Trauma Clinical Community Newsletter

JANUARY/FEBRUARY 2019

Trauma Clinical Community (Trauma CC) Sub-Community (SC) Updates

En Route Combat Casualty Care (CCC) SC

The En Route CCC SC will continue identifying patient movement gaps to be closed across the Enterprise from a man, train, and equip perspective. Additionally, the SC is generating maritime and en route considerations for Joint Trauma System (JTS) Clinical Practice Guidelines (CPGs) that are patient movement relevant. Please contact the Co-Chairs if you are interested in participating in this Sub-Community: CDRs Accursia Baldassano and Ben Walrath (accursia.a.baldassano.mil@mail.mil; benjamin.d.walrath.mil@mail.mil).

Surgical CCC SC

The Surgical CCC SC, will continue working on its Navy blood capability and trauma data initiatives. The focus for the next few months will include the development of maritime considerations for relevant JTS CPGs. Please contact CDR Jacob Glaser (jacob.j.glaser.mil@mail.mil) if you are interested in joining the Surgical CCC SC.

Critical Care SC

The Critical Care SC focuses on the standardization of care delivery and trauma training for Critical Care. The Critical Care SC will continue to develop a protocol for sepsis treatment in the first 24 hours in the ICU as well as a protocol for the initial treatment and resuscitation of Traumatic Brain Injury (TBI). If you are interested in contributing your subject-matter expertise to this Sub-Community, please contact CDR Michael Tripp (michael.s.tripp3.mil@mail.mil).

Prehospital/Tactical CCC SC

The Prehospital/TCCC SC will address issues related to battlefield medicine, tactical medicine, and prehospital medicine in the deployed combat environment. Led by Co-Chairs CDR Jeffrey Ricks and HMCM Nikki Craig, the Prehospital/TCCC SC will kick off in the next few weeks. Please contact the Co-Chairs (jeffrey.c.ricks.mil@mail.mil; nikki.craig@navy.mil) if you are interested in joining this SC.

Liaison Council

The Liaison Council will connect official and unofficial Navy Medicine representatives to military and civilian Trauma-related organizations and will enable information-sharing. If you would like to get involved in this Sub-Community, please reach out to CDR Polk (travis.m.polk2.mil@mail.mil.)

Trauma Strategy Management Office Update

In early January, The TSMO Team visited Navy Medical Center Portsmouth to explore the possibility of conversion to an American College of Surgeons (ACS) certified Trauma Center. In early February, the TSMO, accompanied by COL Gurney from the Joint Trauma System, visited the University of Pennsylvania (UPenn) to determine whether UPenn would be a viable partner for a trauma skills training and sustainment partnership. Additionally, at the Nurse Corps Summit on 14 FEB, the TSMO presented how the feedback from last year's Summit was taken into consideration during the development of the Navy Medicine Trauma Strategy and solicited further input from the group.

Trauma Success Story from Guam

Contributed by: LCDR John Maddox, General Surgeon at Naval Hospital (NH) Guam

The following case, continued on the next page, was cared for in a small, remote Military Treatment Facility (MTF) with no vascular surgical support, a limited blood bank, no higher level civilian care for 4,000 miles, and medical evacuation (MEDEVAC) system limitations that allow only a weekly flight for certain patient categories (retiree and veterans administration beneficiaries).

Call for Newsletter Content Submissions

The Trauma CC Newsletter will provide updates on the Clinical Community, as well as prominent patient safety and quality issues and success stories relevant to Trauma Care at Navy Medicine. We would especially like to share perspectives from the deckplate and therefore, we need your input! If you have a story, photos, or information to share, please reach out to the Trauma Advisory Board (TAB) Chair, CDR Travis Polk, via email at travis.m.polk2.mil@mail.mil.

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Trauma Success Story from Guam Continued

Contributed by: LCDR John Maddox, General Surgeon at Naval Hospital (NH) Guam

In the Spring of 2018, Naval Hospital Guam (NH Guam) received a 78-year-old female from a civilian emergency medical services (EMS) who had been attacked by three pit bulls in her front yard. She initially presented tachycardic but normotensive, alert and oriented. She had extensive soft tissue loss on the right upper extremity and was insensate distal to the elbow. She had a large left axilla wound with multiple surrounding puncture wounds and an absent left radial pulse with increasing left arm pain. Multiple additional injuries are noted to the right. A Computed Topography Angiography (CTA) scan showed loss of the brachial artery in the left axilla with slight collateral reconstitution at the elbow. She was taken to the operating room (OR) emergently where a 10cm intimal disruption in the left brachial artery was identified. A saphenous vein harvest was attempted but was of insufficient size to effect a repair. A Gore-Tex interposition graft was successfully placed, and soft tissue coverage achieved. Additional procedures included an orbital exploration, facial laceration repair, auricular debridement, and extensive soft tissue debridement of the right arm. Real-time telephone reach back to Trauma and Vascular Surgery mentors at Walter Reed provided guidance.

Initial Injuries Include:

- 10 cm proximal left brachial artery intimal injury with no distal pulse
- Transected left biceps
- Left coracoid fracture
- Left shoulder soft tissue defect ~6x8 cm
- Multiple axillary and posterior left shoulder puncture wounds
- Left ear ~1/3 loss with exposed cartilage
- Minor Left facial abrasions and lacerations
- Right supraorbital laceration extending into the orbit ~3 cm
- Right preauricular laceration ~5 cm
- Right arm skin and subcutaneous soft tissue loss with ~5 cm exposed and partially transected distal portion of ulnar nerve ~12x16 cm
- Right forearm skin and subcutaneous soft tissue loss ~10x14 cm
- Right proximal thigh puncture wounds -Right proximal posterior calf 4x5 cm soft tissue defect

She recovered in the Intensive Care Unit (ICU) intubated with initial concern for fluid overload vs. acute respiratory distress syndrome (ARDS) after her massive transfusion. She was extubated on postoperative day 3 (POD3) and recovered uneventfully. She remained on prophylactic antibiotics due to the implantation of a prosthetic graft in the setting of bite wounds. She returned to the OR several times for wash out and debridements.

Her care was discussed through the Pacific Asynchronous TeleHealth (PATH) telemedicine system with Tripler Army Medical Center (TAMC). The TAMC was unable to provide definitive care due to Plastic Surgery staff deployment and MEDEVAC timeline limitations. Coordination of care was organized with a CONUS surgical team at David Grant Medical Center at Travis Air Force Base initially outside of the PATH system. She traveled on a routine MEDEVAC flight accompanied by a Critical Care Air Transport Team (CCATT) with remain overnight (RON) stops and wash outs as indicated at Naval Hospital Okinawa, TAMC, and definitive care at David Grant Medical Center. She underwent skin grafting and flap reconstruction to address her multiple wounds. She recovered well and has returned to the island. Her right arm with extensive soft tissue loss and nerve injury remains non-functional with minimal motion and no grip. Her revascularized left arm is functional with normal sensation.

This was a true team effort that was accomplished through the immediate combined efforts of over 40 NH Guam staff members and multiple departments in addition to the staff at multiple facilities along the MEDEVAC chain. I would like to acknowledge the following:

Local surgical team to include:

- LCDR Benjamin Bograd (General Surgery)
- LCDR Bennett Shapiro (Orthopedic Surgeon)
- LCDR Brandon Prioreschi (Orthopedic Surgeon)
- LCDR Timothy Todd (Ophthalmologist)
- LCDR Laurence Williams (Ear, Nose, Throat)
- LCDR Nikunj Bhatt (Critical Care)
- Our team of Surgical Techs and Perioperative Nurses

We received **invaluable remote assistance** from:

- CAPT David Whittaker (Vascular Surgery)
- CDR Elliot Jesse (Trauma, Critical Care)
- Maj Jigar Patel (Vascular Surgery) at Walter Reed

The **concerted resuscitation efforts** of the **Anesthesia team** which included:

- COL Allison Cogar USAF
- LCDR Marko Radakovic
- Bradley Patrick CRNA (Contract)
- Our Blood Bank

The long-term success of this patient's care is in no small part due the concerted efforts of our **Critical Care team**. The MEDEVAC was facilitated by the **PATH system**, the **CCATT crew** and the care teams at **Naval Hospital Okinawa**, **Tripler Army Medical Center**, and **David Grant Medical Center**.