



# State of California Trauma Summit

October 6, 2021  
8:00 AM – 12:30 PM

**REACH**<sup>SM</sup>  
A Global Medical Response Solution

[www.emsa.ca.gov](http://www.emsa.ca.gov)

## KEY TOPICS

- ✓ Lower Acuity Brain Injuries – Do I Need to Transfer or even Admit to the Hospital?
- ✓ The Silver Surge – Optimizing Care of Our Most Prevalent Trauma Population
- ✓ Optimizing Re-triage: The Challenge of Establishing Workable Requirements for a Trauma System



Elizabeth Winward, MA  
State Trauma System Coordinator  
[Elizabeth.Winward@emsa.ca.gov](mailto:Elizabeth.Winward@emsa.ca.gov)

## CONTINUING EDUCATION PROVIDED THROUGH REACH AIR MEDICAL SERVICES

- ✓ REACH Air Medical Services is an approved provider by the California Board of Registered Nursing, Provider Number CEP #9697 for 3 contact hours
- ✓ This course has been approved for 3 hours of continuing education by an approved California EMS CE Provider, #34960
- ✓ To receive continuing education hours, participants must attend the entire event
- ✓ At the conclusion of the Trauma Summit, a link for the evaluation/test will be provided. This will need to be completed before the continuing education certificate can be sent
- ✓ The continuing education certificates will be sent within two weeks of the class. For questions, please contact [Margaret.Franklin@gmr.net](mailto:Margaret.Franklin@gmr.net)



Margaret Franklin, MSA  
Director of Education Services  
[Margaret.Franklin@gmr.net](mailto:Margaret.Franklin@gmr.net)



## LEARNING OBJECTIVES

- Identify the purpose of the Brain Injury Guidelines (BIG) Project
- Describe how Brain Injury Guidelines are used
- Identify criteria for Geriatric ED accreditation
- Define how the G60 program optimizes recovery of older adults who have experienced a traumatic injury
- Review the federal Emergency Medical Treatment and Labor Act (EMTALA) requirements for trauma centers and how these ties into California's re-triage of trauma patients
- Identify the responsibilities of local EMS agencies in developing triage and transfer protocols for trauma patients in their jurisdictions

# Trauma Summit Schedule: October 6, 2021

8:00 – 8:05

## **INTRODUCTIONS**

Elizabeth Winward, MA

8:05 – 8:15

## **WELCOME**

Dave Duncan, MD

Director, California Emergency Medical Services Authority

8:15 – 9:30

## **LOWER ACUITY BRAIN INJURIES – DO I NEED TO TRANSFER OR EVEN ADMIT TO THE HOSPITAL? MODERATED BY DAVID SHATZ, MD**

Creation and Validation of Brain Injury Guidelines – Bellal Joseph, MD

Brain Injury Guidelines: A Neurosurgeon's Perspective – Alexander Khalessi, MD, MBA

A Level III Trauma Center's Experience with BIG-1 Patients – Amir Amiri, MD, MPH, FACEP

What Do I Do with this Head Bleed? – Matt Karp, MD

9:30 – 10:40

## **THE SILVER SURGE – OPTIMIZING CARE OF OUR MOST PREVALENT TRAUMA POPULATION – MODERATED BY HEIDI HOTZ, RN**

Geriatric Emergency Room Department Certification-Overview – Katren Tyler, MD

The G-60 Program - Should Every Trauma Center Do This? – Alicia Mangram, MD, FACS

10:40 – 10:50

## **BREAK**

10:50 – 12:00

## **OPTIMIZING RE-TRIAGE: THE CHALLENGE OF ESTABLISHING WORKABLE REQUIREMENTS FOR A TRAUMA SYSTEM – MODERATED BY ROBERT MACKERSIE, MD, FACS**

A Local EMS Agency Perspective – Larry Karsteadt, MS

Level II Trauma Center Perspective – Heather Theaux, RN, MSN, CEN, TCRN

Hospital, Non-Trauma Center Challenges – Tushar Patel, MD, MPH

Level I Trauma Center & Level I Pediatrics Trauma Center – Rachel Callcut, MD, MSPH, FACS

12:00 – 12:15

## **STATE OF THE STATE TRAUMA SYSTEM**

Dave Duncan, MD

12:15 – 12:25

## **EMERGENCY MEDICAL SERVICES AUTHORITY Q&A**

Dave Duncan, MD

Elizabeth Winward, MA

Tom McGinnis, MPH, EMT-P

12:30

## **END OF TRAUMA SUMMIT**

## California Emergency Medical Services Authority



**Dave Duncan, MD**

Director  
Emergency Medical  
Services Authority

Dr. David R. Duncan Jr. was appointed Director of the Emergency Medical Services Authority in 2019. Dr. Duncan has been Medical Director and Executive Medical Officer at Air Medical Group Holdings and REACH Air Medical Services since 2008. He served as Medical Director at the California Department of Forestry and Fire Protection from 2010 to 2019. Dr. Duncan has served as a staff emergency physician at the Veterans Administration Hospital, Mather since 2016. He was a staff emergency physician at Sierra Nevada Memorial Hospital from 1995 to 2015, at Mercy San Juan Hospital from 1996 to 1999 and at the University of California, Davis Medical Center from 1994 to 1996. Dr. Duncan is a member of the Society of Academic Emergency Medicine, American College of Emergency Physicians and American Medical Association. He earned a Doctor of Medicine degree from the University of California, San Diego School of Medicine and completed emergency medicine training at the University of California, Davis Medical Center.



**Elizabeth Winward, MA**

State Trauma System  
Coordinator  
Emergency Medical  
Services Authority

Elizabeth Winward has been the State Trauma System Coordinator for the Emergency Medical Services Authority since 2017. Elizabeth oversees the continued development and implementation of California's Trauma System in accordance with Health & Safety Code and Regulations. Elizabeth is a seasoned Health Program Administrator with 20 + years of experience managing data collection and patient safety protocol adherence for clinical research trials at University of California, Davis Medical Center, administering public health programs at California Department of Public Health, and implementing high-cost pharmaceutical contracts for the State of California. Elizabeth's education includes a bachelor's degree from Utah State University and a master's in Sociology from California State University, Sacramento. Elizabeth resides in Loomis, CA with her husband and son.

## Lower Acuity Brain Injuries – Do I Need to Transfer or Even Admit to the Hospital?



**David V. Shatz, MD**

**Moderator**

Professor of Surgery  
Trauma Surgeon,  
Surgical Intensivist  
University of California  
Davis, Medical Center

David V. Shatz, MD is a Professor of Surgery at the University of California, Davis, where he is a trauma surgeon and surgical intensivist at the UCD Medical Center. Prior to joining the faculty at UC Davis in 2008, he was a faculty member at the University of Miami/Jackson Memorial Hospital for sixteen years. Besides trauma and surgical critical care, he is a recognized expert in the field of prehospital care and disaster response. His primary research interests lie in splenic immunology as it relates to trauma. He has been involved in trauma and EMS care both in California and nationally, currently serving on the California State Trauma Advisory Committee as well as the American College of Surgeons Committee on Trauma.



**Bellal Joseph, MD**

**Faculty**

Professor of Surgery  
and Neurosurgery,  
Chief of General  
Surgery and Chief  
Division of Trauma,  
Critical Care, Burns &  
Emergency Surgery

Dr. Joseph is the Martin Gluck Endowed Professor of Surgery, Professor of Neurosurgery, Chief of General Surgery and Chief Division of Trauma, Critical Care, Burns & Emergency Surgery, at the University of Arizona. He is also the Vice Chair of Research for the Department of Surgery. Dr. Joseph has authored over 310 peer reviewed publications and 30+ books chapters. His research has been funded by the NIA, DOD and DARPA. His areas of expertise encompass traumatic brain injury, transfusions and factor replacement in trauma patients, frailty and equity diversity and inclusion. Dr. Joseph is a member of numerous national associations, he is Executive Director of Geriatrics for the American Association for the Surgery of Trauma, President of the Arizona Trauma Association, and vice chair of Committee on Trauma in the State of Arizona. Dr. Joseph's also a member of the steering committee of the National Trauma Research Action Plan (NTRAP). His passion lies in nurturing the professional development and growth of aspiring young surgeons

## Lower Acuity Brain Injuries – Do I Need to Transfer or Even Admit to the Hospital?



**Matt Karp, MD**

**Faculty**

Trauma Medical Director,  
Sutter Lakeside (Level IV)  
Emergency Medicine  
Physician, Sutter  
Lakeside Lakeport, CA  
Emergency Medicine  
Physician, Sutter Santa  
Rosa Santa Rosa, CA

Dr. Matthew Karp is a practicing emergency physician in northern California and serves as the Medical Director for North Coast EMS overseeing prehospital care in Lake, Humboldt, and Del Norte counties. He has a passion for rural emergency medicine and prehospital care and the unique challenges faced in these communities.



**Amir Amiri, MD**

**Faculty**

Chief of Trauma, Adventist  
Health Rideout  
Chief of Surgery, Mercy  
San Juan Medical Center

Dr. Amiri has been a Trauma and Acute Care Surgeon in Sacramento for over ten years. He completed his undergraduate work at UC Irvine and his Medical Doctorate at Drexel University College of Medicine. His post-doctoral training is in General Surgery and a fellowship in Trauma Critical Care, both completed at UC Davis Medical Center. Dr. Amiri is the Chief of Trauma at Adventist Health Rideout and Division Chief of Surgery at Mercy San Juan Medical Center. In addition, he serves on multiple committees on trauma delivery, patient safety, and quality improvement.

## Lower Acuity Brain Injuries – Do I Need to Transfer or Even Admit to the Hospital?



**Alexander Khalessi  
MD, MBA**

**Faculty**

Chair of Neurological  
Surgery

Professor of Surgery,  
Radiology and  
Neurosciences  
University of California,  
San Diego

Dr. Khalessi graduated from Stanford University with a bachelor's degree in public policy and a master's degree in health services research. After earning his medical degree at the Johns Hopkins School of Medicine, Dr. Khalessi completed his neurosurgical residency at the University of Southern California and an internationally recognized endovascular neurosurgery fellowship with Dr. Nick Hopkins at SUNY Buffalo. He came to UC San Diego after expanding the endovascular neurosurgery service as a clinical instructor at LAC + USC. He earned a master's degree in business administration from the Sloan School of Management at Massachusetts Institute of Technology (MIT). Dr. Khalessi holds several national leadership positions in both graduate medical education and the treatment of cerebrovascular disease. He serves as a member of the Residency Review Committee for Neurosurgery and Editorial Board for the Journal of Graduate Medical Education. Dr. Khalessi was further named to the ACGME Working Group for Neurosurgical Milestones that will define the national standards of neurosurgical training. Within his subspecialty, Dr. Khalessi is a member AANS/CNS Joint Clinical Guidelines Committee that defines clinical practice standards, Executive Committee of the Joint AANS/CNS Cerebrovascular Section and is principal editor of a free-standing Ischemic Stroke Supplement for World Neurosurgery, the official Journal of the World Federation of Neurosurgical Societies. Dr. Khalessi's research interests include open surgical and endovascular therapies for intracranial aneurysms, large-vessel ischemic stroke, and intensive care management and prognosis in head injury, care management and prognosis in head injury.



## The Silver Surge – Optimizing Care of our Most Prevalent Trauma Population



**Heidi Hotz, RN**

**Moderator**

Trauma Program  
Manager, Department  
of Surgery  
Cedars-Sinai Medical  
Center

Heidi Hotz is the Trauma Program Manager at Cedars-Sinai Medical Center, an ACS verified and Department of Health designated Level I Trauma Hospital. She has served in the elected position of President of 4 trauma professional organizations: The Society of Trauma Nurses, The American Trauma Society, The Trauma Managers Association of California, and the Los Angeles Association of Trauma Program Managers. She is the recipient of the STN's Trauma Leadership Award and the Eastern Association for the Surgery of Trauma Honorary Membership. She is a senior survey team member for the American College of Surgeons Trauma Systems and Evaluation Program. She was the Chair of the Advanced Trauma Care for Nurses Committee (ATCN) in Arizona for 6 years. Following this term, she was appointed the first Chair of the ATCN National-International Committee by the STN Board of Directors. Heidi and her ATCN - STN leadership team spearheaded the special project to attain the ACS COT approval of the program as a collaborative effort with the ATLS Subcommittee. She has been an invited expert participant for many national trauma initiatives and projects such as the ATS Leadership Forums, the screening & brief intervention for alcohol in trauma initiative, the Model Trauma System Plan work group, and patient centered care initiatives, to name a few. She is an invited guest speaker on a wide variety of trauma related topics throughout the United States and internationally. She has active participation at the Member and Chair levels for local, regional, state and national trauma committees. She was a member of the STN Board of Directors for over 8 years in the positions of Director at Large, Treasurer, President Elect, President, and Immediate Past President. She is an author and Faculty Member for the STN's Trauma Outcomes Performance Improvement Course. She has extensive experience in all aspects of trauma including clinical care, program management, trauma data, trauma performance improvement and patient safety, trauma systems, injury prevention, consultant for trauma centers and systems, educational curriculum development, trauma hospital site surveyor, conference and event planning and all trauma related issues across the continuum of care. Heidi is a member of the California State Trauma Advisory Committee.

## The Silver Surge – Optimizing Care of our Most Prevalent Trauma Population



**Alicia J. Mangram  
MD, FACS**

### **Faculty**

Senior Medical Director of  
Trauma/Acute Care  
Surgery – Acute Care  
Surgical Specialists

Medical Director of  
Surgical Intensive Care  
Unit

Program Director of  
General Surgery  
Residency  
Honor Health John C.  
Lincoln Medical Center &  
Deer Valley Medical  
Center, Phoenix Arizona

Founder and CEO of G60  
Trauma.org

Dr. Mangram is the Trauma Critical Care Director of a private multi-specialty group Valley Surgical Clinics and Acute Care Surgical Specialists.

Dr. Mangram is the Senior Medical Director of Trauma and Acute Care Surgery, as well as Medical Director of Surgical Intensive Care Unit at HonorHealth John C. Lincoln Medical Center in Phoenix, Arizona. Dr. Mangram is the appointed Program Director for the HonorHealth John C. Lincoln General Surgery Residency. She completed her general surgery residency and fellowship in surgical critical care at University of Texas Health Sciences Center (Hermann Hospital).

Dr. Mangram has devoted herself to improving trauma care through advocacy, surgical and critical care research, education, and community service. She has a special interest in trauma patients over the age of 60 and has created G-60 Trauma. She is a member to multiple prestigious medical societies including American Association of Surgical Trauma (AAST), Arizona Trauma Association (ATA), Western Trauma Association (WTA) and Southwest Surgical Congress (SWSC). Dr. Mangram has recently been nominated to the ACS Committee on Trauma (term beginning in 2018). She has published numerous scientific papers in peer-reviewed journals. Dr. Mangram is most recognized world-wide for her landmark work at CDC: Guidelines for the Prevention of Surgical Site Infection (1999), and recently for her work in geriatric trauma (G60).

Lastly, Dr. Mangram has taken on the new challenge of creating an acute care robotic emergency general surgery curriculum.

# The Silver Surge – Optimizing Care of our Most Prevalent Trauma Population



Katren Tyler is an emergency physician at UC Davis in Sacramento, California. Her professional interests include emergency airway management, physician well-being, and geriatric emergency medicine. Dr. Tyler is the lead physician for the Senior Emergency Care Unit and fellowship director for the Geriatric Emergency Medicine fellowship. She is the Department's Vice Chair of Faculty Development, Wellness and Outreach and is the Medical Director for Physician Wellness for the Health System. In her spare time, she likes hanging out at home with her husband and two teenagers. She is a late onset runner. Her goal is always to finish in the vertical position, in running and at work.

## **Katren R. Tyler, MD**

### **Faculty**

Clinical Professor of  
Emergency Medicine  
Medical Director  
of Physician Wellness  
Senior Emergency Care  
Unit Physician Lead  
Geriatric EM Fellowship  
Director  
Vice Chair for Faculty  
Development, Wellness  
and Outreach  
Department of  
Emergency Medicine  
University of California,  
Davis Medical Center

## Optimizing Re-triage: The Challenge of Establishing Workable Requirements for a Trauma System



**Robert C. Mackersie  
MD, FACS**

**Moderator**

Professor Of Surgery

Department Of Surgery  
University of California,  
San Francisco

EMSA State Trauma  
Advisory Committee  
Chair

Robert C. Mackersie is a certified by the American Board of General Surgery, general certificate with subspecialty in surgical critical care. His practice is in general and trauma surgery, which includes vascular and thoracic surgery. In addition, he is a regular attending on the Surgical Critical Care Service at Zuckerberg San Francisco General Hospital and Trauma Center and serves as Vice-Chief of Surgery there.

Dr. Mackersie is a graduate of UC Berkeley and Michigan State University Medical School. He completed his internship, residency and chief residency training in general surgery and surgical critical care at the University of California, San Francisco, where he continued his specialty training and completed a trauma research fellowship. Dr. Mackersie joined the faculty at the University of California, San Diego University Hospital from 1985-1991. Dr. Mackersie was appointed the Trauma Medical Director in 1992 at the University of California/San Francisco General Hospital (now Zuckerberg San Francisco General) and has been instrumental in expanding the multidisciplinary activities related to the Trauma Program. Dr. Mackersie currently serves as an officer for several surgical organizations and is a Governor of the American College of Surgeons. Dr. Mackersie has been appointed Secretary/Treasurer for the American Association for the Surgery of Trauma. Dr. Mackersie has also expanded the Trauma Nurse Practitioner program and has progressed in developing the first aero-medical transport facility at San Francisco General Hospital. He has also been appointed Commissioner for the State of California Emergency Medical Services Authority, which is appointed by the Governor/California Speaker of the House. Dr. Mackersie continues to direct the national program in Trauma System Planning and Evaluation for the American College of Surgeons, which includes the development of national benchmarks for trauma systems and trauma centers, and the creation of national guidelines for trauma systems development.

## Optimizing Re-triage: The Challenge of Establishing Workable Requirements for a Trauma System



**Larry L. Karsteadt, MS**

### **Faculty**

Executive Director  
North Coast Emergency  
Medical Services Agency

As the longest serving Local Emergency Medical Services Agency (LEMSA) administrator in California, I've had the privilege of participating in EMS system coordination and oversight since its inception. I served as the administrative director of Sierra-Sacramento Valley EMS Agency for six years, the North Coast EMS Agency for close to 40 years, and occasionally as a contractor specializing in rural EMS and trauma system development. I previously was a member of the State Trauma Advisory Committee and currently am a member of the State Trauma Regulations Workgroup.



**Heather Theaux  
BSN, RN, MS, CEN, TCRN**

### **Faculty**

Director, Emergency  
Services/Trauma Program  
NorthBay Medical Center  
Fairfield, CA  
NorthBay Vacaville  
Hospital Vacaville, CA

Heather Theaux, RN, MS, CEN, TCRN is the Director of Emergency Department/Trauma/Stroke/Behavioral Health at NorthBay Healthcare. She has taken her institution from a community hospital to a Level II ACS verified and designated trauma center that actively uses re-triage for pediatrics at the main campus and trauma and STEMI at the smaller campus in Vacaville. Heather is currently a member of the State Trauma Regulations Workgroup.

# Optimizing Re-triage: The Challenge of Establishing Workable Requirements for a Trauma System



**Tushar R. Patel, MD  
MPH, FACEP**

## **Faculty**

Emergency Department  
Medical Director  
Memorial Hospital

Tushar Patel, MD, MPH is the Memorial Hospital Los Banos Chair of the Department of Emergency Medicine. Currently, Dr. Patel is a practicing Emergency Medical Physician at John Muir Concord and Memorial Hospital Los Banos. Dr. Patel is an active board member for the Merced County Emergency Medical Care Committee. He is Merced City Fire Department's Medical Director. Dr. Patel earned his medical degree from Tufts University School of Medicine and completed emergency medicine residency at the University of Connecticut School of Medicine. He holds Master's in Public Health from Tufts University School of Medicine. Prior to a career in medicine, Dr. Patel was a strategy and forecasting consultant for ZS Associates. He holds a Bachelor's in Business Administration from University of Illinois at Urbana-Champaign. Dr. Patel is a proud father of two and married to an exceptional wife who is an Internal Medicine Physician and small business owner.



**Rachel A. Callcut  
MD, MSPH, FACS**

## **Faculty**

Chief, Trauma, Acute  
Care and General  
Surgery

University of California,  
Davis Medical Center

Dr. Callcut is a General Surgeon specializing in Trauma, Acute Care Surgery, and Surgical Clinical Care. In addition to maintaining an active clinical practice, Dr. Callcut leads a NIH and DOD funded team of researchers focused on integration of biomedical BIG data and surgical data science into critical care for improved clinical decision support. Dr. Callcut has a broad health services research and data science portfolio focused on clinical outcomes research in Trauma and Critical Care and is an investigator in ongoing multicenter clinical trials examining resuscitation outcomes. Dr. Callcut has published numerous articles on the impact of regulatory issues in surgery, health care delivery, artificial intelligence/machine learning, advanced statistical techniques, cost-effectiveness, and the development of screening algorithms for clinical care. Dr. Callcut also leads a lab investigating the role of inflammation and coagulopathy in critical illness and injury. Her group has specific expertise in novel therapies for treatment of Acute Respiratory Distress Syndrome (ARDS).