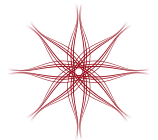


# 2023 John M. Eisenberg Patient Safety and Quality Awards

---



## Individual Achievement

### Eduardo Salas, PhD – Rice University

Dr. Eduardo Salas was selected in recognition of his body of work across 40 years designing, developing, and evaluating evidence-based principles and tools to help healthcare organizations create a culture of teamwork and safety. Dr. Salas' decades of work with the Department of the Navy regarding air crew coordination and teamwork, as well as in other high-risk industries, was foundational to establish core competencies specific to healthcare teams. Dr. Salas was instrumental in the design, development, and delivery of TeamSTEPSTM - Team Strategies & Tools to Enhance Performance & Patient Safety, which has now been adopted by 70% of U.S. hospitals. TeamSTEPSTM was initially funded by the Department of Defense and the Agency for Healthcare Research and Quality (AHRQ) in response to the Institute of Medicine's plea to reduce medical errors. As a subject matter expert and principal scientific advisor, Dr. Salas provided theoretical models that served as the framework for TeamSTEPSTM.

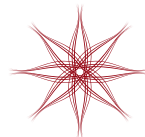
His work has reinforced focus on critical areas such as:

- Strategy design to facilitate adoption of team principles into high-stress, high-stakes environments.
- The use of innovative technologies such as medical simulation to advance the science and training of teamwork in healthcare environments.

He is well known for the translation of science into evidence-based best practices, which he has used to provide practical advice on topics including designing and deploying medical team training, creating a safety culture, and managing and evaluating teamwork.

Dr. Salas is a prolific scholar and has published more than 420 journal articles in top-tier journals and two books, edited 36 books and 247 book chapters, and has bestowed hundreds of presentations. His work has been cited more than 132,000 times.

The Eisenberg Award panel expressed Dr. Salas' extremely important and tremendous impact, denoting that the TeamSTEPSTM approach and framework were pioneering and revolutionary to how team-based care is provided. TeamSTEPSTM is now considered fundamental to quality and safety. The Eisenberg Award panel described Dr. Salas' work as "visionary," "trailblazing," and "incredibly influential."



---

## **John M. Eisenberg Patient Safety and Quality Awards**

### **National Level Innovation in Patient Safety and Quality**

### **The Surgical Pause - Veterans Health Administration**

Data demonstrate that among high-risk, frail patients, there is no such thing as “low-risk” surgery. The Surgical Pause, an initiative from the Veterans Health Administration (VHA), uses routine frailty screening with the Risk Analysis Index (a bedside frailty assessment that can be completed in 30 seconds without disrupting workflow) to identify 5-10% of the highest risk patients who experience disproportionately high rates of postoperative complications, loss of independence, and mortality. If patients are found to be frail, a brief “pause” permits further evaluation to review of goals of care and optimize treatment plans.

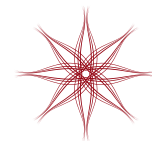
For the majority of patients who decide to pursue surgery, multidisciplinary care plans can be tailored to mitigate frailty-associated risks prior to surgery through nutritional supplementation, preoperative exercise to improve physical condition and respiratory function, and tailored surgical care such as the use of narcotic-sparing regional anesthetics during surgery and systematic delirium assessment during recovery. For some patients, goal clarification empowers them to choose non-operative treatment as most consistent with their goals. These prehabilitative interventions shift the paradigm and effort from simply focusing on rescuing patients experiencing postoperative complications to strengthening the frail patient and mitigating potential complications before they happen.

Data provided from the initial pilot sites support this initiative’s success. Omaha VA Medical Center in Omaha, Nebraska, cut six-month mortality among frail patients from 25% to 8%, and later efforts at Pittsburgh VA Medical Center in Pittsburgh, Pennsylvania, and Malcom Randall VA Medical Center in Gainesville, Florida, replicated this improvement. Supporting data cited by VHA included an interrupted time series analysis of 50,463 patients, where the estimated one-year mortality declined by -4.2% (95% CI, -6.0% to -2.4%).

Utilizing a novel, validated and simple frailty assessment while leveraging existing resources for perioperative care, the Surgical Pause has been replicated at more than 50 medical centers across VHA and the private sector. With support from VHA’s Diffusion of Excellence program in piloting and scaling the initiative, the Surgical Pause has now been adopted as a national practice by VHA’s National Surgery Office in addition to a growing number of private sector institutions.

The Eisenberg Award panel was impressed by the simplicity and effectiveness of the Risk Analysis Index to permit clinicians to quickly screen patients, and they noted that the Surgical Pause’s overall methodological approach and implementation strategy makes it accessible and replicable by a wide variety of settings and facilities. VHA is disseminating this approach; for example, an implementation guide outlines a proposed timeline for implementation over 12 months and is publicly available on VHA’s Diffusion Marketplace.

*(Dr. Carolyn Clancy from the VA, serves on the panel, but did not score or discuss this application)*



---

## **John M. Eisenberg Patient Safety and Quality Awards**

### **Local Level Innovation in Patient Safety and Quality**

#### **Creating a Culture of Quality for Cardiovascular Care in Michigan – BMC2**

BMC2 (Blue Cross Blue Shield of Michigan Cardiovascular Consortium) is a state-wide quality improvement collaborative that develops and administers a portfolio of quality improvement interventions for patients who undergo percutaneous coronary interventions (PCI), vascular surgical procedures, and transcatheter valve procedures in Michigan. The consortium is one of 22 Collaborative Quality Initiatives sponsored by Blue Cross Blue Shield of Michigan and Blue Care Network as part of the BCBSM Value Partnerships program. Facilities contribute procedural and outcome data to registries, which are aggregated into hospital and physician-level reports and benchmarked to statewide performance. BMC2 is recognized for its remarkable improvements in the documentation of radiation use, a decrease in high-dose radiation exposure, and opioid pill prescribing rates.

BMC2 annually impacts 30,000 patients treated by hundreds of physicians from more than 100 hospital teams. The collaborative creates data-driven quality improvement goals and initiatives, develops best practice protocols, convenes members at statewide collaborative meetings, and supports sites with annual site and chart reviews and staff training.

In Michigan, documentation of radiation use improved from 73.1% in 2019 to 85.5% in 2021, and BMC2 sites are outperforming national rates, which were 57.5% in 2019 and 74.3% in 2021. BMC2 sites achieved an overall 43% decrease in cases with high-dose (greater than 5 Gray) radiation exposure (2.8% in 2018 to 1.2% in 2021) for hundreds of patients and catheterization laboratory staff members. BMC2 also reduced opioid pill prescribing; its data showed improvement in the rate of patients with a prescription of less than 10 opioid pills by approximately 30% between 2018 (62%) and 2021 (91%).

In addition, partnering with a patient advisory council in 2021 led to the following outputs:

- Development of the Michigan Cardiac Rehab (MiCR) Best Practices Toolkit
- Creation of a risk-prediction tool to facilitate shared decision-making among patients, providers, and caregivers
- Improved, streamlined, and user-friendly PCI discharge instructions
- Patient-facing materials
- New resources to encourage patient participation in cardiac rehabilitation

BMC2 also tackled issues with healthcare disparities and published Persistent Racial Disparities in Risk of Readmission and Mortality after PCI, and Direct and Indirect Effects of Race and Socioeconomic Deprivation on Outcomes Following Lower Extremity Bypass – Insights from BMC2 Vascular Surgery. BMC2 conceptualized and implemented a novel, statewide, cross-site peer review process focusing on procedural appropriateness and intervention quality to foster a culture in Michigan healthcare to pool and continuously optimize practice, systems and outcomes of care. More than 2,000 cases have been reviewed since the peer review effort began in 2017.

The Eisenberg Award panel was impressed by BMC2's dissemination of its work. BMC2 data has supported more than 100 publications in peer-reviewed medical journals and more than 100 presentations at national and international conferences. The panel noted that this kind of collaborative, best-practice approach improved outcomes, reduced costs, and could be replicated by other states. The panel was inspired by BMC2's inclusive scope across so many clinicians, physicians, teams, and sites, acknowledging the collaborative is "working to improve care, at every institution, and for every patient. It's remarkable."