

Trauma Rounds

Case Reports from the Mass General Hospital and Brigham & Women's Hospital

A Quarterly Case Study

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People often ask, "How was Haiti?" For a while, we found it the most difficult question to answer. While on one hand we saw

an unrivaled toll of human suffering, on the other we probably made the most valuable contributions we will ever make.

Perhaps the best answer is that it was a privilege; it was a privilege to treat the patients and a privilege to work with a team that proved to be the most resourceful, well motivated and superb group of clinicians we could hope to meet.

On January 12, 2010, Haiti was devastated by the worst human disaster for generations. Volunteering with Partners in Health we arrived in Port au Prince on the evening of January 16th crammed in a small airplane with sleeping bags, survival kits and boxes of all sizes packed with every medical item we could borrow or acquire. We were met by a small truck, unloaded the plane ourselves and left. No officials knew we were there, what we were carrying or where we were going.

Outside the airport we saw streets of collapsed concrete buildings and everywhere there seemed to be people walking about aimlessly. Since the main hospital in Port au Prince was barely functional, we were sent to St. Nicholas Hospital - a small public hospital 80 miles to the north in St. Marc - where we became the only relief service for a large and isolated group of earthquake victims.

St. Nicholas Hospital was undamaged by the quake, but by our standards barely functional. The wards and emergency room were essentially bare rooms without basic necessities such as sinks, toilets, or functioning nursing stations. Only a few local staff remained, none of whom had trauma experience, all were totally overwhelmed by the situation. We estimated that there were at least 200 patients and an equivalent number of family members in the wards when we arrived. Nearly all were lying

on the floor on thin mattresses or blankets. All had four-day old untreated major injuries with open fractures, severe soft tissue crush syndromes, spinal fractures with paraplegia, multiple dirty open wounds and closed fractures. The smell of infection and flies were everywhere. Several patients with spinal injuries were lying on the doors and ironing boards upon which they had arrived, all had already developed pressure ulcers.



Above: Patients and families were lying on the floor on thin mattresses and blankets. Below: A plea for help.



See previous articles: AchesAndJoints.org/Trauma

The hospital had two operating rooms - neither of which was useable by US standards. The anesthetic machines didn't work. Their simple autoclaves were just large enough for small instrument packs and our large trauma sets did not fit. The recovery room and adjacent corridor were unused and full of crates and broken boxes. There was a single x-ray room where we could take basic x-rays that had to be hung to dry in the sun, and there was no intra-operative x-ray capability. Fortunately, our team was resourceful and there was lots of willing help to clean, tidy, organize, translate and help care for victims.

The next day one operating room was functional and we began work. We established a triage system to prioritize treatment and to maximize the use of our scarce resources. For many patients we could only give fluids and supportive care while waiting for transfer to a better-equipped facility. [Unfortunately, our first helicopter support did not arrive for another week.] Over the next 2 weeks, we performed 216 earthquake-related procedures - 136 in the OR and 80 complex dressing changes on the "wards" under anesthesia. Trauma unrelated to the earthquake still happened, so we performed 7 surgeries on new major problems and helped in other ways while the operating room was used for multiple Caesarian sections. While we were essentially alone for the first week, we soon had additional volunteers and were later reinforced by a terrific team from California.

Twelve of our patients died with earthquake-related injuries. Most of these patients died from very severe injury and from conditions we rarely see in our practice such as tetanus and acute renal failure after crush syndrome - the latter is typical after an earthquake and untreatable without dialysis. All other patients survived, probably because of our aggressive policy of surgically treating crushed open wounds to prevent further infection and death from sepsis. It was an old lesson relearned that without treatment a severe open fracture is a mortal injury.

During the first 2 weeks we were forced to perform 11 amputations, mainly of the lower limb. All but one survived. One patient became the first earthquake victim in Haiti to get a prosthesis and while we were there took her second "first steps."

Unfortunately, current estimates suggest there are thousands of new amputees in Haiti and a large number of people will face significant complications following their injuries.

We are still closely involved with the care of patients in Haiti. To date, four of our original team have returned to help with the ongoing relief effort. We

hope to maintain our presence in the months and years to come.

Dedicated to the people of Haiti, and all those who care for them.

Dr Smith & Dr Dyer were part of the initial relief effort in Haiti in January, while Dr Harris continued our effort in early February.



Above: Taking her "second, first steps."

Dr Michael Weaver joins our Faculty

We are pleased to announce that former Harvard Orthopaedic Resident and Trauma Fellow, Michael Weaver, MD, joined our team in August 2010 as attending Orthopaedic Trauma faculty. Dr Weaver's practice will be based at Brigham & Women's Hospital. You may contact Dr Weaver at (617) 525-8088 or mjweaver@partners.org

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