Haiti Health Initiative
PARTNERS PROMOTING HEALTH ONE COMMUNITY AT A TIME

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October 2011 Mission to Timo, Haiti

Medical Report

INTRODUCTION

One of the primary objectives of the medical team during this trip included treating and preventing anemia with all of its long term consequences. We also strove to provide basic prenatal care and well-child care, and hoped to treat any acute needs such as infections, arthritis, gastritis, headaches and other conditions. Additionally, we provided education on treatment and prevention of common diseases. But perhaps one of the most important purposes that may often go unstated is that we wanted to give hope, and let these people know that they are not forgotten.

The medical clinic we provide is the only clinic that the people of Timo have immediate access to; therefore, in our past visits we have had a large number of people come, many of whom are well. The same proved true for this trip. The majority of people we saw required only checkups, and most other people came to us with common complaints such as backaches, stomachaches, and headaches. As for illnesses, we mostly saw what we would commonly encounter in our offices in the states, such as ear infections, urinary tract infections, STDs, heartburn, asthma, colds, and bronchitis. Additionally, we came across many chronic medical conditions that are very common in Haiti, such as anemia, hypertension, osteoarthritis and cataracts. We did see some other more rare ailments such as elephantiasis, acute mastoiditis, skin lesions, and some acute injuries, but very little diarrhea. Surprisingly, we encountered two patients with untreated diabetes, the first time our clinic has seen diabetes. Finally, a mother came to visit us with her child that we had delivered in the clinic two and a half years ago. Happily, they both appeared to be healthy and doing well.

REVIEW OF ACTIVITIES/RESULTS

Statistics:

- Number of days worked: 5
- Number of physicians: 3
- Number of registered nurses: 2
- Number of medical assistants: 2
- Number of dietitians: 2
- Number of pharmacists: 1
- Number of pharmacy technicians: 1
- Number of emergency medical technicians: 1

- Number of patients seen: 1,219
- Number of albendazole prescriptions administered: 156
- Number of vitamin A prescriptions administered: 156
- Number of pregnant and lactating women seen: 117
- Number of prenatal vitamins (6-month supply) administered: 141
- Top medications, listed in order of most administered: ibuprofen, tylenol, albendazole, vitamin A, children's vitamins, prenatal vitamins, omeprazole, fluconazole, Zantac, multivitamins, hydrocortisone, Claritin, Tums, Keflex, Prilosec, amoxicillin, miconazole, ranitidine, Benadryl, and bactrim.
- Top 20 diagnoses: GERD, arthritis, anemia, headache, back pain, gastritis, normal exam, allergies, URI, HTN, worms, UTI, cataract, vaginitis, tinea capitis, eczema, tinea cruris, OM, dental caries, and dehydration.

A number of years ago, we suspected anemia was prevalent in rural Haiti based on clinical findings. The next year we confirmed this through hemoglobin testing, which revealed high rates of anemia. The causes of anemia are numerous. We have speculated that the biggest causes are both nutritional deficiencies such as vitamin A deficiency, and iron deficiency from blood loss in the GI tract from intestinal parasites. We sought to treat both conditions by administering vitamin A to all children under 5 with a single high dose of vitamin A (which is stored in the liver and lasts for 6 months) and by giving all children ages 1 to 5 albendazole, which is a de-worming agent generally dosed every 6 months. The WHO has conducted similar studies with impressive results. For example, they conducted an extensive study in Nepal which showed a 43% reduction in prevalence of worm infections, average hemoglobin increases of 1.2, the percentage of anemic children was reduced by 77%, and the percentage of children with moderate or severe anemia was reduced by 90%. Similar successes were experienced in Cambodia. Along with Nepal and Cambodia, Haiti is listed by the WHO as a high-risk country for vitamin A deficiency and intestinal worm infections. Would we have the same results? It is important to acknowledge that this study was made possible by the generous donation of vitamin A from a nonprofit organization called Vitamin Angels. Below is the statistics on our hemoglobin numbers. It is worth noting that the definition of anemia varies based on the source quoted and on the age of the child. In general the WHO defines anemia for the age group of 6 months to 5 years as a hemoglobin number of <11.0.

In efforts to treat Vitamin A deficiency, a Registered Nurse administers Vitamin A to all children under the age of 5 with a single high dose that will be stored in the liver and last for 6 months.

Team health and safety was a top priority. Each member of the team was given an information sheet about required vaccines, malaria prophylaxis, and education about infectious diseases such as HIV, Tuberculosis, and Cholera. Last year was the first time we encountered a needle stick. Since that experience, we vowed to have a system in place for dealing with them. We formulated a policy based on the latest recommendations for HIV post-exposure prophylaxis. We brought rapid HIV kits, which were donated to us, and whenever there was a needle/instrument stick in the clinic, we tested the patient for HIV. If they were negative, then the health care worker didn't need the prophylactic medicine; but if positive, then one month of combination medicine would be needed. We had that medicine on the trip, and fortunately didn't need to use it: we had only one needle stick, and it was negative. This protocol will continue to be used in the future, as will more precautionary measures to prevent needle sticks in the first place. The HIV rates in Haiti are quoted to be about 5-7%, although that number may be less in the rural areas. Transmission rates from needle sticks with confirmed positive HIV patients to health care workers are fortunately low: at about .3%.

We further refined the clinic protocols from the last visit among the gatekeepers, triage, nursing, lab, MD station, dental station, pharmacy, data collection, and education areas. We further sought to decrease errors by standardizing treatments in the MD station. Each doctor had a laminated sheet with the most common diagnoses, and accompanying recommended treatments with medication dosing for adults and children. We had a pharmacy formulary listing every medication we had available. We also standardized our supplies list prior to the trip, and then inventoried all medicines and supplies left in Haiti for future teams. We updated the triage record that was used for each patient visit, and collected data at the end of clinic on an Excel spreadsheet, allowing us to analyze an array of information after the trip, including the hemoglobin numbers. We also inventoried the remaining supplies and medication at the conclusion of the trip. Any medications that were due to expire were donated. We returned the Vitamin A with us to use on the next trip.

Dr. Porter consults with an expectant mother.

FURTHER NEEDS

We met many older patients who requested joint injections, and so we quickly ran out of injectable dexamethasone. I think that this is a service that we could better provide for our patients in the future. The effect of a joint injection often lasts several weeks to months and can provide significant comfort and pain relief to some of those older patients. Additionally, we may need to consider hypertension treatment. I think that it would be possible to train community health workers to take blood pressure measurements. We could create a simple algorithm starting with hydrochlorothiazide or

chlorthalidone. The patients could come back to the community health worker in one month and if their blood pressure is still not controlled they could be given labetolol or an ace inhibitor. The patients would then come back in one month and recheck, and if they are still not controlled then they could be administered a third medication. The community health worker would also provide education about a low salt diet, exercise and weight loss (although the latter two may not be applicable.) I believe that these medications could be purchased in Haiti inexpensively. We may also want to consider taking Metformin in the future. This is a cheap drug that could make a huge difference for those patients we saw with diabetes. The only challenge would be the necessity of checking a serum creatine prior to beginning therapy. In addition, we have not really treated anemia with iron supplements in the past, but that may be something to consider for some of our more profoundly anemic patients. Another suggestion would be to establish a small procedure room where minor procedures could be performed more effectively and efficiently. If that is established, we will need to determine how many and what type of surgical instruments would be needed.

RECOMMENDATIONS FOR SOLUTIONS

After each trip we seek to evaluate what can be done better in the future. Ultimately we would love to build a clinic and have a permanent presence in Timo, which would ideally be staffed by Haitian health care providers. We made progress towards this end on this trip by connecting with the Ministry of Health, which recommended official registration and partnership. This partnership may then allow us to tap into resources provided by the Ministry of Health. I think that a partnership with our family medicine residency programs at McKay and Utah Valley Hospitals that provide ongoing education to the family medicine program in Haiti could provide a needed resource of future health care providers, as well as good will for the organization. In addition, teaching ALSO and NRP to local health care providers would be very beneficial. We looked at some property in Timo and will continue to evaluate spots for a potential clinic in the future. Our partnership with FPF, an organization of farmers already present in Timo who are committed to improving their condition and have an interest in health care, seems to be growing. One of our major goals is to improve public health. We finished a water project and irrigation project. Clean water and the ability to grow a variety of crops will go a long way toward improving the public health of the community. I think that we need to continue to emphasize education and nutrition. We should investigate procuring our medicines from Haiti instead of bringing in our own. This may prove to be cheaper as well as advantageous for the local economy. And I think that expanding our preventative care to include immunizations in the future would be very beneficial.

Dr. Drollinger examines a child. The hemoglobin testing our team performed revealed high rates of anemia in children under age 5 and pregnant women.

PERSONAL REFLECTIONS

Joel Porter, MD:

"After three trips to Haiti and specifically Timo, one might think that the work becomes somewhat of a routine. However, the work is never routine in Haiti. Our set up and patient flow may be similar to what we have done in the past, but the patients and their stories are always different. This trip our team dealt with a particularly devastating and heart-wrenching experience. Towards the end of a busy clinic day a patient who was in active labor was presented to the clinic with her midwife. She had traveled by walking (or by being carried) for nearly 4 hours to get to the clinic. This was her first pregnancy. When we saw her it was obvious that she had been in labor for a long time and was completely exhausted. Within a few hours after arriving she finally delivered. It was obvious from the moment that this infant was delivered that it was going to be a touch and go situation. We had all of the physicians work on this little newborn that refused to breathe on its own. For quite some time, we were able to use the bag and mask and breathe for the baby. We also established an IV and gave the baby fluids. The baby, however, was severely depressed, and passed away after a few hours. The nursing staff worked heroically and stayed up most of the night with the mother and baby to comfort and care for them. It was devastating for this young mother and her family to carry the lifeless baby back to their village where it would be buried.

"Of course, this experience was emotionally and physically draining. However, it is this exact type of outcome that we are working diligently to avoid in the future. As we continue to train the local health care providers and help to provide prenatal care, we will hopefully see less and less of this type of outcome in the future. This was a mother who had had no prenatal care up until the time she delivered her baby. As we work together to provide proper nutrition, clean water, access to regular medical care and education, we believe and hope that this type of experience will become a thing of the past."

Joel Porter currently works as a family physician for Intermountain Health Care at the Layton clinic in Utah. He is the lead physician for the clinic, and also serves as department chief of the Department of Family Medicine at McKay-Dee Hospital in Ogden, Utah. He is involved in several work groups and peer review committees through Intermountain Health Care.

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