



Every year, the Department of Anesthesia supports four medical mission trips to provide anesthesia services to underserved populations in Central and South America. In 2018-2019, two senior residents, two fellows, five faculty, and one CRNA participated in mission trips to Colombia, Ecuador, Guatemala, and Honduras. In every case, patients and their families traveled for hours, even days, for the opportunity to receive medical care that otherwise would not be available to them. Trainee participation is funded through the generosity of our benefactors, Dr. Pierce and Wilene Cornelius.

Santander Colon

Amanda Greene, MD, PGY4 Lovkesh Arora, MBBS, MD, Clinical Assistant Professor of Anesthesia

Letter from Amanda Greene, MD

great deal of differences but also so many similarities, both inside and outside of the operating room. machines, difficult airway equip-

The patients in Colombia often had some form of state insurance but were unable to afford any extra medical costs, which is where the mission stepped in. All staff on the mission trip were able to provide their special services, talents, and time free of charge.

Many patients traveled several hours, even days, in order to have access to a hospital that could provide them with a needed surgery and postoperative care. Though there was acute post-operative care, follow-up was brief, consisting of a patient visit a day or two after the surgery and afterwards likely only if complications arose.

There were also many practice differences, leaving me grateful

During my two-week trip, I found a to have so many resources in my own practice setting. At Iowa, I have ready access to ultrasound ment, medications, and back up from other staff. At Santander, the anesthesiologists have one ultrasound machine shared between the operating rooms, one fiberoptic scope that was in need of repair, and even the laryngoscope light handles were so dim that it was often difficult to appreciate any Cormack-Lehane view. I have immense respect for the anesthesiologists who take such wonderful care of their patients in these settings.

> One challenging case was a patient suffering from TMJ ankylosis for several years, leaving her with absolutely no mouth opening. We were able to perform an asleep nasal fiberoptic intubation, and the







surgeons were able to perform a resection of her mandible that allowed her to open her mouth more than one centimeter. This kind of case is not often seen in the U.S., and I am grateful that I was part of such a lifechanging surgery for this patient.

I must point out the gratitude that patients and families had for the medical mission staff and the hospital. These patients are more than deserving of excellent medical care and they made sure that we were aware of their appreciation. I am so honored that I was given the opportunity to practice anesthesia in another country and meet so many wonderful and giving people.

Guayaquil Ecuador

Andrew Lowe, MD, Pediatric Anesthesia Fellow Thomas Long, MD, Clinical Professor of Anesthesia

Letter from Andrew Lowe, MD

I was fortunate to be offered a spot for the Guayaquil, Ecuador mission trip. It was an incredible experience to use my medical training to help patients who would not receive surgery without our help.

We arrived in Guayaquil late on a Saturday. As I left the airplane, one of the Ecuadoran flight attendants thanked me sincerely for coming to help "her country." I felt honored by her words but also a responsibility to give my best work. After leaving security, a host of local support personnel greeted us with hugs and "besos." They were so grateful for us.

Our team comprised surgeons, anesthesiologists, nurses and other support staff from New York to New Mexico. It was a wonderful experience to work with people from so many different backgrounds.

The first day was filled with clinical evaluations and scheduling the surgeries for the week. We met many families and children. Some families had driven many hours and waited in the lobby all day to be evaluated for surgery. No one was complaining. They were filled with hope and excitement at the possibility of receiving a needed surgery that would be unobtainable otherwise. They were so happy to meet us. It was exciting to make plans to help the smiling children disabled by their deformities. It also broke our hearts to turn away patients who were not good candidates for surgery.

The following days were busy and we often worked well in to the evening. There were challenges with working in a different hospital system with different equipment. We had limited supplies and medications, and we had to be very conscious of our resources and allocate them responsibly. Everyone was giving their best so we could help the most children. We were able to do 30 surgeries, many of which were complicated hip reconstructions. We also repaired malunions from previous fractures, clubfoot deformities, and traumatic fracture. With great teamwork and efficiency, we were able to do more surgeries than our team had in prior years.

During the day, we were fed by some great local cooks who worked at Damien House, a home for adults disfigured by leprosy. On our last day in Ecuador, we visited Damien House, and they thanked us repeatedly with tear-filled eyes for helping "their children." It was touching to see such love and gratitude.

Now that I'm home, I want to continue to take advantage of opportunities to help people in need. I've seen that there are people everywhere who can benefit from sharing kindness and talents.











Guatemala



Jonathan Otten, MD, PGY4 Martin Mueller, MD, Clinical Associate Professor of Anesthesia David Swanson, MD, Clinical Assistant Professor of Anesthesia



Letter from Jonathan Otten, MD

This past February I had the opportunity to participate in a service learning trip with the Iowa MOST program to Huehuetenango, Guatemala. The trip provided an excellent opportunity to participate in the care of multiple children who would otherwise have limited access to the surgical procedures offered by the group. There are multiple ways in which the trip furthered my education as an anesthesiology resident, both regarding health care disparities in environments with limited resources as well as with specific management approaches for providing anesthesia in such a setting.

One of the primary educational outcomes from the trip was having the chance to work in a setting where health care resources are more limited than at our training institutions. Many of the patients we worked with had limited interactions with the health care system in the past and often required more detailed descriptions of the procedures as well as what to expect in the post-operative period. We also had to navigate different culture perceptions regarding pre-operative guidelines, including NPO time and pain management expectations post-operatively.

In addition to the cultural differences, the resources available in Guatemala also impacted the way in which we were able to provide anesthesia for our patients. We often needed to be very mindful about limiting the wasting of medications, ensuring that we only drew up exactly what was needed for every case. In addition, the equipment we used was often more outdated with more limited functionality, which allowed me to gain more experience with providing anesthesia in these settings.

My trip to Guatemala provided an excellent opportunity to broaden my comfort zone with providing anesthesia and provided additional experience for me to work with patients from a varied cultural background, which will improve my ability to care for these patients in the future. It was a rewarding experience and one that I am very glad I had the opportunity to experience during my time at the University of Iowa.







Sangini Punia, MBBS, Regional Anesthesia and Acute Pain Medicine Fellow Melinda Seering, MD, Clinical Assistant Professor of Anesthesia Cynthia Haas, CRNA





Letter from Sangini Punia, MBBS

Our trip to Siguatepeque was in collaboration with Sharing Resources Worldwide and The Touching Hands Project. The medical team included personnel from University of Iowa Hospitals & Clinics and Children's Hospital of Pennsylvania. It was the program's fourth annual visit to Honduras.

The potential patients traveled to the clinic by bus, car, and foot – some having to travel upwards of 9 hours. We screened 73 patients in one day; 43 were indicated for surgery, but we had to defer six patients until next year because of time constraints.

Most of the cases selected were brachial plexus palsies, congenital hand deformities, cerebral palsy, tumors, forearm and elbow malunions, and contractures from burns. To perform all the selected procedures, we scheduled 10-12 hours of surgery in both of the available ORs. The entire team knew to expect long hours of work each day; however, the hope that these children carried with them gave us enough enthusiasm to tackle the situation!

The next few days were hectic as we worked seamlessly as a team to try and stay on schedule and complete all the surgeries. Most of our cases were performed under General Anesthesia with LMAs, and for a few select cases we performed Axillary Nerve blocks with a peripheral nerve stimulator to help with post-op pain. Lunch was brought over from the La Providencia school kitchen, and most nights we ordered dinner to the clinic as we worked until 9 or 10 pm to get all the cases done, monitor the PACU children, and sterilize supplies for the next morning.

Though exhausting, we all felt very privileged to be able to provide this opportunity for these children. Not a single team member complained and all of us made jokes while getting back to our hotel, looking forward to a shower and restful sleep before the next day.

The words of Mary Dowling, RN (founder of Sharing Resources Worldwide), still resonate with me: "Treating a child's deformity is like creating a positive ripple that spreads to everyone around them — their family, their friends, their teachers and the rest of the community benefit in profound ways."



