

Stanford



Ara Ko, MD, MPH

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ACADEMIC CONTACT INFORMATION

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Bio

BIO

Dr. Ara Ko is a trauma surgeon and intensivist who completed her surgical critical care fellowship at the R. Adams Cowley Shock Trauma Center in Baltimore, Maryland. Born in Korea and raised in Southern California, Dr. Ko attended the University of California, Los Angeles receiving her bachelor of arts degree in religious studies. With an interest in global health and underserved communities, she went on to earn her combined medical degree and masters in public health at the Tufts University School of Medicine in Boston, Massachusetts. She returned to Los Angeles for her general surgery training at Cedars-Sinai Medical Center where she also spent time publishing on topics such as improving outcomes in traumatic brain injury, venous thromboembolism prevention, quality improvement and trauma workflow, and pain assessment and treatment in the trauma population. Her research has been recognized both regionally and nationally, receiving awards by organizations including the American College of Surgeons Southern California Committee on Trauma and the High Value Practice Academic Alliance National Research and Education Conference. Dr. Ko is an associate member of the American Association for the Surgery of Trauma and she enjoys mentoring the next generation of physicians, being selected for outstanding student teaching awards 3 years consecutively.

CLINICAL FOCUS

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

ACADEMIC APPOINTMENTS

- Assistant Professor - University Medical Line, Surgery - General Surgery

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Member, American Association for the Surgery of Trauma International Relations Committee (2019 - present)
- Associate Member, American Association for the Surgery of Trauma (2019 - present)
- Member, Society of Critical Care Medicine (2019 - present)
- Member, American College of Surgeons (2016 - present)

PROFESSIONAL EDUCATION

- Board Certification: Surgical Critical Care, American Board of Surgery (2021)
- Board Certification: General Surgery, American Board of Surgery (2020)
- Fellowship: University of Maryland (2020) MD
- Residency: Cedars Sinai Medical Center General Surgery Residency (2019) CA
- Medical Education: Tufts University School of Medicine (2013) MA

Publications

PUBLICATIONS

- **Near Disappearance of Splenorrhaphy as an Operative Strategy for Splenic Preservation After Trauma.** *The American surgeon*
Ko, A., Radding, S., Feliciano, D. V., DuBose, J. J., Kozar, R. A., Morrison, J., Kundi, R., Maddox, J., Scalea, T. M.
2021; 31348211050591
- **Advances in Appropriate Postoperative Triage and the Role of Real-time Machine-Learning Models: The Goldilocks Dilemma.** *JAMA network open*
Ko, A., Wren, S. M.
2021; 4 (11): e2133843
- **LASER Fenestration of Thoracic Endoluminal Stent Grafts for Preservation of the Left Subclavian Artery.** *The journal of trauma and acute care surgery*
Keville, M. P., Ko, A., Dubose, J. J., Kundi, R., Scalea, T. M., Morrison, J. J.
2021; 91 (1): e13-e17
- **Chest Wall Analgesia-Where Do We Go From Here?** *JAMA network open*
Bessoiff, K. E., Ko, A., Forrester, J. D.
2021; 4 (11): e2133839
- **Transfusion of blood components containing ABO-incompatible plasma does not lead to higher mortality in civilian trauma patients.** *Transfusion*
Seheult, J. N., Dunbar, N. M., Hess, J. R., Tuott, E. E., Bahmanyar, M., Campbell, J., Fontaine, M., Khan, J., Ko, A., Mi, J., Murphy, M. F., Nykoluk, T., Poisson, et al
2020; 60 (11): 2517-2528
- **Endovascular adjuncts for hybrid liver surgery.** *The journal of trauma and acute care surgery*
Belyayev, L., Herrold, J. A., Ko, A., Kundi, R., DuBose, J. J., Scalea, T. M., Morrison, J. J.
2020; 89 (3): e51-e54
- **Helicopter Transport Use for Trauma Patients Is Decreasing Significantly Nationwide but Remains Overutilized.** *The American surgeon*
Dhillon, N. K., Linaval, N. T., Patel, K. A., Colovos, C., Ko, A., Margulies, D. R., Ley, E. J., Barmparas, G.
2018; 84 (10): 1630-1634
- **Failure to rescue the elderly: a superior quality metric for trauma centers.** *European journal of trauma and emergency surgery : official publication of the European Trauma Society*
Barmparas, G., Ley, E. J., Martin, M. J., Ko, A., Harada, M., Weigmann, D., Catchpole, K. R., Gewertz, B. L.
2018; 44 (3): 377-384
- **The Effect of Early Positive Cultures on Mortality in Ventilated Trauma Patients.** *Surgical infections*
Barmparas, G., Harada, M. Y., Ko, A., Dhillon, N. K., Smith, E. J., Li, T., Mohseni, S., Ley, E. J.
2018; 19 (4): 410-416
- **Impact of early positive cultures in the elderly with traumatic brain injury.** *The Journal of surgical research*
Dhillon, N. K., Tseng, J., Barmparas, G., Harada, M. Y., Ko, A., Smith, E. J., Thomsen, G. M., Ley, E. J.
2018; 224: 140-145
- **The risk factors of venous thromboembolism in massively transfused patients.** *The Journal of surgical research*
Dhillon, N. K., Smith, E. J., Ko, A., Harada, M. Y., Yang, A. R., Patel, K. A., Barmparas, G., Ley, E. J.
2018; 222: 115-121

- **Weaker gun state laws are associated with higher rates of suicide secondary to firearms.** *The Journal of surgical research*
Alban, R. F., Nuño, M., Ko, A., Barmparas, G., Lewis, A. V., Margulies, D. R.
2018; 221: 135-142
- **Limit Crystalloid Resuscitation after Traumatic Brain Injury.** *The American surgeon*
Ko, A., Harada, M. Y., Barmparas, G., Smith, E. J., Birch, K., Barnard, Z. R., Yim, D. A., Ley, E. J.
2017; 83 (12): 1447-1452
- **Is Routine Continuous EEG for Traumatic Brain Injury Beneficial?** *The American surgeon*
Aquino, L., Kang, C. Y., Harada, M. Y., Ko, A., Do-Nguyen, A., Ley, E. J., Margulies, D. R., Alban, R. F.
2017; 83 (12): 1433-1437
- **Refusal of cervical spine immobilization after blunt trauma: Implications for initial evaluation and management: A retrospective cohort study.** *International journal of surgery (London, England)*
Tatum, J. M., Dhillon, N. K., Ko, A., Smith, E. J., Melo, N., Barmparas, G., Ley, E. J.
2017; 48: 228-231
- **Potentially Avoidable Surgical Intensive Care Unit Admissions and Disposition Delays.** *JAMA surgery*
Dhillon, N. K., Ko, A., Smith, E. J., Kharabi, M., Castongia, J., Nurok, M., Gewertz, B. L., Ley, E. J.
2017; 152 (11): 1015-1022
- **Extreme Interventions for Trauma Patients in Extremis: Variations among Trauma Centers.** *The American surgeon*
Barmparas, G., Ko, A., Dhillon, N. K., Tatum, J. M., Choi, M., Ley, E. J., Margulies, D. R.
2017; 83 (10): 1033-1039
- **Analysis of Survival After Initiation of Continuous Renal Replacement Therapy in a Surgical Intensive Care Unit.** *JAMA surgery*
Tatum, J. M., Barmparas, G., Ko, A., Dhillon, N., Smith, E., Margulies, D. R., Ley, E. J.
2017; 152 (10): 938-943
- **Extubation to high-flow nasal cannula in critically ill surgical patients.** *The Journal of surgical research*
Dhillon, N. K., Smith, E. J., Ko, A., Harada, M. Y., Polevoi, D., Liang, R., Barmparas, G., Ley, E. J.
2017; 217: 258-264
- **Decreased transport time to the surgical intensive care unit.** *International journal of surgery (London, England)*
Ko, A., Harada, M. Y., Dhillon, N. K., Patel, K. A., Kirillova, L. R., Kolus, R. C., Torbati, S., Ley, E. J.
2017; 42: 54-57
- **Clinical correlates to assist with chronic traumatic encephalopathy diagnosis: Insights from a novel rodent repeat concussion model.** *The journal of trauma and acute care surgery*
Thomsen, G. M., Ko, A., Harada, M. Y., Ma, A., Wyss, L., Haro, P., Vit, J. P., Avalos, P., Dhillon, N. K., Cho, N., Shelest, O., Ley, E. J.
2017; 82 (6): 1039-1048
- **Validation of a field spinal motion restriction protocol in a level I trauma center.** *The Journal of surgical research*
Tatum, J. M., Melo, N., Ko, A., Dhillon, N. K., Smith, E. J., Yim, D. A., Barmparas, G., Ley, E. J.
2017; 211: 223-227
- **Predictors of Mortality in the Critically Ill Cirrhotic Patient: Is the Model for End-Stage Liver Disease Enough?** *Journal of the American College of Surgeons*
Annamalai, A., Harada, M. Y., Chen, M., Tran, T., Ko, A., Ley, E. J., Nuno, M., Klein, A., Nissen, N., Nouredin, M.
2017; 224 (3): 276-282
- **10-Year trend in crystalloid resuscitation: Reduced volume and lower mortality.** *International journal of surgery (London, England)*
Harada, M. Y., Ko, A., Barmparas, G., Smith, E. J., Patel, B. K., Dhillon, N. K., Thomsen, G. M., Ley, E. J.
2017; 38: 78-82
- **Surgical outcomes and failure-to-rescue events after colectomy in teaching hospitals: a nationwide analysis.** *American journal of surgery*
Ko, A., Aquino, L., Melo, N., Alban, R. F.
2016; 212 (6): 1133-1139
- **A model of recurrent concussion that leads to long-term motor deficits, CTE-like tauopathy and exacerbation of an ALS phenotype.** *The journal of trauma and acute care surgery*

- Thomsen, G. M., Ma, A. M., Ko, A., Harada, M. Y., Wyss, L., Haro, P. S., Vit, J. P., Shelest, O., Rhee, P., Svendsen, C. N., Ley, E. J.
2016; 81 (6): 1070-1079
- **Association Between Enoxaparin Dosage Adjusted by Anti-Factor Xa Trough Level and Clinically Evident Venous Thromboembolism After Trauma.** *JAMA surgery*
Ko, A., Harada, M. Y., Barmparas, G., Chung, K., Mason, R., Yim, D. A., Dhillon, N., Margulies, D. R., Gewertz, B. L., Ley, E. J.
2016; 151 (11): 1006-1013
 - **Pain Assessment and Control in the Injured Elderly.** *The American surgeon*
Ko, A., Harada, M. Y., Smith, E. J., Scheipe, M., Alban, R. F., Melo, N., Margulies, D. R., Ley, E. J.
2016; 82 (10): 867-871
 - **Reducing acute kidney injury due to vancomycin in trauma patients.** *The journal of trauma and acute care surgery*
Ko, A., Harada, M. Y., Barmparas, G., Jay, J., Sun, B. J., Chen, E., Mehrzadi, D., Patel, B., Mason, R., Ley, E. J.
2016; 81 (2): 352-7
 - **Thromboelastography After Murine TBI and Implications of Beta-Adrenergic Receptor Knockout.** *Neurocritical care*
Liou, D. Z., Ko, A., Volod, O., Barmparas, G., Harada, M. Y., Martin, M. J., Salim, A., Dhillon, N., Thomsen, G. M., Ley, E. J.
2016; 25 (1): 145-52
 - **Predictors of improved functional outcome following inpatient rehabilitation for patients with traumatic brain injury.** *NeuroRehabilitation*
McLafferty, F. S., Barmparas, G., Ortega, A., Roberts, P., Ko, A., Harada, M., Nuño, M., Black, K. L., Ley, E. J.
2016; 39 (3): 423-30
 - **High-value care in the surgical intensive care unit: effect on ancillary resources.** *The Journal of surgical research*
Ko, A., Murry, J. S., Hoang, D. M., Harada, M. Y., Aquino, L., Coffey, C., Sax, H. C., Alban, R. F.
2016; 202 (2): 455-60
 - **Early propranolol after traumatic brain injury is associated with lower mortality.** *The journal of trauma and acute care surgery*
Ko, A., Harada, M. Y., Barmparas, G., Thomsen, G. M., Alban, R. F., Bloom, M. B., Chung, R., Melo, N., Margulies, D. R., Ley, E. J.
2016; 80 (4): 637-42
 - **Heart rate in pediatric trauma: rethink your strategy.** *The Journal of surgical research*
Ko, A., Harada, M. Y., Murry, J. S., Nuño, M., Barmparas, G., Ma, A. A., Thomsen, G. M., Ley, E. J.
2016; 201 (2): 334-9
 - **Field intubation in civilian patients with hemorrhagic shock is associated with higher mortality.** *The journal of trauma and acute care surgery*
Chou, D., Harada, M. Y., Barmparas, G., Ko, A., Ley, E. J., Margulies, D. R., Alban, R. F.
2016; 80 (2): 278-82
 - **Decreasing maintenance fluids in normotensive trauma patients may reduce intensive care unit stay and ventilator days.** *Journal of critical care*
Barmparas, G., Ko, A., Harada, M. Y., Zaw, A. A., Murry, J. S., Smith, E. J., Ashrafian, S., Sun, B. J., Ley, E. J.
2016; 31 (1): 201-5
 - **Bicycle trauma and alcohol intoxication** *INTERNATIONAL JOURNAL OF SURGERY*
Harada, M. Y., Gangi, A., Ko, A., Liou, D. Z., Barmparas, G., Li, T., Hotz, H., Stewart, D., Ley, E. J.
2015; 24: 14-19
 - **Abdominal Injuries in the "Found Down": Is Imaging Indicated?** *Journal of the American College of Surgeons*
Ko, A., Zaw, A. A., Barmparas, G., Hoang, D. M., Murry, J. S., Li, T., Ashrafian, S., McNeil, N. J., Margulies, D. R., Ley, E. J.
2015; 221 (1): 17-24
 - **Polycystic ovary syndrome is associated with an increased prevalence of irritable bowel syndrome.** *Digestive diseases and sciences*
Mathur, R., Ko, A., Hwang, L. J., Low, K., Azziz, R., Pimentel, M.
2010; 55 (4): 1085-9