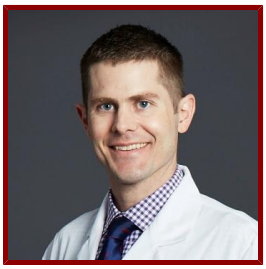
Stanford



Brian Travis Rice

Clinical Associate Professor, Emergency Medicine

CLINICAL OFFICE (PRIMARY)

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Bio

BIO

Brian Rice is a Clinical Associate Professor in the Department of Emergency Medicine at the Stanford University School of Medicine. He is a member of the Stanford Emergency Medicine International group with a focus on research including applied epidemiology to guide development efforts.

Dr. Rice was granted his MDCM from the McGill University Faculty of Medicine in 2008. He did a preliminary year in Internal Medicine at St. Mary Medical Center in Long Beach, CA followed by the completion of his Emergency Medicine Residency at Los Angeles County + USC, graduating in 2012. After residency, he completed a Fellowship in Global Health and International Emergency Medicine via a combined program at Yale University and the London School of Hygiene and Tropical Medicine where he received a MSc in Tropical Medicine and International Health as well as a Diploma in Tropical Medicine and Hygiene in 2014. He worked at NYU/Bellevue from 2014 – 2018 and has been on faculty at Stanford since 2018. He is also the Research Director for Global Emergency Care, a US and Ugandan-based NGO focused on providing “task-sharing” training in emergency medicine for non-physician clinicians.

His research work has focused on task-sharing in emergency medicine as well as chief complaints and quality indicators in low- and middle-income countries. He has worked clinically in Thailand, Cambodia, Liberia and Uganda and has been an invited speaker both nationally and internationally for his research work. His current research efforts focus on medevac utilization by non-physicians in rural Alaska Native communities.

CLINICAL FOCUS

- Emergency Medicine
- Applied Epidemiology
- Global Health

ACADEMIC APPOINTMENTS

- Clinical Associate Professor, Emergency Medicine
- Member, Maternal & Child Health Research Institute (MCHRI)

PROFESSIONAL EDUCATION

- Residency: LAC USC Emergency Medicine Residency (2012) CA
- Fellowship: Yale University Office of the Registrar (2014) CT
- Board Certification: Emergency Medicine, American Board of Emergency Medicine (2013)
- Internship: St Mary Medical Center Internal Medicine Residency (2009) CA
- Medical Education: McGill University Faculty of Medicine (2008) Canada

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

Developing data-driven approaches to defining and comparing chief complaints fro emergency and unscheduled acute care in low- and middle-income countries

Publications

PUBLICATIONS

- **Artificial intelligence/machine learning in Alaska Native healthcare systems: symposium perspectives.** *International journal of circumpolar health*
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- **No "Golden Hour" in Alaska: Characteristics and Implications of Medevac-centered Emergency Care.** *The western journal of emergency medicine*
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- **The Inverse Care Law in the Age of AI - Geographic Disparities in Health Care Technology Access.** *NEJM AI*
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- **Community-engaged artificial intelligence: an upstream, participatory design, development, testing, validation, use and monitoring framework for artificial intelligence and machine learning models in the Alaska Tribal Health System.** *Frontiers in artificial intelligence*
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- **AI-based approach for transcribing and classifying unstructured emergency call data: A methodological proposal.** *PLOS digital health*
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- **Bias at Warp Speed: How AI may Contribute to the Disparities Gap in the Time of COVID-19.** *Journal of the American Medical Informatics Association : JAMIA*
  Roosli, E., Rice, B., Hernandez-Boussard, T.
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- **Medevac Utilization and Patient Characteristics in Rural Alaska 2010 to 2018.** *Air medical journal*
  Rice, B. n., Wood, J. n., Britton, C. n., Strehlow, M. n., Goodwin, S. n.

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- **Defining high-risk emergency chief complaints: data-driven triage for low- and middle-income countries.** *Academic emergency medicine : official journal of the Society for Academic Emergency Medicine*
  Rice, B. n., Leanza, J. n., Mowafi, H. n., Thadeus Kamara, N. n., Mulogo, E. M., Bisanzo, M. n., Nikam, K. n., Kizza, H. n., Newberry, J. A., Strehlow, M. n., Kohn, M. n.
  2020
- **Graph augmented transformers improve chemotherapy toxicity symptom extraction from clinical notes.** *Nature communications*
  Saquand, E., Naderalvojoud, B., Schuessler, M., Pillai, M., Rice, B. T., Blayney, D. W., Hernandez-Boussard, T.
  2026
- **Surgical Disease Burden, Outcomes, and Roles of Non-Physician Clinicians in Ugandan Emergency Departments.** *The western journal of emergency medicine*
  Chamberlain, S., Ugwu-Dike, P., Mbiine, R., Sims, T., Rice, B. T.
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- **Large Language Models Using Free Text Clinical Notes Outperform ICD Coding in Identifying Patients With and Without Glaucoma**
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- **Clinical emergency care quality indicators in Africa: a scoping review and data summary.** *BMJ open*
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  Chiu, C., Fisk, C. A., Rice, B. T., Garcia, E. C.
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- **Emergency Medical Services (EMS) Utilization in Zimbabwe: Retrospective Review of Harare Ambulance System Reports.** *Annals of global health*
  Muchatuta, M., Mudariki, S., Matheson, L., Rice, B., Chidzonga, M., Walker, R., Strehlow, M., Newberry, J.
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  Rice, B., Pickering, A., Laurence, C., Kizito, P. M., Leff, R., Kisingiri, S. J., Ndyamwijuka, C., Nakato, S., Adriko, L. F., Bisanzo, M.
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  Rice, B., Calo, S., Kamugisha, J. B., Kamara, N., Chamberlain, S., Global Emergency Care Investigator Study Group
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- **Essential Emergency and Critical Care: a consensus among global clinical experts** *BMJ GLOBAL HEALTH*
  Schell, C., Khalid, K., Wharton-Smith, A., Oliwa, J., Sawe, H. R., Roy, N., Sanga, A., Marshall, J. C., Rylance, J., Hanson, C., Kayambankadzanja, R. K., Wallis, L. A., Jirwe, et al
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- **Household economic impact of road traffic injury versus routine emergencies in a low-income country.** *Injury*
  Mowafi, H., Rice, B., Nambaziira, R., Nirere, G., Wongoda, R., James, M., Group, G. W., Bisanzo, M., Post, L.
  2021

- **A Short-Term Medical Mission in Rural Nepal: Chief Complaints, Medications Dispensed, and Unmet Health Needs.** *Cureus*
  Bitter, C. C., Dornbush, C., Khoyilar, C., Hull, C., Elsner-Boldt, H., Mainali, S., Rice, B., Visser, E.
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- **Negative pressure patient isolation device to enable non-invasive respiratory support for COVID-19 and beyond.** *BMJ innovations*
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- **Developing Emergency Triage Systems in Cambodia.** *Cureus*
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- **The Association of Malnutrition and Disease Conditions in Mortality of Pediatric Patients Presenting to a Rural Emergency Department in Uganda.** *Pediatric emergency care*
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- **Pediatric Burn Management by Emergency Medicine Trained Non-Physician Clinicians in Rural Uganda** *EC Paediatrics*
  Pelis, M., Miller, S., Terry, B., Bisanzo, M., Maling, S., Modi, P., Periyanayagam, U., Rice, B.
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- **Intramedullary spinal neurocysticercosis presenting as brown-sequard syndrome.** *The western journal of emergency medicine*
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