



Sara Goldhaber-Fiebert

Clinical Professor, Anesthesiology, Perioperative and Pain Medicine

CLINICAL OFFICES

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ACADEMIC CONTACT INFORMATION

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Bio

BIO

My interest is in implementation science, improving systems practice, quality improvement, and patient safety, often utilizing various tools from medical simulation that can translate to clinical changes. Currently, our group's main focus is understanding effective implementation and use of emergency manuals (context relevant sets of cognitive aids or checklists), for crisis management of critical events. We enjoy collaborating with multiple colleagues throughout healthcare and other safety-critical industries,

For background and free resources for implementing these tools see <http://emergencymanual.stanford.edu/> from Stanford Anesthesia Cognitive Aid Group and www.emergencymanuals.org/ from the broader Emergency Manuals Implementation Collaborative

CLINICAL FOCUS

- Anesthesia

ACADEMIC APPOINTMENTS

- Clinical Professor, Anesthesiology, Perioperative and Pain Medicine

PROFESSIONAL EDUCATION

- Board Certification: Anesthesia, American Board of Anesthesiology (2009)
- Residency: Massachusetts General Hospital (2007) MA
- Internship: Brigham and Women's Hospital Harvard Medical School (2004) MA
- Medical Education: Harvard Medical School (2003) MA
- Fellowship, Center for Medical Simulation, Harvard, Simulation (2007)

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

Implementation of emergency manuals (context relevant sets of cognitive aids or crisis checklists) and other evidence-based patient safety advances can help excellent clinicians to deliver optimal care, if designed and implemented effectively.

My, and our group's, interests include:

1. Implementation of emergency manuals for crisis management of critical events, in both simulation-based and clinical settings

For free resources, see: <http://emergencymanual.stanford.edu>, a website I developed to share the work of our Stanford Anesthesia Cognitive Aid Group and our interdisciplinary clinical implementation team. And www.emergencymanuals.org, Emergency Manuals Implementation Collaborative, which a group of us founded to freely share tools and implementation resources nationally and globally.

2. Applying mixed-methods of implementation science to research #1.

3. Utilizing high fidelity simulation along with debriefing to teach principles of Crisis Resource Management (CRM). Faculty for multiple courses and Co-Director of Stanford's Evolve simulation program.

4. Combining verbal 'What If's' with low-tech screen-based simulation to harness the power of simulation and debriefing in much wider, more frequent, and even clinical settings.

5. Difficult airway management, and ENT anesthesia, integrating procedural and full-scenario simulation to practice and debrief approaches to challenging cases.

Publications

PUBLICATIONS

- **Clinical Uses and Impacts of Emergency Manuals During Perioperative Crises.** *Anesthesia and analgesia*
Goldhaber-Fiebert, S. N., Berekyei Merrell, S., Agarwala, A. V., De La Cruz, M. M., Cooper, J. B., Howard, S. K., Asch, S. M., Gaba, D. M.
2020; 131 (6): 1815–26
- **Ten years of the Helsinki Declaration on patient safety in anaesthesiology: An expert opinion on peri-operative safety aspects.** *European journal of anaesthesiology*
Preckel, B., Staender, S., Arnal, D., Brattebo, G., Feldman, J. M., Ffrench-O'Carroll, R., Fuchs-Buder, T., Goldhaber-Fiebert, S. N., Haller, G., Haugen, A. S., Hendrickx, J. F., Kalkman, C. J., Meybohm, et al
2020
- **Low-flow Nasal Cannula and Potential Nosocomial Spread of COVID-19.** *British journal of anaesthesia*
Goldhaber-Fiebert, S. N., Greene, J. A., Garibaldi, B. T.
2020
- **Operating Room In Situ Interprofessional Simulation for Improving Communication and Teamwork.** *The Journal of surgical research*
Shi, R. n., Marin-Nevarez, P. n., Hasty, B. n., Roman-Micek, T. n., Hirx, S. n., Anderson, T. n., Schmiederer, I. n., Fanning, R. n., Goldhaber-Fiebert, S. n., Austin, N. n., Lau, J. N.
2020; 260: 237–44
- **Bringing Perioperative Emergency Manuals to Your Institution: A "How To" from Concept to Implementation in 10 Steps** *JOINT COMMISSION JOURNAL ON QUALITY AND PATIENT SAFETY*
Agarwala, A., McRichards, L., Rao, V., Kurzweil, V., Goldhaber-Fiebert, S. N.
2019; 45 (3): 170–79
- **Cognitive Aids in Obstetric Units: Design, Implementation, and Use.** *Anesthesia and analgesia*
Abir, G. n., Austin, N. n., Seligman, K. M., Burian, B. K., Goldhaber-Fiebert, S. N.
2019
- **Use of an Emergency Manual During an Intraoperative Cardiac Arrest by an Interprofessional Team: A Positive-Exemplar Case Study of a New Patient Safety Tool** *JOINT COMMISSION JOURNAL ON QUALITY AND PATIENT SAFETY*

- Merrell, S., Gaba, D. M., Agarwala, A., Cooper, J. B., Nevedal, A. L., Asch, S. M., Howard, S. K., Goldhaber-Fiebert, S. N.
2018; 44 (8): 477–84
- **Emergency Manuals: How Quality Improvement and Implementation Science Can Enable Better Perioperative Management During Crises.** *Anesthesiology clinics*
Goldhaber-Fiebert, S. N., Macrae, C. n.
2018; 36 (1): 45–62
 - **Factors associated with the use of cognitive aids in operating room crises: a cross-sectional study of US hospitals and ambulatory surgical centers.** *Implementation science : IS*
Alidina, S. n., Goldhaber-Fiebert, S. N., Hannenberg, A. A., Hepner, D. L., Singer, S. J., Neville, B. A., Sachetta, J. R., Lipsitz, S. R., Berry, W. R.
2018; 13 (1): 50
 - **Operating Room Crisis Checklists and Emergency Manuals.** *Anesthesiology*
Hepner, D. L., Arriaga, A. F., Cooper, J. B., Goldhaber-Fiebert, S. N., Gaba, D. M., Berry, W. R., Boorman, D. J., Bader, A. M.
2017; 127 (2): 384–92
 - **Building Comprehensive Strategies for Obstetric Safety: Simulation Drills and Communication.** *Anesthesia and analgesia*
Austin, N., Goldhaber-Fiebert, S., Daniels, K., Arafeh, J., Grenon, V., Welle, D., Lipman, S.
2016; 123 (5): 1181-1190
 - **Emergency Manual Uses During Actual Critical Events and Changes in Safety Culture From the Perspective of Anesthesia Residents: A Pilot Study.** *Anesthesia and analgesia*
Goldhaber-Fiebert, S. N., Pollock, J., Howard, S. K., Bereknyci Merrell, S.
2016; 123 (3): 641-649
 - **Checklists and multidisciplinary team performance during simulated obstetric hemorrhage.** *International journal of obstetric anesthesia*
Hilton, G., Daniels, K., Goldhaber-Fiebert, S. N., Lipman, S., Carvalho, B., Butwick, A.
2016; 25: 9-16
 - **Emergency manual implementation: can brief simulation-based or staff trainings increase familiarity and planned clinical use?** *Joint Commission journal on quality and patient safety / Joint Commission Resources*
Goldhaber-Fiebert, S. N., Lei, V., Nandagopal, K., Bereknyci, S.
2015; 41 (5): 212-217
 - **In response.** *Anesthesia and analgesia*
Goldhaber-Fiebert, S. N., Howard, S. K.
2014; 118 (6): 1389-1390
 - **Implementing emergency manuals: can cognitive AIDS help translate best practices for patient care during acute events?** *Anesthesia and analgesia*
Goldhaber-Fiebert, S. N., Howard, S. K.
2013; 117 (5): 1149-1161
 - **Simulation Exercises as a Patient Safety Strategy A Systematic Review** *ANNALS OF INTERNAL MEDICINE*
Schmidt, E., Goldhaber-Fiebert, S. N., Ho, L. A., McDonald, K. M.
2013; 158 (5): 426-?
 - **Trigger Video of Simulated Intraoperative Cardiac Arrest.** *MedEdPORTAL*
Goldhaber-Fiebert, S., Harrison K, Mudumbai S, Howard S, McCowan K, Gaba D
2010
 - **Knowledge-based errors in anesthesia: a paired, controlled trial of learning and retention** *CANADIAN JOURNAL OF ANAESTHESIA-JOURNAL CANADIEN D ANESTHESIE*
Goldhaber-Fiebert, S. N., Goldhaber-Fiebert, J. D., Rosow, C. E.
2009; 56 (1): 35-45
 - **Male involvement in cardiovascular preventive healthcare in two rural Costa Rican communities** *PREVENTIVE MEDICINE*
Goldhaber-Fiebert, J. D., Goldhaber-Fiebert, S. N., Andorsky, D. J.
2005; 40 (6): 690-695

- **Randomized controlled community-based nutrition and exercise intervention improves glycemia and cardiovascular risk factors in type 2 diabetic patients in rural Costa Rica** *DIABETES CARE*

Goldhaber-Fiebert, J. D., Goldhaber-Fiebert, S. N., Tristan, M. L., Nathan, D. M.

2003; 26 (1): 24-29