



## Laleh Gharahbaghian

Clinical Professor, Emergency Medicine

 Curriculum Vitae available Online

### CLINICAL OFFICES

- **Stanford Emergency Department**

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### Bio

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#### BIO

Dr. Laleh Gharahbaghian was born in Iran and came to the United States at the young age of 3, growing up in San Diego where she became an avid beachgoer and body surfer. She started volunteering at various community organizations, including the AIDS Foundation and San Diego's Youth and Community Services, at the age of 16 due to her commitment for giving back to the community in areas where not many would tread. This is why she created the Determined Advocates for Social Health at UCSD while an undergraduate, which began her interest in the field of medicine. Working in the 911 dispatch center and on a paramedic unit in the years before entering medical school, her interest in emergency medicine flourished.

She is an academic emergency physician who completed her fellowship in Emergency Ultrasound in 2007 at Stanford and remained on the Stanford faculty, now serving as Assistant Medical Director for Emergency Imaging and the Director of the Emergency Ultrasound program and fellowship. Her interests include ultrasound in medical education, quality improvement, resident education, and simulation-based ultrasound training, including procedural skills training and case-based learning for ultrasound interpretation and integration. Her research involves the study of various point-of-care ultrasound applications in the management of critical patients, in the screening of trauma patients, and in its education through simulation models. She is a leader in the national bedside ultrasound educational impact, has lead several very successful educational innovations in emergency ultrasound, including her internationally-known blog, SonoSpot.com, and being the first to create an online ultrasound-focused educational opportunity through gamification with SonoDoc. Due to her belief that adding ultrasound can enhance learning of the human body and disease while quickening diagnoses and life-saving interventions, she has co-directed UltraFest, a free national medical student ultrasound symposium at Stanford, and travels internationally to provide educational sessions on ultrasound integration into emergency practice at various developed and underdeveloped countries and rural village clinics. She continues to direct bi-annual ultrasound CME workshops and instruct at several successful national CME ultrasound workshops, including at the national scientific assembly for the American College of Emergency Physicians (ACEP) and Stanford's Point-of-Care Ultrasound Workshop.

She is the Co-Chair of ACEP's Ultrasound Section Newsletter that publishes interesting cases and topics in bedside ultrasound quarterly and is a Faculty Mentor in the Chief Resident and Fellowship Incubator for the internationally known Academic Life in Emergency Medicine group. These educational efforts and her supervisory role in the emergency department have resulted in many faculty teaching awards. By being the Co-Chair of the Professional Performance and Evaluation Committee and continuing to work in the emergency department to care for her patients, she continues to be an advocate for social health, providing the highest quality of care, and ensuring that all patients and their family members feel assured that they are in good hands.

## **CLINICAL FOCUS**

- Emergency Medicine
- Bedside Ultrasound
- Quality Care
- Patient Safety
- Clinical Operations

## **ACADEMIC APPOINTMENTS**

- Clinical Professor, Emergency Medicine

## **ADMINISTRATIVE APPOINTMENTS**

- Medical Director, Department of Emergency Medicine, (2017- present)
- Co-Chair, Professional Practice Evaluation Committee, Emergency Medicine, (2016- present)
- Patient Safety Champion, Stanford HealthCare, Emergency Department, (2016- present)
- Trauma Liaison, Department of Emergency Medicine, (2016- present)
- Assistant Medical Director, Emergency Imaging, Department of Emergency Medicine, (2016-2017)
- Radiology Liaison, Department of Emergency Medicine, (2014- present)
- Director, Emergency Ultrasound Fellowship, (2013-2017)
- Director, Stanford Emergency Ultrasound, (2011-2017)
- Co-Director, Emergency Ultrasound Fellowship, (2008-2013)
- Associate Director, Stanford Emergency Ultrasound, (2008-2011)

## **HONORS AND AWARDS**

- SV Mahadevan Leadership Award, Stanford Emergency Medicine (2018)
- Teaching Excellence Award, Society of Academic Emergency Medicine, Academy of Emergency Ultrasound (2017)
- Annual Faculty Clinical Teaching - Honorable Mention, Stanford Emergency Medicine (2016)
- Certificate of Achievement, ACEP American Association of Women in Emergency Medicine (2016)
- Annual Faculty Clinical Teaching- Honorable Mention, Stanford Emergency Medicine (2015)
- Top Section Editor of the Year, Western Journal of Emergency Medicine (2014)
- Alumni of the Year, University of California, Irvine, Department of Emergency Medicine (2012)
- Quarterly Faculty Clinical Teaching Award, Stanford Emergency Medicine (2012)
- Annual Faculty Clinical Teaching Award, Stanford Emergency Medicine (2011)
- Quarterly Faculty Clinical Teaching Award, Stanford Emergency Medicine (2007)
- Resident of the Year, University of California, Irvine, Department of Emergency Medicine (2007)
- Cal-ACEP Scientific Assembly Best Research Project, CalACEP (2006)
- Long Beach Memorial Medical Center Applause Award for Outstanding Service, Long Beach Memorial Medical Center (2005)

## **BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS**

- Member, Care Improvement Committee, SHC (2017 - present)
- Co-Chair, Professional Practice Evaluation committee, Emergency Medicine (2016 - present)
- Mentor, AAEM/RSA blog (2016 - present)

- Mentor, Academic Life in Emergency Medicine, Fellowship Incubator (2016 - present)
- Patient Safety Champion, Emergency Medicine/Stanford HealthCare (2016 - present)
- Interim Director, Professional Practice Evaluation Committee, Emergency Medicine (2016 - 2016)
- Mentor, Academic Life in Emergency Medicine, Chief Resident Incubator (2015 - present)
- Voting Member/Reviewer, ACEP Clinical Ultrasound Accreditation Program (2015 - present)
- Co-Chair, ACEP Ultrasound Section Newsletter (2014 - present)
- Clinical Liaison, Radiology, Department of Emergency Medicine (2012 - present)
- Section Author, ACEP Ultrasound Section Newsletter, Tips & Tricks (2012 - present)
- Voting Member, Professional Performance and Evaluation Committee, Emergency Medicine (2012 - present)
- Member, Education Committee- Ultrasound, Cal ACEP (2009 - 2013)
- Section Editor/Reviewer, Western Journal of Emergency Medicine, Emergency Ultrasound (2008 - present)
- Resident Representative, CalAAEM/WestJEM (2006 - 2007)
- Steering Committee Member, Emergency Medicine Residents' Association (2005 - 2006)
- Resident Representative, Emergency Medicine Residents' Association (2004 - 2006)

## PROFESSIONAL EDUCATION

- Board Certification: Emergency Medicine, American Board of Emergency Medicine (2008)
- Fellowship, Stanford University , Emergency Ultrasound Fellowship (2008)
- Residency: UCI Medical Center Dept of Emergency Medicine (2007) CA
- Medical Education: UC Irvine School of Medicine (2004) CA

## COMMUNITY AND INTERNATIONAL WORK

- Professor, all countries
- Lecturer, Nepal
- EMRI, Hyderabad, India
- Volunteer Physician, Roatan, Honduras
- Ultrasound Education, Guatemala, Iran, India, Mexico

## LINKS

- Department of Emergency Medicine: <http://emed.stanford.edu/>
- EM Ultrasound Program: <http://emed.stanford.edu/specialized-programs/ultrasound.html>
- EM Ultrasound Fellowship: <http://emed.stanford.edu/education/fellowships/ultrasound.html>
- SonoSpot: Topics in Bedside Ultrasound: <http://sonospot.com/>
- SonoSpot on Twitter: <https://twitter.com/SonoSpot>
- SonoDocGame: <http://sonodocgame.com/>

## Research & Scholarship

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### CURRENT RESEARCH AND SCHOLARLY INTERESTS

Emergency Ultrasound,  
Resident Education,  
Interesting Cases,

Visual Diagnosis

## PROJECTS

- SonoDoc - online
- SonoSpot
- Stanford UltraFest

## Publications

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### PUBLICATIONS

- **Cardiac Standstill With Intracardiac Clot Formation.** *Clinical practice and cases in emergency medicine*  
Sakamoto, J. T., Storch, I., Gharahbaghian, L.  
2019; 3 (4): 430–31
- **Detection of Type B Aortic Dissection in the Emergency Department with Point-of-Care Ultrasound.** *Clinical practice and cases in emergency medicine*  
Earl-Royal, E., Nguyen, P. D., Alvarez, A., Gharahbaghian, L.  
2019; 3 (3): 202–7
- **Point-of-care Ultrasonography for Detecting the Etiology of Unexplained Acute Respiratory and Chest Complaints in the Emergency Department: A Prospective Analysis.** *Cureus*  
Lamsam, L., Gharahbaghian, L., Lobo, V.  
2018; 10 (8): e3218
- **The Social Media Index as an Indicator of Quality for Emergency Medicine Blogs: A METRIQ Study.** *Annals of emergency medicine*  
Thoma, B., Chan, T. M., Kapur, P., Sifford, D., Siemens, M., Paddock, M., Ankel, F., Grock, A., Lin, M.  
2018
- **TRAINING NURSES TO ASSESS FLUID STATUS USING POINT-OF-CARE ULTRASOUND**  
Cramer, S., Cinkowski, C., Gharahbaghian, L.  
LIPPINCOTT WILLIAMS & WILKINS.2018: 179
- **Point-of-Care Ultrasound in Austere Environments A Complete Review of Its Utilization, Pitfalls, and Technique for Common Applications in Austere Settings** *EMERGENCY MEDICINE CLINICS OF NORTH AMERICA*  
Gharahbaghian, L., Anderson, K. L., Lobo, V., Huang, R., Poffenberger, C. M., Nguyen, D.  
2017; 35 (2): 409-?
- **Caudal Edge of the Liver in the Right Upper Quadrant (RUQ) View Is the Most Sensitive Area for Free Fluid on the FAST Exam.** *The western journal of emergency medicine*  
Lobo, V., Hunter-Behrend, M., Cullnan, E., Higbee, R., Phillips, C., Williams, S., Perera, P., Gharahbaghian, L.  
2017; 18 (2): 270-280
- **Ultrasound Detection of Patellar Fracture and Evaluation of the Knee Extensor Mechanism in the Emergency Department.** *The western journal of emergency medicine*  
Carter, K., Nesper, A., Gharahbaghian, L., Perera, P.  
2016; 17 (6): 814-816
- **Integration of Ultrasound in Undergraduate Medical Education at the California Medical Schools: A Discussion of Common Challenges and Strategies From the UMeCali Experience.** *Journal of ultrasound in medicine*  
Chiem, A. T., Soucy, Z., Dinh, V. A., Chilstrom, M., Gharahbaghian, L., Shah, V., Medak, A., Nagdev, A., Jang, T., Stark, E., Hussain, A., Lobo, V., Pera, et al  
2016; 35 (2): 221-233
- **Thymic Tumor Extension into the Heart, a Rare Finding Found by Point-of-Care Ultrasound.** *Cureus*  
Kaufman, E., Hunter-Behrend, M., Leroux, E., Gharahbaghian, L., Lobo, V.  
2016; 8 (8)
- **Splenic Rupture Diagnosed with Bedside Ultrasound in a Patient with Shock in the Emergency Department Following Colonoscopy.** *The western journal of emergency medicine*  
Mulkerin, W., Mitarai, T., Gharahbaghian, L., Perera, P.

2015; 16 (5): 758-759

- **Prehospital Evaluation of Effusion, Pneumothorax, and Standstill (PEEPS): Point-of-care Ultrasound in Emergency Medical Services.** *The western journal of emergency medicine*  
Bhat, S. R., Johnson, D. A., Pierog, J. E., Zaia, B. E., Williams, S. R., Gharahbaghian, L.  
2015; 16 (4): 503-509
- **Spontaneous pneumomediastinum on bedside ultrasound: case report and review of the literature.** *The western journal of emergency medicine*  
Zachariah, S., Gharahbaghian, L., Perera, P., Joshi, N.  
2015; 16 (2): 321-324
- **Diagnosis of pneumoperitoneum with bedside ultrasound.** *The western journal of emergency medicine*  
Chao, A., Gharahbaghian, L., Perera, P.  
2015; 16 (2): 302-?
- **Clinical Correlation Needed: What Do Emergency Physicians Do After an Equivocal Ultrasound for Pediatric Acute Appendicitis?** *JOURNAL OF CLINICAL ULTRASOUND*  
Ramarajan, N., Krishnamoorthi, R., Gharahbaghian, L., Pirrotta, E., Barth, R. A., Wang, N. E.  
2014; 42 (7): 385-394
- **Cardiac Echocardiography** *CRITICAL CARE CLINICS*  
Perera, P., Lobo, V., Williams, S. R., Gharahbaghian, L.  
2014; 30 (1): 47-?
- **Resuscitation Ultrasound and Rapid Ultrasound in Shock in the Critically Ill Patient (The RUSH Exam).** *Decision Making in Emergency Critical Care: An Evidence-Based Handbook*  
Perera, P., Gharahbaghian, L., Mailhot, T., Williams, S. R., Mandavia, D.  
Arbo J, Ruoss J, Lightall G and Jones M (Editors) Wolters-Kluwer Publications.2014: 62–93
- **Ultrasound for Detection of Ascites and for Guidance of the Paracentesis Procedure: Technique and Review of the Literature** *International Journal of Clinical Medicine*  
Ennis, J., Schultz, G., Perera, P., Williams, S. R., Gharahbaghian, L., Mandavia, D.  
2014; 5: 1277-1293
- **Ultrasound for the Evaluation of Acute Cardiac Conditions and in the Resuscitation of the Critically Ill Patient** *Cardiac Emergencies-American College of Emergency Physicians*  
Perera, P., Williams, S. R., Gharahbaghian, L.  
Bresler M, Mattu A (Editors). Dallas, Tx: American College of Emergency Physicians.2014: 53–89
- **Interstitial Neuritis Masquerading as Acute Appendicitis: A Case Report** *Emergency Medicine-Open Access*  
Lindquist, B., Gharahbaghian, L.  
2014; 4 (4)
- **Thoracic Ultrasonography** *CRITICAL CARE CLINICS*  
Lobo, V., Weingrow, D., Perera, P., Williams, S. R., Gharahbaghian, L.  
2014; 30 (1): 93-?
- **The FAST and E-FAST in 2013: Trauma Ultrasonography Overview, Practical Techniques, Controversies, and New Frontiers** *CRITICAL CARE CLINICS*  
Williams, S. R., Perera, P., Gharahbaghian, L.  
2014; 30 (1): 119-?
- **FOCUSED CARDIAC ULTRASOUND TRAINING: HOW MUCH IS ENOUGH?** *JOURNAL OF EMERGENCY MEDICINE*  
Chisholm, C. B., Dodge, W. R., Balise, R. R., Williams, S. R., Gharahbaghian, L., Beraud, A.  
2013; 44 (4): 818-822
- **Ultrasound Guided Peripheral Nerve Blocks** *Introduction to Bedside Ultrasound*  
Lobo, V., Gharahbaghian, L.  
Dawson M., Mallin M (Editors) Emergency Ultrasound Solutions.2013
- **USE OF CADAVER MODELS IN POINT-OF-CARE EMERGENCY ULTRASOUND EDUCATION FOR DIAGNOSTIC APPLICATIONS** *JOURNAL OF EMERGENCY MEDICINE*

Zaia, B. E., Briese, B., Williams, S. R., Gharahbaghian, L.  
2012; 43 (4): 683-691

- **Midaxillary Option for Measuring IVC: Prospective Comparison of the Right Midaxillary and Subxiphoid IVC Measurements**  
Howard, Z. D., Gharahbaghian, L., Steele, B. J., Foy, S., Williams, S. R.  
MOSBY-ELSEVIER.2012: S78-S79
- **Sonographic Identification of Tube Thoracostomy Study (SITTS): Confirmation of Intrathoracic Placement.** *The western journal of emergency medicine*  
Jenkins, J. A., Gharahbaghian, L., Doniger, S. J., Bradley, S., Crandall, S., Spain, D. A., Williams, S. R.  
2012; 13 (4): 305-311
- **Anorexia Nervosa A Case Report of a Teenager Presenting With Bradycardia, General Fatigue, and Weakness** *PEDIATRIC EMERGENCY CARE*  
Grover, C. A., Robin, J. K., Gharahbaghian, L.  
2012; 28 (2): 174-177
- **Where is the fetal heartbeat? Pearls and Pitfalls for Bedside Ultrasound in Early Pregnancy** *Avoiding Common Errors in the Emergency Department*  
Lin, B., Gharahbaghian, L.  
Lippincott Williams & Wilkins.2012; 1: 852-854
- **: If Only Joint Disease was Crystal Clear - Crystal Arthropathies do not Preclude a Septic Joint** *Avoiding Common Errors in the Emergency Department*  
Raghunathan, A., Gharahbaghian, L.  
Lippincott Williams & Wilkins.2012; 1: 409-411
- **Cholecystitis: Don't rely on your physical exam, but rely on your ultrasound** *Avoiding Common Errors in the Emergency Department*  
Bass, A., Gharahbaghian, L.  
Lippincott Williams & Wilkins.2012; 1: 839-841
- **Emergency Echocardiography and IVC Evaluation (Appendix)** *An Introduction to Clinical Emergency Medicine: Guide for Practitioners in the Emergency Department*  
Williams, S. R., Gharahbaghian, L.  
Mahadevan & Garmel (eds), Cambridge University Press.2012; 2
- **. It's Not the Machine's Fault! Using Basic System Controls to Improve your Ultrasound Images** *Avoiding Common Errors in the Emergency Department*  
Robin, J. K., Gharahbaghian, L.  
Lippincott Williams & Wilkins.2012; 1: 861-863
- **Know the Causes of Back Pain that Kill Patients** *Avoiding Common Errors in the Emergency Department*  
Kassel, M., Gharahbaghian, L.  
Lippincott Williams & Wilkins.2012; 1: 412-414
- **Chest Ultrasound for Pneumothorax (Appendix)** *An Introduction to Clinical Emergency Medicine: Guide for Practitioners in the Emergency Department*  
Williams, S. R., Gharahbaghian, L.  
Mahadevan & Garmel (eds); Cambridge University Press.2012; 2
- **Ultrasound Evaluation for Abdominal Aortic Aneurysm (Appendix)** *An Introduction to Clinical Emergency Medicine: Guide for Practitioners in the Emergency Department*  
Williams, S. R., Gharahbaghian, L.  
Mahadevan & Garmel (eds), Cambridge University Press.2012; 2
- **Just the Facts: Emergency Ultrasound Applications (Appendix)** *An Introduction to Clinical Emergency Medicine*  
Williams, S. R., Gharahbaghian, L.  
Mahadevan SV, Garmel GM (eds): Cambridge University Press.2012; 2
- **Is It a Pericardial Effusion or is it not? Pitfalls in the Use of Limited Bedside Echocardiography** *Avoiding Common Errors in the Emergency Department*  
Rossi, J., Crandall, S., Gharahbaghian, L.  
Lippincott Williams & Wilkins.2012; 1: 841-843
- **Do Not Assume that Synovial Fluid Analysis in 100% Accurate the Diagnosis of Septic Arthritis** *Avoiding Common Errors in the Emergency Department*  
Baine, J., Gharahbaghian, L.  
Lippincott Williams & Wilkins.2012; 1: 407-408

- **Unilateral facial swelling with fever. Parotitis.** *Annals of emergency medicine*  
Grover, C. A., Gharahbaghian, L.  
2011; 58 (6): e5-6
- **Test characteristics of focused assessment of sonography for trauma for clinically significant abdominal free fluid in pediatric blunt abdominal trauma.** *Academic emergency medicine*  
Fox, J. C., Boysen, M., Gharahbaghian, L., Cusick, S., Ahmed, S. S., Anderson, C. L., Lekawa, M., Langdorf, M. I.  
2011; 18 (5): 477-482
- **Test Characteristics of Focused Assessment of Sonography for Trauma for Clinically Significant Abdominal Free Fluid in Pediatric Blunt Abdominal Trauma** *ACADEMIC EMERGENCY MEDICINE*  
Fox, J. C., Boysen, M., Gharahbaghian, L., Cusick, S., Ahmed, S. S., Anderson, C. L., Lekawa, M., Langdorf, M. I.  
2011; 18 (5): 476-481
- **THE EFFECT OF EMERGENCY DEPARTMENT OBSERVATIONAL EXPERIENCE ON MEDICAL STUDENT INTEREST IN EMERGENCY MEDICINE** *JOURNAL OF EMERGENCY MEDICINE*  
Gharahbaghian, L., Hindiyeh, R., Langdorf, M. I., Vaca, F., Anderson, C. L., Kahn, J. A., Wiechmann, W., Lotfipour, S.  
2011; 40 (4): 458-461
- **Patellar tendonitis.** *The western journal of emergency medicine*  
Zaia, B., Gharahbaghian, L.  
2011; 12 (1): 139-140
- **Cardiac tamponade after minimally invasive coronary artery bypass graft.** *The western journal of emergency medicine*  
Liang, E. C., Rossi, J., Gharahbaghian, L.  
2011; 12 (1): 116-117
- **Out-Of-Hospital Evaluation of Effusion, Pneumothorax, and Standstill: EMS and Point-Of-Care Ultrasonography** *Conference on American-College-of-Emergency-Physicians-Research-Forum*  
PIEROG, J. E., Zaia, B. E., Bhat, S. R., Johnson, D. A., Gharahbaghian, L., Gilbert, G. H., Williams, S. R.  
MOSBY-ELSEVIER.2010: S115-S115
- **Use of Cadaver Models In Point-Of-Care Emergency Ultrasonography Education for Diagnostic and Procedural Applications** *Conference on American-College-of-Emergency-Physicians-Research-Forum*  
Zaia, B. E., BRIESE, B., Gharahbaghian, L., Williams, S. R.  
MOSBY-ELSEVIER.2010: S98-S98
- **Methemoglobinemia and sulfhemoglobinemia in two pediatric patients after ingestion of hydroxylamine sulfate.** *The western journal of emergency medicine*  
Gharahbaghian, L., Massoudian, B., DiMassa, G.  
2009; 10 (3): 197-201
- **Clitoral priapism with no known risk factors.** *The western journal of emergency medicine*  
Gharahbaghian, L.  
2008; 9 (4): 235-237
- **Welcome to the Resident/Student/Fellow Section of WestJEM!** *The western journal of emergency medicine*  
Gharahbaghian, L.  
2008; 9 (1): 46-?
- **Biliary Ultrasound** *CLINICAL EMERGENCY RADIOLOGY*  
Scruggs, W., Gharahbaghian, L., Fox, J. C.  
2008: 218-35
- **Biliary Ultrasound** *Clinical Emergency Radiology*  
Scruggs, W., Gharahbaghian, L., Fox, J. C.  
Cambridge University Press.2008; 1
- **Welcome to the Resident/Fellow/Student Section.** *Western Journal of Emergency Medicine*  
Gharahbaghian, L.  
2008; 9 (4)

- **. Central Diabetes Insipidus Misdiagnosed as Acute Gastroenteritis in a Pediatric Patient: a Case Report.** *Canadian Journal of Emergency Medicine*  
Gharahbaghian, L., McCoy, C., Lotfipour, S., Langdorf, M.  
2008; April
- **New Onset Thyrotoxicosis Presenting as Vomiting, Abdominal Pain and Transaminitis in the Emergency Department: a Case Report.** *Western Journal of Emergency Medicine*  
Gharahbaghian, L., Brosnan, D., Fox JC., Stratton, S., Langdorf, M.  
2007; 8 (3)
- **Sarin and Other Nerve Agents of the Organophosphate Class: Properties, Medical Effects and Management.** *International Journal of Disaster Medicine*  
Gharahbaghian, L., Bey, T.  
2003; 2: 103-108
- **Survival After Ethylene Glycol Poisoning in a Patient With an Arterial pH of 6.58** *Veterinary and Human Toxicology*  
Bey, T., Walter, F., Gilby, R., James, S.T., Gharahbaghian, L.  
2002

## PRESENTATIONS

- List of all Presentations in Attachment