Follow local institutional protocols for infection control and waste disposal procedures. Local protocols should be based on the applicable local government environmental regulations.

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I am pleased to introduce the inaugural edition of the Orthopaedic Journal of UT Health San Antonio that also coincides with the commemoration of our department’s 50th anniversary. It was 1966 that the department was initiated as a division of surgery at the Bexar County Hospital under the direction of a certain Dr. Charles A. Rockwood, Jr., a little-known orthopaedic surgeon just two years in practice at that time. The first class of five orthopaedic residents graduated in 1971. In 1972, South Texas Medical School was consolidated with other entities to establish UT Health San Antonio. The Department of Orthopaedics was formed in 1983 and Dr. Rockwood named the Chair. The department has certainly come a long way in fifty years! We are all eternally grateful for the monumental efforts of Dr. Rockwood in establishing both himself and our department as legacies in the field of orthopaedics.

The department now has 25 orthopaedic faculty members, 4 podiatrists, 7 mid-level clinicians, and 4 physical therapists. Each year we invite a new batch of training physicians to join our residency and fellowship programs. In the 2015-2016 academic year, we welcomed 6 new orthopaedic residents, 2 shoulder fellows, 3 hand fellows, one sports medicine fellow, and one adult reconstruction fellow. In addition, we support both residency and fellowship programs in podiatry. With the ongoing evolution of our department, we now have all orthopaedic subspecialties represented, most recently spine and orthopaedic foot and ankle as well as a robust research division that is growing in terms of personnel, scholarly output, and funding.

Please enjoy our first edition and look forward to future annual issues!

Orthopaedic surgery has a long and rich history in San Antonio. In 1936, Venable and Stuck developed cobalt-chromium molybdenum alloy (vitalium) plates for use in the human body. They were the only plates that produced no electrolytic action when buried in tissues. In the mid-1950s, Lew introduced the use of endosseous implants with a central post to circumferential extension made of cobalt-chromium molybdenum screws. In the mid-1960s, Sandhouse developed crystalline bone screws consisting mainly of aluminum oxide.

The South Texas Medical School, later the UT Health San Antonio School of Medicine, was established in 1959. Orthopaedic surgery was established as a division under General Surgery shortly thereafter by Dr. Charles A. Rockwood, Jr., the third faculty member of the medical school, in 1966. In 1983, Dr. Rockwood helped Orthopaedics attain Department status. During this time, working agreements were established with the training programs already in existence at local military bases and their hospitals, including Fort Sam Houston (US Army) and Wilford Hall (US Air Force).
Robert H. Quinn, MD, began his tenure as the current Chairman of the UT Health San Antonio Department of Orthopaedics in April 2012. There have been four previous chairmen: Charles A. Rockwood, Jr., MD, James D. Heckman, MD, Ronald P. Williams, MD, PhD, and Daniel W. Carlisle, MD. The department has had five AOA American-British-Canadian traveling fellows, including Drs. Rockwood, David P. Green, Jesse C. DeLee, Bernard F. Morrey, and Michael A. Wirth. Additionally, five faculty members have served as President of the American Academy of Orthopaedic Surgeons: Drs. Rockwood, Morrey, Heckman, John J. Hinchey, and Gerald R. Williams. Furthermore, many internationally and nationally recognized orthopaedic surgeons have served with the department, including Drs. Kaye E. Wilkins, Frank Netter, Tom Clanton, Philip A. Deffer, Sr., George E. Omer, Jr., and Robert M. Campbell, Jr.

Under Dr. Quinn, the department is embarking on an educational and practice expansion which includes multiple private practice opportunities as well as the traditional service institutions of University Hospital and the Veterans Affairs Hospital. The research division is undergoing a significant transformation and will result in the department becoming one of the more prominent orthopaedic surgery research departments in the nation. The department has a number of members who participate in the service to the orthopaedic surgeon community on the international, national, regional and state levels.

Currently, there are thirty residents in the Orthopaedic Surgery Residency Program. Subspecialty rotations include Trauma, Spine, Foot and Ankle, Pediatrics, Oncology, Arthroplasty, Upper Extremity, Hand, and Sports. With expansion of faculty, our residents are able to work with both community physicians and academicians, highlighting the department’s goal of training well-balanced, thoughtful, and capable surgeons. Recent highlights include the implementation of “Bioskills” training sessions for PGY-1s. These sessions teach interns the basic skills that they will utilize over their careers from casting to suturing to research. Additionally, our residents have over a 90% pass rate on their ABOS written and oral examinations over the past five years. With future growth expected in South Texas, the residency program is expected to expand and continue to be one of the pre-eminent training programs in the country.

A CONVERSATION WITH DR. CHARLES A. ROCKWOOD, JR.
BY JOHN BOXBERGER, MD CANDIDATE

My afternoon spent with Dr. Charles A. Rockwood, Jr., MD began with a simple curiosity, “What are the secrets that lead someone to have a career as distinguished and successful as his?” Perhaps, if I followed the tips, employed the same habits and even conditioned myself to model the most successful doctors, then my career might leave a lasting legacy. As I spoke with Dr. Rockwood about his own distinguished career, I gained unexpected insight into the answer of my original question and to many others that I had privately pondered.

Dr. Rockwood began with a very poignant statement. “The most common question I have been asked throughout my career is how the hell I stayed so content? I would always tell them that my family is my greatest achievement. I would go off to conferences and people would introduce me and talk about this and that, but I would always tell them: Listen, those are all pretty good deals, but remember this: Your family is most important. Do a good job with that and the rest will come.” His words stuck with me throughout our entire conversation, where I learned about a boy from humble circumstances in Oklahoma City who worked tirelessly to emerge as the founder of the Department of Orthopaedics at UT Health San Antonio.

The passion for medicine dates back to Dr. Rockwood’s childhood. “I knew I wanted to be a doctor when I was six years-old. My parents would always ask, ‘What do you want to do when you grow up, little boy?’ and I always said I wanted to be a doctor. I was sure of it.” As is the case with many aspiring physicians, his path to the profession was not direct. As he explained, “I did not get
into medical school the first year that I applied but I said I’d go to graduate school and then I’d see you next year. I went to Norman (University of Oklahoma) and did a year of graduate school there and then I reapplied and came back. They asked, ‘What will you do if you don’t get in this year?’ and I said, ‘Well, then I’ll see you next year.’” After a couple of attempts, Dr. Rockwood was accepted to the University of Oklahoma School Of Medicine. It was there that he developed a love for the field of orthopaedics; he subsequently trained under Dr. Don H. O’Donoghue during his residency. Upon completion, Dr. Rockwood had to identify a program that would allow him to repay his obligation to the military for his medical school scholarship. “Once my four years were up, I had to pay back the Air Force with five years; they only had one hospital training orthopaedists and that was in San Antonio, Texas at Lackland’s Wilford Hall Medical Center and I loved the city.” Although Dr. Rockwood did not know it at the time, his decision to come to San Antonio would result in an orthopaedic program of his own, a program that would shape the lives and careers of orthopaedists, orthopaedics itself and his own storied career.

After spending five years at the US Air Force’s Wilford Hall Medical Center, Dr. Rockwood arrived at another decision point and had to choose what he would do next. Coincidentally, his choice was made simple and complex by the fact that the University of Texas was establishing a medical school in San Antonio. “I got a call from the Dean asking if I would be interested in staying in San Antonio and I said, ‘Hell, I don’t know, but I’d be interested in talking to you about it.’ So then I was a faculty member at the school. I believe I was the second or third member of the faculty at the school.” Having already spent the last five years training as physician and teacher, this opportunity seemed like a natural transition.

The obvious logic had been to accept this new role, but he could not dismiss the internal conflict that he experienced of not returning to Oklahoma where his mentor was ready for him to become his protégé. Even after 50 years, Dr. Rockwood can still remember in vivid detail how difficult a decision it was and the extent to which he struggled between the familiarity of home and the opportunity to chart his own path in San Antonio. He said, “I had a friend in Dallas who told me, ‘I’ve been in the same situation. I had to decide whether to go home or start something new. If I were you, I would stay in San Antonio and blaze your own trail.’ So that’s what I did.”

After working as an orthopaedic faculty member at the medical school, Dr. Rockwood was approached with the idea of creating an orthopaedics division as a surgical sub-specialty. At the time, he was most interested in learning about the shoulder, evidenced by the many months he spent in New York City learning under the expertise of Dr. Charles Neer. Again, he was challenged to determine whether his desire to gain more shoulder experience in New York was strong enough to decline the offer to establish a critically necessary orthopaedics residency program. His decision was assisted after finding the new division’s first faculty member without looking. Dr. Rockwood recalled the process that seemed organic. He said, “One time, I was at a conference where I met a man named Frank Stensfield. He said to me, ‘Hey boy, aren’t you down there in Texas? Well I have a young man who is finishing up here and wants to go home to Texas. He’s getting ready to present a paper, and you should go check him out.’ The man’s name was David P. Green and he gave a wonderful presentation as a chief resident. I talked to him afterwards and said, ‘Would you be interested in joining us?’ and he said, ‘Well I sure as hell would!’ So he came down, and that was our first faculty member that I hired for the Orthopaedics Department.”

Since Dr. Green practiced as a general orthopaedist, Dr. Rockwood realized the division needed to expand, which required additional faculty members. He shared, “Then I got to thinking that someone had to be down here to do and teach children’s orthopaedics. We found out that Kaye Wilkins was finishing up a fellowship in Toronto, a hub of children’s orthopaedics. He came down, had a visit and we locked him up. So that’s essentially how we got started.”

Now 50 years later, the history of this department stands on the shoulders of three men – Drs. Green, Wilkins and Rockwood. All three spent their entire
careers working tirelessly to build a cohesive program under Dr. Rockwood’s leadership; their length of service, dedication and skills as teachers, mentors and surgeons are the significant reasons why so many have preferentially chosen to take their orthopaedic training at UT Health San Antonio.

While sitting on his sofa sharing his memories of the department, seemingly contemplative about the magnitude of his impact at UT Health San Antonio and on hundreds of physicians who have since honed their craft in San Antonio, the only remaining question to ask was in what other ways could the department evolve from his perspective. After thinking for a few moments, he said, “Well, I hope it keeps on growing. You have to remember that I was by myself for about four or five years, then I met Dave Green and he came down. A few years later I heard about Kaye and he came down. We have had a lot of faculty over the years. Eventually, some might move on but we were always able to replace them, so we just kept growing and growing and growing. I decided after being Chair for over twenty years or so that I would step down in 1988. I decided that was long enough. But yes, I hope it continues to grow. If it can grow, that is, because it’s doing pretty well right now.”

To conclude my afternoon meeting with Dr. Rockwood, I asked him what advice he had for future generations of physicians. He easily answered, “I think that without a doubt, medicine is the most wonderful thing a person can get into. I think the idea that you want to genuinely help people’s needs to be number one. But as I said, you must keep your family first; they are what will carry you through.” I found it fascinating that he would bookend our time by mentioning family. He was not just referring to his family at home, including nine children, but also the Orthopaedic Department and all its members - faculty, staff and years of residents- who had also become his family. As he shared in the beginning, success in life hinges on family and Dr. Rockwood’s long illustrious medical career was made possible by the support of both of his families.

DEPARTMENTAL PERSPECTIVES
GERALD R. WILLIAMS, JR., MD

Perspective. The Cambridge Dictionary defines it as a particular way of viewing things that depends on one’s experience and personality. Some would argue that personalities do not change; while this may be true, it is likely a debatable point. Regardless, one’s experiences certainly impact their perspective on “things.” Personally, in my life, one of the most important “things” has and continues to be the Department of Orthopaedics at UT Health San Antonio. My experiences as a visiting medical student, intern, resident, shoulder fellow, and now a maturing surgeon have collectively contributed to my perspective about how the department and its programs have evolved.

As a visiting medical student in 1982, I was eager to rotate in the department; hopeful that I could work my way into a residency slot, but uncertain of my chances. As a northerner from the East Coast who talked too fast with a weird accent and could not sit still, I was different. I am sure I was a project for Drs. DeLee and McGanity, whose service I rotated on. From my perspective, the rotation was a smashing success; I had never worked so hard, had more fun, or learned more in my life. I would have given anything to be a resident in San Antonio. Perspective, though, is a funny thing. My wife, Robin, who was my fiancé at the time, did not share my enthusiasm. An Armenian-American who was born and raised in Philadelphia, she could not imagine leaving her family and moving to Texas. She is the epitome of a northeasterner with all the idiosyncrasies in addition to an even weirder accent—but I digress.

Much to my delight, I matched in San Antonio. I was thankful for the opportunity, anxious about what lay ahead, and stressed about the workload. From the moment I walked out of the 1984 edition of Dr. Rockwood’s “I am the Chief” talk to the day I received my diploma, my perspective was one of a kid in a candy shop—what a blast! To this day, it is the most rewarding professional endeavor I have ever undertaken. Extremely gifted teachers and role models surrounded me, including the attending surgeons who
suffered through my educational process as well as my co-residents—comrades-in-arms. We worked hard and we played hard. It was a time of profound personal and professional growth. After these years, I am still amazed by the process whereby interns, who struggle to see the leaves, become senior residents who recognize the collection of leaves and trees that they have been wallowing in for the last five years as a forest. It is truly remarkable process.

After graduating from residency in 1989, I was fortunate to spend another year in San Antonio as a shoulder fellow with Dr. Rockwood. When I reflect on that time, it reminds me what I would imagine it might be like going on tour with a rock star. It was another rewarding year and, honestly, I learned as much about life as I did about shoulder surgery. I will never forget the evenings I spent with Dr. Rockwood discussing everything from politics to golf—and everything in between—over Herradura Tequila and a cigar. It was a truly special time in a very special place with a very special person.

Today, I am a senior surgeon within the division of Shoulder and Elbow Surgery at the Rothman Institute at Thomas Jefferson University in Philadelphia although I prefer thinking of myself as a maturing surgeon. When I fondly look back on the years spent training in San Antonio, I am grateful for the opportunity to learn from many unbelievable faculty members, whose commitment shaped and advanced our program as one of the finest in the nation. My perspective is a veteran one, shaped over years of educational, clinical, and life experiences. I have been in practice for twenty-six years and, like it or not, am probably in the third quarter of a four quarter contest. I have been in academic orthopaedic surgery for all twenty-six years—one in solo private practice with an academic affiliation at the University of Pennsylvania, sixteen in full-time academic practice at UPenn, and nine in private practice at the Rothman Institute with an academic affiliation at Thomas Jefferson University. These experiences have made it clear to me that my training in San Antonio is the foundation of my career and second to none. More importantly, Robin and I have been married for thirty-two years and have two wonderful native Texan children—Mark and Alexis. Our time in San Antonio as a young, newly married couple trying to understand each other and build a life together continues to be something we cherish.

In closing, I would like to remind us all of the awesome responsibility we have to our program. We must build on the legacy that was started in San Antonio fifty years ago when Dr. John Hinchey convinced Dr. Charles Rockwood, a young military orthopaedic surgeon at Wilford Hall, to embark on and start a division of Orthopaedic Surgery at a new medical school rather than return to his native Oklahoma. What a wonderful stroke of luck for San Antonio. From its slow start as a division of General Surgery with few residents, to the thriving department it is today, Dr. Rockwood’s signature can be found everywhere. Indeed, his hand has touched all of us. For me personally, he is like a second father. As the current chair, and a native Pennsylvanian, I am certain that Dr. Quinn will lead our department well and leave his own mark. I would like to thank him for the honor of providing this column on my perspectives on San Antonio for this important inaugural issue of the departmental journal. I wish him Godspeed in carrying our program into its next fifty years.

HISTORY
2015-2016 DEPARTMENT OF ORTHOPAEDICS FACULTY

Animesh Agarwal, MD
Trauma Chief

Zachary Child, MD
Spine

Fred Corley, MD
Hand & Elbow

Douglas Cromack, MD
Hand

Marc DelHart, MD
Total Joint

Amit Dutta, MD
Shoulder & Elbow

William Edwards, MD
Spine

Roberto Fajardo, PhD
Research

John Faut, MD
Pediatric Orthopaedics

Mark Foreman, MD
Trauma

Mayo Galindo, MD
Foot & Ankle

Brad Hall, MD
General & Spine

Grant Hogue, MD
Pediatric Orthopaedics

Ravi Karia, MD
Trauma Asst-Chief

Krista Kilpadi, MD, PhD
Research

Sekinat McCormick, MD
Pediatric Orthopaedics

Emmanuel Menga, MD
Spine

Bernard Morrey, MD
Shoulder & Elbow

Robert Quinn, MD
Oncology/Chairman

Rajiv Rajani, MD
Oncology/Residency PD

Charles Rockwood, MD
Shoulder

John Toohey, MD
Spine/Associate PD

Kaye Wilkins, MD
Pediatric Orthopaedics

Michael Wirth, MD
Shoulder

Boris Zelle, MD
Trauma
HISTORY

MID-LEVELS

Caitlin Brady, PA-C
Chris DeLallo, PA-C
Brandon Del Bosque, PA-C
Marc Deschaine, PA-C
Colin Dundersdale, PAC
John Kodosky, PA-C
Don Morris, PA-C
Paige Burau, FNP
Pediatric Orthopaedics

PHYSICAL THERAPISTS

Stephen Cox, PT
Chad Hodges, PT
Sheri Huehn, PT
Barry Morgan, PT
Dr. Kaye E. Wilkins, senior department faculty member, graciously shared his experiences from more than 20 years of personal involvement with orthopaedic pediatric medical outreach activities. Many of Dr. Wilkins’ targeted programmatic efforts have focused on Haiti; however, several other countries have benefited from the ongoing commitment by outreach medical education assistance projects (OMEAPs) to provide non-faith based medical assistance to healthcare providers in countries with limited resources (CWLR). The content of this document includes an interview conducted by Dr. William Edwards about Dr. Wilkins’ longest standing community service projects and details on burgeoning projects by other faculty members.

An Interview With Dr. Wilkins

1) How did you become involved in outreach work?
Newly-trained orthopaedic surgeons first have to realize in their career development that there are often other priorities that have to be accomplished first, such as completing their education, establishing a practice, supporting their family and educating their children. Thus, these priorities often occupy the focus of newly-trained orthopaedic surgeons during the first years of their careers.

It was not until 1995 (having been in active practice for 22 years) that I had completed most of my career goals and family priorities and was confident enough to start participating in outreach work. To participate effectively in an Outreach Medical Education Assistance Program (OMEAP), one also has to have developed enough skills and experience to be able to teach others.

At that point, I felt a desire to participate in some outreach educational activities. Through the national office of the Presbyterian Church USA, I learned of Hôpital Sainte Croix in Leogane, a town in southern Haiti. I simply corresponded with the missionaries at that hospital and arranged to visit their hospital.

After visiting that hospital a few times, I finally was able to become involved with the orthopaedic residency program at the Hôpital de l’Université d’Etat d’Haïti (HUEH) which is the main university teaching hospital for the government of Haiti. For the past 18 years my focus has been on assisting that residency program in teaching the principles of pediatric orthopaedics, which had been lacking there. Teaching pediatric orthopaedics was my initial purpose for getting engaged in outreach work.

2) Can you describe some of the programs that you have introduced?

Orthopaedic Outreach Continuing Education Courses (OOCECs)

Based upon the success of the outreach continuing education courses in Haiti, I began to expand this concept to other developing nations by encouraging the Pediatric Orthopaedic Society of North America (POSNA) Committee on Orthopaedics in Underdeveloped Regions (COUR) to sponsor these courses as formal outreach projects. Because many orthopaedic surgeons in countries with limited resources cannot afford travel to Europe or North America in order to participate in continuing education courses or bring in speakers with special expertise, these OOCECs are of critical importance. As a result of these efforts, COUR has conducted continuing education courses in countries such as Paraguay, India, Cuba, Vietnam, Philippines, Guatemala, China, Indonesia, Thailand, Chile, Ecuador, Croatia, Sri Lanka, Bangladesh and Estonia. The faculty
for these courses usually consist of four to six pediatric orthopaedic surgeons from POSNA and always incorporate faculty from the host country.

In an effort to widen the scope of these continuing education courses, I organized a cooperative project to conduct courses in partnership with similar committees of the European Pediatric Orthopaedic Society (EPOS) and the Pediatric Orthopaedic Society of India (POSI). By utilizing the resources from societies on three continents, these courses have expanded into Eastern Europe, the Middle East, and Africa; the first cooperative course aimed at providing pediatric orthopaedic updates to Eastern European countries was held in Bratislava, Slovak Republic, at the end of January 2007.

Images from the various POSNA Orthopaedic Outreach Continuing Education Courses

Through the generosity of the CHRISTUS Santa Rosa Children’s Hospital, the vacant rooms in the old convent adjoining the hospital (the former St. John’s Hall) were made available for visiting health professionals to spend up to three months observing UT Health San Antonio Department of Orthopaedics (DoO) faculty members learning many new and relevant medical and surgical treatments. Over the past 20 years, the UT Health San Antonio DoO has welcomed at least 40 observers ranging from pediatric orthopaedists and surgeons to operating room nurses, supervisors, and doctors-in-training from the following countries: Haiti, Colombia, Mexico, Brazil, Argentina, Italy, India, Croatia, Spain, Uruguay, Vietnam and Germany. These individuals observed the faculty’s professional activities in their offices, the local hospitals and their clinics.

As a result of these visits, DoO faculty members have been able to develop many long-term relationships with these individuals, many of whom are pediatric orthopaedists with well-established practices in their respective countries we have since enjoyed visiting. We continue to receive emails presenting challenging cases for which they are seeking medical management input. It has been truly satisfying to witness first-hand the application of the concepts learned from the training periods in San Antonio as well as the overall impact of these courses on medical care in CWLRs.
3) What is one of your favorite anecdotes from your years of outreach work?

Early on in my time working with the Haitian orthopaedic community, I realized that they had never had any type of continuing education programs. To fill that void, I assisted them in organizing their first continuing education program which focused on the management of fractures in children. The protocol that was agreed upon with the local Haitian Orthopaedic Society was that the visiting faculty for the course would pay their travel expenses to and from Haiti. The local orthopaedic hosts would provide local transportation, lodging and food for the faculty along with arranging the venue for the course.

This program was well received by the local orthopaedists. The Haitian orthopaedic surgeons extended an invitation to the orthopaedists in the neighboring Dominican Republic. The course was so popular that a second course was organized two years later. Images for this course are pictured below:

The title page for the first course was bilingual for both Haitians and Dominicans. The combined sponsorship of both the Haitian Orthopaedic Society with UT Health San Antonio was prominently displayed as well.

Rebecca Wood, RN, a surgical scrub nurse from CHRISTUS Santa Rosa Hospital, participating in a post-operative conference at HUEH

Dr. David Green, a prominent hand surgeon from the UT Health San Antonio-DoO, giving a lecture

Dr. J. Williamson, a clinical faculty member, assisting a Haitian general orthopedic surgeon in a surgical procedure
The most important lesson learned from these two courses was that even in the poorest of nations with severely limited resources, a successful Outreach Orthopaedic Continuing Education Course could be achieved. As a result, I was able to convince COUR to organize similar courses in other CWLRs. At the time of the writing of this article, POSNA has conducted 32 of these OOCECs in 28 different CWLR. These courses have been very successful in promoting interest and developing skills and competence in the discipline of pediatric orthopaedics where they had once been non-existent.

In addition, as a result of participating in the majority of these courses, I have developed many friends who are trying to establish pediatric orthopaedic programs in areas where there has not been any expertise in pediatric orthopaedics. Many of these individuals have spent time participating as scientific observers at the UT Health San Antonio-DoO.

Another benefit of developing a long-term relationship with the orthopaedic community in Haiti and other CWLRs has been the ability to have orthopaedic residents from the UT Health San Antonio-DoO program accompany us when participating in these OMEAPs. It gives them a perspective of how fortunate we are in North America to have such rich medical and surgical resources. The following are images that demonstrate some of the conditions in which the local orthopaedic surgeons have to work in the delivery of their orthopaedic services:

4) What advice do you have on how others may get involved in this work?

This is one of the most common questions asked by the young orthopaedist who is developing an interest in participating in OMEAPs. I made my first contact through the missionary section of my faith-based organization, the Presbyterian Church USA. There are probably similar resources with other faith-based organizations. Additionally, many local and national orthopaedic societies have developed either contacts or outreach projects in countries outside the United States. An excellent organization with which to start is “Orthopaedics Overseas” (OO), which operates under the umbrella of “Health Volunteers Overseas”. Orthopaedics Overseas has established short-term orthopaedic assistance programs with various orthopaedic training centers throughout the world. They have contact with and the administrative support of orthopaedic programs desiring visitors from North America. The participating locations have all been thoroughly vetted as being safe and having a need for visiting orthopaedic surgeons. The orthopaedic projects of OO are listed on the Health Volunteers Overseas website at https://hvousa.org/.

5) What has your outreach work personally meant to you?

I have had the opportunity to meet many young orthopaedic surgeons in CWLRs who have become interested in developing expertise in pediatric orthopaedics. It has been very satisfying to see many of them develop pediatric orthopaedic programs in their home countries. We still receive e-mails with images of their patients with complicated pediatric orthopaedic conditions in which they are seeking advice.
6) What were your goals when you first started and what are they now?
My goals are still the same. I have spent 20+ years trying to develop pediatric orthopaedic expertise in Haiti at the HUEH orthopaedic training program and I have seen some progress. There are now two fellowship-trained pediatric orthopaedic surgeons working in Haiti. Haiti is a country with marked limitation of medical resources and with a large number of patients who have no financial resources to get the treatment required. Thus, it is very difficult to find practice opportunities for the orthopaedic surgeons in that country.

My goals are still directed toward providing assistance in the local orthopaedic training programs by developing pediatric orthopaedic training and teaching sessions to the orthopaedic residents. The problem in this aspect of my career is age. I need other pediatric orthopaedic surgeons from North America to continue the progress that I have started.

I am very pleased that several other faculty members with UT Health San Antonio have become involved in or established outreach projects. Dr. Zachary Child has visited Haiti several times to provide assistance with their management of patients with orthopaedic spine conditions. The Chair of the UT Health San Antonio-DoO, Dr. Robert Quinn, is working on developing long-term relationships with the orthopaedic training program in Kathmandu, Nepal.

And finally, Dr. Roberto Fajardo has been involved with a long-standing program in Neiva, Colombia - Healing the Children, integrated with our institution and the DoO. In addition to the Department of Oral Surgery participating in this mission with our DoO, Dr. Fajardo annually selects medical students to volunteer on this trip; for the first time in May 2016, Brandon Mennear, a 3rd year orthopaedic resident, joined the team. The institutionalization of these international programs into our residency curriculum will further improve the surgical training opportunities for our residents and provide them with unique cultural exposures. We expect that these experiences, along with others during residency training, will help create the next generation of surgeons interested in local and global service.

7) What are some problems that you have faced?
Unfortunately, when working and traveling to these countries, one must be prepared for many obstacles or problems to develop during participation in outreach medical education assistance projects. The following are just a few of the more common problems faculty members of my department and I have had to face:

- Many of the CWLRs have unstable political environments. There have been occasions when OMEAPs have had to be cancelled or rescheduled because there were unrests with protests. These would often block the passage through the streets to the healthcare facilities.
- Unfortunately, many of the CWLRs are listed by the US State Department as regions with “Travel Alerts & Warnings.” This prevents many funding agencies from supporting the travel expenses to these countries.
- Another common problem is not having the adequate equipment to perform the best surgical procedures for a patient’s orthopaedic condition. The visiting surgeon often has to be innovative and resort to older procedures to achieve the desired surgical outcome.

8) What is your philosophy and mission statement?
My goal has always primarily been to provide education and to help build pediatric orthopaedic program in these CWLRs. My motto, which reflects my philosophy, is: “Leave skills in addition to your scars”

9) What legacy would you like to leave for future residents?
I would like future residents to learn the importance of sharing with CWLRs the skills and experiences that they have been fortunate to develop while working and training in resource-rich environments here in North America.

10) What would you say to those who wish to thank you for your work?
Thanks are not needed. One just needs to quote the statement made many years ago by that famous medical missionary, Dr. Albert Schweitzer: “There is no reward for the work, except the privilege of doing it”
11) How would you summarize your thoughts on OMEAP participation?

The decision to participate in OMEAPs in CWLRs is an individual decision based upon many factors, including an individual’s interests, past experiences, financial resources, and ability to leave his or her practice. Once the decision to participate in an OMEAP has been made, the visitor needs to decide where, when, and for how long he or she can participate. Personally, I have found that travelling to a CWLR and working there for a week two to three times a year can be productive. Prospective volunteers need to appreciate that it may take many visits before anything meaningful can be accomplished. The visiting individual needs to be aware that it will take a few visits to establish credibility; in some visits only minimal projects may be accomplished. However, this failure to accomplish anything significant on initial visits should not discourage one from persisting to eventually accomplish something meaningful. It takes a great deal of patience and persistence to be successful in conducting an OMEAP in a CWLR.

In 20 years of participating in OMEAPs in Haiti and other countries, I feel that a few points are worth highlighting:

• Be prepared to ask the local healthcare workers what they need rather than telling them what they need.
• Expect to learn from the local healthcare workers based on their experience in working with limited resources.
• Willingly accept that you will be working with the resources that are available.

Recognize your success will depend on being able to develop a long-term commitment to the individuals and program in the CWLR; your ability to accomplish goals will hinge on this understanding.

Finally, in all of the pediatric orthopaedic outreach activities, the main focus must be on the goal of assuring that the best possible orthopaedic care is delivered to all children within the abilities of the local resources.

DEPARTMENT ENDOWMENTS

The Charles A. Rockwood, Jr., MD Chair in Orthopaedics

Current Holder: Michael A. Wirth, MD

The Charles A. Rockwood, Jr., MD Chair in Orthopaedics was established in November of 2003. The endowment serves to honor Dr. Rockwood, who is recognized internationally for his vast contributions to orthopaedic surgery. The purpose of the endowment is to support education and research in disorders of the shoulder. Additionally, it supports expenses associated with graduation and inviting a distinguished visiting professor to the annual lecture.

Dr. Wirth received his medical degree from Oregon Health Sciences University Medical School before arriving in San Antonio for his residency and fellowship at the UT Health San Antonio. After completing his training, Dr. Wirth joined the faculty of the Department of Orthopaedics at UT Health San Antonio and has continued to practice and educate students, residents, and fellows here for over twenty-six years. He also currently serves as the Program Director of the department’s Shoulder and Elbow Fellowship. He specializes in the treatment of traumatic and atraumatic injuries to the shoulder in both a surgical and non-surgical fashion. Surgical treatments include total and hemiarthroplasty (total or partial replacement of the shoulder), reverse total shoulder, capsular shift reconstruction, rotator cuff repair, sternoclavicular joint repair, revision of shoulder arthroplasties and arthroscopic procedures.

Dr. Wirth is ABOS certified, an AAOS Diplomat, AAOS and ASES member. He has contributed more than 60 chapters, monographs and surgical teaching videos and more than 60 journal publications pertaining to the shoulder. He is currently ranked in the top 1% for shoulder specialists in the nation by US News and World Report.
“I am grateful, deeply humbled, and immensely blessed to be named to the prestigious Charles A. Rockwood, Jr., MD, Chair in Orthopaedics which was established to promote academic excellence and to honor Charles’ great legacy.” – Michael Wirth, M.D.

The Fred G. Corley, MD Distinguished Professorship in Orthopaedics

Current Holder: Anil K. Dutta, MD

The Fred G. Corley, MD Distinguished Professorship in Orthopaedics was established in July of 2004 in honor of Dr. Fred Corley, one of the department’s most respected long-term faculty members. Dr. Corley specializes in surgery of the upper extremities, particularly the management of trauma to the elbow, wrist, and hand. He has been a pillar of the department for over thirty-four years and is considered the “spiritual” leader of the orthopaedic residency program. To graduates of the program, he symbolizes the ideals of orthopaedic surgery and medicine and is the model of a physician-educator. The purpose of the endowment is to establish a permanent education resource for training residents and medical students in surgery of the hand and upper extremity.

Anil Dutta, MD has been an instructor in the University of Texas Shoulder and Elbow Fellowship for over ten years and currently holds the rank of Associate Professor in the UTHSCSA Department of Orthopaedics. His research interests include upper extremity non-union surgery elbow replacement, allografts in elbow and humeral trauma, and the treatment of scapula fractures. Dr. Dutta attended the University of Oklahoma for medical school before completing an internship in general surgery and his residency in orthopaedic surgery at the University of Texas Medical Branch. While in residency, he earned four Golden Bone Teaching Awards, three Highest In-Training Exam Score Awards, and two Hutchings Awards for Academic Excellence. While in San Antonio, Dr. Dutta served as Chief of the Audie Murphy VA Shoulder and Elbow Service for seven years, was a Commander in the U.S. Naval Reserve and received the Navy Marine Corps Commendation Medal.

“The Corley Endowment has special meaning for the University of Texas Health Science Center at San Antonio and the Department of Orthopedics. Dr. Corley’s living legacy of teaching the essentials of life and surgery as one process is truly unique. It is my hope that this endowment’s benefits will serve as a permanent symbol of his distinctive career and personal vision. Dr. Corley has a passionate belief in education as the moral compass of society. His blend of humanism and technical skill should serve not only as a source of inspiration but also as a resource for those seeking to advance his ideals.” – Anil K. Dutta, MD

The John J. Hinchey, MD and Kathryn Hinchey Chair in Orthopaedics

Current Holder: Robert H. Quinn, MD

The John J. Hinchey, MD and Kathryn Hinchey Chair in Orthopaedics was established in 1992 in honor of Dr. Hinchey. During his many years in practice in San Antonio, Dr. Hinchey made tremendous contributions to the field of orthopaedics as well as to the entire medical community. As such, the purpose of this endowment is to establish an endowed position in the Department of Orthopaedics and to fund expenses associated with clinical and basic research.

Robert H. Quinn, MD, has been Professor and Chair of the Department of Orthopaedics at UT Health San Antonio since 2012. He received his medical degree from Hahnemann School of Medicine at Drexel University in Philadelphia, PA, before completing his orthopaedic residency at the University of Connecticut School of Medicine and a fellowship in orthopaedic oncology at Massachusetts General Hospital/Harvard Medical School. Previously, Dr. Quinn served as Clinical Professor at the University of Connecticut School of Medicine as well as Professor, Residency Program
Director, and Vice Chair of Education at the University of New Mexico School of Medicine. Dr. Quinn’s area of orthopaedic specialty is in musculoskeletal oncology.

Dr. Quinn is a member of several research groups including the Children’s Oncology Group, Southwestern Oncology Group, American College of Surgeons Oncology Group, Radiation Oncology Group and International Ewing’s Sarcoma Research Forum. In addition to his numerous publications in peer-reviewed journals and textbooks, Dr. Quinn recently co-edited a textbook on bone and soft tissue tumors. He is a consultant reviewer for Journal of Bone and Joint Surgery as well as Clinical Orthopaedics and Related Research.

Outside of the field of Orthopaedic Oncology, Dr. Quinn is actively involved in Wilderness Medicine. He is a fellow of the Academy of Wilderness Medicine, member of the Board of Directors of the Wilderness Medical Society and a consultant reviewer for Wilderness and Environmental Medicine.

The Laura B. Flawn, MD Endowed Professorship in Diseases of the Spine and Spine Trauma

Current Holder: John S. Toohey, MD

The Laura B. Flawn, MD Endowed Professorship in Diseases of the Spine and Spine Trauma was established in June of 2002 in honor of Dr. Flawn, who was praised for her skill in surgery and contributions to the advancement of the field of spine surgery. Most noted was her work in the Scoliosis Research Society, where she developed practices and procedures to improve the treatment of scoliosis. The endowment was created to support the Professorship and to cover all or part of the cost of hosting a visiting specialist in the field of spine disease and/or trauma for the benefit of the students, residents, and faculty at UT Health San Antonio. The endowment is graciously funded by Dr. and Mrs. Peter Flawn, Dr. John P. Howe, III, and Ms. Tyrrell Flawn.

John S. Toohey, MD, holds degrees from the University of Wisconsin in History and Medicine and completed his internship and residency at the University of Oregon in Portland. He spent the next thirteen years in Wichita, KS, with the Wichita Clinic and University of Kansas School of Medicine. Dr. Toohey moved to San Antonio and joined the faculty at UT Health San Antonio in 1995. After two years, he entered into a fellowship in spinal surgery with South Texas Orthopedic and Spine Surgery Associates and UT Health San Antonio and ultimately became director of the fellowship. Dr. Toohey subsequently served as the orthopaedic residency coordinator at Methodist Hospital as well as directed spinal education for UT Health San Antonio. In late 2010, he became a fulltime faculty member at UT Health San Antonio and Associate Program Director. In 2013, Dr. Toohey was appointed Assistant Dean for Graduate Medical Education and assumed the Graduate Medical Education Committee Chair in 2014. Dr. Toohey is a member of the AAOS, AOA, and numerous other professional organizations including the Mid-America Orthopedic Association, where he served as president in 2009–2010. He is active in writing questions for the AAOS, ABOS and the OITE and is a member of the Editorial Board of the Journal of Trauma. Dr. Toohey also serves as a consultant to the Texas Medical Board and numerous other organizations.

“I truly value the opportunity to advance spine education within the Department and area.”
– Dr. John S. Toohey, M.D.

The President’s Council/Dielmann Chair in Pediatric Orthopaedic Surgery

Current Holder: Kaye E. Wilkins, MD

The President’s Council/Dielmann Chair in Pediatric Orthopaedic Surgery was established in 2005 to honor Henry B. and Edna Smith Dielmann. Mrs. Dielmann was a community philanthropist who donated a generous portion of her estate to UT Health San Antonio. Her husband, Henry...
B. Dielmann, was a prominent San Antonio attorney, three-time member of the House of Representatives, and former Dean of the St. Mary’s University Law School. The endowment was created to promote pediatric orthopaedic surgery training and programs locally, nationally and internationally.

Kaye E. Wilkins, MD, received his medical degree from the University of Texas Southwestern Medical School. He completed his orthopaedic residency training at UT Southwestern/Parkland followed by a year-long fellowship in pediatric orthopaedics at the Hospital for Sick Children in Toronto. Dr. Wilkins arrived at UT Health San Antonio in 1973 as a pediatric orthopaedics faculty member in order to assist Dr. Charles A. Rockwood in strengthening the up and coming Department of Orthopaedics. In 1978, Dr. Wilkins transitioned to part-time faculty and worked in private practice in San Antonio for twenty-three years. He returned to UT Health San Antonio as a fulltime faculty member in 2002.

Dr. Wilkins’ particular focus is in children’s fractures. He served as a co-editor of the first three editions of Fractures in Children and has served as a guest lecturer for many conferences on children’s fractures around the world. Actively involved in Children’s Orthopedics in Underdeveloped Regions, an outreach program of the Pediatric Orthopaedic Society of North America, Dr. Wilkins has organized orthopaedic outreach continuing education courses in many developing nations.

Dr. Wilkins has served as President of the Texas Orthopaedic Association and the Pediatric Orthopaedic Society of North America. He has received countless humanitarian, distinguished service, and teaching awards. The Kaye E. Wilkins, MD Endowed Chair in Pediatric Orthopaedics was established through the Children’s Hospital of San Antonio Foundation in his honor.

“It is an honor to hold this prestigious chair, which has presented me with the opportunity to lecture on the principles of managing children with orthopedic conditions in 58 different countries.” – Kaye E. Wilkins, MD

HONORARY LECTURESHP SERIES

The UT Health San Antonio Department of Orthopaedics has established three honorary lectureships with the purpose of bringing to San Antonio outstanding orthopaedic surgeons whose experiences can educate and inspire faculty, residents, medical students and local private practice physicians on cutting-edge technologies, new surgical techniques, and groundbreaking research findings.

The Philip A. Deffer, Sr., MD, Lectureship

Established in 1994, the Philip A. Deffer, Sr., MD, Lectureship was endowed for the purpose of inviting highly recognized and respected orthopaedic surgeons and distinguished scientists to present and discuss relevant tumor or trauma topics (e.g., limb salvage) with residents and faculty.

Dr. Philip A. Deffer, Sr., MD, Brigadier General Retired, U.S. Army

December 18, 1921 - October 26, 2006

Philip A. Deffer, Sr., MD, joined UT Health San Antonio in 1982 following a 37-year career in the U.S. Army where he was Chief of Staff of the U.S. Army Health Services Command at Fort Sam Houston and commanding general of Fitzsimons Army Medical Center in Denver, Colorado. He was an expert in post-operative care of amputees and fracture patients. During his employment at UT Health San Antonio, Dr. Deffer was promoted to Associate Professor in the Department of Orthopaedics and served as the Director of the Orthopaedic Clinic at the University
Health Center-Downtown. Dr. Deffer passed away on October 26, 2006.

The 2016 Philip A. Deffer, Sr., MD, Lectureship welcomed Dr. Andrew R. Burgess, Professor and Vice-Chairman of the Department of Orthopaedic Surgery at the University of Texas Medical School in Houston and Chief of Orthopaedic Trauma. As part of the 20th Annual Philip A. Deffer, Sr., MD, Lectureship, Dr. Burgess presented at Grand Rounds on the topic “High Energy Pelvic Fractures and Acute Management”. In addition to spending time discussing cases with residents, Dr. Burgess presented an enlightening formal lecture titled “Crash Research and Injury Mechanism: Orthopaedic Viewpoint” during the evening program. Prior to joining UT Houston, Dr. Burgess was Professor of Orthopaedic Surgery at the Johns Hopkins University School of Medicine starting in 1998. Charged with educating military orthopaedic residents from both Bethesda and Walter Reed at Maryland’s Shock Trauma Unit, he served as Adjunct Professor at the Uniformed Services School of Medicine from 2001 through 2004. Dr. Burgess provided leadership to the University of Maryland’s CIREN (Crash Injury Research and Engineering Network) Center due to his work in crash injury research and motor vehicle design.

Past Philip A. Deffer, Sr., MD, Honorary Lecturers
1994.................................George E. Omer, Jr., MD
1995.....................................Jacquelin Perry, MD
1996.....................................James H. Herndon, MD
1997..............................Vernon T. Tolo, MD
1998..................................John H. Bowker, MD
1999..............................Champ L. Baker, Jr., MD
2000.................................John L. Eady, MD
2001............................Mary Ann E. Keenan, MD
2002................................Michael S. Pinzur, MD
2003...................Charles A. Rockwood, Jr., MD
2004.................................Mark R. Bagg, MD
2005.............................Frank A. B. Gottschalk, MD
2007..............................Ronald P. Williams, MD, PhD
2010..............................Bernard F. Morrey, MD
2011..............................James K. DeOrio, MD
2012......................Joseph R. Hsu, MD
2013..............................Dempsey S. Springfield, MD
2014..............................Bruce D. Browner, MD, MHCM
2015..............................Miguel A. Ayerza, MD
2016..............................Andrew R. Burgess, MD

The Laura B. Flawn, MD, Lectureship

The Laura B. Flawn, MD, Lectureship was established as part of the Laura B. Flawn, MD, Endowed Professorship in Diseases of the Spine and Spine Trauma in 2002. The lectureship supports a visiting spine specialist to educate students, residents, and faculty in new clinical approaches.

Laura B. Flawn, MD, was a 1974 graduate of the University of Texas at Austin and a 1977 graduate of the UT Health San Antonio Medical School. After completing her residency and fellowship training in New York, she returned to Texas to open her practice at the Austin Orthopaedic Clinic. Because Dr. Flawn specialized in diseases of the spine, scoliosis and spine trauma, she was active in the Scoliosis Research Society and pioneered clinical techniques to improve the treatment of scoliosis. Particularly interested in the health of female athletes, Dr. Flawn became an orthopaedic physician consultant for the women’s athletic teams at UT Austin and also served as Chief of Orthopaedic Surgery at Brackenridge Hospital in Austin from 1993-1995. Revered for her surgical skill and contributions to the advancement of spine surgery, Dr. Flawn continues to receive high praise even after her death in October 2001.
The 13th Annual Laura B. Flawn, MD, Lectureship took place on October 5, 2015, and featured visiting professor Frank J. Eismont, MD. Dr. Eismont serves as Chairman of the Department of Orthopaedics and Chief of the Orthopaedic Spine Service for the University of Miami Miller School of Medicine. Dr. Eismont has served as Chairman of the Spine Committee of the American Academy of Orthopaedic Surgeons, President of the Cervical Spine Research Society, member of the Orthopaedic Residency Review Committee of the Accreditation Council for Graduate Medical Education (ACGME) and was the chairman of this committee for two consecutive years. Dr. Eismont’s goals include providing excellent patient care, educating and inspiring the next generation of orthopaedic surgeons, and conducting leading-edge orthopaedic research.

Dr. Eismont’s visit consisted of multiple lectures: “Evidence Based Treatment of Cervical Spine Disorders” during Grand Rounds, “Great Information from the Radiologist – What Should the Spine Surgeon Do With It?” with residents, and “Treatment of Sacral Chordomas” during the evening presentation. Despite having a busy day of lectures, Dr. Eismont still had time to engage in teaching sessions with the residents which is evidence of his commitment to teaching and inspiring young surgeons.

Past Laura B. Flawn, MD, Honorary Lecturers
2003...........................................Behrooz A. Akbarnia, MD
2004.........................................Robert W. Gaines, Jr., MD
2005...........................................Keith H. Birdwell, MD
2006...........................................Alvin H. Crawford, MD, FACS
2007...........................................Paul A. Anderson, MD
2008...........................................Robert B. Winter, MD
2009...........................................Jens R. Chapman, MD
2010..........................................Lawrence G. Lenke, MD
2011...........................................Alexander R. Vaccaro, MD
2012...........................................Robert M. Campbell, MD
2013..........................................Howard An, MD
2014..........................................James O. Sanders, MD
2015...........................................Frank J. Eismont, MD

The Charles A. Rockwood, Jr., MD, Lectureship

The Charles A. Rockwood, Jr., MD, Lectureship is the most recent addition to the Department of Orthopaedics lecture series. This lectureship was originally established in 2004 with the purpose of supporting a distinguished visiting professor for the orthopaedic surgery resident graduation ceremony. In 2013 the lectureship evolved into the impressive annual full-day conference event that exists today.

Charles A. Rockwood, Jr., MD, founded the UT Health San Antonio Department of Orthopaedics, serves as Professor and Chairman Emeritus, and is Director of the Shoulder Service. Over the past 15 years, he has limited his private practice to the study and treatment of shoulder problems. He worked closely with DePuy Orthopaedics to develop the Global Shoulder Arthroplasty System and a post-operative home-based exercise shoulder rehabilitation program. More recently in collaboration with DePuy, he led a team of investigators in developing a second prosthetic device specifically designed to treat fractures of the shoulder. Dr. Rockwood graduated from the University of Oklahoma School of Medicine in 1956 and completed his orthopaedic residency at the Department of Orthopaedics at the University of Oklahoma in 1961. His academic honors include a fellowship in shoulder surgery with Dr. Charles Neer.
in New York City, recipient of the American-British-Canadian Fellowship Award in 1967, Honorary Fellowship, Royal College of Surgeons, Edinburgh, Scotland in 1993 and induction into the Oklahoma Hall of Fame in 1996. Dr. Rockwood is Past President of both the American Academy of Orthopaedic Surgeons as well as the American Shoulder and Elbow Surgeons. He also served as a colonel in the United States Air Force Reserve.

The most recent Charles A. Rockwood, Jr., MD, Lectureship occurred on June 17, 2016, and welcomed Bernard F. Morrey, MD. Dr. Morrey is the John and Posy Krehbiel Professor of Orthopedic Surgery and emeritus chair of the Department of Orthopaedics at the Mayo Clinic of Minnesota. He also holds the academic rank of Professor of Orthopaedics at UT Health San Antonio. He has served in a number of professional capacities, including Past President of the American Academy of Orthopaedic Surgeons, the American Orthopaedic Association, and the American Shoulder and Elbow Surgeons. Dr. Morrey’s primary orthopaedic interest is adult reconstructive surgery with particular emphases on the hip, knee and elbow. He holds nine patents for orthopaedic devices and has authored 12 major textbooks under four different titles, as well as authored over 415 peer-reviewed publications.

The 4th Annual Charles A. Rockwood, Jr., MD, Lectureship was a full day of resident, fellow, and faculty research presentations, resident case presentations and discussions with Dr. Morrey. Additionally, Dr. Morrey presented on “Current Concepts Regarding Prosthetic Options for Acute Elbow Trauma” during the morning session. He then presented on “Your Career as an Orthopaedic Surgeon: What Matters the Most” during the evening graduation ceremony.

Past Charles A. Rockwood, Jr., MD, Honorary Lecturers
2013.................................Marc Swiontkowski, MD
2014.................................James R. Andrews, MD
2015.................................Felix H. Savoie, III, MD
2016.................................Bernard F. Morrey, MD

HAND SURGERY FELLOWSHIP

The Hand Center of San Antonio was founded by David P. Green, MD. It is an academically oriented private practice group consisting of plastic and orthopaedic surgeons that represent diverse training backgrounds and multiple generations. Each attending surgeon is fellowship-trained in hand and microvascular surgery.

The one-year Hand Surgery Fellowship is ACGME-accredited through the Department of Orthopaedics at UT Health San Antonio. Four fellowships are allocated annually. The fellowship offers a broad experience in all conditions affecting the upper extremity, placing an emphasis on diagnosis, consideration of conservative management options, understanding of surgical indications, a mastery of and appreciation for basic surgical principles and the acquisition and refinement of microsurgical skills.

Fellows gain confidence in the operative and non-operative management of upper extremity fractures, peripheral nerve injuries and compressive neuropathy, reconstruction of degenerative conditions, microsurgical reconstruction of soft tissue defects and more. From fingertip to shoulder, fellows evaluate and treat a wide variety of conditions in children and adults.

Program Director: David W. Person, MD

David W. Person, MD, was born in Rochester, Minnesota. His family moved to Houston before his third birthday. He enrolled in the University of Texas at Austin (UT Austin) after graduating from Bellaire High School. Dr. Person graduated magna cum laude in biology from UT Austin and subsequently attended medical school at the University of Texas Southwestern Medical School on a military scholarship. It was in Dallas that he met and married his wife, Suzanne. They moved to San Antonio where Dr. Person took his internship and residency in general surgery at Brooke Army Medical Center (BAMC). In his last year of training their first daughter,
Madison, was born.

While serving our country, the Army took Dr. Person and his family to Wurzburg, Germany. He served a tour in Kosovo with the 67th Combat Support Hospital. Upon his return from Kosovo, he was assigned to the 67th Forward Surgical Team (a small, highly deployable surgical unit). In Germany, Dr. Person and his wife had their second daughter, Monroe. After two years in Germany, he was asked to return to BAMC as an attending surgeon. While serving at BAMC, he was deployed to Honduras and Kuwait. As his nine years of commitment came to a close, he prepared for specialized surgical training.

Dr. Person moved his family to study plastic and reconstructive surgery under Dr. Luis O. Vasconez at the University of Alabama at Birmingham. There they had their third daughter, Mary-McKinley. Dr. Person and his family moved back to San Antonio after two years of intense specialty training. At the Hand Center of San Antonio he subspecialized in hand and microsurgery.

Dr. Person’s clinical interests include surgery of the hand and wrist, reconstructive plastic surgery and reconstructive microsurgery. He has particular interest and expertise in endoscopic carpal tunnel surgery. He is board certified in plastic surgery and holds a certificate of sub-specialization in hand surgery.

SHOULDER AND ELBOW FELLOWSHIP

The Department of Orthopaedics Shoulder and Elbow Fellowship was created in 1981 with the intent of developing a rational approach to the diagnosis and treatment of shoulder and elbow disorders. The focus of the fellowship is on clinical and surgical education in the arenas of shoulder arthroplasty, shoulder arthroscopy, shoulder trauma, humerus trauma, elbow trauma, elbow arthroplasty, and elbow arthroscopy. This is a one-year program with support for two fellows under the direction of Dr. Michael A. Wirth. The fellows will alternately rotate on Dr. Wirth’s service and on the services of Drs. Dutta, Morrey, and Burkhart, as well as assist Dr. John Hinchey with surgical procedures at the VA Hospital. Fellows are also assigned to an outpatient care clinic with faculty supervision. In addition to aiding with surgical procedures, the fellowship also involves serving as a Clinical Instructor for the Department, assisting with medical education in the Upper Extremity Service, and participating in relevant weeks of the citywide Orthopaedic Grand Rounds Teaching Conference. Fellows are expected to spend a portion of their year conducting research with the aim of producing at least one publication. Along with University Hospital and the VA Hospital, fellows may rotate at UT Medicine San Antonio, Medical Arts & Research Center - UHS Surgery Center, Methodist Ambulatory Surgical Hospital, North Central Baptist Hospital, Foundation Surgical Hospital, San Antonio Orthopaedic Surgery Center, and CHRISTUS Santa Rosa Hospital.

Program Director: Michael A. Wirth, MD

Michael A. Wirth, MD, Professor of Orthopaedics and the Charles A. Rockwood, Jr., MD Chair on the Shoulder Service of the Orthopaedic Department of UT Health San Antonio, specializes in the treatment of traumatic and chronic injuries to the shoulder. His surgical expertise includes single and complex fractures of the shoulder, recurrent subluxation/dislocation of the shoulder, involuntary and multidirectional instability of the shoulder, rotator cuff tears, shoulder impingement syndrome and frozen shoulder, as well as degenerative and arthritic problems of the shoulder. Dr. Wirth’s treatment protocol includes both conservative and surgical strategies, including pre and post-operative home-based exercise programs for rehabilitation of the shoulder. He also offers expert surgical consultation for the following: total and hemiarthroplasty (total or partial replacement of the shoulder), reverse total shoulder, capsular shift reconstruction, rotator cuff repair, sternoclavicular joint repair, revision of shoulder arthroplasties and arthroscopic procedures.

Dr. Wirth’s research over the last several years centers on the body’s response to implant materials, including
diamond-like carbon coatings on total joint substrate materials and biodegradable suture anchors. In an effort to extend the effectiveness of joint implants, he is evaluating various types of fixation of glenoid prosthetic devices and studying the quantitative wear characteristics of ion-implanted ultrahigh molecular weight polyethylene. He continues to be a team investigator for the design of shoulder replacement systems including prosthetic devices specifically designed to treat fractures and cuff tear arthropathy.

Dr. Wirth’s academic honors include a shoulder fellowship in 1990-91 with Dr. Charles A. Rockwood, and the American Shoulder and Elbow Surgeons Traveling European Fellowship in 1995. Dr. Wirth was one of seven orthopaedic surgeons from Canada and the United States selected for the American-British-Canadian Orthopaedic Fellowship in 1997. In 2003 he was awarded the Charles A. Rockwood, Jr., MD Chair in Orthopaedics. Dr. Wirth is ranked in the top 1% in the nation as a shoulder specialist by US News and World Report.

Dr. Wirth has made numerous contributions to the orthopaedic literature as an editor, contributing author and reviewer for medical journals, as well as the textbooks - *The Shoulder*, *Fractures in Adults*, and *An Atlas of Shoulder Surgery*. He has contributed more than 60 book chapters, monographs, and surgical teaching videos and has more than 60 journal publications pertaining to the shoulder.

SPORTS MEDICINE FELLOWSHIP

The UT Health San Antonio Sports Medicine Fellowship provides a well-balanced surgical and clinical experience for recent orthopaedic residency graduates under the direction of Dr. David R. Schmidt. Two fellowship spots are available annually. The fellows works closely with orthopaedic and primary care sports medicine physicians, athletic trainers, and physical therapists during this intense one-year training program. The fellows gain experience in clinic-based medical care as well as injury management on the sideline for local professional, collegiate, and high school athletes.

Given the prevalence of upper and lower extremity injuries among athletes, the surgical experience is significant and includes both arthroscopic and open procedures to both limbs. Routine procedures include, but are not limited to, primary and revision ligament reconstruction, arthroplasty of the knee and shoulder, advanced cartilage procedures and osteotomies of the knee. With faculty instruction and mentorship, the incumbent fellow performs and assists on numerous cases with ample exposure to complex knee and shoulder injuries at the Regional Level-I Trauma Center. Although based primarily at two well-established local private practices, there is significant time spent in the academic setting at UT Health San Antonio as well as athletic training room coverage and Saturday clinics during football season to provide first hand exposure to unique sports pathology.

The overall experience is primarily clinical, however, there is support to engage in clinical and/or basic science research projects leading to publication submission; at least one project suitable for publication prior to fellowship completion is expected.

**Program Director: David R. Schmidt, MD**

David R. Schmidt, MD, received his medical degree and completed his residency in orthopaedic surgery at UT Health San Antonio where he was named the 2002 Distinguished Medical Alumnus. He completed fellowships in sports medicine and knee surgery in Australia and New Zealand.

Dr. Schmidt has been in private practice since 1986. He served as physician for the U.S. Olympic Festival, the World University Games in Japan, the Olympic Games in Atlanta and the NBA All-Star Game. He currently serves as the team physician for the NBA San Antonio Spurs, the University of Texas at San Antonio (UTSA), Trinity University and several local high schools. Dr. Schmidt specializes in injuries to the knee and frequently performs arthroscopic ACL reconstruction, cartilage
repair and restoration, meniscal transplantation, and total knee replacement surgeries.

He was named the National Basketball Athletic Trainers Association Team Physician of the Year in 2004, and was awarded the 2007 Dr. Ernst Jokl Sports Medicine Award by the United States Sports Academy. He is President Elect of the NBA Physicians Association.

Dr. Schmidt is Board Certified by the American Board of Orthopaedic Surgery and is a fellow of the American Academy of Orthopaedic Surgeons. His expertise is in knee surgery and cartilage repair/restoration.

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**BACKGROUND/INTRODUCTION**

Adults with type 2 diabetes (T2D) need solutions to reduce fracture risk because they have a 50-70% higher hip fracture risk and 20-30% higher spine fracture risk than non-diabetic patients.1,2 These fractures are perplexing because obesity is typically protective of fractures and bone mineral density (BMD) is normal in the vast majority of diabetic subjects. A growing body of circumstantial evidence links microvascular complications with skeletal fragility in T2D. For example, diabetic fractures are significantly associated with diabetic retinopathy, lower BMD, and increased cortical porosity. It is unclear, however, if diabetic skeletal fragility is associated with vascular complications in actual bone. Vascular endothelial growth factor (VEGF) is a key signaling protein responsible for angiogenesis and vascular homeostasis, and is required for bone remodeling. Osteoblasts and several other cell types express VEGF. Several members of the VEGF family exist. VEGFA is the most common and it is responsible for angiogenesis and vasculogenesis. Less is known about VEGFB but recent studies suggest that it plays a significant role in vascular survival. No data exist on VEGF expression patterns in non-injury diabetic models. Disease and injury models show that VEGF expression is significantly increased in diabetic retinopathy and nephropathy but is significantly decreased in wound healing and diabetic rodent bone marrow. Insulin-stimulated increased VEGF expression improves fracture healing. This study investigates VEGF and VEGF receptor signaling in diabetic subjects. We hypothesize that VEGF signaling will be impaired in human diabetic bone tissue compared to non-diabetic tissue.

**MATERIALS & METHODS**

**SUBJECTS**

- Spine tissue was collected from human subjects undergoing decompression laminectomies. Inclusion criteria: (i) ≥50 yrs of age, (ii) either diabetic or non-diabetic.
- Exclusion criteria: (i) previous spine surgeries, (ii) use of anti-osteoporosis medications, (iii) current use of glucocorticoids for more than 3 months, (iv) use of thiazolidinediones, (v) history of bone metastases, (vi) hyper-/hypo-parathyroidism, (vii) HIV/AIDS, (viii) illicit drug use in the last 25 yrs.
- This study was approved by the Institutional Review Board of the University of Texas Health Science Center at San Antonio. Standard of care procedures were used at all times.

**HISTOLOGY AND IMMUNOHISTOCHEMISTRY**

- Samples were fixed in 10% neutral buffered formalin, decalcified in EDTA and embedded in paraffin.
- Immunohistochemistry of bone sections used a proteinase K digestion (Sigma, 20 μg/ml) followed inhibition of endogenous peroxidases with H2O2. Non-specific proteins were blocked with bovine serum albumin and followed by incubation in the primary antibody for 1 hr at room temperature.

**RT-PCR**

- Laminectomy tissue was collected immediately from surgery and snap frozen in liquid nitrogen.
- Standard RNA isolation procedures performed on up to 100 mg of bone sample.
- Relative mRNA levels of VEGF cytokines and receptors were normalized to the reference housekeeping gene GAPDH at the same time in the same sample. Primer sources are listed in results.

**MICROCT**

- High-resolution X-ray CT data of fresh specimens were acquired with μCT (Bruker SkyScan). Tissue mineral density was measured for each sample.

**RESULTS**

- 6 non-diabetic and 7 diabetic subjects were consented for this study to date.
- Diabetic subjects had significantly increased HgA1c compared to non-diabetic subjects (7.1% vs. 5.8%).
- Serum Vitamin D (25-OH) & glomerular filtration rates were similar in diabetic & non-diabetic subjects. 33% or less smoked in each group.
- Metformin used by 71% of the diabetic subjects. Statins were used by 66% and 85% of non-diabetic & diabetic subjects, respectively.
- VEGFA & VEGFB relative expression were significantly decreased in diabetic subjects (Figs. 1,2).
- VEGFR1 relative mRNA expression was significantly increased in diabetic subjects. VEGFR2 expression trended lower in diabetic subjects (P=0.05).
- No differences in bone tissue mineral density were observed between groups.
DISCUSSION

Here we report preliminary, hypothesis-building results from a practice-based network research project investigating the impact of T2D on VEGF signaling in human diabetic bone. We continue to recruit subjects and build on these results. Our data suggest that VEGFA and B expression in bone is decreased significantly in adults with T2D. Also, VEGFR1, the primary receptor for VEGFB, a critical protein in blood vessel homeostasis, is significantly increased. VEGFR2, the primary receptor for VEGFA, the cytokine primarily responsible for angio- and vasculo-genesis, shows a strong decrease in expression. The divergent receptor expression patterns in response to diabetes and decreased ligand expression require further study.

These results provide the first indications of potential microvascular complications in diabetic bone at the bone tissue level. Osteoblasts, among other cells, are primary producers of VEGFA and in vitro animal model experiments suggest that chronic hyperglycemia causes a decrease in osteoblast VEGFA expression 6. It is unknown whether hyperglycemia has a similar effect on human osteoblasts or osteocytes. As VEGFA is required for bone remodeling, these data further suggest that this process is impaired in diabetic bone. Sample size is a limitation of this study to date. Moreover, this study does not demonstrate a direct link between VEGF signaling and diabetic bone fragility. Data are severely lacking on this topic; more are necessary to confirm our findings.

REFERENCES

BACKGROUND/INTRODUCTION
Megaprostheses have been used since the 1970s for the reconstruction of large skeletal defects after radical tumor resection, major trauma, and major revision arthroplasty. Traditionally, megaprostheses came as one solid custom-made steel monoblock with a cemented stem and have evolved today to titanium and chrome-cobalt modular reconstructions with multiple stem options. The advantages of these evolutions are multifaceted and include the ability to lengthen the prosthesis after primary surgery, decrease rates of aseptic loosening, and decrease rates of stem breakage, leading the cause of revision surgery after the introduction of megaprostheses1,2. Because megaprostheses are a rapidly changing and improving science, every company that produces orthopaedic implants has its own version of a megaprostheses. With these different options on the market, the decision as to which implant to choose falls on hospital availability and the orthopaedic surgeon. The primary goal of this research is to establish what factors are most influential on a surgeon when he or she selects an implant. Secondary goals of the research are to identify any trends in implant selection.

MATERIALS & METHODS
SURVEYS
- Surveys were mailed to 25 members of the Musculoskeletal Oncology Research initiative (MORI).
- A clinical scenario of an otherwise healthy pediatric patient with a distal femoral osteosarcoma was presented.
- Based on the scenario, participants were asked to indicate the implant manufacturer as well as the type of preferred femoral stem.
- Respondents were asked to provide a ranking from “Very Unimportant” (0 points) to “Very Important” (4 points) on how impactful ten preselected factors were on their selection of an implant.
- The surveys also requested additional information regarding participants’ practice information and the specific factors that could affect their implant selections.
- Responses from each orthopaedist were averaged to determine the importance of each factor in selecting a megaprostheses.

Information Requested In The Survey

Orthopaedic Oncologist’s Practice Information
Location of practice (state)
Type of practice (private vs. academic)
Number of limb salvage surgeries involving megaprostheses performed annually (1-5, 6-15, >16)

Identification Of Orthopaedic Oncologists’ personal preferences affecting implant selection
Implant was used primarily in residency and/or fellowship training
Implant is least expensive option offered by the hospital
Availability of other implant options at the hospital (1, 2, 3, 4+)
Comfort level using an implant from another company
Receives royalties from chosen implant company

Ranking Of Factors’ Perceived Importance On Implant Selection
Cheapest cost to hospital
Cheapest cost to patient
Ease of use
Good working relationship with representative
Modularity to add segments
Patient outcome
Required due to hospital contract
Used in fellowship training
Used in residency training
Worked as consultant for implant company

RESULTS
- 25 orthopaedic oncologists completed and returned the survey.
- The majority of participants work in academia (88%), perform between 6-15 megaprostheses surgeries annually (56%), and have 4 or more implant choices available to them (72%).
- “Patient Outcome” was rated as the most important factor when selecting an implant (3.52/4.00), followed closely by “Ease of Use” (3.28/4.00) and “Modularity to Add Segments” (3.16/4.00).
- 88% of respondents selected either Stryker or Biomet-Compress implants.
- 21 out of 25 respondents chose an implant that they had used in residency training, fellowship training, or both.
DISCUSSION

This research attempted to determine the factors influencing orthopaedic oncologists’ choice of megaprostheses. In response to a clinical scenario, participants reported that patient outcome, ease of use, and modularity to add segments were the three most important factors impacting selection of an implant. Conversely, working as a consultant for the implant company was the least influential factor in implant selection. Previous experience with a specific implant in residency training, fellowship training, or both, appears to be a significant underlying contributor to comfort level with that implant. It is possible that the participants are unaware of how influential training experience can be on their selection of an implant, as they reported that the outcome of the patient was the most important factor. Residency and fellowship training programs should be mindful of the long-term effect they likely have on which implants orthopaedic oncologists choose after leaving their training programs.

Surprisingly, 64% of participants responded that they do not know the cost of the implant they had selected. With an increased national focus on high-value, cost-conscious healthcare, future research should examine whether increases in cost awareness affect implant selection.

Due to a lack of power, further analyses could not be reported. However, surveying additional surgeons at more institutions will provide further insight into the factors influencing implant selection.

REFERENCES

BACKGROUND/INTRODUCTION
Reverse total shoulder arthroplasty has been shown to provide good results for pain control and functional outcome for cuff tear arthroplasty (CTA).1-4 Yet long-term studies have demonstrated declining outcomes with time, a high complication rate and lower satisfaction rates in young patients.5,6 For this reason, hemiarthroplasty can be considered for young patients or active older patients who have painful CTA without pseudoparalysis and fail conservative management.

Preoperative forward elevation greater than 90° has been previously reported as a positive prognostic indicator.4 Aside from this, little is known about how to predict which patients may achieve satisfactory results and which patients might be better served with reverse total shoulder arthroplasty (RTSA).

The purpose of this investigation is to assess which patient factors are correlated with a minimum clinically important difference (MCID) from preoperative to latest outcome scores. The factors that were investigated include type of implant, preoperative range of motion and function, pain level, and radiographic findings.

MATERIALS & METHODS
SUBJECTS
• Patients being treated for cuff tear arthropathy between July 1991 and January 2007 were recruited.
• Inclusion criteria: radiographic findings typical of cuff tear arthropathy
• Exclusion criteria: (i) glenohumeral arthritis with reparable cuff tears in shoulders without typical CTA radiographic findings, (ii) pseudoparalysis of shoulder, (iii) active infection, (iv) inflammatory arthritis
OUTCOME MEASURES
• Clinical assessments were performed preoperatively and at yearly intervals postoperatively.
• Measurements included: (i) Simple Shoulder Test (SST), (ii) visual analog scale (VAS) to record pain, (iii) active external rotation (AER), (iv) active total elevation (ATE).
• Minimum clinically important difference (MCID) in SST score was calculated as 30% of the difference between preoperative SST score and maximum achievable SST score.

SURGERY
• The specific type of humeral head prosthesis (CTA-specific head vs. conventional humeral head) was selected at the operating surgeon’s discretion.
• Post-operative physician-directed rehabilitation program was recommended for all patients.

RADIOGRAPHIC ANALYSES
• Radiographs were obtained preoperatively, immediately post-surgery, and at annual follow-ups visits.
• Images were evaluated with an axillary view and a true anteroposterior (AP) view perpendicular to the plane of the scapula with the humerus externally rotated to 30°.
• Measurements included: (i) acromiohumeral (AH) interval, (ii) medial glenoid erosion classified as mild, moderate, or severe, (iii) glenohumeral subluxation classified as mild, moderate, or severe, (iv) shoulder classification (1a, 1b, 2a, 2b) according to Seebauer.9

ANALYSES
• Fisher’s exact test was used to test whether categorical data differed between groups.
• ANOVA tests were used to compare means between conventional and CTA-specific prosthesis groups.
• Patients with improvement in SST scores greater or equal to MCID were compared to patients with improvement in SST scores less than MCID. These groups were tested for between-group differences using univariate logistic fit for continuous variables and likelihood ratios for categorical variables.

RESULTS
• 21 patients received a conventional humeral head replacement while 21 patients received a CTA-specific head.
• SST scores, visual analog scores, forward elevation, and external rotation were significantly improved at time of latest follow-up in patients with either head type.
• Radiographs at latest follow-up showed no difference between conventional and CTA groups with regard to AH interval, medial glenoid erosion, or anterior subluxation.
• Age, gender, and history of previous surgeries did not correlate with a likelihood of clinical success.
• Preoperative active external rotation was significantly lower in
patients who achieved MCID (13° ± 18°, range -40° - 45°) compared to the group that did not achieve MCID (36° ± 8°, range 20° - 45°; p < 0.0001).

- The number of torn rotator cuff tendons was significantly different between those shoulders achieving MCID and those that did not (p = 0.0007).

### Table 1: Clinical Outcomes by Implant Type

<table>
<thead>
<tr>
<th>Outcome Measures</th>
<th>Preoperative</th>
<th>Latest Follow-Up</th>
<th>Change</th>
<th>(p-value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SST Score (0-12)</td>
<td>All Patients 3.4 ± 2.9</td>
<td>8.3 ± 2.7</td>
<td>4.9 (p&lt;0.001)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CTA Head 3.6 ± 3.1</td>
<td>8.3 ± 3.1</td>
<td>4.7 (p&lt;0.001)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Conventional Head 3.3 ± 2.8</td>
<td>8.3 ± 2.3</td>
<td>5.0 (p&lt;0.001)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>p=0.818</td>
<td>p=0.809</td>
<td></td>
<td></td>
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<tr>
<td>Level of Pain (0-100)</td>
<td>All Patients 59.2 ± 38.5</td>
<td>14.1 ± 17.5</td>
<td>-45.1 (p&lt;0.001)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CTA Head 60.7 ± 31.9</td>
<td>11.4 ± 19.4</td>
<td>-69.3 (p&lt;0.001)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Conventional Head 57.8 ± 25.4</td>
<td>16.8 ± 15.4</td>
<td>-41.0 (p&lt;0.001)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>p=0.686</td>
<td>p=0.105</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pain at Rest (0-100)</td>
<td>All Patients 44.9 ± 31.0</td>
<td>5.5 ± 11.5</td>
<td>-39.4 (p&lt;0.001)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CTA Head 38.3 ± 34.4</td>
<td>4.5 ± 12.5</td>
<td>-33.8 (p&lt;0.001)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Conventional Head 51.5 ± 26.5</td>
<td>6.5 ± 10.5</td>
<td>-45.0 (p&lt;0.001)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>p=0.130</td>
<td>p=0.282</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Active Elevation (*)</td>
<td>All Patients 75.7 ± 38.1</td>
<td>113.3 ± 37.1</td>
<td>37.6 (p&lt;0.001)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CTA Head 68.3 ± 39.2</td>
<td>111.9 ± 39.2</td>
<td>43.6 (p&lt;0.001)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Conventional Head 83.1 ± 36.5</td>
<td>114.8 ± 35.9</td>
<td>31.7 (p=0.003)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>p=0.172</td>
<td>p=0.772</td>
<td></td>
<td></td>
</tr>
<tr>
<td>External Rotation (*)</td>
<td>All Patients 18.0 ± 19.1</td>
<td>37.1 ± 16.2</td>
<td>19.1 (p&lt;0.001)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CTA Head 20.5 ± 14.0</td>
<td>39.8 ± 17.0</td>
<td>19.3 (p=0.012)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Conventional Head 15.5 ± 23.2</td>
<td>34.5 ± 15.4</td>
<td>29.0 (p=0.006)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>p=0.694</td>
<td>p=0.600</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**DISCUSSION**

This study assessed prognostic factors for functional improvement in patients with cuff tear arthropathy in the absence of pseudoparalysis who underwent shoulder hemiarthroplasty. No evidence was found that CTA-specific prostheses deliver superior patient outcomes when compared to conventional hemiarthroplasty. However, across all patients, clinically significant improvement in functional scores were more likely in patients with decreased preoperative active external rotation. This suggests that patients with limited external rotation are more likely to obtain significant functional gains from hemiarthroplasty, regardless of the prosthesis type. In addition, all 16 patients with two-tendon rotator cuff tears achieved clinical success in terms of MCID while patients with three- or four-tendon tears were less likely to obtain MCID. These factors may influence the clinician to consider other options, such as muscle transfers or RTSA in shoulders with more extensive tendon involvement.

One specific limitation of this study was that patients in the CTA-specific group had a significantly shorter length of follow-up, as this prosthesis was introduced at a later date.

**REFERENCES**

The following scoring systems were recorded:

- Consumer Assessment of Healthcare Providers and Systems (CAHPS) Cultural Competence (CC) item set
- SF-36v2
- Questionnaire of Perceived Injustice (QPI)
- Pain Catastrophizing Scale (PCS)

RESULTS

- Hispanic patients showed significantly better SF-36v2 Physical Component Summary scores.
- In contrast, the SF-36v2 Mental Component Summary score trended lower and the Mental Health scale was significantly lower in Hispanics.
- The Questionnaire of Perceived Injustice trended towards worse outcomes among Hispanics (21.4 ± 11.7 versus 17.3 ± 14.3, p=0.4) without being statistically significant.
- The Pain Catastrophizing Scale did not demonstrate any significant differences or trends between the two groups.
- A power analysis demonstrated that a total of 126 patients would be required in both the Hispanic and non-Hispanic white groups in order to have an 80% probability of detecting a difference between the two groups at the level of p=0.05.

Table 1. SF-36v2 scores (0-100) in Caucasian and Hispanic patients. Where a lower score equates to higher disability.

<table>
<thead>
<tr>
<th></th>
<th>Caucasian</th>
<th>Hispanic</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Function</td>
<td>25.8 ± 27.2</td>
<td>32.6±32.7</td>
<td>0.44</td>
</tr>
<tr>
<td>Role-Physical</td>
<td>13.5 ± 14.3</td>
<td>24.3±29.8</td>
<td>0.14</td>
</tr>
<tr>
<td>Bodily Pain</td>
<td>36.4±16.2</td>
<td>35.6±20.7</td>
<td>0.89</td>
</tr>
<tr>
<td>General Health</td>
<td>64.8 ± 13.7</td>
<td>67.2±22.2</td>
<td>0.67</td>
</tr>
<tr>
<td>Vitality Scale</td>
<td>48.4 ±22.3</td>
<td>50.0±22.2</td>
<td>0.84</td>
</tr>
<tr>
<td>Social Functioning</td>
<td>52.1±27.6</td>
<td>38.4±30.8</td>
<td>0.18</td>
</tr>
<tr>
<td>Role-Emotional</td>
<td>57.6±34.2</td>
<td>58.0±39.3</td>
<td>0.97</td>
</tr>
<tr>
<td>Mental Health</td>
<td>76.7±16.6</td>
<td>61.3±23.3</td>
<td>0.03*</td>
</tr>
<tr>
<td>Physical Component</td>
<td>30.2±6.2</td>
<td>30.2±6.2</td>
<td>0.05*</td>
</tr>
<tr>
<td>Summary</td>
<td>50.8±10.9</td>
<td>44.5±13.4</td>
<td>0.14</td>
</tr>
</tbody>
</table>
DISCUSSION

Despite their important representation, the Hispanic population has been poorly studied in the orthopaedic trauma literature. This pilot study suggests that Hispanic patients may perceive themselves as unfairly treated. Additionally, Hispanic patients seem to score lower with regards to their mental health and social functioning despite favorable scores on the physical scales. Despite these interesting findings, larger clinical investigations with more than 126 patients in each arm will be required to confirm these trends.

REFERENCES

BACKGROUND/INTRODUCTION

Outcomes data are critical for assessing treatments and techniques in orthopaedic surgery. They are also increasingly required for certification of federally recognized programs of clinical excellence (i.e., Comprehensive Care for Joint Replacement Program). Significant practical barriers to outcomes data collection exist, including: time, costs, logistics related to data collection, storage, accessibility and patient follow-up. The Harris Hip Score (HHS) and the American Knee Society Score (AKSS) are established and reliable standards for outcomes in total hip (THA) and total knee arthroplasty (TKA), respectively. These outcome surveys are divided into two sections: (1) the physical exam and (2) the patient reported joint function as it pertains to lifestyle. The current study aims to establish the utility of data collected in standard office visits in patients undergoing THA and TKA at a single academic institution, in the absence of a formal registry, as it pertains to the HHS and KSS.

<table>
<thead>
<tr>
<th>Table 1. HHS and KSS Specifics</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Harris Hip Score</strong></td>
</tr>
<tr>
<td>Hip Movement Metrics</td>
</tr>
<tr>
<td>&lt;30° Fixed Flexion</td>
</tr>
<tr>
<td>&lt;10° fixed int. rotation in ext.</td>
</tr>
<tr>
<td>&lt;10° fixed adduction</td>
</tr>
<tr>
<td>Limb Length discrepancy &lt; 3.2 cm</td>
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<td></td>
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<tr>
<td></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td><strong>American Knee Society Score</strong></td>
</tr>
<tr>
<td>Functional Metrics</td>
</tr>
<tr>
<td>Distance Walked (in blocks)</td>
</tr>
<tr>
<td>Ability to climb stairs</td>
</tr>
<tr>
<td>Use of walking aids</td>
</tr>
<tr>
<td></td>
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</tbody>
</table>

RESULTS

- Follow-up adherence for THA patients drops by approximately 50% at one year and 70% by two years.
- In similar fashion, follow-up adherence for TKA drops by approximately 50% at one year and over 75% by two years.
- Harris Hip Score
- Overall, less than 60% of the HHS variables were collected per patient encounter.
- American Knee Society Score
- Overall, less than 40% of the AKSS variables were collected per patient encounter.
DISCUSSION

The majority of office visits reviewed during the 2009-2012 interval did not produce enough data to formulate standardized outcome measures. At best, 40% to 60% of any Harris Hip Score or Knee Society Score section was collected during patient encounters. The results indicate sections of the Harris Hip Scores and American Knee Society Scores that are most often excluded from the electronic medical record. There appear to be unknown challenges to collecting hip movement metrics of the Harris Hip Score. Poor patient follow-up at one- and two-years is a potent challenge to establishing longitudinal assessments of standardized outcome measures. The underlying causes of this poor adherence needs to be further investigated. This study provides an initial road map for quality improvement in standardized outcomes measures for adult reconstruction procedures in hip and knee arthroplasty. These improvements will be critical for the long-term establishment of centers of excellence.

REFERENCES

BACKGROUND/INTRODUCTION
Limited data suggest that minority populations experience poorer outcomes following total knee arthroplasty (TKA) procedures. TKA outcomes among Hispanics are not well documented in the literature despite the fact that they represent almost 50% of the population of the 3 largest counties in Texas and are projected to become the 2nd largest racial/ethnic group by 2050. Some evidence from large healthcare database analyses suggests that post-operative complications and revisions are more common among Hispanics compared to non-Hispanic whites, however there is a lack of evidence from small high-volume practices which could provide pertinent TKA outcomes in minority populations and help reduce the economic burden incurred by revision TKAs. Here, we report on initial findings of a retrospective and prospective study investigating the impact of race/ethnicity, implant type, diabetes and BMI on TKA outcomes.

MATERIALS & METHODS
• Study sample originates from a high volume, single surgeon practice
• Retrospective and prospective chart review of surgical procedures (2009-2015)
• Per approved IRB protocol(s), abstracted patient data entered to RedCap database
• Data presented here is 315 of 496 TKA unilateral or bilateral surgical events (63.5% data analyzed to date)
• Patient data documented: age, sex, race/ethnicity, implant type, comorbidities, insurance status, surgery type (primary or revision) and potential complications noted: (1) implant loosening, (2) radiolucencies, (3) infection and (4) manipulations under anesthesia)
• Primary outcome variables: need for surgical revision and secondarily, revision due to infection

<table>
<thead>
<tr>
<th>Variable</th>
<th>Hispanic</th>
<th>Non-Hispanic</th>
<th>Unknown</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>B/L Knees</td>
<td>1</td>
<td>7</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>Left Knee</td>
<td>40</td>
<td>60</td>
<td>21</td>
<td>121</td>
</tr>
<tr>
<td>Right Knee</td>
<td>64</td>
<td>85</td>
<td>32</td>
<td>181</td>
</tr>
<tr>
<td>Total Patients</td>
<td>105</td>
<td>152</td>
<td>54</td>
<td>311</td>
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<table>
<thead>
<tr>
<th>Variable</th>
<th>Female</th>
<th>Male</th>
<th>TOTAL (Patients)</th>
<th>P-Value</th>
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<tbody>
<tr>
<td>Age (years)</td>
<td>60.7 (N=205)</td>
<td>60.3 (N=107)</td>
<td>313 (2 missing)</td>
<td>0.73</td>
</tr>
<tr>
<td>BMI</td>
<td>32.9 (N=204)</td>
<td>31.8 (N=107)</td>
<td>313 (3 missing)</td>
<td>0.21</td>
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<tr>
<td>Diabetes</td>
<td>No 166 (81%)</td>
<td>73 (68%)</td>
<td>240 (76%)</td>
<td>0.02</td>
</tr>
<tr>
<td></td>
<td>Yes 40 (19%)</td>
<td>35 (32%)</td>
<td>74 (24%)</td>
<td></td>
</tr>
<tr>
<td>Revision</td>
<td>No 198 (96%)</td>
<td>99 (92%)</td>
<td>298 (95%)</td>
<td>0.16</td>
</tr>
<tr>
<td></td>
<td>Yes 8 (4%)</td>
<td>9 (8%)</td>
<td>17 (5%)</td>
<td></td>
</tr>
<tr>
<td>Implant Type</td>
<td>Metal 94 (46%)</td>
<td>55 (51%)</td>
<td>150 (48%)</td>
<td>0.31</td>
</tr>
<tr>
<td></td>
<td>All-Poly 110 (53%)</td>
<td>51 (47%)</td>
<td>161 (51%)</td>
<td></td>
</tr>
<tr>
<td>TOTAL (Patients)</td>
<td>206</td>
<td>108</td>
<td>315</td>
<td></td>
</tr>
</tbody>
</table>
RESULTS

STRATIFIED DATA BASED ON ETHNICITY:
- Hispanics have higher prevalence of:
  - Type II diabetes mellitus
  - Post-operative infections
  - Revision (2X non-Hispanic)
- Chi-square analysis indicated an increased risk among Hispanics for TKA revision (all causes) surgery (p=0.019).
- Revision biased toward metal implants.

STRATIFIED DATA INDEPENDENT OF ETHNICITY:
- Males are at higher risk for revision than females.
- Infection is the primary complication associated with revision.
- Patients requiring manipulation under anesthesia (MUA) are more likely to undergo revision.

<table>
<thead>
<tr>
<th>Table 3. Ethnicity</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Variable</td>
<td>Hispanic</td>
</tr>
<tr>
<td>Gender</td>
<td>Female</td>
</tr>
<tr>
<td></td>
<td>Male</td>
</tr>
<tr>
<td>Diabetes</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Revision</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Implant Type</td>
<td>Metal</td>
</tr>
<tr>
<td></td>
<td>All-Poly</td>
</tr>
<tr>
<td>TOTAL (Patients)</td>
<td>107</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table 4. Revision</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Variable</td>
<td>Revision</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>Hispanic</td>
</tr>
<tr>
<td></td>
<td>Female</td>
</tr>
<tr>
<td></td>
<td>Male</td>
</tr>
<tr>
<td>Implant Type</td>
<td>Metal</td>
</tr>
<tr>
<td></td>
<td>All-Poly</td>
</tr>
</tbody>
</table>

DISCUSSION

Data analysis strongly suggests that Hispanics are at a greater risk for revision surgery after TKA and these results are biased towards those who received a primary metal backed tibial prosthesis. Additionally, revisions in this group were associated with infection and the need for MUA. This study corroborated previous studies that reported underutilization of TKA among Hispanics because they represented 1/3 of study population despite constituting at least 2/3 population in San Antonio, Texas. A limitation of this study is the fact that only a single orthopaedic surgeon’s patient population was included; however, future efforts will be expanded to analyze patients from surgeons throughout the city of San Antonio. Further investigations are underway to explore associations between insurance status, zip codes as well as prospective surgical outcome follow up.

| Table 5. Logistic Regression on revision surgery |  |
| Variable          | OR   | CI (95%) | P-Value |
| Age              | 1.00 | (0.95, 1.06) | .8906 |
| Hispanic         | 3.50 | (1.23, 9.96) | .0191 |
| BMI              | 0.99 | (0.91, 1.07) | .8087 |
| Diabetic (Yes/No)| 1.36 | (0.45, 4.13) | 54 |
| Implant Type (Metal/Poly) | 0.43 | (0.14, 1.31) | .1377 |

REFERENCES
BACKGROUND:
- Patient discharge time is a multifactorial event that represents coordinated efforts among clinicians, social work/case management, and physical therapy.
- Additional challenges exist for patients that require transfer to external rehabilitation/skilled nursing facilities.
- In collaboration with the nursing team of SKY 10, a LEAN metric program was initiated to identify the barriers to optimize discharge statistics.
- The goal is to identify the potential impact-specific barriers to timely discharge, provide the nursing team with valuable recommendations to improve care delivery and clinician communication, as well as decrease length of stay and the associated costs.

PROJECT APPROACH:
- Patient discharge metrics collected by SKY 10 nursing team since July 2014.
- Using PDSA approach (Plan, Do, Study and Adjust), data collected using Pareto charts compared discharge time goals for Orthopaedic/Trauma service along with 13 other services whose patients stay on SKY 10 (e.g., 40% discharges by 1pm).
- This analysis focused on three metrics: (1) Orthopaedic discharge time within 2 hours of activation order, (2) 40% of discharges by 1 PM, and (3) 40% of patient discharge orders written by 9 AM.
- Data presented here are from March 2015 to March 2016.

RESULTS

Metric #1 – 80% Orthopaedic Trauma discharges are on time (within 2 hours activation of order)
- Five specific barriers to timely discharge were identified; these barriers are responsible for 75% of all late discharges.
- Approximately 1/2 of discharge delays are due to patient readiness, transportation and DME delivery challenges.
- All categories show increasing or stable trends except Transportation.
- Discharge performance in Orthopaedic Trauma is excellent, but these data provide an opportunity to create initiatives for improvement.

Metric #2 – 40% of 10th floor discharges leaving before 1pm (also measured at 11am and 3pm)
- Less than 40% of discharges occurred by goal time.
- Top 5 barriers accounted for 75% of all discharge delays; patient readiness and transportation issues were the top two barriers.
Metric # 3 – 40% of discharges written before 9am

- Less than 20% of discharge orders are written by 9 AM.
- Frequency of many barriers remained the same or decreased; 3 increased: (i) Pt not seen by MD, (ii) Pain control, and (iii) Prescription delays.
- Increasing numbers of patients on the floor makes it difficult to comply with this metric.

### Barriers to Discharge Before 9AM

<table>
<thead>
<tr>
<th>Barriers to Discharge</th>
<th>Q1 %</th>
<th>Q2 %</th>
<th>Q3 %</th>
<th>Q4 %</th>
<th>TL %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waiting on labs</td>
<td>12%</td>
<td>8%</td>
<td>4%</td>
<td>2%</td>
<td>28%</td>
</tr>
<tr>
<td>Waiting on PT</td>
<td>19%</td>
<td>12%</td>
<td>5%</td>
<td>0%</td>
<td>36%</td>
</tr>
<tr>
<td>Pt not seen by MD</td>
<td>28%</td>
<td>17%</td>
<td>6%</td>
<td>15%</td>
<td>66%</td>
</tr>
<tr>
<td>Waiting on plan of care</td>
<td>36%</td>
<td>23%</td>
<td>3%</td>
<td>4%</td>
<td>66%</td>
</tr>
<tr>
<td>Case management</td>
<td>14%</td>
<td>6%</td>
<td>9%</td>
<td>7%</td>
<td>20%</td>
</tr>
<tr>
<td>Pain Control</td>
<td>25%</td>
<td>21%</td>
<td>18%</td>
<td>20%</td>
<td>64%</td>
</tr>
<tr>
<td>Prescription</td>
<td>18%</td>
<td>13%</td>
<td>3%</td>
<td>9%</td>
<td>44%</td>
</tr>
<tr>
<td>OMR Incomplete</td>
<td>11%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>11%</td>
</tr>
<tr>
<td>Other</td>
<td>18%</td>
<td>17%</td>
<td>5%</td>
<td>15%</td>
<td>42%</td>
</tr>
<tr>
<td>Total</td>
<td>181</td>
<td>117</td>
<td>33</td>
<td>46</td>
<td>377</td>
</tr>
</tbody>
</table>

**Summary of Data/Discussion**

- Despite best efforts, discharge times in compliance with the metrics evaluated fell below expectation (i.e., #1 – 57%, #2 – 15%, #3 – 10%).
- Three categorical areas for improvement: (1) Physician driven issues – waiting for prescriptions and plan of care, (2) Nurse driven issue – patient not ready, and (3) Communication/Execution – DME delivery, case management, transportation, delay to next facility.
- Based on these data, a resident physician created a discharge checklist to assist nursing services in streamlining discharge efforts as well as the recent addition of social work during morning rounds.
- DME delivery delay proposed remedy is transferring patients to the transitional care center while waiting for equipment to arrive.
- Without control over bed availability at the next facility, nursing and social work teams can coordinate efforts to initiate insurance authorizations upon admission to reduce delays.

**RECOMMENDATIONS/ACKNOWLEDGMENTS**

Given successful identification of targets to improve on our LEAN Metrics, the following recommendations were proposed:

1. Continue to collect discharge and barrier data for each metric.
2. Define and unify barriers categories across each metric for future comparative analyses.
3. Use Visual Tracking Audit Forms to verify that all levels of care (e.g., physicians, nurses, social work, PT) are aware of monthly progress for discharge delays.
4. Implement action plans at a specified time with subsequent tracking of progress toward improvements for each barrier.
5. Create a discharge planning checklist to facilitate nursing and medical staff in anticipating patient needs with identified barriers such as: Patient not ready, DME delivery, pain control, medication/Rx, wound care/supplies, dispositions.

**Acknowledgments:**

SKY Tower 10th floor Nursing staff generously for project design and data collection
BACKGROUND/INTRODUCTION
Cardiovascular disease kills over 2,150 people in the U.S. each day. The vascular screening system VaSera (model VS-1500AU, Fukuda Denshi, Tokyo) has been used in Japan as a tool for quickly and noninvasively identifying patients at increased risk of cardiovascular disease in an office setting. The VaSera measures the cardio-ankle vascular index (CAVI), a proxy for arterial stiffness, which has been associated with time to first cardiovascular event in the Framingham cohort. Arterial stiffness has also been found to be associated with poor blood flow in the lower extremities of type 2 diabetics, which may contribute to foot ulcers and poor wound healing. The VaSera device is FDA-approved; however, baseline CAVI levels for the U.S. population have not yet been established.

In addition to establishing CAVI baselines in the general U.S. population, it may also be important to compare baselines between people of different ethnic and/or racial backgrounds. Differences in vascular elasticity have been observed between cohorts of different race or ethnic backgrounds; one recent study has reported that arterial stiffness (measured as cardio-femoral pulse wave velocity) is significantly higher among middle-aged Hispanics compared to non-Hispanic Caucasians.

The primary purpose of this study is to compare average CAVI scores in healthy U.S. residents to those in Japan, to determine an acceptable baseline for an “unhealthy” CAVI score; a secondary goal is to determine whether CAVI scores in healthy U.S. Hispanics differ from CAVI scores in healthy non-Hispanics in the U.S.

Materials & Methods
- Healthy subjects between the ages of 18 and 80 were recruited from the greater San Antonio area
- Subjects were excluded from participation if they exhibited or self-reported any of the following:
  - Body mass index (BMI) <18.0 or >29.9
  - Hyperlipidemia (total cholesterol > 219 mg/dL, HDL-C < 40 mg/dL, or triglycerides > 149 mg/dL)
  - Renal dysfunction (EGFR <60mL/min)
  - History of smoking, currently or longer than 2 yrs of the last 20
  - History of cancer, other than non-melanoma skin cancer
  - History of gout
  - History of cardiovascular disease
  - History of claudication, other circulatory abnormalities, or pain with walking
  - Hyperglycemia (blood glucose > 109 mg/dL or HgbA1c > 5.8%)
  - High resting blood pressure (systolic > 139 mmHg or diastolic > 89 mmHg)
  - Abnormal electrocardiogram; not in sinus rhythm at exam
  - History of diabetes or pre-diabetes
  - History of heart disease or rhythm abnormalities
  - History of kidney dysfunction or kidney disease
  - History of peripheral artery disease (PAD)
  - History of amputation or loss of limb(s)
  - History of alcoholism
- After initial screening for eligibility and obtaining informed consent, subjects were tested with the VaSera device while lying flat in an exam chair.
- At this time, 49 subjects out of a planned 130 have been enrolled; 3 of the 49 were excluded for one of the following reasons: (1) did not choose an ethnicity on the enrollment questionnaire, (2) screen failed for low BMI, and (3) an error in data entry in the VaSera device during the exam setup resulting in an erroneous CAVI result for 1 subject.
- A One-way Analysis of Covariance (ANCOVA) was conducted to determine statistically significant differences between nationalities and/or ethnicities on CAVI score controlling for age. For American v. Japanese comparison, published average Japanese CAVI data were used as the comparison group.
Results

- Hispanic subjects were slightly younger than non-Hispanic subjects; more females were tested in both ethnic groups.
- There is no significant effect of subject nationality (Japan vs. U.S.) on CAVI scores among healthy subjects after controlling for age in either males or females, males F(1,26)=0.52, p=0.48, females F(1,34)=0.62, p=0.43.
- Subject ethnicity (Hispanic vs. Non-Hispanic) showed no statistically significant impact on CAVI scores in healthy U.S. subjects after controlling for age in either males or females, males F(1,16)=3.37, p=0.09, females F(1,24)=2.32, p=0.14.

<table>
<thead>
<tr>
<th></th>
<th>Hispanic</th>
<th>Non-Hispanic</th>
</tr>
</thead>
<tbody>
<tr>
<td>n</td>
<td>20</td>
<td>28</td>
</tr>
<tr>
<td>Sex</td>
<td>8M/12F</td>
<td>11M/17F</td>
</tr>
<tr>
<td>Mean Age</td>
<td>27.9</td>
<td>34.9</td>
</tr>
<tr>
<td>Mean CAVI</td>
<td>6.47</td>
<td>6.92</td>
</tr>
</tbody>
</table>

Discussion

While these analyses suggest lower CAVIs among U.S. subjects than published Japanese averages, the differences are not statistically significant for the current sample size. Interestingly, the mean CAVIs of Hispanic males in our cohort is numerically lower than those of non-Hispanic males in most age groups, in contrast to the reported finding by Pasha et al5 that arterial stiffness is significantly higher in Hispanics. Among females, however, Hispanic CAVIs seem to be trending higher than non-Hispanic CAVIs. Future analyses will provide confidence in these preliminary findings.

The median age of our U.S. enrollees is on the younger end of our allowable range; we plan to employ additional strategies to recruit older subjects to balance the age distribution of the cohort. In the future we plan to examine whether the CAVI can be used to identify diabetic patients at increased risk of developing chronic foot ulcers.

References

BACKGROUND/PROJECT APPROACH:
Surgical Site Infections (SSI) are a serious adverse event to patients and to their surgeons. The incidence of Methicillin Resistant Staph Aureus (MRSA) is of particular concern for SSI. Between 2012-2014, the rate of infections for hip and knee prostheses at University Hospital in San Antonio, TX, ranged from 2.3-3.8% (national rates are 1-1.4%, other studies are up to 5%). Of those infections, 62% were from Staphylococcus aureus and of those, 38% were MRSA. It is well established that implementing a screening and prevention protocol is valuable in lowering rates of SSI in total joint arthroplasty (TJA) procedures. Bundled interventions have been shown to be effective for reducing hospital acquired infections for Ventilator Associated Pneumonias and Central Line Associated Blood Stream Infections. Similarly, bundled interventions for skin and nasal decolonization and antimicrobial prophylaxis for Staphylococcus aureus have demonstrated a decrease in SSI. Studies estimate needing to screen 250 patients to prevent 1 surgical site infection. This project examined the success of implementation of an innovative MRSA screening protocol at an academic orthopaedic center and identified the critical barriers found in the implementation process.

MATERIALS & METHODS
- All the orthopaedic staff performing total joint arthroplasties of the shoulder, hip or knee were asked to participate.
- The STOP SSIs Algorithm, an evidence-based algorithm supported by the Agency for Healthcare Research and Quality, was implemented.
- During the preoperative visit a MRSA nasal screening is taken and the patient is sent home with a chlorohexadine pre-surgical scrub. All patients are asked to use the scrub the night before the surgery.
- Positively screened patients are given a prescription for intranasal Mupirocin (Bactroban).
- Compliance rates were recorded as 0%, 25%, 50%, 75%, or 100% for the four major points of the protocol.
- Partial and total compliance with the four points of the protocol were also tracked.
- Data was collected by chart review of the patients undergoing TJA procedures at our institution during the set time frame.

RESULTS
- Our results showed that we were able to increase overall compliance with protocol implementation from 18% to 40%.
- Barriers to compliance still exist and include clinic infrastructure, surgeon resistance, time constraints, patient awareness, and inability to control surveillance.
- Increased patient awareness and participation as well as surgeon collaboration were found to be key variables for improving success when institutional resources were limited.
- Implementation of the program provided overall cost savings to the hospital with a return on investment ROI = +17.89. To prevent an SSI, savings to hospital ~$15,000.00; increased revenue to hospital ~$27,500.00; cost to hospital ~$2,250.00.
DISCUSSION
Implementation of a MRSA screening and prevention protocol can be effective in decreasing SSI and are cost effective, despite structural and institutional constraints. Major barriers were determined and strategies to overcome these barriers were identified (right). Future studies may be able to employ this data to continue to improve compliance and the successful implementation of SSI prevention program.

REFERENCES
ORTHOPAEDIC RESIDENCY PROGRAM CURRICULUM

The Orthopaedic Residency Program is structured so that residents experience a thorough and balanced combination of clinical cases, enriching lectures, and research opportunities. Grand Rounds are held every Monday morning and are attended by residents, fellows, department faculty, and community physicians. Half-day didactic conferences occur every Friday, and bio-skills sessions, anatomy labs, journal clubs, morbidity & mortality, indications, and various other conferences occur on a weekly or monthly basis.

PGY-1 interns rotate for half of the year with the Department of Orthopaedics and spend the other half of the year gaining surgical experience with other departments.

Anesthesiology – 1 month
General Surgery SICU – 1 month
General Surgery Trauma – 1 month
Orthopaedic Oncology – 1 month
Orthopaedic Trauma – 2 months
Physical Medicine & Rehabilitation – 1 month
Plastic Surgery – 2 months
Radiology – 1 month
VA Hospital – 2 months

PGY2-5 residents spend four years rotating through various orthopaedic services at numerous sites, which ensures that residents encounter a diverse group of cases and interact with many expert surgeons and healthcare professionals.

Foot & Ankle – 2 months
Pediatric Orthopaedics – 6 months
Hand Center – 2 months
Spine – 4 months
Joints – 4 months
Sports Medicine – 4 months
Methodist Hospital – 4 months
Upper Extremity – 4 months
Oncology – 2 months
VA Hospital – 6 months
Orthopaedic Trauma – 12 months

OFF-SITE TRAINING EXPERIENCES

UT Medicine is the healthcare-providing arm of UT Health San Antonio. UT Medicine is able to support the education of current and future physicians in all health specialties at twenty-plus locations and 700 physicians in South Texas. The UT Health San Antonio Department of Orthopaedics works with the UT Medicine resources and partners with various local sites in order to provide unique and specialized training opportunities to its students, residents, and fellows.

University Hospital
University Hospital (UH) has long been one of the predominant teaching facilities for the orthopaedic residency program at UT Health San Antonio. Over time the clinical rotations have changed, but the volume of clinical experience is ever increasing. The residents get exposure to a wide variety of upper extremity pathology in partnership with the shoulder fellowship. The spine
service has come to fruition with the addition of two fellowship-trained spine surgeons, Drs. Child and Menga. At UH, the residents rotate on the spine service and now also cover spine trauma call. This has greatly enhanced the residents’ overall spine experience. They take part in not only spine fracture cases but degenerative diseases of the spine as well. The orthopaedic trauma service is staffed by three trauma fellowship-trained orthopaedic surgeons, Drs. Agarwal, Karia and Zelle. There are two PAs and two clinical nurses that facilitate care of the trauma patient. Anywhere from seven to nine residents rotate on the service at a given time, including residents from San Antonio Military Medical Center (SAMMC). The trauma rotation continues to be the busiest service for the residents. The addition of an ER program several years ago means that there are now two separate areas in which orthopaedics is consulted. Residents take care of the multiply injured patient as well as the everyday fracture patient that presents to the ER. PGY-1s and 2s also work with trauma PAs in the ER to facilitate consultations. There is also a busy orthopaedic trauma clinic on site at UH, which allows for efficient follow-up and care of our trauma patients. This ensures that residents get training in the operative management of fractures and the non-operative management of fractures as well.

South Texas Veterans Health Care, Audie L. Murphy Division
The Audie L. Murphy VA (ALMVA) Hospital is an integral component of the UT Health San Antonio orthopaedic resident training, while providing the best care for our veterans. In 1973, the ALMVA Hospital opened with Dr. David Green as the first Chief of Orthopaedics. The VA rotation currently supplies 2-month rotations for the residents in their first, second, third, and fifth years of training. In addition, the VA has been a long time training site for the department’s Hand Fellowship, in addition to the Shoulder and Elbow Fellowship.

During this rotation the residents are exposed to a full spectrum of non-operative orthopaedic care as well as a multitude of operative procedures in different subspecialty fields. The VA staff is comprised of full- and part-time VA employees and is complimented by UT Health San Antonio faculty. All VA-credentialed faculty are fellowship-trained and provide advanced subspecialty care in addition to general orthopaedic care.

South Texas Spinal Clinic
The South Texas Spinal Clinic is a private practice clinic in San Antonio, Texas, established in 1982 and dedicated to the comprehensive diagnosis and treatment of spinal disorders. The clinic has been affiliated with the Department of Orthopaedics at UT Health San Antonio since 2002. Since then, the clinic has provided the orthopaedic residents at UT Health San Antonio a clinical rotation in spine surgery. During the two-month spine rotation, the residents participate in a busy orthopaedic spine practice treating both adults and children. Residents work with ten of the clinic’s physicians, nine of whom are orthopaedic surgeons and one who specializes in Physical Medicine and Rehabilitation. All the physicians in the clinic have fellowship training in spinal care, as well as extensive experience treating spinal conditions.

The South Texas Spinal Clinic provides residents with
a comprehensive experience in the treatment of spinal disorders. The residents learn how to assess patients with spinal disease, interpret diagnostic studies, treat spinal diseases that do not require surgery, when to consider appropriate surgical intervention and the tools available for such intervention, and how to manage the patient post-operatively. They participate in both the clinic and the operating room with the extent of their participation depending on their knowledge and skill level. The rotation includes a didactic program with assigned reading, as well as attendance and participation in academic conferences. During the rotation the most common spine diseases are emphasized, including low back pain, neck pain, degenerative disc disease, spinal stenosis and herniated discs. The residents are also involved in the care of other spine diseases, including trauma, metastatic disease, the spondyloarthopathies, scoliosis and spondylolisthesis. During their spine rotation with the South Texas Spinal Clinic, the orthopaedic residents receive a comprehensive educational experience in spinal care and spine surgery.

The Hand Center of San Antonio
The Hand Center of San Antonio has served San Antonio for over thirty years. Founded by Dr. David P. Green, the Hand Center has cared for thousands of patients, trained more than eighty hand surgeons and educated countless others through research, national and international lectures and one of the most widely circulated textbooks on hand surgery. The orthopaedic and plastic surgeons on staff have over 100 years of combined experience and represent multiple generations and training backgrounds. The Hand Center is located on the 3rd floor of the Texas Center for Athletes (TCA). A one-stop shop, the TCA has on its lower level a pharmacy, an advanced imaging center and a same-day surgery center. In addition, the Hand Center has on-site x-ray capabilities, certified hand therapists, a minor procedure room and cast room. Each year, the Hand Center selects three or four fellows to spend twelve months learning hand surgery in this center. Procedures are performed in a variety of settings and include in-office procedures, outpatient surgery in ambulatory surgery centers (ASCs) and inpatient hospitals. Each attending surgeon sees approximately 1,000-1,400 new patients or consults per year, and each fellow will scrub approximately 1,000 cases in a year.

During the fellow’s experience he or she learns to treat a variety of upper extremity conditions in both adult and pediatric patients.

Foundation Surgical Hospital of San Antonio
Foundation Surgical Hospital is a specialty inpatient surgical hospital located adjacent to the South Texas Medical Center. It is a center of excellence for orthopaedic surgery with a full complement of orthopaedic specialties represented. Foundation Surgical Hospital is a training site of particular importance for shoulder and elbow, adult reconstruction, and sports medicine subspecialties. The sports medicine faculty performs ACL reconstruction, shoulder arthroscopy, knee arthroscopy, and open soft tissue repair. In addition, the shoulder and elbow service performs the majority of its open shoulder reconstruction and elbow reconstruction procedures at Foundation Surgical Hospital. The center offers comprehensive spine treatment, foot and ankle surgery, and hand and wrist surgical surgery as well. The center is equipped with five operating suites and eighteen inpatient beds as well as an emergency
department and inpatient hospitalist services. Adjacent therapy services include aquatic therapy, physical therapy, and hyperbarics, and the facility can be used for web conferencing and anatomy labs. Third and fifth year residents rotate at the facility while on sports medicine and fourth and fifth year residents rotate while on the upper extremity service. Foundation Surgical Hospital provides a setting for residents to experience clinical and academic medicine in a private specialty hospital during the course of their residency.

The San Antonio Orthopaedic Group
The Foot and Ankle Institute at the San Antonio Orthopaedic Group (TSAOG) was formed in 2001 when Drs. Marvin Brown and Mayo Galindo, Jr., joined the group. Residents who rotate with Dr. Brown are exposed to a wide range of orthopaedic conditions and treatments for the foot, ankle, and lower leg, including ankle arthritis, total ankle replacement, complex foot and ankle fractures, ankle arthroscopy, sports injuries, and tendon reconstruction. Residents assist with these conditions at either the outpatient center, the Orthopaedic Surgery Center of San Antonio (OSCSA), or the Baptist Orthopaedic Hospital (BOH) - opening October 2016 – which will offer inpatient orthopaedic specialty care as well as dry and wet lab facilities to promote orthopaedic learning and research. Residents who rotate through the foot and ankle program gain clinical and surgical experience at a high volume, physician-owned practice focused on subspecialty training in all areas of musculoskeletal medicine. The practice also offers state-of-the-art orthopaedic services, including onsite imaging, casting and bracing, physical and occupational therapy, and outpatient surgery. In 2015, TSAOG formed the Burkhart Research Institute for Orthopaedics (BRI0), which is dedicated to advancing orthopaedic research and continuing the legacy of Dr. Stephen Burkhart. The TSAOG provides residents an idea of what it is like to work in a comprehensive orthopaedic private practice environment.

Methodist Healthcare
Residents are assigned to the Methodist rotation for two months during their second, third, and fourth years of training. Their time there is divided between the main Methodist Hospital and the Methodist Ambulatory Surgery Hospital (MASH). At the inpatient hospital, the residents see a variety of general orthopaedics cases, including treatment of musculoskeletal trauma, osteoporotic fractures in the elderly, as well as some low-level trauma. Most of the clinical and surgical experiences involve adult reconstruction, spine, and oncology cases. At the MASH, residents are exposed to outpatient hand, shoulder, knee ligament reconstruction, and shoulder and knee arthroscopy. The Methodist rotation provides an outstanding experience for the residents in general orthopaedics as well as spine and sports medicine in a private practice environment. Residents on the Methodist rotation take night call every third/fourth night.
SOCIAL EVENTS

Throughout the year, the Department of Orthopaedics hosts social events for the residents, fellows, faculty, and staff. In the 2015-2016 academic year, these events included the intern welcome event, four applicant dinners, lecture events, a charity golf tournament, the annual Christmas party, and graduation.

Intern Welcome Dinner • June 17, 2015
Laura B. Flawn, MD, Lecture • October 5, 2015
Residency Interview Socials • December 3, 2015 • December 10, 2015 • January 7, 2016 • January 14, 2016
Department of Orthopaedics Christmas Party • December 17, 2015
2nd Annual Clubs & Scrubs Charity Golf Tournament • March 26, 2016

Organizing committee speaking before the start of tournament play and attendees enjoying the day.

Philip A. Deffer, Sr., MD, Lecture • April 11, 2016

Residents sharing a moment with faculty member Dr. Ravi Karia.

Philip A. Deffer, Sr., MD, lecturer, Dr. Andrew Burgess, speaks with residents.
Philip A. Deffer, Sr., MD, Lecture • April 11, 2016 – Continued

Dr. Rajiv Rajani and Dr. Animesh Agarwal

Dr. Fred Corley discusses the achievements of Dr. Philip Deffer

Graduation • June 17, 2016

2016 graduating class and their loved ones

Dr. Matthew Morrey, his wife Audrey Morrey, and graduation guest speaker Dr. Bernard F. Morrey

Dr. Marc DeHart, his wife Taryn DeHart, Mrs. Judy Trick, and Dr. Lorence Trick

2015-2016 residents
Graduation • June 17, 2016 – Continued

2016 graduating residents presenting Dr. Thomas Hand with an award

Dr. Anil Dutta and his wife, Mrs. Helen Dutta

Dr. Boris Zelle presenting his research at the graduation conference
2015-2016 RESIDENTS AND FELLOWS

Fellows

Kunj Desai, MD
Hand
School: Kasturba Medical School
Residency: Rutgers NJMS

Robert Girling, MD
Adult Reconstruction
School: UT Health San Antonio
Residency: UT Health San Antonio

Brad Gillman, MD
Shoulder & Elbow
School: University of Wisconsin
Residency: LSU

April Hamm, MD
Shoulder & Elbow
School: University of Arkansas
Residency: University of Oklahoma

Fellows Not Pictured

Jose Bosque, MD
Sports Medicine
School: Loma Linda University
Residency: UC Davis

Todd Zuhlke, MD
Hand
School: University of Wisconsin
Residency: University of Nebraska

Amit Patel, MD
Hand
School: Loyola University Chicago
Residency: Rush University

PGY-1

Khang Dang, MD
The University of Mississippi School of Medicine

Stephen Ernst, MD
The University of Virginia School of Medicine

Brock Kitchen, DO
The University of North Texas Health Science Center – Texas College of Osteopathic Medicine

Kenneth Mensch, MD
The University of Vermont College of Medicine

Alexander Nguyen, MD
Baylor College of Medicine

Nikhil Shelke, MD
Stritch School of Medicine – Loyola University Chicago

PGY-2

Thomas Hand, MD
UT Health San Antonio

Andrew Lee, MD
UT Health San Antonio

Hanna Mondry, MD
UT Health San Antonio

Chance Moore, MD
UT Health San Antonio

Jason Thompson, MD
UT Health San Antonio

Antonio Webb, MD
Georgetown University School of Medicine
ACADEMIC YEAR 2015-2016

PGY-3

Katherine Bartush, MD  
UT Health San Antonio  
Christina Brady, MD  
The University of New Mexico  
School of Medicine  
Gregory Gomez, MD  
The Keck School of Medicine  
of the University of Southern  
California  
Brett Hall, MD  
Medical College of Wisconsin  
Christopher Larkins, MD  
The University of Arizona  
College of Medicine  
Gina Lesko, MD  
The University of Oklahoma  
College of Medicine

PGY-4

Kevin Christensen, MD  
UT Health San Antonio  
Richard Edeen, MD  
UT Health San Antonio  
Jason Gray, MD  
The Louisiana State  
University School of  
Medicine – New Orleans  
Brandon Menneer, MD  
Weill Cornell Medicine  
Evan Tavakoli, MD  
The University of Texas  
Medical Branch School of  
Medicine  
Zibin Zhao, MD  
UT Health San Antonio

PGY-5

The graduating PGY-5 residents, clockwise from top left row: Davin Cordell, MD, Gurpreet Singh, MD, Todd Pitts, MD, Ben Francisco, MD, Nicholas Gerken, MD, Danilo Volpini, MD
Davin Cordell, MD, was born in Gainesville, FL, on December 8, 1971, but got out of town when he was six months old and kept moving through Tennessee, Georgia, and Michigan before arriving in Austin, TX, at 7 years old. He has been in Texas ever since and that has been just fine with him. He went to college at Rice University and received his Master’s degree in Physical Therapy from Hardin-Simmons University. He enjoyed being a physical therapist but felt the need for more so he turned a perfectly good life upside down to pursue a new career. The greatest gift of his career as a physical therapist was meeting his splendid wife, Oriana, though it took 10 years for them to meet again. He has a wonderful mother, Cheryl, who couldn’t be any better; a father, Dykes, who helped shape how he sees the world; a sister, Chereen, who has always been a close friend and advisor; a supportive and inspiring brother-in-law, Karl; two amazing nephews, Will and Ben; and a great new family of in-laws, the Reginatos. Most importantly, he has a smart, beautiful, talented and happy daughter, Bella. He will continue his training for yet another year in Adult and Pediatric Spine Surgery at Washington University in St. Louis, MO.

Graduation Research Presentation: “Management of Thoracic Insufficiency Syndrome in Patients with Jarcho-Levin Syndrome Using VEPTRs (Vertical Expandable Prosthetic Titanium Ribs)”
Ben S. Francisco, MD, was born July 30, 1982, in Cedar City, UT, to two wonderful, supportive parents. In high school, he became involved in ceramics and ultimately earned a prestigious scholarship at Utah State University for his artwork. In 2000, he was also named the Brigham Young University “Art Student of the Year” for the state of Utah. After his first year at Utah State University, he left for central Siberia to serve a mission for the Church of Jesus Christ of Latter-day Saints. As a result of circumstances encountered there, he decided to pursue a career in medicine. After returning home in October 2003, he met his amazing wife, Jan, who had also served an LDS mission in central Siberia, at Utah State University. They were married in August 2004. Ben graduated with a Bachelor of Arts in art in 2007 from Utah State University. Ben, Jan, and their newborn son, Clark (9), moved to San Antonio to attend medical school at UT Health San Antonio that same year. Ben was then lucky enough to be given a spot in the orthopaedic surgery program at UT Health San Antonio. Ben and Jan have been blessed with four beautiful girls since being in San Antonio, Eva (7), Myra (5), Sara (4), and Hannah (1). Ben will complete a fellowship in hand surgery at The Hand Center of San Antonio next year.

Graduation Research Presentation: “Cross-Cultural Adaptation and Validation of the American Academy of Orthopaedic Surgeons Foot and Ankle Outcomes Questionnaire in Mexican-Americans”
Nicholas Gerken, MD, was born in Greenwich, Connecticut, on February 22nd, 1981, and grew up with his three siblings in the small town of Wilton, CT. There, he was successful in high school sports, was named captain of the football team, was recruited to play Division I lacrosse at Colgate University, and was blessed to meet the love of his life and future wife of six years, Courtney. At Colgate University, Dr. Gerken earned a liberal arts education with a degree in the biological sciences while also completing his medical school prerequisites. He was a four-year letterman and starter on the lacrosse team, was named captain of the team his senior year, was named First Team All-Patriot League and was elected to the Division I North-South All-Star game. After college, he earned his medical degree at St. George’s University, Grenada, West Indies, and completed his clinical training in New York City, NY. Following graduation from orthopaedic residency, Dr. Gerken will begin a joint reconstruction fellowship at the University of Virginia in Charlottesville, VA, under the direction of Dr. Thomas Brown. He has two children, daughter Riley (2 years) and son Ford (9 months).

Graduation Research Presentation: “The Metabolic and Physiologic Changes that Occur to an Orthopaedic Surgery Resident during a Two Month Orthopaedic Trauma Rotation at a Level One Trauma Center”
Todd Pitts, MD, was born in Salt Lake City, Utah, on February 10th, 1983. He grew up in Pennsylvania as well as Utah and spent most of his time on competitive and Olympic development soccer teams before graduating high school in Heber City, Utah. He played NCAA men’s soccer at BYU-Hawaii before serving his mission for the Church of Jesus Christ of Latter-day Saints in Raleigh, North Carolina. After his mission, he met his beautiful wife, Jessica, at the University of Utah where he majored in exercise and sport science. After graduating from the University of Utah, Todd and his wife moved to Milwaukee, Wisconsin, where he attended the Medical College of Wisconsin for medical school. While in Wisconsin, Todd and Jessica had their first two girls, Malia (7) and Hallie (5). After completing medical school, Todd and his family moved to San Antonio for his orthopaedic surgery residency. While in residency, Todd and Jessica have added Lorelai (3) and now Audrey (4 months) to their family. Todd has enjoyed running, soccer and playing with his four daughters. Todd and his family will be moving to Phoenix, Arizona to complete a one-year fellowship in adult reconstruction at the CORE Institute.

Graduation Research Presentation: "Ultimate Fracture Load of Cadaveric Proximal Humeri Correlates More Strongly with Mean Combined Cortical Thickness than Cortical Index (C.I.), DEXA Density, or C-C Ratio"
Gurpreet Singh, MD, was born in Punjab, India, on November 18th, 1983. He grew up in Punjab until he was sixteen years-old. In 2000 his family moved to Texas for better education opportunities for him and his siblings. He started high school in San Antonio as a junior later that year. He was successful in high school despite knowing little English. He was a two-time varsity tennis district champion and graduated in the top 5% of his class. Dr. Singh then went on to the University of Texas at Austin to study biochemistry and computer science, while also completing his medicine prerequisites. He graduated with highest honors from the university. He then worked for Chase Bank Corporate as an analyst and programmer for one year while deferring his medical education. He earned his medical degree at UT Southwestern Medical Center in Dallas. He became interested in orthopaedic surgery in his third year of medical school during his trauma rotation. Following graduation from orthopaedic residency, Dr. Singh will be going to the University of Western Ontario in London, Ontario, Canada, for a fellowship in adult hip and knee reconstruction surgery.

Graduation Research Presentation: “Perceptions of Hispanic Patients towards Orthopaedic Injuries”
Danilo M. Volpini, MD, was born in Sao Paulo, Brazil, on July 7th, 1982. He lived in Brazil until the age of seventeen, when he moved to Texas to live with his sister. He had a strong passion for soccer at a young age. He played soccer all the way through high school, where he was on the varsity team for two years. He also had an interest in music and studied classical guitar since early childhood. Dr. Volpini attended the University of North Texas and graduated Magna Cum Laude with a degree in biology in 2006. He then earned a medical degree at UT Health San Antonio under a full scholarship. After graduating from medical school, he chose to stay in San Antonio for his orthopaedic training. During that time, Dr. Volpini started training Brazilian jiu-jitsu and he continues to do so today. It was during his second year of residency that Dr. Volpini met his wife, Kelley. Dr. Volpini will continue his education with a sports medicine fellowship under Dr. Felix H. “Buddy” Savoie, III, and Dr. Larry Field at Mississippi Sports Medicine and Orthopaedic Center in Jackson, MS.

Graduation Research Presentation: “Improving Follow Up and Aftercare of Osteoporotic Patients after Sustaining a Fragility Fracture”
Airrosti provides a highly effective, outcome-based solution for quality musculoskeletal care. Our providers have demonstrated the ability to rehabilitate and resolve shoulder, back, knee, and other soft tissue injuries in a very short period of time, typically within 3.2 visits based on patient-reported outcomes. Third-party claim episode studies confirm that Airrosti is lower in cost, results in shorter care duration, and has significantly lower post-care expenditure.

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- **Total Care Cost**
  - The total cost of Airrosti care averages 60% the total cost of traditional care

- **Procedure Utilization**
  - AIRROSTI CARE PATHWAY: 7%
  - NON-AIRROSTI CARE PATHWAY: 1.3%

- **Radiology Utilization**
  - AIRROSTI CARE PATHWAY: 15.8%
  - NON-AIRROSTI CARE PATHWAY: 4.8%

  - 70% reduction in radiology utilization with Airrosti care
  - 81% reduction in procedure utilization with Airrosti care

*Koan Health provides advanced episode analytics that effectively demonstrate value and enhanced performance.

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- **Promote osteostrip**
- **Promote amniosis**
- **Promote amnio F**
- **Swann shidi**
- **Cyclone**
RECOGNITIONS

ORTHOPAEDIC RESIDENCY PROGRAM ALUMNI

Class of 1971
Robert D. Bilderback
Michael V. Galo
Thomas R. Reid
Robert G. Stone
Hilario Trevino

Class of 1972
Juan J. Capello
Gary N. Pamplin
Vernon L. Ryan
Joe W. Tippett
Richard P. Wilson

Class of 1973
Edward D. Campbell, Jr.
Ralph D. Cash
Warren W. Kendall
John T. Phillips
James M. Steele
Rafael V. Urrutia, Jr.
Charles M. Younger

Class of 1974
John R. Anderson
George N. Armstrong, Jr.
John E. Blattman
William A. Graham
William H. Matthews
Richard W. Williamson, Jr.

Class of 1975
James W. Adams
Jesse C. DeLee
John A. Genung
Glenn C. Terry

Class of 1976
Billy E. Allison
Robert K. Blair
Jack W. Crosland
Ray M. Fitzgerald
John A. Richards

Class of 1977
C. Robert Boone
Philip R. Craven
Donald R. Davis
Jerald N. Friesen
Raymond S. Gruby
James E. Keever

Class of 1978
William M. Allen
Kenneth P. Butters
Fred G. Corley, Jr.
Donald C. Jones
Randy J. Pollet
Archie Whittemore

Class of 1979
Ray A. Fambrough
Howard G. Miller
C. Bart Norton
William E. Sanders
Wilburn A. Smith, Jr.
R. Fred Torstrick

Class of 1980
Michael B. Clendenin
Charles E. Lewis
Peter L. J. McGanity
Wayne L. McLemore
James B. Stiehl
John M. Thomas

Class of 1981
Thomas O. Clanton
Gary H. Jackson
Allen S. Kent
Robert B. Kimmel
Michel R. McLean
Loddie F. Roeder

Class of 1982
Jonathan P. Bacon
Steven C. Dickhaut
Donald W. Floyd
James L. Griffin
Walter M. Knight
Joe B. Wilkinson

Jesse C. DeLee, MD, was raised in Port Arthur, Texas, and graduated from Thomas Jefferson High School in 1964. He attended the University of Texas in Austin and Lamar College from 1964-1967. Dr. DeLee attended medical school at the University of Texas Medical Branch in Galveston from 1967-1970 and completed an internship at UTMB in 1971. He was an orthopaedic resident at UT Health San Antonio from 1971-1975 and completed a fellowship in Hip and Knee Reconstructive Surgery with Sir John Charnley in Wrightington, England, from 1975-1976. Upon completion of his fellowship, Dr. DeLee entered private practice in orthopaedic surgery in Tulsa, Oklahoma. In 1978, he joined Dr. Charles Rockwood in the Department of Orthopaedics at UT Health San Antonio and remained on the full-time faculty from 1978 until 1983, at which time he entered private practice, subspecializing in hip and knee reconstruction and sports medicine. Dr. DeLee has remained on the clinical faculty at UT Health San Antonio, presently holding the position of Clinical Professor. From 1989-2014, he was director of the UT Health San Antonio Sports Medicine Fellowship which produced over 35 sports medicine fellows during that time. Dr. DeLee is honored and blessed to have been involved in the training and education of orthopaedic residents and sports medicine fellows for over 38 years. This activity is truly the highlight of his career. Dr. DeLee hopes to continue having residents spend time with him for many years to come.
Daniel E. Cooper, MD, attended the University of Tennessee on full athletic scholarship, where he was a Magna Cum Laude and Phi Beta Kappa graduate in three years, the captain of their top ten nationally ranked tennis team, and holder of two Southeastern Conference tennis titles. He received an early acceptance to UT Southwestern Medical School in Dallas, where he was elected to the Alpha Omega Alpha honor medical society. He completed his residency in orthopaedics at UT Health San Antonio in 1989. He was awarded the prestigious Orthopaedic Sports Medicine Fellowship at Cornell University’s Hospital for Special Surgery in New York City, which has repeatedly been named the #1 Orthopaedic Hospital in the country by US News. Dr. Cooper is a widely recognized authority in the field of sports medicine, sub-specializing in injuries to the knee and shoulder. He treats all types of athletes: professionals, collegiate, high school and recreational. He is currently the head team physician for the Dallas Cowboys Football Team and formerly for the Dallas Stars Hockey Team (1993-2011). Dr. Cooper’s practice primarily focuses on minimally invasive arthroscopic and reconstructive surgical techniques for the knee and shoulder that restore stability and joint function in young athletic individuals. In addition to his current affiliation with the Dallas Cowboys, Dr. Cooper has been retained as a consultant to Real Madrid Club Futbol in Liga BBVA of the Spanish Premier Division – the world’s #1 & 2 valued sports franchises. Dr. Cooper is devoted to his wife and three children, and enjoys as much golf and fishing as possible in whatever time there is to spare!
Kathryn Caulfield, MD, grew up in western Pennsylvania near Pittsburgh and became interested in orthopaedics in high school. Her interest stemmed from her athletic endeavors, which included ballet and gymnastics. Dr. Caulfield also had exposure to orthopaedics as a patient, when she injured her thumb diving for a volleyball in college at Penn State and had a thumb ulnar collateral ligament repair. In medical school at the University of Pittsburgh she tore her left ACL skiing and had a diagnostic knee arthroscopy by Dr. Freddie Fu. Dr. Caulfield and her husband, Dr. Harry Caulfield, attended medical school together and married between their second and third year. After completing an internship year in general surgery, she conducted research in the UT Health San Antonio Department of Orthopaedics and began her residency. She remembers all of the attending orthopaedic surgeons but especially the mentoring by Drs. Corley and Rockwood. Dr. Corley was always available to help the residents with any case. She also recalls that Dr. Rockwood stressed that patients can only see their postoperative dressing and their scar so he had his residents close all of his open shoulder cases with running subcuticular 4-0 Prolene sutures. She still takes care to do this today. Dr. Caulfield had her first child prior to her senior year of residency; at that time she was the first resident to have a child during orthopaedic residency training in San Antonio. She was also one of the select few female residents to graduate the program. Her husband matched at Yale University in Plastic Surgery and so they moved to just outside of New Haven, CT. Dr. Caulfield practiced general orthopaedics in Connecticut for one year and then completed a one year Hand and Reconstructive Wrist Surgery Fellowship with Dr. H. Kirk Watson in Hartford, CT. After completing their fellowships, Dr. Caulfield and her family moved to Gastonia, North Carolina, near Charlotte. They had two more children and have been in private practice there for over 20 years.
Jorge Casas-Ganem, MD, is the founder of Dallas Sarcoma Associates. Originally from El Paso, Texas, he received his degree in biology from Harvard College in Cambridge, Massachusetts, and then his MD from Harvard Medical School in Boston. He then trained for five years as an orthopaedic surgery resident at UT Health San Antonio and graduated in 2003. Dr. Casas-Ganem then spent two years as a fellow of orthopaedic oncology at Memorial Sloan-Kettering Cancer Center in New York. He pursued further training at the Istituti Ortopedici Rizzoli in Bologna, Italy, and at the Hospital del Niño Jesus in Madrid, Spain. Prior to establishing Dallas Sarcoma Associates, Dr. Casas-Ganem was Assistant Professor of Orthopaedics at the University of Texas Health Science Center in Houston. Dr. Casas-Ganem is an expert in limb salvage surgery. He serves as a consultant to other physicians seeking such highly specialized care for their patients. Limb preservation surgery avoids the need for amputation and involves techniques across a range of medical specialties. Dr. Casas-Ganem’s research interests include the treatment of soft tissue sarcomas, metastatic bone disease, and bone and joint infections.
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FACULTY & STAFF RECOGNITIONS

CONGRATULATIONS ON 50 YEARS OF ORTHOPAEDICS!

CLASS OF 1987
Daniel Guy, MD

UT Health San Antonio Orthopaedic Surgery Residency Program
Class of 1987 (Front Row)
CONGRATULATIONS ON 50 YEARS OF ORTHOPAEDICS AT UT HEALTH SAN ANTONIO!

CLASS OF 1978
Fred G. Corley, MD

Orthopaedic staff and residents of the former University of Texas Medical School at San Antonio in 1978


2nd Row (L to R): Charles A. Rockwood, Jr., MD, David P. Green, MD, Gary A. Jackson, MD, Robert B. Kimmel, MD, Loddie F. Roeder, MD, Peter L. J. McGanity, MD, James B. Stiehl, MD, Donald C. Jones, MD, James D. Heckman, MD, Murray H. Matthewson, F.R.C.S.

1st Row (L to R): Randy J. Pollet, MD, Michael R. McLean, MD, Thomas O. Clanton, MD, Michael B. Clendenin, MD, William E. Sanders, MD, Howard G. Miller, MD, William M. Allen, Jr., MD
CONGRATULATIONS TO THE DEPARTMENT FROM THE ENTIRE WILLIAMS FAMILY

CLASS OF 1989
Gerald R. Williams, MD

Gerald R. Williams, MD, Class of ’89, and his family in Avalon, NJ
HAPPY 50TH ANNIVERSARY TO THE UT HEALTH SAN ANTONIO DEPARTMENT OF ORTHOPAEDICS

CLASS OF 2006
Hank L. Hutchinson, MD

UT Health San Antonio Orthopaedic Surgery Residency Program
Class of 2006
Orthopaedic Surgeon at Tallahassee Orthopedic Clinic
Tallahassee, Florida
As of this year, twenty-two staff and faculty members have reached their 10th, 20th, 30th, 40th, or 50th year milestones working with the Department of Orthopaedics at UT Health San Antonio. This select group of individuals have devoted their careers to managing the department, educating students, residents, and fellows, as well as establishing this department as one of the premier orthopaedic programs in the nation. Our faculty and staff at UT Health San Antonio are an amazing group of individuals to whom we are forever indebted. Thank you for all of your hard work and service.

50+ Years of Service
Charles A. Rockwood Jr., MD

40+ Years of Service
Kaye E. Wilkins, MD
Bruce W. Gilliam

30+ Years of Service
Fred G. Corley, MD
Ralph J. Curtis, MD

20+ Years of Service
Michael A. Wirth, MD
Cosmo Cuellar
Theresa M. Hill
Norma K. Nami

10+ Years of Service
Animesh Agarwal, MD
Douglas T. Cromack, MD
Anil K. Dutta, MD
Christopher DeLallo, PA-C
John Kodosky, PA-C
Donald A. Morris, PA-C
Cindy D. Urshan, RN
Betsy Bejarano
Anna Conti
Rosemary M. Lucio
Kathy Nelson
Bernice A. Ramos
Michael J. Suehs