**Weekly Summary. POSNA COUR Committee. Feb 19, 2010**

The following members have submitted reports of their Haiti trip.

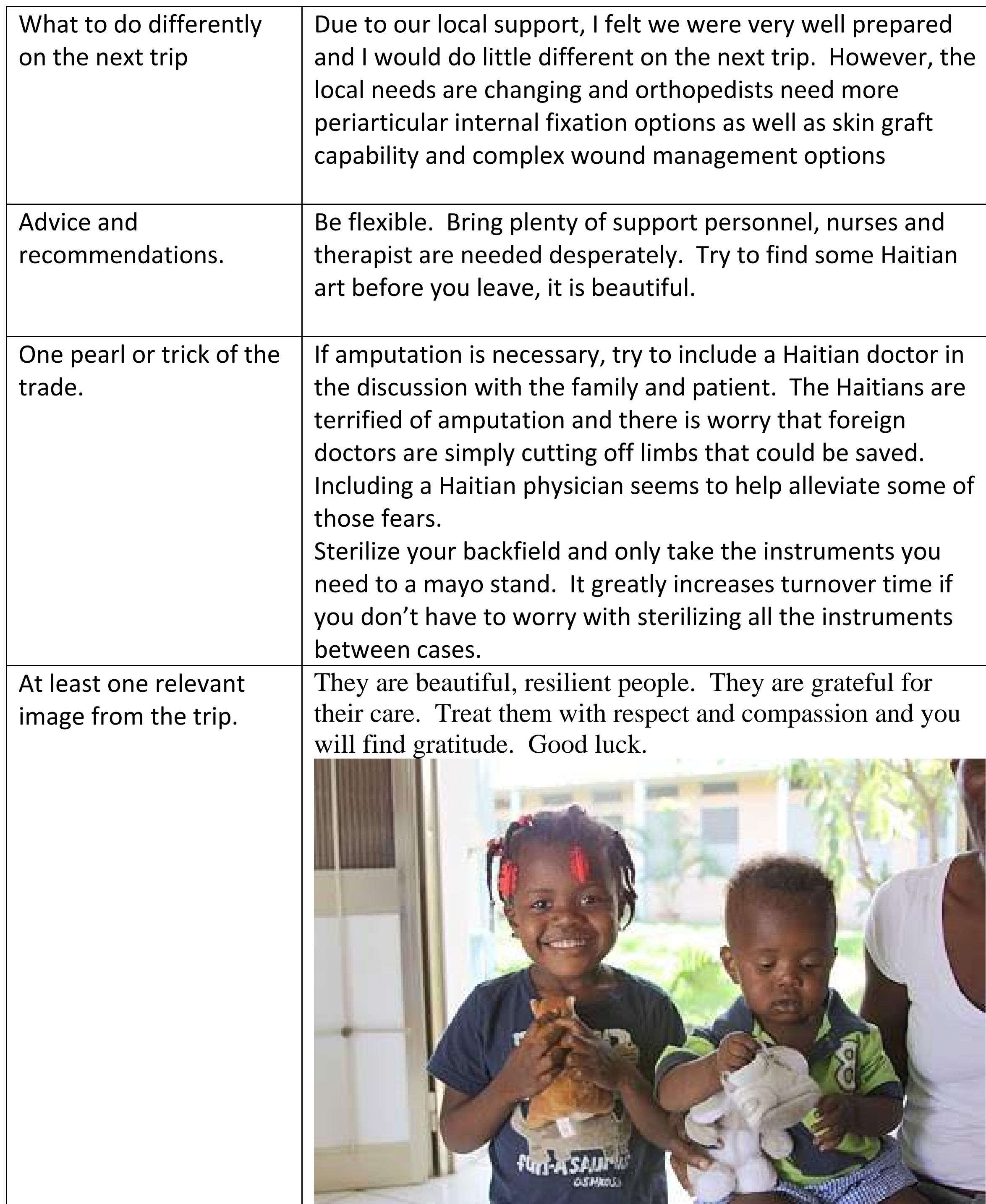
Rick Reed
Derek Kelly, Josh Meier
Johnathan H. Phillips.
Hank Chambers, Bob Stanton, TR Lewis
Ken Guidera (trip photos, trip report is on 2.16.10 summary).
Dayle Maples
Thomas Grogan
Robert Stanton
Bob Cady

To continue to learn from the orthopaedic experiences of those helping in Haiti, we are compiling a database and would appreciate your input. We encourage those returning to submit a summary of their trip so that other members preparing to go to Haiti can benefit from everyone's recent experience. We encourage members to place information into the following template to assist data base compilation. Please email posna@aaos.org with the following information:

| Name | |
|---|---|
| Address | |
| Phone | |
| Email | |
| Affiliation for Haiti Work (PIH, DWB, etc.) | |
| Site and conditions in Haiti where you worked | |
| Dates of work in Haiti | |
| Number of patients operated on | |
| Types of operations performed | |
| Complications | |
| What sponsoring organizations need to know going forward | |
| Lessons learned- what worked and what did not work | |
| What to do differently on the next trip | |
| Advice and recommendations. | |
| One pearl or trick of the trade. | |
| At least one relevant image from the trip. | |

| Name | Rick Reed |
|---|---|
| Address | MUSC Dept Ortho Charleston, SC |
| Phone | 843 7296846 |
| Email | reedfred@musc.edu |
| Affiliation for Haiti Work (PIH, DWB, etc.) | Lumiere Ministries |
| Site and conditions in Haiti where you worked | Hopital Lumiere, Bonne Fin, Haiti |
| Dates of work in Haiti | 1/15 – 23. 2010 |
| Number of patients operated on | 45 |
| Types of operations performed | Amputations, ex fix, compartment release, debride, tx pins |
| Complications | 2 deaths, 1 gas gangrene |
| What sponsoring organizations need to know going forward | Must have Haitian and missionary connection, interpretors, more allied health than MD |
| Lessons learned; advice to be shared | Don't close anything, rehydrate, broad spectrum AB, Tet tox even if after injury – $2^{nd}$ infect of open wound; could use a cheap flexible nail for kiddy fem and tibia with limited fx exposure |

| Name | Derek Michael Kelly, MD |
| --- | --- |
| Address | 1458 West Popler, Suite 100, Collierville, TN 38017 |
| Phone | 901-759-5552 |
| Email | dkelly@campbellclinic.com |
| Affiliation for Haiti Work (PIH, DWB, etc.) | Lebonheur Children's Medical Center, Memphis, TN<br>Haiti Medical Mission of Memphis,<br>Memphis, TN |
| Site and conditions in Haiti where you worked | Haiti Medical Mission of Memphis in Croix du Bouquet, Haiti and Sacre Coure (CDTI) Hospital in Port-au-Prince |
| Dates of work in Haiti | Jan 31, 2010 through Feb 13, 2010 |
| Number of patients operated on | 75 |
| Types of operations performed | Wound debridements, Skin grafts, amputations, ORIF of long bone fractures, external fixation of long bone fractures and spanning external fixation for intra-articular fractures of knees and ankles |
| Complications | No complications from our surgeries that we are aware. However, we took one patient to the OR for ORIF of a distal tibia fracture only to learn that he had already been treated with ORIF once we obtained c-arm imaging. He had no postoperative xrays and this error was due to very poor record keeping and difficulty obtaining a complete history due to the language barrier. |
| What sponsoring organizations need to know going forward | The wounds are difficult to treat without some of the techniques we are used to such as VAC dressings. The injuries that will need treatment over the next few weeks are intra-articular fractures that have been spanned and need definitive repair. The patients will need a great deal of therapy support including trained therapist, orthotics and prosthetic devices, crutches, canes, walkers and wheelchairs. |
| Lessons learned- what worked and what did not work | Remain flexible and be willing to work in jobs outside your training to get the best for the patients, eg, surgeons may need to be therapists or primary care physicians if the need for those services is greater than the local surgical need.<br>Be careful not to perform cases that you would not otherwise perform at home. There needs to be some type of informal credentialing process. I witnessed a number of practitioners performing procedures they were not completely comfortable or competent to perform. At this point there is little need for acute, rushed care and there are many providers in country who can perform a procedure if you are not comfortable or trained to do so. |

| What to do differently on the next trip | Due to our local support, I felt we were very well prepared and I would do little different on the next trip. However, the local needs are changing and orthopedists need more periarticular internal fixation options as well as skin graft capability and complex wound management options |
|---|---|
| Advice and recommendations. | Be flexible. Bring plenty of support personnel, nurses and therapist are needed desperately. Try to find some Haitian art before you leave, it is beautiful. |
| One pearl or trick of the trade. | If amputation is necessary, try to include a Haitian doctor in the discussion with the family and patient. The Haitians are terrified of amputation and there is worry that foreign doctors are simply cutting off limbs that could be saved. Including a Haitian physician seems to help alleviate some of those fears.<br>Sterilize your backfield and only take the instruments you need to a mayo stand. It greatly increases turnover time if you don't have to worry with sterilizing all the instruments between cases. |
| At least one relevant image from the trip. | They are beautiful, resilient people. They are grateful for their care. Treat them with respect and compassion and you will find gratitude. Good luck.<br> |

POSNA Members Derek Kelly (Campbell Clinic, Memphis, TN) and Josh Meier (Kosair Children's Hospital, Louisville, KY) are together with a
9 member team from Lebonheur Children's Medical Center (Memphis, TN) in Port-au-Prince, Haiti, at Sacre Coure Hospital. Other orthopedic surgeons from Nashville and Knoxville recently joined our larger multiple-national team.
There is a functional OR with 4 rooms, one C-arm, and a variety of different fracture fixation options. Many of our most recent cases include wound debridements, amputation revisions, long bone fractures (forearm plating, femoral nailing and external fixation, tibia external fixation, among others), and lots of

external fixation revisions as many of the early frames were likely placed under very difficult circumstances. There are still many physeal fractures that are partially healed, many in poor alignment. The orthopedic surgery need is still great but the need for plastic surgery and physical therapy is rapidly increasing. Many patients need flap coverage to have any hope of limb salvage as the Haitians are very fearful of amputation. And formal therapy is so limited that many patients with complex, multiple extremity injuries, are lying in bed for days.

Still the spirits of the Haitians are high; and, the efforts of the multitude of volunteers are always met with extreme gratitude.

Jonathan H Phillips MD

3527 Bellington Drive, Orlando, Florida 32835
407 290 2121 jphillips001@earthlink.net

Worked with Mission Haiti Midwest Inc. through Conscience International

The Location was Saintard near Arcahaie about 35 miles west of P au P
Mission is L'Hopital de L'Eglise de Dieu Reformee

I spent five days there setting up the ORs, operating and teaching. Jan 27th throught Feb 1st

I was asked to go by an ex resident of ours, Phil Meinhardt who was approached by Jim Jennings of Conscience International. He (Jim) went back to Haiti last weekend

There were 150 patients waiting for us every morning but not many of these were trauma patients. The epicenter of the quake was a little East of P au P and we were west so saw open and neglected fractures but also trauma that was two months old and stuff that happened on the road outside the Mission acutely.

Did mainly orthopedics but also general surgery, burns, ophthalmology stuff. Our medical director, a dentist, encouraged us to treat whatever came through the door if we could.

A German urologist was doing a hernia and just as I scrubbed in the 84 yr old patient coded…too much Propafol? We resuscitated him, sat him in the sun for an hour and he went home none the worse for wear! Came back the next day because he couldn't pee. We also saw an inoperable eye tumour in a three year old and a T12 para from a 2 month old GSW. He was septic from the worst decubiti I've ever seen. Cleaned them up and sent him home. Both the little girl with the eye and the 21 yr old spinal cord kid are not going to make it. This is reality in Haiti. So complications included inability to cure the problem.

Sponsoring organizations need to know the very different demographics in different areas, the difficulty of getting supplies, transportation and Institutional support limitations (I was told after getting back that I'd used vacation time. Was not told this up front and I didn't want to know. Will prevent me going back as I get little vacation as it is)

Lessons learned: expect to be a doctor not an orthopedic surgeon. If you can't remember how to do a hernia or debride a burn read it up. I was asked to do a mastectomy for cancer and felt comfortable with the idea but we found some Tamoxifen to shrink the

tumour before surgery instead. On the other hand I did a lot of general surgery before my orthopedics so maybe I'm not typical. We had good ORs with O2, bovies and autoclaves but the biggest contribution I made was teaching non medics sterile technique, instrument prep, anaesthesia feasability etc.

What to do differently: nothing, it is what it is. Don't try to control Haiti. We got in there on a mission flight (Mission Flights International out of Fort Pierce) but couldn't get back the same way. Our German colleagues organized a chopper to take us through the mountains to Santo Domingo, stayed overnight and took a scheduled flight to Miami the next day. If you're not secure with this kind of uncertainty and adventure don't go. For me the helicopter flight was one of the most memorable events imaginable.

Advice: Check with your institution what they will allow you to do and what it will cost you. As well as the time sacrificed I spent 2-3k on equipment, flights, hotels etc. I believe this was a tiny amount in comparison to the privilege of being allowed to help. Wish I felt the warm fuzzies about my hospital. They kinda made it clear I was on my own. This is in major contrast to other kids institutions in Florida with whom I've been in contact so support from home seems to be very variable.

Pearl: don't try to change Haiti, just do whatever you can; anything is better than what the Haitians have now which is nothing, so lower your expectations and you won't be disappointed.

One other thing. I used DEET and religiously, but still came back with a dose of Dengue that appeared ten days later. Not full blown Broke Bone Fever but bad enough to keep me out for a couple days

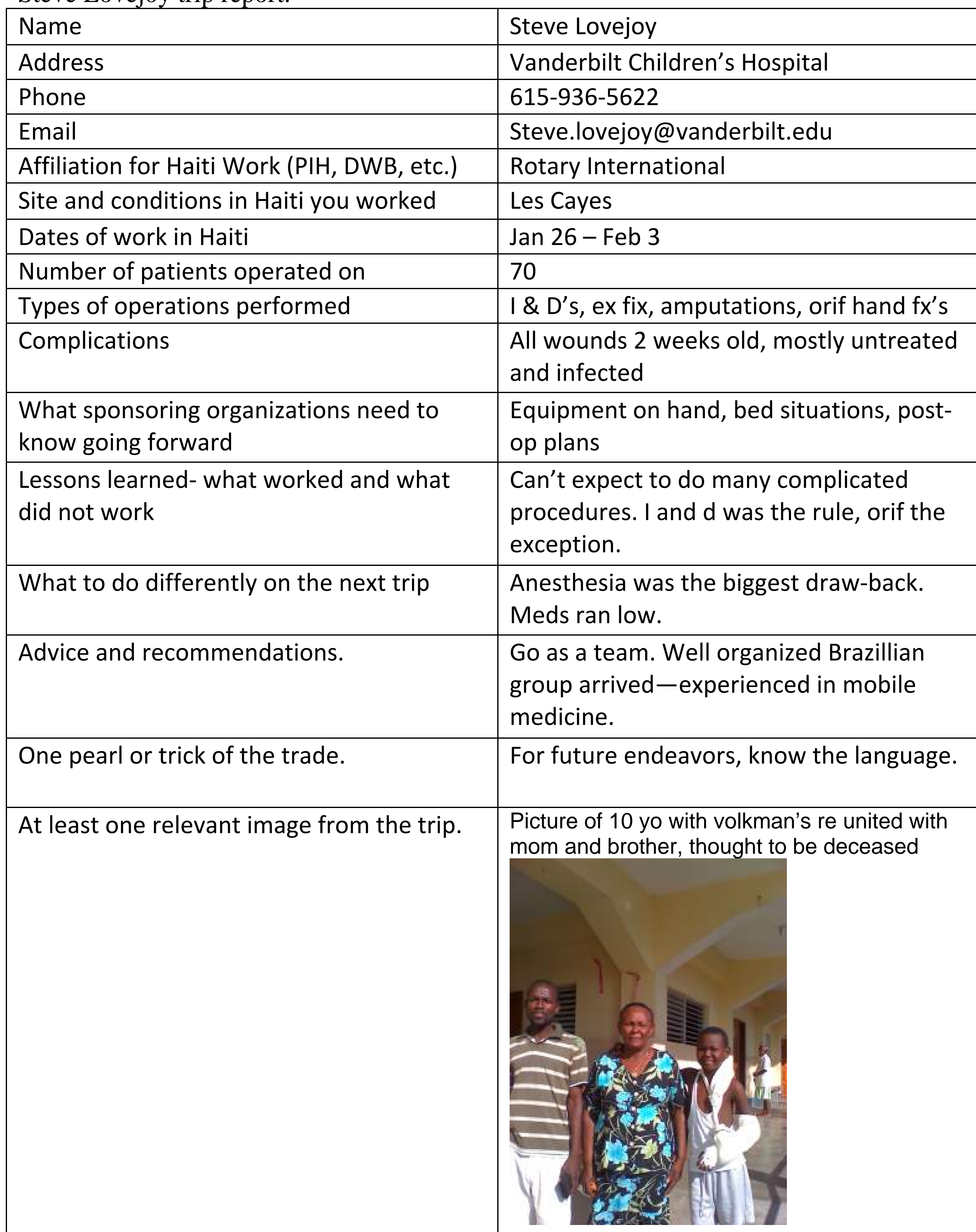
Next time, if there is one, I'll take a good mosquito net. The other thing that worries me is that recurrent Dengue infections can cause thrombocytopaenia!

Jonathan

**Hank Chambers, Bob Stanton (POSNA Members) and TR Lewis, (St Louis Peds Ortho fellow)** just returned from a week (1st week in February) in Haiti caring for the children and adults injured in the January 12th Earthquake in Port-au-Prince. TR was there for 3 weeks. We were in what the UN and US Navy told us was the only fully functional hospital in Haiti. It was the Hopital Sacre Coeur in Milot about 12 miles south of Cap Haitien 100 miles north of Port-au-Prince. Originally a 74 bed hospital, but by the end of our time there, there were over 400 patients (90 children) with open fractures, crush injuries, amputations, paraplegia and quadriplegia. The US Navy flew in over 125 patients that week, all with orthopedic problems. Our team, which included several old Army colleagues, plastic surgeons and general surgeons, did over 220 operations most of which entailed revision amputations, debridements and skin grafting. One of the most significant events of that week was the arrival of five PT's and OT's who immediately mobilized the patients. They had had 3 deaths from pulmonary emboli in the previous few weeks and none after the therapists arrived. On top of that, patients who were listless and shell shocked began to smile and give the doctors a hard time if rounds took too long so that they could walk around the compound.
There will continue to be a need for pediatric and adult orthopedic surgeons for revision amputation surgery and most likely bone grafting and permanent fixation. As the patients of Haiti move to the next stage of rehabilitation, there will be a greater need for physiatrists and therapists. Equipment is getting there, but there is no expertise in the country right now. Prosthetists will be in great demand as well. There will also need to be a change in the attitude toward people with disabilities which is one of blame and shame. This will continue to be a challenge for the injured and families of patients with acquired disabilities.

Photos from Ken Guidera recent trip to Haiti

Steve Lovejoy trip report.

| Name | Steve Lovejoy |
|---|---|
| Address | Vanderbilt Children's Hospital |
| Phone | 615-936-5622 |
| Email | Steve.lovejoy@vanderbilt.edu |
| Affiliation for Haiti Work (PIH, DWB, etc.) | Rotary International |
| Site and conditions in Haiti you worked | Les Cayes |
| Dates of work in Haiti | Jan 26 – Feb 3 |
| Number of patients operated on | 70 |
| Types of operations performed | I & D's, ex fix, amputations, orif hand fx's |
| Complications | All wounds 2 weeks old, mostly untreated and infected |
| What sponsoring organizations need to know going forward | Equipment on hand, bed situations, post-op plans |
| Lessons learned- what worked and what did not work | Can't expect to do many complicated procedures. I and d was the rule, orif the exception. |
| What to do differently on the next trip | Anesthesia was the biggest draw-back. Meds ran low. |
| Advice and recommendations. | Go as a team. Well organized Brazillian group arrived—experienced in mobile medicine. |
| One pearl or trick of the trade. | For future endeavors, know the language. |
| At least one relevant image from the trip. | Picture of 10 yo with volkman's re united with mom and brother, thought to be deceased  |

| Name | Dayle Maples, MD |
|---|---|
| Address | 604 Manhattan Rd, Se Grand Rapids, MI |
| Phone | 616 240 5133 (my cell) |
| Email | Dayle.maples@maryfreebed.com |
| Affiliation for Haiti Work (PIH, DWB, etc.) | Mission Recate, Port Au Prince |
| Site and conditions in Haiti where you worked | Street side clinic inside police compound adjacent to tent city. Primitive, field conditions. |
| Dates of work in Haiti | Jan 22-31 |
| Number of patients operated on | ??15-20/day (our team saw300-400/day) |
| Types of operations performed | Amps, revisions, debridemts of untreated open fractures, splinting of fractures |
| Complications | ? who really knows at this point….we had patients return daily or qod for wound checks and revisions. |
| What sponsoring organizations need to know going forward | Paucity of supplies. Lack of food and water, need for translators, need for follow up of patients…where to refer more complex patients. Need for long term committments |
| Lessons learned- what worked and what did not work | Making sure that all personnel traveling on team have specific role (nurses, nurse techs very helpful.), minimize non essential personnel to avoid taxing already overburdened infra structure. Taking along the items clearly needed for the stage of the effort in which you are involved, eg during the second week, equipment needed may differ than during the fourth, fifth weeks. Retention sutures, loosely tied to avoid retraction of flaps during the staged closures of amps…drains used liberally and placed so that they would fall out with removal of dressing..<br>Always label on the patients cast or dressing, what was done, when a dressing change is due, presence of drains etc. Medical records were non existent in the second week. This helped me immensely as patients returned daily for care.<br>Rarely used circular casts in second week due |

| | |
|---|---|
| | to lack of electricity to remove. Splints to relieve pain, protect soft tissues and treat closed fractures expectantly. |
| What to do differently on the next trip | Bring more supplies for a latex free environment. I had reaction despite avoidance, due to the older supplies donated from many countries that were older and full of powder.<br>I would plan to stay longer |
| Advice and recommendations. | Work with an established group that is well organized to avoid "reinventing the wheel". |
| One pearl or trick of the trade. | Everything you know about fracture and trauma care principles is needed. Remember the basics…debride, irrigate, close loosely or leave open, re visit the wound regularly |
| At least one relevant image from the trip. | To follow |

| Name | Thomas Grogan |
|---|---|
| Address | 2001 Santa Monica Blvd. #1160W Santa Monica, California 90404 |
| Phone | 310-828-5441 |
| E Mail | tjgrogan@aol.com |
| Affiliation for Haiti Work (PIH, DWB, etc.) | MD thru the Univ of Miami |
| Site and conditions in Haiti where you worked | Medishare Hospital at Port au Prince airport |
| Dates of work in Haiti | 2/1 – 2/7/10 |
| Number of patients operated on | 25 to 30 per day, 4 surgeons |
| Types of operations performed | Ex-fix fxs, I & D, debridements, amputations |
| Complications | Infection is rampant |
| What sponsoring organizations need to know going forward | Need supply organization, sterilization is a challenge |
| Lessons learned- what worked and what did not work | These appear to be Morel Lavalle lesions – internal degloving. Simple closure, even after debridement fails.<br>More amputations / complex composite free flaps will be needed |
| What to do differently on the next trip | Bring sterile gloves! Lots!<br>Need to develop a conduit for outpatient local care – outpatient ortho clinic |
| Advice and recommendations. | Need prosthetist / orthotist – Shriners should be involved big time – where are they?? Lots of kids with amputations. |
| One pearl or trick of the trade. | Do amputation at a higher level than you think. Do not trust primary closures! |
| At least one relevant image from the trip. | |

Robert P. Stanton
Nemours Childrens Clinic
5153 N. 9th Ave
Pensacola, Fl. 32504
(850) 5-5-4720
rstanton@nemours.org
I worked at the Sacred Heart Hospital in Milot. It is run by the Crudem Foundation (Contact person, Carol Fipp cfipp@bellsouth.net)
The hospital there is a fixed facility with two normal operating rooms, although we ran three OR's and three minor procedure rooms in which we did conscious sedation (Ketamine and Propofol) for debridements and skin grafting. There was a fluoro-scan machine, no C-Arm and no C-arm compatible table. The normal capacity of the hospital is 67 beds, however across the street from the hospital is a Tent Hospital made from surplus military tents with cots and at last word the census was about 350 patients. Housing was in a fixed facility with running water (hot most times!) and electricity from their own generators. Food for the volunteers was good and the site is very secure.
I was there from 29 Jan to 5 Feb.
I did approximately five surgical procedures each day.
Most cases were amputations and skin grafting. I did two internal fixations (one plating and one Enders Rod procedure) I assisted in several procedures done by Plastic surgeons.
We had a lot of patients with open tibia fractures that were sent to us after being treated with Ex-Fix at temporary facilities in the Port-Au-Prince area. Many of them were infected. Some of the worse ones required amputations, but others were being treated with wound care and antibiotics in hopes of saving the limbs. I amputated two limbs that had the affects of complete compartment syndrome with no movement and no sensation in the limb. One was infected as well.
I recommend that you volunteer with an organization that has had an on-going relationship with a hospital in Haiti. Most of them have worked the phones and have received a lot of donated supplies and drugs and are well positioned to carry out on-going care.
What we could have used: We had wound VAC sponges and tubing, but no actual pumps and canisters. We had to improvise with old (ancient!) GOMCO pumps, and we only had a few of those. There is an ongoing need for physical therapists and wound care nurses!!! One of the most useful persons there for the week I was in Milot was an experienced wound care nurse from my hospital here in Pensacola.
What did not work: We had to deal with an inability to keep IV fluids and antibiotics running over-night. The local nursing staff are not trained to administer IV fluids and to give IV medications and invariably, the IV's were not running in the morning.
The hospital I was at provided scrub clothing to wear daily and I did not need to bring much in the way of personal clothing. I was able to travel light (I lived out of a backpack for a week) The commercial air service to Haiti and back to the U.S. is very "spotty", so be aware that you should not make any tight connections on your return flight itinerary!

Robert P. Stanton, M.D., F.A.C.S.
Surgeon in Chief
Pediatric Orthopedic Surgery
Nemours Children's Clinic
Pensacola, Florida

Bob Cady

I went to Port au Prince last October and delivered about 25 clubfoot splints to the clubfoot clinic at St. Vincent's school and hospital. I saw 35 babies with clubfeet in one day and all of the splints were in use when I left. Unfortunately St, Vincents school and hospital was destroyed by the earthquake. All of the patients at St Vincents reportedly escaped. I returned to Haiti about ten days after the earthquake and was there for a week. I went with a group sponsored by Hope For Haiti out of Naples Florida where I live in the winter. I spent one day in Port au Prince and the rest of the week in Miragaune a small city 50 miles west of Port au Prince. We worked at a small hospital called Hopital St.Therese which has about 30 beds but had about 150 patients. I had a fantastic experience and look forward to returning to Haiti to help with the rehabilitation of the many injured patients, but also to reestablish the clubfoot program.

All the best, Bob Cady