



Lima, Peru & Other Areas of South America

By Avery Jackson, MD

Over the past several years, I have had the pleasure of traveling several times to key areas of South America. What an amazing, diverse, and surprising continent! Most recently my time has been spent in Peru. The Republic of Peru is bounded by the Pacific Ocean to the west, Ecuador and Columbia to the north, Brazil and Bolivia to the East and Bolivia and Chile to the south. The population of Peru is 28,409,897. Lima is the capital. 45% of the population is American Indian, 37% is Mestizo (mixed Indian and European ancestry), 15% white, and 3% is a mix of black, Japanese, Chinese, and other. Peru has a multi-ethnic mostly Roman Catholic, population. About 7 million people live in the capital, Lima, and 1 million in Callao, a nearby port. The Lima/Callao area contains most of Peru's manufacturing capability, as well as the headquarters of all major companies.

The current president, Alan Garcia, announced aggressive economic policy changes, voicing his intention to take the country towards the Chilean economic model of openness and free trade.

In Lima, the private hospitals offer an acceptable level of care. Many physicians have received training in Europe or in the United States. The public hospitals provide a much lower standard of care. In Cuzco, the IPPS Hospital, a public social security hospital, is a reasonably clean facility with all major specialties. It is more than adequately prepared to handle emergency stabilization prior to evacuation. Elsewhere in Peru, the standard of medical care is much lower. Evacuation to Lima may be required for serious medical conditions.

In a country with 28 million people, 8 million have no health insurance. As a consequence many look to alternate means for pain control, including illicit drug use.

The Ministry of Health provides a hospital to the uninsured that is in dismal condition, at best. There seems to be tiered systems of health care in Peru. At the bottom of the health care system are those 8 million uninsured. Above those uninsured are the lower socioeconomic insured population. These people may wait 6 months before being treated at a good social security hospital. The best level of treatment is for those insured patients who have financial means. These patients pay for their healthcare privately and they get the care they want, when they want it. This was told to me by Dr. Miguel Vizacarra, the chairman of the Neurosurgery-Spine section at the Hospital Edgardo Rebagliati Martins in Lima, Peru.

He states that these private pay patients demand to be treated in a certain way at a certain time and they are accommodated. The hospital that Dr. Vizacarra works at is the best government operated hospital in Peru. Patients want to come there because they have the best medical and surgical care. They pay for it at a price of \$15.00 per day. The health system is also comprised of about 20 clinics, some are private and some are public. Most of the primary care occurs at the clinic level. The tertiary care occurs at hospitals like Edgardo Rebagliati Martins. There are military and children's hospitals as well.

Dr. Vizacarra sees about 25 clinic patients a week and operates 3 times a week. His department performs 700 surgeries a year. He performs mostly instrumented fusions. He performs complex spine cases including difficult thoracic and anterior lumbar approaches himself. Much of his training occurred in Europe.

Dr. Vizacarra is also a very compassionate physician who seemed to have a good rapport with the patients and hospital staff during my tour of the wards with him. He is one of 22 neurosurgeons who work at the Hospital Edgardo Rebagliati Martins.



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There is also a separate section of the Department of Neurosurgery for vascular and skull-based tumors, functional and pain management, and pediatrics. I was fortunate enough to have also met Dr. Alvarez who is the chief of the Section of Intracranial Vascular and Skull-Based Neurosurgery. He spent some time training with Dr. Fernando Diaz and Dr. James Osman at Wayne State University and Henry Ford Hospital in the 1980's. He may perform more aneurysm surgeries than any other surgeon on Latin America. Drs. Alvarez and Vizacarra have performed combined cases on large tumors that involved the cranial spinal junction. Dr Alvarez was kind enough to speak to me in English. He told me that the physicians get one month of vacation per year, and they must take the entire month off altogether.

My time in the office with Dr. Vizacarra as well as my tour of the neurosurgery wards and ICU was enlightening. I realized that even though there may be a difference in technological levels between our two worlds, the compassion and care for the



patients are the same. Dr. Vizacarra showed me a statue of one of the patron saints of miracles in his hospital. We both agreed that God uses doctors to perform miracles in patients for their healing. I also shared with him that the Ascension Health System (of which Genesys Hospital is a part) is the largest Catholic Health System in the US. He appreciated this since the majority of Peruvians are Catholic. It's clear that the hospital had a catholic influence. I saw that there were statues of saints on every floor.

There is no EMS system in Peru. Ambulances are utilized to transport patients between a clinic and a hospital. If a person falls ill, or has a serious medical emergency in their home, they can call "105". The police or the fire department will usually get them from their home and take them to the clinic or hospital. However, people do not seek medical attention until they lose function or the disease

process is in later stages. I was told by an interpreter that

many people who have significant orthopedic injuries wait until they can no longer walk from a broken limb before they seek medical attention.

I was invited to give lectures at the Stryker Spine symposium on Minimally Invasive Spine Surgery and Complex Cervical Spine Surgery given at the J.W. Marriot in Lima. Neurosurgeons from all of the hospitals throughout the city attended. There was an interpreter who was very meticulous in her translations of the discussions.

Peru is 5-10 years behind America in its technological advances. I was introducing a fairly new concept to them. There was a lively question and answer session. The last time I gave a lecture with an interpreter was in 2004 at the International Spine Conference in Santiago, Chile with an audience of over 300 physicians. Since that time I have been fortunate and blessed to present information on spine surgery every year in Latin America. I spoke at two different venues in Chile in August 2005. The first lecture series I presented was at the Clinica Santa Maria to the Chilean Society of Orthopedic Spine Surgeons on minimally invasive spine surgery. The second lecture series was given to the Sociedad de Neurocirugia de Chile (Spine Subsection of the Chilean Neurosurgical Society). I gave lectures on Percutaneous Treatment of Vertebral Compression Fractures, Review of Anterior and Posterior Cervical Fusion for Cervical Myelopathy, and Minimally Invasive Spine Surgery. I also presented on the Treatment of Cervical Myelopathy- with case presentations and techniques discussion, and Minimally



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Invasive Spine Surgery with case presentations and techniques discussion to the Orthopedic Surgery Department in Buenos Aires, Argentina at the Hospital Universitario Austral 2006. I really enjoyed the interaction and the exchanges of ideas.

The Chilean surgeons have also attended two cadaver labs that I put on for them in 2005 and 2006 at the surgeon training lab at Genesys. The Chilean Spine Meeting in Santiago, Chile in August 2004 had physician attendees from all over South America. I had never been to South America until this trip. What an eye opening experience this turned out to be.

Stryker Spine and I are fostering an exchange of academic interactions while traveling to South America. This brings spine surgeons to the Genesys Learning Institute from these countries. I host these surgeons annually at that time they learn new minimally invasive surgical techniques. We have case discussions and a practical lab to have hands on experience with these techniques. The next encounter will be the annual Minimally Invasive Spine Course at Genesys December 13-14, 2007.



The best part about these educational activities is the building of relationships. The more difficult side is the disconnect that I see in macro level relationships in parts of South America. The vast difference in socioeconomic classes is astonishing. This is quite evident when one sees the difference in living arrangements between the groups.

Even with this disparity in medical care, the people thrive socially. I experienced this first hand in Lima one evening. My wife and I had an evening tour of the city and a dinner show afterwards. The impact of the almost nine million people in Lima was felt as our tour bus made its way to the center of the city. There were very few stop signs and traffic lights.

Drivers don't usually stop at an intersection, they just slow down. The motor vehicle accident rate must be astronomical here.

We continued with a walking tour of the business district. During this tour we were surrounded by throngs of people at 9:00pm on a Thursday evening. We walked by a Catholic church, and despite the hour a mass was in progress. The city was more cosmopolitan than I anticipated. It's like a European/Latin American New York City.

During the tour of the Gold Museum of Peru, I came across replicas of an instrument that was utilized to perform craniotomies by the Incas. This is one of the earliest examples of neurosurgical practice. You can well imagine how intrigued I was.

In summary, there are similarities and differences between North and South American medicine. The reasons for these differences are due primarily to regional political factors and economic challenges. The common thread here is the fostering of relationships regardless of the available resources.

Likewise, we have opportunities to build relationships with each other as medical communities. We can partner in unique ways to assist one another in the quality care of our patients. We can also help each other professionally and socially. There are worthy relationships all around us that help us to relate to and keep in touch with one another and our patients.



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We come together as a Medical Society. We support the Genesee County Free Medical Clinic and the medically indigent population it serves. Even the three major hospitals care for our patients in this community through partnerships formed by fostering strong relationships. The scientific aspects of medicine and best practice patterns are vital ingredients for best medical care. Clinician – patient relationships, clinician- hospital relationships, and clinician-clinician relationships are the vehicles in which the science of best medical practice is upheld and administered. We cannot afford to lose sight of the value of these relationships.