. Chest 2006: 130: 4 Supplement 343S. Poster presentation at ACCP Annual International Scientific Assembly, 2006
15. Leverault R, Sheahan B, Fava K, **Carino G**, Dhupa A, “Use of nursing evaluations to improve Housestaff communication skills and patient care.” Poster presentation at ACGME Educational Conference, 2007
16. Ansa FB, **Carino GP**, Dhupa A, Yodice PD “Metastatic carcinoid tumor as a rare cause of atrial fibrillation” Crit Care Med 2007 Vol 34 No 12 A163. Poster presentation at the Annual Society of Critical Care Medicine Congress, 2007
17. Filip, C., Dhupa, A., Bostaji, M., Ansa, F., Levrault, R., **Carino, G.**, “Hodgkin’s Lymphoma Presenting as Bilateral Spontaneous Pneumothoraces and Bronchial Obstruction.” Chest 2007: 132:4 Supplement 690-691S. Poster presentation at ACCP Annual International Scientific Assembly, 2007
18. Bostaji, S., Filip, C., **Carino, G.** “Nicotine Replacement Therapy is Associated with Improved Outcomes in Critically Ill Smokers”. Critical Care 2008: 12: (suppl 2) P514. Poster presentation at the Annual Society of Critical Care Medicine Congress, 2008
19. Gupta, R. and **Carino, G.** “Hypokalemic Thyrotoxic Periodic Paralysis in a Young African American Male” Medicine and Health Rhode Island 2008 Vol 91:11 page 344
20. **Carino G**, Tsapenko, AV and Sweeney, J “Fresh Frozen Plasma Use before Line Insertion in Critically-Ill Patients with Coagulation Abnormalities” Critical Care Medicine Volume 37(12) Supplement, December 2009: A955. Poster presentation at the Annual Society of Critical Care Medicine Congress, 2009
21. Tsapenko, AV and **Carino GP** “Ultrasound Guidance Decreases Major Complications Associated with Central Line Placement by Experienced Operators”. Chest 2009 136: 117S-a. Poster presentation at ACCP Annual International Scientific Assembly, 2010
22. Van Haute, MN and **Carino G** “An Unexpected Case of Polyglucan Body Disease” Crit Care Med 2010 Vol 38(12) S, December 2010: A997
23. Tsapenko, A, Sweeney, J, **Carino G** “Does Level of INR Elevation Relate to the Risk of Bleeding Associated with Central Venous Line Insertion?” Am J Respi Crit Care Med 181;2010:A4577
24. Tsapenko, A, **Carino G** “ARDS as an Initial Presentation of Acute HIV Infection” Am J Respi Crit Care Med 181;2010:A4590
25. Manzo, E, Sargent, J, Bartula, D, Ricci, D, **Carino G** “An Interdisciplinary Care Bundle Reduces the Incidence of Hospital Acquired Pressure Ulcers in the Intensive Care Unit” Am J Respi Crit Care Med 181;2010:A2398. Poster presentation at American Thoracic Society Meeting 2010.
26. Ginsberg, Z and **Carino G** “A Case of Severe H1N1 in a Healthy Adult with Broad Implications for Public Health Planning” Am J Respi Crit Care Med 181;2010: A6123. Poster presentation at American Thoracic Society Meeting 2010.
27. Frost, J, **Carino G** and Mazer, J , “A Case of Azathioprine Hypersensitivity Syndrome, Acute Respiratory Distress Syndrome and Shock” Crit Care Med 2011 Vol 39(12) S 926. Poster presentation at the Annual Society of Critical Care Medicine Congress, 2011

28. Devlin, M and **Carino G**, “Sedation Protocol Reduces the Amount of Drug Used” *Chest*. 2011; 140:416A
29. Jones A, Mazer J, Jabari A, **Carino G** and Levinson A, “Securement Device Reduces The Perceived Risk Of Needlestick Injury During Central Venous Catheter Securement.” Poster presented at the 2012 American Thoracic Society International Conference, 2012
30. Palka D, Portelli D, Gaudreau M, Levy M, Boss R, Carino G, Palmisciano A, “Improving Survival In Patients With Severe Sepsis And Septic Shock: Using Nurse-Physician Dyads, Evidence Based Education And Positive Feedback To Impact Compliance With Early Antibiotics” Poster presented at the 2012 American Thoracic Society International Conference, 2012
31. Jones, A and **Carino G**, “Weil's Disease Masquerading As Thrombotic Thrombocytopenic Purpura (TTP).” Poster presented at the 2012 American Thoracic Society International Conference, 2012
32. Syed M, Levinson A, Frost J, Mazer J, **Carino G**, Shahzad S, Perwaiz M, Healey T, “Confirmation of Central Venous Catheter Placement using Ultrasound” *Crit Care Med* 2012 Vol 40(12) S 259. Poster presentation at the Annual Society of Critical Care Medicine Congress, 2013
33. Shah S, McKaig D, Smith J, Cooper M, Mazer J, **Carino G**, Levinson A, “New Duty Hours and the Effects on Prescribing Errors in the Medical Intensive Care Unit” *Crit Care Med* 2012 Vol 40(12) S 7. Poster presentation at the Annual Society of Critical Care Medicine Congress, 2013
34. Frost J, Syed M, Mazer J, **Carino G**, “Improving Emergency Department to Intensive Care Unit Transfer Time Does Not Effect Morbidity or Mortality” *Crit Care Med* 2012 Vol 40(12) S 789. Poster presentation at the Annual Society of Critical Care Medicine Congress, 2013
35. Mazer J, Levinson A, Carino G, Sweeney JD, “A Program to Interdict Prescriptions for Fresh Frozen Plasma (FFP) Can Result in a Large Decrease in FFP Transfusion” *Transfusion*, 2013
36. Mazer J, Scott-Sheldon L, **Carino G**, Levinson A and Perwaiz M, “Survey of Intensivists Shows Variability in the Use of Steroids in Septic Shock” *Crit Care Med* 2013 Vol 41(12) S 1057. Poster presentation at the Annual Society of Critical Care Medicine Congress, 2014
37. Nykiel J, Levinson A and **Carino G**, “Lithium Toxicity In The Context Of Recent Gastric Bypass Surgery” Poster presentation at the 2014 American Thoracic Society International Conference, 2014
38. Hussain R, Saraiya A, Giaccotto J and **Carino G**, “Early Prone Positioning To Treat Transfusion-Related Acute Lung Injury (TRALI)” Poster presentation at the 2014 American Thoracic Society International Conference, 2014
39. Cohen DM, Mermel L, Mazer J, Heffernan DS, **Carino G** and Levinson A, “Insertion and Use of Arterial Catheters: A Survey of Clinician Antiseptic Technique” Poster presentation at the 2014 American Thoracic Society International Conference, 2014
40. Gupta P, de Leon L and Carino G, “Utilization of Palliative Care Consults in Cirrotic Patients in the MICU” *Crit Care Med* 2014 Vol 42(12)S 395. Poster presentation at the Annual Society of Critical Care Medicine Congress, 2015

41. Cohen D, Levinson A, Mazer J, Heffernan D, Luekel S, **Carino G** and Mermel L, "Insertion and Use of Arterial Catheters: A national Survey of Clinician Antiseptic technique" *Crit Care Med* 2014 Vol 42(12)S 912. Poster presentation at the Annual Society of Critical Care Medicine Congress, 2015
42. Waghchoure S and **Carino G**, "Low Procalcitonin Levels Are Associated with Higher 30-Day Readmission Rates for Pneumonia" *Chest*. 2015;148(4_MeetingAbstracts):82A. doi:10.1378/chest.2257533. Oral presentation at the ACCP Annual International Scientific Assembly, 2015
43. Csikesz N, Chen S, Smith J, Dickenson R, Chapin K and **Carino G**, "Catching the Flu: Clinical Implications of Two Different Molecular Testing Methods Used During the 2013-2014 Influenza Season" *Chest*. 2015;148(4_MeetingAbstracts):117A. doi:10.1378/chest.2266627. Oral presentation at the ACCP Annual International Scientific Assembly, 2015
44. Kaur A, **Carino G** and Levinson A, "The impact of errors on healthcare professionals in the critical care setting" *Crit Care Med* 2016 Vol 44(12) S 918. Presented at the Annual Society of Critical Care Medicine Congress, 2016
45. Edwards A, Azab N and **Carino G**, "Thiamine Deficiency Mimicking Guillain-Barre Syndrome" Presented at American College of Chest Physicians Conference 2017
46. Nassikas N, Pashnik B, Lynch J, **Carino G**, Levinson A, "ICU Checklists Keep CAUTIS in Check" *Critical Care Medicine*: January 2018 - Volume 46 - Issue 1 - p 321. Presented at the Annual Society of Critical Care Medicine Congress, 2018
47. Edwards A, Azab N, Levinson A, Kaur A, Monteiro F and **Carino G**, "The impact of errors on members of the ERS Respiratory Intensive Care Assembly" Presented at the European Respiratory Society Congress 2017
48. Ahmed S and **Carino G**, "Thiamine Deficiency Mimicking Guillain-Barre Syndrome" Presented at American College of Physicians Conference 2018
49. Bhagat, M, Deseda, J, Edwards, A, SeyedJavady, HH and **Carino G**, "Impact of a Nocturnal Goal Sheet on ICU Quality Metrics" *January 2019 Crit Care Med* 47:610. Presented at the Annual Society of Critical Care Medicine Congress, 2019
50. Deseda, J, Bhagat, M, SeyedJavady, HH, Edwards A and **Carino G**, "Rapid Cycle Mortality Review in the ICU" *January 2019 Crit Care Med* 47:186. Presented at the Annual Society of Critical Care Medicine Congress, 2019
51. D. Vasant, C. Hui, **G. Carino** "Diffuse Alveolar Hemorrhage as a Clinical Presentaiton of GPA" *CHEST*, Vol. 157, Issue 6, A154. Was to be presented at Chest 2020 Bologna (cancelled due to COVID)
52. **G. Carino**, D. Trivedi, J.F. Monteiro, C. Hui "KETAMINE AS AN ADJUNCT SEDATION AGENT IN MECHANICALLY VENTILATED PATIENTS" *CHEST*, Vol. 157, Issue 6, A127 Was to be presented at Chest 2020 Bologna (cancelled due to COVID)

53. Singh P, Nahar R, Ricci D, **Carino G**. “Initiating Enteral Nutrition in Mechanically Ventilated SARS-CoV-2 ARDS Patients” January 2021 Crit Care Med 1:71. Digital Presentation at the Annual Society of Critical Care Medicine Congress, 2021
54. Nouredine B, Mrad A, Sorin C, **Carino G**: “When the Beat Drops: A Retrospective Cohort Study of In-Hospital Cardiac Arrest CPR Outcomes of Patients with COVID-19. October 2021. Chest 160(4):A1013. Digital Presentation at ACCP Annual International Scientific Assembly, 2021
55. Min S, Sorin C, **Carino G**: “A Patient with Prior COVID-19 Infection Presenting with Acute Upper Airway Obstruction” October 2021. Chest 160(4):A375. Digital Presentation at ACCP Annual International Scientific Assembly, 2021
56. Takatani Y, **Carino G**, Minami T, Kato G, Ohtsuru S, “Impact of Medical Errors on Health Care Professionals in Charge of Critically-Ill Patients: A Comparison Between the United States and Japan” Chest Volume 162, Issue 4, Supplement, October 2022, Page A1462
57. Salem, A., Rihawi, A., Soliman, M., Salem A., Nadjarian, A., Mousa, A and **Carino G**. “Considering Pleural Glucose Levels Could Prevent Unnecessary Procedures” Chest Volume 162, Issue 4, Supplement, October 2022, Page 2184A
58. Selvaraj, V., Finn, A., Lal A, **Carino G**. “Baricitinib in Hospitalized Patients with COVID-19: Meta-Analysis of Randomized Controlled Trials” Chest Volume 162, Issue 4, Supplement, October 2022, Page 972A
59. Elnajjar, A., Holder, K., **Carino, G**. “Innovation in mentorship among medical trainees: pilot virtual peer support system for physicians during onboarding transition to residency”. ACGME Annual Educational Conference. Poster Presentation. February 23, 2023.
60. Saiganesh,P., Ghoprial, A, Nahar, R, Tanzer, JR, Singh, P., Ricci, D, **Carino, G**. “Nutrition In Obese Critically Ill Mechanically Ventilated Covid-19 ARDS Patients” To be presented at ACCP Chest 2023, Honolulu

PATENTS

Mathiowitz E, Jacob J, **Carino GP**, Santos C, Hertzog B: “Methods and Compositions for Enhancing the Bioadhesive Properties of Polymers, II,” U.S. Patent 5,955,096

Mathiowitz E, Jong YS, **Carino GP**, Jacob JS: “A Method for Gene Therapy using Nucleic Acid Loaded Polymeric Microparticles,” U.S. Patent 6,677,313

INVITED PRESENTATIONS

Regional:

April 27, 2000

“Reversible Psychiatric Symptoms Due to Insulin Induced Hypoglycemia”

Rhode Island ACP-ASIM – Providence, Rhode Island

- October 25, 2002 “Pulmonary Complications of Polymyositis”
Brown Chest Conference Presentation – Providence, Rhode Island
- January 17, 2003 “Ventilator-Associated Pneumonia”
Brown Chest Conference Presentation – Providence, Rhode Island
- April 18, 2003 “ARDS in Pregnancy”
Brown Chest Conference Presentation – Providence, Rhode Island
- March 12, 2004 “Long-Term Consequences of ARDS”
Brown Chest Conference Presentation – Providence, Rhode Island
- May 10, 2004 “Natriuretic Peptide Effects on Pulmonary Vascular Endothelial Permeability”
Brown University Pulmonary Research Conference – Providence, Rhode Island
- June 11, 2004 “Pulmonary Fibrosis”
Brown Chest Conference Presentation – Providence, Rhode Island
- December 10, 2004 “Leukotriene Inhibitors for Acute Asthma”
Brown Chest Conference Presentation – Providence, Rhode Island
- March 4, 2005 “Neurogenic Pulmonary Edema”
Brown Chest Conference Presentation – Providence, Rhode Island
- July 7, 2005 “The Very Basics of Mechanical Ventilation”
Rhode Island Hospital Division of Pulmonary, Critical Care and Sleep Medicine
Providence, Rhode Island
- November 4, 2005 “Hepatitis C and Lung Disease”
Brown Chest Conference Presentation – Providence, Rhode Island
- December 19, 2005 “Management of Acute Asthma”, Noon Conference Presentation
The Miriam Hospital Department of Medicine – Providence, Rhode Island
- January 10, 2006 “Mechanical Ventilation”, Noon Conference Presentation
The Miriam Hospital Department of Medicine – Providence, Rhode Island

INVITED PRESENTATIONS-CONTINUED

- March 20, 2006 “The Very Basics of Mechanical Ventilation”, Noon Conference Presentation
The Miriam Hospital, Department of Medicine – Providence, Rhode Island
- July 17, 2006 “Management of Acute Asthma”, Noon Conference Presentation
The Miriam Hospital, Department of Medicine – Providence, Rhode Island
- October 18, 2006 “Basics for Management of ARDS”
Presented to American Association of Critical Care Nurses

The Miriam Hospital – Providence, Rhode Island

- October 18, 2006 “Mechanical Ventilation for the ER Physician”
Presented to the Emergency Department Residency Program
The Miriam Hospital – Providence, Rhode Island
- November 3, 2006 “Does What We Feed Ventilated Patients Really Make a Difference?”
Brown Chest Conference Presentation – Providence, Rhode Island
- April 4, 2007 “A 55 Year Old Man with Acute Coronary Syndrome and Alcohol Abuse”
The Miriam Hospital, Department of Medicine – Providence, Rhode Island
Morbidity and Mortality Conference
- April 19, 2007 “Surviving Sepsis”, Noon Conference Presentation
The Miriam Hospital, Department of Medicine – Providence, Rhode Island
- June 29, 2007 “The Pulmonary Exam and Respiratory Distress”
The Miriam Hospital, Department of Medicine – Providence, Rhode Island
- August 20, 2007 “The Surviving Sepsis Campaign”
The Miriam Hospital, Department of Medicine – Providence, Rhode Island
- September 19, 2007 “A 26 Year Old Man with Diarrhea and Paralysis”
The Miriam Hospital, Department of Medicine – Providence, Rhode Island
Morbidity and Mortality Conference
- September 27, 2007 “Improving Diagnosis of VAP: The Bronchoalveolar Lavage and Quantitative
Cultures The Rhode Island ICU Collaborative Outcomes Congress – Warwick,
Rhode Island
- November 2, 2007 “Amiodarone-Induced Pulmonary Toxicity”
Brown Chest Conference Presentation – Providence, Rhode Island
- February 6, 2008 “A 79 Year Old Woman with Refractory Lactic Acidosis”
The Miriam Hospital, Department of Medicine – Providence, Rhode Island
Morbidity and Mortality Conference
- April 9, 2008 “An 89 Year Old Woman with Abdominal Pain and Diarrhea”
The Miriam Hospital, Department of Medicine – Providence, Rhode Island
Morbidity and Mortality Conference

INVITED PRESENTATIONS-CONTINUED

- October 15, 2008 “A 38 Year Old Man with Shortness of Breath and Lethargy”
The Miriam Hospital, Department of Medicine – Providence, Rhode Island
Morbidity and Mortality Conference
- October 17, 2008 “Weakness in the ICU: An Interesting Case of West Nile Virus”
Brown Chest Conference Presentation – Providence, Rhode Island
- February 18, 2009 “Early Identification and Management of Sepsis”

The Miriam Hospital, Department of Medicine – Providence, Rhode Island
Morbidity and Mortality Conference

February 18, 2009 “A 79 Year Old Woman with GI Bleeding and Septic Shock”
The Miriam Hospital, Department of Medicine – Providence, Rhode Island
Morbidity and Mortality Conference

April 17, 2009 “Protocols in the ICU: The Future or the Past”
Update in Critical Care Medicine 2009 – Providence, RI

April 20, 2009 “Respiratory Failure and Airway Management”
The Miriam Hospital, Department of Medicine – Providence, Rhode Island

May 20, 2009 “A 27 Year Old Man with Chest Pain and Shortness of Breath”
The Miriam Hospital, Department of Medicine – Providence, Rhode Island
Morbidity and Mortality Conference

October 7, 2009 “A 40 Year Old man with Fever and Respiratory Distress”
The Miriam Hospital, Department of Medicine – Providence, Rhode Island
Morbidity and Mortality Conference

March 10, 2010 “A 69 Year Old Woman Presents with Bright Red Blood per Rectum.”
The Miriam Hospital, Department of Medicine – Providence, Rhode Island
Morbidity and Mortality Conference

April 7, 2010 “An 86 Year Old Woman Presents with Left Sided Weakness and Left Facial Droop”
The Miriam Hospital, Department of Medicine – Providence, Rhode Island
Morbidity and Mortality Conference

September 29, 2010 “An 86 Year Old Woman with Fatigue and Thrombocytopenia”
The Miriam Hospital, Department of Medicine – Providence, Rhode Island
Morbidity and Mortality Conference

January 19, 2011 “60 Year Old Woman with Abdominal Discomfort”
The Miriam Hospital, Department of Medicine – Providence, Rhode Island
Morbidity and Mortality Conference

February 4, 2011 “The Health Risks of Flying”
Brown Chest Conference Presentation – Providence, Rhode Island

INVITED PRESENTATIONS-CONTINUED

March 30, 2011 “Ventilatory Rescue Strategies: What to do When All Else Fails”
Rhode Island Society for Respiratory Care
27th Annual Conference and Exhibition for Healthcare Professionals
Newport, RI

October 26, 2011 “Severe Infection”
The Miriam Hospital, Department of Medicine – Providence, Rhode Island
Morbidity and Mortality Conference

- November 2, 2011 “55 Year Old Man with Cough and Abdominal Pain”
The Miriam Hospital, Department of Medicine – Providence, Rhode Island
Morbidity and Mortality Conference
- February 3, 2012 “Oxygen: What is it good for?”
Brown Chest Conference Presentation – Providence, Rhode Island
- March 21, 2012 “An 84 Year Old Woman with Nausea, Vomiting and Abdominal pain”
The Miriam Hospital, Department of Medicine – Providence, Rhode Island
Morbidity and Mortality Conference
- January 30, 2013 “A 55 Year Old Man with Chills, Abdominal Pain and Dyspnea after Shoveling Snow”
The Miriam Hospital, Department of Medicine – Providence, Rhode Island
Morbidity and Mortality Conference
- February 1, 2013 “Carbon Monoxide Toxicity: A Wake up Call”
Brown Chest Conference Presentation – Providence, Rhode Island
- February 13, 2013 “Navigating End-of-Life Decision-Making with Patients and Families: It’s All Too Much”
The Miriam Hospital, Providence, Rhode Island
Schwartz Center Rounds
- May 18, 2013 “Giving Feedback”
Brown Chief Resident Immersion Training Workshop
Mystic, CT
- May 18, 2013 “The Reluctant Learner”
Brown Chief Resident Immersion Training Workshop
Mystic, CT
- June 17, 2013 “Thriving in the ICU”
Intern Orientation Clinical Skills Roundtable
Brown University Internal Medicine Residency
- July 3, 2013 “Quality and Safety Initiatives:
What a resident or fellow needs to know.”
Brown GME Resident and Fellow Orientation

INVITED PRESENTATIONS-CONTINUED

- October 9, 2013 “A 39 Year Old Male with Transfusion Complication”
The Miriam Hospital, Department of Medicine – Providence, Rhode Island
Morbidity and Mortality Conference
- March 31, 2014 “Introduction to Medical Errors”
Rhode Island Hospital, Department of Graduate Medical Education
Quality and Safety Conference Series

- April 11, 2014 “A 21 Year Old Woman with Cough”
The Miriam Hospital, Department of Medicine – Providence, Rhode Island
Morbidity and Mortality Conference
- April 26, 2014 “Giving Feedback”
Brown Chief Resident Immersion Training Workshop
Mystic, CT
- April 27, 2014 “The Reluctant Learner”
Brown Chief Resident Immersion Training Workshop
Mystic, CT
- April 27, 2014 “Small Group Teaching”
Brown Chief Resident Immersion Training Workshop
Mystic, CT
- May 19, 2014 “A Successful Quality Improvement Project in the ED and how to Plan your Own Qi
Project”
Quality and Safety Educational Series – Rhode Island Hospital
Providence, RI
- May 22, 2014 “ARDS Management Update”
Critical Care Hospitalist Educational Series – Rhode Island Hospital
Providence, RI
- September 23, 2014 “Introduction to Medical Errors”
Warren Alpert Medical School at Brown University
Pre-Clinical Elective in Quality and Safety
Providence, RI
- September 24, 2014 “Shock”
Critical Care Hospitalist Educational Series – Rhode Island Hospital
Providence, RI
- September 29, 2014 “Communication after Adverse Events”
Quality and Safety Educational Series – Rhode Island Hospital
Providence, RI

INVITED PRESENTATIONS-CONTINUED

- October 21, 2014 “Cardiology Issues in the ICU part 1”
Critical Care Hospitalist Educational Series – Rhode Island Hospital
Providence, RI
- October 21, 2014 “Communication after Adverse Events”
Warren Alpert Medical School at Brown University
Pre-Clinical Elective in Quality and Safety
Providence, RI

- December 12, 2014 “Talking About Medical Errors (in the ICU)”
Brown Chest Conference Presentation – Providence, Rhode Island
- Aug 12, 2016 “Basic Hemodynamics”
Brown Pulmonary and Critical Care Summer Lecture Series
- March 17, 2017 “Nutrition in the ICU: Update 2017”
Brown Chest Conference Presentation – Providence, Rhode Island
- Sept 13, 2017 “Escalation of Care: Process, Barriers and Strategies”
Rhode Island Hospital Quality Series – Providence, RI
- Feb 2, 2018 “Burnout in the ICU: Are you at risk? Are you already there?”
Brown Chest Conference Presentation– Providence, Rhode Island
- April 25, 2018 “Escalation of Care: Process, Barriers and Strategies”
Newport Hospital Patient Safety Ambassador Program – Newport, RI
- August 22, 2018 “ARDS: Emphasizing Ventilator Strategies and what to do when all else fails”
Rhode Island Society for Respiratory Care – East Greenwich, RI
- August 21, 2019 “Management of Acute Asthma”
Rhode Island Society for Respiratory Care – East Greenwich, RI
- July 29, 2020 “Review of ARDS”
ICU Hospitalist Grand Rounds, Rhode Island Hospital
- September 23, 2020 “The Whole Patient Program”
Brown Medical School, PLME Program – Providence, Rhode Island
- October 21, 2020 “Steroids in Respiratory Conditions”
ICU Hospitalist Grand Rounds, Rhode Island Hospital
- December 2, 2020 “Management of Acute Asthma”
ICU Hospitalist Grand Rounds, Rhode Island Hospital

INVITED PRESENTATIONS-CONTINUED

- January 20, 2021 “Non-Invasive Positive Pressure Ventilation”
ICU Hospitalist Grand Rounds, Rhode Island Hospital
- March 19, 2021 “Hey Siri, Extubate my Patient. Using Machine Learning to Improve Extubation Outcomes?”
Brown Chest Conference Presentation– Providence, Rhode Island

- February 18, 2022 “Racial Disparities in the ICU”
Brown Chest Conference Presentation– Providence, Rhode Island
- February 24, 2023 “Blood Pressure Targets in the ICU: How Low or High can we Go?”
Brown Chest Conference Presentation– Providence, Rhode Island
- September 20, 2023 “Breaking the Silence: Creating Safe Spaces for Mental Health Support during Graduate
Medical Training”
Warren Alpert Medical School

INVITED PRESENTATIONS

International

- Sept 11, 2017 “The impact of errors on members of the ERS Respiratory Intensive Care Assembly”
European Respiratory Society Congress 2017, Assembly 2 Business Meeting
Milan, Italy

GRANTS

- “Investigation of a novel pulse oximeter to mitigate inaccuracies of hypoxic patients with varying skin complexions”
BPI Academic Assessment Grant, 2023: \$50,000
Primary Investigator
- “Growth Factor-Releasing Small Diameter Vascular Grafts”
Lifespan Developmental Grant, January 2006 – Dec 2006: \$20,998
Primary Investigator

RESEARCH COLLABORATIONS:

PezGlobo: <https://www.pez-globo.org/>

Contributing member of research consortium and inter-university partnership between Brown, Stanford and the University of Utah working on developing an open-source ventilator during the COVID crisis. 2020-2021

Photocatalysis Project:

Member of interdisciplinary group of researchers at Brown (Chemistry, Engineering) developing photocatalysis technology to apply to oxygen generation applications. 2021 - 2022

UNIVERSITY TEACHING ROLES

- 2005 Lecturer for Brown University School of Medicine
“Introduction to the Lung Examination”
- 2013 – 2022 Brown Medical School Course IM 335 –Internal Medicine
Course Leader (2006-2012) and Faculty (2012- present)
Critical Care Medicine Rotation including with daily didactic and bedside teaching in the Miriam ICU.

4-8 Brown Medical School students per year

- 2012 - Present
Brown Medical School Course IM-3205 – International Critical Care Course at Tubingen
Course Leader and Faculty, helped develop and attended course in 2012
Joint Educational Program with Eberhard Karls University including didactic teaching,
simulation training and bedside rounds
4-5 Brown Medical School students per year, for a 4 week elective
1 Brown Critical Care fellow attends per year to assist as teaching faculty with mentoring by a
pulmonary and critical care fellow (Thus far 7 faculty and 7 fellows have attending)
- 2016 – Present
Brown Medical School Course Exch-7200 – International Elective, University of Bologna
Faculty Liaison
- 2017 – Present
Faculty for Brown University/Kent Hospital Internal Medicine Residency
Miriam ICU Rotation
Developed curriculum and provided daily didactic and bedside teaching in the Miriam ICU
Regular resident feedback and evaluation
1-2 weeks per month
1-2 Brown Internal Medicine residents per month

HOSPITAL TEACHING ROLES

- 2005 – Present
Faculty for Brown University Internal Medicine Residency
Miriam ICU Rotation
Developed curriculum and provided daily didactic and bedside teaching in the Miriam ICU
Regular resident feedback and evaluation, including development of current E-Value evaluation
1-2 weeks per month
4-6 Brown Internal Medicine residents per month
- 2005 – Present
Faculty for Brown University Emergency Medicine Residency
Miriam ICU Rotation
Developed curriculum and provided daily didactic and bedside teaching in the Miriam ICU,
Regular resident feedback and evaluation
1-2 weeks per month
1-2 Brown Emergency Medicine residents per month
- 2005 – Present
Faculty for Brown University Critical Care Medicine Fellowship
Developed curriculum to meet ACGME standards
Provided daily didactic and bedside teaching in the Miriam ICU, 1-2 weeks per month
Regular weekly teaching sessions include journal clubs, M+M, case presentations, research
meetings, etc
2-4 Brown Critical Care Medicine fellows per year
- 2013 – Present
Faculty for Brown University Pulmonary and Critical Care Medicine Fellowship
Provided daily didactic and bedside teaching in the Miriam ICU, 1-2 weeks per month
Direct fellow supervision and teaching on the Pulmonary Consult Service at Miriam Hospital,
2-4 weeks per year
12 pulmonary and critical care fellows rotating each year

- 2013 – 2015 Faculty for Brown Chief Resident Immersion Training Workshop
Program sponsored by RIH GME and Division of Geriatric Medicine
Planned and participated in program to provide leadership training, feedback skills and to provide mentoring in a quality project.
Annual Conference and quarterly meetings
12 total Brown residents from various specialties
- 2014 – 2016 Program Planner and Faculty Quality and Safety Educational Series
Department of Graduate Medical Education
Planned and developed quality and safety curriculum in this CME program for residents and faculty
- 2018-2019 Program Planner and Faculty for ICU hospitalist Educational Series
Planned and developed curriculum in this CME program for ICU hospitalists at RIH and TMH