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Level One Trauma Center

2014 ANNUAL REPORT

St. Elizabeth Health Center

Humility of Mary Health Partners

Caring together. MERCYHEALTH

Dear Friends:

As the area's only Level I Trauma Center, our multidisciplinary team is dedicated to assuming a leadership role in development evaluation and continuous quality improvement of trauma care in the region. In 2014, we achieved another successful trauma symposium, numerous EMS run reviews, and multiple trauma nursing core courses, all while providing excellent quality care. Thanks to the expertise of our multidisciplinary team, more than 96 percent of our patients survived their injuries, which is nearly 2 percent higher than the national average.

We appreciate your interest in our trauma program and for the opportunity to share the information in our 2014 annual report. We welcome your questions or comments; please feel free to contact us at 330-480-3907.

Sincerely,

Brian S. Gruber, MD, FACS
Director, Trauma/Critical Care Services

Daneen Mace-Vadjunec RN, MHHS, ONC
Program Director,
Trauma and Neuroscience

Mission statement

Mercy Health (formerly Humility of Mary Health Partners) extends the healing ministry of Jesus by improving the health of our communities with emphasis on people who are poor and under-served.

TOGETHER WE COMMIT TO:

Compassion: Our commitment to serve with mercy and tenderness.

Excellence: Our commitment to be the best in the quality of our services and the stewardship of our resources.

Human Dignity: Our commitment to value the diversity of all persons and to be respectful and inclusive of everyone.

Justice: Our commitment to act with integrity, honesty and truthfulness.

Sacredness of Life: Our commitment to reverence all life and creation.

Service: Our commitment to respond to those in need.

TRAUMA SERVICES MISSION STATEMENT

Trauma Services' mission is to reduce trauma related death and disability and to assume a leadership role in development, evaluation, and continuous quality improvement of trauma care.

Trauma Transfer Line: 1-877-966-0662

24 hours a day, seven days a week

Make just one phone call to refer a patient

(Transportation will also be arranged if needed)

Meet our staff

Seated from left to right: Pattie Kountz, Heather Poch, Dr. Gregory Huang, Renee Reyes, Marina Hanes and Barb Hileman. Standing: Dr. Kenneth Ransom, Dr. Brian Gruber, Ben Melnykovich, Daneen Mace-Vadjunec, Laurie Flowers, Renee Merrell, Dr. Ronald Rhodes, Lexi Giansante, Gino DeChellis, Nancy Montwori, Elisha Chance, Susan Julian and Dr. Heath Dorion. Missing from photo: Amanda Lencyk and Tracy Rock

Trauma faculty

Brian S. Gruber, MD, FACS
Director, Trauma/Critical Care Services
Clinical Assistant Professor of Surgery,
Northeastern Ohio Universities
College of Medicine & Pharmacy

Heath A. Dorion, MD, FACS
Assistant Director of Education, General Surgery
Clinical Assistant Professor of Surgery,
Northeastern Ohio Universities
College of Medicine & Pharmacy

Kenneth Ransom, MD, FACS
Assistant Director of Education, Osteopathic
Clinical Assistant Professor of Surgery,
Northeastern Ohio Universities
College of Medicine & Pharmacy

Ronald A. Rhodes, MD, FACS
Director of Education, General Surgery
Clinical Assistant Professor of Surgery,
Northeastern Ohio Universities
College of Medicine & Pharmacy

Gregory Huang, MD
Trauma/Critical Care Surgeon
Clinical Associate Professor of Surgery
Northeastern Ohio Universities College
of Medicine & Pharmacy

Trauma program staff

PROGRAM DIRECTOR

Daneen Mace-Vadjunec, RN, MHHS, ONC
Program Director, Trauma and Neuroscience
330-480-4417

TRAUMA COORDINATOR

Amanda Lencyk, RN, MSN, ACNS-BC, CEN
330-480-2496

NURSE PRACTITIONERS

Laurie Flowers, RN, MSN, CCRN, CCNS
330-480-2456

Heather Poch, RN, MSN, ACNP-BC
330-397-5401

Tracy Rock, RN, MSN, ACNP-BC
330-480-2428

OUTREACH/INJURY PREVENTION COORDINATOR

M. Ben Melnykovich, RN, BSAS
330-480-8877

TRAUMA RESEARCH COORDINATOR

Barbara Hileman, BA
330-480-6302

TRAUMA RESEARCH

Elisha Chance, BSAS
330-480-3107

Marina Hanes, BA
330-480-3107

TRAUMA REGISTRY COORDINATOR

Renee Merrell
330-480-3880

TRAUMA CODERS

Nancy Montwori
330-480-2963

Alexis Giansante
330-480-2007

Gino DeChellis
330-480-2466

ADMINISTRATIVE ASSISTANT

Renee Reyes
330-480-3907

Surgical residents

Surgical residents are vital to our trauma program. Attending trauma surgeons serve as core faculty to the surgical residents during their five years. The surgical residents evaluate and manage the trauma patients under the supervision of the attending surgeon. They participate in monthly trauma conference with a strong focus on education. Other activities include reviewing practice management guidelines, resuscitation review, and trauma performance improvement. All incoming residents become certified in Advanced Trauma Life Support (ATLS).

Why St. Elizabeth?

Why is the Level 1 Trauma Center important?

A Level I Trauma Center is a comprehensive regional resource that is a tertiary care facility central to the trauma system. A Level I Trauma Center provides total care for every aspect of injury—from prevention through rehabilitation.

It's also the quickest way to treat the severely injured. The trauma team meets or exceeds rigorous criteria and is in a constant state of readiness 24 hours a day. Trauma care includes orthopedic surgery, neurosurgery, plastic surgery and other specialties. Facilities such as interventional radiology, surgery suites and critical care units are ready to care for the trauma patient, too. The trauma center is also a valuable referral resource for communities in nearby regions.

THE HIGHER LEVEL OF CARE OFFERED THROUGH THE TRAUMA CENTER BENEFITS NOT ONLY TRAUMA VICTIMS, BUT ALSO THEIR FAMILIES AND FRIENDS.

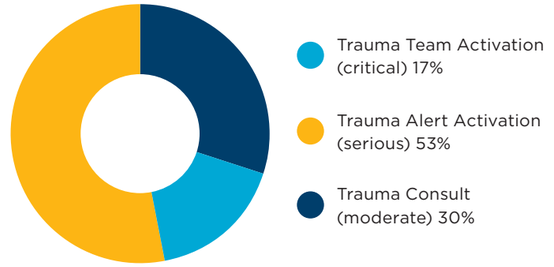
In order to be recognized as a Trauma Center in Ohio, hospitals must comply with sections 4798.01 and 3727.101 of the Ohio Revised Code. American College of Surgeons (ACS) verified Trauma Centers must submit documentation of verification. There are 11 Accredited Level I Adult Trauma hospitals in the State of Ohio.

St. Elizabeth remains the only Level 1 Trauma Center between Cleveland, Pittsburgh and Akron.

2,200 trauma patients treated and admitted in 2014.

THREE-TIER RESPONSE TO TRAUMA

Choosing the right activation level is crucial to a trauma patient's care. Our emergency team relies on information from pre-hospital care providers to decide which level is best. To do this, they use pre-hospital triage and transfer guidelines established by the American College of Surgeons and the State of Ohio.



ACTIVATION CRITERIA

TRAUMA TEAM

- GCS ≤13 or GCS motor ≤4
- Systolic BP <90 adult or age specific hypotension with children
- Respiratory rate <10 or >29
- Endotracheal intubation
- Transfer from outlying facility receiving blood to maintain vital signs
- Penetrating injury to head, neck, or torso
- Flail chest
- Combination burn with trauma
- 2 or more long bone fractures
- Pelvic fracture
- Open and depressed skull fracture
- Paralysis
- Amputation proximal to wrist/ankle
- Major burn
- Age >64 or <5 with significant mechanism

ED Physician Discretion

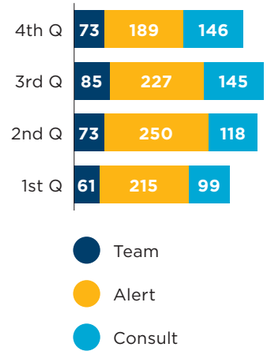
TRAUMA ALERT

Significant Mechanism

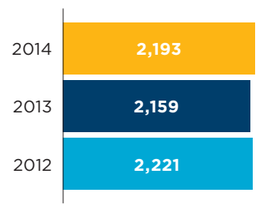
- Ejection from vehicle
- Death in same vehicle
- Extrication time >20 mins.
- Falls >20 ft.
- Rollover
- High-speed crash (>40 mph)
- Major auto deformity (>20 in.)
- Intrusion into passenger compartment >12 in.
- Auto-pedestrian or Auto-bicycle injury with significant impact
- Pedestrian thrown or run over

ED Physician Discretion

ACTIVATIONS BY QUARTER



TRAUMA VOLUME



Transport methods

Better trauma care and better results hinge on teamwork. Many phases of trauma care need to work together seamlessly. And it begins with on-scene response and treatment.

From the onset of injury to the patient's arrival to our Trauma Center, time is precious. Excellent communication and skill levels of ground ambulance crews and aeromedical crews are critical for quality patient care. We work together with paramedics, firefighters and other pre-hospital personnel to create a strong network of emergency response for our communities.

84% patients brought by ground transport

7% patients brought by Air Medical Access

STAT MedEvac transports the vast majority of our patients arriving by aircraft. These aircraft are equipped with the latest in lifesaving and advanced aviation technologies.

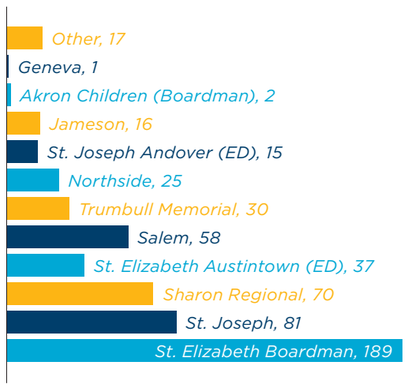
60% transfer patients brought by Mobile ICU (MoICU)

The MoICU staff are specially trained, advanced life support personnel (paramedics and intensive care nurses) dedicated to providing our community with the best healthcare possible.

540 patients transferred to St. Elizabeth's Trauma Center from another hospital in 2014

ARRIVAL TIMES

- 11pm – 7am, 23%
- 3pm – 11pm, 47%
- 7am – 3pm, 30%



Emergency services

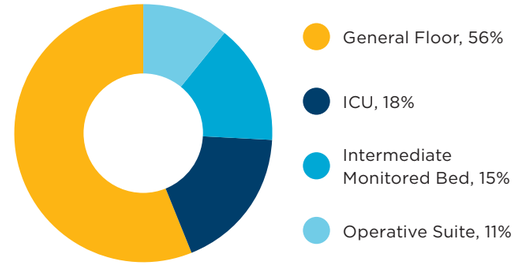
The emergency department at St. Elizabeth is a vital part of the Level I trauma center. Our 20,000+ square-foot emergency department is a full-service resource dedicated to providing compassionate care to our community.

FEATURES INCLUDE:

- General surgeons, orthopaedic physicians, neurosurgeons, anesthesiologists, radiologists, and board certified critical care physicians on call 24/7.
- Dedicated trauma rooms with state-of-the-art digital radiography that's fully integrated with the hospital's picture archiving communication system (PACS).
- 24-hour sexual assault nurse examiner (SANE) coverage providing specialized nursing care with a focus on medical-forensic examination.
- Nursing staff with certification in Advanced Cardiac Life Support (ACLS), Pediatric Advanced Life Support (PALS), Trauma Nursing Core Course (TNCC), and Emergency Nurses Pediatric Course (ENPC).

more than **44,000** patients were treated by board certified emergency doctors and staff

WHERE PATIENTS WERE ADMITTED FROM THE EMERGENCY DEPARTMENT:



- General Floor, 56%
- ICU, 18%
- Intermediate Monitored Bed, 15%
- Operative Suite, 11%

Orthopaedic trauma services

Many patients admitted as traumas have some type of musculoskeletal injury. Motor vehicle and motorcycle crashes, industrial accidents, and major falls can cause pelvic and complex extremity fractures. The Orthopaedic Trauma Service treats these injuries as well as post-traumatic conditions such as deformities, nonunions, malunions and osteomyelitis.

Orthopaedic surgeons are available 24-hours a day. Orthopaedic residents and orthopaedic physician assistants (PA-C) also provide hands-on care when a trauma patient arrives in the trauma bay. From open fractures to complex dislocations, their expertise provides quick and efficient care.

The orthopaedic clinic is located in the outpatient service center and provides continued care once patients are released from the hospital.

Neurosurgical services

Neurosurgical trauma can involve far more than the brain. Neurological Services diagnose and treat the entire nervous system, including the brain, spinal cord and spinal column. The team often consults with neurosurgeons who have extensive training in the diagnosis of all neurological disorders.

Our team of surgeons provide expert treatment and diagnosis for brain tumors, degenerative spine disease, spinal fractures, lumbar stenosis, peripheral nerve disorders, trauma and other disorders. The trauma team is also aided by highly skilled support staff and state-of-the art technology.

DID YOU KNOW?

Motorcyclists who don't wear helmets increase the risk of fatalities and injuries resulting from road crashes. They are also three times more likely to sustain head injuries in a crash compared to riders who wear helmets.

Surgical suites

State-of-the-art operating suites are designed for the patient with multiple injuries. There is an anesthesia staffed surgical suite available to the trauma patient 24/7.

38% of our trauma patients required a procedure to be performed in the surgical suite.

Surgical Intensive Care Unit (SICU)

Some patients require fast-paced, high-acuity, specialty critical care. Our SICU is a 12-bed unit, two of which are reserved for pediatric trauma patients. Trauma is the most common reason for admission to the SICU.

24% of trauma patients were admitted to SICU in 2014

Our multidisciplinary team works together to provide excellent care. The unit has a strategic location—next to the emergency department, operative suites and recovery room. It is also strategically equipped with the most sophisticated life support technology available. For example, we can continuously monitor essential hemodynamic patient information. Clinical studies show that this type of monitoring significantly improves patient outcomes.

Everything needed to treat critically injured trauma patients is readily available 24/7. All registered nurses have advanced training and mandatory skills lab are available monthly to our health care professionals.

We understand that it is very difficult to have a loved one in the intensive care unit. We promise to do our best to make the experience as stress-free as possible. We support family and patient-centered visiting and promote frequent rest and private periods.

Our Neuroscience ICU is also available to the trauma patient. The surgical intensivists and neurosurgeons provide a complete range of services for the diagnosis, evaluation and management of patients with neurosurgical injuries.

Acute rehabilitation unit

St. Elizabeth's rehabilitation unit has 30 beds available every day for patients with complex rehabilitation needs. The unit is CARF* accredited.

124 trauma patients were admitted to the rehabilitation unit before going home

Physical therapy helps with mobility, balance and safe transfer skills. Treatments are scheduled twice daily, and consist of exercise to gain strength and restore muscle function, and ambulation to improve balance and gait.

Occupational therapy helps to develop skills in self-care, homemaking, recreation, school and work.

Speech/language therapy helps with speech, language, memory, thinking and swallowing disorders.

Recreational therapy develops strength in social, emotional and physical skills. This therapy helps with communication of thoughts and feelings and also develops self-awareness.

Rehabilitation nursing provides 24-hour-a-day nursing care, with ongoing assessment, planning, intervention and evaluation of patients, providing individualized care for (but not limited to) bowel and bladder, education, medications, pain management, skin integrity, medical issues and carry over of therapy interventions.

Rehabilitation physicians provide expertise in medical functional issues and direct the interdisciplinary team in coordinating the patient and family plan.

Case management and social services provide individualized discharge planning and assistance with insurance needs.

Psychology services are available for patient and family regarding adjustment issues related to diagnosis.

* CARF: Commission on Accreditation of Rehabilitation Facilities

Outpatient rehabilitation

The outpatient physical therapy program serves patients with orthopaedic, neurologic and post-surgical diagnoses. To better serve our patients, we also offer specialty programs in sports medicine, aquatic therapy, pediatrics, industrial rehab and women's health. Our outpatient services are offered in the Youngstown, Warren, Austintown and Boardman.

Trauma registry

The trauma registry database is used to collect, organize and analyze information on trauma patients. It's used mainly to monitor the continuum of care, from injury prevention to outcome measurement.

Our trauma registry manages data for more than 42,000 patients

The trauma registry also helps us improve our process by monitoring trauma system trends, supplying benchmarking data, and identifying injury trends. It also provides information that can be used to evaluate timeliness, appropriateness, and quality of patient care.

The registry contributes data to TQIP (Trauma Quality Improvement Program), the American College of Surgeons and NTDB (National Trauma Data Bank). The NTDB is the largest collection of trauma data ever assembled. Data is also submitted quarterly to the State of Ohio Trauma Registry. Ohio hospitals are authorized by Ohio Law ORC 4765.06, Senate Bill 98 to submit trauma data to the State of Ohio.

Methods for scoring injury severity

ABBREVIATED INJURY SCALE (AIS)

AIS is an anatomical scoring system that ranks injuries on a scale of 1 (minor) to 6 (fatal).

INJURY SEVERITY SCORE (ISS)

ISS is an anatomical scoring system that gives an overall score for trauma patients. The system starts with scores for injuries to different body regions (head / neck, face, thorax, abdomen and pelvic content, extremities and external).

The injury severity score is the sum of squares of the three highest injury scale scores. Scores go from 1 (minor injury) to 75 (lethal injury).

GLASGOW COMA SCALE (GCS)

GCS measures the level of consciousness in head injury patients. It looks at three factors: best eye response, best verbal response and best motor response. Scores range from 3 (worst) to 15 (best).

REVISED TRAUMA SCORE (RTS)

RTS measures other physiological factors outside of anatomical injury scores.

TRAUMA AND INJURY SEVERITY (TRISS)

TRISS is an anatomical measure (ISS), a physiological measure (RTS) and the patient's ability to withstand injury (age) by type of injury (blunt/ penetrating). A probability of survival (Ps) is determined using a logistic regression model.

DID YOU KNOW?

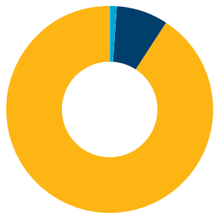
Distracted driving has become a deadly epidemic on America's roads. Teens are especially vulnerable because of their inexperience behind the wheel and peer pressure. Behind the statistics are real families who have been devastated by these tragedies. The U.S. Department of Transportation is working to spread awareness of this serious problem on a national level and help communities establish appropriate legislation and enforcement standards.

Mechanism of injury

MOST COMMON MECHANISM OF INJURY AMONG 2,100 ADULT TRAUMA PATIENTS:

- Fall, 57%
- Motor Vehicle Traffic, 29%
- Assault and Gunshot, 9%
- Motorcycle Traffic, 5%

INJURIES OF ALL TRAUMA PATIENTS:



- Blunt, 91%
- Penetrating, 8%
- Burns, 1%
- Asphyxial, 0.2%

67% of falls involve geriatric patients

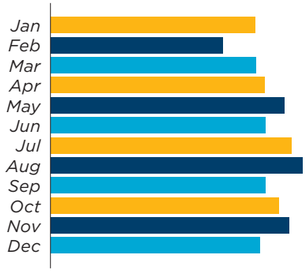
Falls continue to be the number one mechanism of injury.

Blunt trauma is caused by impact, injury or physical attack that does not penetrate the skin (such as a steering wheel impact in a car crash).

Penetrating trauma is an injury that pierces the skin (such as a bullet or knife).

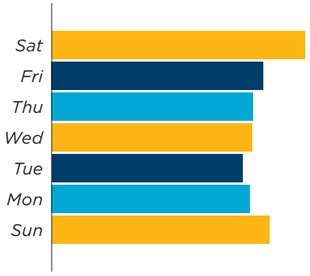
ADMISSIONS BY MONTH

Trauma admissions were higher in the warmer months, with a peak in August.



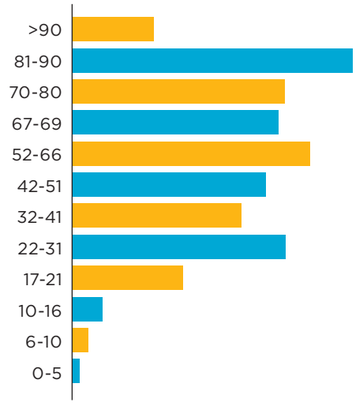
ADMISSIONS BY DAY

Saturdays and Sundays were the busiest days of the week at the Trauma Center.



Special populations

TRAUMA PATIENT AGE GROUPS



PREEXISTING CONDITIONS

Many of our patients have a preexisting condition:

40% age 65 – 74

65% age 75 – 84

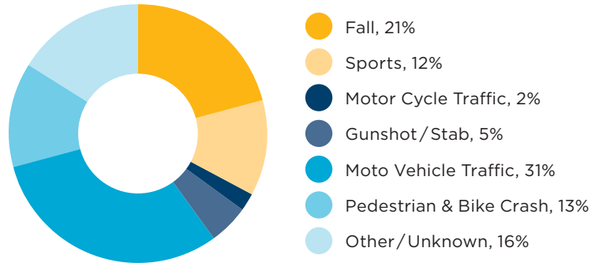
90% age 85+

These patients are often taking medications. Patients with heart failure have more than double the risk of death, compared with those without heart failure, and the elevation of risk is even greater for those who are also taking beta-blockers or warfarin.

PEDIATRIC TRAUMA (≤16 YEARS OF AGE)

Injury results in more deaths in children and adolescents than all other causes combined. For this group, more years of potential life are lost to injury than to sudden infant death syndrome, cancer and infectious diseases combined. Every year, an estimated one in four children suffers an unintentional injury that requires medical care.

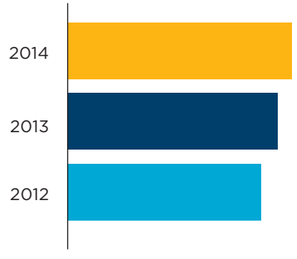
4% of all trauma patients are pediatric



- Fall, 21%
- Sports, 12%
- Motor Cycle Traffic, 2%
- Gunshot / Stab, 5%
- Moto Vehicle Traffic, 31%
- Pedestrian & Bike Crash, 13%
- Other / Unknown, 16%

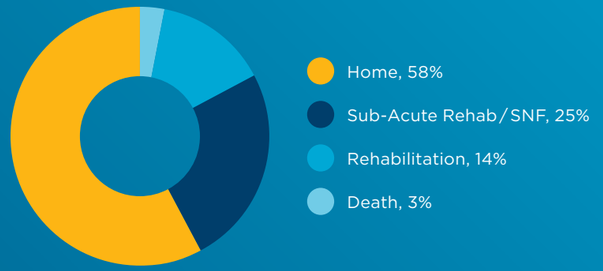
GERIATRIC TRAUMA

As the population ages, the volume of geriatric trauma is also increasing. Our geriatric subcommittee focuses on providing the best care for the geriatric trauma patient. The team understands that this group has lower physical reserves, a higher number of serious conditions and more complication risk. This information is shared with other hospitals to improve geriatric care in the entire community.



Ongoing care

DISCHARGE DISPOSITION



Trauma clinic

Patients can receive follow-up care at the Ambulatory Care Center after they're discharged. The trauma clinic staff includes the same advanced practice nurses and trauma surgeons who were on the care team during their stay to provide continuity of care.

Services at the trauma clinic include wound care, suture and staple removal, and help with pain management. We continually assess and evaluate how the patient is progressing on the road to recovery. The trauma clinic staff can also facilitate referrals to other health care providers, such as neurosurgery, orthopedic surgery and physical / occupational therapy.

4 days is the average stay at the trauma center

Concussion management clinic

Most people with a concussion recover quickly. But some take longer or suffer residual effects. The Center for Disease Control recommends that anyone who thinks they have sustained a concussion should see a healthcare provider with advanced training in concussion management. This is often a neurologist, neuropsychologist, neurosurgeon or rehabilitation specialist.

Symptoms of concussion can be delayed days or weeks from the time of an injury. Early intervention and education from a caregiver trained in concussion management can mean a quicker recovery and provide education to the patient about avoiding activities that may prolong recovery.

At the Concussion Clinic, we offer neuropsychological tests, symptom management, activity restriction education and rehabilitation therapy. Our team of physiatrists and athletic trainers use ImPACT neuropsychological testing and can interpret results on site. We also keep the primary care physician informed of any changes throughout the patient's recovery.

Wound care center

The Wound Care Center is a team of doctors and nurses dedicated to treating wounds. Some patients have wounds that resist healing by traditional means. Hyperbaric Oxygen Therapy (HBOT), a treatment that uses oxygen-enriched blood to aid in healing wounds, is available to these patients. HBOT increases the amount of oxygen in your blood and oxygen-enriched blood can offer distinct benefits in the healing of wounds.

Injury prevention

The best cure for trauma is to prevent it! Along with our extensive expertise in treating victims of trauma, we're also committed to preventing traumatic injuries.

Education does make a difference. One example is Safety and Violence Education (SAVE), which targets at-risk teens in the five county area. SAVE exposes teens to the workings of the Level I Trauma Center, touring the trauma bay, intensive care area and morgue. The goal is to show them the ramifications and outcomes of making wrong choices.

We work with other community agencies and organizations, such as the Victim Impact Panel (VIP) held in Canfield every month. In cooperation with the local MADD chapter and the Mahoning County Sheriff's office, VIP hopes to reach teens before a fatal accident happens. We also use pre-prom assemblies, programs and mock crash presentations to show the consequences of drinking and driving.

The number one geriatric injury is falls. That's why we created a free prevention program for Mahoning, Trumbull, Ashtabula and Columbiana counties. The goal is to reduce falls by offering preventive information like making changes in the home and personal behaviors.

The injury prevention team collaborates many of these events with the Mahoning County Safe Communities Coalition, as well as a variety of local EMS, fire and police agencies.

Trauma research

Trauma Services has a strong commitment to the research and promotion of evidence-based practices. Research projects in which Trauma Services participates or leads for 2014 include:

Biteman BR, Ponsky TA, Dorsey AN. "Twisted and Backwards: Situs Inversus, Malrotations and Preduodenal portal Vein; A Laparoscopic Adventure." *Scientific Session of the SAGES 2014 Annual Meeting.* April 2-5, 2014, Salt Lake City, UT. Video Presentation.

Melnykovich MB, Poch H, Hileman BM, Chance EA, Reyes RJ, Giansante-Demidovich A, Montwori N. "Taking care of our own: A hospital works to make its employees and staff safer on the roadways." *Presented OENA, Worthington, OH.* April 3, 2014. Awarded 1st place.

Abdel-Aziz H, Dunham CM, Malik RJ, Hileman BM. "Evidence based timing for DVT chemoprophylaxis in TBI patients." *Poster presentation, AAST.* September 10-13, 2014, Philadelphia, PA.

Chirichella TJ, Dunham CM. "Risk factors predictive of ischemic cholangiopathy in donation after circulatory death liver transplants predict recipient morbidity: the 10 year University of Colorado experience." *World Transplant Congress, San Francisco, CA.* July 26-31, 2014.

DeWitt S, Huang G, Hileman BM, Chance EA. "Obesity Impacts Outcomes in Traumatic Brain Injured Patients." *Oral presentation, ACS OCOT.* 10/2014.

Vanek VW, Bouche J. "Grains to Veins." *Epic 2014 User Group Meeting, Madison, WI.* 9/17/2014.

Vanek VW, Mihalik V. "Per Protocol Order Mode – Blessing or Curse." Epic 2014 User Group Meeting, Madison, WI, 9/18/2014.

Bloedel P, Evan. "Sinus tract following laparoscopic cholecystectomy: complications of a lost gall stone." *Oral case presentation at SEHC Resident Research Day.* 5/9/14. Awarded 2nd place.

Shima MT, Hileman BM, Chance EA, Dorion HA, Brocker BP. "Enoxaparin, traumatic intracranial hemorrhage, and thromboembolism – the balance: The practice and consequences at St. Elizabeth Health Center." *Poster scientific presentation at SEHC Resident Research Day.* 5/9/14.

Shima MT, Dunham CM, Rabel C, Hileman BM, Schiraldi J, Chance EA, Molinar AA, Hoffman DA. "TEG and RapidTEG are unreliable for detecting warfarin-coagulopathy: a prospective cohort study." *Oral scientific presentation at SEHC Resident Research Day.* 5/9/14. Awarded 1st place.

DeWitt S, Huang G, Hileman BM, Chance EA. "Impact of Obesity on Outcomes in Traumatic Brain Injured Patients." *Poster scientific presentation at SEHC Resident Research Day.* 5/9/14. Awarded 2nd place.

Malik RJ, Abdel-Aziz H, Dunham CM, Hileman BM. "Evidence based timing for DVT chemoprophylaxis in TBI patients." *Oral scientific presentation at SEHC Resident Research Day.* 5/9/14.

Romain C, Kountz P, Hanes M, Abdel-Aziz H. "Ureter Transection and Associated Iliac Vein Laceration in Pediatric Blunt Trauma: A Case Report." *Poster case presentation at SEHC Resident Research Day.* 5/9/14. Awarded 2nd place.

PHYSICIAN AND NURSE PEER REVIEWED ARTICLES PUBLISHED IN 2013

Zielinski SM, Bouwmans CA, Heetveld MJ, Bhandari M, Patka P, Van Lieshout EM, on behalf of the FAITH trial investigators (includes Shaer J, Schrickel T, Hileman BM). "The societal costs of femoral neck fracture patients treated with internal fixation." *In press: Osteoporosis Int.* 2014;25(3):875-885. PMID: 24072404.

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TRAUMA EDUCATION

As leaders in trauma, SEHC is committed to educating not only patients and families, but also the entire healthcare team to include:

- ATLS (Advanced Trauma Life Support) for physicians, advanced practitioners, and nurses
- TNCC (Trauma Nursing Core Course) for nurses.
- EMS-run reviews for paramedics

Disaster preparedness

SEHC uses an “all hazards” approach for managing disaster situations that relate to mass causality, mass fatality, contaminated patients, contagious patients, structural facility damage and/or loss of business operations.

Intentional disasters include biological, chemical, nuclear and radiological explosives, as well as bomb threats, civil disturbances, hostage situations, cyber-attacks, violence in the workplace and terrorist events.

Unintentional disasters include earthquakes, floods, hurricanes, tornadoes, winter storms and extreme heat.

Trauma Services play a vital role in disaster preparedness by being part of the Hospital Incident Command Center (HICS). Leadership works with local public and private groups to establish mutual aid agreements for disaster support, supplies and equipment. A liaison officer is in the command level of any HICS plan, and is the link between our facility and all other outside agencies involved in disaster relief. SEHC has also established a working relationship with the Mahoning, Trumbull, and Columbiana County Emergency Management Agencies (EMA) for disaster response support. We conduct several tabletop exercises and participate with other area hospitals as part of the LEPC (Local Emergency Planning Committee) for these counties.

As part of our role as a regional education center in the region we serve, our trauma nursing leadership teaches Trauma Nursing Core Course (TNCC). An important part of TNCC is a section on disaster management, which prepares our staff for special needs following a disaster. Our staff also receives additional training for the decontamination process and weapons of mass destruction education.

Data references

SEHC Trauma Registry

National Trauma Data Bank

Center for Disease Control and Prevention

U.S. Department of Health and Human Services Center for Disease Control and Prevention

Office of Technology Assessment, U.S. Congress

Journal of Trauma

lifebanc.org/organization-partners

facs.org/trauma/verified.html

ncbi.nlm.nih.gov/pubmed/11435197

census.gov/population

prweb.com

cdc.gov/TraumaCare

Mercy Health and Lifebanc

Trauma Services, along with hospital staff, are vital parts of the life-giving process. Grieving for a love one is never easy, but choosing to become an organ donor or donate your loved one's organs may help you through the pain.

10 very special patients gave another person the chance at life in 2014.

Mercy Health sponsors an event called Donate Life Flag Raising. It's held in Finnegan at St. Elizabeth Hospital and is an emotional ending to National Donate Life month. Lifebanc, hospital staff members, recipients and donor families attend the service to celebrate those touched by organ, eye and tissue donation.