Trauma and Burn Care Annual Report–2020/2021

University of Colorado Hospital

uchealth.org

uchealth

uchealth

DocLine

844.285.4555

TRANSFERS. ADMITS. CONSULTS.

One call. One number. DocLine is staffed 24/7 with critical care-trained nurses, ready to help with your:

- Transfer Requests
- Direct Admissions
- Specialist Consultations

Serving all UCHealth facilities, including:

- Broomfield Hospital
- Grandview Hospital
- Greeley Hospital
- Highlands Ranch Hospital
- Longs Peak Hospital
- Medical Center of the Rockies
- Memorial Hospital Central
- Memorial Hospital North
- Pikes Peak Regional Hospital
- Poudre Valley Hospital
- University of Colorado Hospital
- Yampa Valley Medical Center

Contents

Trauma and burn care in a COVID-19 world offers challenges and opportunity.

The past couple of years have been a period of unprecedented challenge and opportunity for the Trauma Acute Care Surgery and Burn Service Line at the UCHealth University of Colorado Hospital (UCH). Through the many challenges, providers and hospital staff have persevered to ensure that the needs of injured and critically ill patients and the community are met. This report reflects the hard work, dedication and compassion of the team at UCH during this time.

Among the many accomplishments was the involvement of trauma and acute care surgery and burn faculty in shifting operational processes as well as research priorities to accommodate for the acute needs of patients with COVID-19. These operational process changes included the safe and efficient cohort of critical care patients, development of a safe prioritization system for surgery and the pivot of many providers. This included surgical intensivists and advanced practice providers managing the critical care of patients with COVID-19. These changes presented several challenges for providers and hospital staff alike, and I am extremely proud of the way this team adapted and provided world-class care for our usual injured patients but also critically ill COVID-19 patients during this time.

Faculty and staff were also very active with research to advance the care of injured patients as well as those with COVID-19 during this time. Franklin Wright, MD, led a group that explored implications with the use of thromboelastography in COVID-19 patients. This study concluded that fibrinolysis shutdown, as evidenced by elevated d-dimer and complete failure of clot lysis at 30 minutes on thromboelastography, predicts thromboembolic events and need for hemodialysis in critically ill patients with COVID-19 (Wright et al., *J Am Coll Surg,* 2020). UCH faculty also participated in the global COVIDSurg Collaborative, where it was noted that postoperative pulmonary complications occur in half of patients with perioperative SARS-CoV-2 infection and are associated with high mortality (COVIDSurg Collaborative, *Br J Surg,* 2020, *Anesthesia,* 2021; *Br J Surg,* 2021). The group also concluded that thresholds for surgery during the COVID-19 pandemic should be higher than during normal practice, particularly in men aged 70 years and older, and that consideration should be given for postponing non-urgent procedures and promoting non-operative treatment to delay or avoid the need for surgery. Lastly, the TACS team participated in the STARS trial of tPA administration to patients with severe ARDS due to COVID-19, and we are awaiting the results with anticipation (Barrett et al., *Res Pract Thromb Haemost,* 2020; Moore et al., *J Trauma Acute Care Surg,* 2020).

All the while, UCH has continued to provide world-class care to trauma and burn patients at higher volumes and severity than the pre-COVID-19 state. A hospital-based violence intervention program was developed by Dr. Velopulos, and a burn telemedicine program was initiated by Drs. Wagner and Wiktor. The burn team started a laser reconstructive clinic led by Dr. Duffy. An agreement with hospital medicine was developed to augment the care of geriatric patients. The orthopedics team, led by Dr. Stoneback, started the first complex osseointegration program in North America.

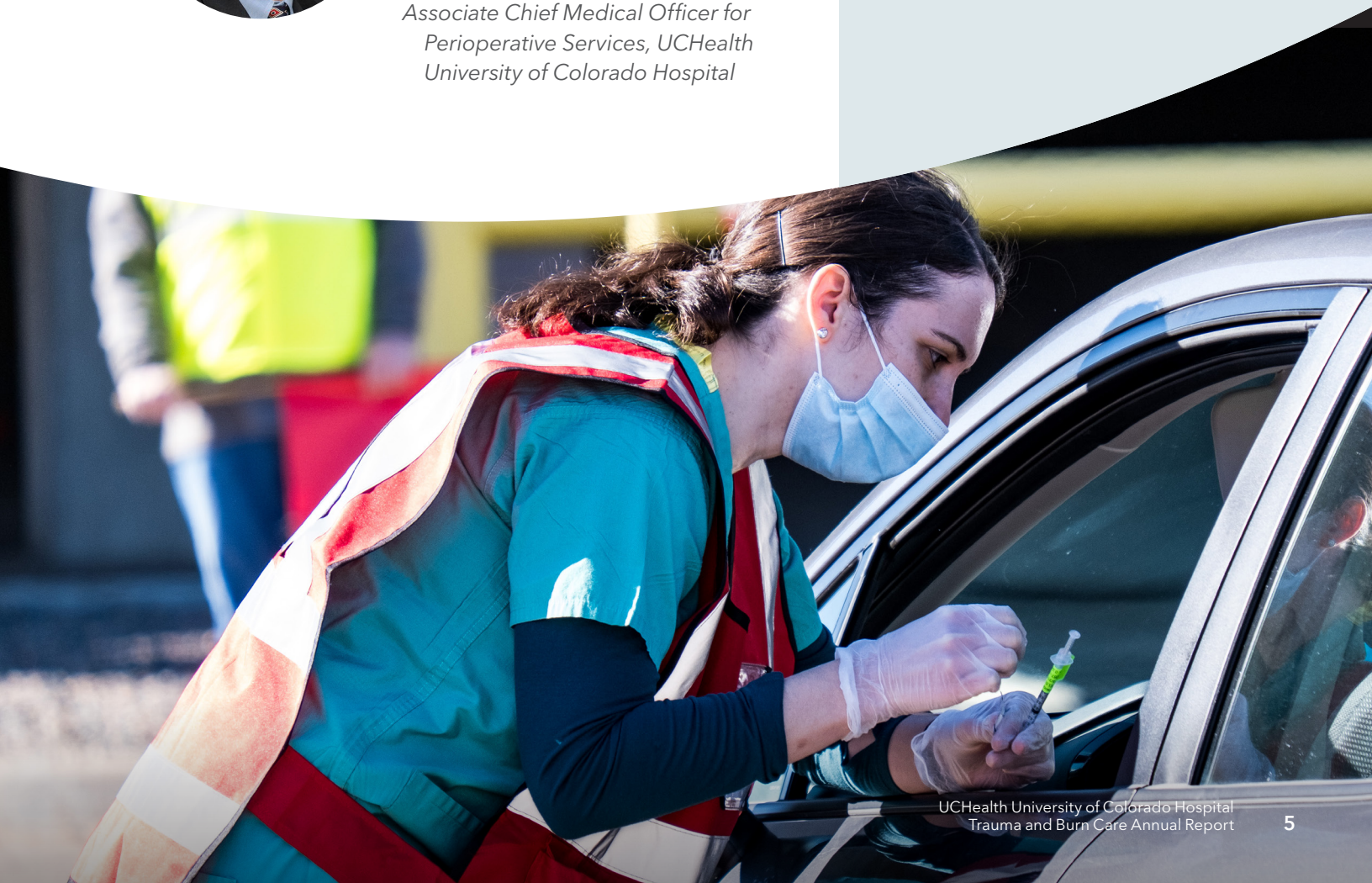
The Trauma Center and Burn and Frostbite Center have undergone tremendous programmatic growth, and the future is extremely bright. This growth will continue to benefit the community and have a profound impact on patients' lives locally, regionally and around the world.

Thank you for your continued support.

Robert McIntyre, Jr., MD
Cynthia H. and John H. Schultz Chair in Surgery
Division Chief, GI Trauma and Endocrine Surgery
Department of Surgery, University of Colorado
Associate Chief Medical Officer for Perioperative Services, UCHealth University of Colorado Hospital

Michael Cripps, MD
Trauma Medical Director, UCH

Dr. Michael Cripps joined the faculty as the incoming Trauma Medical Director for UCHealth University of Colorado Hospital in summer of 2021. Dr. Cripps joins UCH after having served as Trauma Medical Director at Parkland Health and Hospital System and Associate Professor of Surgery at UT Southwestern Medical Center in Dallas, Texas.



University of Colorado Hospital Trauma Center

Level I Trauma designation—American College of Surgeons and the State of Colorado.

Last survey: September 2019.
Next survey: June 2022.

UCHealth Burn and Frostbite Center – Anschutz Medical Campus

The first and longest-running American Burn Association-verified burn center in the Rocky Mountain region.

Last survey: April 2021.
Next survey: December 2024.

CARE RESEARCH REHABILITATION PREVENTION TEACHING
American Burn Association
1967

NOW A DESIGNATED
LEVEL I
TRAUMA CENTER
UNIVERSITY OF COLORADO HOSPITAL
Anschutz Medical Campus
HIGHEST DESIGNATION

AMERICAN COLLEGE OF SURGEONS
Verified Trauma Center

Executive summary.

IN THE TOP **10%** of trauma centers nationwide in the care of severe traumatic brain injury, penetrating trauma and patients who arrive in hemorrhagic shock.

42% increase in trauma and burn volume since 2017.

8% within the last year.

During the pandemic, **1.7%** of trauma admissions tested positive for COVID-19.

Penetrating trauma increased from 7% of all traumas in FY2019 to **11%** of all traumas in FY2021.

230% overall volume increase in Burn and Frostbite Center volume since 2017.

24% increase in Burn and Frostbite Center admissions since 2017.

7.5% within the last year.

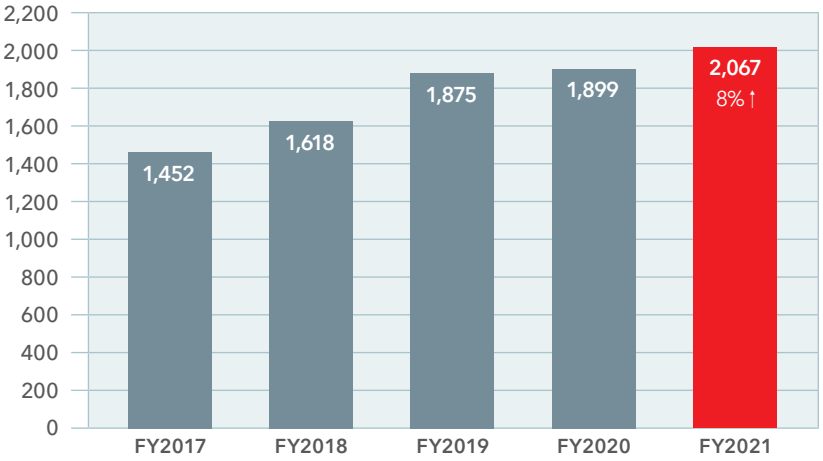
42% increase in burn and frostbite operative cases since 2017.

36% increase in transfers to the Trauma Center since 2017.

8% within the last year.

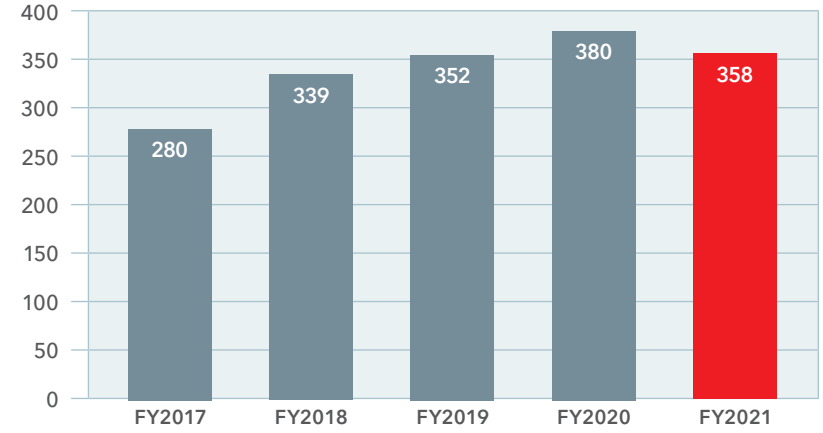
Trauma services and burn care patient volume.

42% increase since FY2017.



Critically injured patient volume.

28% increase since FY2017.

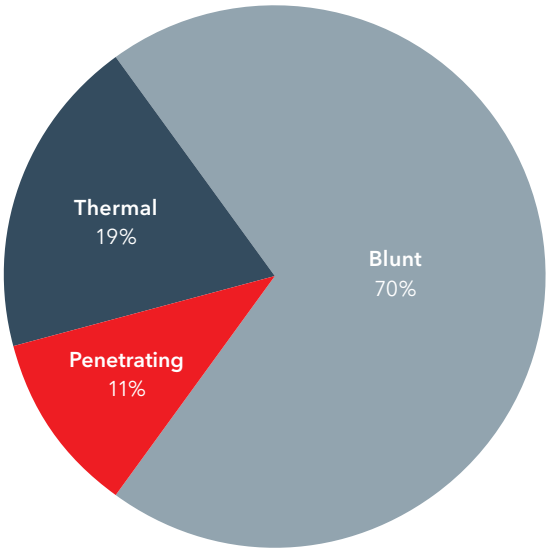


Critically injured patients = injury severity score greater than 15.

Top 2021 traumatic mechanisms of patient injury.

Causes:

- Falls
- Assault
- Motor vehicle crash
- Motorcycle crash
- Pedestrian
- Fire
- Chemical exposure
- Gunshot wounds
- Stab wounds
- ATV, snowmobile or other vehicle

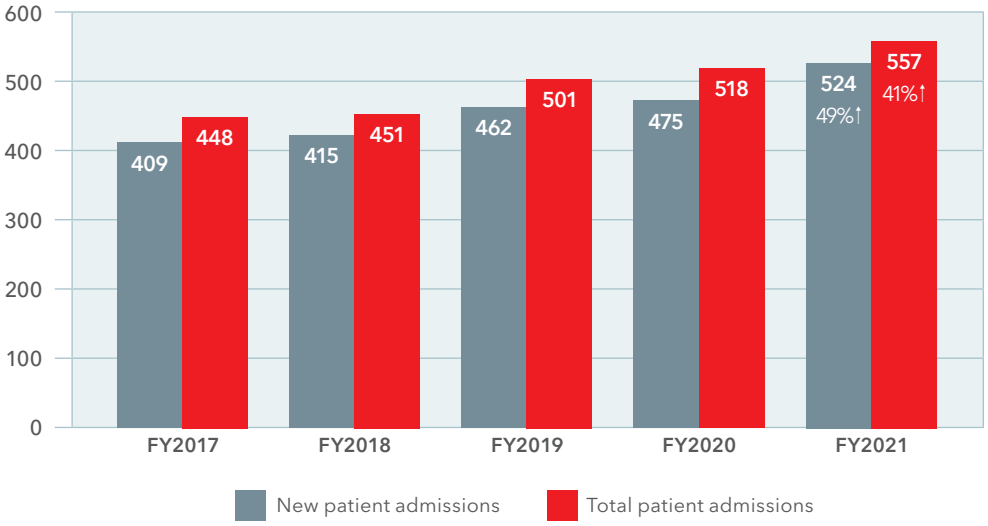


Penetrating trauma has increased to 11% in FY2021 (up from 7% in FY2019.)

Burn and Frostbite Center volumes.

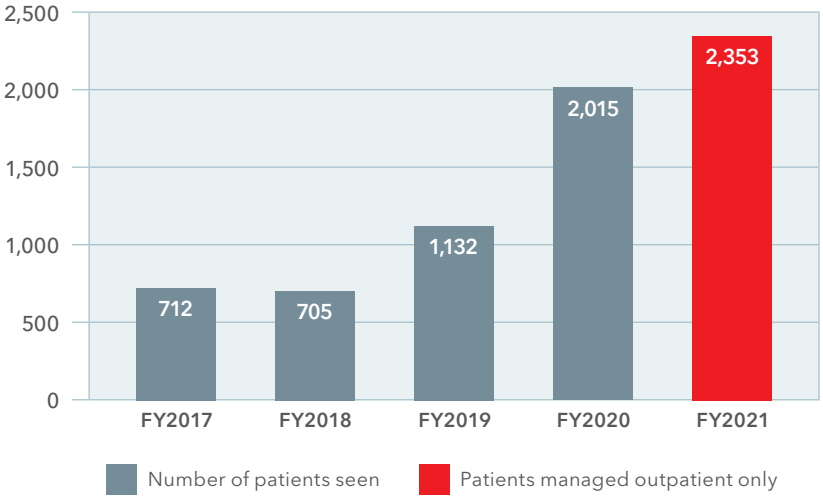
Center admissions

24% increase since FY2017.



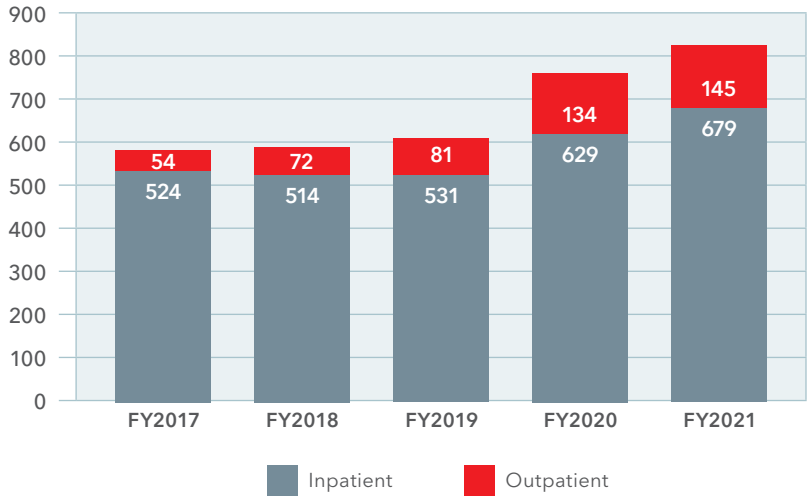
Clinic volume

230% increase in the number of patients seen since FY2017.



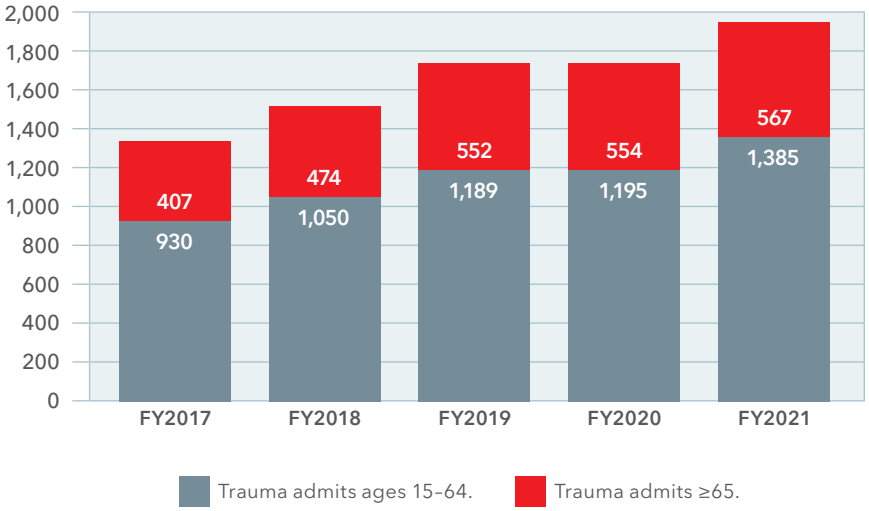
Operative cases

42% increase since FY2017.



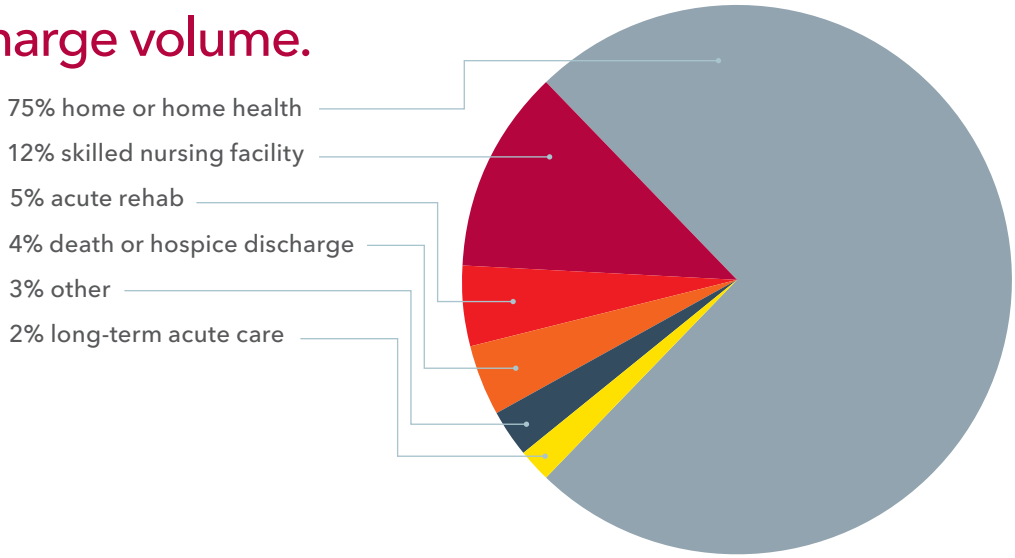
Trauma services and burn care patient demographics.

Admissions by age
(29% of admissions are greater than or equal to 65 years of age).



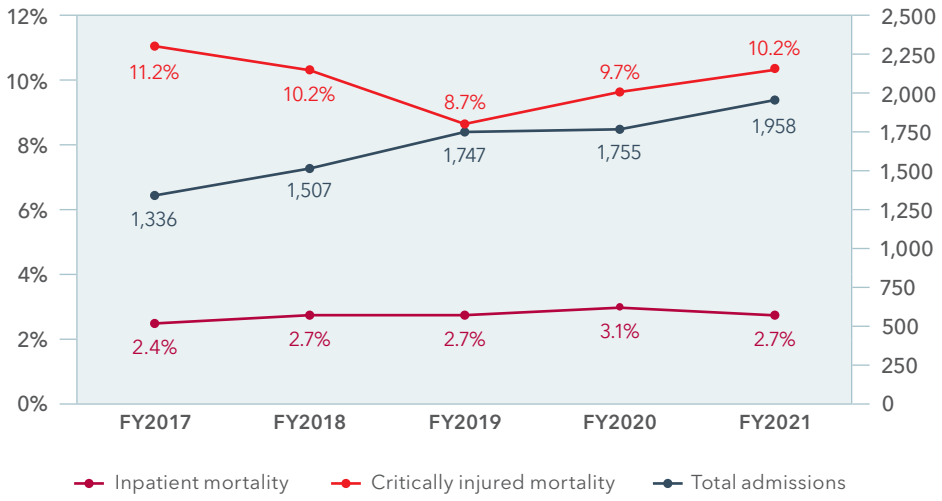
Inpatient discharge volume.

80% of patients are discharged to home or rehabilitation.



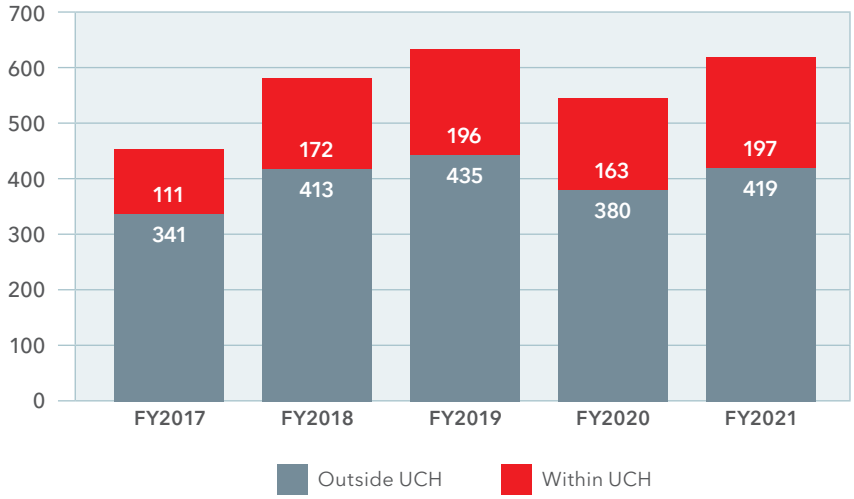
Total mortality versus annual volume.

11.6% increase in overall volume, with an overall inpatient mortality decrease of 0.4% over the last fiscal year.



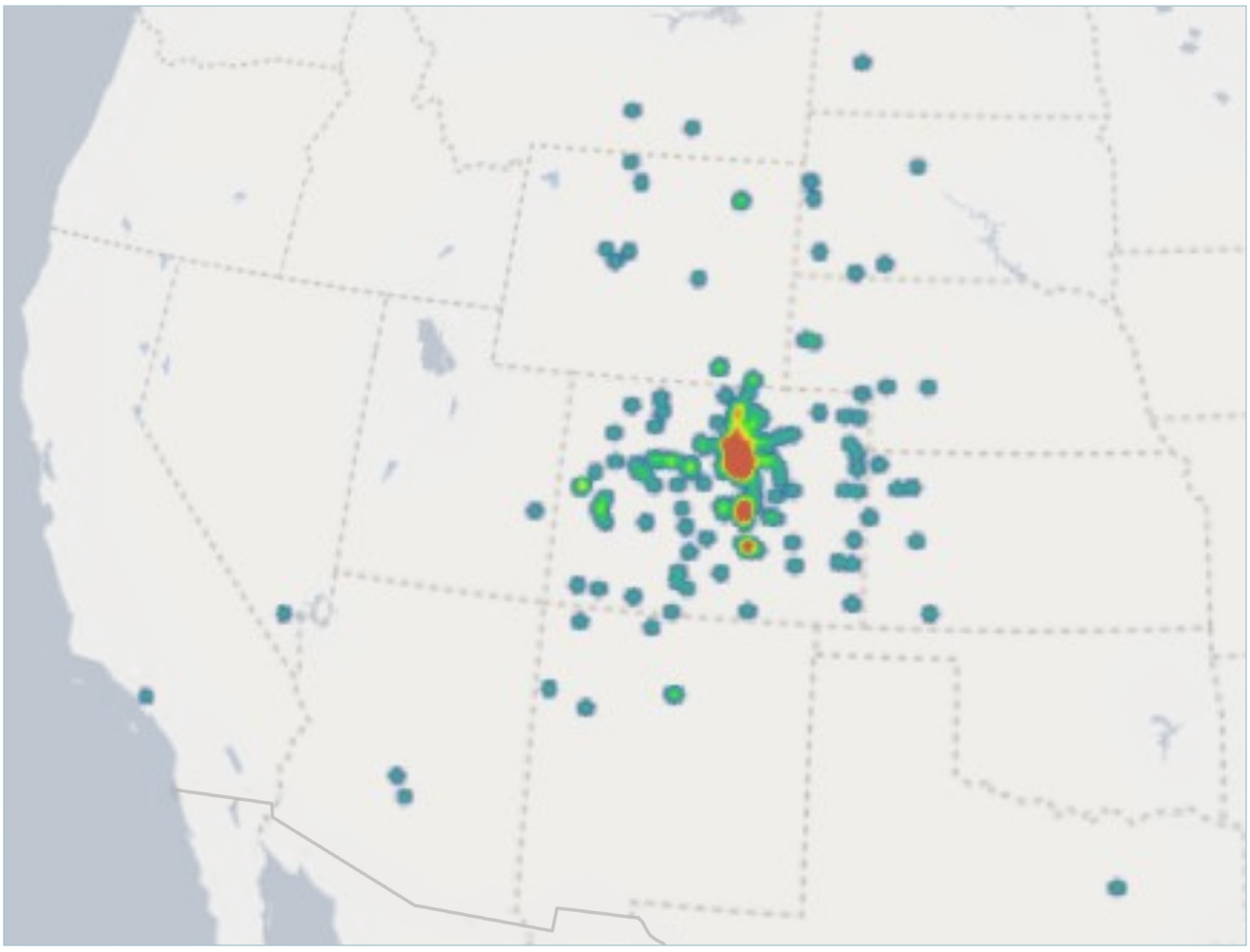
Referrals in.

36% increase in transfers since FY2017.



Trauma and burn transfers (FY2019).

University of Colorado Hospital received transfers from 100 facilities in 13 states and Canada (not shown).



Trauma Education (2020/2021).

Advanced Burn Life Support (ABLS)
- Five courses, 51 providers, nurses and EMS providers in two states.

Advanced Surgical Skills for Exposure in Trauma (ASSET)
- Two courses, 16 participants.

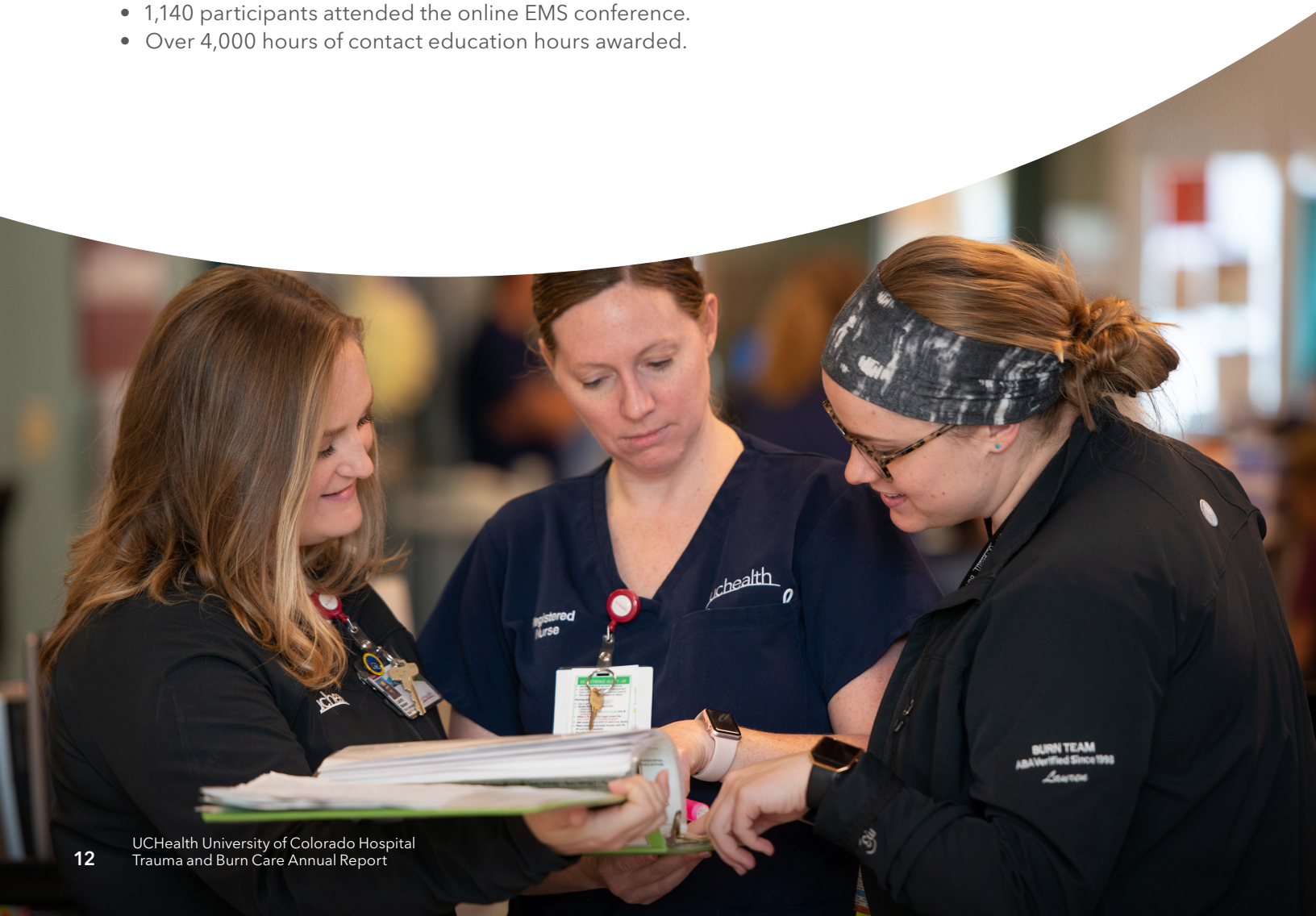
Advanced Trauma Life Support (ATLS)
- Six courses, 97 participants.
- One instructor course, with five participants.

Trauma Nursing Core Course (TNCC)
- Three courses, with 42 participants.

Virtual CME
- 12 presentations, with 574 participants.

Outside facilities CME
- 31 presentations with participants from CO, MT, ND, NE, SD and WY.
- 13 EMS presentations with participants from CO and WY.

Virtual EMS Conference
- 1,140 participants attended the online EMS conference.
- Over 4,000 hours of contact education hours awarded.



UCHealth University of Colorado Hospital
Trauma and Burn Care

Turning Challenges Into Opportunities

A frostbite survivor gives back.

December 18 is a significant date for Alec Grimes, because on December 18, 2016, Alec experienced severe frostbite after being exposed to the cold on a snowy night in Fort Collins. He had walked back to his brother's apartment after spending time with friends, when the temperature was one of the coldest on record in the city, with a windchill of -14°. Initially, he did not realize the extent of his injuries, though his feet were frozen to his canvas shoes. His brother thought they required medical attention and drove him to UCHealth's Poudre Valley Hospital. There he was transferred by helicopter to University of Colorado Hospital's Burn and Frostbite Center. Dr. Anne Wagner, former medical director, said Alec had a 70–90% chance of losing his toes. In order to save them, tPA was administered, breaking down the clots in frozen tissue and returning blood and oxygen to his feet.

Thankfully, Alec has fully recovered, but the impact of his injuries had a profound effect on him. Reflecting on his experience, he considered how those without shelter deal with the cold on a regular basis. After being discharged from the hospital, he purchased warm socks and gloves and stopped at a local park to distribute them to those in need. His empathy and compassion served as a catalyst to his mission to keep others warm during Colorado's cold seasons. Every December 18 since, Alec has donated cold-weather gear to the Burn and Frostbite Center and local shelters throughout the Denver Metro area. His family and colleagues at Johns Manville also contribute to his donations.

2020 was a challenging year, yet Alec's donation was the largest to date and a welcomed resource for patients on the unit and the growing homeless population in Denver. Generous, humble and driven to serve others, Alec continually overwhelms those in the Burn Program. In an effort to recognize his commitment to the homeless, the staff nominated him as a Denver7 Everyday Hero. Molly Hendrickson, Denver7 anchor, presented Alec with the award in December 2020.

> I am a burn survivor of an industrial accident. I had a list of many doctors I had to communicate with regarding my recovery. I am fortunate to be able to keep appointments from a distance due to virtual health care. I do see my many lists of doctors in person, as needed. It's reassuring to have one-on-one questions answered about medicines, ailments and medical changes without having to travel the distance of 100 miles from my home. The conveniences of this program are ideal for my condition as my legs swell and nerves hurt when I sit for long periods on the road. I was able to get the medical consultations via computer versus making appointments in person. I would recommend this program for anyone because of it being just as thorough as an in-person visit for a check-up. I felt the offices allotted ample time to go over any medical questions I have. I would like to add that a person with an existing medical condition is able to avoid any risk of contracting further viruses, by visiting their doctors from their home. This program has been a positive experience for me such that several appointments would have been rescheduled due to weather conditions or because I am unable to drive myself. This program has been a godsend for me and my family by eliminating undue stress while still getting the follow-up care I need for recovery.
>
> *–Keith E.*

Getting the health care they need, at home.

Keith E. is one of our burn survivors who has experienced firsthand the benefits of our virtual health appointments offered by UCHealth Burn and Frostbite Center. When the COVID-19 pandemic and public health emergency hit us in the spring of 2020, the world changed before our eyes in so many ways. In health care, we were challenged with barriers that many of us had never seen or planned for before.

As a team, we adapted and overcame these barriers at an astonishing pace to continue caring for all of our patients the safest way we could via virtual health visits. In the outpatient burn clinic at UCHealth University of Colorado Hospital, we had already been offering virtual health appointments before the pandemic for our patients who often live many hours away from our providers, yet still require specialized care. As health care services became more limited due to the pandemic, we needed to make major modifications to our daily clinic operations. So we offered even more virtual health visits than we had typically planned for, to continue caring for this patient population.

Walking without pain, after years of discomfort.

In 2017, Stacey Mickelsen, her husband and their children were staying on a houseboat with some friends on Lake Powell. The last thing she remembers of that night was going downstairs to gather some bedding. "The explosion was in the engine compartment, and I was standing on top of the engine compartment when it happened," said Mickelsen of the blast that killed one of her friends and severely burned her husband. "Head injuries, neck injuries, eye injuries, both of my legs and feet were crushed."

Ultimately, she decided on an amputation. But she was left with that uncomfortable, sometimes painful socket prosthetic. It limited her ability to get back to those outdoor activities she loved to do with her family. A cutting-edge surgery called osseointegration, now offered in Colorado but *only* at the University of Colorado Hospital and in very few additional places across the globe, is helping amputees walk pain-free and with a gait closer to what it was before losing a limb.

A typical socket prosthesis can help someone who has lost a leg walk on two legs again but not comfortably. As the leg swells throughout the day, the need to refit the artificial limb with layers of socks and liners increases, further throwing off one's walking pattern. Osseointegration anchors a carefully measured prosthesis directly to the skeleton. Under the direction of Dr. Jason Stoneback, Director of the Limb Restoration Program at UCHealth, Stacey underwent osseointegration surgery. "The amputee can easily clip on and clip off their prosthesis, they can wear normal clothes and the alignment of the skeleton more closely matches what it was before they had amputation," said Stoneback. "They also have a really phenomenal benefit called osseoperception. That's where they're actually able to feel the pressure they're putting to the ground through their prosthesis. They can feel where they are in space."

"It's been a long road to recovery, physically and emotionally," said Mickelsen, a personal trainer, after having the surgery at UCHealth. "When body image is kind of your identity, and something like this happens, it rocks your world." Mickelsen, now several months out of surgery, has ditched her crutches and is getting back to physical activity.

"First of all, just walking without pain is fantastic. Going two-and-a-half years in a socket was pretty miserable to me. Coming right out of surgery, I had no pain," said Mickelsen, now looking at the world through a different lens. "What we've accomplished because of the human being we are is much more important than worrying about physical perfection."

Jason Stoneback, MD, and members of the Limb Restoration team with a patient who underwent osseointegration.


SPEED LIMIT
30

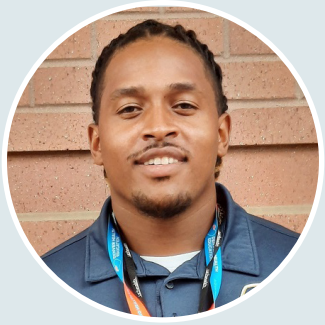
Helping heal all the parts of a patient's trauma.

The University of Colorado Hospital recently implemented the At-Risk Intervention and Mentoring (AIM) program. The AIM program is a hospital-based violence-intervention program that identifies patients at risk of repeat violent injury and links them with hospital and community-based resources aimed at addressing underlying risk factors for violence. The program is an expansion of AIM-Denver and is a member organization of the Health Alliance for Violence Intervention (HAVI); it uses an evidence-based and trauma-informed approach to care for survivors of violent injury.

The program support includes culturally competent outreach workers who intervene when patients are admitted to the hospital after sustaining an intentional violent injury. If the patient is receptive, the outreach worker works alongside the participant for 12 to 18 months (based on need) and attempts to address the barriers to exiting a cycle of violence. The patients are connected to post-discharge services in the community, which could include medical care and mental health services job training and resources, housing assistance, education, family support services, and assistance with the criminal justice system. Since the program's inception in December 2020 through June 2021, 72 patients received a bedside intervention immediately following an intentional violent injury. In addition, the outreach workers have helped a number of youth through numerous community referrals.

Pictured left from right: Josh Ford, AIM Outreach Worker; Anna Cleveland, AIM Program Evaluator; Catherine Velopulos MD, MPH, AIM Program Medical Director; Laurie Lovedale, Injury Prevention Program Manager; Erin Hart, Trauma Social Worker; Lawrence Goshon, AIM Outreach Worker

Meet our outreach workers.



Josh Ford

Josh is an author of athlete-development books, self-help nonfiction, autobiographies and children's books. Prior to picking up his pen, he made a name as a pro athlete and was renowned for his enthusiasm and diligence.

After Josh officially ended his career as an athlete, he became a pioneer of athlete enrichment. When Josh saw many new and aspiring athletes going down the wrong path, he got his writing career in gear, giving himself the social responsibility of putting every athlete on track.

Josh delights in mentoring and empowering young people. He connects by sharing inspirational stories, speaking at conferences and authoring results-driven books. His works span a range of topics, including personal development and leadership, violence prevention and finding success.

Lawrence Goshon

As a Denver native, Lawrence grew up in the Park Hill and former East Side neighborhoods in the 90s, when gangbanging was at its worst. As a juvenile, he committed himself to that lifestyle, which eventually led to his being charged as an adult and given a ten-year prison sentence.

In 2001 Lawrence was released from prison, only to return in 2003, charged with a murder he didn't commit. After several plea offers, he eventually accepted a three-year sentence for accessory to murder after the fact. Upon his second release, he decided that he no longer wanted to live that lifestyle.

He was fortunate enough to find work with the Colorado Coalition for the Homeless as a janitor and then to work as a database administrator managing the HMIS system for Colorado. After seven years, he started working with at-risk youth at Metro Denver Partners, where he was the lead outreach worker for AGRIP (Aurora's Gang Reduction Impact Program). The AGRIP program was defunded due to the abolishment of the Red Light Stop Light bill.

Lawrence was then picked up by the AIM program to continue the work by helping those at risk who were affected by and already engaged in violence throughout the city of Aurora. This work is his passion, and he is committed to giving it his all and building back his community.

COVID-19 research and trauma.

In March 2020, when the COVID-19 pandemic made its way to Colorado, the Trauma and Acute Care Surgery program pivoted all research efforts to developing knowledge about the deadly virus.

The Department of Surgery contributed to 12 COVID-19 publications. Three of those publications were as a member of the NIHR Global Health Research Unit on Global Surgery. In work published in the *Lancet* in June 2020, only three months after the virus appeared in Colorado, the Department of Surgery contributed to a worldwide study exploring the impact of COVID-19 on surgical patients. Data were included from 235 hospitals in 24 countries.

Dr. Franklin Wright and his colleagues were some of the first to publish data about coagulopathy derangements in COVID-19 patients. Dr. Juan Pablo Idrovo led local efforts to contribute to a study comprising a sample of over 61,700 patients exploring the clinical presentation of patients infected with the virus. His efforts in participating in that collaboration led to three publications.

During a time of tremendous uncertainty, the University of Colorado Hospital was able to successfully contribute to an immediate need for knowledge during a global emergency.

Heather Carmichael, MD – Trauma Research Resident;
Catherine Velopulos, MD – MPH Director of Trauma Research;
and Shane Urban, BSN, RN – Trauma Research Nurse

Leading the way in many research efforts.

After UCH obtained Level I Trauma Center verification in October 2018, our trauma and burn research program significantly grew. During fiscal years 2019 and 2020, our doctors published 77 articles in various high impact journals including *Lancet*, *Annals of Surgery*, *Journal of the American College of Surgeons* and *Journal of Trauma and Acute Care Surgery*. These publications demonstrate a wide range of research. Our researchers are active in studies exploring COVID-19, intimate-partner violence, health care disparities in acute care surgery, coagulopathies, prehospital safety, thermal injuries and trauma program administration. These works have been well-represented at national scientific meetings such as the Annual Scientific Assembly of the Eastern Association for the Surgery of Trauma, the Western Trauma Association Annual Meeting, American College of Surgeons Annual Clinical-Congress, American Association for the Surgery of Trauma Annual Meeting, ACS – Trauma Quality Improvement Program Annual Conference and the Society of Trauma Nurses Annual Meeting.

The Burn Center Research Team has been very active, having presented several abstracts at the American Burn Association Annual Meeting and the Surgical Infection Society Annual Meeting. Faculty and residents have also been involved with articles published in the *Journal of Burn Care Research*, including on early palliative care consultation in burn, remote delivery of thrombolytics for tissue salvage in frostbite and triage and transfer to a regional burn center impact of a mobile phone app.

In addition to the successfully completed and published research, the Trauma and Burn Research Program expects to see continued growth at a regional and national level. In August 2021 UCH concluded leading a multicenter study, the first time in our hospital's history. That study builds on previous research by our group in exploring the management of hepatic trauma and will have included data from 21 sites around the U.S., Israel and Canada. A second prospective multicenter study is currently being developed to explore the treatment of trauma patients in the prehospital environment.

During fiscal year 2020, the trauma program conducted a national survey exploring what resources trauma programs use to ensure data accuracy within the trauma registry. That survey captured data from nearly 70% of U.S. Level I Trauma Centers and 65% of U.S. Level II Trauma Centers. Currently, we're exploring conferences and journals in which to share that experience.

Scan the QR code to link to documentation on research.

Burn Program awarded a distinguished Department of Defense Military Burn Research Program (MBRP) Clinical Translational Research Award.

Arek Wiktor, MD
Associate Medical Director Burn Surgery

Arek Wiktor, MD, was recently awarded a distinguished Department of Defense Military Burn Research Program (MBRP) Clinical Translational Research Award. This $1.5 million grant will be used to study the effects of two colloids, plasma and albumin, in acute burn resuscitation over a three-year period. Colloids decrease the amount of fluids required in burn resuscitation, thus decreasing complications. However, controversy exists over which colloid, plasma or albumin is better suited for burn resuscitation. The aims of the study are to investigate the impact of these different fluids on endothelial dysfunction in the hopes of improving outcomes and preventing complications. This research will lay the groundwork for future developments of fluids that may revolutionize combat and civilian burn care. This successful grant was due to the collaborative effort between the CU Anschutz Center for Combat Medicine and Battlefield (COMBAT) Research and UCHealth Burn and Frostbite Center – Anschutz Medical Campus.

Updates from the burn research laboratory.

Elizabeth J. Kovacs, PhD
Professor, Surgery-GI, Trauma, and Endocrine Surgery

Preclinical and translational studies are underway in the Burn Research Laboratory under the direction of Elizabeth J. Kovacs, PhD, and Juan Pablo-Idrovo, MD, TACS faculty. This work, funded by multiple NIH and VA grants, is centered on inflammation and how innate immunity is perturbed following burn injury. It is well-known that burns are more than skin-deep and that, even in the absence of smoke-inhalation injury, nearly half of all burn patients suffer from some degree of lung damage. For over two decades, the Kovacs lab has been striving to connect mechanisms responsible for how a burn to the skin can trigger multi-organ system complications leading to:

1. Increased susceptibility to infection.
2. Excessive tissue damage.

Both complications result in longer hospital stays and poor prognosis in burn patients of all ages. The lab is delineating the involvement of additional clinical factors, including alcohol consumption, advanced age and the sex of the patient, on burn injury outcomes. Current studies are focused on the gut-liver axis and its role in triggering post-burn lung inflammation and impaired pulmonary function. The connection between burn injuries and multi-organ failure may stem from dysbiosis of the gut microbiome and/or a breach in the integrity of the intestinal epithelial barrier, allowing translocation of bacteria and bacterial products into the portal and general circulation, triggering excessive inflammation in the lung and other distal organs. Elucidating the contribution of the gut to multi-organ responses after burn trauma may lead to the development of novel strategies to improve outcomes in burn and other trauma patients who are at risk of developing failure of critical organs like the lung.

Research spotlights.

Heather Carmichael, MD

Resident, Department of Surgery

Since 2017, Heather Carmichael, MD, has been a research resident with the Division of GI, Trauma and Endocrine Surgery at the University of Colorado. During that time, Dr. Carmichael has contributed to 46 publications for trauma and acute care surgery, serving as first author on 19 of them. Her successes in clinical research are made even more remarkable because of challenges she and her family faced on the other side of the white coat.

In an amazing act of vulnerability, Dr. Carmichael published a perspective piece in the *New England Journal of Medicine* chronicling her experience giving birth to a son with congenital diaphragmatic hernia in the midst of residency. Because of Dr. Carmichael's unparalleled contributions to clinical research, she has been recognized with both the Eiseman Award in Clinical Research and the Frederick L. Grover Award in Clinical Research by the University of Colorado.

Mitchell Cohen, MD, FACS

Professor, Surgery-GI, Trauma, and Endocrine Surgery

The University of Colorado School of Medicine and the University of Colorado Hospital welcomed Mitchell Cohen, MD, FACS, as a distinguished professor of surgery credited with approximately 250 peer-reviewed publications. Dr. Cohen's eclectic research interests include trauma simulations, randomized controlled trials, basic science and personalized medicine. He has been awarded numerous grants from the Department of Defense and National Institutes of Health to explore coagulopathy in trauma and optimal blood-product resuscitation.

In addition to his contributions leading clinical research studies, Dr. Cohen is an editor for the *Journal of Trauma* and a reviewer for the *Journal of Thrombosis and Haemostasis*, *PLoS Computational Biology*, *Archives of Surgery*, *Injury, Transfusion*, *Science Translational Medicine*, *Journal of Trauma*, *Critical Care Medicine*, *PLoS ONE*, *Blood* and the *Annals of Surgery*.

EMS integrated medical direction.

Background.

Born out of the concept that each EMS agency and system is unique and, as such, requires unique and customized medical direction. The "rubber stamp" approach to EMS medical direction short-changes the agency and prehospital providers. Medical direction should be a team approach with a common goal of excellent patient care, from the 911 system to transfer of care. All communities deserve access to high-quality prehospital care, which stems from accessible and robust medical direction.

Mission.

To bring integrated, customized medical direction to meet your agency's needs. By building a collaborative team of professionals, we work together to help your agency provide exceptional medical care to your community.

Key elements:

- **Active participating physician for the agency.**
  The medical director is someone who is approachable and accessible and understands the unique needs and challenges of the specific agency.
- **Robust QA/QI.**
  Reliable and consistent case review for QA/QI is the foundation to providing quality care.
- **Partnership in delivery of training.**
  Training needs are also system-unique—some have in place the ability to provide their training in house, and others may need more personnel, equipment or curricula.
- **Timely access to cutting-edge and novel approaches to prehospital care.**
  Prehospital care is constantly changing, with many new technological advances, as well as evidence-based practice changes.
- **Team-based approach.**
  Medicine is a team sport in every way, and this is not any different. The medical director, agencies, municipalities, hospitals and communities are all on the same team with the same goal, and as such, each plays an essential role in the development of this program and in the growth of prehospital care.
- **Online and offline medical direction.**
  Continuous protocol review and revision as needs change, as well as easy access to online medical direction for those calls that "don't fit the mold."
- **Technologically enhanced care.**
  As technology advances and the face of medicine changes, EMS should not be left behind. Understanding how particular virtual and medical developments can benefit your community and are part of the system and having access to these in all areas is essential.

For more information on EMS integrated medical direction, please reach out to Marc Scherschel at Marc.Scherschel@uchealth.org

Angie Wright, MD, UCH EMS Medical Director (center) with members of the Strasburg Fire Protection District, one of UCH's newest partners in EMS integrated medical direction.

Growing to meet the needs of the community.

UCHealth University of Colorado Hospital – Anschutz Medical Campus (UCH) will build a new tower to meet growing demand for complex medical care. Once built on the west side of the hospital campus, the 11-story Tower 3 will initially provide 103 additional inpatient beds and 10 operating rooms with space for future growth.

The Tower 3 expansion will significantly augment the ability to care for injured patients at UCH. Four state-of-the-art resuscitation rooms will be part of an Emergency Department expansion that will increase capacity and efficiency in caring for injured patients. Additional inpatient capacity will also allow for improved patient and provider experiences.

"University of Colorado Hospital cares for patients experiencing the most acute health care needs," said UCHealth President and CEO Elizabeth Concordia. "UCHealth provides patients access to innovative clinical trials and advanced treatments often unavailable anywhere else, with some of the nation's best outcomes and patient experience. We are uniquely able to treat even the most complex cases—because of this, we accept over 4,000 transfers from other facilities every year."

"With the hospital frequently at capacity with every medical/surgical patient bed occupied, the expansion will allow UCH to meet the needs of patients throughout the Rocky Mountain region," said Dr. Jean Kutner, University of Colorado Hospital chief medical officer. "Patients throughout our multi-state region have been requesting our care in record numbers while our state's population continues to grow at one of the nation's fastest rates. This new tower will ensure that we are able to care for our patients today along with those who will need our services in the future."

Architect's rendering. Facility currently under construction.

UCHealth University of Colorado Trauma Center
12505 E. 16th Ave.
Anschutz Inpatient Pavilion 2, 1st Floor
Aurora, CO 80045

UCHealth Burn and Frostbite Center – Anschutz Medical Campus
12605 E. 16th Ave.
Anschutz Inpatient Pavilion, 3rd Floor
Aurora, CO 80045

For more information about the UCHealth University of Colorado Hospital Trauma and Burn Care Annual Report (2020/2021), please call 720.848.4805.

Trauma and Burn Care

uchealth.org

21-TRAUMA-4204