

YEAR IN REVIEW

2024 AN OVERVIEW OF UPSTATE'S
ADULT TRAUMA CENTER PROGRAM



The
Region's Only
Level-One
**Trauma
Center**

UPSTATE
UNIVERSITY HOSPITAL

*Trauma
Center*



TRAUMA CENTER

Table of Contents

Letter from Trauma Program Leadership	2 - 3
Staff Updates	4 - 5
Trauma Outreach and Education	6 - 7
Injury Prevention Efforts	
Falls	8
Motor vehicle crashes	8
Violence	9
Trauma Events	10
Trauma Registry	11
Innovations in Trauma	
Patient Care	12 - 13
Trauma Quality Improvement Program (TQIP)	14
Features	
Mental Health for Trauma and Burns (MTAB)	15
Perioperative Services	16
NeuroTrauma Fellowship	17
Trauma Center Data	18 - 19
Awards/ Honors/ Presentations	20 - 21
Coming in 2025	22 - 23

LETTER FROM TRAUMA PROGRAM LEADERSHIP

Dear Colleagues, Partners and Supporters,

As we reflect on the past year, we are filled with gratitude and pride in the collective accomplishments of the Upstate Trauma Center and the broader network of healthcare professionals who support trauma care in our region. This year has been our busiest to date, with record numbers of trauma patients and trauma admissions, a reflection of both the challenges our community faces and the trust placed in our program to provide exceptional care.

Amidst this surge in activity, we have continued to innovate and grow, introducing new technologies and practices that enhance patient outcomes and elevate the quality of trauma care. The implementation of the Arcos Blood Navigator has streamlined

the management of massive transfusions, ensuring that our protocol is followed, and teams can communicate in real-time. Similarly, the integration of Pulsara has redesigned communication during critical moments, connecting our teams in real time to improve efficiency and coordination.

We've also introduced updated protocols, such as enhancements to our VTE prophylaxis guidelines, ensuring that our care remains evidence-based and patient-centered. Our concurrent registry and performance improvement (PI) process allows for real-time problem identification and solving, driving meaningful changes that directly impact outcomes.

This year, we forged exciting new partnerships to advance trauma education and prevention. Collaboration with the Upstate



Roseanna Guzman-Curtis, MD, MPH, FACS
Trauma Medical Director

Melaina King, BSN, RN, CCRN, TCRN
Trauma Program Manager



Simulation Center has enabled cutting-edge trauma provider courses, enhancing the skills and readiness of our team and regional partners. In the community, expanded injury prevention activities have allowed us to engage more deeply with those we serve, promoting knowledge and safety.

The achievements of the Adult Trauma Program were noteworthy this year. Our team has been honored with the nationally recognized DAISY Team Award, and our work has been showcased through presentations at regional, state, and national conferences. Oral and poster abstracts have highlighted our innovations and successes, earning recognition for the expertise and dedication of our staff. Team members have also added several noteworthy certifications and awards to their resumes.

This year, we also expanded the services we offer to address the holistic needs of trauma patients. The establishment of the MTAB (Mental Health for Trauma and Burns) team, which includes a nurse navigator and trauma psychologists, ensures that mental health care is prioritized alongside physical recovery. This initiative reflects our commitment to treating the whole person and meeting the unique challenges faced by trauma survivors.

None of this would be possible without the extraordinary collaboration of so many individuals and teams. From prehospital providers and referring hospitals to emergency, inpatient, and specialty care teams, ancillary services, rehabilitation professionals, and hospital leadership, every hand in the trauma continuum of care plays a critical role. Together, we have built a

system of care that is comprehensive, compassionate, and responsive to the needs of our patients and their families.

As we look back on this remarkable year, we are deeply grateful for the dedication, innovation, and teamwork that define the Upstate Trauma Center and our partners. Each of you has contributed to making this our most successful year yet, and we are excited to continue this momentum into the future. Thank you for your resolute commitment to excellence in trauma care.

With gratitude and pride,

Roseanna Guzman-Curtis, MD, MPH, FACS
Trauma Medical Director

Melaina King, BSN, RN, CCRN, TCRN
Trauma Program Manager

STAFF UPDATES

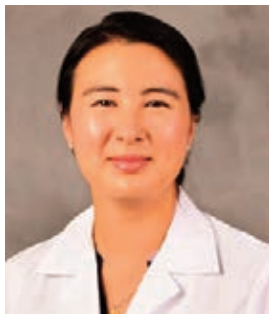


We are pleased to welcome several new key staff members this year.



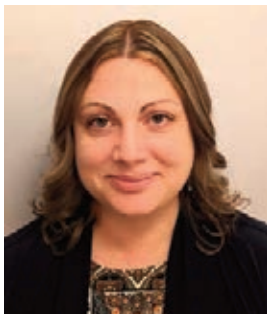
Elizabeth Magowan, MD

Dr. Magowan is a Syracuse native and has spent most of her life in the Upstate NY region. She completed her bachelor's degree with a dual major in biology and French literature from SUNY Binghamton, graduating summa cum laude. She then returned to Syracuse to complete her medical education at SUNY Upstate Medical University. She remained at SUNY Upstate for surgical residency, graduating in 2023. To finish her training, Dr. Magowan completed a surgical critical care fellowship at University of Michigan. She then returned to Upstate Medical University in 2024 as an Assistant Professor of Surgery in Trauma, Acute Care Surgery, and Surgical Critical Care.



Anna Wu, MD

Dr. Wu joined SUNY Upstate Medical University faculty in September 2024. She received her MD from Albany Medical College in 2017. She completed her general surgery residency at Albany Medical Center in 2022 and her fellowship in surgical critical care at the University of Rochester in 2023, before joining the Trauma and Acute Care Surgery faculty at Albany Medical Center. She received her board certifications in general surgery and surgical critical care in 2023. Dr. Wu comes to SUNY Upstate as an Assistant Professor of Surgery and is involved in trauma quality improvement projects and surgical education. In her free time, Dr. Wu loves reading, trying out local restaurants and traveling the world with her husband, who is a plastic surgeon in the area.



Sarah Schummer, CPC

Sarah joined the Upstate Trauma Program in January 2024 as a registrar. She graduated in 2006 from St. Bonaventure University with a bachelor's degree. She later chose to pursue an advanced certificate in certified medical coding and received an associate of arts degree in allied health from Burlington College in 2016. She earned her CPC and worked as a professional coder for nine years before accepting the trauma registrar position. She has enjoyed learning this new role and is excited to grow with the Trauma Program. Sarah enjoys spending time with her partner, two children, three cats, and golden retriever. When she is not driving children around to sports and school events, she enjoys painting.



Sydney German, NP

Sydney is a dedicated Nurse Practitioner with a strong clinical background, including over eight years of ICU experience in the Surgical Trauma ICU here at Upstate. Passionate about surgical and trauma patient care, Sydney transitioned from a clinical leader role to pursue advanced practice as a nurse practitioner with the Trauma Team in June 2024.

Her educational journey began with a bachelor's degree in biology from Hartwick College in 2012. Sydney then continued her education in an accelerated dual degree program, earning both a bachelor's in nursing from Le Moyne College and an associate degree in nursing from St. Joseph's College of Nursing in 2015. She went on to earn her master's in nursing from Upstate Medical

University in 2021. Sydney is now actively pursuing her RNFA through the NIFA RN First Assistant Program for APRNs to expand her expertise in the surgical setting.

Sydney's career has been marked by professional accomplishments and a commitment to ongoing education. She has been recognized multiple times as an outstanding preceptor (2018, 2021, 2023), received the Daisy Team Award (2020), and was nominated for the Daisy Award (2019) for her exceptional contributions to patient care and mentorship of new nurses.



Brianne Patenaude, BSN, RN

Brianne is a trauma performance improvement coordinator. She received her associate's degree in nursing from Jefferson Community College in 2014, and her bachelor's in nursing in 2021 from Western Governors University.

Brianne has been a registered nurse for 10 years. She started her nursing career at Upstate University Hospital in the Surgical-Trauma ICU in 2014. This is where her passion for caring for trauma patients began. In 2020, she began working in Nursing Quality, focusing on educating bedside staff about nurse sensitive indicators. Brianne is an active member of the American Trauma Society and the Society of Trauma Nurses.



Genevieve DeFrancesco, BSN, RN, TCRN

Genevieve holds the distinction of being the inaugural Trauma Nurse Navigator at Upstate. In this pivotal role, she offers psychosocial support to our trauma and burn patients and is an integral member of the Mental Health for Trauma and Burn team, now referred to as MTAB. Additionally, she serves as the Trauma Survivor Network coordinator, actively participating in the Trauma Survivor's Network.

Genevieve began her career at Upstate in 2020 as a registered nurse in the Surgical-Trauma ICU, where she also received training in the Burn ICU. Her dedication to trauma care deepened during her time at Albany Medical Center, an ACS-verified Level 1 Trauma Center, where she worked in the Surgical-Trauma and Neuro ICU. Throughout her career, she has provided care for some of the most critically injured patients in New York State. She earned her bachelor's in nursing from SUNY Plattsburgh in 2020 and achieved certification as a Trauma Certified Registered Nurse in 2024. Genevieve is also an active member of both the Society of Trauma Nurses and the American Trauma Society.



Tafara Timmons, LMSW, CTP

Tafara is the new Social Worker for the Violence Education Prevention Outreach Program (VEPOP). Tafara graduated from Utica University where she earned a master's in social work and holds the title of licensed master social worker. Previously employed by The Salvation Army, Tafara worked as a functional family therapist for gang related, street involved youth and their caregivers. During her time with The Salvation Army, she collaborated with the Mayor's Office to Reduce Gun Violence initiative and local community-based organizations to define service delivery processes per Department of Justice specifications. As a lifelong member of the Syracuse community, Tafara has seen the uptick in community violence throughout the region and is passionate about helping victims and families navigate the uncertainty that often accompanies these occurrences. Tafara is an enthusiastic service provider who is committed to her work with victims of community violence and looks forward to effectuating change throughout the community in her new role.



Kay Yu Yuan Chai, PhD

Dr. Chai obtained her bachelor's degree in psychology from the University of Washington, Seattle, and her PhD in clinical psychology from Duquesne University in Pittsburgh, PA. She completed her predoctoral psychology internship at Hutchings Psychiatric Center, where she worked with patients carrying diagnoses of severe, persistent mental illnesses. Prior to joining Upstate as the adult MTAB psychologist, Kay served as a staff therapist for four years with Syracuse University's Barnes Center at the Arch Counseling Services. Kay is passionate about providing meaningful psychological services to patients from all walks of life and is also particularly interested in the ways that people make sense of traumatic experiences and how that impacts their recovery.



Kathryn Hagen, PsyD

Dr. Hagen is a licensed child and adolescent psychologist and assistant professor in the Department of Psychiatry at SUNY Upstate Medical University. She completed her doctorate at The University of Hartford, and her internship at SUNY Upstate followed by a pediatric fellowship at Albany Medical Center where she specialized in mental health following medical traumas. Her current research interests include trauma adapted yoga as an adjunctive trauma treatment for adolescents, the impact of medical trauma on mental health and prevention techniques for patients following medically related traumas. She was recently appointed the director of the Mental Health for Trauma and Burns (MTAB) team, a specialized consultation/liaison program that provides psychological screening, evaluations and support for patients across the lifespan following a medically related trauma at Upstate's Level one trauma center.

OUTREACH & EDUCATION

New EMS Communication Platform

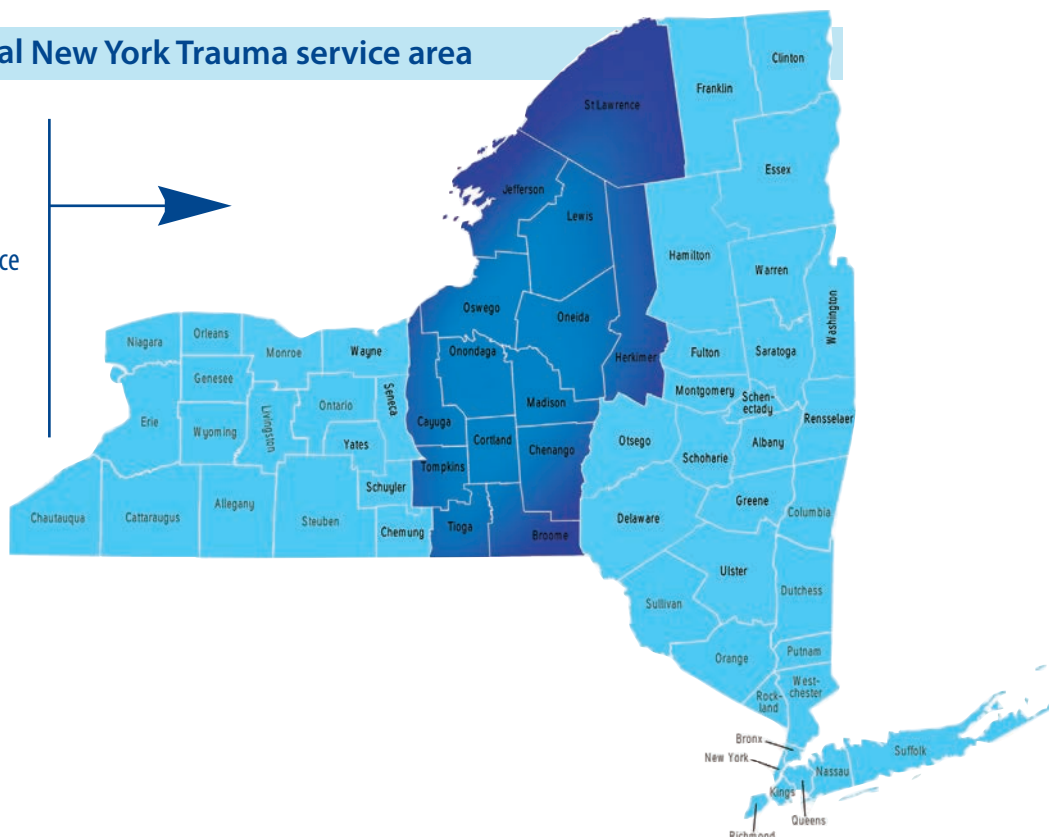
Our EMS partners throughout the trauma region have moved to a new communication platform, Pulsara, to notify the hospital of incoming patients. Pulsara has the ability to increase the information we know about inbound patients including securely sending us pictures of the patient or scene.

Pulsara, with its communication capabilities, has become our new method of alerting our trauma team of seriously injured patients. With the change, our trauma team now can communicate directly with our EMS partners before the patient arrives. Until now, only the Emergency Department physicians were able to communicate with the EMS professional enroute to the hospital.

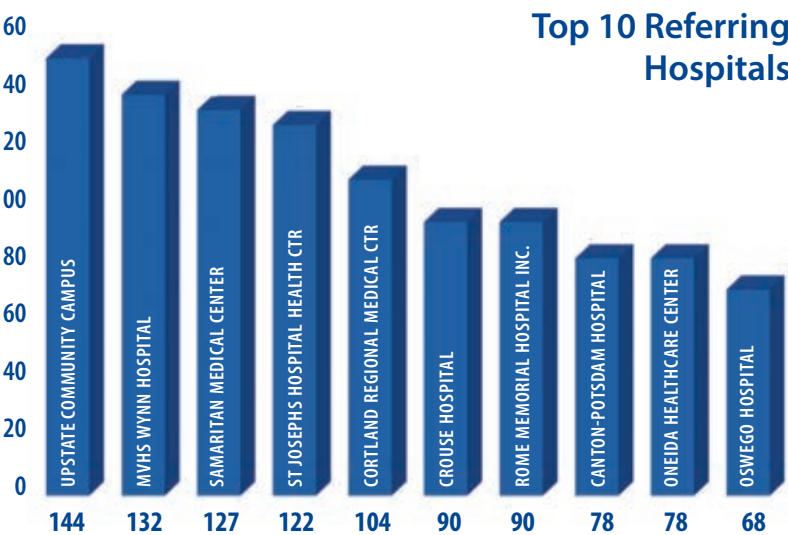


14 counties in the central New York Trauma service area

- | | |
|-----------|--------------|
| ■ Broome | Oneida |
| Cayuga | Onondaga |
| Chenango | Oswego |
| Cortland | St. Lawrence |
| Herkimer | Tioga |
| Jefferson | Tompkins |
| Lewis | |
| Madison | |



The Upstate Trauma Center had transfers from outside hospitals last year. **1,593**



Educational Offerings

Courses Available through Upstate Trauma Program	Number of classes offered	Number trained
IN-PERSON COURSES		
ATCN <i>(Advanced Trauma Care for Nurses)</i>	4	47
ATLS <i>(Advanced Trauma Life Support)</i>	9	88
ATOM <i>(Advanced Trauma Operative Management)</i>	2	6
RTTDC <i>(Rural Trauma Team Development Course)</i>	3	64
TNCC <i>(Trauma Nurse Core Course)</i>	10	108
Trauma Resuscitation Course	6	50
VIRTUAL COURSES		
Basic Trauma Education		10
Advanced Trauma Education		19
Trauma Center Overview		141

Advanced Trauma Care for Nurses Program Trains More Nurses in the Area.

The Upstate Trauma Center began offering Advanced Trauma Care for Nurses (ATCN) late in 2019, born out of the desire to offer additional formal trauma education to the nurses in the Central New York Trauma Region.

To-date, we have conducted 17 courses and have trained 177 registered nurses. In addition to Upstate nurses, we have trained nurses from 18 other hospitals.

We would like to extend our gratitude to our dedicated faculty who have made these courses possible. We started with only four instructors and have grown to 15. We anticipate the addition of six more faculty members with our next Instructor Course.

Partners in the program include Emergency Management with the HTC grant who allowed us to offer the course at no cost to the nurses in the region and helped us with our new partnership with our Simulation Center providing an excellent venue for our courses.

The interest in trauma education throughout our region is inspirational!



Students posing for a class photo in the Sim Center during an ATCN Course.



In 2024, Upstate Oasis held 112 total Tai Chi and Fall Prevention workshops, reaching 178 total participants.



Student actors portrayed victims of a mock crash for their fellow students at the Let's Not Meet by Accident presentation at Cazenovia High School in Spring 2024.



INJURY PREVENTION

One of the challenging parts of treating trauma patients is knowing that often these injuries are largely preventable.

Injuries are the leading cause of death and disability in the United States for those under the age of 44 (CDC WISQARS, 2023).

As the only ACS-Verified Level 1 Trauma Center in Central NY, we are tasked with providing injury prevention programs across the region to address our most frequent and serious injuries.

Falls

Falls continue to supersede all other traumatic injuries in our trauma region as well as our nation. They accounted for 46% of all trauma admissions in 2024.

A collaborative partnership with the Onondaga County Office of the Aging and Longterm Care Services has continued to allow us to distribute over 4,000 falls-related educational placemats to older adults living in Onondaga county. The same office is responsible for supporting Upstate Oasis in continuing to provide Tai Chi to anyone over the age of 50 living in Onondaga county.

In 2024, Upstate Oasis held 112 total Tai Chi and Fall Prevention workshops, reaching 178 total participants.

We are grateful to have formed a new partnership with LeMoyne CARE's team to collaborate on mutual events and support their fall prevention program. They offer a

7-week fall prevention program that includes educational and exercise interventions. The care team specifically focuses on biological, behavioral, and environmental risk factors in activities of daily living that can contribute to fall risks. Additionally, LeMoyne CARE's team provides home safety evaluations with an emphasis on promoting aging in place.

Injury Prevention: Let's Not Meet by Accident

Motor vehicle crashes are a leading cause of death and injury for teenagers in the United States.

In 2024, 701 people were admitted to Upstate University Hospital for injuries sustained from a motor vehicle or motorcycle crash. 35% of all patients admitted to Upstate Trauma were patients between the ages of 15 and 34.

- 75% of teen fatalities do not involve alcohol or drugs.
- 50% are passengers driven by a teen driver.
- Distractions such as cell phone use, multiple occupants and drowsiness continue to affect people on the road every day (Impact Teens, 2024).

Let's Not Meet by Accident (LNMB) has been a part of Injury Prevention Efforts at the Trauma Center for nearly 25 years.

The program is evidence-based and utilized to empower young people to make meaningful behavioral changes in their own driving habits as well as promote safe driving within their community.

Program Outline

Each two-hour event includes an educational session which fosters dialogue with students about common driving distractions. It then transitions to a real mass casualty incident report, and a mock crash reenactment with local responders (fire, ambulance, police, and even air-medical agencies and coroners if available) and student actor participants. Students then discuss the crash's outcomes and the consequences of distracted driving, with some schools offering small group reflections to support trauma-informed care.

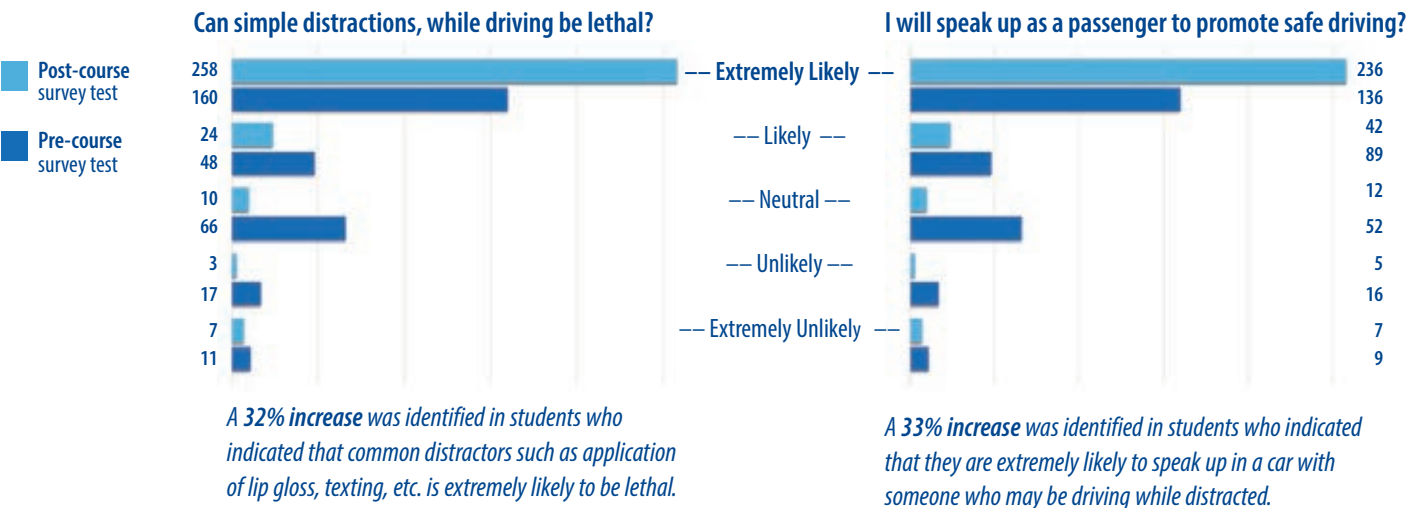
Results

This program has inspired thousands of young adults across the nearly quarter century it has run. Specifically, a current Upstate emergency room clinical leader RN stated that this program came to her school, and it inspired her to become an ER nurse.

One student wrote: "Well coordinated and definitely scared me. It made me and my friends tell our driver to get off her phone to even look for directions while driving. Instead, we read the directions off for her."

In 2024, we demonstrated a 129% increase from the previous year, with 973 students completing LNMBA. We are very excited to continue to run this long-term injury prevention program. We would like to thank all our collaborators and partners who make this possible for students each and every year!

Pre- / post-course survey data was collected from students participating in the program.



Anthony Scalise, Trauma Injury Prevention Coordinator, and Renee Gregg, VEPOP Social Worker

Violence Prevention

On behalf of all of us at Upstate Trauma, we would like to congratulate and thank our friend and colleague Renee Gregg, LMSW on her retirement after several years of service to Upstate University Hospital as the Violence Education Prevention Outreach Program (VEPOP) Coordinator. Renee reached thousands of individuals throughout her career and made a meaningful impact on their lives.

VEPOP is Upstate's hospital-based violence intervention program. This service

identifies patients who have been injured by violence, assesses patients of their risks for violence, and provides alternatives to violent lifestyles through intensive case management services. This could be through career assistance, school programs, housing programs, addiction help, and other services.

We would also like to welcome Tafara Timmons as the incoming Trauma Social Worker for the VEPOP program and wish her well in this new role!

TRAUMA EVENTS



Participants engaged with impaired-driving goggles with Upstate's University Police.



Colleagues from LifeNet tabling at the 2024 TraumaFest.



Members of the Adult Trauma Program Team pose for a picture at TraumaFest.

Trauma Fest 2024

On May 15, Upstate Trauma held our first post-covid Trauma Fest on Elizabeth-Blackwell Street. This revival was strategically held on Trauma Survivors Day to shine a light on their strength and courage. Over 250 Upstate employees were in attendance to assist in bringing awareness to injury prevention and trauma awareness.

A special shout out to the following trauma partners who participated: American Medical Response (AMR), LifeNet, Mercy Flight Central, Syracuse Fire Department, Upstate University Police, Upstate Pediatric Trauma, Clark Burn Center, SafeKids-Upstate NY Coalition, Upstate VEPOP, Upstate Emergency Management, and Yoga for all.

Participants received giveaways for correctly answering trauma trivia questions and learned the latest techniques in stopping the bleed with our brand-new training limbs that simulate actual bleeding.

The driving simulator was put to use by Lt. Nappo from University Police to highlight how distractions can lead to severe injuries.

TRAUMA REGISTRY

The Trauma Registry: Upstate's Data Powerhouse

At the core of the Upstate Trauma Program is the trauma registry - a vital database that fuels research, performance improvement, education, and injury prevention. Behind this database is a team of seven dedicated trauma registrars, whose expertise ensures the accuracy and integrity of the data that drives our mission.

Trauma registrars play an essential role in maintaining the registry's adherence to the National Trauma Data Standards (NTDS), ensuring consistency and comparability of data across trauma centers nationwide. This uniformity enables us to benchmark key performance indicators, such as mortality odds ratios and hospital events, against national standards, providing invaluable insights to improve care.

Their work isn't just meticulous; it's held to strict productivity and concurrency requirements. The team must ensure that 80% of patient charts are fully abstracted within 60 days of discharge - a challenging standard that demands focus and efficiency. To maintain high-quality data, we also follow a robust data quality plan. Regular inter-rater reliability exercises help the team ensure uniform interpretation of data rules, while routine validation reports identify potential errors. Collaborating with our registry software, ImageTrend, we established built-in

rules to catch errors in real time and provide timely feedback to registrars, continuously improving the accuracy of abstractions.

Becoming a trauma registrar requires both training and dedication. Registrars must complete courses in Abbreviated Injury Scale (AIS) coding, ICD-10 coding, and the ATS Trauma Registry Course, and they must maintain at least 24 continuing education credits every three years.

Among our team, Tim Hendrick, Joanne Salvagno, and Miranda Wasilenko hold the prestigious Certified Abbreviated Injury Scale Specialist (CAISS) certification, a rare achievement reflecting advanced knowledge of anatomy, injury patterns, and coding rules. Additionally, Sharon Menard-Mckenzie and Joanne Salvagno have earned the Certified Specialist in Trauma Registries (CSTR) credential, demonstrating advanced expertise in trauma registries.

Though their work often takes place behind the scenes, the impact of our registrars is felt across every aspect of the trauma program. Their efforts ensure that the data we rely on is accurate, timely, and actionable. From supporting performance improvement to shaping patient outcomes, the registry is the foundation of our program - and our registrars are the driving force behind it.

Upstate trauma registrars who hold either CAISS or CSTR credential:



Timothy Hendrick, RHIA, CAISS



Miranda Wasilenko, RHIT, CAISS



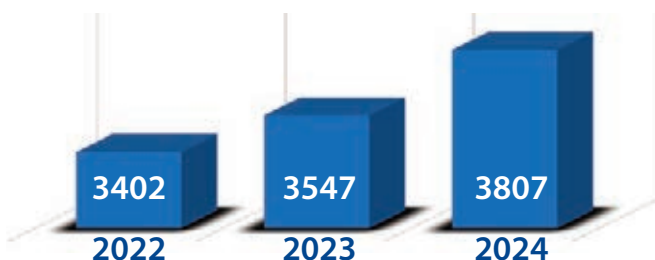
Sharon Menard-McKenzie, BS, BPS, CSTR



Joanne LaValle Salvagno, MS, RDN, CDN, CPC, CPB, CSTR, CAISS

Total Adult Trauma Registry Entries

The trauma registry captures all injured patients that meet NTDS, New York State, and internal criteria, not just those patients who are admitted to the Trauma Surgery service.



INNOVATIONS IN PATIENT CARE

Leveraging Technology to Optimize Massive Transfusion Practices: Enhancing Documentation, Team Experience, and Blood Product Ratios

Melaina King, Trauma program manager, earned national recognition by winning the oral abstract competition at the Trauma Quality Improvement Program (TQIP) Conference in Denver, CO, where she presented to a large room of trauma professionals on her PI project which integrated new technology into Upstate Trauma Center's massive transfusion protocol. This project, which replaces a cumbersome paper process for documenting blood products, scans blood products during massive transfusions directly into the electronic medical record (EMR). This was a collaborative effort between many groups including: ED nursing, ICU nursing, SWAT nursing, trauma surgeons, emergency medicine physicians, anesthesia, blood bank, IMT, Nursing Informatics, pediatrics, and nurse educators.



Trauma Program Manager Melaina King, received the best oral abstract award, at the TQIP conference in Denver, CO.

This project:

- Positioned Upstate as the first trauma center in the nation to utilize this new technology and solve a widespread challenge of capturing blood documentation during MTPs.
- Improved the staff experience.
- Improved documentation compliance.
- Improved 1:1 plasma: RBC ratios.
- Reduced blood product waste.



Arcos Blood Navigator Tablet and scanner attached to Belmont rapid infuser.

Targeting Venous Thromboembolism (VTE) in Trauma: Optimizing Enoxaparin Dosing with AFXa Monitoring

Upstate University Hospital is a clinical center of excellence – continuously evaluating and adopting innovative practices in health care to provide high quality patient care.

For several years, the approach to VTE prophylaxis in trauma patients has involved teamwork between Pharmacy and our trauma specialists. Research by Ko et al. in 2016 highlighted that the usual enoxaparin dosing for trauma patients might not be sufficient for effective VTE prevention, prompting our pharmacy and SICU intensivists to consider AFXa level monitoring. This led us to conduct our own study to see if the standard initial dosing was

reaching the desired AFXa levels in our critically ill trauma patients. With a rise in VTE cases in 2023, we recognized the importance of monitoring AFXa levels and adjusting enoxaparin doses accordingly to help reduce these events.

The initial interest in AFXa level monitoring for VTE prevention in trauma patients was sparked by the work of Ko et al. in JAMA Surgery 2016. However, the updates to our internal guidelines were influenced by Yorkgitis et al., whose article in The Journal of Trauma and Acute Care Surgery in March 2022 aimed to standardize VTE prophylaxis across trauma centers. The clinical protocol



Annual ACS COT Resident Paper Competition Held at Upstate

In November, Upstate had the privilege of hosting the Annual American College of Surgeons Committee on Trauma (ACS COT) Resident Paper Competition. This prestigious event was held in conjunction with the William H. Marx Endowed Lecture in Trauma Surgery, featuring a keynote presentation by Dr. Elliot Haut, professor of surgery and vice chair of Quality, Safety and Service at Johns Hopkins School of Medicine. Dr. Haut delivered an engaging and thought-provoking lecture on venous thromboembolism (VTE) in trauma patients, underscoring the importance of advancing research and care in this critical area.

The competition brought together outstanding residents from across New York State, representing the University of Rochester Medical Center, SUNY Upstate, SUNY Buffalo, and Albany Medical Center. Eleven compelling papers were presented, showcasing innovative research and fostering lively academic discussions.

This event exemplifies the collaborative and academic spirit that drives our work. We are deeply committed to partnering with our colleagues across the state to share ideas, exchange insights, and advance trauma care. Opportunities like this not only strengthen our professional relationships but also inspire the next generation of surgeons and researchers to push the boundaries of what is possible in trauma care.

We are honored to host such an impactful event and look forward to continuing to build a strong culture of collaboration and academic excellence in the years to come.

Attending and resident physicians from across Upstate NY pose together with a photo from the day with guest speaker, Dr. Elliot Haut.

Dr. Elliot Haut, Dr. Roseanna Guzman-Curtis, and Dr. Michael Vella



Abstracts submitted by Upstate residents:

- Assessing the Impact of Trauma Surgeon Response Time on Patient Outcomes in Level 1 Trauma Centers. Emma Steinmetz, MD
- Comparison of CT Scan Utilization in Adolescent Trauma Patients by Pediatric and Adult Trauma Providers. Alex Dimmer, MD, MSc, PhD
- Evaluating the Role of Repeat Head CT in Identifying Delayed Intracranial Hemorrhage in Trauma Patients on Therapeutic Anticoagulation at a Level 1 Trauma Center. Emma Steinmetz, MD
- SUNY Upstate STRAUMA Codes: An Observational Case Series. Slah Khan, MD
- Evaluating EMS Indications for Prehospital Needle Decompressions and Incidence of Subsequent Chest Tube Placement. Emma Steinmetz, MD

outlined in this article was created following a literature review by experts from the American Association for the Surgery of Trauma and the American College of Surgeons - Committee on Trauma.

This initiative truly showcased the dedication of various disciplines working together to lower VTE rates and enhance patient care outcomes.

Citations for footnote: Ko A, Harada MY, Barmparas G, et al. Association Between Enoxaparin Dosage Adjusted by Anti-Factor Xa Trough Level and Clinically Evident Venous Thromboembolism After Trauma. JAMA Surg. 2016;151(11):1006–1013.

Yorkgitis BK, Berndtson AE, Cross A, Kennedy R, Kochuba MP, Tignanelli C, Tominaga GT, Jacobs DG, Marx WH, Ashley DW, Ley EJ, Napolitano L, Costantini TW. American Association for the Surgery of Trauma/American College of Surgeons-Committee on Trauma Clinical Protocol for inpatient venous thromboembolism prophylaxis after trauma. J Trauma Acute Care Surg. 2022 Mar 1;92(3):597–604.



Dr. Luca, SICU medical director and trauma surgeon, and Greg Cwilka, critical care pharmacy specialist, pose for a photo in the SICU. These two were instrumental in effectuating the changes of our VTE protocol.

TQIP

TRAUMA QUALITY IMPROVEMENT PROGRAM



Trauma program staff pose for a photo at the 2024 TQIP Conference in Denver, CO.

- **Top 10% for the lowest mortality odds ratio in elderly blunt multisystem trauma patients.**
- **Top 10% for the lowest rates of catheter-associated urinary tract infections (CAUTIs) in all patients.**
- **Top 10% for the lowest rates of acute kidney injury (AKI) in all patients.**
- **Top 10% for fewest major hospital events, including mortality, in patients with severe traumatic brain injuries (TBIs).**

Upstate Trauma Center Achieves National Excellence Through TQIP

Upstate Trauma Center is proud to participate in the Trauma Quality Improvement Program (TQIP), a national benchmarking initiative led by the American College of Surgeons Committee on Trauma (ACS COT). With more than 800 trauma centers across the country taking part, TQIP fosters continuous improvement in trauma care by providing detailed performance insights and evidence-based recommendations.

The results from the 2024 TQIP reports highlight Upstate Trauma Center's commitment to delivering exceptional outcomes for our patients. In the spring, we ranked in the top 10% of centers nationwide for lowest major hospital events, including mortality, in patients with severe traumatic brain injuries (TBI). We also achieved top 10% performance for the lowest rates of acute kidney injury (AKI) across all patient groups.

Throughout the year, our trauma team consistently ranked in the top 10% nationally for the lowest mortality odds ratio in elderly blunt multisystem trauma patients, a testament to our expertise and collaboration in caring for this vulnerable population. Additionally, the fall 2024 report recognized our center among the top 10% for the lowest rates of catheter-associated urinary tract infections (CAUTIs) in all patients.

Overall, our odds ratio for patient mortality remains below the national benchmark, meaning we are delivering outcomes that surpass the average trauma center. These achievements reflect the tireless dedication of our teams to continuous improvement, innovation, and patient-centered care.

Participation in TQIP not only helps us refine our processes but also allows us to contribute to the collective advancement of trauma care across the nation. We are honored to collaborate with fellow trauma centers in raising the standard of care and are inspired to build on these accomplishments in the years ahead.

FEATURES

This "Features" section of our annual report shines a spotlight on the incredible teams and departments that contribute to the trauma patient continuum of care, recognizing the fact that "it takes a village". From prevention to prehospital care, the emergency department to perioperative services, intensive care to rehabilitation, and beyond, each step in this continuum plays a vital role in saving lives and supporting recovery.

Over the years, we've highlighted key areas such as the Emergency Department, Surgical Intensive Care Unit (SICU), 5A Acute Surgical Floor, Emergency Management, and the Trauma Survivors Network. This year, we are excited to feature:

- **Mental Health for Trauma and Burns (MTAB):** A new service dedicated to addressing the psychological and emotional needs of trauma and burn patients.
- **Perioperative Services:** A closer look at the critical role this team plays in providing seamless care during trauma surgeries.
- **NeuroTrauma Fellowship:** Our newest training program designed to advance care and expertise in neurotrauma.

Through these features, we celebrate the dedication, collaboration, and innovation of our teams, showcasing how each contributes to exceptional care and outcomes for our patients. Together, we are advancing trauma care across every link in the continuum.

Mental Health for Trauma and Burns (MTAB)

In adult populations, Post-Traumatic Stress Disorder (PTSD) and Major Depressive Disorder (MDD) are relatively common amongst people who have been hospitalized for traumatic injuries (deRoos-Cassini et al., 2019). Within the first year of a traumatic injury, approximately 30% of those people hospitalized for their injuries will go on to develop PTSD, while approximately 6% of those people hospitalized for their injuries will go on to develop MDD (Holbrook et al., 1998; Zatzick et al., 2002). There is growing evidence that functional outcomes following a traumatic injury are dependent on mental health outcomes twelve months after that traumatic injury (Michaels et al., 1999).

In response to the increasing awareness of the relationship between recovery from physical trauma and mental health issues, the Trauma and Psychiatry departments at Upstate Medical University have joined forces to establish a mental health team dedicated to supporting patients within the trauma and burn services, known as the Mental Health for Trauma and Burns team. This initiative, referred to as "MTAB," comprises two psychologists and a trauma nurse navigator.

The role of the trauma nurse navigator is to assess patients who may be at a heightened risk of experiencing mental health challenges post-injury through comprehensive mental health screenings, assessments and brief interventions. Patients identified as being at increased risk are afforded the opportunity to collaborate with a specialized trauma psychologist during their hospital stay to build upon their strengths and promote resilience following this injury.

Citations:

- deRoos-Cassini, T. A., Hunt, J. C., Geier, T., Warren, A. M., Ruggiero, K. J., Scott, K., George, J. B. E., Halling, M., Jurkovich, G. J., Fakhry, S. M., Zatzick, D. F., & Brasel, K. J. (2019). Screening and treating hospitalized trauma survivors for posttraumatic stress disorder and depression. *The Journal of Trauma and Acute Care Surgery*, 87(2), 440–450.
- Holbrook, T. L., Anderson, J. R., Sieber, W. K., Browner, D., & Hoyt, D. B. (1998). Outcome after Major Trauma. *Journal of Trauma-Injury Infection and Critical Care*, 45(2), 315–324.
- Michaels, A. D., Michaels, C. F., Smith, J. R., Moon, C. D., Peterson, C., & Long, W. B. (1999). Outcome from Injury: General Health, Work Status, and Satisfaction 12 Months after Trauma. *Journal of Trauma-Injury Infection and Critical Care*, 48(5), 841–850.
- Zatzick, D. F., Kang, S.-M., Müller, H.-G., Russo, J. E., Rivara, F. P., Katon, W., Jurkovich, G. J., & Roy-Byrne, P. (2002). Predicting Posttraumatic Distress in Hospitalized Trauma Survivors With Acute Injuries. *The American Journal of Psychiatry*, 159(6), 941–946.



Mental Health Trauma and Burns (MTAB) Team from Left-Right: Trauma Nurse Navigator Genevieve DeFrancesco, MTAB Psychologist and Director Kathryn Hagen, MTAB Psychologist Kay Yu Yuan Chai.

FEATURES

Perioperative Services: Upstate's Surgical Superheroes

The Perioperative Suite includes the pre-surgical area, the intra-operative space, and the post-anesthesia care unit (PACU). Each area is designed to prepare, support, and assist patients in recovery from any surgery or procedure that necessitates anesthesia.

The Pre-Surgical and PACU teams are experts in managing the preparation and recovery for patients undergoing anesthesia. This dedicated team consists of 37 Registered Nurses and 4 Unit Support Technicians, with each nurse bringing at least two years of experience to the role. All nurses are certified in ACLS and have undergone specific trauma education during their orientation. The staff exemplify strong teamwork and collaboration, working closely with each other and with providers to ensure that every patient receives high-quality care.

Our operating room teams support the Level 1 Trauma Center by being prepared to receive a trauma patient requiring emergency surgical intervention 24 hours a day, 7 days a week. This team can mobilize within 15



Nurse Manager Tom Connelly and members of the amazing PACU staff.

minutes to accommodate a critical trauma patient at any moment. Upstate's OR staff is comprised of 107 specialized personnel: nurses, technicians, and perfusionists. This team delivers high-quality patient care while working with a variety of surgeons, anesthesia providers, and leading-edge technology – making them ready for any patient at any time.

Upstate OR conducts recruitment events for Surgical Tech interns at Onondaga Community College. The educational component complements their clinical hours, and these individuals are classified as state employees. Within the operating room, there are various positions that one individual may occupy. For instance, a circulating nurse has the opportunity to receive training as a scrub nurse. Currently, eight nurses from the University Hospital's 5E OR possess the Operating Room certification (CNOR). "CNOR is a mark of distinction and demonstrates a commitment to upholding the highest standards in patient safety" (Competency & Credentialing Institute)

"Trauma is where we shine best" -Melody Sanborn, RN

"It's rewarding to be part of a team that can save lives" -Amber Mathews, RN

"I love the daily variety of this job." – Mallory Duffy



Nurse Manager Shelly Rupracht and the incredible perioperative staff at their weekly morning huddle.

Upstate is the second busiest accredited neurotrauma center in the country.

Neurotrauma Fellowship

Upstate Trauma Center Launches Nation-Leading Neurotrauma Fellowship

In 2024, the Upstate Medical University proudly gained recognition as one of only six accredited Neurotrauma Fellowship programs in the United States, a designation awarded by the Committee on Advanced Subspecialty Training (CAST). The Neurotrauma Fellowship focuses on the surgical and medical management of traumatic neurologic injuries. Care encompasses acute inpatient as well as chronic outpatient management.

Upstate is the second busiest accredited Neurotrauma Fellowship in the country as measured by surgical and case volume. The fellowship builds on our high case volume and underscores our commitment to advancing clinical expertise in managing traumatic brain and spinal injuries.

The Neurotrauma Fellowship is led by Timothy Beutler MD, FCNS, FAANS, Director of Critical Care Neurosurgery and Neurotrauma Fellowship Director, who completed his residency in Neurosurgery and fellowship in Neuro Critical Care at SUNY Upstate. The fellowship program will be graduating their first fellow this year. This milestone positions Upstate as a national leader in neurotrauma care and education.

In the Fall 2024, Upstate also became a site for the BOOST-3 Trial. This is a multicenter randomized control trial for traumatic brain injury looking at outcomes in patients undergoing brain tissue oxygen monitoring. Dr. Devin Burke is the site Principal Investigator for the study. Since becoming an active site for the research study, Upstate has enrolled 5 patients in the span of only a few months.



Dr. Burke (center) is the principal investigator in the BOOST study, with Dr. Beutler (left) and Dr. Guzman-Curtis (right) as co-investigators.

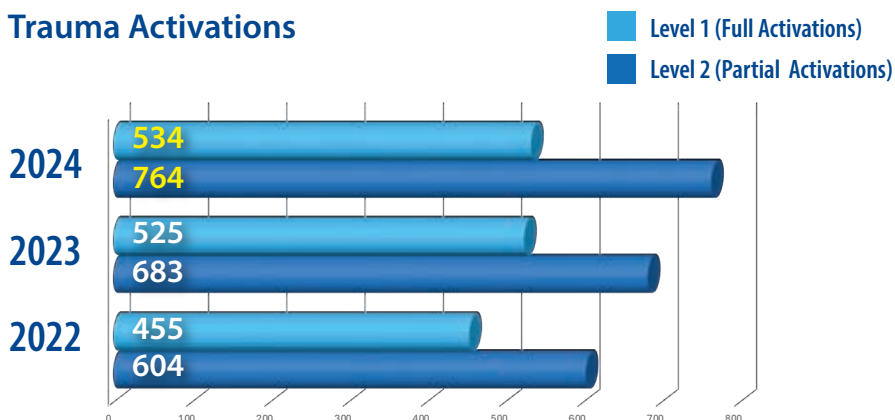
These achievements in neurotrauma education and research further solidifies our role as a top destination for neurotrauma training and care. The long-term goal is to develop the Center for Neurotrauma and Neurorecovery within the Upstate Neurologic Institute. This multidisciplinary center will bring together specialists from Trauma Surgery, Neurosurgery, Neurology, and Physical Medicine & Rehabilitation to provide coordinated care across the continuum, with a special focus on the chronic recovery phase of injury. Plans for the center include new roles to streamline patient transitions and track outcomes, ensuring optimal care from inpatient treatment to outpatient recovery.

With this fellowship, active clinical research, and forthcoming center of excellence, Upstate Trauma Center will continue to lead the way in transforming neurotrauma care and improving outcomes for patients across the region and beyond.

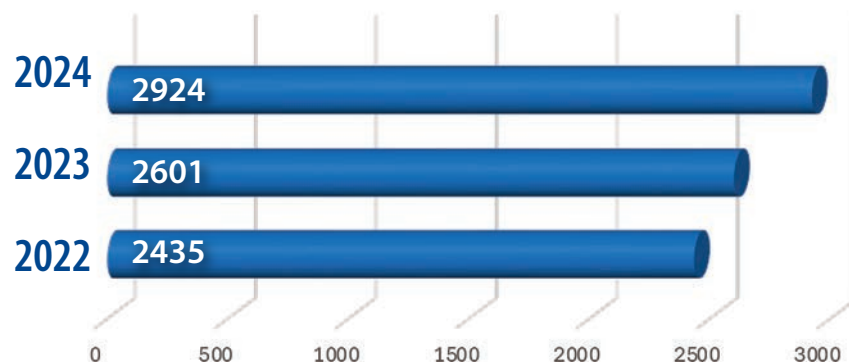
TRAUMA CENTER DATA

2024 was Upstate Trauma Center's busiest year ever!

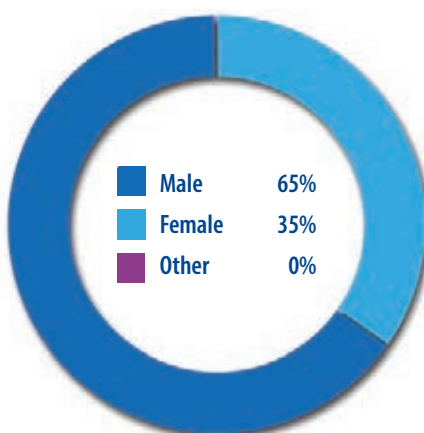
Trauma Activations



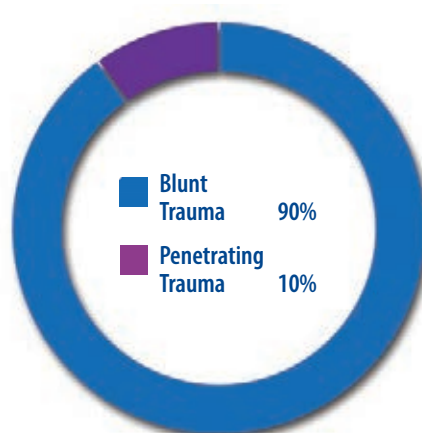
Trauma Admission



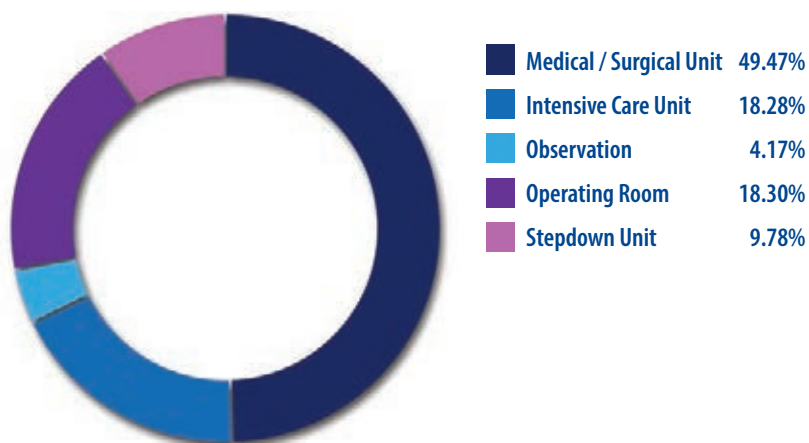
Gender of Trauma Patients



Type of Trauma



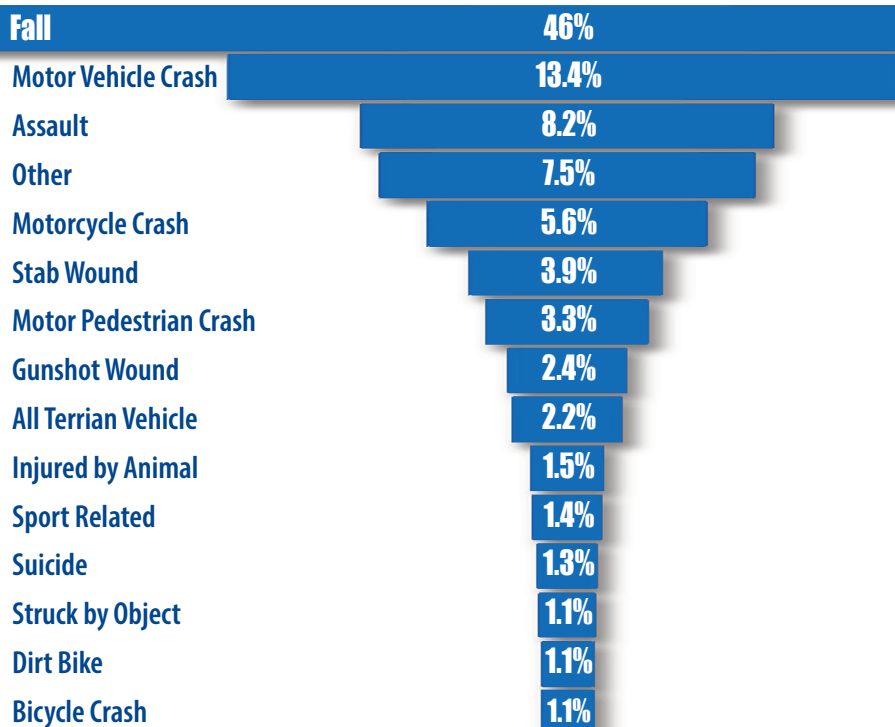
ED Disposition for Trauma Patients



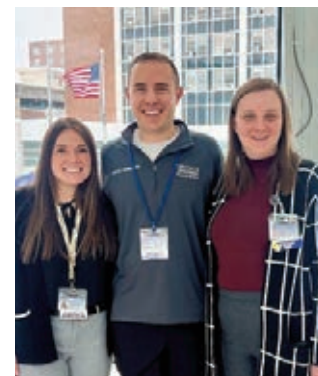
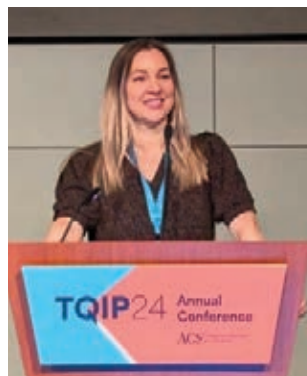
Admitting Service / Team Percent of admissions

Burns	.07%
Cardiology	.11%
ENT	3.81%
Oncology	.07%
Medicine	27.96%
Neurology	10.15%
Neurosurgery	1.74%
Orthopedic Surgery	16.57%
Other	0.29%
Pediatrics	.47%
Psychiatry	.58%
Trauma	38.03%
Urology	.07%
Vascular	.07%

Most Common Mechanisms of Injury



AWARDS ♦ HONORS ♦ PRESENTATIONS



The adult trauma program had three poster abstracts accepted at national conferences:

- "Creation of PI Indicator Review Templates to Streamline Trauma Patient Review Process" (Emily Ducey, Allison Rondenelli, Shelby Brabant, TraumaCon – San Diego, CA)
- "Integration of a Mock Mass Casualty Incident into Safe Driving Education for young Adults" (Anthony Scalise, TraumaCon – San Diego, CA)
- "Enhancing the Quality of Teen Driver Safety through Community Partner Collaboration" (Anthony Scalise, TQIP Conference- Denver, CO)

The adult trauma program had three podium presentations at regional, state, and national conferences:

- "Trauma in Pregnancy" (Jerome Morrison, Fall EMS Teaching Day – Syracuse, NY)
- "Let's Not Meet by Accident: Reducing Youth Distracted Driving through a Mock MCI" (Anthony Scalise, NYS Highway Safety Symposium – Lake Placid, NY)
- "Enhancing the Quality of Massive Transfusions through Real-Time Documentation and Team Communication" (Melaina King, TQIP Conference – Denver, CO)

Anthony Scalise, Genevive DeFrancesco, and Emily Ducey all passed the TCRN certification exam.



Injury Prevention Coordinator Anthony Scalise was named by the NYS Division of the American Trauma Society the "2024 Injury Prevention Coordinator of Distinction."



The Adult Trauma Program was recipient of the 2024 Daisy Team Award.



Trauma Medical Director Roseanna Guzman-Curtis, MD, was a 2024 recipient of the Gold Standard Award.



Trauma Registrar Timothy Hendrick passed the Certified Abbreviated Injury Scale Specialist (CAISS) exam (only a few hundred CAISS-certified registrars in the nation!).



Trauma Program Manager Melaina King was appointed secretary to the NYS Division of the American Trauma Society.



Emily Ducey, Trauma Performance Improvement Coordinator, passed the Critical Care Registered Nurse (CCRN) Exam.



Trauma Registrar Joanne Salvagno was appointed to the TCAA membership committee.

COMING IN 2025: “CARE BEYOND THE INJURIES”



The Purple Trauma Strip – Elevating Trauma Care to the Next Level

In 2025, we are introducing the Purple Trauma Strip, a new operating room (OR) priority designation designed to save lives when every second counts. This initiative strengthens our commitment to providing the highest level of care to our most critically injured patients.

Currently, our Red Strip priority ensures patients reach the OR within 60 minutes. However, some cases cannot wait that long. The Purple Trauma Strip identifies patients who must be in the OR within 15 minutes to survive. This critical distinction sharpens communication and mobilizes resources with urgency.

The Purple Trauma Strip highlights that our perioperative teams are always ready to operate

on time-sensitive cases. Whether day or night, our teams stand by, prepped and prepared. This level of readiness reflects the dedication of our highly skilled and cohesive perioperative teams.

This innovation reinforces our culture of safety, efficiency, and excellence. By implementing the Purple Trauma Strip, we enhance communication about urgency, ensuring all team members immediately recognize the critical nature of these cases and act without hesitation to provide lifesaving care.

We extend our gratitude to the teams who make this possible - ready and resilient 24/7/365.



Enhancing Healing through Therapeutic Gaming

Thanks to the advocacy of our incredible Trauma Nurse Navigator Genevieve DeFrancesco, we are excited to integrate video gaming into trauma care in 2025. As gaming becomes increasingly popular among adults, we recognize its potential as a powerful tool in healthcare. Research has shown that gaming can help manage pain, reduce stress, enhance rehabilitation, and improve overall patient satisfaction. These technologies have even been shown to lower pain perception in post-surgical patients, promote better sleep, reduce delirium, and increase patient engagement.

By incorporating gaming into trauma care, Upstate Trauma Center is setting a new standard for innovative, patient-centered

treatment. These tools empower patients and caregivers to take an active role in managing recovery, fostering resilience, and driving forward a culture of healthcare innovation.

This initiative is more than just entertainment. It represents a transformative, holistic approach to trauma care. That's why our 2025 slogan is "Care Beyond the Injuries", emphasizing our commitment to healing not just the body, but the patient as a whole. We look forward to witnessing and sharing its profound impact on our patients and the broader healthcare community in the year ahead.



*Genevieve DeFrancesco,
BSN, RN, TCRN
Trauma Nurse Navigator*

Citations for footnote:

Dascal, J., Reid, M., IsHak, W. W., Spiegel, B., Recacho, J., Rosen, B., & Danovitch, I. (2017). Virtual Reality and Medical Inpatients: A Systematic Review of Randomized, Controlled Trials. *Innovations in clinical neuroscience*, 14(1-2), 14–21.

Iqbal, A. I., Aamir, A., Hammad, A., Hafsa, H., Basit, A., Oduoye, M. O., Anis, M. W., Ahmed, S., Younus, M. I., & Jabeen, S. (2024). Immersive Technologies in Healthcare: An In-Depth Exploration of Virtual Reality and Augmented Reality in Enhancing Patient Care, Medical Education, and Training Paradigms. *Journal of primary care & community health*, 15, 21501319241293311.

Trauma Center
750 East Adams Street
Syracuse, NY 13210

Visit www.upstate.edu/trauma for:

- ATCN or ATLS course registration
- Request a Stop the Bleed course or borrow our equipment to conduct your own
- Meet our clinical and program staff
- See what's new in the Trauma program
- Learn about injury prevention programs
- Visit our Trauma Survivors Network page
- Support the trauma program and make a donation



Follow us on Social Media:

 **Upstate Trauma**

 **@Upstate_trauma**

 **@upstatetrauma**