

BOSTON MEDICAL CENTER

Department of Surgery

Section of Acute Care & Trauma Surgery and Surgical Critical Care

2017 Annual Report



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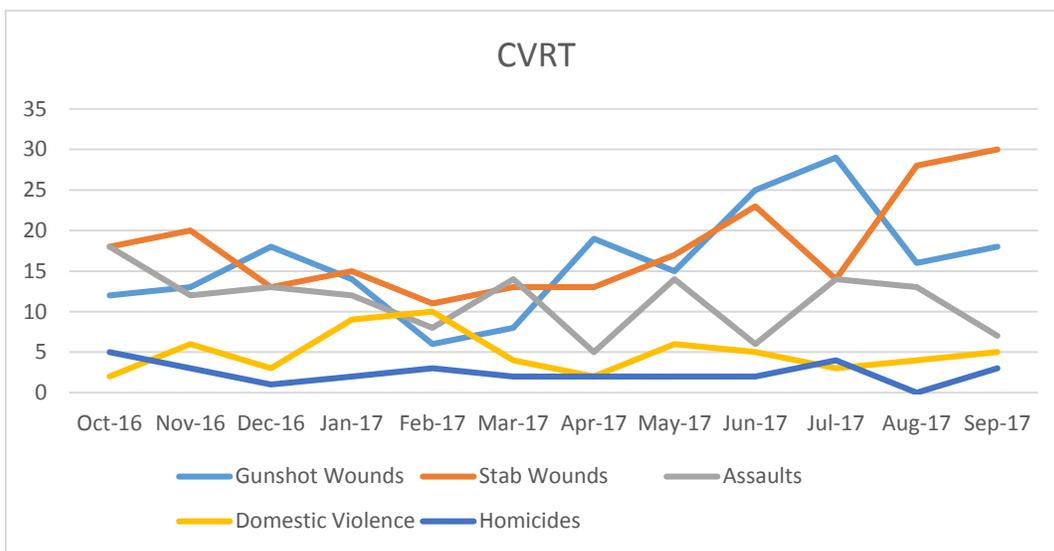
The fiscal year of 2017 was another year of challenge and change for our program. The multi-year campus redesign has been in full swing and ramping up for completion next year. Some of the noteworthy physical changes that occurred include the Surgical Intensive Care Unit (SICU) moving to a new location from the 5th floor of Menino to the Menino addition on the third floor. Rooms are more spacious and include state of the art monitoring and treatment capabilities caring for the most critically ill and injured patients in our institution. This is all part of the larger plan for the SICU consolidation with the staff from the East Newton Campus slated for the fall of 2018. The Department of Radiology has largely moved out of their longstanding location adjacent to the Emergency Department (ED) in order to accommodate an ED expansion. The Skybridge over Albany Street opened to move materials and supplies from the newly relocated loading dock and can now accommodate patient transfers as well. This change has been long awaited and helpful to unburden the ambulance bay of non-emergency patient traffic. Also, the Blood Bank moved from Menino 2 to much larger accommodations on Menino LL and will be ready to receive the East Newton Blood Bank resources when they consolidate. The major personnel change this year was the addition of Dr. Jennifer Tseng who started in July of 2017 as the new Chair of the Department of Surgery, succeeding Dr. Gerard Doherty.

Other program highlights of the past year include the establishment of an electronic interface with the Epic EMR and our trauma registry. Selected data points no longer have to be manually abstracted by a trauma registrar and entered into the trauma registry. These data are pulled automatically and once approved, can be promoted into the registry eliminating some duplicate and tedious efforts. This has been a collaborative effort with our IT department and our trauma registry vendor. A parallel but smaller data set is being used as well for our Emergency General Surgery patient population. We have set a goal to establish a similar process for the Surgical Critical Care Service where a dashboard can be established to monitor and track patient activity. This will be useful as many different types of critically ill patients are cared for on this service, often in locations outside of the SICU itself. Getting data on these patients will allow us to examine trends, patterns and opportunities for improvement.

A number of educational programs occurred during the year for both our internal and external constituencies including four offerings of the Trauma Nursing Core Course (TNCC), two Advanced Trauma Life Support (ATLS) Programs and a new offering of Trauma Care Everywhere (TCE) designed specifically for nurses caring for trauma patients in non-critical care areas. We also facilitated an American College of Surgeons sponsored "Stop the Bleed" Hemorrhage Control training to our Public Safety officers for incorporation into their immediate response training as well as first responders around our communities. Dr. Amy Goldberg from Temple University Hospital was our Clowes Trauma Visiting Professor and her visit was a highlight of the year.

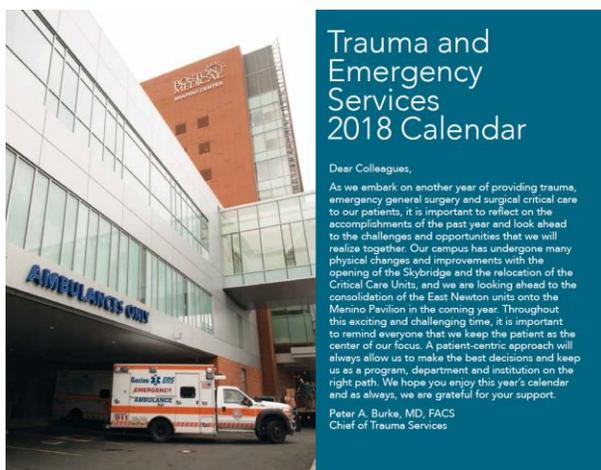
The Socially Responsible Surgery initiative begun by Tracey Dechert, MD continues to grow and now has a website and a track record of accomplishments. Recognizing social responsibility as a core value of surgical practice and surgery as an essential component of global health, this group aims to identify opportunities for leadership, research and collaboration in the training of globally minded surgeons committed to surgical equity. We believe in educating and serving our local community as part of the larger global community.

The Community Violence Response Team (CVRT) provides free mental health support and counseling services to patients and families impacted by community violence. Services are provided both while inpatient in the hospital as well as ongoing counseling services after discharge both clinic and community based. Family advocacy and case management services are also offered to all families. These services are possible through a Victims of Crime Act (VOCA) grant.



This graph demonstrates the seasonal referral pattern to our Community Violence Response Team. The numbers represent individual patients who meet our referral criteria. Patients as well as their families and friends are served by our team exceeding 400 patients every quarter.

Our outreach initiatives have been productive with visits to referral facilities, municipal fire services and private ambulance companies. We conducted an on-line Survey Monkey questionnaire to solicit feedback and measure interest in further activities or education to greater enhance our relationship building. We also published our 8th annual Trauma and Emergency Services calendar for distribution to internal and external constituencies.



Lastly, our social media continues to grow and is aptly managed by our program staff. We currently have over 3,200 'likes' on Facebook and 1,600 followers on Twitter. One of the items posted this year of note was the 75th anniversary of the Coconut Grove Fire which garnered interest and was presented as an educational offering throughout the medical center.

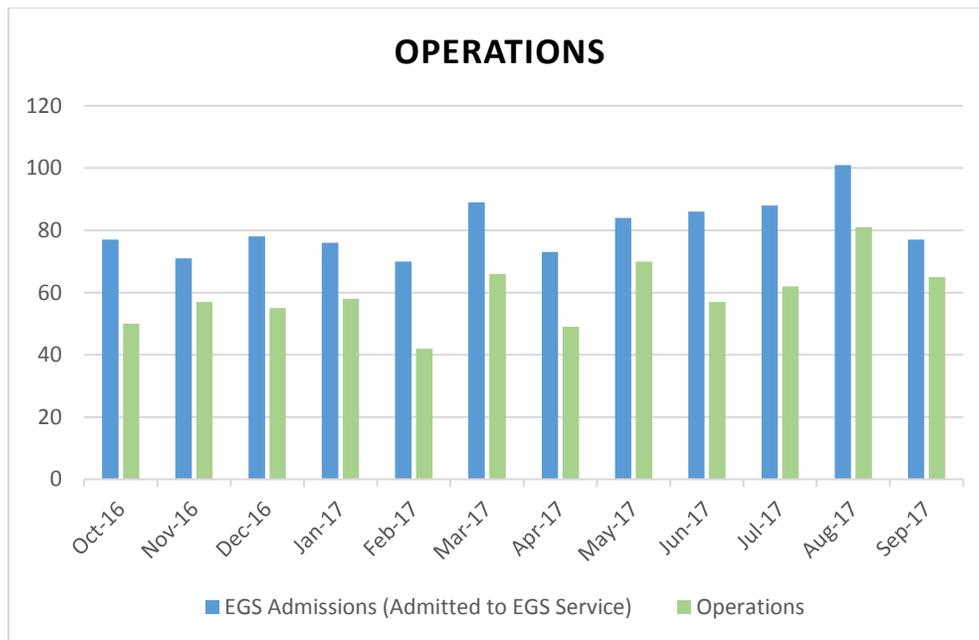
Highlights from the Trauma Registry and Emergency General Surgery Database

Referral volume has remained largely unchanged with the exception of a spike in volume from Good Samaritan Hospital in Brockton which has showed a seven fold increase during the last year. This is due to the Neurosurgery relationship our program has with the Steward network of hospitals. Other facilities in the Steward network like Morton Hospital and Norwood Hospital have shown a modest increase.

Admission volume is down slightly overall and reflects the ongoing trend of hospital and network affiliations throughout our region. Our continuing efforts with pre-hospital providers including municipal fire services and private ambulance companies has continued and remained strong. Maintaining this relationship with point of injury referrals continues to be a priority for us.

Three fourths of our trauma activations result in an admission. The rest being ED discharges which can run as high as 20%, or patients found to have no injuries and as a result are not captured in our registry. To ensure we have been careful and comprehensive with the trauma-related ED Discharges, we reviewed our P1 activations that were discharged from the ED. We found that although they met P1 activation criteria, they sustained minor injuries, were mostly penetrating trauma (superficial stab wounds/gunshot wounds) and stayed a minimum of 8 hours in the ED and received a tertiary survey prior to discharge.

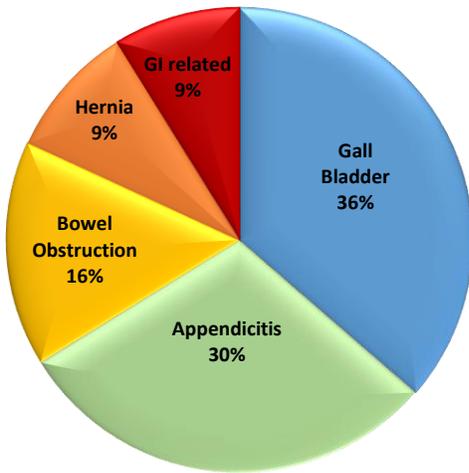
Emergency General Surgery volume continues to make up approximately 40% of our patient population but as stated previously, on average 75% of these patients receive an operative procedure as illustrated below.



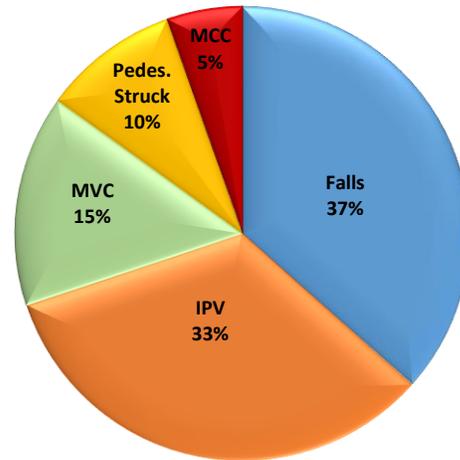
We also observed that unlike our trauma patients, EGS admissions and operations do not follow any discernable seasonal trend.

Here is a side by side comparison of several data points from the trauma registry and emergency general surgery database.

TOP 5 DIAGNOSES



TOP 5 MECHANISMS OF INJURY

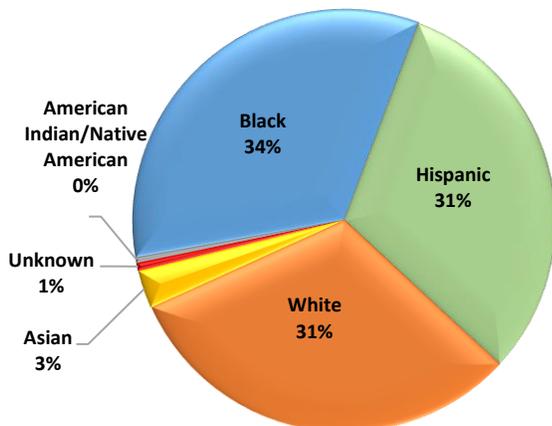


Falls is again the most common mechanism of injury for our trauma center which is the same for the rest of Massachusetts and the nation. Interpersonal violence (which includes gunshot wounds, stab wounds and personal assaults) comes in a close second. We remain the trauma center with the highest percentage of penetrating trauma, double the amount of any other center in town.

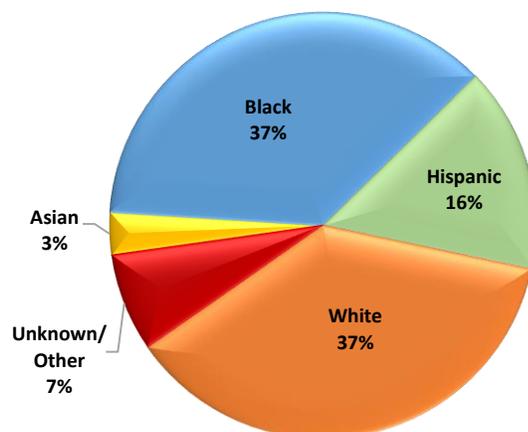
Emergency general surgery has been remarkably consistent with gall bladder disease and appendicitis being our most common diagnoses.

Trauma by race has been quite homogeneous with equal numbers of white and black people injured. The EGS population is mostly Black but only by a few percentage points and then equal parts White and Hispanic.

EGS BY RACE

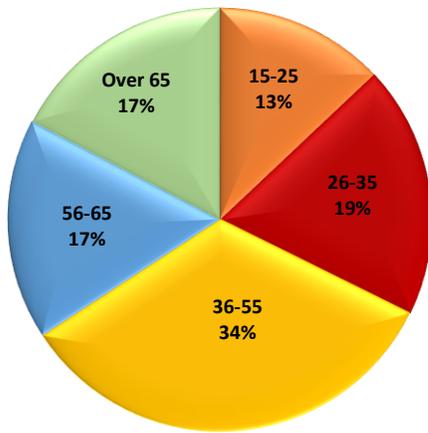


TRAUMA BY RACE

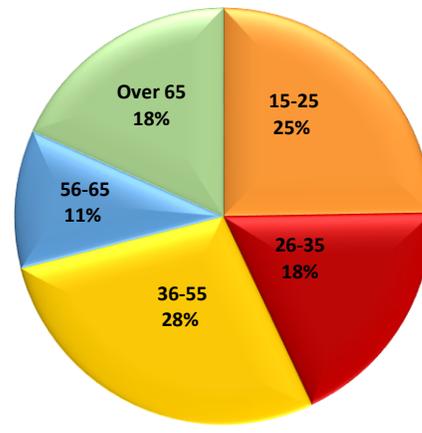


Trauma by age confirms everyone's previous experience that it is a disease of the younger population. The majority of our patients are less than 55 years of age, whereas a full one third of the EGS patients are considered elderly and over age 55.

EGS BY AGE

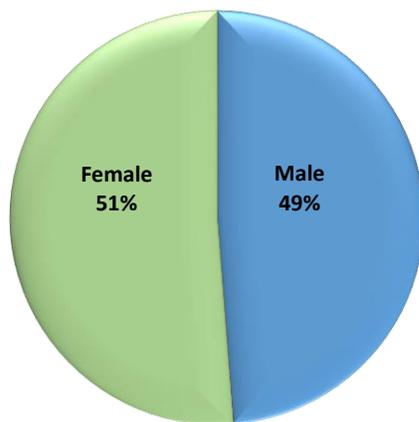


ADULT TRAUMA BY AGE

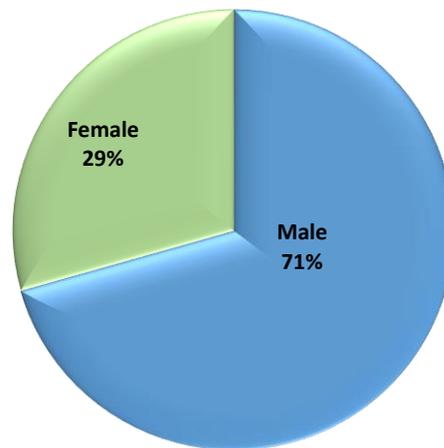


Lastly and to no one's surprise, males are more commonly injured requiring admission to a surgical service compared to females. The EGS population has been consistently equal between the two genders.

EGS BY GENDER



TRAUMA BY GENDER



The past year has been one of steady states and preparation for the impending campus consolidation. We all look forward to the time where we can provide high quality integrated care with all specialties and specialists under one roof. It will be a great advantage for our patients and clinical staff and continue to raise the profile of Boston Medical Center as a leader in trauma and acute care surgery.

Peter Burke, MD, FACS

Heidi Wing, Trauma Registry

Joseph Blansfield, MS, NP, TCRN

Kelly Fay, Trauma Registry

Rachel Raubenhold, Project Manager