



Report from the Hospital of the University of Pennsylvania



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As the Department of Orthopaedic Surgery for the University of Pennsylvania has continued to expand and further sub-specialize, the focus at the Hospital of the University of Pennsylvania has been and continues to be Orthopaedic Trauma and Fracture Care.

Over the last decade, Orthopaedic Trauma and Fracture care has “come of age.” At its most basic level, the care of the traumatically injured patient is

at the core of being an orthopaedist. The ability to deliver care to this unique and often underserved patient population is truly at the heart of being a physician.

However, being a successful Level I trauma center is centered on the concept of the “team.” At a macroscopic level, the team consists of hospital administrators, physicians, nursing staff, and tangible structures (like ICUs and



Resuscitation Bays) coming together to create an environment to care for those that sustain traumatic injuries and put into place mechanisms which will facilitate this process.

Upon this foundation, Level I trauma center triage and care requires intense interaction with more services than most elective practices: emergency medicine; diagnostic and interventional radiology; trauma, vascular and plastic surgery; anesthesia; critical care; nursing; general internal medicine; infectious disease; rehabilitation medicine, physical therapy and occupational therapy; and social work.

It is in our very busy rotating night and weekend call schedule that we best demonstrate our collegiality and depth of caring for one another within our department. The majority of our orthopaedic staff surgeons share call, 24/7/365—at no small personal sacrifice—to make the burden of emergency orthopaedic care for the region.

In addition to the faculty support, we have Adele Hamilton, CRNP, as our orthopaedic trauma nurse practitioner, to maintain a level of excellence for our inpatient service. The service has also added Karen Garden, CRNP to develop the outpatient orthopaedic trauma and fracture service, including the development of a fragility fracture service. In addition, we have brought on board another fellowship trained orthopaedic traumatologist – Jaimo Ahn, MD, PhD. Dr. Ahn was a former chief resident at the University of Pennsylvania and completed

fellowships at HSS, as well as the AO John Border Fellowship with Dr. Ganz. He brings an increasing focus on the basic science of fracture healing. As well, Dr. Levin, in conjunction with Dr. Kovach, has developed a robust OrthoPlastics service to enhance extremity and limb salvage at HUP.



The research effort from the Orthopaedic Trauma and Fracture Service continues to evolve with multiple clinical and basic science projects. We have initiated weekly trauma research meetings and are collaborating with the Division of Trauma and Critical Care and Children’s Hospital of Philadelphia in multi-disciplinary clinical projects. In addition, the division is actively engaged in multi-center clinical trials. The division is also working with the McKay Orthopaedic Laboratory and the Veterinary School on projects ranging from traumatic articular cartilage injuries to models of bone healing. The Division has been awarded a number of grants from OREF, OTA, FOT, OTC, and the McCabe Foundation. Most exciting is the hiring of Anna Marie Horan, PhD as the Director of the Clinical Research program within the Department.

The Orthopaedic Trauma Service continues to grow at HUP. Patient acuity and volume remains high with a full spectrum of closed and penetrating trauma. Patient discharges have increased over 30% since last year and length of stay has decreased over half-a-day with an ever increasing Case Mix Index. Orthopaedic surgical services continue to expand pelvic and acetabular fracture management, increasing non-union and malunion work, and developing the peri-articular fracture practice. In addition, Dr. Levin has championed the creation of the Penn Center for Extremity Reconstruction.

The Orthopaedic Trauma & Fracture Service, through the efforts of Partners-in-Health, the Division of Trauma and Critical

Care, and the Department of Medicine had the opportunity to take care of first three Haitian earthquake patients transferred to the United States. Following this, members of the Orthopaedic Trauma and Fracture Service deployed to Haiti to assist in the earthquake relief effort. Subsequent missions are planned with various relief organizations. Further information from the relief effort is available on <http://www.uphs.upenn.edu/news/features/haiti/>.



Timeliness of initial surgical intervention and the availability of orthopaedically sophisticated nurses have improved at HUP with the provision of a dedicated operating room five days a week and discussion of an ortho/trauma room on weekends. Thanks to the support of peri-operative services, including our OR nurse manager Lori Fowler-Gagliardi and the tremendous operating room staff with orthopaedic interest (Macey Minor, Frances Woodlin, Shaun Fenton, Taylor Meckley, Michael Murphy Jim Fried - to name a few), we continue to expand in the operating room as well. We have increased our utilization from five rooms per week (the orthopaedic trauma room on a daily basis) to eight rooms per week, including three full days of elective orthopaedic upper extremity, limb salvage, and cold-trauma cases.

After stabilization, and again because of a profound sense of mission on the part of all of the members of the academic department, we are uniquely fortunate to be able to offer unparalleled breadth of world-class subspecialty orthopaedic trauma care to patients with the most difficult injuries requiring additional surgery for spine, shoulder, elbow, wrist and hand, major lower extremity joint replacement, soft tissue knee reconstruction, ankle and foot, neuromuscular orthopaedics, and extremity salvage.

Within the health system this would be impossible without the best and the brightest, indefatigable residents and students

who delivery personal, tender, hands-on attention through the full spectrum of care from the trauma bay to pre-op, intra-op, and post-op floor care and follow-up office visits. In many ways, it is the quality of our residents - mentally, technically, and



humanistically - that determines the quality of each patient's experience. The level of individual responsibility transcends that available on many other services in the health system with full utilization of the skill sets available at all PGY levels.

The didactic portion of the Orthopaedic Trauma Service has expanded to include weekly Fracture Conference where a review of all operative cases from the week prior is done in the Socratic Method. In addition, weekly Trauma Conference reviews topics of interest and is a combination of journal clubs, classic literature, resident and faculty presentations, and CEQI.

Caring for these patients also generates tremendous paperwork. No one plans for "emergency surgery." Not a patient expects to be disabled. Each patient has forms for carriers, visiting nurses, primary care givers, employers, therapists, disability underwriters, medical assistance applications, or utilities. Most have attorneys. Organizing, completing and then following through with that aspect of care would be impossible were it not for the tireless work and meticulous attention to every detail by Jeff Mack and Kathy Pusicz.

Each of us who works with patients who have these difficult injuries realizes that it is not our personal skill that cures. Year after year, participating in the care and watching the healing is a humbling experience.

