

Our experience as a Health Volunteers Overseas–sponsored team in Huế, Vietnam

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A group from Texas Oncology and Baylor Charles A. Sammons Cancer Center traveled to Huế, Vietnam, as part of Health Volunteers Overseas. From February 21 to March 6, 2012, five Baylor Sammons medical oncologists and an oncology nurse worked with a medical oncologist and a surgeon at the Huế College of Medicine and Pharmacy, suggesting approaches based on available resources. The two groups worked together to find optimal solutions for the patients. What stood out the most for the Baylor Sammons group was the Huế team's remarkable work ethic, empathy for patients, and treatment resourcefulness. The Baylor Sammons group also identified several unmet needs that could potentially be addressed by future volunteers in Huế, including creation of an outpatient hospice program, establishment of breast cancer screening, modernization of the pathology department, instruction in and better utilization of pain management, better use of clinic space, and the teaching of oncology and English to medical students. There was a mutual exchange of knowledge between the two medical teams. The Baylor Sammons group not only taught but also learned how to take good care of patients with limited resources.

A group of health care professionals from Baylor Charles A. Sammons Cancer Center at Dallas traveled to Vietnam from February 21 to March 6, 2012, to work alongside local caregivers and introduce new concepts, teach new techniques, and identify needs that can be addressed on follow-up trips. The team from Baylor Dallas consisted of two experts in breast cancer (Drs. John Pippen and Cynthia Osborne), two general medical oncologists (Drs. Claude Denham and Nate Green, a former medical oncology fellow who now practices in Lincoln, Nebraska), a second-year oncology fellow (Dr. James Ewing), and an oncology nurse (Josie Divers, RN) (Figure 1). After a formal application was made to the Accreditation Council for Graduate Medical Education, Dr. Ewing received fellowship credit for the time spent in Vietnam.

Planning for the trip began when physicians of the Baylor Sammons Cancer Center and Texas Oncology were contacted by Health Volunteers Overseas (HVO), a not-for-profit organization dedicated to improving the availability and quality of health care in developing countries through the training and education of local health care providers. HVO works with numerous professional medical societies to develop training programs for



Figure 1. Our team in front of the oncology clinic. Left to right: Dr. Osborne and Josie Divers (front row) and Drs. Pippen, Green, Denham, and Van Cau (back row). Not pictured: Dr. Ewing.

a wide range of specialties. In its quarter century of existence, HVO has sent over 4000 volunteers to places around the world and has completed close to 8000 assignments.

The International Cancer Corps (ICC) of the American Society of Clinical Oncology (ASCO) began partnering with HVO in 2010, with the goal of having highly qualified health care professionals provide relevant, realistic training that focuses on oncologic diseases and health conditions relevant to the geographic area, so this knowledge can be disseminated to other health care providers in the area. The first ICC site chosen was Tegucigalpa, Honduras; the second, Addis Ababa, Ethiopia; and the third, Huế, Vietnam.

Huế is a city in central Vietnam that serves as the capital city of the Thua Thien-Huế province. It was once the ancient imperial capital of the Nguyễn Lords, who were rulers of what is now Southern and Central Vietnam. In the 1800s, still under the rule of the Nguyễn Lords, it became the capital of all of Vietnam. Due to its location near the border of North and South Vietnam,

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this South Vietnamese city was a site of intense fighting in the Vietnam War, especially during the Tết Offensive of 1968. Now a peaceful large city bisected by the Sông Hương (Perfume) River (Figure 2), Huế is home to approximately 950,000 residents and the Huế College of Medicine and Pharmacy (Figure 3). The facility was founded in 1957 and has trained over 12,000 graduates in medicine, pharmacy, dentistry, and allied health professions. It has an annual enrollment of over 1000 students, with almost 4000 undergraduates studying various health-related fields on campus at any given time. The college serves the central area of Vietnam, whose population is approximately 20 million people.

Since Vietnam is a developing country, a large percentage of the patients served by the college have limited financial means, with the average monthly wage reported to be US \$185 last year (1). Many of the patients travel 30 miles or more by bicycle or motorcycle to get to the clinic for an appointment with a doctor. Both the medical school and hospital are run by the government.

THE CLINIC

Working within the college's oncology clinic were the Vietnamese hosts, Dr. Nguyen Van Cau, a medical oncologist, and Dr. Phung Phuong, a surgeon. Dr. Van Cau had one oncology fellow who helped with patient care. At least 10 nurses and other assistants also staffed the clinic. The clinic was an air-conditioned building built in the 1980s. The first floor housed the Gamma Knife center, and the upper floors housed the clinics and inpatient hospital rooms. The equipment was not new, but it was functional. Dr. Phung, a surgeon by training, had dual roles, as he planned, mapped, and operated the Gamma Knife, in addition to operating and serving as a clinical professor at the medical school. Dr. Van Cau's office (where most of the patients were seen) was located on the second floor, and this is where we spent most of our time. In addition to Dr. Van Cau's office, there was a room for the nursing staff to meet and do charting, a room to prepare the chemotherapy, and another room storing medications. In the chemotherapy preparation room, there was a ventilation hood with a small hole cut in the back wall. A small fan took air from the hood and sent it outside. Most basic chemotherapy drugs and antiemetics were available.

The pathology department was on site as well. The department was small and simple, with processing and microscope work done in the same room. Several basic immunohistochemical stains were available for breast cancer, although Ki-67, an immunostain used as a measure of the proliferation index in



Figure 3. Our first view of the Huế, College of Medicine and Pharmacy.

breast tumor specimens, was not routinely used. The oncologists did not generally review the pathology themselves, but relied on written or verbal reports by the pathologists. The pathology reports did not always clearly establish orientation and distance of the tumor from surgical margins. This was one issue we addressed during our stay in Huế.

We were able to observe a number of patients undergo treatment during our visit, including a patient with a hepatoma who was being mapped prior to radiation therapy. Additionally, a patient with brain cancer was treated while we were there. The machine was old and was shut down one day by a water leak; however, the oncology team in the clinic did remarkably well with the tools they had available.

The gap in wealth in Vietnam is extreme. Those with connections to the communist leaders live quite well, with the rest of the population living in severe poverty. Most drugs and health care are subsidized by the Vietnamese government; however, there is an exception with trastuzumab for *HER2*-positive breast cancer. This drug is completely unsubsidized, but we did see one patient elect to add it to her adjuvant treatment, at a cost of over US \$8000 per month. Obviously, not many in Vietnam can afford this treatment. Rituximab is partially subsidized by the government and is for patients who can afford the large copayments. Thus, during our trip we did see one patient with non-Hodgkin's lymphoma treated with R-CHOP (rituximab, cyclophosphamide, doxorubicin, vincristine, and prednisolone), but most patients were treated with CHOP or CHOP-E (etoposide), regimens inferior to R-CHOP, for diffuse large B-cell lymphoma. Dr. Van Cau was able to order almost any chemotherapy drug on the World Health Organization (WHO) list.

The patients were treated in four rooms, each of which had five beds. As we went from room to room, the patients were quiet, well mannered, and did not ask a lot of questions. Both male and female patients were in the same rooms with no concern for privacy. If there were more patients than beds, the patients shared a bed, with one at each end (Figure 4). Each room had five to 10



Figure 2. Scenes from Huế, Vietnam: (a) flower vendors and (b) motorbikes.



Figure 4. Dr. Denham visiting with some of the oncology patients staying in the inpatient rooms in the clinic.

patients in it. Services such as food, water, and bedding were not provided. Attentive family members took care of these needs. Patients could stay overnight in the clinic if they had special needs or if their treatment took several days. Several nurses were present after hours if there were problems. The clinic was located a few feet from the hospital itself. Dr. Van Cau would usually go to see consults in the hospital in the late afternoon and would direct patients back to the clinic after discharge.

Just as patient confidentiality was not a concern in the inpatient rooms, neither was it a concern in the clinic, which seemed unusual coming from our culture. As many as four breast cancer patients might be in the same room at the same time for their follow-up visit. Each disrobed and was examined in turn, which was viewed as perfectly normal by patients and staff. In talking to patients, it seemed that they only saw the doctor for a very brief visit, lasting less than 5 minutes. There was generally little discussion with the physician; rather, most discussions were among the physicians, who then made a declaration of when the patient's next follow-up visit should be. This was followed by a flurry of stamping a stack of documents, which were then passed back to the patients. Patients seemed to be in charge of holding their own records, and many would come in with their scans and radiology films in hand. Computed tomography images and ultrasound were locally available and performed quickly for the outpatients. The quality of the images was quite good. Most lab tests were available. The subsidized cost to the patient was about US \$40. Positron emission tomography imaging required a trip to Ho Chi Minh City or Hanoi, if the patient had the means to pay for it. Bone marrow transplantation also required going to one of the same two larger cities in Vietnam. Otherwise, oncology treatments were performed in Hué.

Once the team settled in to work at the clinic, we found an interesting and challenging mix of cases. One breast cancer case involved a 34-year-old woman, 11 weeks pregnant, who presented with a left subareolar breast mass and a palpable axillary node. Dr. Van Cau, as well as the rest of us, encouraged her to keep the baby, but her husband was adamant that the pregnancy be terminated. The patient already had four children, and her husband said he could not take care of another child. We also

saw a 59-year-old Catholic nun who recently had a mastectomy for a T2N1M0 estrogen receptor–positive, *HER2*-negative breast cancer. After deciding chemotherapy was needed, she was treated with a combination of epirubicin and paclitaxel. This is the adjuvant chemotherapy regimen of choice for all breast cancer patients deemed to be in need of chemotherapy. The decision of whether or not to use adjuvant chemotherapy was hindered somewhat by the lack of availability of Ki-67 staining. Tests such as Oncotype DX were not used, largely due to cost.

Other types of cancer reflected what would be expected in a busy oncology clinic, with a tendency toward tobacco-related and gastric malignancies. Breast cancer and other malignancies seemed to present at a more advanced stage. This is likely related, at least in part, to the lack of screening or effective primary or secondary prevention programs. We were also surprised by the relative youth of the majority of the patients. Today, according to a 2010 WHO report, Vietnam is among the countries with the highest smoking rates in the world, with a prevalence of more than 45% in men aged 18 years or older (2). Several of the physicians we worked with were smokers themselves. Smoking among health care providers was found to have a prevalence >40%. Further efforts towards primary prevention are definitely needed. The high prevalence of smoking and cervical cancer relay the need for better primary prevention in Vietnam.

Several patients we saw showed the need for a linear accelerator, which has been used for over 50 years for external beam radiation treatments for cancer. There were several local recurrences of cancer that likely could have been prevented if standard radiation treatment was given either concurrently with or after chemotherapy. One such patient was a young woman with a painful vaginal recurrence of a rectal cancer. The cancer involved the posterior vaginal wall, and the tumor was exuding from the vagina and causing significant pain and bleeding. As stated earlier, the only radiation treatment available in the Hué Oncology Clinic is in the form of Gamma Knife radiosurgery. Access to other types of radiation treatments would have allowed treatment of a much wider range of cancers.

PALLIATIVE CARE

The lack of palliative care and hospice represents a great need for the people of Hué and is a topic we can explore much more with the medical staff on a subsequent trip. The use of long-acting narcotics was much more uneven between patients. Patients who were at the end stage of their cancer and experiencing a lot of pain could come back to the clinic and receive injections of morphine. Conversely, one of the clinic nurses could go out to the patient if he or she was nearby. Death was a topic not generally discussed with patients. When I asked one of the fellows if she ever told patients that cancer would end their life, the question was met with a surprised look and an emphatic “no, never!” The family was told to “be prepared for anything.” Unfortunately, the “anything” families are prepared for does not usually include death.

The differences in palliative care and hospice practices between our two countries were best represented by a patient we saw the first day while rounding on the inpatient service. The

patient was a 54-year-old man with a metastatic high-grade sarcoma. He had been diagnosed with a high-grade rhabdomyosarcoma of his leg 7 months previously. At the time of diagnosis, surgery was advised but the patient refused. Unfortunately, his malignancy progressed despite extensive anthracycline-based chemotherapy. He had been at the hospital since the time of diagnosis and his tumor had grown rapidly, extending from his right knee to above his hip in a circumferential manner. Moreover, he had severe pain and extensive pulmonary metastatic disease. We saw this patient once again several days later, during our next rounding. In talking with one of the fellows, we learned the patient had not been told his tumor would progress and eventually take his life. With help from the fellow in interpreting, we spoke with the patient, who was from a local village, about 30 km from Huế. He and his wife had four children; both of his sons lived with him. He worked in a shoe factory prior to his sarcoma diagnosis. His sister was staying with him to cook and take care of him in the hospital until he “gets better from his tumor.” At that time, his cancer had progressed while on chemotherapy and he was only on intravenous fluids and supportive medications. We found this patient had a real lack of insight and unrealistic expectations regarding his condition, but we were informed that often patients are not told they are going to die from their disease. We discussed through an interpreter with the patient about his diagnosis and how his tumor would continue to grow and likely ultimately take his life. He stated he definitely wanted to be home when he passed. Our conversation was relatively short by American standards, but the patient seemed to take the news well. He thanked us and smiled when we moved on with our rounds. When rounding the following day, we were told he was to be discharged that day to go home to be with family.

AN ONCOLOGY FELLOW'S PERSPECTIVE

In October 2011, I was asked by Dr. John Pippen, a member of the clinical faculty, if I would like to travel to Huế, Vietnam, to volunteer with a group from ASCO for 2 weeks. Dr. Pippen put together an incredible team for the trip. It took me all of two seconds to say, “Yes, let's do this!”

During my first week, I was fortunate to locate the English-speaking club. On our third day I met a unique group of medical students who gathered weekly to practice their English skills. We reviewed core oncology and hematology skills, including how to evaluate a peripheral blood smear. During our time together, we talked extensively about the system of medicine in our two countries, medical training, oncology, and many other topics. I learned that in Vietnam all medical schools are run by the government. Due to the influence of their political system, every medical school has its own Communist Party committee. Typically, the dean or head of the department is appointed by the Communist Party committee.

In addition to learning medicine, medical students are taught Marx's philosophy (during the first few years), Ho Chi Minh's philosophy, as well as the history of the Communist Party. Upon completion of 6 years of medical school, graduates have several options. Most begin work as general doctors.

Many engage in self-study or attend conferences to become specialists without a formalized system of training. For the more competitive 10% to 15% of new physicians, another option is to pursue postgraduate education through the academic track or the clinical track of study. The academic track is designed for those who will teach at a medical school or university. The clinical track is what Dr. Thi, a trainee with Dr. Van Cau, was doing. This program consisted of 3 years in residency training, similar to a US residency program. Admission to these postgraduate programs was highly competitive and required an entrance exam along with an interview.

From the students I learned that health care services in Vietnam are often paid for on a cash basis, despite a national health insurance program, known as “Bao Hiem Y Te.” The national plan has two types of health care insurance: obligatory and voluntary. Obligatory insurance is the plan for people who are currently working, and it is paid for by a combination of employer and employee contributions. Voluntary insurance is for those not belonging to the obligatory section, such as students or those out of work. This insurance still may require a fee, but it is much less. All children under 6 years of age have free medical insurance in Vietnam; however, access to medical services varies greatly based on geography and socioeconomic factors.

I was told by some that patients who pay cash usually receive more attention and better care; however, we saw no evidence of this in our experience in the clinic. I met with the English club several times on my trip. I continue to correspond with one of the fourth-year medical students whose goal is to pursue a career in oncology. Overall it was an incredibly rewarding opportunity for me as an oncology fellow, and I believe that many of the lessons and experiences we shared with our Vietnamese colleagues will be integrated into their everyday practice. I think that we were able to learn much from the resourcefulness and ingenuity of Dr. Van Cao and his team, and I am looking forward to a future return trip to the site.

TRAVEL-RELATED ISSUES FOR THE VOLUNTEER

Several minor obstacles, other than just the lengthy air travel, must be overcome to successfully navigate Vietnam. In addition to a valid passport, a tourist visa must be obtained. For a stay longer than 4 weeks, visitors require a different class of visa. Since there are a limited number of Vietnamese consulates in the US, it is easiest to employ a travel service to obtain the tourist visa, which is valid for one entry into Vietnam. The total expense for the visa is around \$300. In-country travel is inexpensive, owing to the strength of the dollar relative to the Vietnamese currency. In addition to completion of the necessary paperwork, travel to a developing country requires some advance medical preparations. Vietnam is an area known to be endemic for malaria, so DEET-containing insect repellent is recommended. If traveling outside of urban areas, malaria prophylaxis is advised. Other common-sense travel precautions should be followed, including drinking bottled water, avoiding salad items that may have been washed with tap water, and using sufficient sunscreen, a huge task even for a well-practiced group from Texas.

IDENTIFICATION OF NEEDS

There are opportunities to make a positive impact on subsequent trips to the Huế College of Medicine and Pharmacy. Below is a partial list of opportunities.

1. Modernization of the pathology department. In breast and other cancers, the orientation of the specimens was not always known, and on some specimens it appeared as if cancer was at the margins. The Ki-67 tumor marker test needs to be added to the breast cancer immunohistochemical analysis panel to better gauge the proliferative status of a tumor. A visiting pathologist could go a long way in making sure basic protocols are in place to improve their diagnostic capabilities.
2. Instruction in the use of long-acting oral pain medicines and further instruction on WHO's pain relief ladder. In addition to managing the pain of cancer patients, managing the side effects of narcotic medications is another area that could be taught.
3. An outpatient hospice. This hospice could be organized by first utilizing the current clinic nursing staff. A discussion with the chief administrators may be helpful in creating a cadre of palliative care nurses to visit patients in their homes. Economic issues may be problematic, but motorbike transportation is relatively inexpensive, and Huế is easy to traverse for an experienced cyclist.
4. More efficient use of space in the clinic. Putting six chairs in each of the rooms may prove more helpful than five cots. Chairs would be more comfortable than cots and would allow more patients to be treated in a shorter amount of time.
5. Mammography and breast conservation training. Again, acquisition of a linear accelerator would make this a possibility and could potentially cut down on the number of local recurrences seen in the cancer patients. Purchase of a new machine, however, may be problematic in a developing nation. Better surgical techniques would include the addition of more accurate sentinel node assessments.
6. Teaching medical students. In Huế, we had the privilege of lecturing to the students, all of whom were respectful and attentive. With many of them interested in oncology, there is great opportunity for volunteers to help with improvement in oncology education and screening. A series of basic lectures in medical oncology would likely be well received.
7. English as a second language. The students wanted to learn better English. Evening practice sessions with team members and students, accompanied by an excellent local beer, would be a good way to facilitate this process.

PARTING THOUGHTS

Our trip to Vietnam really opened our eyes to what others in the world must contend with in their medical practices. Even though we were able to teach them a great deal, they taught us about how to take good care of patients with limited resources. We were able to experience, on a limited level, what people in Vietnam experience on a daily basis. All was not work on our trip, however, as we took some time to see some of the sites of Vietnam. We stopped in Hồ Chí Minh City (formerly Saigon)



Figure 5. Cao Đài Temple in Tây Ninh, about 90 km northwest of Hồ Chí Minh City (formerly Saigon). Cao Đài is a faith indigenous to Vietnam, which includes the teachings of the major world religions.

and saw the tunnels of Củ Chi, a vast network used by the Viet Cong guerrillas during the Vietnam War. They were the Viet Cong's base of operations for the Tết Offensive in 1968 and now an important part of their history. We also took a day trip to Tây Ninh, about 90 km north-west of Hồ



Figure 6. A parting gift of flowers from our hosts in front of a statue of Ho Chi Minh. Drs. James Ewing (left) and John Pippen (right).

Chi Minh City. There we saw the Cao Đài Temple (*Figure 5*). The Cao Đài faith, indigenous to Vietnam, includes the teachings of the major world religions. It was quite interesting to see how the Vietnamese integrated so many diverse faiths. When our trip came to an end, we were thanked profusely by our hosts, including a presentation of flowers (*Figure 6*). We all learned much on our journey and hope to make it again soon.

1. Vietnam average monthly wage rises to \$185. *Thanh Niên Daily News Online*, January 25, 2012. Available at <http://www.thanhniennews.com/2010/pages/20120125-salaries-rise-in-vietnam-income-gap-still-wide.aspx>; accessed January 15, 2013.
2. World Health Organization. Appendix VIII—Table 1: Surveys of adult tobacco use in WHO member states. In *WHO Report on the Global Tobacco Epidemic, 2009*. Geneva, Switzerland: WHO, 2009.