

CURRICULUM VITAE

**Date of Revision:** January 15th, 2021

**Name:** Christopher Leonard Moore MD

**Rank:** Full Professor in the Department of Emergency Medicine, Clinician-Scientist Track

**Term:** On a continuing basis as of October 1, 2020

**School:** Yale University School of Medicine

**Summary:**

Dr. Moore is an international pioneer in the field of point-of-care ultrasound with a research focus on diagnostic imaging. He has over 80 peer-reviewed publications in high impact journals including NEJM, JAMA, BMJ, Radiology and all emergency medicine journals. He has been continuously funded with R level grants by the Agency for Healthcare Research and Quality over the last ten years. Dr. Moore is Chief of the Section of Emergency Ultrasound within the Yale Department of Emergency Medicine and directed the Yale Emergency Ultrasound Fellowship for 15 years, mentoring more than 25 fellows. He founded and directs the Yale Point-of-care Ultrasound Course which has trained hundreds of clinicians from around the world over the last 14 years. He has lectured on six continents and received numerous awards for teaching and research.

**Education:** B.A. Chemistry, Amherst College, *Magna Cum Laude*, 1992  
M.D. University of Virginia School of Medicine, *Alpha Omega Alpha*, 1998

**Career/Academic Appointments:**

1992-1994	Teacher, Georgetown Day High School, Washington D.C.
1998-1999	Intern, Emergency Medicine, Carolinas Medical Center, Charlotte, NC
1999-2001	Resident, Emergency Medicine, Carolinas Medical Center, Charlotte, NC
2001-2002	Fellow, Emergency Ultrasound, Resurrection Medical Center, Chicago, IL
2002-2011	Assistant Professor, Department of Emergency Medicine, Yale University School of Medicine, New Haven, CT
2011-2014	Associate Professor, Clinician Educator Track, Department of Emergency Medicine, Yale University School of Medicine, New Haven, CT
2014-2020	Associate Professor, Clinician Scholar Track, Department of Emergency Medicine, Yale University School of Medicine, New Haven, CT
2020-present	Professor, Clinician Scientist Track, Department of Emergency Medicine

**Administrative Positions:**

2011-present	Chief, Section of Emergency Ultrasound, Department of Emergency Medicine, Yale University School of Medicine, New Haven, CT
2002-2019	Fellowship Director, Emergency Ultrasound, Section of EM, Department of Surgery, Yale University School of Medicine, New Haven, CT

- 2006-2011 Director, Division of Emergency Ultrasound, Section of EM, Department of Surgery, Yale University School of Medicine, New Haven, CT
- 2015-2017 Representative for the Department of Emergency Medicine on the Yale School of Medicine Faculty Advisory Committee
- 2017-present Liaison for Yale Medicine ACR Select implementation across YNHH, SRC, Bridgeport, Greenwich, and L&M EDs.

**Board Certification:**

American Board of Emergency Medicine, November 2002, recertified November 2012.

**Professional Honors & Recognition:**

A) International/National/Regional

- 2013: Fellow, American Institute of Ultrasound in Medicine
- 2013: Society for Academic Emergency "Best Faculty Presentation", SAEM National Meeting, Atlanta, GA
- 2009: Society for Academic Emergency Medicine "Ultrasound Achievement Award" (national award for person who has done the most for the specialty)
- 2007: American College of Emergency Physicians National Teaching Award
- 2007: Senior Member, American Institute of Ultrasound in Medicine
- 2006: Connecticut College of Emergency Physicians, Research Award, Best Oral Presentation
- 2004: Fellow, American College of Emergency Physicians
- 2001: Best Resident Oral Presentation, Society for Academic Emergency Medicine, Regional Meeting, Charlotte, NC
- 2001: Outstanding Resident Research Achievement Award, Carolinas Medical Center, Charlotte, NC
- 1997: Alpha Omega Alpha University of Virginia School of Medicine, Charlottesville, VA
- 1991: Xigma Chi Honor Society

B) University

- 2016: Alvin Feinstein Award for Clinical Teaching in the Yale University School of Medicine
- 2009: Inducted as honorary fellow, Timothy Dwight College, Yale University
- 2004: Teaching Award, Section of Emergency Medicine, as selected by emergency medicine residents

**Grant/ Clinical Trials History:**

A) Active

Funder:	<u>Biomedical Advanced Research and Development Authority</u>
Topic:	B-lines in COVID 19
Role:	Site Primary Investigator; collaboration with Philips Healthcare
Percent effort:	20%
Total costs:	\$309,842

Christopher L. Moore MD

Project period: October 2020 – September 2021

Funder: Caption Health Inc.  
Topic: Development of automated intelligence for lung ultrasound  
Role: Primary Investigator  
Percent effort: 10%  
Total costs: \$100,000  
Project period: January 2021-present

Agency: Department of Defense  
Grant #: pending  
Title: Portable device for rapid vascular access in trauma and hemorrhage control  
PI: James Daley (Yale site PI)  
Role: Co-investigator  
Percent effort: 5%  
Total costs: \$401,474 over three years  
Project period: October 2020-September 2023

Funder: Philips Healthcare  
Topic: Quantification of automated identification of B-lines  
Role: Primary Investigator  
Percent effort: 5%  
Total costs: \$98,899  
Project period: August 2018-present

Funder: Gordon and Betty Moore Foundation  
Topic: Improving Diagnosis in Pulmonary Embolism  
Role: Technical Expert Panel  
Project period: 2019-2020

Funder: Gordon and Betty Moore Foundation  
Topic: Closing the Loop: Incidental Findings  
Role: Technical Expert Panel, Co-Chair  
Project period: 2019-2020

## B) Past Grants

Agency: Agency for Healthcare Research and Quality  
Grant #: R18HS023778  
Title: "Minimizing Unnecessary Irradiation from Renal Colic CT Scans in the United States"  
PI: Chris Moore  
Role: Primary Investigator  
Percent effort: 20%  
Total costs: \$1,224,666 over five years  
Project period: April 2015-October 2020

Funder: Diagnostica STAGO, Inc.  
 Topic: Multicenter trial to determine the diagnostic accuracy of STA-Liastest D-Di XL combined with a clinical pretest probability to safely exclude PE and DVT  
 Role: Site Primary Investigator  
 Percent effort: 5%  
 Total costs: Net retained funds to department \$70K  
 Project period: June 2018-October 2020

Agency: Agency for Healthcare Research and Quality  
 Grant #: 1R113HS025664-01  
 Title: *Challenges and Opportunities for Stewardship of Urological Imaging*  
 Role: Summit co-chair  
 Amount: \$24,950  
 Date/ location: October 21<sup>st</sup> 2017, American Urological Association, Baltimore MD  
 Description: Multidisciplinary conference convening stakeholders from the American Urological Association, American College of Emergency Physicians, and American College of Radiology around opportunities for collaborative patient safety / quality improvement work around the utilization of advanced imaging for patients with urological conditions

Funder: Philips Healthcare  
 Topic: Automated identification of B-lines  
 Role: Primary Investigator  
 Total costs: \$34,976  
 Project period: September 2016 – August 2017

Funder: Janssen Pharmaceuticals  
 Topic: Outpatient treatment of ED patients with PE using Xarelto  
 Role: Site Primary Investigator  
 Total costs: \$30K  
 Project period: September 2016 – April 2017

Agency: Agency for Healthcare Research and Quality  
 Grant #: 1R01HS018322-01A1  
 Title: "Identifying unnecessary irradiation of patients with suspected renal colic"  
 PI: Chris Moore  
 Role: Primary Investigator  
 Percent effort: 25%  
 Direct costs: \$1,208,123 over four years  
 Project period: August 2010-May 2014

Agency: Agency for Healthcare Research and Quality  
 Grant #: 1R01HS018420-01A1  
 Title: "Emergency department disability diagnostic tool"  
 PI: Lori Post  
 Role: Co-investigator  
 Percent effort: 10%

Christopher L. Moore MD

Direct costs: \$1,509,023 over five years  
Project period: August 2010-May 2015

Funder: Academy of Emergency Ultrasound, Society for Academic  
Emergency Medicine

Role: Primary Mentor  
Costs: \$10,000  
Project Period: 7/17-6/18  
Mentee/project: James Daley; TAPSE in suspected PE

Funder: Department of Emergency Medicine, Yale SOM  
Role: Primary Mentor  
Costs: \$15,000  
Project period: 9/17-6/18  
Mentee/project: Jill Crosby; carotid flow measurement in simulated hypovolemia

Funder: Emergency Medicine Foundation  
Title: CRUSH STUDY: Calculating Readmission Risk by Ultrasound for  
Heart Failure  
Role, mentee: Mentor for Dr. Joseph Pare  
Costs: \$79,965  
Project Period: 10/16-10/17

Funder: Emergency Medicine Foundation  
Title: "Cardiac output in early sepsis as determined by emergency  
physician echocardiography".  
P.I.: Chris Moore, mentor for resident Jason Chang  
Percent effort: 2%  
Role on Project: Primary Investigator  
Costs: \$5,000  
Project period: 7/1/07-6/30/08

Agency: NIH/STTR  
ID  
Title: "Pre-test probability of pulmonary embolism".  
P.I.: Dr. Jeffrey Kline  
Percent effort: Site Primary Investigator  
Direct cost per year: \$31,500  
Total project cost: \$31,500  
Project period: 9/1/05-8/31/06

Agency: American College of Emergency Physicians  
ID  
Title: "Community Ultrasound Survey"  
Role: Primary Investigator  
Percent effort: 3%  
Direct cost per year: \$6565  
Total project cost: \$6565  
Project period: 9/1/03-8/31/04

Agency: Emergency Medicine Foundation  
 I.D. #: 200751  
 Title: "Determination of Left Ventricular Function in Hypotensive Patients by Emergency Physician Echocardiography"  
 Role: Primary Investigator  
 Percent effort: N/A  
 Direct costs per year: \$2400  
 Total project cost: \$4800  
 Project period: 6/1/2000-5/31/2002

Agency: Lifeline Foundation  
 I.D. #:  
 Title: "The Effect of L-Arginine in Mediating Cardiac Dysfunction in Hearts Obtained from Non-Heartbeating Donors"  
 Role on Project: Investigator (Fellowship)  
 Percent effort: N/A  
 Direct cost per year: \$2,000  
 Total project cost: \$2,000  
 Project period: 1/1/94-12/31/95

#### **Invited Lectures and Teaching:**

- 2021: Yale Point-of-care Ultrasound Course. Course director and lecturer, September 8-9, 2021, Newport RI.
- 2020: The Yale Point-of-care Ultrasound Course – Zoom! November 12<sup>th</sup>-13<sup>th</sup> 2020. Course Director and lecturer.
- 2020: Case Western Ultrasound Section Zoom Grand Rounds. "The Right Ventricle". October 2<sup>nd</sup>, 2020.
- 2020: Evolving Cardiac Dynamics with COVID-19 Patients- Experiences from US and Europe. Zoom conference attended by 500 people for multidisciplinary discussion of ultrasound in COVID-19. April 14<sup>th</sup>, 2020.
- 2020: Asociacion Colombiana de Especialistas en Medicina de Urgencias (ACEM), "Impact of Ultrasound on the Quality of Care in the Emergency Department", March 13<sup>th</sup> 2020. Cartagena, Colombia.
- 2020: Universidad Javierna, Grand Rounds "The Role of Ultrasound in Emergencies – A New World", March 10<sup>th</sup>, 2020. Bogota, Colombia.
- 2020: Director, Yale Point-of-Care Ultrasound Course. Fort Lauderdale FL, March 4<sup>th</sup>-6<sup>th</sup> 2020.
- 2019: New England Point-of-Care Ultrasound Course. Course founder, co-director and lecturer to sold out ultrasound course. Newport RI, September 4-6<sup>th</sup> 2019.
- 2019: New England Point-of-Care Ultrasound Course. Course founder and lecturer to sold out ultrasound course. Fort Lauderdale FL, March 5<sup>th</sup>-8<sup>th</sup> 2019.

- 2018: Turkish Emergency Medicine Congress November 8<sup>th</sup>-11<sup>th</sup>, 2018, Antalya Turkey. Presented several lectures to an international audience with various ultrasound EM topics.
- 2018: New England Point-of-Care Ultrasound Course. Course founder and lecturer to sold out course. Newport RI, September 5<sup>th</sup>-7<sup>th</sup> 2018.
- 2018: Northwest Anesthesia Seminars, lecturer, Topics in Emergency Medicine, Park City UT, March 2018.
- 2018: New England Point-of-Care Ultrasound Course. Course founder and lecturer. Clearwater FL, Feb/Mar 2018.
- 2018: Grand Rounds, University of Vermont Department of Emergency Medicine, January 8<sup>th</sup>, Burlington VT.
- 2017: Grand Rounds, Department of Emergency Medicine, Stonybrook Medicine, November 1<sup>st</sup>, Stonybrook NY.
- 2017: World Congress of Ultrasound in Medical Education (WCUME), "Developments in Point-of-care Ultrasound", October 13-15<sup>th</sup>, Montreal Canada.
- 2017: New England Point-of-care Ultrasound Course, September 7-8<sup>th</sup>, Newport RI. Course Director and lecturer to this sold out course hosting 80 clinicians.
- 2017: Northwest Anesthesia Seminars, Updates in Emergency Medicine, August 14-18<sup>th</sup>, Anchorage AK, presented seven lectures to an international audience on various EM topics.
- 2017: American Institute of Ultrasound in Medicine (AIUM) Annual Meeting "Point-of-care Ultrasound in Valvular Disease", March 27<sup>th</sup> 2017. Orlando FL.
- 2017: New England Point-of-Care Ultrasound Course. Course director and keynote lecturer. March 1<sup>st</sup>-3<sup>rd</sup> 2017. Clearwater FL.
- 2016: African Federation of Emergency Medicine Annual Meeting Pre-course on Point-of-care Ultrasound. Course director and lecturer. November 8<sup>th</sup>-9<sup>th</sup> 2016. Cairo, Egypt.
- 2016: American College of Emergency Physicians Scientific Assembly, "Emergency Ultrasound Management Course", October 15<sup>th</sup> 2016, Las Vegas NV.
- 2016: Grand Rounds, St. Barnabas Hospital Department of Emergency Medicine, "Point-of-care Ultrasound in the 21<sup>st</sup> Century", October 5<sup>th</sup> 2016, Bronx, NY.
- 2016: Course Director and Keynote Lecturer, New England Point-of-care Ultrasound Course, September 8<sup>th</sup>-9<sup>th</sup> 2016, Newport RI.
- 2016: Invited speaker, "Frontiers in Critical Care Ultrasound", American Institute of Ultrasound in Medicine National Meeting, March 14<sup>th</sup> 2016, New York, NY.

- 2016: Grand Rounds, "Thoughtful 21<sup>st</sup> Century Imaging", Hartford Hospital Department of Emergency Medicine, February 18<sup>th</sup>, 2016, Hartford CT.
- 2016: Course co-director and lecturer, "New England Point-of-care Ultrasound Course", February 2016, Miami FL.
- 2016: Point-of-care ultrasound course, lecturer and hands-on teacher, Nairobi Hospital, January 20-21<sup>st</sup> 2016, Nairobi Kenya.
- 2016: Grand Rounds, "Point-of-care Ultrasound", January 22<sup>nd</sup>, 2016, Kenyatta National Hospital, Nairobi, Kenya.
- 2015: ACEP Scientific Assembly, invited speaker on "Establishing and Organizing your ED Point-of-Care Workflow: Hardware, Middleware, Software and the EHR", scheduled October 27<sup>th</sup>, 2015, Boston MA.
- 2015: WINFOCUS International Conference, invited speaker on "Defining a Research Agenda in Point-of-care Ultrasound", scheduled October 23<sup>rd</sup>, 2015, Boston MA.
- 2015: Speaker and hands-on teacher, "Point-of-care Ultrasound", New England Regional Student National Medical Association Conference, October 17<sup>th</sup>, 2015, New Haven CT.
- 2015: Grand Rounds, University of Wisconsin Department of Emergency Medicine. Scheduled October 15<sup>th</sup>, 2015, Madison WI.
- 2015: Controversies and Consensus in Emergency Medicine. Invited speaker on controversies in diagnosis and management of renal colic, September 24<sup>th</sup>, 2015, Northampton MA.
- 2015: Keynote speaker, "New England Point-of-care Ultrasound Course", September 2015, Newport RI.
- 2015: Keynote Speaker, Society of Clinical Ultrasound Fellowships, Boston MA, April 24<sup>th</sup>, 2015.
- 2015: Lecturer, New England Point-of-care Ultrasound Course, San Juan PR, March 2015.
- 2014: Grand Rounds, Department of Urology, Yale University School of Medicine, New Haven CT, November 12<sup>th</sup>, 2014.
- 2014: Course Director, Lecturer, and Hands-on Instructor, New England Emergency Ultrasound Course, Newport RI, September 25<sup>th</sup>-26<sup>th</sup>, 2014.
- 2014: Lecturer and hands on instructor, the Wellington Emergency Ultrasound Course. Amora Hotel, Wellington, New Zealand, March 6-7, 2014.

- 2014: Grand Rounds, Echo in Emergency Ultrasound, Hutt Hospital, Lower Hutt, New Zealand, February 5, 2014.
- 2014: Teaching lectures on emergency ultrasound, Wellington Hospital, Wellington New Zealand.
- 2013: Keynote Speaker, Simposio Internacional Medicina de Urgencia (3<sup>rd</sup> International Symposium on Emergency Medicine), Valdivia, Chile, November 21-22, 2013.
- 2013: Speaker and instructor, Pontificia Universidad Catolica de Chile Emergency Ultrasound Course, Santiago, Chile, November 19-20, 2013.
- 2013: Course Director, 5<sup>th</sup> Annual New England Point-of-care Ultrasound Course, Newport RI, September 12-13, 2013.
- 2013: Grand Rounds, Department of Emergency Medicine, Stony Brook University, Stony Brook NY, September 4<sup>th</sup> 2013.
- 2013: "Evaluation of the Right Heart in the Dyspneic Patient" American Institute of Ultrasound in Medicine National Meeting, New York NY, April 7<sup>th</sup> 2013.
- 2012: Grand Rounds, University of Connecticut Department of Emergency Medicine. Hartford CT, June 21 2012.
- 2012: Society for Academic Emergency Medicine Academy of Emergency Ultrasound. "Academic advancement in emergency ultrasound and emergency medicine". Chicago IL, May 2012.
- 2012: Lecturer, AIUM Preconvention Course. "Advanced Cardiac Assessment". Point-of-care ultrasound in the evaluation and treatment of the unstable patient. Pheonix AZ, March 29 2012.
- 2012: Course Director, New England Emergency and Critical Care Ultrasound Course. Rio Mar Beach Resort, Puerto Rico, March 7-9 2012.
- 2012: "Workflow in Emergency Ultrasound". Philips MEGA Conference, Orlando FL, February 2, 2012.
- 2011: Keynote speaker, 2<sup>nd</sup> International Conference on Visual Technology in Anesthesia, Pain Management, Critical Care, and Emergency Medicine. Chengdu, China.
- 2011: Course director and keynote lecturer for 4<sup>th</sup> New England Emergency and Critical Care Ultrasound Course, "Introduction and Physics"; "Advanced Echocardiography", Newport RI.
- 2011: American College of Emergency Physicians Healthcare Writers Conference, "Technology in the future of Emergency Medicine", New York NY

- 2011: American Institute of Ultrasound in Medicine national meeting, moderator and organizer "Emergency Medicine Fellowship Director Seminar", New York NY
- 2011: Grand Rounds, University of Massachusetts Department of Emergency Medicine, "Emergency ultrasound: the fourth decade", Worcester MA
- 2011: Faculty for hands-on teaching, Society for Simulation in Healthcare national meeting, "Evaluation of procedural competency in a simulated setting", New Orleans LA
- 2010: American Institute of Ultrasound in Medicine, "Ultrasound Assessment of Dyspnea", other lectures within "Cutting Edge Applications of Emergency and Critical Care Ultrasound", Orlando FL
- 2010: American College of Emergency Physicians (ACEP) Emergency Ultrasound Management Course "Equipment purchase", Las Vegas NV
- 2010: The New England Emergency and Critical Care Ultrasound Course, "Emergency echo" and other lectures, Foxwoods resort and casino, Ledyard CT
- 2010: Grand Rounds, Department of Emergency Medicine at Hartford Hospital: "Emergency ultrasound: putting it all together", Hartford CT
- 2009: American Institute of Ultrasound in Medicine, "Meet the professor: thoracic emergencies in critical care", New York NY
- 2008: American College of Emergency Physicians, Emergency Ultrasound Management Course, Chicago IL
- 2008: American Institute of Ultrasound in Medicine (AIUM) "Emergency Echocardiography in the Critically Ill and Injured Patient". San Diego CA
- 2008: AIUM, "Procedural Ultrasound in the Critically Ill and Injured Patient", San Diego CA
- 2008: The New England Emergency Ultrasound Course, "Emergency Echocardiography", Foxwoods Resort, Ledyard CT
- 2008: Visiting professorship, "Introduction to Bedside Emergency and Critical Care Ultrasound" Maribor, Slovenia
- 2008: The Heart Course. "Emergency Echocardiography", Boston MA
- 2007: "The Emergency Ultrasound Course". St. Francis Hospital, Hartford CT
- 2007: American College of Emergency Physicians (ACEP), "Emergency Ultrasound Management Course". Seattle WA
- 2007: American College of Emergency Physicians, "Ultrasound for Deep Venous Thrombosis", Seattle WA

- 2007: Grand Rounds, Stonybrook University "Emergency Echo by the Emergency Physician", Port Jefferson, NY
- 2007: Grand Rounds, Massachusetts General, "Emergency Echo by the Emergency Physician", Boston, MA
- 2007: World Congress in Ultrasound, "Bedside Ultrasound in Thoracic Pain", Paris, France
- 2007: Course Director and Lecturer, "Emergency Ultrasound in the Critically Ill and Injured Patient", American Institute of Ultrasound in Medicine pre-congress course, New York, NY
- 2007: Categorical Course Director and Lecturer, "Ultrasound Guidance for Emergent Procedures in the Critically Ill Patient". American Institute of Ultrasound in Medicine, New York, NY
- 2006: Hands-on instruction in sonographic anatomy, Yale University Medical School Anatomy Course, New Haven CT
- 2006: World International Network for Critical Ultrasound (WINFOCUS), 2<sup>nd</sup> World Congress in Ultrasound, "Emergency Echo in Critical Care", and "Advanced Echocardiography", NY, NY
- 2006: New York Academy of Medicine, New York Regional Emergency Ultrasound Conference, "Emergency Ultrasound in Acute Dyspnea", NY, NY
- 2006: American Institute of Ultrasound in Medicine, National Meeting, "Images in Emergency Ultrasound", Washington, D.C.
- 2005: American College of Emergency Physicians Scientific Assembly, "Vascular Ultrasound Skills", Washington, D.C.
- 2005: American College of Emergency Physicians Scientific Assembly, "Emergency Ultrasound Management Course", Washington, D.C.
- 2005: New York Academy of Medicine, New York Regional Emergency Ultrasound Conference, "Ultrasound For Pneumothorax", NY, NY
- 2005: Southern New England Emergency Ultrasound Course, "Emergency Echocardiography", Wallingford, CT
- 2004: American College of Emergency Physicians Scientific Assembly, "Venous Ultrasound Skills" San Francisco CA
- 2004: American College of Emergency Physicians, "Emergency Ultrasound Management Course", San Francisco, CA
- 2004: American Institute of Ultrasound in Medicine, "Evaluation of Dyspnea with Bedside Emergency Ultrasound", Phoenix AZ

- 2004: Society for Academic Emergency Medicine, “Ultrasound in Community Emergency Departments”, Orlando, FL
- 2004: Connecticut College of Emergency Physicians, Course Director, Southern New England Emergency Ultrasound Course, Wallingford, CT
- 2003: Connecticut Emergency Department Director’s Meeting, Wallingford, CT “Emergency Physician Ultrasound in Community Emergency Departments”
- 2003: Connecticut College of Emergency Physicians Annual Meeting, “Emergency Echocardiography by the Emergency Physician” Mashantucket, CT
- 2003: American College of Emergency Physicians, “Introduction to Emergency Ultrasound Workshop”, New Orleans, LA
- 2003: American College of Emergency Physicians, “Ultrasound in Community Emergency Departments”, Boston MA.
- 2003: Society for Academic Emergency Medicine “Image Orientation in Bedside Echocardiography”, Boston, MA
- 2002: American Academy of Emergency Medicine, “Introduction to Emergency Ultrasound”, San Francisco, CA
- 2001: American College of Emergency Physicians, “Introduction to Pelvic Ultrasound”, Chicago, IL

### **Web-based teaching**

- 2017-present Lead author for web-based ultrasound lectures at Practical Clinical Skills, [www.practicalclinicalskills.com](http://www.practicalclinicalskills.com). Currently 10 online narrated lectures, more pending. Averaging 50-100 viewers per day, double from 2018.
- 2013-present: Yale lead and site editor, ReelDx ([www.reeldx.com](http://www.reeldx.com)); innovative company pursuing case based video teaching.
- 2006-2007: Editor and lecturer, Society for Academic Emergency Medicine web-based ultrasound lectures. Currently housed at [www.eultrasound.us](http://www.eultrasound.us)

### **Professional Service**

#### ***Peer Review Groups/Grant Study Sections***

- 2017 NIH NIDDK Study Section ZRG1 DKUS-R (90) Urologic and Urogynecologic Applications. June 22<sup>nd</sup> 2017, Dallas TX (phone participation).
- 2017 NIH NHLBI R34 Clinical Pilot R34 Study Section. March 17<sup>th</sup> 2017. Bethesda MD (phone participation).
- 2017 NIH NIDDK Study Section ZRG1 DKUS-R (90) Urologic and Urogynecologic Applications. February 23<sup>rd</sup> 2017, Alexandria VA.

2016 NIH NHLBI Clinical Pilot R34 Study Section, October 27<sup>th</sup> 2016, Chevy Chase MD.  
2007-2012 Steering Committee, Pre-test Probability for Pulmonary Embolism Database, Jeff Kline PI, Charlotte NC

**Advisory Boards:**

Technical Expert Panel Co-chair, "Closing the Loop: Incidental Findings", funded by Gordon and Betty Moore Foundation, 2019-2020.

Technical Expert Panel, "Improving Diagnosis of Pulmonary Embolism", funded by Gordon and Betty Moore Foundation, 2019-2020.

Dia Imaging Analysis Ltd. Board of Directors  
2018-present

ReelDx, Advisory Board.  
2014-present

Health in Harmony and ASRI Clinic, Sukadana, Borneo, Indonesia. Ultrasound consultant.  
2013-present

Nyaya Health, Advisory Board Member  
2007-2011

Health Education and Relief Through Teaching (HEARTT)  
2007-2012 Advisor, ultrasound implementation and education

**Journal Service:**

2011-2018 Associate Editor, Academic Emergency Medicine  
2010-present Advisory Editorial Board, Journal of Ultrasound in Medicine  
2008-present Reviewer, Journal of Ultrasound in Medicine  
2006-present Reviewer, American Association of Medical Colleges, MedPortal  
2005-present Reviewer, Emergency Medicine Reports  
2005-present Reviewer, Canadian Journal of Emergency Medicine  
2004-present Reviewer, Academic Emergency Medicine  
2004-present Reviewer, Trauma Reports  
2002-present Abstract Reviewer, Society of Academic Emergency Medicine Annual Meeting  
2003-present Abstract Reviewer, American Institute of Ultrasound in Medicine Annual meeting

**Professional Service for Professional Organizations:**

American Institute of Ultrasound in Medicine

2014- 2016 Annual Convention Committee member  
2014-present Fellow  
2010-2014 AIUM Board of Governors  
2007-2014 Senior Member

2006-2008	Chair, Emergency Ultrasound Section
2004-2006	Vice-Chair, Emergency Ultrasound Section
2003-2004	Secretary, Emergency Ultrasound Section
2008-2015	Clinical Standards Committee
2006-2013	Membership Committee
2005-2012	Continuing Education Committee
2001-present	Member

#### American College of Emergency Physicians

2017-present	ACEP Emergency Quality Network (eQual) Subcommittee Chair, Multispecialty Panel for Renal Colic Imaging
2010-2016	ACEP Liaison to the Integrated Healthcare Enterprise (IHE)
2008-2010	Industry Roundtable Chair, Ultrasound Section, American College of Emergency Physicians
2005-present	Fellow
2000-present	Member

#### Society for Academic Emergency Medicine

2014-2015	Breakout group leader, Comparative Effectiveness in Emergency Medicine Consensus Conference on Diagnostic Imaging
2013-2014	Breakout group leader, Diagnostic Imaging group for Gender Research in Emergency Medicine Consensus Conference
2014-2018	SAEM liaison to ABMS/ACGME Ultrasound Fellowship committee
2012-2014	Research Officer and Board Member, Academy of Emergency Ultrasound
2005-2006	Chair, Ultrasound Interest Group, Society for Academic Emergency Medicine
1998-present	Member

#### World Interactive Network for Critical Ultrasound (WINFOCUS)

2005-present	Founding member
--------------	-----------------

#### Meeting Planning/Participation

2020:	Course Director, Yale Point-of-care Ultrasound Course (Zoom). November 12-13, 2020.
2020:	Course director, Yale Point-of-care Ultrasound Course, March 4-6 <sup>th</sup> 2020, Fort Lauderdale FL.
2019:	Course director, Yale Point-of-care Ultrasound Course, September 4-6, 2020, Newport RI.
2019:	Course director, Yale Point-of-care Ultrasound Course. March 5 <sup>th</sup> -8 <sup>th</sup> 2019, Clearwater FL.
2018:	Course director, Yale Point-of-care Ultrasound Course. September 5-7, 2018, Newport RI.

- 2018: Course director, Yale Point-of-care Ultrasound Course. March 6<sup>th</sup>-9<sup>th</sup> 2018, Clearwater FL.
- 2017: Co-chair, AHRQ Funded Summit *Challenges and Opportunities for Stewardship of Urological Imaging*. American Urological Association, Bethesda MD, November 2017.
- 2017: Course director, Yale Point-of-care Ultrasound Course. September 8<sup>th</sup>-9<sup>th</sup>, 2017. Newport RI.
- 2017: Course director, Yale Point-of-care Ultrasound Course. March 1<sup>st</sup>-3<sup>rd</sup> 2017, Clearwater FL.
- 2016: Course director, Point-of-care Ultrasound Pre-course, African Federation of Emergency Medicine, November 2016, Cairo Egypt.
- 2016: Course co-director, "Yale New England Point-of-care Ultrasound Course", September 8-9, 2016, Newport RI.
- 2016: Course co-director and lecturer, "Yale Caribbean Point-of-care Ultrasound Course", February 2016, Miami FL.
- 2015: Course co-director and lecturer, "The New England Point-of-care Ultrasound Course", September 2015, Newport RI.
- 2015: Breakout Group Leader on Comparative Effectiveness Research, Society for Academic Emergency Medicine Consensus Conference on Imaging in the Acute Setting, San Diego CA May 2015
- 2015: Course Co-director, The Yale Caribbean Point-of-care Ultrasound Course. San Juan PR March 2015.
- 2014: Course Director, Good Samaritan Medical Center Point-of-Care Ultrasound in Critical Care, Brockton MA
- 2014: Course Co-director, "The New England Emergency Ultrasound Course", Newport RI
- 2014: Breakout Group Leader on Diagnostic Imaging, Society for Academic Emergency Medicine Consensus Conference on Gender Research, Dallas TX
- 2013: Course Director, "The New England Point-of-care Ultrasound Course", Newport RI
- 2013: Course Director, "The Yale Caribbean Point-of-care Ultrasound Course" San Juan PR
- 2012: Course Director, "The New England Point-of-care Ultrasound Course", Newport RI

- 2011: Course Director, "The New England Emergency and Critical Care Ultrasound Course", Newport RI
- 2010: Course Director, "Emerging Applications for Point-of-Care Ultrasound". Sponsored by the American Institute of Ultrasound in Medicine, Orlando, FL
- 2010: Course Director, third annual "New England Emergency and Critical Care Ultrasound Course". Foxwoods Resort, CT
- 2009: Course Director, second annual "New England Emergency and Critical Care Ultrasound Course". Foxwoods Resort, CT
- 2008: American College of Emergency Physicians, Industry Roundtable Meeting (Emergency Ultrasound Section), Chicago IL
- 2008: Course Director, "Emergency Ultrasound in the Critically Ill and Injured Patient". American Institute of Ultrasound in Medicine Annual Meeting, San Diego CA
- 2008: Course Director, "Hands-on Procedural Ultrasound in the Critically Ill and Injured Patient", American Institute of Ultrasound in Medicine, San Diego CA
- 2008 Course director, "New England Emergency Ultrasound Course", co-sponsored by Yale and the Connecticut College of Emergency Physicians. Foxwoods Casino, Ledyard CT
- 2007 Course Director, "Ultrasound in the Critically Ill and Injured Patient", American Institute of Ultrasound in Medicine, NY NY
- 2005 Course director, "Connecticut College of Emergency Physicians Emergency Ultrasound Course", Shoreline Medical Center, Guilford CT
- 2004 Course director, "Connecticut College of Emergency Physicians Emergency Ultrasound Course", Wallingford CT

### ***Yale University Service:***

#### Hospital Boards & Committees

- 2017-present Lead, Yale Point-of-care Ultrasound Committee (YPUC), multispecialty group within Yale system
- 2017-present Liaison EPIC and ACR Select ED Imaging
- 2014-present Decision support for ED imaging; chair of PE Imaging Committee
- 2012-present Member, PE Rapid Response planning committee
- 2004-2006 Emergency Department Lynx Implementation Committee
- 2008-2010 New Emergency Environment of Care Committees (Concepts, Layout, Systems, and Interdisciplinary Design Team).

### **Public Service:**

2009-2017 Member, Guilford Board of Education, Guilford CT  
2017-2019 Chair, School Start Times Task Force, Guilford CT

## Bibliography:

### 1. Peer-Reviewed Manuscripts

1. Yuan R, Plurde R, Shoemaker MR, **Moore CL**, Hanson DE. A mimic of a torsionally-distorted peptide state and the transition state for peptide bond hydrolysis: synthesis of a spiro[4.4]nonyl derivative. *J Organ Chem* 1995; 60:5360-5364.
2. Cope JT, Mauney MC, Banks D, Binns OA, **Moore CL**, Rentz JJ, Shockey KS, King RC, Kron IL, Tribble CG. Intravenous phenylephrine preconditioning of cardiac grafts from non-heart-beating donors. *Ann Thorac Surg* 1997; 63:1664-1668.
3. **Moore CL**, Rose GA, Arrowood JA, Sullivan DM, Tayal VS, Kline JA. Determination of left ventricular function in hypotensive emergency department patients by emergency physician echocardiography. *Acad Emerg Med* 2002; 9:186-193.
4. **Moore CL**, Lambert MJ. Emergency ultrasound: diagnosis of deep venous thrombosis. *Emerg Med Reports* 2003; 24:11-27.
5. **Moore CL**, Gregg S, Lambert MJ. Performance, training, quality assurance, and reimbursement of emergency physician-performed ultrasound at academic medical centers. *J Ultrasound Med* 2004; 23:459-466.
6. **Moore CL**, Promes S. Ultrasound in pregnancy. *Emerg Med Clin N Amer* 2004; 22:697-722.
7. Chen L, Hsiao A, **Moore CL**, Dziura J, Santucci K. Utility of bedside bladder ultrasound before urethral catheterization in young children. *Pediatrics* 2005; 115: 108-111.
8. Monico EB, **Moore CL**, Calise A. The impact of evidence-based medicine and evolving technology on the standard of care in emergency medicine. *J Law Health Ethics* 2005; 3(2).
9. **Moore CL**, Molina A, Lin H. Ultrasound in community emergency departments in the United States: access to ultrasound performed by consultants and status of emergency physician performed ultrasound. *Ann Emerg Med* 2006; 47:147-153.
10. **Moore CL**, Todd WM, O'Brien EA, Lin H. Free fluid in Morison's pouch on bedside ultrasound predicts need for operative intervention in suspected ectopic pregnancy. *Acad Emerg Med* 2007; 14: 755-758.
11. Chen L, Kim Y, **Moore CL**. Diagnosis and guided reduction of forearm fractures in children using bedside ultrasound. *Ped Emerg Care* 2007; 23: 528-531.
12. **Moore CL**. Current issues with emergency cardiac ultrasound probe conventions. *Acad Emerg Med* 2008; 15: 278-284.

13. Kline JA, Courtney DM, Kabrhel C, **Moore CL**, et al. Prospective multicenter validation of the pulmonary embolism rule-out criteria. *J Thromb Haem*, 2008; 6: 772-780.
14. Kotlyar S, **Moore CL**. Assessing the utility of ultrasound in Liberia. *J Emerg Trauma Shock* 2008; 1:1: 10-14.
15. **Moore CL**, Holliday SR, Hwang JQ, Osborne MR. Screening for abdominal aortic aneurysm in asymptomatic at-risk patients using emergency ultrasound. *Am J Emerg Med* 2008; 26: 883-887.
16. Kabrhel C, Courtney DM, Camargo CA, **Moore CL**, Richman PB, Plewa MC, Nordenholz KE, Smithline HA, Beam DA, Brown MD, Kline JA. Potential impact of adjusting the threshold of the quantitative D-dimer based on pretest probability of acute pulmonary embolism. *Acad Emerg Med*, 2009; 16: 325-332.
17. **Moore CL**, Meyers AB, Capotasto J, Bokhari J. Prevalence of abnormal CT findings in patients with proven ovarian torsion and a proposed triage schema. *Emerg Radiol* 2009; 16: 115–120.
18. Schuster KM, Lofthouse R, **Moore CL**, Lui F, Kaplan LJ, Davis KA. Pulseless electrical activity, focused abdominal sonography for trauma, and cardiac contractile activity as predictors of survival after trauma. *J Trauma*, 2009; 67: 1154-1157.
19. Beam DM, Courtney DM, Kabrhel C, **Moore CL**, Richman PB, Kline JA. Risk of thromboembolism varies, depending on category of immobility in outpatients. *Ann Emerg Med* 2009; 54:147-152.
20. Courtney DM, Kline JA, Kabrhel C, **Moore CL**, Smithline HA, Nordenholz KE, Richman PB, Plewa MC. Clinical features from the history and physical examination that predict the presence or absence of pulmonary embolism in symptomatic emergency department patients: results of a prospective, multicenter study. *Ann Emerg Med* 2010; 55: 307-315.
21. **Moore CL**, Tham ET, Samuels KJ, McNamara RL, Galante NJ, Stachenfeld N, Shelley K, Dziura J, Silverman DG. Tissue Doppler of early mitral filling correlates with simulated volume loss in healthy subjects. *Acad Emerg Med* 2010; 17: 1162-1168.
22. Evans LV, Dodge KL, Shah TD, Kaplan LJ, Siegel MD, **Moore CL**, Hamann CJ, Lin ZQ, D’Onofrio GD. Simulation training in central venous catheter insertion: improved performance in clinical practice. *Acad Med* 2010; 85: 1462-1469.
23. Maru DS, Schwarz R, Andrews J, Basu S, Sharma A, **Moore CL**. Turning a blind eye: the mobilization of radiology services in resource-poor regions. *Globalization and Health* 2010; 6: 1-8.
24. Markowitz JE, Hwang JQ, **Moore CL**. Development and validation of a web-based assessment tool for the extended focused assessment with sonography in trauma examination. *J Ultrasound Med* 2011; 30:371-375.

25. **Moore CL**, Copel JA. Current concepts: point-of-care ultrasonography. *N Engl J Med* 2011; 364: 749-757.
26. **Moore CL**. Credentialing and reimbursement in point-of-care ultrasound. *Clin Ped Emerg Care* 2011. 12: 73-77.
27. Manson WC, Bonz JW, Carmody K, Osborne M, **Moore CL**. Identification of Sonographic B-lines with Linear Transducer Predicts Elevated B-Type Natriuretic Peptide Level. *West J Emerg Med* 2011; 12:102-106.
28. **Moore CL**. Ultrasound-guided procedures in emergency medicine. *Ultrasound Clin* 2011; 6: 277-289.
29. Gilbert JW, Johnson KM, Larkin GL, **Moore CL**. Atraumatic headache in US emergency departments: recent trends in CT/MRI utilisation and factors associated with severe intracranial pathology. *Emerg Med J* 2012; 29:576-581.
30. Kotlyar S, Larkin GL, **Moore CL**, D'Onofrio G. S100B Immunoassay: an assessment of diagnostic utility in minor head trauma. *J Emerg Med* 2011; 41: 285-293.
31. Taylor RA, Oliva I, VanTonder R, Eleftheriades J, Dziura J, **Moore CL**. Point-of-care Focused Cardiac Ultrasound for the Assessment of Thoracic Aortic Dimensions, Dilation, and Aneurysmal Disease. *Acad Emerg Med* 2012; 19: 244-247.
32. Dodge KA, Lynch CA, **Moore CL**, Birosack BJ, Evans LV. Use of ultrasound guidance improves central venous catheter insertion success rates among junior residents. *J Ultrasound Med* 2012; 31: 1519-1526.
33. Venkatesh AK, Kline JA, Courtney DM, Camargo CA, Plewa MC, Nordenholz KE, **Moore CL**, Richman PB, Smithline HA, Beam DM, Kabrhel C. Evaluation of pulmonary embolism in the emergency department and consistency with a national quality measure: quantifying the opportunity for improvement. *Arch Intern Med* 2012; 1028-1032.
34. **Moore CL**, Scoutt Leslie. Sonography first for acute flank pain? *J Ultrasound Med* 2012; 31: 1703-1711.
35. **Moore CL** (chair of committee), "AIUM Practice Guideline: Use of ultrasound to guide vascular access procedures" *J Ultrasound Med* 2013; 32: 191-215.
36. **Moore CL**, Daniels B, Singh D, Luty S, Molinaro A, Gross C. Prevalence and Clinical Importance of Alternative Causes of Symptoms Using a Renal Colic Computed Tomography Protocol in Patients with Flank or Back Pain and Absence of Pyuria. *Acad Emerg Med* 2013; 20: 470-478.
37. Taylor RA, Davis J, **Moore CL**. Point-of-care Focused Cardiac Ultrasound for Prediction of Pulmonary Embolism Adverse Outcomes. *J Emerg Med* 2013; 45: 392-399.

38. Hall MK, Spiro DM, Sabbaj A, **Moore CL**, Hopkins KL, Meckler GD. Bedside optic nerve sheath diameter ultrasound for the evaluation of suspected pediatric ventriculoperitoneal shunt failure in the emergency department. *Childs Nerv Syst* 2013; 29: 2275-2280.
39. Thomas S, **Moore CL**. The Vanishing Target Sign: Confirmation of Intraluminal Needle Position for Ultrasound Guided Vascular Access. *Acad Emerg Med* 2013; 20: e17-e18.
40. Herbst MK, Rosenberg G, Daniels B, Gross CP, Singh D, Molinaro AM, Luty S, **Moore CL**. Clinician performed ultrasound for hydronephrosis in patients with suspected renal colic based on level of provider experience. *Ann Emerg Med* 2013; 20: 470-478.
41. Kotlyar S, Nteziyaremye J, Oluput-Oluput P, Akech SO, **Moore CL**, Maitland K. Spleen volume and clinical manifestations of severe *Plasmodium falciparum* malaria in African children. *Trans R Soc Trop Med Hyg* 2014; 108: 283-289.
42. Taylor RA, **Moore CL**. Accuracy of emergency physician-performed limited echocardiography for right ventricular strain. *Am J Emerg Med* 2014; 32: 371-374.
43. Lukasiewicz A, Bhargavan M, Coombs L, Ghita M, Weinreb J, Gunabushanam G, **Moore CL**. Radiation Dose Index of Renal Colic Protocol CT Scans in the United States: A Report from the American College of Radiology National Radiology Data Registry. *Radiology* 2014; 271: 445-451.
44. **Moore CL**, Bomann S, Daniels B, Luty S, Molinaro A, Singh D, Gross CP. Derivation and validation of a clinical prediction rule for uncomplicated ureteral stone – the STONE score: retrospective and prospective observational cohort studies. *BMJ* 2014; 348: g2191.
45. **Moore CL**. Ultrasound first, second, and last for vascular access. *J Ultrasound Med* 2014; 33:1135-1142.
46. Ashurst JV, Cherny AR, Evans EM, Hall MK, Hess EP, Kline JA, Mitchell AM, Mills AM, Weigner MB, **Moore CL**. Research priorities for the influence of gender on diagnostic imaging choices in the emergency department setting. *Acad Emerg Med*, 2014; 21: 1431-1437.
47. Samim M, Goss S, Luty S, Weinreb J, **Moore CL**. Incidental findings on CT for suspected renal colic in emergency department patients: prevalence and types in 5,383 consecutive examinations. *J Am Coll Radiol*, 2015; 12:63-69.
48. Herbst MK, Camargo CA, Perez A, **Moore CL**. Use of point-of-care ultrasound in Connecticut emergency departments. *J Emerg Med*, 2015; 48: 191-196.
49. **Moore CL**, Daniels B, Ghita M, Gunabushanam G, Luty S, Molinaro AM, Singh Dinesh, Gross CP. Accuracy of reduced-dose computed tomography for ureteral stones in emergency department patients. *Ann Emerg Med*, 2015; 65: 189-198.

50. Hall MK, Coffey D, Herbst M, Liu R, Pare J, Taylor RA, Thomas S, **Moore CL**. The “5Es” of Emergency Physician-performed Focused Cardiac Ultrasound: a Protocol for Rapid Identification of Effusion, Ejection, Equality, Exit, and Entrance. *Acad Emerg Med*, 2015; 22: 583-593.
51. Hall MK, Rizzollo L, **Moore CL**. The student’s dilemma, liver edition: Incorporating the sonographer’s language into clinical anatomy education. *Anat Sci Education* 2015; 8: 283-288.
52. **Moore CL**, Broder, J, Gunn M, et al. Comparative Effectiveness Research: Alternatives to "Traditional" CT Use in the Acute Care Setting. *Acad Emerg Med* 2015; 22: 1465-1473.
53. Kanzaria HK, Hall MK, **Moore CL**, Burstin H. Emergency Department Diagnostic Imaging: The Journey to Quality. *Acad Emerg Med* 2015; 22:1380–4.
54. Pare JR, **Moore CL**. Intravenous Infiltration Resulting in Compartment Syndrome: A Systematic Review. *J Patient Saf* 2015; 00:1–3.
55. **Moore CL**. Does Ultrasound Improve Clinical Outcomes? Prove It. *Crit Care Med* 2015; 43: 2682–3.
56. Russell FM, **Moore CL**, Courtney DM, et al. Independent evaluation of a simple clinical prediction rule to identify right ventricular dysfunction in patients with shortness of breath. *Am J Emerg Med* 2015; 33: 542–7.
57. Daniels B, Gross CP, Molinaro A, Singh D, Luty S, Jessey R, **Moore CL**. STONE PLUS: Evaluation of Emergency Department Patients With Suspected Renal Colic, Using a Clinical Prediction Tool Combined With Point-of-Care Limited Ultrasonography. *Ann Emerg Med* 2016; 67: 439–48.
58. Pare JR, Liu R, **Moore CL**, et al. Emergency physician focused cardiac ultrasound improves diagnosis of ascending aortic dissection. *Am J Emerg Med* 2016; 34: 486–92.
59. Hall MK, Omer T, **Moore CL**, Taylor RA. Cost-effectiveness of the Cardiac Component Trauma Examination in Blunt Trauma. *Acad Emerg Med* 2016; 23: 415–23.
60. **Moore CL**, Daniels B, Singh D, Luty S, Gunabushanam G, Ghita M, Gross CP. Implementation of a Reduced Dose CT Protocol in ED Patients with Moderate to High Likelihood of Ureteral Stone. *Radiology* 2016; 280: 743-751.
61. Hall MK, Taylor RA, Luty S, Allen IE, **Moore CL**. Impact of point-of-care ultrasonography on ED time to disposition for patients with nontraumatic shock. *Am J Emerg Med* 2016; 34: 1022-30.
62. Hall MK, Hall J, Gross CP, Harish NJ, Liu R, Maroongroge S, **Moore CL**, Raio CC, Taylor RA. Use of Point-of-care Ultrasound in the Emergency Department. *J Ultrasound Med* 2016; 35: 2467-2474.

63. Gaspari R et al. Emergency department point-of-care ultrasound in out-of-hospital and in-ED cardiac arrest. *Resuscitation* 2016; 109: 33-39.
64. Pare JR, Liu R, **Moore CL**, Safdar B. Corrected flow time: a noninvasive ultrasound measure to detect preload reduction by nitroglycerin. *Amer J Emerg Med* 2016; 34: 1859-1862.
65. Daley J, Grotberg J, Pare J, Medoro A, Liu R, Hall MK, Taylor RA, **Moore CL**. Emergency physician performed tricuspid annular plane systolic excursion in the evaluation of suspected pulmonary embolism. *Amer J Emerg Med* 2017; 35: 106-111.
66. Liu RB, Donroe JH, McNamara RL, Forman HP, **Moore CL**. The Practice and Implications of Finding Fluid During Point-of-Care Ultrasonography. *JAMA Intern Med* 2017; 177: 1818-25. <https://doi.org/10.1001/jamainternmed.2017.5048>
67. Daniels B., Schoenfeld E, Taylor A, Weisenthal K, Singh D, **Moore CL**. Predictors of Hospital Admission and Urological Intervention in Adult Emergency Department Patients with Computerized Tomography Confirmed Ureteral Stones. *Journal of Urology* 2017; 198: 1359–1366. <https://doi.org/10.1016/j.juro.2017.06.077>
68. Gaspari R, Weekes A, Adhikari S, Noble V, et al.. (2017). A retrospective study of pulseless electrical activity, bedside ultrasound identifies interventions during resuscitation associated with improved survival to hospital admission. A REASON Study. *Resuscitation* 2017; 120: 103–107. <https://doi.org/10.1016/j.resuscitation.2017.09.008>
69. Revzin MV, Scoutt LM, Garner JG, **Moore CL**. Right Upper Quadrant Pain: Ultrasound First. *Journal of Ultrasound in Medicine* 2017; 36: 1975–1985. <https://doi.org/10.1002/jum.14274>
70. Wang, RC, Addo N, Chi T, **Moore CL**, et al. (2017). Medical expulsive therapy use in emergency department patients diagnosed with ureteral stones. *American Journal of Emergency Medicine* 2017; 35: 1069–1074. <https://doi.org/10.1016/j.ajem.2017.02.040>
71. Malhotra A, Wu X, Forman HP, Grossetta Nardini HK, Matouk CC, Gandhi D, **Moore CL**, Sanelli P. Growth and Rupture Risk of Small Unruptured Intracranial Aneurysms: A Systematic Review. *Ann Intern Med* 2017; 167: 26-33.
72. Weisenthal K, Karthik P, Shaw M, Sengupta D, Bhargavan-Chatfield M, Burleson J, Mustafa A, Kalra M, **Moore CL**. (2018). Evaluation of Kidney Stones with Reduced-Radiation Dose CT: Progress from 2011-2012 to 2015-2016- Not There Yet. *Radiology*. 2018 Feb;286(2):581-589. <https://doi.org/10.1148/radiol.2017170285>.
73. **Moore CL**, McNamara K, Liu R. (2018) Challenges and Changes to the Management of Pulmonary Embolism in the Emergency Department. *Clin Chest Med*. 2018;39: 539-547. <https://doi.org/10.1016/j.ccm.2018.04.009>.
74. Pare JR, **Moore CL**. Intravenous Infiltration Resulting in Compartment Syndrome: A Systematic Review. *J Patient Safety* 2018; 14: e6-e8. PMID: 26241617

75. Taylor RA, **Moore CL**, Cheung KH, Brandt C: Predicting urinary tract infections in the emergency department with machine learning. *PLoS One* 2018; e.0194085. PMID: 29513742
76. Kotlyar S, Olupot-Olupot P, Nteziyaremye J, Akech SO, Uyoga S, Muhindo R, **Moore CL**, Maitland K: Assessment of Myocardial Function and Injury by Echocardiography and Cardiac Biomarkers in African Children With Severe Plasmodium falciparum Malaria. *Pediatr Crit Care Med* 2018; 19: 179-185. PMID: 29206727
77. Goehler A, **Moore CL**, Manne-Goehler JM, Arango J, D'Amato L, Forman HP, Weinreb J: Clinical Decision Support for Ordering CTA-PE Studies in the Emergency Department-A Pilot on Feasibility and Clinical Impact in a Tertiary Medical Center. *Acad Radiol* 2019; 26: 1077-83. PMID: 30389307
78. **Moore CL**, et al.. AIUM Practice Parameter for the Use of Ultrasound to Guide Vascular Access Procedures. *J Ultrasound Med* 2019; 38:E4-E18.
79. **Moore CL**, et al. Imaging in Suspected Renal Colic: Systematic Review of the Literature and Multispecialty Consensus. *Ann Emerg Med* 2019; 74: 391–399.
80. **Moore CL**, et al. Imaging in Suspected Renal Colic: Systematic Review of the Literature and Multispecialty Consensus. *J Am Coll Radiol* 2019; 16: 1132–1143.
81. **Moore CL**, et al., Imaging in Suspected Renal Colic: Systematic Review of the Literature and Multispecialty Consensus. *J Urol* 2019; 202:475–483.
82. Pan S, Su JJ, Syed J, **Moore CL**, Israel F, Singh D: Reduced Dose Computed Tomography: The Effects of Voltage Reduction on Density Measurements of Urolithiasis. *J Endourology* 2019; 33: 682-686.
83. Daley J, et al., **Moore CL**. Increased Sensitivity of Focused Cardiac Ultrasound for Pulmonary Embolism in Emergency Department Patients with Abnormal Vital Signs. *Acad Emerg Med* 2019.
84. Liu, R. B. *et al.*, **Moore CL**. Point-of-Care Ultrasound: Does it Affect Scores on Standardized Assessment Tests Used Within the Preclinical Curriculum? *J. Ultrasound Med.* 2019; 38: 433–440.
85. Liu, R. B. *et al.*, **Moore CL**, Cone DC. Guiding Cardiopulmonary Resuscitation with Focused Echocardiography: A Report of Five Cases. *Prehospital Emerg. Care* 2020; 24: 297–302.
86. Liu, R.B., *et al.*, **Moore CL**. Ultrasound on the Frontlines of COVID-19: Report from an International Webinar. *Acad Emerg Med* 2020. Accepted in press online ahead of print doi:10.1111/ACEM.14004. PMID 32348585
87. Baloescu, C, Toporek Grzegorz, Kim Seungsoo, McNamara Katelyn, Liu Rachel, Melissa Shaw, Robert L. McNamara, Raju Balasundar, and **Moore CL**. 2020. "Automated Lung Ultrasound B-Line Assessment Using a Deep Learning Algorithm."

*IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*. DOI 10.1109/TUFFC.2020.3002249

88. **Moore CL**, Kadom N, Seidenwurm D, et al. Incidental Findings: A Survey of Radiologists and Emergency Physicians. *Journal of the American College of Radiology (JACR)*. In press 2021.

## 2. Case Reports, Technical Notes, Letters, Lay Press

1. Mariani PJ, **Moore CL**, Kline J. Consent for emergency physician—performed echocardiography. *Acad Emerg Med* 2002; 9:1049.
2. **Moore CL**. Surgeon performed ultrasound for pneumothorax in the trauma suite. *J Trauma* 2004; 57(3):681-682.
3. **Moore CL**, Vasquez N, Lin H, Kaplan L. Major vascular injury after laparoscopic tubal ligation. *J Emerg Med* 2005; 29:67-71.
4. Schechter E, Lazar J, Nix EM, Mallon WK, **Moore CL**. Identification of subcutaneous myiasis using bedside emergency physician performed ultrasound. *J Emerg Med* 2007; 40:e1-3.
5. Bomann JS, **Moore CL**. Bedside ultrasound of a painful testicle: before and after manual detorsion by an emergency physician. *Acad Emerg Med* 2009; 16(4): 366.
6. Boman JS, **Moore CL**. Emergency department echocardiogram of right ventricle thrombus and McConnell's sign in a patient with dyspnea. *Acad Emerg Med* 2009; 16(5): 474.
7. Bomann JS, Tham E, McFadden P, Krochmal P, **Moore CL**. Bedside ultrasound of a painful finger: Knavel's fifth sign? *Acad Emerg Med* 2009; 16(10): 1034-1035.
8. Walsh B, Bomann JS, **Moore CL**. Diagnosing infective endocarditis by emergency department echocardiogram. *Acad Emerg Med* 2009; 16(6): 572-573.
9. **Moore CL**. Why I ration care. *Newsweek*, 2009. November 2<sup>nd</sup>, page 13.
10. Noble VE, Blaivas M, Blankenship R, Chiricolo G, Dean A, Fox JC, Gaspari R, Hoffman B, Jones R, **Moore CL**, Sierzinski P, Tayal V, Tillotson R. Decision rule for imaging utilization in blunt abdominal trauma – where is ultrasound? *Ann Emerg Med* 2010; 55(5); 487-488.
11. Sutijono D, Pace C, **Moore CL**. Emergency ultrasound diagnosis of a ruptured angiomyolipoma causing acute anemia. *Crit Ultrasound J* 2010; 1(3):123-5.
12. Walsh B, Sutijono D, **Moore CL**. Emergency ultrasound diagnosis of a traumatic renal cyst rupture. *Crit Ultrasound J*; 2010; 1(3):127-8.
13. Sutijono D, VanTonder R, **Moore CL**. Point-of-care Sonographic Diagnosis of Abdominal Wall Venous Thrombosis Associated With Inferior Vena Cava Ligation Masquerading as Cellulitis. *J ultrasound Med*. 2010;29:1643–1645.

14. **Moore CL**. Not-so-new dogs and not-so-old tricks: is there a middle ground for ED ultrasound? *Acad Emerg Med*. 2011; 18(3): 311-312.
  15. Sutijono D, Bomann JS, **Moore CL**, vanTonder R. Twinkle twinkle little stone: utilizing color Doppler in emergency ultrasound diagnosis of ureterovesicular stone. *Crit Ultra J*. 2010;2(2):77-79.
  16. **Moore CL**, Copel JA. Point-of-care ultrasound (letter and reply). *N Engl J Med*. 2011; 364(21): 2075-2076.
  17. Raio C, Ash A, Nelson M, **Moore CL**. Outcome following high-dose methotrexate in pregnancies misdiagnosed as ectopic. *Am J Ob Gyn*. 2011, available online January 28, 2012.
  18. Bomann S, VanTonder R, Hernandez S, **Moore CL**. Abdominal a-lines: a simpler sonographic sign of pneumoperitoneum? *Crit Ultra J* 2011; 3(1):41-42.
  19. **Moore CL**, et al., "Re: A survey of emergency physician-performed ultrasound: implications for academic radiology departments" *J Amer Coll Radiol*. 2012; 9(1): 81-82.
  20. **Moore CL**. Time to abandon the term "3 in 1" Block. *Ann Emerg Med* 2015;66(2):215.
  21. **Moore CL**, Daniels B, Luty S, Gross CP. The "Sinking" STONE. *Ann Emerg Med* 2016;68(1):131-2.
  22. **Moore CL**, Daniels B, Gross CP, Luty S, Singh D. External Validation of the STONE Score. *Ann Emerg Med* 2016;67(2):301–2.
  23. Pare JR, **Moore CL**. Defining fluid responsiveness by the velocity-time-integral alone? *J Ultra Med* 2016;35(2):459-460.
  24. Gaspari, R. et al. Reply to Letter: Letter to the Editor regarding Gaspari and colleague's "Emergency department point-of-care ultrasound in out-of-hospital cardiac arrest" *Resuscitation* 2017;114:e7-e8.
  25. **Moore CL**, Liu R. Not so FAST – let's not abandon the pediatric focused assessment with sonography in trauma yet. *J Thoracic Dis* 2018; 10(1):1-3.
3. Reviews, Chapters, Books
1. Blackbourne LH, editor (**Moore CL**, associate editor), *Surgical Recall*, 2<sup>nd</sup> edition. Williams and Wilkins, Baltimore, MD; 1998
  2. Antevil JA and **Moore CL**, co-editors, *Anatomy Recall*. Williams and Wilkins, Baltimore, MD; 2000
  3. Tayal VS and **Moore CL**. Emergency Echocardiography, in: *Emergency Ultrasound*, Ma OJ (ed.), McGraw Hill; 2002

4. **Moore CL**, Contributor, Emergency Medicine Examination & Board Review, Susan Promes (ed.), McGraw Hill; 2005
5. **Moore CL**, Lin H, Echocardiography, in: Practical Guide to Emergency Ultrasound, John Kendall (ed.), Lipincott Williams and Wilkins; 2005
6. **Moore CL**. Emergency Pelvic Ultrasound, in: Ultrasound-Guided Procedures and Investigations, David Feller-Kopman (ed.), Marcell Dekker 2006.
7. **Moore CL**, Hwang J. Emergency Bedside Echocardiography. Clinical Emergency Radiology. Chris Fox (ed.), Cambridge University Press; 2008.
8. Carmody K, **Moore CL**, Feller-Kopmann D, editors, Critical Care and Emergency Ultrasound Manual, McGraw Hill; 2011.
9. **Moore CL**, Gender and Diagnostic Imaging. Gender and Sex in Acute Care Medicine, Cambridge University Press; 2016.
10. Liu R, **Moore CL**, Tayal V. Ultrasound Equipment Purchase. In Ultrasound Program Management, Springer; 2018.
11. Avila J, Combs J, **Moore CL**. Ultrasound for Abdomen and FAST. In Ultrasound Fundamentals: An Evidence-Based Guide for Medical Practitioners, Springer 2019.
12. Arthur J, Bomann S, **Moore CL**. Practicality of Ultrasound Emergency Medicine. In Ultrasound Fundamentals: An Evidence-Based Guide for Medical Practitioners, Springer 2019.