

CHRISTINE MARIE CARR, MD, FACEP

OFFICE ADDRESS

Department of Internal Medicine
Division of Emergency Medicine
Medical University of South Carolina
169 Ashley Avenue
P.O. Box 250300
Charleston, SC 29425
carrc@musc.edu (843) 792-9707

CITIZENSHIP

USA

EDUCATION

SUNY Cobleskill Cobleskill, NY	1982-1984	A.S.	Biology
Cornell University Ithaca, NY	1984-1986	B.S.	Molecular & Cell Biology
Medical University of South Carolina Charleston, South Carolina	1986-1987	Ph.D. Candidate	Pharmacology
Medical University of South Carolina Charleston, South Carolina	1988-1992	M.D.	Medicine

INTERNSHIP

The Johns Hopkins Hospital Baltimore, MD	1993-1995	Emergency Medicine
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RESIDENCY

The Johns Hopkins Hospital Baltimore, MD	1993-1995	Emergency Medicine
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SPECIALTY CERTIFICATION/ LICENSURE

American Board of Emergency Medicine, 1996, 2006

South Carolina

FACULTY APPOINTMENTS

1995 - 2000	Clinical Instructor Medicine	Division of Emergency Medicine Medical University of South Carolina Charleston, South Carolina
2000 - 2001	Instructor	Department of Anesthesia & Perioperative Medicine Division of Emergency Medicine

		Medical University of South Carolina Charleston, South Carolina
2001 - 2005	Assistant Professor	Department of Anesthesia & Perioperative Medicine Division of Emergency Medicine Medical University of South Carolina Charleston, South Carolina
2005 - Present	Assistant Professor	Department of Internal Medicine Division of Emergency Medicine Medical University of South Carolina Charleston, South Carolina

ADMINISTRATIVE APPOINTMENTS

2000-Present	Director of Coding, Reimbursement and Compliance, Emergency Medicine
2003-2008	Associate Director of Emergency Services
2007-2008	Chief Operations Officer, Division of Emergency Medicine
2007-present	Core Faculty Member, MUSC Emergency Medicine Residency Program

HOSPITAL APPOINTMENTS

1995-2008	Emergency Physician	Charleston Memorial Hospital Charleston, South Carolina
1995-Present	Emergency Physician	Medical University of South Carolina Charleston, South Carolina
2008-Present	Medical Director	MUSC Emergency Services MUSC Chest Pain Center

MEMBERSHIP IN PROFESSIONAL SOCIETIES

NATIONAL SOCIETIES:

American College of Emergency Physicians (ACEP), Fellow
 American College of Emergency Physicians Coding and Nomenclature Committee Member
 American College of Emergency Physicians Observation Section Committee Member
 ACEP Benchmarking Task Force Member: appointed 2006 by Dr. Rick Bukata
 American Academy of Emergency Medicine (AAEM)

STATE and LOCAL SOCIETIES:

MUSC Women in Medicine and Science
 Charleston County Medical Society
 South Carolina College of Emergency Physicians (SCCEP)
 Chairman, Education Committee, SCCEP 1997, 1998
 Co-Founder and Course Director SCCEP Oral Board Review Course 1997-1998

SCCEP, Board of Directors - Alternate, 1998
 SCCEP Government Affairs Committee 2004-present
 South Carolina Hospital Association
 South Carolina Medical Association 2004-present
 BOD Alternate 2006

ACADEMIC COMMITTEE ACTIVITIES (Past 5 years only)

University/College

1998-2006	Interviewer for College of Medicine Medical Student Applicants; MUSC College of Medicine
2002-2004	MUSC Clinical Counsel; MUSC Hospital Chair: Dr. Jerry Reeves
2001-2004	UMA Reimbursement Committee: Chair Dr. Ed Wilson; UMA
2003-2004	MUSC Access Task Force; Chair Kate Menard; MUSC Hospital
2004-Present	MUSC Women's Scholars Initiative 2004-present
2006-Present	MUSC Women's Scholars Initiative: Mentoring Sub-Committee Member
2007-Present	COM LDI Curriculum and Linkage Subcommittee (MUSC Excellence/Studer Initiative)
2006-2007	Chest Pain Center Concept and Implementation Group: Chairs Drs. Headden and Zwerner
2007-present	University Pandemic Flu Preparedness Task Force
2008-present	Major Trauma Committee
2008-present	Critical Care Committee

Department/Division

2000-present	Chair, Emergency Medicine Coding, Billing & Compliance Committee; MUSC Division of EM
2000-present	Division of Emergency Medicine Executive Committee; MUSC Division of EM
2003-2007	Chair Emergency Medicine Multidisciplinary Council; MUSC Division of EM
2007-2008	MUSC Excellence DOM Physician and Administrative Champion Group; Chair P Zwerner
2008-2009	Chair MUSC Excellence DOM Physician and Administrative Champion Group
2007—2008	Chair EM Team Triage Concept and Implementation Work Group
2008-present	ED Pan-Flu preparedness workgroup
2008-Present	Member; MUSC EM Women's Mentoring Group

EDITORIAL POSITIONS

2007-Present	Editorial Reviewer The American Journal of the Medical Sciences, Lippincott Williams & Wilkins
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MAJOR TEACHING RESPONSIBILITIES

1995 - Present	Bedside Teaching (daily) and Didactic Lectures for off service and Emergency Medicine Residents and medical students
1997,1998	Chair SCCEP Education Committee
1997-1999	Co-Founder and Course Director South Carolina College of Emergency Physicians Oral Board Review Course
2006-2007	Residency Curriculum Planning Group
2008-present	Emergency Medicine Residency Program Core Faculty Member
2009-present	Course Director: EM Administrative Elective An administrative elective for 3 rd year EM residents
2008-present	Masters in Health Administration Project Advisor For MUSC MHA students interested in EM Administrative projects (Amber Gist, MD, MHA)

MAJOR CLINICAL INTEREST

- Emergency Medicine Practice Management/System Based Administration
- Emergency Medicine Benchmarking and Process Improvement
- Coding, Reimbursement and Compliance in Emergency Medicine
- MUSC Excellence Implementation (Institution Wide)

ADVANCED EDUCATION AND TRAINING

- Ultrasound in the ED, November 2004
- AAMC Faculty Development for Junior Women Faculty, 5 day Seminar, November 1999
- AAMC Mid-Career Faculty Development 5 day Seminar, July 2004
- ACEP Coding and Reimbursement Seminar, June 2006
- ED Benchmarking and Practice Management 5 day Seminar, March 2006
- Studer Nuts and Bolts Course, Feb 14, 15 2007, Nashville, TN
- Practicing Excellence: The Physician Institute, Las Vegas, NV May 2008
- ACLS: Recertified June 2009
- Miami CITI Human Subjects Research Course 2008, refresher 2009

COMMUNITY SERVICE/EXTRAMURAL PROFESSIONAL ACTIVITY

1996-1999	Annual Festival by the Sea Planning Committee	Stella Maris Catholic Church Isle of Palms, South Carolina
1998-present	Medical Director	Isle of Palms Fire and Rescue Isle of Palms, South Carolina Volunteer Medical Director overseeing all Standard operating procedures, quality assurance and lecturing on advanced procedures
2000-present	School Nurse/Doctor Volunteer	Christ Our King Elementary School Mt Pleasant, South Carolina
2003-present	Meet Referee	Wild Dunes Swim Team
2004-present	Board of Directors-President	Wild Dunes Swim Team
2004-present	School Board Member	Christ Our King-Stella Maris School Mt Pleasant, South Carolina
2007-2008	Chair: Finance Committee COK-SM School Board	Christ Our King-Stella Maris School Mt Pleasant, South Carolina Oversee budget preparation, analysis and ultimate approval of a 4 million dollar operating budget on behalf of the school board
2006-present	SC-SERVE	South Carolina's Statewide Emergency Registry of Volunteers
2007-present	Fort Dorchester High School	Mentor for Career Shadowing Program High School students interested in Medicine: 2007 2 students 2008: Courtney Patenaude, Gabriel Alarcon, Kassandra Mitchell
2008-present	Charleston School of Law	Shadowing program for Law students Interested in Medical Law
2009-present	East Cooper Community Outreach CARES Clinic Volunteer	Free Medical Clinic for Uninsured patients in the tricounty area

LECTURES and PRESENTATIONS

Invited National Lectures and Presentations

1. Emergency Medicine Residency Program Grand Rounds. May 16, 2005. St. Vincent Mercy Medical Center Emergency Medicine Residency Program, Toledo, Ohio. *How you earn a living in Emergency Medicine*. (A comprehensive talk on documentation, coding, reimbursement, benchmarking and practice management in Emergency Medicine).
2. Emergency Medicine Residency Program Grand Rounds. July 23, 2008. University of Rochester Emergency Medicine Residency Program, Strong Memorial Hospital, Rochester, NY. *An Emergency Medicine Coding Primer*. (A comprehensive talk on coding, reimbursement and RVU's as they relate to the practicing EP)

3. Pediatric Emergency Medicine Fellowship Program Grand Rounds. August 6th, 2008. University of Rochester Emergency Medicine Residency Program, Strong Memorial Hospital, Rochester, NY. *Coding in the Emergency Department, it is different than a clinic!*

Local Lectures and Presentations

1. **Fundamentals of Coding in Emergency Medicine.** September 2007, July 2008, June 2009. An introductory lecture RE documentation, coding, and billing as part of the MUSC Division of EM Resident Lecture Series.
2. **RVU's and understanding CMS reimbursement in Emergency Medicine.** A series of more in-depth lectures given as part of the systems based competency requirement for the Emergency Medicine Residency Program (4 lectures/year).
3. **Cascading Pillar Goals; MUSC Excellence.** December 2007. MUSC Leadership Development Institute (approx. 350 attendees); the LDI is an educational leadership series attended by MUSC organizational leaders on a quarterly basis.
4. **Cascading Pillar Goals and Building Accountability based on Measurable Outcomes; MUSC Excellence.** December 2007. MUSC Department of Internal Medicine Division Directors Meeting.
5. **Leader Rounding; Connecting to Purpose.** MUSC Department of Medicine Excellence Committee 2008
6. **Excellence as a Culture.** July 2008. MUSC Emergency Medicine Lecture Series.
7. **Engaging the Physician to Achieve Organizational Excellence.** Co-Lead a breakout session at the MUSC Leadership Development Institute, June 19, 2009, the LDI is an educational leadership series attended by MUSC organizational leaders on a quarterly basis.

Submitted Peer Reviewed National Presentations

1. **Carr CM**, Vesper F, Larson E, Gilman C. The effect of in room registration on ED Left Without Treatment Rate. Abstract. American College of Emergency Medicine Scientific Assembly Washington DC, September 23-25th, 2005. Oral Presentation (Charles Gilman, MD).
2. **Carr, Christine M.**; Kini, Sam; Stoeber, Jen. Recurrent Pericardial Effusion in a Patient After Pericardial Window. Oral Presentation. Southern Medical Association 99th Annual Scientific Assembly. November 10-12, 2005. (Sam Kini, MD)
3. Vesper FH, III, McGary WB, Bush J, Queener CD, Tolley JH, **Carr CM**. Incidence, Susceptibility, And Antibiotic Use In Emergency Department Community-acquired Methicillin-Resistant Staphylococcus Aureus (ca-mrsa) Abscesses. American College of Emergency Medicine Scientific Assembly Washington DC, September 23-25th, 2005. Oral Presentation (Amy Robins, MD).
4. McGary WB, **Carr CM**, Gilman C, Raney LH. Meningeal Syphilis Presenting as Status Epilepticus. Accepted for Oral Poster presentation. Southern Medical Association, April 2006.
5. Kini S, Vesper FH, **Carr CM**, McGary WB, Carlton C, Limehouse W, Saef S, Raney LH. Why do People Come to the Emergency Department with Colds? Survey Results of Otherwise Healthy Subjects. American College of Emergency Medicine Scientific Assembly, New Orleans LA, October 16, 2006, 9:30 am- 11:30 am. Oral poster presentation.
6. Saef, SH, Gist, A, **Carr, C**, Headden, GH, Lukasavage, JN, Does a Team Triage service affect patient satisfaction in an urban academic Emergency Department? Accepted for presentation at the Research Forum of the American College of Emergency Physicians, Boston, MA on October 5, 2009.

Invited International Presentations

1. Kini S, Raney LH, **Carr CM**. AAEM International Emergency Medicine Conference Nov 12-16, 2008. Salem, India. Clinical Portals: A collaborative Initiative for Clinical Care & Residency Education . (Sam Kini, MD)
2. Sam Kini, M.D., Jon K. Dumitru*, Frederick H. Vesper, M.D., **Christine M. Carr, M.D.**, W. Brett McGary, M.D., Chris Carlton, Walter Limehouse Jr., M.D., Steven H. Saef, M.D., Laurence H. Raney, M.D. Why Do People Come to the Emergency Department? 4th European Congress on Emergency Medicine, Crete, Greece, Oct 4-8, 2006.

PUBLICATIONS

Peer Reviewed Journal Articles

1. Mayexyu PR, Mais DE, **Carr CM**, Halushka PV. Human Erythroleukemia Cells express functional thromboxane A2 / Prostaglandin H2 receptors. *Journal of Experimental Pharmacology*, 1989.
2. Pope T, Kini S, **Carr CM**. How helical multidetector CT is changing abdominal workups. *Emergency Medicine* Nov 2005: Vol 37 (11). p.33-41.
3. Kini S, Rehman S, Pafford RG⁺, **Carr CM**. Emergency Management of Acute Diabetic Complications. *Emergency Medicine*. October 2006: Vol 38 (10). p44-51.
4. Kini S, Abell B*, **Carr CM**. Acute beta blocker overdose. A case review and management in the emergency department. *Emergency Medicine*. December 2006: Vol 38 (12). pg 12-16.
5. **Carr CM**, Vesper F, Gilman C. In Room Registration significantly Decreases the Rate of Departmental LWT's. The e-Journal of the South Carolina Medical Association. November 2006; Vol. 102, (9) pages 306-309. <http://www.myrpcpl.com/periodicals/journal-south-carolina-medical-association>, accessed Sept. 1, 2009
6. Raney L, **Carr C**, Bush J. A Painful Ankle for Ten Weeks. *Journal of Emergency Medicine*, in press, accepted June 2009

Book Chapters

1. Londner M, **Carr CM**, Kelen GD. Fluids and Electrolytes. In Tintinalli JE, Kelen GD, Stapczynski, JS, eds. Emergency Medicine: A Comprehensive Study Guide. 5th ed. New York NY: McGraw-Hill; 2000: p150-169.

Peer Reviewed Abstract Publications

1. **Carr CM**, Vesper F, Larson E, Gilman C. The effect of in room registration on ED Left Without Treatment Rate. *Annals of Emergency Medicine*. September 2005; Vol. 46, Issue 3, Pages 39-40.
2. **Carr, Christine M.**; Kini, Sam; Stoeber, Jen. Recurrent Pericardial Effusion in a Patient After Pericardial Window. *Southern Medical Journal*. October 2005; Vol. 98(10):S7-S8,
3. Vesper FH, III, McGary WB, Bush J, Queener CD, Tolley JH, **Carr CM**. Incidence, Susceptibility, And Antibiotic Use In Emergency Department Community-acquired Methicillin-Resistant Staphylococcus Aureus (ca-mrsa) Abscesses. *Annals of Emergency Medicine*. September 2005 Vol. 46, Issue 3, Page 16
4. S. Kini, F. Vesper, **C. Carr**, B. McGary, C. Carlton, W. Limehouse, S. Saef, L. Raney Why Do People Come to the Emergency Department with Colds? Survey Results of Otherwise Healthy Subjects. *Annals of Emergency Medicine* October 2006, Vol. 48, Issue 4, Page 77

5. Saef, SH, Gist, A, **Carr, C**, Headden, GH, Lukasavage, JN, Does a Team Triage service affect patient satisfaction in an urban academic Emergency Department? *Annals of Emergency Medicine*. September 2009 Vol. 54, Issue 3, Page S4.

OTHER PUBLICATIONS

1. Gilman C, **Carr C**. Bilateral Neck Pain- Internal Jugular Thrombosis. *Emergency Physician Monthly*. September 16, 2008. http://www.epmonthly.com/index.php?option=com_content&task=view&id=327&Itemid=58
2. MUSC Patient Information Brochure: This 3 panel (front and back) color brochure is handed out to each and every patient who presents to the MUSC ED for care. This brochure explains to patients all aspects of their care and what they should expect during their stay in the ED.
3. MUSC Team Triage Brochure: This is a 3 panel color brochure is given to patients that are selected to be seen by the Team Triage group in the ED. It explains the concept of Team Triage in friendly, informative language that the patients will understand and manages the expectations of the patients while they are a part of Team Triage.

AWARDS AND HONORS

1. **MUSC Excellence in Action**
Presented by Dr. Ray Greenberg, MUSC President August 15, 2008: *"This individual has embraced MUSC Excellence from the very beginning. In her leadership position as Assistant Professor of Medicine and Medical Director of the Emergency Department, she consistently leads by example and not only holds her people accountable to high standards, but she uses her contagious passion for MUSC to inspire people to be great. As a role model for the Excellence Program, this award winner makes it easy for all of us to 'believe' in the greatness of MUSC."*
2. **MUSC Trauma Award 5/09**
In recognition of our appreciation for your commitment, dedication and expertise as a member of MUSC's Trauma team.
3. **Best Doctors in America 2009-2010**
4. **AAMC Faculty Development Series for Women Faculty**: Selected by the MUSC College of Medicine Deans Office as a future leader in medicine. The COM nominated (and funded) me for this program initially in 1999 (Junior Women faculty seminar) and again in 2004 (Mid-Career faculty seminar).

ADVISEES / MENTOREE's

Mentor to Medical Students/ EM Residencies:

- Leslie Ogden (MUSC COM '03) EM residency Seattle, Attending Physician Samaritan North Lincoln Hospital, 3043 NE 28th Street, Lincoln City, OR 97367 , (541) 994-3661
- Louis Ernst (MUSC COM '05) EM Residency Boston University Medical Center
- Joshua Mou- (MUSC COM '05) EM Residency Loma Linda Hospital. Attending Physician Loma Linda Hospital 11234 Anderson St., Loma Linda University Medical Center, Loma Linda, CA 92354
- Neil Andrews – (MUSC COM '07) EM Residency, UNC Charlotte. Attending EM Physician, Richland Medical Park, Palmetto Health Richland Medical Education, Columbia, SC 29203
- Nichole Garcia MS (MUSC COM 2011) 2007-present
- Megan Shires MS (MUSC COM 2010) 2007-present

MUSC Faculty Mentor to:

- Diann Krywko, MD (MUSC EM Faculty Member) 2008-present