# BOSTON MEDICAL CENTER

## Department of Surgery

*Section of Acute Care & Trauma Surgery and Surgical Critical Care*

2018 Annual Report

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**2018 Annual Report**

Two thousand and eighteen was a busy and productive year for the Trauma & Acute Care Surgery (TACS) Program. One of the most noteworthy and long-awaited accomplishments was the completion of the three year campus consolidation effort. The East Newton Pavilion closed with all the patients and their direct services moving to the Menino and Yawkey buildings to provide more efficient and unified patient care. It was quite an effort to move these patients to new locations while providing continued uninterrupted services. The Emergency Department didn't move but underwent a substantial expansion of space and services to accommodate an ever increasing volume of patients making it the busiest in New England and among the top ten busiest ED's in the country.

With the integration of all patient care services in one location all surgery services and specialties came together as well. This allowed us to expand our TACS coverage to include a whole array of specialists bringing an additional value added aspect and depth of resources previously not as readily available. The establishment of an Integrated Procedure Platform (including a hybrid OR) brings our surgical capability to a state-of-the-art level and an exciting development for patients and staff. Additional TACS attending resources are now available in the Surgical Intensive Care Unit and provide redundancy and greater extent of coverage, collaboration and consultation.

This year also marked the retirement of Dr. Andrew Glantz and the recruitment of Dr. Aaron Richman to our department, along with the hiring of Lisette Greenaway as a Project Management Specialist and Madeline Newton as a Trauma Registrar. We are delighted that the TACS program has a full complement of administrative staff to perform their important work.

To commemorate the 10th anniversary of Dr. Erwin Hirsch's untimely passing, keep the memory of his legacy alive and to introduce him to those who may not have had the pleasure of working with him, we instituted the annual "Hirsch Prize". This recognizes an individual from any section or department, clinical or non-clinical who epitomizes the values of keeping the patient first and holding all of us to the highest standard of care possible. The inaugural awardee was Julie Swain, RN who was honored for her work with the VIAP (Violence Intervention Advocacy Program) team. She identified an unmet need of trauma patients discharged home without services and single-handedly provided and organized care for them above and beyond her full time nursing job at BMC. She prevented scores of potential re-admissions, saved thousands of dollars and impacted the lives of the patients she helped. Well done.

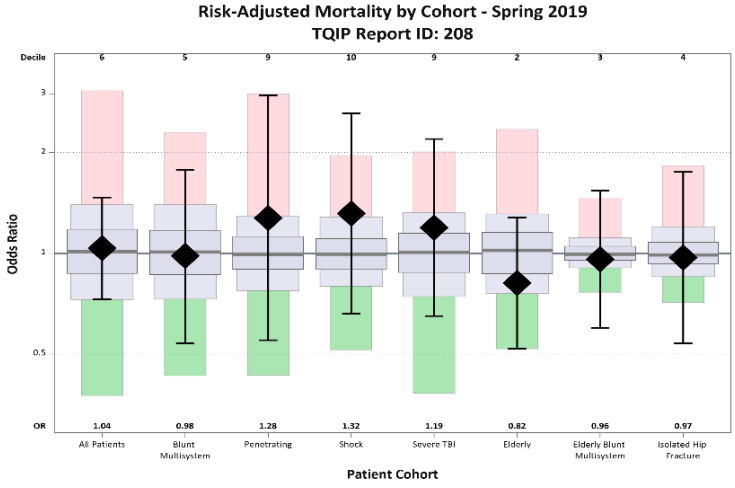
Another exciting development from the trauma program is the establishment of the Boston Trauma Institute (BTI). This is a new and separate endeavor that lives within the division and under the direction of Dr. Peter Burke. The BTI has four major areas of interest; Clinical, Research, Education and Advocacy. The main purpose is to study and teach how the social determinants of trauma impact the patients we treat. A mission statement, planning document and strategic directions have been created and an initial research study has already been funded. Look for more about this in the coming year!

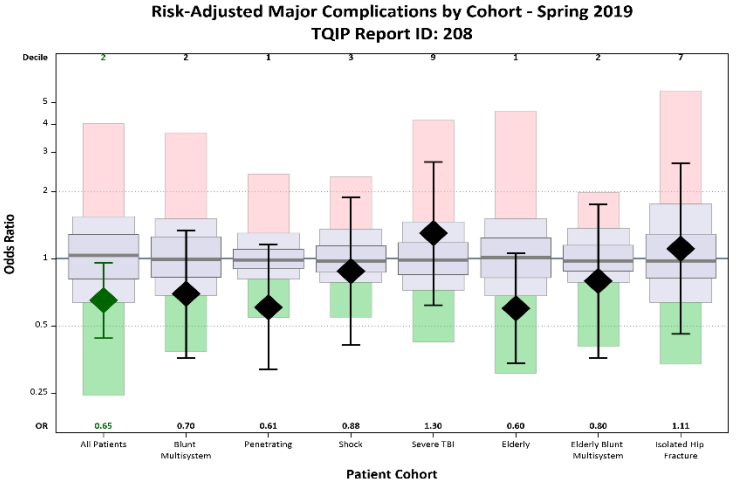
Our George H. Clowes, Jr. MD Trauma Lecture and Visiting Professor program celebrated its 30th anniversary. To honor the occasion, we welcomed Dr. John Holcomb who educated and challenged us to be more cutting edge with whole blood resuscitation and encouraged us to adopt REBOA as an adjunct to stanch arterial bleeding

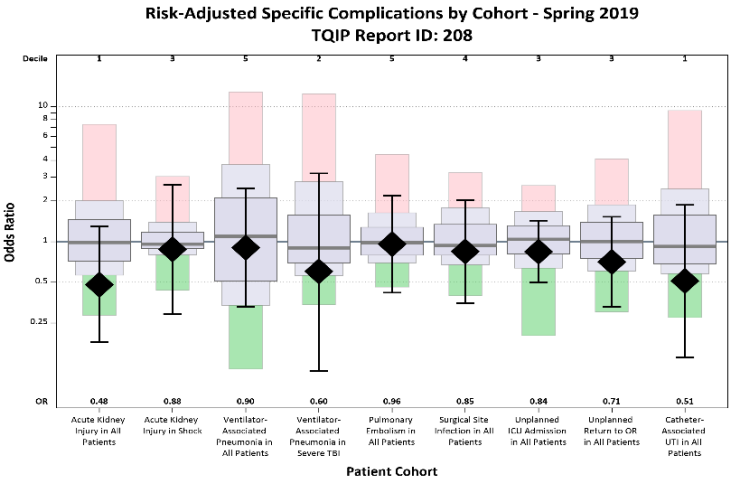
within the torso prior to operative intervention. We have embraced both and efforts are underway to incorporate them into our practice.

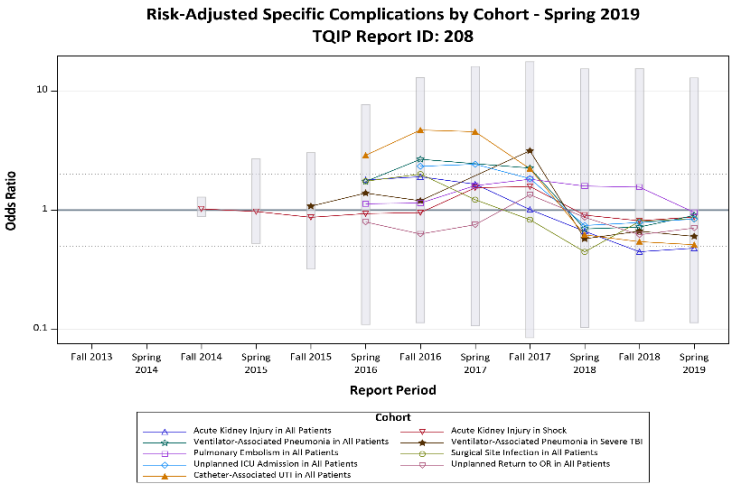

The Community Violence Response Team (CVRT) provides free mental health support and counseling services to patients and families impacted by community violence and continues to grow. Services are provided both while inpatient in the hospital as well as ongoing counseling services after discharge both clinic and community based. Family advocacy and case management services are also offered to all families. In FY 18 CVRT served 690 individuals, 460 of which were male and 190 of which were under the age of 25. This year was a transition and expansion year for us hiring on two new clinicians to join our team. We are now a team of ten individuals dedicated to victim services within trauma surgery. These services are possible through a Victims of Crime Act (VOCA) grant.

We received our Fall 2018 Trauma Quality Improvement Project (TQIP) report which benchmarks us against similar size, level and patient mix facilities. A few examples of our risk adjusted reports are below:




Risk adjusted mortality is overall good. We have no major outliers and we are in a reasonable confidence interval compared to similar institutions as us. We plan to have a closer look at Penetrating Mortality (which we have the highest percentage in the region), Shock and Severe TBI. Our initial thought is these patients may have

died from their injury burden than anything else. Our specific risk adjusted complications are generally pretty good with almost all indicators below the line and the All Patients cohort in the green which is exemplary. Next, we can see how we fare in the reporting of the risk adjusted specific complications both as a snapshot for the Spring 2019 quarter and over time since we began participating in TQIP. We are delighted to show that we have used TQIP data to influence our practice and reigning in all the complication data so that everything is at the Odds Ratio 1 line or below. Good work by everyone caring for our trauma patients across the board!

The BOSTON TRAUMA brand continues to be successful and our social media outlet on Facebook has grown to 3,233 followers. We had 30 postings during the year and the 2017 Emergency Department group photo was our most popular post of the year, accumulating a total of over 1,800 likes. We look to have a bigger impact on Twitter this coming year.

Lastly, this previous year was also our reporting year and the roll up to our re-verification as a Level 1 adult and Level 2 pediatric trauma center. It was a substantial effort that involved many people and departments lead by the trauma program staff who coordinated countless details, assembled patient records for review, departmental and hospital data and statistics for performance improvement and facilitated the on-site survey. All this lead to a successful full 3 year re-verification with no deficiencies cited. We are extremely grateful for this tremendous effort.

Highlights from the Trauma Registry and Emergency General Surgery Database

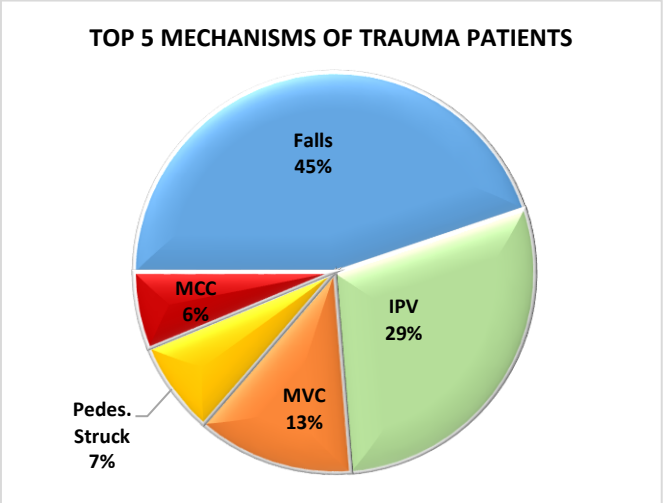
Some of the trends we've seen over the last year compared with previous ones are as follows:

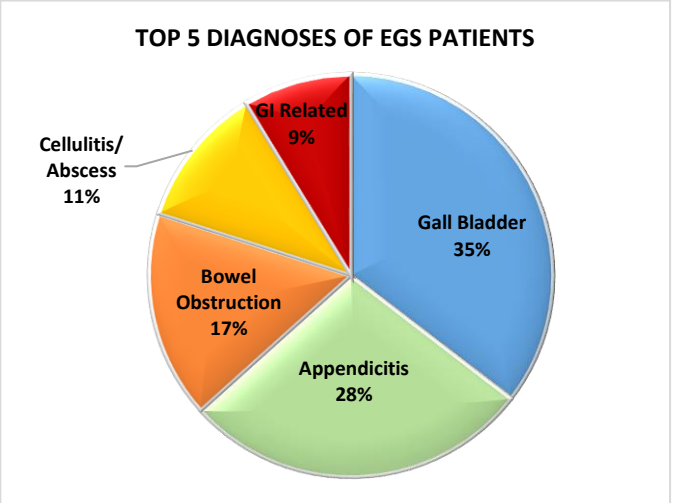
We have seen a slight uptick in our referral percentage which is due to a closer relationship with the Steward hospitals and their agreement with our Neurosurgery group. This has had a secondary gain as many head and spine injured patients with other injuries are now referred to us as well. The number of patients transferred from the scene is slightly down (including EMS and Boston MedFlight) and we're told trauma transports are down overall across the region. This has had a net effect of keeping our volume essentially flat.

Approximately one third of our patients are admitted to a monitored setting. Even though all units have some telemetry capability, this is defined as OR, ICU or IMCU. This is an indirect measure of the level of acuity our trauma and acute care patients require on presentation.

Despite the acuity of these patients over half of them are successfully discharged home and about a third to an intermediary step (Rehab, SNF, LTAC) and the rest are miscellaneous including ED discharge after trauma activation. Our ICU (for those that require it) and hospital length of stay is about 5 days respectively which is in line with our previous experience.

The top 5 mechanisms of injury and the top 5 EGS diagnoses in a side by side comparison:

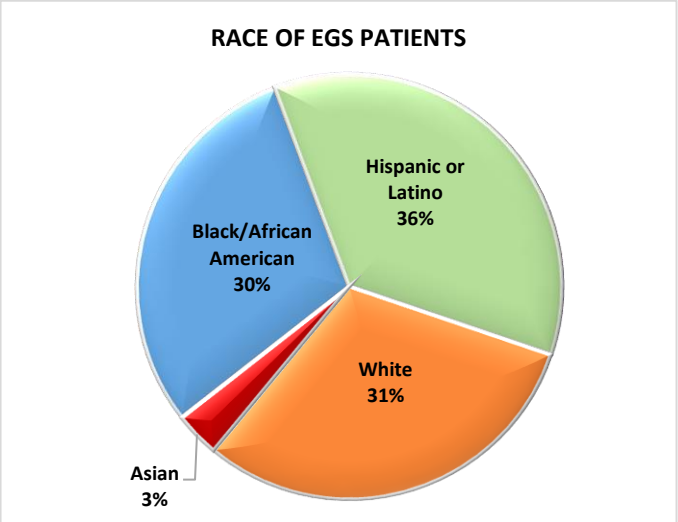


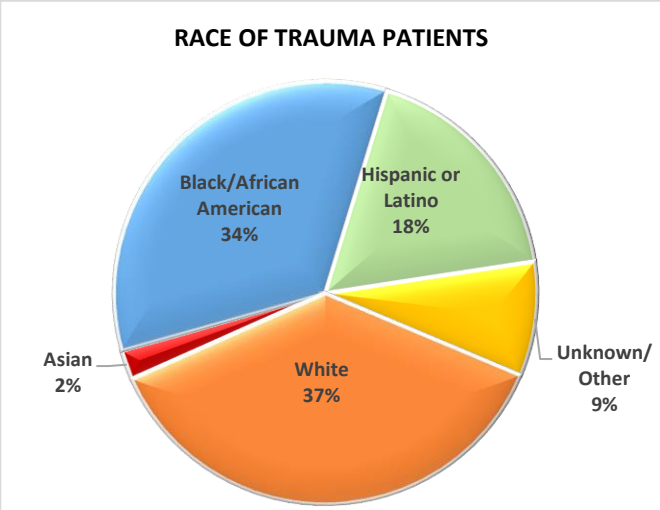



Falls account for almost half of our injured population which is consistent with national trends and is an uptrend for us. Previously falls and interpersonal violence were approximately even at about one third each. Our interpersonal violence number is down a few points while MVC, MCC and Pedestrian Injuries are approximately the same.

The Emergency General Surgery diagnoses have been remarkably consistent with Gall Bladder disease and Appendicitis remaining as the number 1 and 2 reasons for admission over the last several years.

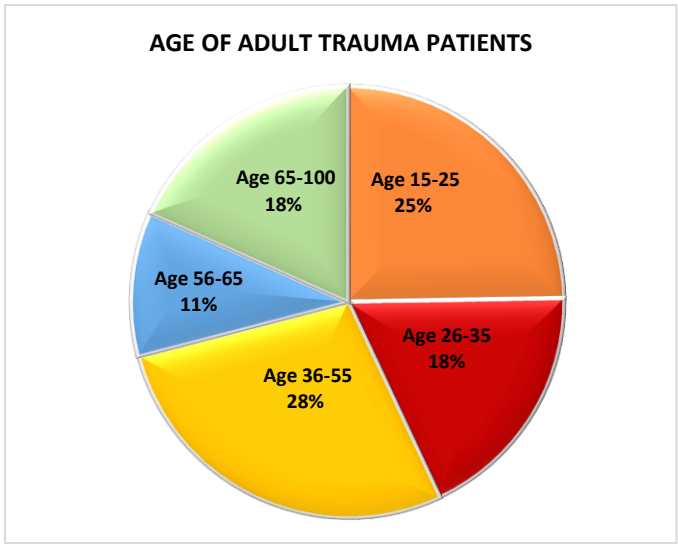
The racial breakdown for trauma shows an equal one-third split of white and black patients, while the Hispanics come in much lower at one-fifth. There is a slight increase in our trauma population with documented unknown race and ethnicity which is due to many trauma patients initially presenting with unknown demographics; when they are identified later during admission, their names, dates of birth and addresses get updated, but their other demographics such as race, ethnicity and social security numbers remain unknown. Emergency General Surgery breaks down pretty equally among white, black and Hispanic groups.

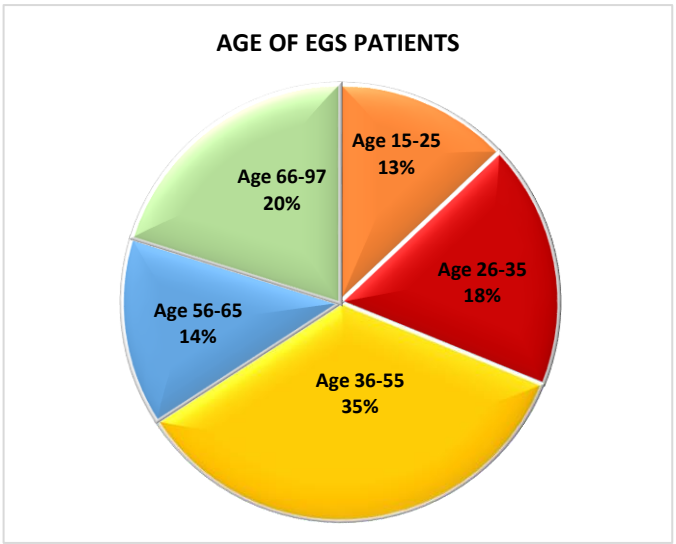


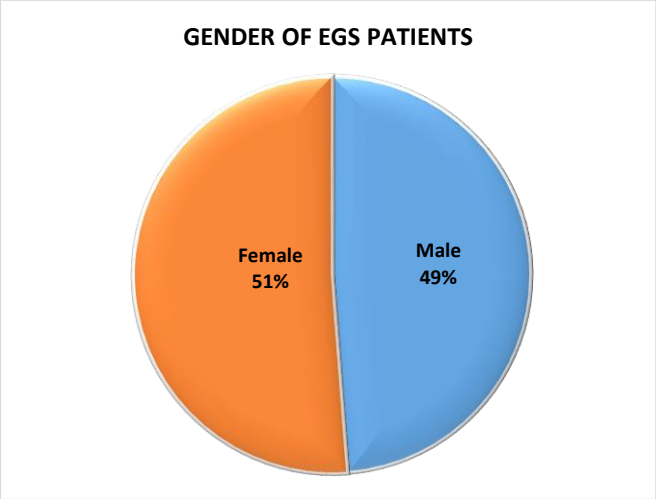

The age of our trauma patients here is represented by adult groups from our youngest at 15 to our oldest patient at 100. The grouping and percentages remain similar as the past and continue to show that traumatic injury is a disease of the younger patient. Our data is similar to the national average reported by the CDC.

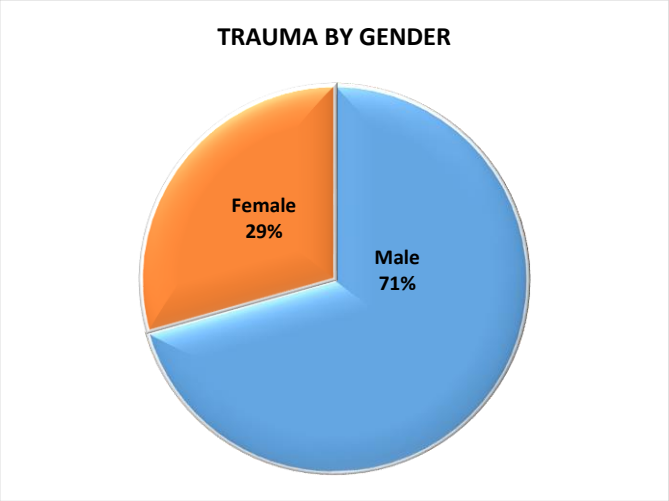
The Emergency General Surgery population tend to be older by a few percentage points which is not surprising and often have more pre-existing co-morbid conditions.



Lastly, the gender breakdown for trauma and EGS is unchanged from the previous year's showing that males are 3 times more likely to sustain traumatic injury requiring admission than females. The EGS data has males and females with surgical disease about even.




The conclusion of another year and compilation of an annual report gives us a chance to reflect on the accomplishments and contributions of so many around the medical center that have made our trauma program a source of pride and inspiration for us all. We want to thank everyone at Boston Medical Center; the employees from every department, the volunteers for giving of their free time and our patients for entrusting us with their care. You have made us a success. You are Boston Trauma.

**Peter Burke, MD, FACS**

**Joseph Blansfield, MS, NP, TCRN**

**Rachel Raubenhold, Project Manager**

**Lisette Greenaway, Project Management Specialist**

**Heidi Wing, Trauma Registry Supervisor**

**Kelly Fay, Trauma Registry**

**Madeline Newton, Trauma Registry**