



## Lisa Marie Knowlton, MD, MPH

Assistant Professor of Surgery (General Surgery) at the Stanford University Medical Center

Surgery - General Surgery

### CLINICAL OFFICES

- **Stanford Dept of General Surgery**

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### ACADEMIC CONTACT INFORMATION

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### Bio

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#### BIO

Dr. Knowlton is a trauma and critical care surgeon and public health researcher whose focus is on improving access to and quality of care for trauma and surgical patients. She obtained her medical degree at McGill University and completed her general surgery residency at the University of British Columbia in Vancouver, Canada. Her desire to understand varied healthcare systems and develop solutions for vulnerable surgical populations led her to obtain an M.P.H. at the Harvard T.H. Chan School of Public Health and complete a research fellowship at the Harvard Humanitarian Initiative. Most recently, she trained as a Surgical Critical Care fellow at Stanford University Medical Center and joined the faculty as an Assistant Professor of Surgery in early 2018. Dr. Knowlton's research focuses on addressing barriers in access to care and reducing disparities among vulnerable surgical populations, including underinsured trauma patients. She is also investigating the financial burden that injury imposes upon both patients and hospitals, with the goal of finding economically sustainable strategies for ensuring best outcomes among trauma patients. These include the study of emergency Medicaid programs at the state and national level. She was recently awarded the 17th C. James Carrico Faculty Research Fellowship by the American College of Surgeons to better understand the link between socioeconomic status, insurance coverage and quality of patient outcomes for trauma patients receiving care within U.S hospitals. Dr. Knowlton is board certified by the American Board of Surgery and the Royal College of Physicians and Surgeons of Canada. In addition to her research work surrounding surgical disparities, she is a member of the American Association for the Surgery of Trauma Diversity and Inclusion Committee, as well as the Stanford Surgery Diversity and Inclusion Cabinet. Most recently, she was elected as the inaugural Chair of the Associate Member Council of the American Association for the Surgery of Trauma.

#### CLINICAL FOCUS

- General Surgery
- Trauma Surgery
- Acute Care Surgery
- Surgical Critical Care

#### ACADEMIC APPOINTMENTS

- Assistant Professor - Med Center Line, Surgery - General Surgery

## **ADMINISTRATIVE APPOINTMENTS**

- Chair, AAST Associate Member Council, American Association for the Surgery of Trauma, (2020- present)
- Associate Program Director, Stanford Surgical Critical Care Fellowship, Stanford University School of Medicine, (2020- present)
- General Surgery Resident Coach, Stanford University Department of Surgery, (2020-2023)

## **HONORS AND AWARDS**

- AAST Faculty Research Fellowship, American Association for the Surgery of Trauma (July 2020-July 2021)
- McCormick and Gabilan Faculty Fellow, Stanford University Office for Faculty Development and Diversity (2020-2022)
- Stanford Department of Surgery Faculty Seed Grant, Stanford Department of Surgery (March 2020-March 2021)
- C. James Carrico Faculty Research Fellowship, American College of Surgeons (July 2018-July 2020)

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

- Member, Association for Women Surgeons (2020 - present)
- Publications Committee, Association for Academic Surgery (2020 - present)
- Diversity and Inclusion Cabinet, Stanford Department of Surgery (2020 - present)
- Healthcare and Economics Committee, American Association for the Surgery of Trauma (2019 - present)
- Early Clinical Deterioration Committee, Surgery Lead, Stanford University Medical Center (2019 - present)
- Member, Association for Academic Surgery (2019 - present)
- Associate Member, American Association for the Surgery of Trauma (2019 - present)
- Diversity and Inclusion Committee, American Association for the Surgery of Trauma (2019 - present)
- Associate Fellow, American College of Surgeons (2017 - present)
- Member, Canadian Association of General Surgeons (2014 - present)

## **PROFESSIONAL EDUCATION**

- Board Certification: Critical Care Medicine, American Board of Surgery (2018)
- Board Certification: General Surgery, American Board of Surgery (2016)
- Fellowship: Stanford University Medical Center (2016) CA
- Board Certification: General Surgery, Royal College of Physicians and Surgeons of Canada (2014)
- Residency: University of British Columbia - UBC (2014) Canada
- Master of Public Health, Harvard T.H. Chan School of Public Health , Quantitative Methods / Global Health (2010)
- Internship: University of British Columbia - UBC (2008) Canada
- Medical Education: McGill University - Faculty of Medicine (2007) Canada

## **Teaching**

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### **COURSES**

#### **2020-21**

- Seminar in Global Surgery and Anesthesia: SURG 236 (Win)

#### **2019-20**

- Early Clinical Experience in Surgery: SURG 280 (Aut)
- Seminar in Global Surgery and Anesthesia: SURG 236 (Win)

## 2018-19

- Early Clinical Experience in Surgery: SURG 280 (Aut)
- Seminar in Global Surgery and Anesthesia: SURG 236 (Win)

## Publications

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### PUBLICATIONS

- **Improving Geriatric Trauma Care via A Multi-disciplinary Age-Friendly Care Pathway**  
Bharija, A., Mesias, M., Storr-Street, N., Ellsworth, A. M., Brown, A., Cheng, N., Knowlton, L., Tennakoon, L., Martin, M., Lu, A., Staudemayer, K.  
WILEY.2020: S16–S17
- **Iatrogenic gallbladder perforation secondary to Veress needle placement: a complication of robotic nephrectomy.** *Trauma surgery & acute care open*  
Jaramillo, J. D., Sun, A. J., Knowlton, L. M.  
2020; 5 (1): e000442
- **The Affordable Care Act and Insurance Status, Stage, and Timely Treatment Among Patients With Cancer: What Are the Possible Effects?** *JAMA network open*  
Fu, S., Rose, L., Knowlton, L.  
2020; 3 (2): e1921690
- **Amyand hernia: considerations for operative approach and surgical repair.** *Trauma surgery & acute care open*  
Garagliano, J. M., Jaramillo, J. D., Kopecky, K. E., Knowlton, L. M.  
2020; 5 (1): e000466
- **Balancing the Risks and Benefits of Surgical Prophylaxis Timing and Duration Do Matter** *JAMA SURGERY*  
Hawn, M. T., Knowlton, L.  
2019; 154 (7): 598–99
- **Derivation and Validation of a Model to Predict 30-Day Readmission in Surgical Patients Discharged to Skilled Nursing Facility.** *Journal of the American Medical Directors Association*  
Kim, L. D., Pfoh, E. R., Hu, B., Kou, L., Knowlton, L. M., Staudemayer, K., Rothberg, M. B.  
2019
- **Racial and Ethnic Disparities in Geographic Access to Trauma Care-A Multiple-Methods Study of US Urban Trauma Deserts** *JAMA NETWORK OPEN*  
Knowlton, L.  
2019; 2 (3)
- **Racial and Ethnic Disparities in Geographic Access to Trauma Care-A Multiple-Methods Study of US Urban Trauma Deserts.** *JAMA network open*  
Knowlton, L. M.  
2019; 2 (3): e190277
- **Racial and Ethnic Disparities in Geographic Access to Trauma Care-A Multiple-Methods Study of US Urban Trauma Deserts** *JAMA NETWORK OPEN*  
Knowlton, L.  
2019; 2 (3)
- **Mucormycosis emboli: a rare cause of segmental bowel ischemia.** *Trauma surgery & acute care open*  
Baiu, I., Knowlton, L. M.  
2019; 4 (1): e000305
- **THE IMPACT OF MEDICAID EXPANSION ON TRAUMA-RELATED EMERGENCY DEPARTMENT UTILIZATION: A NATIONAL EVALUATION OF POLICY IMPLICATIONS.** *The journal of trauma and acute care surgery*  
Knowlton, L. M., Dehghan, M. S., Arnow, K., Trickey, A. W., Tennakoon, L., Morris, A. M., Spain, D. A.  
2019
- **Balancing the Risks and Benefits of Surgical Prophylaxis: Timing and Duration Do Matter.** *JAMA surgery*  
Hawn, M. T., Knowlton, L. M.  
2019

- **The Economic Footprint of Acute Care Surgery in the United States: Implications for Systems Development.** *The journal of trauma and acute care surgery*  
Knowlton, L. M., Minei, J., Tennakoon, L., Davis, K. A., Doucet, J., Bernard, A., Haider, A., Tres Scherer, L. R., Spain, D. A., Staudenmayer, K. L.  
2018
- **Evaluating the collection, comparability and findings of six global surgery indicators.** *The British journal of surgery*  
Holmer, H., Bekele, A., Hagander, L., Harrison, E. M., Kamali, P., Ng-Kamstra, J. S., Khan, M. A., Knowlton, L., Leather, A. J., Marks, I. H., Meara, J. G., Shrim, M. G., Smith, et al  
2018
- **INTER-HOSPITAL VARIABILITY IN TIME TO DISCHARGE TO REHABILITATION AMONG INSURED TRAUMA PATIENTS.** *The journal of trauma and acute care surgery*  
Knowlton, L. M., Harris, A. H., Tennakoon, L., Hawn, M. T., Spain, D. A., Staudenmayer, K. L.  
2018
- **Financial Stability of Level I Trauma Centers Within Safety-Net Hospitals.** *Journal of the American College of Surgeons*  
Knowlton, L. M., Morris, A. M., Tennakoon, L., Spain, D. A., Staudenmayer, K. L.  
2018
- **Geriatric Trauma Partnership: Targeting The Right Population**  
Sheffrin, M., Bharija, A., Knowlton, L. M., Staudenmayer, K.  
WILEY.2018: S157
- **Trauma-induced insurance instability: Variation in insurance coverage for patients who experience readmission after injury.** *The journal of trauma and acute care surgery*  
Rajasingh, C. M., Weiser, T. G., Knowlton, L. M., Tennakoon, L., Spain, D. A., Staudenmayer, K. L.  
2018; 84 (6): 876–84
- **A geospatial evaluation of timely access to surgical care in seven countries** *BULLETIN OF THE WORLD HEALTH ORGANIZATION*  
Knowlton, L. M., Banguti, P., Chackungal, S., Chanthasiri, T., Chao, T. E., Dahn, B., Derbew, M., Dhar, D., Esquivel, M. M., Evans, F., Hendel, S., LeBrun, D. G., Notrica, et al  
2017; 95 (6): 437–44
- **Readmissions to the Hospital for Surgical Patients Discharged to Skilled Nursing Facilities**  
Staudenmayer, K., Knowlton, L., Hawn, M., Kou, L., Kim, L.  
WILEY.2017: S70–S71
- **The American College of Surgeons (ACS) Needs-Based Assessment of Trauma Systems (NBATS): Estimates for the State of California.** *journal of trauma and acute care surgery*  
Uribe-Leitz, T., Esquivel, M. M., Knowlton, L. M., Ciesla, D., Lin, F., Hsia, R. Y., Spain, D. A., Winchell, R. J., Staudenmayer, K. L.  
2017
- **National Readmission Patterns of Isolated Splenic Injuries Based on Initial Management Strategy.** *JAMA surgery*  
Rosenberg, G. M., Knowlton, L., Rajasingh, C., Weng, Y., Maggio, P. M., Spain, D. A., Staudenmayer, K. L.  
2017; 152 (12): 1119–25
- **A Multinational Evaluation of Timely Access to Basic Surgical Services Using Geospatial Analyses**  
Knowlton, L., Esquivel, M., Uribe-Leitz, T., McQueen, K., Chackungal, S., LeBrun, D. G., Chao, T. E., Weiser, T. G., Spain, D. A.  
ELSEVIER SCIENCE INC.2016: E118
- **Trauma Surveillance in Cape Town, South Africa An Analysis of 9236 Consecutive Trauma Center Admissions** *JAMA SURGERY*  
Nicol, A., Knowlton, L. M., Schuurman, N., Matzopoulos, R., Zargar, E., Cinnamon, J., Fawcett, V., Taulu, T., Hameed, S. M.  
2014; 149 (6): 549-556
- **Prioritizing essential surgery and safe anesthesia for the Post-2015 Development Agenda: Operative capacities of 78 district hospitals in 7 low- and middle-income countries** *SURGERY*  
Lebrun, D. G., Chackungal, S., Chao, T. E., Knowlton, L. M., Linden, A. F., Notrica, M. R., Solis, C. V., McQueen, K. A.  
2014; 155 (3): 365-373
- **Liberian Surgical and Anesthesia Infrastructure: A Survey of County Hospitals** *WORLD JOURNAL OF SURGERY*  
Knowlton, L. M., Chackungal, S., Dahn, B., Lebrun, D., Nickerson, J., McQueen, K.

2013; 37 (4): 721-729

- **Disability-adjusted life years (DALYs) for 291 diseases and injuries in 21 regions, 1990-2010: a systematic analysis for the Global Burden of Disease Study 2010** *LANCET*  
Murray, C. J., Vos, T., Lozano, R., Naghavi, M., Flaxman, A. D., Michaud, C., Ezzati, M., Shibuya, K., Salomon, J. A., Abdalla, S., Aboyans, V., Abraham, J., Ackerman, et al  
2012; 380 (9859): 2197-2223
- **Years lived with disability (YLDs) for 1160 sequelae of 289 diseases and injuries 1990-2010: a systematic analysis for the Global Burden of Disease Study 2010** *LANCET*  
Vos, T., Flaxman, A. D., Naghavi, M., Lozano, R., Michaud, C., Ezzati, M., Shibuya, K., Salomon, J. A., Abdalla, S., Aboyans, V., Abraham, J., Ackerman, I., Aggarwal, et al  
2012; 380 (9859): 2163-2196
- **Global and regional mortality from 235 causes of death for 20 age groups in 1990 and 2010: a systematic analysis for the Global Burden of Disease Study 2010** *LANCET*  
Lozano, R., Naghavi, M., Foreman, K., Lim, S., Shibuya, K., Aboyans, V., Abraham, J., Adair, T., Aggarwal, R., Ahn, S. Y., Alvarado, M., Anderson, H. R., Anderson, et al  
2012; 380 (9859): 2095-2128
- **Challenges of Surgery in Developing Countries: A Survey of Surgical and Anesthesia Capacity in Uganda's Public Hospitals** *WORLD JOURNAL OF SURGERY*  
Linden, A. F., Sekidde, F. S., Galukande, M., Knowlton, L. M., Chackungal, S., McQueen, K. A.  
2012; 36 (5): 1056-1065
- **Surgical care during humanitarian crises: a systematic review of published surgical caseload data from foreign medical teams.** *Prehospital and disaster medicine*  
Nickerson, J. W., Chackungal, S., Knowlton, L., McQueen, K., Burkle, F. M.  
2012; 27 (2): 184-189
- **Best practice guidelines on surgical response in disasters and humanitarian emergencies: report of the 2011 Humanitarian Action Summit Working Group on Surgical Issues within the Humanitarian Space.** *Prehospital and disaster medicine*  
Chackungal, S., Nickerson, J. W., Knowlton, L. M., Black, L., Burkle, F. M., Casey, K., Crandell, D., Demey, D., Di Giacomo, L., Dohlman, L., Goldstein, J., Gosney, J. E., Ikeda, et al  
2011; 26 (6): 429-437
- **Consensus statements regarding the multidisciplinary care of limb amputation patients in disasters or humanitarian emergencies: report of the 2011 Humanitarian Action Summit Surgical Working Group on amputations following disasters or conflict.** *Prehospital and disaster medicine*  
Knowlton, L. M., Gosney, J. E., Chackungal, S., Altschuler, E., Black, L., Burkle, F. M., Casey, K., Crandell, D., Demey, D., Di Giacomo, L., Dohlman, L., Goldstein, J., Gosselin, et al  
2011; 26 (6): 438-448
- **Rwandan Surgical and Anesthesia Infrastructure: A Survey of District Hospitals** *WORLD JOURNAL OF SURGERY*  
Notrica, M. R., Evans, F. M., Knowlton, L. M., McQueen, K. A.  
2011; 35 (8): 1770-1780
- **Is coronary graft Doppler more sensitive for individual graft flows than TEE during CABG surgery?** *JOURNAL OF CARDIAC SURGERY*  
Morin, J., Mistry, B. F., Knowlton, L.  
2007; 22 (4): 356-358
- **Recombinant activated factor VII in cardiac surgery: A systematic review** *ANNALS OF THORACIC SURGERY*  
Warren, O., Mandal, K., Hadjianastassiou, V., Knowlton, L., Panesar, S., John, K., Darzi, A., Athanasiou, T.  
2007; 83 (2): 707-714