

THE SAN ANTONIO ORTHOPAEDIC JOURNAL

2019-VOLUME III

EDITORS:

Thomas L. Hand, MD; Kush Shah, PhD; and
Boris A. Zelle, MD, FAOA



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EDITORIAL



THOMAS L. HAND, MD; KUSH SHAH, PHD; AND BORIS A. ZELLE, MD, FAOA

Editors-in-Chief

We feel honored to present the third edition of the San Antonio Orthopaedic Journal (SAOJ). The SAOJ is a wonderful reflection of who we are and what our department stands for. The journal highlights our commitment to excellence in patient care, education, research, community outreach, and global relationships. This edition of the SAOJ will be dedicated to the graduating class of 2019, which includes Hanna Mendez, Andrew Lee, Chance Moore, Jason Thompson, Antonio Webb, and Thomas Hand. All of our graduating chief residents will move on to premier fellowships, which speaks volumes about the strength of this stellar class. While we are sad to see this group of residents leave, we are equally excited to welcome the incoming class of first year residents. With everything we do on a daily basis, whether through education, research, advocacy, or outreach, we always focus on one common major goal, which is to provide our patients with the best possible care. Our division reports illustrate how our clinical divisions continue to thrive and serve our patients with compassion, skill, and excellence. We feel honored to have all orthopaedic specialties covered within our department by fellowship-trained experts in

their respective fields. No matter how the climate of orthopaedic care changes, we all feel truly honored to have the privilege of improving our patients' lives. We strongly hope that the clinical division reports reflect the compassion and dedication, not only of our surgeons and trainees, but also the entire Department of Orthopaedics staff. The 2019 edition of the SAOJ also highlights the great strides that the department has made in the research arena. In the past year, we have published more than 30 articles in scientific journals. In addition, we have been well-represented at all major scientific orthopaedic meetings with numerous podium and poster presentations. Another focus of our storied department is the global network that we continue to foster and cherish. The SAOJ nicely illustrates how our department continues to extend our international relationships across the world. Our international reports reflect the great learning opportunities that arise for our residents from these international relationships as many residents continue to complete rotations abroad. Moreover, our rich photo gallery reflects the great energy, and the social aspects of our vibrant department. Finally, we would like to thank the countless people who have contributed to the content, production, and delivery of the 2019 San Antonio Orthopaedic Journal. We hope that it delivers our spirit and dedication to excellence in patient care, education, research, community outreach, and global relationships.

PREFACE

BERNARD F. MORREY, MD



The 2019 edition of the San Antonio Orthopaedic Journal has stayed true to its purpose – provide personal and professional updates that reflect the vitality and relevance of orthopaedics, not just in San Antonio but also nationally and even internationally. The update appropriately begins with a dedication of the third volume of the Journal to the graduating residents as they go forth to continue their education and serve as ambassadors of our department, as so many have done before them. From the professional perspective, the commitment of the department to improve patient care is clearly reflected in the reports from the clinical divisions. The responsibility of an academic department to contribute to the thought process and body of knowledge is well summarized in the section dealing with over 30 publications covering the full spectrum of orthopaedic care and process. The global impact of our specialty is also reflected by the numerous international

commitments of the faculty and residents since the last edition. One of the most telling traits of a successful department rests in the accomplishments of the trainees, residents, and fellows, when they leave to establish their professional careers. This year we are especially fortunate to be able to congratulate Dr. Dan Guy, who in March accepted the position of 2nd vice president of the American Academy of Orthopaedic Surgery. Dan's selection brings to a total of 6 presidents of the AAOS from or associated with the San Antonio Program, possibly the best reflection of the spirit and enthusiasm of orthopaedics exhibited by our faculty and residents and fellows. This was demonstrated once again by providing support for the successful campaign to have Dr. Rockwood named as a Pillar of Orthopaedics. This announcement will be made this year at the AOA meeting in San Diego. In a word, this Journal clearly reflects the goal of the editors, "... that it delivers our spirit and dedication to excellence in patient care, education, research, community outreach and global relationships", which has been realized. We should view this documentation of our department's activity and that of our residents and alumni with pride and satisfaction.

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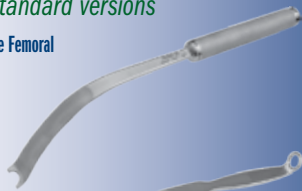
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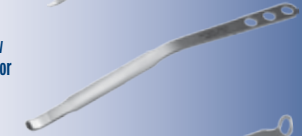
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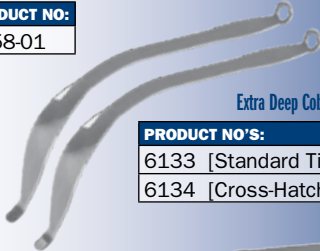
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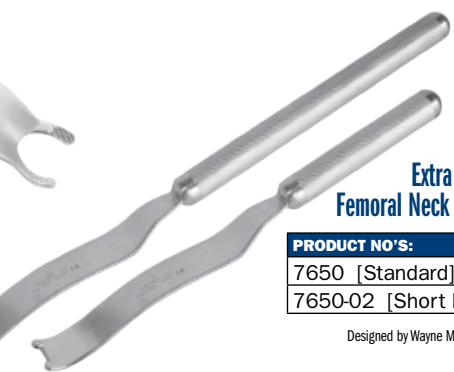
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7620-02 [Left]

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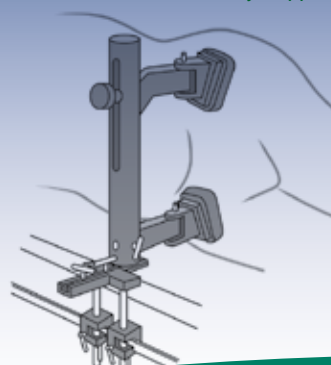
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CHAIRMAN'S CORNER

ROBERT QUINN, MD



Chair, Department of Orthopaedics

I am pleased to introduce the third edition of the Orthopaedic Journal of UT Health San Antonio, marking our department's 52nd anniversary. The past year has seen continued growth and stabilization of the department. I am very proud of the superb faculty we have either recruited or retained across all of our disciplines. I am particularly proud of the winning culture we have created. Our residency and fellowship programs are re-invigorated and thriving, while attracting the best and brightest applicants from across the country.

The vision and energy of our team has dramatically expanded our innovative approach to further growth and development of our multiple programs.

Our faculty members continue to represent the academic mission proudly created and continually inspired by our "founding father" Charles Rockwood, Jr., MD. Through the tremendous mentorship provided by Drs. Charles Rockwood, Kaye Wilkins, Michael Wirth, David Green, Jesse DeLee, Bernard Morrey and others, our faculty continue to reach new heights on the national leadership front. Our reach and representation across multiple specialties continues to grow.

For the first time in the history of our department, all orthopaedic subspecialties are well-represented and growing. Additionally, we are continuing to grow a service line approach with the addition of more advanced practice providers and complementary specialists such as primary care and physical medicine and rehabilitation. The Department currently consists of 24 orthopaedic surgeons, 2 physical medicine and rehabilitation physicians, 6 podiatrists, 6 physical therapists, 3 PhD's, 30 orthopaedic residents, 3 hand fellows, 1 shoulder fellow, 1 sports fellow, 8 podiatry residents, and 1 podiatry fellow.

Our faculty currently cover 4 major clinic locations and 7 hospital facilities. We fully expect to continue growth in every clinical division and in our basic and clinical science research programs. We are planning a major new clinic location with a sports medicine emphasis and outpatient surgery.

As further testimony to the legacy of our program, I would like to congratulate Daniel Guy, MD (class of 1987) on his election to second vice-president of the American Academy of Orthopaedic Surgeons, following just two years since Gerald Williams (class of 1989) served as Academy president.

With the firm groundwork we have laid over the past 6 years, the significant momentum we are experiencing, and the visionary leadership in the School of Medicine, I believe we are well-positioned for strong growth and continued success in the next 5 years. Stay tuned for exciting developments coming in the near future!



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SPECIAL REPORTS

ACADEMIC PROMOTIONS IN 2018

The Department of Orthopaedics would like to congratulate the following individuals for their academic promotions.



Mayo J. Galindo, Jr., MD

Promoted from Assistant Professor to Associate Professor



Sekinat K. McCormick, MD

Promoted from Assistant Professor to Associate Professor

AWARDS

The Department of Orthopaedics would like to congratulate the following individuals for receiving recognition.



Boris Zelle, MD with Regis O'Keefe, MD, PhD

Dr. Zelle inducted as an American Orthopaedic Association (AOA) Fellow



Michael Wirth, MD

Dr. Michael Wirth was selected as a member of the American Shoulder and Elbow Surgeon's recently founded Neer Circle. This group was established in 2018 and will provide a forum for advancing the ASES vision of being world leaders and educators.



Rajiv Rajani, MD

Dr. Rajani was selected in the American Association of Orthopaedic Executives (AAOE) Leadership Fellows Program

NEW FACULTY



Ryan Rose, MD (Hand and Upper Extremity Surgery)

I was born and raised in Albuquerque, New Mexico, where I completed medical school at the University of New Mexico. I then moved to Dallas, Texas, to complete my residency at the University of Texas Southwestern Medical Center. While there, I received training in upper extremity trauma at the Parkland Trauma Center. During residency I traveled to Norwich, England, where I spent time as a Senior Registrar. In residency I was named, Chief Resident, and at graduation received the G. Truett James Award for Excellence in Training.

After Residency, I was chosen to continue my upper extremity training as the only Littler Eaton Hand Traveling Fellow at New York University Hospital of Joint Disease. The traveling fellowship included time at the renowned Texas Scottish Rite Hospital for Children, where I saw a great variety of congenital hand deformities and pediatric hand trauma. After that portion of the traveling fellowship I then left for the Hand Institute in New Zealand. Under Michael Boland, I experienced complex wrist and forearm reconstruction, while learning about NZ healthcare.

I always envisioned myself in academics, teaching residents and pushing my own surgical experience with vast and interesting cases. While I spent time away from Texas, I slowly realized I wanted to return to build my practice and raise my family in Texas. Then an opportunity at University of Texas Health Science Center at San Antonio (UTHSCSA) presented itself, which fulfilled my want for academics and pursuit of complexity. I found there to be an opportunity for my interests in complex trauma as well as reconstruction of the upper extremity.

Throughout my training and experiences, I have been accompanied by my wonderful wife, Cynthia. She has and will always be the point of stability in my ever turbulent life. We enjoy outdoor activities, exercising, but most of all, traveling. Four years ago we welcomed Ella, our daughter, to the family. In her short four years, we have been able to share our love for traveling with her and she has been to nine countries outside the US.

We were afforded the ability to live in six different cities in two years, but we are grateful to have found UTHSCSA and San Antonio, to make it our home.

INCLUSION MATTERS

Dr. Sekinat McCormick named Director of Medical Student Diversity

This year has been full of exciting new changes here at the Long School of Medicine. One of those exciting changes includes two new positions within the Office of Diversity and Inclusion. These two positions are Director of Resident Diversity and Director of Medical Student Diversity. After a rigorous interview process, I have been named the Director of Medical Student Diversity and will work under the direction of the Dean of Diversity and Inclusion, Dr. Chiquitta Collins. My role in this position will entail serving as a liaison between several Undergraduate Medical Education offices including the Office of Admissions and the Office of Student Affairs. The mission for this role will primarily focus on improving diversity amongst our medical

students. In this new position, I will have the opportunity to not only impact the student body of UT Health San Antonio, but also to reach out to our surrounding community to bring medicine and medical education to our neighbors and ultimately impact the health and wellness of our students and patients. In addition to growing diversity in the medical school, in this position I look forward to being a visible representative of a career in orthopaedic surgery. Orthopaedics continues to lag behind other specialties in our training of female and under-represented minorities and at a time when we increasingly appreciate the importance of representation this will allow me to reach those women and minorities who did not realize the possibilities within orthopaedics.

The opportunities that this directorship provides are numerous and I am grateful for the support from the Department of Orthopaedics, and Dr. Quinn specifically, for allowing me to take on the responsibility of this important role. Without Dr. Quinn's encouragement and support, this would not be possible. Stay tuned for the community outreach and opportunities that are on the horizon through the Office of Inclusion and Diversity.



February 15, 2019. L to R; Drs. Al Sanders, Sekinat McCormick, and Kaye Wilkins at the welcome reception in honor of Dr. McCormick's new role as Director of Medical Student Diversity.

TEXAS ORTHOPAEDIC ASSOCIATION

UT Health Orthopaedic Staff, Residents, and Students Participate in Education, Policy, and Advocacy at the Annual Texas Orthopaedic Conference



Dr. Christopher Chaput moderating a discussion at TOA where Dr. Marc DeHart was a participant.

UT Health San Antonio's Dept. of Orthopaedic Surgery was strongly represented at this year's Texas Orthopaedic Association Annual Conference in Houston, Texas. Since 1936, the TOA has been the voice of Texas orthopaedic surgeons in the public policy and legislative arenas. The Four Seasons Hotel served as this year's venue for the annual conference that brings together surgeons, residents, PA/NPs, ancillary staff, and other individuals with a vested interest in the state of orthopaedics in Texas.

The conference began with a session featuring Christopher Chaput, MD, who moderated a discussion on the challenges facing patients who suffer from hip arthritis and spine problems leading to stiff backs or arthrodesis. Adult Hip and Knee Reconstructive surgeon, Marc DeHart, MD, of UT Health San Antonio and Spine expert, Mark Rahm, MD, of Baylor Scott and White in Temple discussed the issue from their respective specialties' point of view and reviewed the current understanding of this challenging topic. Later in the day, Animesh Agarwal, MD, moderated an informative trauma symposium on the management of hip fractures and how to avoid common pitfalls seen with this diagnosis. Our own Boris Zelle, MD, participated in the discussion along with with Drs. James Blair (Arizona), Drew Sanders (UT Southwestern) and David Teague (OU).

Dr. Chaput also led a riveting discussion describing the basic science of BMP and its use in spine surgery titled "Lessons Learned from Clinical Use of BMP-2: The Good, the Bad & the Ugly." Sharing cases he encountered was well received by

the audience, many of whom have had complex issues with their experience with this product.

Our medical students had a strong showing of paper presentations at the conference. Rose Ann Huynh, BS, presented an interesting paper addressing the challenges mothers encounter when breastfeeding children born with club feet who need casts; that research is led by Grant Hogue, MD. Also presenting was Taylor Johnson, BS, who discussed the "Impact of Insurance Status on Timing to Evaluation and Treatment of Meniscus Tears in Children, Adolescents, and College Aged Athletes."

Thanks to a stellar performance in the 17th Annual Resident Quiz Bowl, Jordan Handcox, MD, and Ryan Egbert, MD, put up the highest quiz bowl score by San Antonio residents in 10 years! Considering our PGY-2 and PGY-3 were facing off against mostly upper level residents, they should be proud of their accomplishment.

The meeting also serves as an excellent venue to catch up with old friends and mentors who contribute their time and expertise to learning in this state-wide venue. Dr. Lorence Trick was present and shared his lengthy and extensive experience in Adult Reconstruction.

Others with ties to our program also did their part to teach the rest of the state including Andrew Bruggeman, MD, who made a substantial contribution with talks reviewing Orthopaedic Compensation Models and Benchmarking as well as a Business and Public Policy Symposium reviewing some of the recent CMS updates. Other San Antonio surgeons - Clayton Nuelle, MD, and Kevin Kirk, DO, added to the education in Houston.

Representing San Antonio on the TOA Board are John Hinchey, MD, currently on the Board of Councilors and Jordan Handcox, MD, a member of the TOA Resident Council; she and other



Dr. Animesh Agarwal moderating an informative trauma symposium at TOA, with Dr. Boris Zelle as a participant.

Board Members will represent TOA (and San Antonio) in Washington, D.C. later this year to discuss orthopaedic policy issues with lawmakers on Capitol Hill. Dr. DeHart was also represented on the TOA Board, which met prior to the general conference to discuss the upcoming political year. Issues discussed that may alter practices include opioid prescription issues, scope of practice with Physician Assistants, Podiatrists, and Physical Therapists, and the upcoming policy regarding “out-of-network” insurance issues. Orthopaedists in Texas are well represented by Bobby Hillert – the Executive Director of TOA – who, with the help of TOA’s Director of Operations, put on another spectacular annual conference.

Next year’s conference will take place in our own backyard; February 7-8, 2020 at the Westin Riverwalk in San Antonio. Mark your calendars now to take part in this inspiring and informative conference experience. You can visit the TOA website at <https://txorthoassn.org/> for more information or to get involved.

ON DR. MICHAEL WIRTH’S RETIREMENT: A LETTER FROM DR. FRED G. CORLEY



He has been my good friend, colleague, and counselor for nearly forty years, so I have great and mixed feelings when faced with his retirement.

Mike has had a star-studded professional career of which all of us are proud.

A skilled clinician, master surgeon, renowned teacher, researcher, and a

beloved physician.

He began his orthopaedic training at the University of Texas Health Science Center at San Antonio in 1985 following his cum laude graduation from the University of Oregon Health Science Center.

He was a superb resident, selected as chief in his senior year. All of us were happy when he followed Buzz Burkhead, Ken Butters, Christian Gerber, Jerry Williams, et al as another star in our shoulder and elbow program.

He quickly adapted and became an excellent teacher and mentor to our residents, including many others in over thirty years of teaching worldwide about the shoulder.

Following Charles Rockwood, Mike was the second wave of pioneering great shoulder surgeons.

He was selected as the American Shoulder and Elbow Surgeons traveling European fellow in 1995 and for the American-British-Canadian Traveling Fellowship in 1997.

He is the author of nearly 100 journal publications, and the editor of the widely accepted tomes on fractures, and the shoulder.

He has given endowed and named lectureships at renowned institutions in this country and on every continent.

He has conducted basic research on shoulder disorders and patented devices that have benefited thousands of patients.

He has been selected to leadership positions in orthopaedic societies and has served admirably.

He is a tireless worker, a skilled anatomist, and a master teacher and surgeon.

But like most of us when we grow older, the things we cherish the most are our relationships with friends, colleagues, students, patients, and most of all our family and our God.

Mike was raised by a loving family and hit the jackpot when he fell in love and married Kathy. She, being the daughter of a great orthopaedist, and marrying one that was on the path to greatness. Mike’s longtime admiration and friendship with Charles Rockwood has spawned legendary talks, great texts and scientific articles, benefiting our profession and our patients. The two have created a penumbra that produces a glow around our department.

I selfishly will miss Mike dearly but know that he will have more time with his hiking, fly-fishing, grandchildren, painting, and just relaxing. And, he will have more time with Kathy, in what I have always considered the best of all marriages, and more time for his church and his good works.

I have always thought that old and good friends are just like stars, even though you don’t always see them, they are always there, and I know that Mike Wirth is always there for us.

RESIDENCY UPDATES

PROGRAM DIRECTOR'S REPORT



Rajiv R. Rajani, MD, Residency Director

The Orthopaedic Surgery Residency Program at UT Health San Antonio experienced an outstanding year in both clinical and academic production. Currently, 6 residents per year enroll as PGY-1s. Residents come from Texas A

&M, University of Washington, UTMB, and UTHSCSA medical schools representing our newest class of interns.

Clinically, residents rotate in all orthopaedic sub-specialities with UT Health Clinical Faculty. They also spend time with multiple adjunct faculty in the San Antonio area which allows them a unique flavor of both academic and private practice models. Residents continue to provide care of our ubiquitous veteran population at the Audie Murphy VA Hospital. Through these diverse training institutions, our residents are uniquely trained to adapt and handle challenging patient care scenarios.

Highlights of the 2018 year include achieving full Continued Accreditation by the ACGME without any citations, areas of concern, or warnings. Our residents also achieved a 100% pass rate for graduating chief residents in 2018, and the institution of an optional international elective for PGY-4 residents as highlighted in another section of the SAOJ.

During the 2018 academic year, PGY-4s Kenney Mensch and Stephen Ernst utilized time to travel abroad to perform visiting externships. This was due to the financial support of the department and a philosophy of thinking globally. Please see their write-ups in another section of the journal. We expect to continue this experience in the upcoming years.

A hallmark of our residency is the robust clinical training that residents obtain. Although case logs are a difficult way to compare residency surgical volume, our graduating chief residents collectively were in the 79th percentile for open surgical cases. This number is a far more accurate representation of true surgical experience, as it does not include procedures like injections, manipulations, or closed fracture treatments.

The residency program had a successful 2018 but with higher expectations in 2019, we aim to increase surgical volumes,

continue achieving perfect board pass rates, and increase clinical research productivity. Thank you to all the faculty and staff, especially Residency Coordinator, Teri Hill, and Assistant Coordinator, Joseph Soliz, who assist our residents to be the professionals that we know they can be!

GRADUATING RESIDENTS CLASS OF 2019



Thomas L. Hand, MD

Thomas L. Hand, MD, was born and raised in San Antonio, TX, to two very supportive and loving parents. He grew up spending his summers in South Texas working at the family ranch with his older brother and was inspired early on to pursue a career in medicine by his grandfather, Dr. Henry Hand. Thomas graduated with a degree in biology from the University of Texas at Austin, where he was chosen to participate in the Emerging Scholars Program. He then attended medical school at the University of Texas Health Science Center at San Antonio. During medical school, he was heavily involved as an elected officer to both the Texas Medical Association and American Medical Association, and went on to graduate with Alpha Omega Alpha distinction. Early in residency, he received the award for outstanding junior resident and developed an initial interest in orthopaedic trauma under the guidance of Drs. Karia, Zelle, and Agarwal. His interest in trauma was later solidified when he had the privilege to complete an international orthopaedic trauma rotation in Zurich, Switzerland, where he was able to work with Dr. Hans-Christoph Pape and Dr. Christian Gerber. During residency, he was also able to travel to Tegucigalpa, Honduras with Dr. Kaye Wilkins and CURE Clubfoot International to treat children and teach the Ponsetti casting method. Thomas is the first author of a book chapter on the subject of approaches to femoral fractures, as well as published several articles. Following residency, Thomas will be staying to complete his orthopaedic trauma fellowship at the UT Health San Antonio program.



Andrew Lee, MD

Andrew Lee, MD, was born on October 21 1987 in Houston, Texas. He moved to Tyler, Texas shortly after being born where he was raised with his parents, older brother, and his two amazing grandmothers. After high school, he moved to Saint Louis, MO where he graduated Magna Cum Laude from Saint Louis University with a degree in Biology. He gained his interest in orthopaedics during a shadowing elective during his freshman year of college involved in emergency room and operating room care at Saint Louis University Hospital. He returned to Texas to attend medical school at UT Health Science Center at San Antonio, graduating Alpha Omega Alpha. He stayed in San Antonio to complete his residency in orthopaedics at UT Health Science Center at San Antonio. During residency, he was fortunate to have the opportunity to complete an elective in international orthopaedic trauma surgery in Sao Paulo Brazil under the guidance of Dr. Guilherme Boni and Dr. Thomas Gaia from Sao Paulo and Dr. Zelle and Dr. Karia from San Antonio. His experiences with Dr. Dutta and Dr. Wirth inspired him to pursue a career in shoulder and elbow surgery. After completion of residency, he will be attending a fellowship in shoulder and elbow surgery at the Florida Orthopaedic Institute with Dr. Frankle and Dr. Mighell.



Hanna E. Mendez, MD

Hanna E. Mendez, MD, grew up in Carbondale, Colorado, outside of Aspen. She was fortunate enough to be active in kayaking and skiing throughout her childhood and high school. Hanna competed internationally in kayaking during high school and college, which allowed her to travel to and experience many different places. She attended undergraduate at Dartmouth College where she met her future husband, Rafael. She graduated with a degree in Geography. Dr. Mendez completed medical school and her orthopaedic surgery residency at UTHSCSA, earning the Dr. Jesse C. DeLee Scholar in Orthopaedic Surgery Award as a medical student and serving as Administrative Chief Resident. Her proudest accomplishment during residency is giving birth to her son, Luca.

Upon completion of her residency, Dr. Mendez will complete a sports medicine fellowship at the Steadman Hawkins Clinic in Denver, CO, followed by a pediatric orthopaedics fellowship. She hopes to return to San Antonio with Rafael and Luca following her training to begin a career that combines her love of sports and her passion for helping young patients.



Chance C. Moore, MD

Chance, a native of Austin, has called San Antonio, and more specifically, UTHSCSA, home for the past 9 years. In that time, Chance has accomplished quite a bit including, graduating from the Long School of Medicine, getting married, becoming the father to two little girls, and now, successfully completing this residency program. Chance first became interested in orthopaedic surgery at a young age while rounding with his father who practices in Austin. In fact, Chance's two older brothers also chose to follow in their father's footsteps in becoming orthopaedic surgeons. Chance's interest in the profession further developed in high school when he found himself on the patient side of things, going under the knife a few times for his shoulders and elbow from sports injuries. As fate would have it, Chance opted against further pursuit of being a professional athlete and settled on medicine as his career path. Since then, Chance has dedicated himself to orthopaedics and loves to regale anyone who will listen, often his reluctant wife, of the intricacies of the procedures he performed that day or the challenging cases that came in while on call. Chance's research in total joint arthroplasty, for which he presented at several meetings, including the AAOS and Mid-America Orthopaedic Association meetings, helped him decide to seek further specialization. In a few short months, Chance will be moving to Atlanta, GA, to enter the Adult Reconstruction Fellowship at Emory University. Following completion of his training, Chance plans to move back to Texas to practice.



Jason F. Thompson, MD

Jason Foster Thompson, MD, was born on November 22, 1981 in Garland, TX, a large suburb of Dallas. As the son of a plumber and a bookkeeper, Jason adamantly gives credit to his parents for instilling in him a tireless work ethic, accountability, and an unwavering positive attitude. Soccer afforded Jason the opportunity to play at every level of competition, starting with Division I soccer at Eastern Illinois University (EIU) where he eventually turned to the professional ranks after only two years at EIU. He became a regular for the United States under-23 men's national team which earned him a 15th overall draft selection by Dallas Burn (now FC Dallas) in Major League Soccer's 2003 SuperDraft where he played for two seasons before being traded to DC United where he played another two years. Serious injuries and subsequent surgeries riddled his professional career and ultimately led to his retirement after only four years. With that being said, he is proud of his induction into EIU's Sports Hall of Fame, the MLS

Championship team that he was a part of when DC United won it in 2004, and all of the lifelong friends he made along the way during his soccer career. After soccer retirement, he reenrolled into school to obtain a bachelor's degree at University of Texas at Dallas (UTD) with hopes to get into medical school. As a full-time college student, he worked on a construction crew during the day, he was bellman/valet at a hotel in Dallas at night, and delivered patient care as a nurse technician at Baylor Dallas on the weekends. He was able to obtain his degree from UTD and a spot in the UT Health Science Center at San Antonio Medical School class of 2014 after applying to medical school two years in a row. Later, he was fortunate to match his number one choice for orthopaedic surgery residency at UT Health San Antonio. Throughout his training in San Antonio, Jason participated in numerous projects and studies to include cadaver studies and retrospective reviews. The highlight of his residency is the everlasting friendships that he has been able to build with his co-residents and staff and he credits any success that he's had in residency as a result of the great people he's had around him. As for great people, Jason is steadfast on who has been the most influential person to him over the past 20 years, with that being his bride, Lindsay, whom he met and began dating in high school more than 20 years ago. Now married 13 years, Lindsay and Jason are extremely fortunate to have two wonderful children, Talon (age 9) and Madeleine (age 5) who keep their busy schedule even busier and their faces smiling all of the time. Lindsay and Jason are excited about their move to London, Ontario, Canada, following residency where Jason will be completing a fellowship in Adult Reconstruction of the hip and knee. Their hopes are to return to Texas for a job after fellowship.



Antonio J. Webb, MD

Antonio J. Webb grew up in Shreveport, LA, and it wasn't until he attended a Medical Careers Magnet Program in high school that he envisioned his life outside the streets of Louisiana as a doctor. To make this dream a reality, he joined the United States Air Force at age 17 and

spent a total of eight years as a medic in the military including a tour north of Baghdad, Iraq, in 2005 to a forward operating base dubbed "Mortarville" for the frequency of mortar attacks it endured. His unit treated just over 800 patients while in country and survived over 100 enemy mortar attacks during their deployment, while also earning several medals of distinction in the process.

While on active duty in the Air Force, he concurrently attended night school and took internet courses whenever and wherever he could to complete his undergraduate pre-medical degree. His military obligations forced him to attend four different colleges, finally graduating from University of Texas at San Antonio (UTSA) after a long and challenging seven years.

Following his military stint, Dr. Webb was rejected not only once, but twice from medical school but he never gave up. He was accepted to the Georgetown Experimental Medical (GEMS) program in 2009 on his third time of applying and matriculated soon after into Georgetown University School of Medicine, graduating in 2014. During his last year of medical school, he completed a month long international surgery rotation in Liberia, West Africa-returning to the US just weeks before the Ebola outbreak devastated the country.

In addition to his surgical training here at UT Health San Antonio, Dr Webb was fortunate to learn and spend time operating under the guidance of Dr. Kaye Wilkins in Port Au Prince, Haiti, on two separate occasions and in 2018 he was awarded an AO trauma fellowship that allowed him to spend a month doing trauma and spine surgery in Bangkok, Thailand.

One of his most rewarding activities, however, is serving as a mentor for underprivileged middle and high school students interested in a career in medicine. He volunteers to help because he says it is important for students to know, "If I can do it, they can, too." Webb says his proudest moment would be when he encounters a student in later years who says, "I am in medical school because of you."

After graduation, Dr. Webb will be heading to the Texas Back Institute in Plano, TX, to specialize in Orthopaedic Spine Surgery. He has 1 child, Caiden Webb (8) and a second (0) due in July 2019 with his wife, Ariana.

ORTHOPAEDIC RESIDENTS 2018-2019

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GME UPDATE



John S. Toohey, MD

Over the last several years, residency and fellowship education has encompassed a much wider area. We are now focused on promotion of resident and faculty wellbeing. This is directly related to improving the learning and working environment. Our GME Department

has been very engaged in identifying and increasing the experience across this spectrum. We are also very engaged in the quality improvement and patient safety arena.

For most of the last century, medical education has relied upon two pillars for training physicians. Basic science and clinical science have long been the structural support for training programs. Health Systems Science (HSS) is now commonly referred to as the third pillar. Health Systems Science is the understanding of how physicians deliver care to patients, how patients receive care and how health systems function. It has long

been a part of the hidden curriculum taught in elective courses and rotations. Health Systems Science is intimately intertwined with the two pillars of medical and orthopaedic education, but also is a subject in its own right requiring study by medical students and residents/fellows.

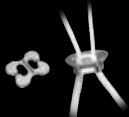
Physicians' roles in health care systems are changing significantly. Physicians in training need to understand Health System Science in order to appreciate their changing roles. The spectrum of Health Systems Science includes but is certainly not limited to health care delivery systems, electronic medical records, patient safety, value in healthcare, population health, inter-disciplinary teamwork, and quality improvement. Over the last several years, our residents in Orthopaedic Surgery have been exposed to this third pillar of medical education. Upon completion of the orthopaedic residency at UT Health San Antonio, all residents will have experience in reporting patient safety events, root cause analysis, adverse event disclosure, training and experience in the quality improvement process, and understanding health care disparities.

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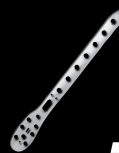
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Supporting healthcare professionals

CLINICAL DIVISIONS

CLINICAL OPERATIONS UPDATE



Ravi A. Karia, MD, Vice Chair of Clinical Operations

The Orthopaedic Department at UT Health San Antonio had another great year with an upward trend in clinical production. Our group of distinguished providers continued to improve efficiencies in our large-scale system with impressive results. We had roughly 80,000 patient encounters and performed over 19,000 surgical cases in 2018, a near 7% increase in both metrics compared to 2017.

We have maximized clinical patient volume at the MARC (Medical Arts & Research Center) and thus continue to expand to the UT Health Hill Country campus. There is no doubt we still need extra rooms, as our core of young practitioners continue seeing more and more patients.

The majority of our surgical cases remain at University Hospital, Methodist Hospital and the outpatient surgical facility at the UT Health San Antonio MARC campus. As these facilities become saturated, we have forged new relationships including a new Spine Service at Methodist Teksan Hospital.

Our referral catchment zone includes not only the greater San Antonio area but also the vast and rapidly expanding population of South Texas. High levels of chronic disease (diabetes being foremost) and ongoing complex social issues are still prominent in this patient population. We take these challenges directly and have made great strides not only with clinical outcomes but also with much needed research studying the management of these challenging patients.

Having healthy finances has never been more vital to managing a large academic practice. Often our mission of providing high level care to the unfortunate and disenfranchised is impossible if we cannot keep our financial accounts balanced. Inefficiencies and lost revenue often plague departments such as ours. To this point, Geoff McLeod (Director of Finance and Administration) and Eric Hartgraves (Revenue Cycle Manager) stepped up to the challenge and were instrumental in improving all major financial metrics. These efforts allowed our providers to focus on their clinical, research, and education missions.

Overall, this year we built on the strengths of our excellent practitioners and continued expansion efforts to position ourselves to be even more effective and successful in serving our community.

ADULT RECONSTRUCTION UPDATE



Marc M. DeHart, MD

The academic and clinical program of the Adult Hip and Knee Reconstructive Service continues to improve. Drs. Jesse DeLee and John Evans continue their commitment to give residents a taste of the community private practice of joint reconstruction. The VA experience is shared with Drs. Markey, Morrey, and Sayeed. Phil Jacobs, MD, increases the knee arthroplasty numbers and shares substantial expertise in sports and shoulder cases. After tasting the rewarding outcomes of elective hip arthroplasty, Dr. Karia continues to grow our hip experience when trauma doesn't command his schedule. The biggest gain in both practice volume and the challenges of joint arthroplasty have come from our newest faculty – Frank Buttacavoli, MD. His exceptional talents and training have earned him the reputation as the “go to guy” in the community for the challenging and difficult. A PGY-3 and PGY-5 run the busy service and share in the care of all of our patients. The service was flattered to have its practice tested by some of the finest patients in the city.



Dr. DeHart (center) with medical students Farhan Ahmad (L) and Kavina Patel (R) at the 106th Annual Clinical Orthopaedic Society meeting in Austin, TX

The education mission continues with weekly conferences for the residents serving with the Adult team, annual conferences to prepare for the Orthopaedics In Training Exam (OITE) and didactic lectures as the schedule allows. Several passionate local journal club debates continue to share the various opinions of the faculty. Educational orthopaedic programs covering a broad introduction to Musculoskeletal Medicine were developed for the Long School of Medicine's second year medical student class by Drs. DeHart, Rajani, and McCormick. In support of a pair of hard charging MS2 medical students (Farhan Ahmad – an “ortho-wanna-be” and Kavina Patel – a “derm-wanna-be”), the division mentored the students to present several posters at the Clinical Orthopaedic Society in Austin, TX on the topic of “Skin and Bones: where Orthopaedics and Dermatology meet”.



Dr. DeHart lecturing at the 2nd Annual Aseer Regional Health Conference in Abha, Saudi Arabia.

The division continues its national commitment to the subspecialty with resident and staff attendance at the AAHKS meeting in Dallas as well as continued AAOS service as Co-Chair for the Workgroup creating clinical performance measures for the surgical management of osteoarthritis of the knee. Dr. DeHart also represented the AAOS on committees tasked with creating the cost metrics for both total knee and total hip replacement (CMS MACRA Episode-based Resource Utilization Measurement, Musculoskeletal-Non-spine). An international opportunity for Adult Reconstruction teaching found Dr. DeHart lecturing at the 2nd Annual Aseer Regional Health Conference in Abha, Saudi Arabia, on the topic of knee instability after total knee and periprosthetic hip fractures.

The Adult Reconstructive service continues to work with the University Hospital System to enhance the care for arthroplasty patients. With the help of both residents and faculty, Amit Mehta – the hospitals' joint service line admin lead – put together a detailed booklet to help educate and guide patients who were ready to face surgery. Infection rates, readmissions, and lengths of stay continue to be low and the service compares favorably with other academic programs of its size. Efforts continue to

secure hospital support to join the American Joint Replacement Registry. And we continue to pursue a formal commitment from UT Health San Antonio leadership for computer resources to develop the routine collection of outcome data for our hip and knee patients. As the UT Health San Antonio primary care base expands, we hope to provide even more of the high-level care expected from the premier academic program in South Texas.

HAND AND PLASTIC SURGERY UPDATE



Fred G. Corley, MD

The hand service at University Hospital continues to thrive and be an integral part of the Department of Orthopaedics and its residency training program.

Not only do the orthopaedic residents benefit from the service, but also plastic surgery residents, general surgery residents, trauma emergency room residents, PM&R residents, internal medicine residents, and a host of medical students rotate through the hand curriculum that we have at University Hospital.

This year we have also hosted practitioners from South America, Haiti, and an assortment of other countries.

The continuing influx of injuries, infections, systemic disorders, congenital, and reconstructive cases along with microvascular procedures contribute to a wealth of patients that benefit from our services.

Caseloads continue to grow, and operating time is still at a premium. The backbone of our training program is made up of Dr. Doug Cromack, Dr. James Saucedo, and our outstanding new faculty, Dr. Ryan Rose.

Doug is a jewel. His “not a problem” statement assures all of us that the patient is in good hands. Ryan is a product of our sister training program at UT Southwestern in Dallas with a fellowship in hand and upper extremity surgery in New York, NY, then a traveling fellowship following. Ryan hit the ground running and with his work ethic and talent he is already a superstar.

Dr. Saucedo from The Hand Center guides our residents at the VA, and that group continues to spearhead our Tuesday morning teaching programs.

Large clinics at the VA, the UHS Trauma Clinic, the Texas Diabetes Institute, and the MARC supply patients that benefit from surgery in our outpatient rooms at the MARC as well as our inpatient rooms at the VA and University Hospital.

Dr. Cromack continues to have a congenital clinic that is based

on our pediatric clinics, both at Robert B. Green Hospital and at University Hospital.

The hand service is based on a great heritage established by icons in our field Dr. David Green, Dr. Charles Rookwood, Dr. Tom O'Brien, Dr. Spencer Roland, Dr. Jim Dobyns, Dr. Chris Pederson, and a host of others who have spent time with us in caring for our patients.

Hand surgery like all orthopaedics is based on an intimate knowledge of anatomy, its applications, and its disorders. Surgical treatment likewise depends upon the knowledge of the anatomy, aseptic technique, gentle handling of the tissues, hemostasis and edema control, and a structured rehab program. We try to endorse those principles to each of the rotating residents.

We are proud of all our residents, fellows, fellow faculty, and especially the 23 residents who did advanced post residency training in hand surgery.

The hand surgery rotation here at the University of Texas Health Science Center at San Antonio continues to be a joy for me and for my fellow faculty.

FOOT AND ANKLE UPDATE



Mayo J. Galindo, Jr., MD

The Foot and Ankle Division is staffed by Mayo Galindo, Jr., MD., full time faculty, and promoted last year to Associate Professor. Marvin R. Brown, MD, of the San Antonio Orthopaedic Group mentors our residents in the private sector. The department is now seeking an additional

full time faculty member for this division.

Our PGY-3 residents rotate for two months where they are exposed to both, common foot and ankle problems as well as complex reconstructions. They are also encouraged to develop and hone fine motor skills. We had two visiting Professors last year, Thomas O. Clanton, MD, from Vail, CO, a former University of Texas Health Science Center San Antonio resident, and Vinod K. Panchbhavi, MD, from University of Texas Medical Branch in Galveston, TX. Both provided an excellent teaching experience.

We hope a fellowship program will be on the horizon. We have also hosted residents from a sister medical school in Monterrey, Mexico and remain open to future residents.

ORTHOPAEDIC ONCOLOGY UPDATE



Rajiv R. Rajani, MD

The Orthopaedic Oncology Division of Orthopaedic Surgery experienced an outstanding year in both clinical and academic production. Comprised of Drs. Robert Quinn and Rajiv Rajani, the team was capable of managing bone and soft tissue tumors in an expedited fashion to

the South Texas community. The service functions with PA Marc Deschaine, PAC, and a 1st and 4th year resident and continues to benefit from a multidisciplinary tumor board on Mondays at the UT Health San Antonio MD Anderson Cancer Center.

Clinical highlights include providing care to over 100 bone and soft tissue sarcomas and over 450 surgical procedures in 2018 at UT Health San Antonio and the Audie Murphy VA. During 2018, we transitioned to the UT Health San Antonio MD Anderson Cancer Center. The affiliate agreement has allowed us to develop protocols and relationships to provide better quality care. Dr. Rajani now sees patients at the Mays that have Orthopaedic Oncology conditions, specifically sarcoma. This is the first time that the Department of Orthopaedic Surgery has had a presence at the Cancer Center in almost 10 years. Dr. Rajani serves on the Cancer Steering Committee and on the Cancer Center surgical sub-committee to see that sarcoma services continue to be prominently featured.

In the past year, Dr. Quinn completed his term as the MSTS President and now serves on the MSTS board as the Immediate Past President. He has continued to serve as the chair of the Department of Orthopaedic Surgery at UT Health San Antonio. For the past year, he has been the Chair of the AAOS Council on Research and Quality, one of the most prominent and influential positions in all of orthopaedic surgery. Meanwhile, Dr. Rajani serves as the Chair of the MSTS Fellowship Committee and is focused on improving the quality of education in musculoskeletal oncology. Dr. Rajani completed a shared project between the AAOS and the MSTS on the Appropriate Use Criteria for Sarcoma Surveillance. This project should help practitioners developed best practice guidelines on what type of imaging to order when following patients previously treated for sarcomas. Additionally, both Drs. Rajani and Quinn served as co-authors on a revised chapter of Pathologic Fractures in Rockwood and Green's classic textbook. Dr. Rajani continues to serve as the Tumor Section Editor on Orthoinfo.org.

In 2019, we look forward to expanding Orthopaedic Oncology services, through the new UT Health MD Anderson affiliation, and with the assistance of our oncology colleagues in the community.

PEDIATRIC ORTHOPAEDICS UPDATE



Grant D. Hogue, MD

In this academic year, the Pediatric Orthopaedic Division continues a trend of growth within the city as well as continued outreach efforts in South Texas. The division is staffed by Dr. Grant Hogue and Dr. Sekinat McCormick on the clinical side, and Dr. Kaye Wilkins,

who is still active in resident education. We are very excited to have two current residents applying for pediatric fellowship this year. Dr. Hanna Mendez (PGY-5) will be pursuing a career in pediatric sports medicine and will do fellowship training in both sports medicine and pediatric orthopaedics. Dr. Brock Kitchen (PGY-4) is also applying with plans to pursue a career in general pediatric orthopaedics.

Dr. Sekinat McCormick has been named as the new Director of Medical Student Diversity within the UT Health San Antonio Long School of Medicine. We are excited and supportive of her endeavors within the realm of medical school admissions. Dr. Hogue continues to run the Pediatric Orthopaedic Research Team (PORT). The PORT group presented two papers at the Texas Orthopaedic Association conference this year, and Dr. Hogue will also be presenting at the Pediatric Orthopaedic Society of North America (POSNA) annual meeting in Charlotte. Dr. Hogue has recently published papers on the treatment of pediatric trigger digits as well as long term followup from pediatric Lisfranc injuries. Currently, Dr. Hogue's research team is submitting a trio of papers addressing inequalities in access to pediatric orthopaedic services.

The clinical practice has grown and there is now need for a third clinical partner in the division. We have interviewed candidates from exceptional institutions across the country, and we expect to introduce our new partner in next year's edition of the San Antonio Orthopaedic Journal.

SHOULDER AND ELBOW UPDATE



Michael A. Wirth, MD

This year marks the 38th year of the Shoulder and Elbow Division founded by Charles A. Rockwood, Jr., MD.

The physicians in the Shoulder and Elbow Division have been active in education and research, developing novel techniques and implants that enable patients to return to a pain-free, active lifestyle.

Research Initiatives

Dr. Morrey is a national leader in a groundbreaking procedure called Tenex. This non-invasive, outpatient ultrasound procedure effectively treats tennis elbow, plantar fasciitis, and other tissue injuries.



Dr. Wirth is working with a team of design surgeons and engineers to create a 3-D printed augmented metaglene for patients with glenoid bone loss. Implant verification testing and final validation should be completed in 2019.

In collaboration with 11 international centers, we participated in a study that analyzed 1270 total shoulder arthroplasty patients, the largest of its kind, who were managed with a glenoid component designed and validated in San Antonio. This report provides a broad-based and well-characterized data set against which outcomes for different glenoid components can be compared.

Dr. Dutta is on a record pace for clinical productivity this year; one of his many areas of focus is a telescoping humeral nail for acute fractures and trauma sequelae.



Achievements

Dr. Morrey was the Key Note speaker for the Japanese Elbow Society in Tokyo, Japan; the American Society of Hand Therapist, in Dallas, TX; and for a meeting in Shanghai, China. He was also an invited guest lecturer at numerous national and regional meetings.

Dr. Hinchey joined Ortho San Antonio (private group) in October 2018 and continues part-time at the VA. He coauthored 2 poster presentations pertaining to fragility fractures.

Dr. Dutta and Dr. Hinchey were both elected to the American Shoulder and Elbow Surgeons Association (ASES) society as Associate Members.

Dr. Wirth was selected as a member of the newly found Neer Circle, which will provide a forum for advancing the ASES vision of being world leaders and educators.



Our fellow this year is Hagai Klein, from Tel Aviv Israel. Hagai joined the IDF after high school and served as a Team leader in the paratrooper division. Hagai attended medical school in Tel Aviv and Orthopedic Residency in Sheba Tel-Hashomer Hospital. Dr Klein was top of his class on the National Orthopedic Board. Hagai enjoys swimming, cycling, hiking and spending time with his family (Wife – Efrat, 7-year old son – Uri, 3-year old son – Alon)

Somerson JS, Bois AJ, Jeng J, Bohsali KL, Hinchey JW, Wirth MA. Quality of internet-based decision aids for shoulder arthritis: what are patients reading? BMC Musculoskeletal Disorders 2018

Gumina S, Bohsali KL, Wirth MA. Surgical Technique for Cuff Tear Arthropathy In: Gumina S, Grassi FA, Paladini P. Reverse Shoulder Arthroplasty, Springer; 2018

SPINE SURGERY UPDATE**Christopher D. Chaput, MD**

The age of robotic spine surgery has arrived at UT Health San Antonio. Robot assisted surgery has been extensively used in intra-abdominal procedures and, more recently, for joint replacement. Spine surgery has been much slower to adopt these techniques due to the complex and

often quite variable anatomy that is in close proximity to the spinal canal and sensitive nerves. The first generation of robots for the placement of pedicle screws in the spine were criticized for being difficult to use and for also increasing OR time, which may have confirmed the suspicion of many spine surgeons that there is little advantage to using an expensive virtual assistant in the operating room. The second generation of technology appears to have addressed much of the early criticisms directed at robotic assisted surgery in the spine. Recently, several articles have documented improved accuracy for pedicle screws placed with the help of robots compared traditional techniques.

The current generation of robotic systems are designed to make the placement of pedicle screws and other hardware more accurate with less use of fluoroscopy. Patients get a CT scan of the lumbar spine before the day of surgery. At the beginning of surgery, two reference pins are percutaneously placed into the posterior iliac crest. A small array of reflective orbs is attached to the pins, and then optical tracking cameras use those arrays to locate the patient's spine. A few fluoroscopic pictures are then taken with a fluoroscopy unit that also has optical tracking arrays on it, and then those images are digitally merged with images from the preoperative CT. After the merge, the software can then locate, within a millimeter or so, all of the bones of the spine. The surgeon can then virtually plan the placement of pedicle screws with a few finger swipes on a touch screen. It is at this point that the robot is wheeled over to the patient, and a robotic arm extends that has a small tube on the end. Because the software has integrated the optical tracking data, the intraoperative data, and the preoperative CT scan, the robot "knows" exactly where the tube should be in

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Matsen FA, Iannotti JP, Churchill RS, De Wilde L, Edwards TB, Evans MC, Fehring EV, Groh GI, Kelly JD, Kilian CM, Wirth MA, et al. One and two-year clinical outcomes for a polyethylene glenoid with a fluted peg: one thousand seventy individual patients from eleven centers. International Orthop 2018

order to guide ideal pedicle screw placement. The surgeon then uses the robotic guide to drill, tap, and place the screw (image 1).



Image 1. Christopher Chaput, MD (right) is instructing Isaac Kim, MD (R3) on how to place a pedicle screw into the spine with the help of real time 3D virtual imaging and the spine robot. The virtual screws are visible on the screen and the reflective spheres that are secured into the iliac crest can be seen as well.

While the Division of Spine surgery is still early in its adoption of the new technique, a few observations can be made:

1. Pedicle screws trajectories are more easily placed in “ideal” pathways than when placing screws with a freehand technique (image 2).
2. The screws can be planned to allow much smaller incisions.
3. The learning curve is only a few cases, which is dramatically less than with traditional open techniques.
4. Operating room time has decreased.

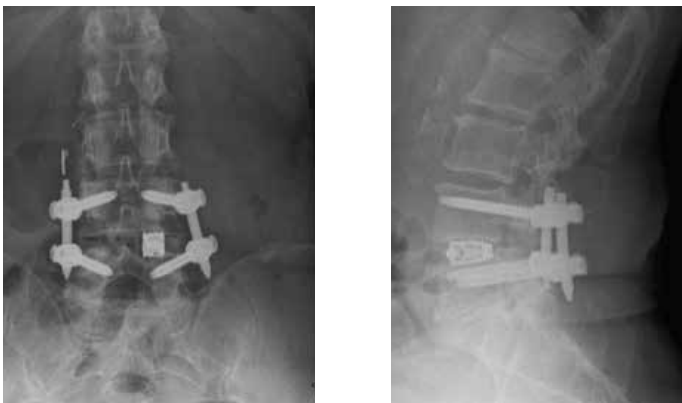


Image 2. The radiographs above show a minimally invasive spine fusion with robotic assistance. The screws are very close to ideal lengths, sizes, and trajectories, which the robot makes much more reproducible.

While we may not know for quite some time if robotic techniques translate into clinically measurable long-term improvements in outcomes, the decrease in blood loss, decrease in OR time, decrease in radiation to the OR team, and the ability to use very small incisions and still achieve excellent placement of hardware,

are obvious advantages.

The past year has been a building year for the Division of Spine Surgery. Dr. Christopher Chaput joined Drs. Bill Edwards and John Toohey in January 2018 to restart the operative spine service. Dr. Denise Norton then joined the division to officially make it multidisciplinary team of physicians dedicated to performing appropriate care for patients. Dr. Norton is board certified in physical medicine and rehabilitation and completed a fellowship in interventional spine and sports medicine. She has been instrumental in getting patients treated in the department timely access to electro-diagnostics, injections, and other conservative care. Katy Butler, PAC, joined the division shortly after Dr. Norton and has dramatically increased patient access as well.

Research Publications for 2018:

1. Chaput CD, Shar A, Jupiter D, Hubert Z, Clough B, Krause U, Gregory CA.. How stem cell composition in bone marrow aspirate relates to clinical outcomes when used for cervical spine fusion Journal PLOS One 2018 Sep.
2. Clough BH, Zeitouni S. Krause U, Chaput CD, Cross LM, Gaharwar AK, Gregory CA.. Rapid Osteogenic Enhancement of Stem Cells in Human Bone Marrow Using a Glycogen-Synthase-Kinase-3 Beta Inhibitor Improves Osteogenic Efficacy in Vitro and In Vivo Stem Cells Translational Medicine 2018 2018 Apr.
3. Christopher Chaput, Nathan B. Haile, Adity A M. Muzumdar, David M. Gloystein, Vasiliios A. Zerris, Paul J. Tortolani, Mark Rahm, Mark Moldavsky, Suresh Chinthakunta and Saif Khalil.. Anterior Fixation of Floating Facet Fractures in the Cervical Spine: A Prospective Case Series and Biomechanical Analysis International Journal of Spine Surgery 2018 Mar:85-91.

SPORTS MEDICINE UPDATE

John R. “Trey” Green, III, MD



The Sports Medicine Division is continuing to grow and now includes surgeons, Trey Green and Phil Jacobs, physician assistant, Ada Montalvo, and physiatrist, Denise Norton. Dr. Jacobs has been selected to oversee the medical care of the Houston Open, a PGA tour event in October.

Our 2018-2019 sports medicine fellow is Kristalyn Mauch who completed her orthopaedic surgery residency at Detroit Medical Center/Wayne State University and plans to return home to work at Mid-Michigan Medical Center in Alpena, MI. We are looking forward to welcoming our next

fellow in August, Dr. Christopher Meltsakos who is finishing his orthopaedic surgery residency at New York Medical College.

In January, we hosted a very successful 46th Annual Sports Medicine Symposium, which returned to the UT Health San Antonio main campus. This is one of the longest tenured multi-disciplinary comprehensive two-day courses for athletic trainers, physical therapists and physicians in the country. The second annual Best Practices in Rehabilitation Conference will focused on the shoulder and was held on Saturday, April 13 for physical therapists. We plan to hold the Outpatient Orthopaedics for Primary Care Conference, which is a one-day primer in office based musculoskeletal care for primary care physicians, nurse practitioners and physician assistants.

In the past year, our physical therapy capabilities have expanded from our main MARC location to a second clinic at the Hill Country clinic. Our equipment has been upgraded to the best in South Texas, and we have the experts to handle the gamut. Board certified orthopaedic specialist, Sheri Huehn, PT, leads the team, with board certified neuro specialist, Crystal Keller, PT, vestibular specialist, Barry Morgan, PT, pelvic health specialist, Emily Hood, PT, 3 Certified Sports and Orthopaedic Manual Therapists, Rudy Solis, PT, Lizette Magalong Solis, PT, and Kayla Reynolds, PT, and 1 Fellow of the American Academy of Orthopaedic and Manual Therapists, Chad Hodges, PT.

ORTHOPAEDIC TRAUMA UPDATE



Animesh Agarwal, MD, FAOA

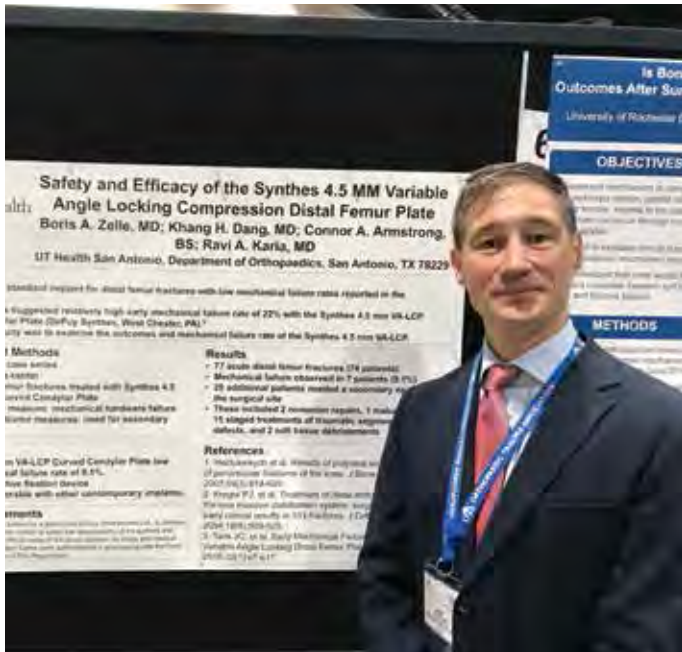
The Orthopaedic Trauma Division at University Hospital (UHS) remains the busiest service that residents rotate through. The core faculty are comprised of three fellowship trained orthopaedic traumatologists: Animesh Agarwal, MD, Ravi Karia, MD, and Boris Zelle, MD.

The service is supported by a fellowship trained shoulder and elbow specialist – Anil Dutta, MD; two fellowship trained Hand Surgeons – Fred Corley, MD and Ryan Rose, MD; and a fellowship trained plastic-hand surgeon, Doug Cromack, MD. This Ortho-Plastic service is well integrated into the care of our trauma patients and has improved our outcomes in the management of patients with open fractures. The inpatient care of the orthopaedic trauma patients is facilitated by three PAs: John Kodosky, PA, PhD, Chris DeLallo, PA, and Priscilla Ramos, PA, as well as two clinical nurses: Melissa Lopez, RN, and Georgina Perez, RN.

The service is comprised of approximately 7-9 residents (PGY-1 through PGY-5) whom rotate on the orthopaedic trauma service each month. We continue to have a San Antonio Military Medical Center (SAMMC) resident rotate on the service every two months as well. This August, Dr. Thomas Hand, one of our 2019 graduating residents, will become the first Orthopaedic Trauma Association (OTA) accredited orthopaedic trauma fellow on the service. We have been a site for an AO International Trauma fellowship since 2015 and continue to host surgeons from all over the world. Resident education involves primarily hands on clinical training as well as didactic lectures, fracture conferences, and journal clubs.

University Hospital remains the only civilian Level 1 trauma center in San Antonio and South Texas, covering all of South Texas to the Mexican border. In 2018, the UHS trauma service saw over 7500 patients in the ER of which over 4800 were admitted. The Orthopaedic Trauma Division was consulted on over 1800 of these patients. There were over 400 direct admission to the Orthopaedic Trauma Division for isolated orthopaedic injuries. The orthopaedic trauma and ortho-plastics service performed over 1800 procedures in 2018 at University Hospital. The trauma clinic at UHS, built in 2017, allows us to provide follow-up care for our patients. The clinic continues to see over 16,000 clinic visits annually, and that number continues to grow. The fragility fracture clinic, which utilizes the American Orthopaedic Association's (AOA) Own the Bone program, continues to receive Star Performer recognition by the AOA.

Clinical research continues to be an integral part of the Orthopaedic Trauma Division. We have a clinical research nurse, Rachel Pesek, RN, who has been instrumental in our projects. We continue to be involved in multiple studies as a satellite center for the Major Extremity Trauma Research Consortium (METRC). We are currently involved in over six clinical studies and additionally have 14 active IRB protocols. Most recently, we were awarded a \$2.9 million dollar DoD grant in a collaborative multi-center prospective study with the Department of Emergency Medicine.



The Department of Orthopaedics was well-represented at the Annual meeting of the Orthopaedic Trauma Association (OTA), October 17-20, 2018 in Orlando, FL. Dr. Boris A. Zelle presented our institutional experience on safety of distal femur plate fixation.



Dr. Boris A. Zelle, Invited Speaker at the 39th SICOT Orthopaedic World Congress, October 10-13, 2018 in Montreal, presented two lectures, entitled "Value and Visibility of Published Paper" as well as "Pelvic Ring Injuries: The San Antonio Approach".



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RESEARCH DIVISION

RESEARCH UPDATE



Boris A. Zelle, MD, FAOA
Vice Chair of Research

The last year has been another very successful year for the Research Division. As highlighted in this section, our department has published more than 30 indexed manuscripts in peer-reviewed scientific journals. Many of these papers were published in premier orthopaedic journals, which emphasizes the high quality of research within our department. Moreover, we proudly noticed that a lot of the published research was contributed by our residents. We believe that resident research is an integral part of a strong residency program as it allows residents to accomplish scholarly work and more importantly, contributes to their learning experience. These qualities lead up to successful manuscript publication and play a key role in training the next-generation of physician scientists. There are many factors that lead up to successful manuscript publication. Above all, research requires a team approach. Over the last year, we have added high-quality individuals to our team. In August 2018, Kush Shah, PhD joined the department as a Research Associate and we could not have asked for a better

addition to our team. His multitude of research skills are invaluable for the research progress in our department. Moreover, we have launched an orthopaedic research fellowship with the goal of developing a thriving research program for medical students. Currently, Samuel Ornell is completing his one-year research fellowship and has been very prolific during this time. For the years to come, it will remain our goal to provide our incoming research fellows with the opportunity to produce high-quality research. We also must express our gratitude to KCI Acclivity, our great industry partner, for funding our research fellowship position for years to come. In this context, we would also like to emphasize that successful research is always the result of successful collaborations. A particular focus of our research effort is to expand our research network and incorporate collaborators from the School of Medicine, the Health Science Center, UTSA, outside institutions, and industry. While some of these collaborative efforts are in the development process, several collaborations have already come to fruition. Going forward, we will continue to foster and cherish collaborations with external experts. Suffice to say that we are very grateful to all individuals who were involved in our research program over the last year including medical students, residents, department staff, collaborators, and sponsors. We are looking forward to building upon this strong research foundation to achieve even greater heights in the years to come.

BASIC SCIENCE RESEARCH UPDATE

**Vaida Glatt, PhD**

Dr. Vaida Glatt, is an assistant professor and the Director of Basic Science Research for the Department of Orthopaedic Surgery at the University of Texas Health Science Center San Antonio. Her background is in biomedical engineering and medical science, and during Dr. Glatt's career she has had the opportunity to conduct musculoskeletal research at the Center for Advanced Orthopaedic Studies, Harvard Medical School (Boston, USA), Julius Wolff Institut (Berlin, Germany), and Institute of Health and Biomedical Innovation at Queensland University of Technology (Brisbane Australia). She has actively collaborated with researchers and clinicians locally and across the globe, fostering relationships that generate synergistic approaches to help solve interdisciplinary research solutions. Dr. Glatt joined the department in 2016, with a primary interest in translational research to develop novel strategies for the treatment and regeneration of musculoskeletal tissues. Her major focus has been in mechano-biology, which is the study of the interactions between mechanical and biological factors, to better explain the influence of mechanical conditions on bone healing. She was the first to describe the process of Reverse Dynamization, a counter intuitive method to accelerate fracture healing that runs contrary to what has been done in prior experimental and clinical studies.

Dr. Glatt has made numerous contributions to the orthopaedic literature as an author, a reviewer and editor for orthopaedic journals, as a reviewer of grant applications, an invited speaker and lecturer, and has presented her work at over 50 national and international conferences. She is an author of more than 60 publications in peer-reviewed journals – 12 of which were published in 2018. She's a contributing book author, and as an early career academic has been successful in attracting research income from the AO Foundation (Switzerland), Department of Defense (USA), the Vice-Chancellor's Research Fellowship (Australia), the Australian Orthopaedic Association, and the Deutsche Forschungsgemeinschaft (Germany), the equivalent to the NIH grant system in the USA.

Dr. Glatt's research team is currently involved in research projects combining both engineering and biological approaches to develop novel treatment strategies for the regeneration and

repair of bone and cartilage. Currently, her team consists of post-doctoral fellow Anna Woloszyk, PhD, resident Kenneth Mensch, MD, medical students Abraham Ifeoluwapo Bankole and Patrick Ryan, and research assistant Leonardo Aguilar, BS. Dr. Glatt is in the process of expanding her team by hiring another post-doctoral fellow and a research assistant to investigate cartilage. Dr. Glatt's research team is also currently working to regenerate cartilage tissue through mechanical stimulation. She is presently awaiting the outcomes of three grants from the Department of Defense, as a principal investigator to create a biocompatible scaffold, a novel treatment for bone regeneration, and from the Institute of Integration for Medicine & Science, the Clinical and Translational Science Award, as a principal investigator, where the main goal is to characterize the structural properties of hematoma of normally healing fractures in order to improve treatment of fracture nonunions and large bone defects. Furthermore, in collaboration with Frank Buttacavoli, MD, Dr. Glatt has submitted a grant to the Orthopaedic Research and Education Foundation, New Investigator Grant, as a co-investigator to improve understanding of the risk factors associated with persistent acute or chronic pain post-operatively after primary total knee arthroplasty, and to develop new pain management strategies for these patients and consequently reduce the reliance on opioids in these patients. Moreover, her team is continuing to collaborate with Kevin Tetsworth, MD FRACS (Australia), who is an expert in limb salvage and reconstruction, to improve the treatment of massive long bone defects using 3D printed patient-specific titanium cages, while exploring the biologic activity of Masquelet membranes as an aide to healing large bone defects. Additionally, Dr. Glatt has filed a provisional patent (62/732,534) on September 17, 2018 through the Office of Technology Commercialization, UTHSCSA. This proprietary patent relates to the compositions and methods of improving treatment and accelerating the healing of large segmental bone defects in patients. The treatment method comprises the application of a special scaffold with a very low dose of BMP-2 to patients.

Furthermore, Dr. Glatt is actively involved in resident research and education to foster the development of a new generation of researchers, and is in the process of establishing a pathway for new investigators to gain the experience needed to write manuscripts and to secure grant funding.

PUBLISHED MANUSCRIPTS

Wound Complications after Open Reduction and Internal Fixation of Tibial Plateau Fractures in the Elderly: A Multicentre Study

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³Rocky Vista University, Parker, CO, USA

Abstract

Purpose: The incidence of wound complications after open reduction with internal fixation (ORIF) of tibial plateau fractures in young patients has been reported to range from approximately 5 to 15%. Reports on wound complication rates in the elderly patients are limited. This study investigates the incidence of post-operative wound complications in elderly patients undergoing ORIF of their tibial plateau fractures.

Methods: A retrospective study was performed within three accredited level 1 trauma centres. Patients > 60 years of age undergoing open reduction and internal fixation of their tibial plateau fractures were included. The primary outcome measure was wound complications of the surgical site. These were divided into superficial infections versus deep infections.

Results: One hundred two patients matched the inclusion criteria. Of these, 16 patients (15.7%) developed a post-operative wound infection. The analysis of underlying co-morbidities and risk factors revealed that patients with American Society of Anaesthesiologists (ASA) classes 3 and 4 were at significantly increased risk of sustaining a wound complications as compared to ASA classes 1 and 2 (23.7 versus 5.1%, $p=0.015$).

Conclusions: The overall infection rates in elderly patients undergoing ORIF for tibial plateau fractures is in a similar range to published data on younger patient populations. In particular, elderly patients without significant co-morbidities seem to be appropriate candidates for ORIF of their tibial plateau fractures. However, elderly patients with significant co-morbidities must be considered as high risk and alternative treatment options, such as nonoperative treatment or less invasive surgical options, should be explored in these patients.

Gaunder CL, Zhao Z, Henderson C, McKinney BR, Stahel PF, Zelle BA. International Orthopaedics (SICOT). 2018. Doi: <https://doi.org/10.1007/s00264-018-3940-9> is available at <https://link.springer.com/article/10.1007%2Fs00264-018-3940-9>. © SICOT aisbl 2018. Reproduced with permission from SICOT through Copyright Clearance Center, Inc.

Orthopaedic Resident Practice Management and Health Policy Education: Evaluation of Experience and Expectations

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Abstract

Introduction: Practice management and health policy have generally not been considered integral to orthopaedic resident education. Our objective was to evaluate residents' current experience and knowledge, formal training, and desire for further education in practice management and health policy.

Methods: We developed a 29-question survey that was divided into three sections: practice management, initial employment opportunity, and health policy. Within each section, questions were directed at a resident's current experience and knowledge, formal training, and interest in further education. The survey was distributed at the end of the academic year through an Internet-based survey tool (www.surveymonkey.com) to orthopaedic residents representing multiple programs and all postgraduate years.

Results: The survey was distributed to 121 residents representing eight residency programs. Of those, 87 residents responded, resulting in a 72% response rate. All postgraduate years were represented. Regarding practice management, 66% had "no confidence" or "some confidence" in coding clinical encounters. When asked if practice models, finance management, and coding should be taught in residency, 95%, 93%, and 97% responded "yes," respectively. When evaluating first employment opportunities, the three most important factors were location, operating room block time, and call. Regarding health policy, 28% were "moderately familiar" or "very familiar" with the Physician Payments Sunshine Act, and 72% were "not familiar" or "somewhat familiar" with bundled payments for arthroplasty. Finally, when asked if yearly lectures in political activities would enhance resident education, 90% responded "yes."

Discussion and conclusion: Regarding practice management, the survey suggests that current orthopaedic residents are not familiar with basic topics, do not receive formal training, and want further education. The survey suggests that residents also receive minimal training in health policy. Residents feel that health policy will be important in their careers, and they would benefit from formal training in residency.

Stautberg Iii EF, Romero J, Bender S, DeHart M. Orthopaedic Resident Practice Management and Health Policy Education: Evaluation of Experience and Expectations. *Cureus*. 2018;10(4):e2461. Published 2018 Apr 11. Doi:10.7759/cureus.2461 is available at <https://www.cureus.com/articles/10571-orthopaedic-resident-practice-management-and-health-policy-education-evaluation-of-experience-and-expectations>. © Stautberg III et al. This work is licensed under a Creative Commons Attribution International License CC-BY 3.0 (<https://creativecommons.org/licenses/by/4.0/>).

Single- versus Double-Row Repair for Full-Thickness Rotator Cuff Tears using Suture Anchors. A Systematic Review and Meta-Analysis of Basic Biomechanical Studies

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Abstract

Purpose: The purpose of this study was to perform a systematic review and meta-analysis comparing single- and double-row biomechanical studies to evaluate load to failure, mode of failure and gap formation.

Materials and Methods: A systematic review of MEDLINE, Embase, Scopus and Google Scholar was performed from 1990 through 2016. The inclusion criteria were: documentation of ultimate load to failure, failure modes and documentation of elongation or gap formation. Studies were excluded if the study protocol did not use human specimens. Publication bias was assessed by funnel plot and Egger's test. The risk of bias was established using the Cochrane Collaboration's risk of bias tool. Heterogeneity was assessed using χ^2 and I_2 statistic.

Results: Eight studies were included. The funnel plot was asymmetric suggesting publication bias, which was confirmed by Egger's test ($p = 0.04$). The pooled estimate for load to failure demonstrated significant differences (SMD 1.228, 95% CI: 0.55-5.226, $p = 0.006$, $I_2 = 60.47\%$), favouring double-row repair. There were no differences for failure modes. The pooled estimate for elongation/gap formation demonstrated significant differences (SMD 0.783, 95% CI: 0.169-1.398, $p = 0.012$, $I_2 = 58.8\%$), favouring double-row repair.

Conclusion: The results of this systematic review and meta-analysis suggest that double-row repair is able to tolerate a significantly greater load to failure. Gap formation was also significantly lower in the double-row repair group, but both of these findings should be interpreted with caution because of the inherent interstudy heterogeneity.

Hohmann E, König A, Kat CJ, Glatt V, Tetsworth K, Keough N. European Journal of Orthopaedic Surgery & Traumatology. 2018, 28:859. Doi: <https://doi.org/10.1007/s00590-017-2114-6> is available at <https://link.springer.com/article/10.1007/s00590-017-2114-6>. © Springer-Verlag France SAS, part of Springer Nature 2017. Reproduced with permission from Springer-Verlag France SAS through Copyright Clearance Center, Inc.

Two-Stage Osseointegrated Reconstruction of Post-traumatic Unilateral Transfemoral Amputees

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Abstract

A new technique called osseointegration was introduced recently by intimately connecting the artificial limb prosthesis to the residual bone, eliminating the problematic socket-residuum interface. The objective here is to describe the two-stage strategy for the osseointegrated reconstruction of amputated limbs and discuss the clinical outcomes of the procedure. This is a prospective case series of 37 post-traumatic unilateral transfemoral amputees with a minimum 2-yr follow-up. Outcome measures included the Questionnaire for persons with a Transfemoral Amputation (Q-TFA), the Short Form Health Survey 36 (SF-36), the 6 Minute Walk Test (6MWT), and Timed Up and Go (TUG) tests. Adverse events including infection, revision surgery, fractures, and implant failures were reported. Clinical outcomes for all outcome measures were significantly improved at follow-up. Twelve participants were wheelchair bound pre-operatively; however, all 12 were able to ambulate after osseointegrated reconstruction. Sixteen patients experienced infection episodes but were managed successfully without the need for implant removal. One periprosthetic fracture occurred due to increased activity, which was revised successfully. These results confirm that the procedure is a suitable alternative for post-traumatic unilateral transfemoral amputees experiencing socket-related discomfort, with the potential to reduce recovery time compared with other treatment protocols.

Muderis MA, Lu W, Glatt V, Tetsworth K. *Military Medicine*. 2018, 183: 496. Doi: <https://doi.org/10.1093/milmed/usx185> is available at https://academic.oup.com/milmed/article/183/suppl_1/496/4959976. © Association of Military Surgeons of the United States 2018. Reproduced with permission from *Military Medicine* through Copyright Clearance Center, Inc.

Functional Outcomes of the Failed Plate Fixation in Distal Tibial Fractures Salvaged by Hexapod External Fixator

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Abstract

Purpose: The purpose of this study was to evaluate the clinical and functional outcomes of failed plate fixation in distal tibia fractures salvaged with hexapod circular fixators.

Materials and Methods: The database of a specialized limb reconstruction center was searched for all patients with failed plate fixation undergoing limb reconstruction with a circular external fixator between 2008 and 2017. Patients between the ages of 18-65 years, with a symptomatic distal tibia malunion or non-union following plate and screw fixation were included. The SF-12 and Foot Function Index (FFI) scoring systems were used to measure clinical and functional outcomes.

Results: Ten patients with a mean age of 38 ± 13 years met the inclusion criteria. Seven patients had an infected non-union, two hypertrophic non-unions, and one a malunion. The mean follow-up was 41.7 ± 28.3 months. The mean duration of external fixation was 232.9 ± 146.6 days. The SF-12 demonstrated a mean score of 49.4 ± 7.7 for the physical component and a mean score of 55.3 ± 8.1 for the mental component. Five patients (50%) scored above 45 points for the SF12 physical component, and nine patients (90%) scored above 45 points for the mental component, indicating good outcome can be achieved. The mean FFI score was 24.9 ± 19.9 , and six patients had a score below 14 points (good outcome). Radiological union was observed in all 10 patients at a mean of 29 ± 14 months.

Conclusions: The results of this study suggest that hexapod circular external fixation is an attractive surgical alternative for the treatment of failed plate fixation of distal tibial fractures, and can reliably achieve bony union and result in very satisfactory clinical outcomes.

Molepo M, Barnard AC, Birkholtz F, Tetsworth K, Glatt V, Hohmann E. European Journal of Orthopaedic Surgery & Traumatology. 2018, 28:1617. Doi: <https://doi.org/10.1007/s00590-018-2231-x> is available at <https://link.springer.com/article/10.1007/s00590-018-2231-x>. © Springer-Verlag France SAS, part of Springer Nature 2017. Reproduced with permission from Springer-Verlag France SAS through Copyright Clearance Center, Inc.

Swimming Induced Pulmonary Oedema in Athletes - A Systematic Review and Best Evidence Synthesis

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Abstract

Background: Swimming induced pulmonary oedema is an uncommon occurrence and usually presents during strenuous distance swimming in cold water. The prevalence is most likely underreported and the underlying mechanisms are controversial. The purpose of this study was to summarize the evidence with regards to prevalence, pathophysiology and treatment of swimming induced pulmonary oedema in endurance athletes.

Methods: Medline, Embase, Scopus and Google Scholar were searched and level I-IV from 1970 to 2017 were included. For clinical studies, only publications reporting on swimming-induced pulmonary oedema were considered. Risk of bias was assessed with the ROBINS-I tool, and the quality of evidence was assessed with the Cochrane GRADE system. For data synthesis and analysis, a best evidence synthesis was used.

Results: A total of 29 studies were included (174 athletes). The most common symptom was cough, dyspnoea, froth and haemoptysis. The risk of bias for the clinical studies included 13 with moderate risk, 3 with serious, and 4 with critical. Four of the pathophysiology studies had a moderate risk, 3 a serious risk, and 1 a critical risk of bias. A best evidence analysis demonstrated a strong association between cold water immersion and increases of CVP (central venous pressure), MPAP (mean pulmonary arterial pressure), PVR (peripheral vascular resistance) and PAWP (pulmonary arterial wedge pressure) resulting in interstitial asymptomatic oedema.

Conclusion: The results of this study suggest a moderate association between water temperature and the prevalence of SIPE. The presence of the clinical symptoms cough, dyspnoea, froth and haemoptysis are strongly suggestive of SIPE during or immediately following swimming. There is only limited evidence to suggest that there are pre-existing risk factors leading to SIPE with exposure to strenuous physical activity during swimming. There is strong evidence that sudden deaths of triathletes are often associated with cardiac abnormalities.

Hohmann E, Glatt V, Tetsworth K. BMC Sports Science, Medicine and Rehabilitation. 2018, 10: 18. Doi: <https://doi.org/10.1186/s13102-018-0107-3> is available at <https://rdcu.be/bor3g>. © The authors. 2018. This work is licensed under a Creative Commons Attribution International License CC-BY (<https://creativecommons.org/licenses/by/4.0/>).

Image Analysis Software as a Strategy to Improve the Radiographic Determination of Fracture Healing

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Abstract

Objectives: To develop and validate an unbiased, accurate, convenient, and inexpensive means of determining when an osseous defect has healed and recovered sufficient strength to allow weight bearing.

Methods: A novel image processing software algorithm was created to analyze the radiographic images and produce a metric designed to reflect the bone strength. We used a rat femoral segmental defect model that provides a range of healing responses from complete union to nonunion. Femora were examined by x-ray, micro-computed tomography and mechanical testing. Accurate simulated radiographic images at different incident x-ray beam angles were produced from the micro-computed tomography data files.

Results: The software-generated metric (SC) showed high levels of correlation with both the mechanical strength (τ Mech) and the polar moment of inertia (pMOI), with the mechanical testing data having the highest association. The optimization analysis yielded optimal oblique angles θ_B of 125 degrees for τ Mech and 50 degrees for pMOI. The Pearson R values for the optimized model were 0.71 and 0.64 for τ Mech and pMOI, respectively. Further validation using true radiographs also demonstrated that the metric was accurate and that the simulations were realistic.

Conclusions: The preliminary findings suggest a very promising methodology to assess bone fracture healing using conventional radiography. With radiographs acquired at appropriate incident angles, it proved possible to accurately calculate the degree of healing and the mechanical strength of the bone. Further research is necessary to refine this approach and determine whether it translates to the human clinical setting.

Arthroscopic Partial Meniscectomy Versus Physical Therapy for Degenerative Meniscus Lesions: How Robust Is the Current Evidence? A Critical Systematic Review and Qualitative Synthesis

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Abstract

Purpose: The purpose of this systematic review was to investigate study quality and risk of bias for randomized trials comparing partial meniscectomy with physical therapy in middle-aged patients with degenerative meniscus tears.

Methods: A systematic review of Medline, Embase, Scopus, and Google Scholar was performed from 1990 through 2017. The inclusion criteria were at least 1 validated outcome score, and middle-aged patients (40 years and older) with a degenerative meniscus tear. Studies with a sham arm, and acute and concomitant injuries were excluded. Risk of bias was assessed with the Cochrane Risk of Bias Tool. The quality of studies was assessed with the Cochrane GRADE tool and quality assessment tool (Effective Public Health Practice Project). Publication bias was assessed by funnel plot and Egger's test. The I² statistics was calculated a measure of statistical heterogeneity.

Results: Six studies were included, and all were assessed as having a high risk of bias. There was no publication bias ($P = .23$). All studies were downgraded (low, $n = 5$; very low, $n = 1$). The Effective Public Health Practice Project assessed 1 study as strong, 2 as moderate, and 3 as weak. The overall results demonstrated moderate to low quality of the included studies. The I² statistic was 96.2%, demonstrating substantial heterogeneity between studies.

Conclusions: The results of this systematic review strongly suggest that there is currently no compelling evidence to support arthroscopic partial meniscectomy versus physical therapy. The studies evaluated here exhibited a high risk of bias, and the weak to moderate quality of the available studies, the small sample sizes, and the diverse study characteristics do not allow any meaningful conclusions to be drawn. Therefore, the validity of the results and conclusions of prior systematic reviews and meta-analyses must be viewed with extreme caution. The quality of the available published literature is not robust enough at this time to support claims of superiority for either alternative, and both arthroscopic partial meniscectomy or physical therapy could be considered reasonable treatment options for this condition.

Hohmann E, Glatt V, Tetsworth K, Cote M. Arthroscopy: The Journal of Arthroscopic & Related Surgery. 2018, 34(9): 2699. Doi: <https://doi.org/10.1016/j.arthro.2018.04.018> is available at <https://www.sciencedirect.com/science/article/pii/S0749806318303785>. © 2018 by the Arthroscopy Association of North America. Reproduced with permission from the Arthroscopy Association of North America through Copyright Clearance Center, Inc.

Ultrasonic Percutaneous Tenotomy of Common Extensor Tendons for Recalcitrant Lateral Epicondylitis

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Abstract

Tennis elbow is a common musculoskeletal condition affecting middle-aged patients with symptoms usually lasting from 6 months to 2 years. The vast majority of individuals will respond to conservative therapy; however, some will require surgical intervention. A new treatment system has been developed for use with ultrasound guidance in the ultrasonic microresection of tendinopathic tissue. This technology has been implemented in the TX1 Tissue Removal System and is used to treat various tendinopathies by debridement using targeted ultrasonic energy. We describe the surgical technique for the TX1 system as well as provide pain and functional outcome scores for a series of patients with recalcitrant lateral epicondylitis treated with percutaneous tenotomy with ultrasonic energy utilizing ultrasound guidance.

Battista C, Dorweiler M, Fisher M, Morrey B, Noyes, M. Techniques in Hand & Upper Extremity Surgery. 2018, 22(1): 15. Doi: 10.1097/BTH.0000000000000178 is available at https://journals.lww.com/techhandsurg/fulltext/2018/03000/Ultrasonic_Percutaneous_Tenotomy_of_Common.4.aspx. © 2018 Wolters Kluwer Health, Inc. All rights reserved. Reproduced with permission from Wolters Kluwer Health, Inc. through Copyright Clearance Center, Inc.

Surgical Management of Osteoarthritis of the Knee

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Abstract

The American Academy of Orthopaedic Surgeons has developed Appropriate Use Criteria (AUC) for Surgical Management of Osteoarthritis of the Knee. Evidence-based information, in conjunction with the clinical expertise of physicians, was used to develop the criteria to improve patient care and obtain best outcomes while considering the subtleties and distinctions necessary in making clinical decisions. The Surgical Management of Osteoarthritis of the Knee AUC clinical patient scenarios were derived from indications of patients under consideration for surgical treatment of osteoarthritis of the knee as well as from current evidence-based clinical practice guidelines and supporting literature to identify the appropriateness of the three treatments. The 864 patient scenarios and 3 treatments were developed by the writing panel, a group of clinicians who are specialists in this AUC topic. Next, a separate, multidisciplinary, voting panel (made up of specialists and nonspecialists) rated the appropriateness of treatment of each patient scenario using a 9-point scale to designate a treatment as Appropriate (median rating, 7 to 9), May Be Appropriate (median rating, 4 to 6), or Rarely Appropriate (median rating, 1 to 3).

Quinn RH, Murray J, Pezold R, Sevarino KS. Journal of the American Academy of Orthopaedic Surgeons. 2018, 26(9): e191. Doi: 10.5435/JAAOS-D-17-00424 is available at <https://ooc.ovid.com/article/00124635-201805010-00004/HTML>. © 2018 by American Academy of Orthopaedic Surgeons. Reproduced with permission from American Academy of Orthopaedic Surgeons through Copyright Clearance Center, Inc.

Is the "Appropriate Use Criteria" for Type II Supracondylar Humerus Fractures Really Appropriate?

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Diffuse Pigmented Villonodular Synovitis as a Rare Cause of Graft Failure Following Anterior Cruciate Ligament Reconstruction

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Abstract

This case report describes a 42-year-old woman who was diagnosed with pigmented villonodular synovitis (PVNS) in the knee. The patient had received a bone-patella tendon-bone autograft reconstruction of her anterior cruciate ligament (ACL) 22 years prior to her diagnosis of PVNS. After a traumatic event that tore her ACL graft, she underwent a second surgery to repair the initial reconstruction. However, her pain and joint instability remained unresolved. When radiolucent lesions in her tibia and femur were identified through a radiographic image, the patient was referred to the authors' orthopedic oncology clinic. Additional imaging, including magnetic resonance imaging, revealed PVNS, and she was scheduled for debridement and a complete synovectomy of the knee. After surgery, the patient's pain decreased dramatically. She continues to maintain an active lifestyle despite a relatively minor decrease in range of motion. In this case, PVNS proved to be an unlikely complication after ACL reconstruction. The patient remains at risk for the development of degenerative arthritis.

Rajani R, Ogden L, Matthews CJ, Gibbs P. Orthopedics. 2018, 41(1): e142. Doi: <https://doi.org/10.3928/01477447-20170719-06> is available at https://www.healio.com/orthopedics/journals/ortho/2018-1-41-1/%7B18ce5d0c-878e-40a0-ac53-72352e38217f%7D/diff_use-pigmented-villonodular-synovitis-as-a-rare-cause-of-graft-failure-following-anterior-cruciate_ligament-reconstruction. © Slack Incorporated. Reproduced with permission from Slack, Inc. through Copyright Clearance Center, Inc.

Rapid Osteogenic Enhancement of Stem Cells in Human Bone Marrow Using a Glycogen-Synthase-Kinase-3-Beta Inhibitor Improves Osteogenic Efficacy *In Vitro* and *In Vivo*

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Abstract

Non-union defects of bone are a major problem in orthopedics, especially for patients with a low healing capacity. Fixation devices and osteoconductive materials are used to provide a stable environment for osteogenesis and an osteogenic component such as autologous human bone marrow (hBM) is then used, but robust bone formation is contingent on the healing capacity of the patients. A safe and rapid procedure for improvement of the osteoanabolic properties of hBM is, therefore, sought after in the field of orthopedics, especially if it can be performed within the temporal limitations of the surgical procedure, with minimal manipulation, and at point-of-care. One way to achieve this goal is to stimulate canonical Wntless (cWnt) signaling in bone marrow-resident human mesenchymal stem cells (hMSCs), the presumptive precursors of osteoblasts in bone marrow. Herein, we report that the effects of cWnt stimulation can be achieved by transient (1–2 hours) exposure of osteoprogenitors to the GSK3 β -inhibitor (2',3'E)-6-bromoindirubin-3'-oxime (BIO) at a concentration of 800 nM. Very-rapid-exposure-to-BIO (VRE-BIO) on either hMSCs or whole hBM resulted in the long-term establishment of an osteogenic phenotype associated with accelerated alkaline phosphatase activity and enhanced transcription of the master regulator of osteogenesis, Runx2. When VRE-BIO treated hBM was tested in a rat spinal fusion model, VRE-BIO caused the formation of a denser, stiffer, fusion mass as compared with vehicle treated hBM. Collectively, these data indicate that the VRE-BIO procedure may represent a rapid, safe, and point-of-care strategy for the osteogenic enhancement of autologous hBM for use in clinical orthopedic procedures.

Clough BH, Zeitouni S, Krause U, Chaput CD, Cross LM, Gaharwar AK, Gregory CA. Stem Cell Translational Medicine. 2018, 7(4): 342. Doi: <https://doi.org/10.1002/sctm.17-0229> is available at <https://stemcellsjournals.onlinelibrary.wiley.com/doi/full/10.1002/sctm.17-0229>. © The Authors Stem Cell Translational Medicine published by Wiley Periodicals, Inc. on behalf of AlphaMed Press. This work is licensed under a Creative Commons Attribution NonCommercial NoDerivatives 4.0 International (CC BY-NC-ND 4.0; <https://creativecommons.org/licenses/by-nc-nd/4.0/>)

Safety and Efficacy of a Two-Screw Cephalomedullary Nail for Intertrochanteric Femur Fracture Fixation: A Retrospective Case Series in 264 Patients

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Abstract

Introduction: Recent advances have led to the design of a new cephalomedullary nail, which aims to decrease the risk of failures in patients with intertrochanteric hip fractures by allowing for insertion of two interdigitating screws into the head segment. The goal of this study is to evaluate the safety and efficacy of this two-screw cephalomedullary nailing system.

Patients/participants: Patients 18 years of age and older who underwent intramedullary nailing of their intertrochanteric femoral fracture using the InterTAN nailing system (Smith and Nephew, Memphis, TN) from 2012 to 2016 were included in this retrospective study which was performed at two urban certified level-1 trauma centers and one urban certified level-3 trauma center. The study data was collected through a retrospective chart review and review of the existing radiographic studies. Primary outcome measure was mechanical hardware failure and screw cutout. Secondary outcome measures included nonunion, malunion, medical and surgical complications.

Results: A total of 264 patients were included in this analysis. Two patients (0.75%) were found to have a screw cut out requiring revision surgery. Two other revision surgeries were performed for malrotation (n=1) and malunion (n=1). Other implant-related complications occurred in 19 cases (7.9%), which included broken distal screws (n=9), distal screw loosening (n=8), and loose lag screws (n=2). There was a total of 10 (3.8%) surgical wound complications, including four deep and six superficial infections.

Discussion: This modified cephalomedullary nail is a reliable, safe, and effective implant for management of intertrochanteric hip fractures. Surgical treatment of patients with intertrochanteric hip fractures can be performed in a safe fashion using this implant.

Zelle BA, Webb AJ, Matson C, Morwood M, Dang KH, Ornell SS, Gostigian G, Ramirez CM, Mir H. Patient Safety in Surgery. 2018, 12: 31. Doi: <https://doi.org/10.1186/s13037-018-0177-x> is available at <https://pssjournal.biomedcentral.com/articles/10.1186/s13037-018-0177-x>. © The Authors. 2018. This work is licensed under a Creative Commons Attribution International License CC-BY (<https://creativecommons.org/licenses/by/4.0/>).

Minimal Effect of Implant Position on Failure Rates in Femoral Neck Fractures: Commentary on an article by Anne Marie Nyholm, MD, et al. “Osteosynthesis with Parallel Implants in the Treatment of Femoral Neck Fractures. Minimal Effect of Implant Position on Risk of Reoperation”

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Zelle BA. The Journal of Bone and Joint Surgery. American Volume. 2018, 100(19): e129. Doi: 10.2106/JBJS.18.00733 is available at <https://www.ncbi.nlm.nih.gov/pubmed/30278006>.

Outcomes of Distal Femur Fractures Treated with the Synthes 4.5 mm VA-LCP Curved Condylar Plate

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Abstract

Purpose: Given the recent controversy in the literature and the alarming reports of early mechanical failure associated with the use of the Synthes 4.5 mm VA-LCP Curved Condylar Plate in acute distal femur fractures, the goal of our study was to examine the outcomes and mechanical failure rates of this implant in a larger patient population.

Methods: Patients 18 years of age and older who underwent plate fixation of their acute distal femoral fracture using the Synthes 4.5 mm VA-LCP Curved Condylar Plate were included in this retrospective study. The study data was collected through a retrospective chart review and review of the existing radiographic studies. Primary outcome measure was mechanical hardware failure while secondary outcome measures included nonunion, malunion, and medical and surgical complications.

Results: A total of 74 patients (77 fractures) were included in this study. The fractures were classified according to the OTA/AO classification as 33-A2 (n=6), 33-A3 (n=19), 33-C1 (n=5), 33-C2 (n=25), and 33-C3 (n=22). Thirty-two out of 77 fractures presented as open fractures (41.6%). A mechanical failure was observed in 7 patients (9.1%). Twenty additional patients needed a re-operation of the surgical site including two nonunion repairs, one malunion repair, 15 staged treatments of traumatic segmental bone defects, and two soft tissue debridements.

Conclusions: In our experience, the Synthes 4.5 mm VA-LCP Curved Condylar Plate is a safe and effective implant with a relatively low mechanical failure rate.

Inter- and Intra-class Correlations for Three Standard Foot Radiographic Measurements for Plantar Surface Angles. Which Measure is Most Reliable?

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Abstract

Background: The purpose of this study was to evaluate the reliability and reproducibility of three commonly used radiographic measures for plantar surface angles.

Methods: The calcaneal angle (CA), calcaneal pitch angle (CPA), and length-height index (LHI) was measured by three independent examiners on two occasions on lateral foot radiographs. Intra- and inter-rater correlations were calculated using a general linear estimate model and post-hoc tests for repeated measures. Bland-Altman's plots with limits of agreement were used for observer differences in scores.

Results: The intra-class correlations for the CA ranged from 0.91 to 0.94, for the CPA from 0.93 to 0.98, and for the LHI from 0.96 to 0.97. The inter-class correlations were 0.80 for CA, 0.83 for CPA and 0.93 for LHI.

Conclusions: The results of this study strongly suggest that the length-height index was the most consistent and reliable measure for arch height.

Level of Evidence: Diagnostic Level II, validity.

Hohmann E, Myburgh J, Keough N, Tetsworth K, Glatt V. Foot Ankle Surg. 2018. Doi: 10.1016/j.fas.2018.07.007 is available at <https://www.sciencedirect.com/science/article/pii/S1268773118301383?via%3Dihub>. © Elsevier Ltd on behalf of European Foot and Ankle Society 2018. Reproduced with permission from European Foot and Ankle Society through Copyright Clearance Center, Inc.

Preliminary Results using Patient-Specific 3D Printed Models to Improve Preoperative Planning for Correction of Post-Traumatic Tibial Deformities with Circular Frames

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Abstract

Background: Preoperative planning for circular external fixators is considered vital towards achieving the best results for complex post-traumatic tibial deformities, and patient-specific 3D printed (3DP) models were used here as a planning aid. The main goal was to investigate the fidelity of the preoperative planning process, by assessing the potential to reduce operative time and determining the need to adjust pre-constructed frames intra-operatively.

Patients and Methods: Nine patients (10 limbs) underwent treatment for post-traumatic tibial complications using circular external fixation. These were compared to 10 similar cases where a 3DPM was not used as a pre-operative planning aide (Control group). Patient-specific models of affected bones were printed, and preoperative planning was performed using conventional techniques and Hexapod-assisted software. Detailed planning in a virtual procedure determined osteotomy levels and identified sites for wires and half-pins. The prototype of the external fixator was locked in this optimized configuration, removed from the model, and sterilized prior to the actual procedure.

Results: Nine patients with 10 limbs were treated for complications following tibial fractures. Seven were infected non-unions, and three cases were malunions. For all cases a CT based 3DP model of the full tibia was used in the preoperative planning stage. Image analysis required a mean of 1.7h, with an average of 14.9h to 3D print each model. In the control group (without a 3D model), the mean surgical time was 329 min (180-680). The mean surgical time in the 3DPM group was only 172.4 min (72-240), ($p=0.024$), reducing the surgery time by 48%. For the 3DPM group it was not necessary to modify the preassembled frame in any case, while in the Control group, the pre-constructed frame required intra-operative modifications in 8 of the 10 cases ($p=0.0007$).

Conclusion: Using patient-specific 3D models has allowed us to carry out meticulous preoperative planning sessions, eliminating the need to modify or alter the frame assembly in the operating room, saving substantial surgical time and enabling a more precise design of the apparatus. This was especially useful in multiplanar deformities and for the spatial configuration of the foot support, talus ring, and ankle ring.

Corona PS, Vincente M, Tetsworth K, Glatt V. Injury. 2018. Doi: 10.1016/j.injury.2018.07.017 is available at <https://www.sciencedirect.com/science/article/pii/S0020138318303747?via%3DihUb>. © Elsevier Ltd 2018. Reproduced with permission from Injury through Copyright Clearance Center, Inc.

Orthopaedic Academic Activity in the United States: Bibliometric Analysis of Publications by City and State

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Abstract

Background: The purpose of this study was to conduct a bibliometric analysis of orthopaedic academic output in the United States.

Methods: Publications based on city and state origin, corrected for population size, median household income, total number of surgeons, and the number of various subspecialties were evaluated. The 15 highest-ranked orthopaedic journals were audited from 2010 to 2014 and then subdivided into anatomic regions and 14 subspecialties.

Results: A total of 8,100 articles were published during the study period. Most originated from New York, California, Pennsylvania, Massachusetts, and Minnesota. New York published the greatest number by city, followed by Philadelphia, Boston, Chicago, and Rochester. When adjusted for the number of publications per city, surgeons per population, publications per surgeon population, publications per population, and publications per median income per capita, Vail and New York led in two and Stanford in one of the metrics.

Conclusions: New York was the leader for the total publications, greatest activity within subspecialties, and publications per surgeon/population and per median income/capita. Vail was the leader for publications/surgeon and population. The top four cities of New York, Philadelphia, Boston, and Chicago were responsible for 28% of the academic output over the 5-year study period.

Minimally Invasive Plate Osteosynthesis of Humeral Shaft Fractures: Current State of the Art

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Abstract

Most closed humeral shaft fractures can be successfully managed nonsurgically. However, fractures for which closed treatment is unsuccessful are stabilized using either plates or intramedullary nails. There are shortcomings associated with each technique, including the potential complications of nonunion, infection, shoulder pain, and radial nerve injury. Minimally invasive plate osteosynthesis (MIPO), an innovative alternative treatment, is gaining in popularity. This technique is based on the anterior humeral shaft providing a relatively safe surface for plate application, and limited open exposures proximally and distally allow percutaneous insertion of the necessary implant. More than 40 articles have been published regarding MIPO, and it compares favorably to other available forms of treatment with excellent functional outcomes and a lower rate of iatrogenic radial nerve injury. Larger randomized controlled trials comparing this method with other accepted techniques, including nonsurgical management, are necessary to better define the role of MIPO in the management of humeral shaft fractures.

Tetsworth K, Hohmann E, Glatt V. Journal of the American Academy of Orthopaedic Surgeons. 2018, 26(18): 652. Doi: 10.5435/JAAOS-D-17-00238 is available at https://journals.lww.com/jaaos/fulltext/2018/09150/Minimally_Invasive_Plate_Osteosynthesis_of_Humeral.4.aspx. © 2018 by American Academy of Orthopaedic Surgeons. Reproduced with permission from American Academy of Orthopaedic Surgeons through Copyright Clearance Center, Inc.

Assessment of Orthopedic Educational Research in 2015 Publications

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Abstract

Background: Due to orthopedic surgery's unique educational model, recent changes within graduate medical education have the potential to impact the methods and outcomes of specialty training significantly. Using Mind the Gap: Representation of Medical Education in Cardiology-Related Articles and Journals (Allred et al., 2016) as a framework, this study investigates educational research within the field of orthopedics.

Objective: Two main objectives were evaluated: (1) quantitative analysis of the amount and type of orthopedic education-related research in orthopedic, general surgery, and medical education journals and (2) estimate the priority of orthopedic journals to publish education-focused articles.

Methods: Using a composite citation-based 5-metric scoring system, a complete list of journals pertaining to orthopedics, nonorthopedic specific surgery journals, and general medical education journals was ranked. All publications during 2015 for the selected cohort of journals were then analyzed for orthopedic education-related publications. Aim and scope of the top 15 selected orthopedic journals (along with the mission statements of their associated societies) were evaluated with a word cloud generator to determine priority on education.

Results: Review of 7112 articles from the top 15 selected orthopedic journals yielded 37 publications with an educational focus. Evaluation of 15 general surgery or medical education journals, containing 4661 publications, generated an additional 28 positive articles. In total, 51 unique orthopedic education-related publications (0.43% of total evaluated articles) were identified from the 11,773 articles published in the selected 30 journals for 2015.

Conclusion: The lack of emphasis on orthopedic educational research output is multifactorial, needing further evaluation to determine specific causes and methods of improvement. This article adequately sheds light on the need to increase support of educational research programs within the field of orthopedics.

Midfoot Degenerative Arthritis and Partial Fusion After Pediatric Lisfranc Fracture-Dislocation

Gina Lesko¹, Kyle Altman¹, & Grant Hogue¹

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Abstract

We present a case of a 10-year-old girl who sustained a Lisfranc fracture-dislocation after an all-terrain vehicle accident. She underwent open reduction and internal fixation with smooth Kirschner wires. At 5-year follow-up, she had developed functional pain and radiographic evidence of degenerative arthritis and partial fusion of her midfoot. There are several possible explanations for this outcome, including loss of reduction, traumatic or iatrogenic physeal injury, and severity of initial injury. Long-term outcomes in children with Lisfranc injuries are not well described. Our case may begin to shed light on the natural history of these injuries in the pediatric population, with the consideration of potential treatment implications and pitfalls.

Lesko G, Altman K, Hogue G. JAAOS Global Research & Reviews. 2018, 2(3): e004. Doi: 10.5435/JAAOSGlobal-D-17-00004 is available at https://journals.lww.com/jaaosglobal/Fulltext/2018/03000/Midfoot_Degenerative_Arthritis_and_Partial_Fusion.1.aspx. © 2018 The Authors. Published by Wolters Kluwer Health, Inc. on behalf of the American Academy of Orthopaedic Surgeons. Reproduced with permission acquired through Copyright Clearance Center, Inc.

Anterior Fixation of Floating Facet Fractures in the Cervical Spine: A Prospective Case Series and Biomechanical Analysis

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Abstract

Background: Unilateral fractures involving complete separation of the lateral mass from the vertebra and lamina (floating lateral mass fractures) are a unique subset of cervical spine fractures. These injuries are at significant risk for displacement without operative fixation. Posterior fixation has proven to facilitate adequate fusion. However, there are few data supporting the clinical success of single-level anterior fixation.

Methods: Biomechanical evaluation of floating lateral mass fractures and a consecutive case series of patients with rotationally unstable floating lateral mass fractures treated with anterior fixation using an integrated cage-screw device with anterior plating (ICSD) was performed. The study comprised 7 fresh human cadaver cervical spines (C2-C7), and 11 patients with floating lateral mass fractures. Segmental flexibility testing evaluating axial rotation, flexion/extension, and lateral bending was performed in a cadaveric model after 2 types of single-level anterior fixation and 1 type of 2-level posterior fixation. Eleven patients with a floating lateral mass fracture of the cervical spine underwent anterior fixation with an ICSD. Radiographs and clinical outcomes were retrospectively reviewed.

Results: Compared with the intact condition, posterior instrumentation significantly ($P < .05$) reduced range of motion (ROM) in all 3 planes; anterior fixation with cervical plate and interbody spacer significantly reduced ROM in lateral bending only; and the ICSD significantly reduced ROM in flexion/extension and lateral bending. In the clinical arm, there were no long-term complications, subsidence >2 mm, failure of fixation, reoperation, pseudoarthrosis, or listhesis at final follow-up.

Conclusions: The addition of 2 screws placed through a cervical cage can improve anterior fixation in a human cadaveric model of floating lateral mass fractures. Early clinical results demonstrate a low complication rate and a high rate of healing with single-level anterior fixation using this technique.

How Stem Cell Composition in Bone Marrow Aspirate Relates to Clinical Outcomes When Used for Cervical Spine Fusion

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⁵Institute for Transfusion Medicine and Transplant Immunology, University Hospital Muenster, Muenster, Germany

Abstract

Anterior cervical discectomy and fusion (ACDF) is performed to relieve pain caused by degenerative disk disease and nerve obstruction. As an alternative to bone graft, autologous concentrated bone marrow aspirate (CBMA) is used to achieve vertebral fusion with a satisfactory success rate. This has been attributed in part to bone marrow-resident mesenchymal stromal cells (MSCs) with the capacity to differentiate into osteoblasts and generate bone tissue. To date, there has been no study comparing cellular yields, MSC frequencies and their osteogenic potential with ACDF outcome. Patients (n = 24) received ACDF with CBMA and allograft bone matrix. Colony forming unit fibroblast (CFU-F) and CFU-osteoblasts (CFU-O) assays were performed on CBMA samples to enumerate MSCs (CFU-F) and osteogenic MSCs (CFU-O). CFUs were normalized to CBMA volume to define yield and also to mononuclear cells (MNC) to define frequency. After 1-year, fusion rates were good (86.7%) with pain and disability improved. There was a negative relationship between MNC and CFU-F measurements with age of patient and CFU-Os negatively correlated with age in females but not males. Tobacco use did not affect CBMA but was associated with poorer clinical outcome. Surprisingly, we found that while high-grade fusion was not associated with CFU-O, it correlated strongly ($p < 0.0067$) with CBMA containing the lowest frequencies of CFU-F (3.0×10^{-6} – 5.83×10^{-5} CFU-F/MNC). MNC levels alone were not responsible for the results. These observations suggest that osteogenesis by human bone marrow is controlled by homeostatic ratio of MSCs to other cellular bone marrow components rather than absolute level of osteogenic MSCs, and that a lower ratio of MSCs to other cellular components in marrow tends to predict effective osteogenesis during ACDF. The results presented herein challenge the current dogma surrounding the proposed mechanism of MSCs in bone healing.

Chaput CD, Shar A, Jupiter D, Hubert Z, Clough B, Krause U, Gregory CA. PLOS One. 2018, 13(9): e0203714. Doi: <https://doi.org/10.1371/journal.pone.0203714> is available at <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0203714>. © The Authors. 2018. This work is licensed under a Creative Commons Attribution International License CC-BY 3.0 (<https://creativecommons.org/licenses/by/4.0/>).

One and Two-Year Clinical Outcomes for a Polyethylene Glenoid with a Fluted Peg: One Thousand Two Hundred Seventy Individual Patients from Eleven Centers

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Abstract

Purpose: Clinical shoulder science lacks a benchmark against which the early clinical value of new glenoid components can be compared; such a benchmark may be derived from a multicenter study of patients receiving an established, internationally used design of glenoid component.

Methods: We obtained data from 11 centers on 1270 patients having total shoulder arthroplasty using an all-polyethylene component with a fluted central peg. We analyzed individual patient outcomes at 1 and 2 years after surgery. We compared the improvement for each patient to the minimal clinically important difference (MCID) and calculated each patient's improvement as a percent of maximal possible improvement (MPI).

Results: The preoperative scores improved from SST 3 ± 2 , ASES 37 ± 15 , Constant score 36 ± 16 , and Penn score 30 ± 19 to SST 10 ± 2 , ASES 90 ± 12 , Constant 76 ± 13 , and Penn 80 ± 24 ($p < 0.001$ for each). A high percentage of patients improved by more than the MCID (SST 96%, ASES 98%, Constant 94%, Penn 93%) and obtained improvement of at least 30% of the MPI (SST 95%, ASES 98%, Constant 91%, Penn 87%). The clinical outcomes realized with this glenoid design were not worse for the 41% of shoulders with preoperative type B glenoids or for the 30% of shoulders with more than 15 degrees of glenoid retroversion.

Conclusions: Individual patients from 11 international practices having total shoulder arthroplasty using a basic glenoid component design obtained highly significant clinical outcomes, providing a benchmark against which the early outcomes of new designs can be compared to determine whether they provide increased clinical value.

Matsen FA, Iannotti JP, Churchill RS, et al. International Orthopaedics (SICOT). 2018. Doi: <https://doi.org/10.1007/s00264-018-4213-3> is available at <https://link.springer.com/article/10.1007%2Fs00264-018-4213-3>. © SICOT aisbl 2018. Reproduced with permission from SICOT through Copyright Clearance Center, Inc.

Validity of the Hispanic version of the American Academy of Orthopaedic Surgeons Foot and Ankle Outcomes Questionnaire in patients with traumatic foot and ankle injuries

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Abstract

Background: Hispanics represent the largest minority group in the United States and are projected to represent 29% of the US population by 2060. Enrolling Hispanic patients in clinical outcome trials is critical to study a representative sample of the general population. Lack of translated and validated survey tools has been identified as a major barrier to enrolling Spanish speaking patients. The purpose of this validation study was to study the correlation between the Spanish translation of the American Academy of Orthopaedic Surgeons Foot and Ankle Outcomes questionnaire (AAOS-FAOQ) and the Spanish versions of the Foot Function Index (FFI) and the Foot Health Status Questionnaire (FHSQ) in Hispanics from Mexican lineage with traumatic foot and ankle injuries.

Methods: A cross-sectional validation study in 36 Hispanic patients from Mexican lineage with foot and ankle injuries was performed. The Hispanic version of the AAOS-FAOQ and the Spanish translations of the FAOQ, FHSQ, FFI, and the Short-Form 36 questionnaire (SF-36) were distributed among all patients. Subsequent statistical analysis correlating the Hispanic version of the AAOS-FAOQ to the FFI, FHSQ, and SF-36 was performed. Additional analysis on the Hispanic AAOS-FAOQ included test-retest reliability and internal consistency.

Results: The Hispanic AAOS-FAOQ Global Foot and Ankle subscale showed statistically significant ($P < .05$) correlations with 5 of 8 subscales of the FHSQ, the FFI, and the Physical Component Summary subscale of the SF-36. The AAOS-FAOQ Global Foot & Ankle Scale also demonstrated a test-retest reliability of 0.736 and a strong internal consistency.

Conclusions: This study further validates AAOS-FAOQ in Mexican Hispanics by showing strong correlations with the validated Spanish versions of the FFI and FHSQ.

Zelle BA, Adcock, CF, Francisco BS, Morton-Gonzaba NA, Fajardo RJ. OTA International. 2018. Doi: 10.1097/OI9.0000000000000001 is available at https://journals.lww.com/otainternational/Fulltext/2018/04010/Validity_of_the_Hispanic_version_of_the_American.2.aspx. © 2018 by Lippincott Williams. This work is licensed under a Creative Commons Attribution International License CC-BY-ND 4.0 (<https://creativecommons.org/licenses/by-nd/4.0/>). Reprinted with permission acquired through Copyright Clearance Center, Inc.

Treatment of Paediatric Trigger Finger: A Systematic Review and Treatment Algorithm

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Abstract

Purpose: Paediatric trigger finger (PTF) is a rare condition as seen by the lack of studies published about paediatric populations. Due to this general lack of information, the steps to employ to correct this disorder, whether surgically or non-surgically, have not yet reached consensus status. The objective of this study is to review the published literature regarding treatment options for PTF in order to develop a proposed step-wise treatment algorithm for children presenting with trigger finger.

Methods: A systematic review of the literature was conducted on PubMed to locate English language studies reporting on treatment interventions of PTF. Data was collected on number of patients/fingers seen in the study, the category of the fingers involved, the number of patients/fingers undergoing each intervention and reported outcomes.

Results: Seven articles reporting on 118 trigger fingers were identified. In all, 64 fingers were treated non-surgically, with 57.8% (37/64) resolving. In all, 54 fingers were initially surgically treated, with 87% (47/54) resolving. In total, 34 fingers did not have resolution of symptoms following primary treatment, and 27 fingers received follow-up treatment, with 92.6% (25/27) resolving. Overall, 92.4% (109/118) of fingers achieved resolution of symptoms after all treatments were completed.

Conclusion: Limitations for this study included few prospective studies and small sample sizes. This is likely due to the rarity of PTF. This review of the literature indicated that a step-wise approach, including non-operative and surgical techniques, should be employed in the management of PTF.

Womack ME, Ryan JC, Shillingford-Cole V, Speicher S, Hogue GD. Journal of Children's Orthopaedics. 2018, 12(3): 209. Doi: <https://doi.org/10.1302/1863-2548.12.180058> is available at <https://online.boneandjoint.org.uk/doi/full/10.1302/1863-2548.12.180058>. © The Authors. 2018. This work is licensed under a Creative Commons Attribution-NonCommercial International License CC-BY-NC 4.0 (<https://creativecommons.org/licenses/by-nc/4.0/legalcode>).

Management of Osteoarthritis of the Hip

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Abstract

The American Academy of Orthopaedic Surgeons has developed the Appropriate Use Criteria (AUC) for the Management of Osteoarthritis of the Hip. Evidence-based information, in conjunction with the clinical expertise of physicians, was used to develop the criteria to improve patient care and obtain best outcomes while considering the subtleties and distinctions necessary in making clinical decisions. The Management of Osteoarthritis of the Hip AUC clinical patient scenarios were derived from indications typical of patients presenting with osteoarthritis of the hip in clinical practice. The 270 patient scenarios and 9 treatments were developed by the Writing Panel, a group of clinicians who are specialists in this AUC topic. Next, a separate multidisciplinary, Voting Panel (made up of specialists and nonspecialists) rated the appropriateness of treatment of each patient scenario using a 9-point scale to designate a treatment as Appropriate (median rating, 7 to 9), May Be Appropriate (median rating, 4 to 6), or Rarely Appropriate (median rating, 1 to 3).

Quinn RH, Murray J, Pezold R, Hall Q. Journal of the American Academy of Orthopaedic Surgeons. 2018, 26(20): e434. Doi: 10.5435/JAAOS-D-18-00351 is available at <https://oce.ovid.com/article/00124635-201810150-00006/HTML>. © 2018 by American Academy of Orthopaedic Surgeons. Reproduced with permission from American Academy of Orthopaedic Surgeons through Copyright Clearance Center, Inc.

Management of Development Dysplasia of the Hip in Infants up to Six Months of Age: Intended for Use by General Pediatricians and Referring Physicians

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²Department of Orthopaedics, University of Texas Health Science Center, San Antonio, TX, USA

Abstract

The American Academy of Orthopaedic Surgeons has developed the Appropriate Use Criteria (AUC) for the Management of Developmental Dysplasia of the Hip in Infants up to Six Months of Age: Intended for Use by General Pediatricians and Referring Physicians. Evidence-based information, in conjunction with the clinical expertise of physicians, was used to develop the criteria to improve patient care and obtain best outcomes while considering the subtleties and distinctions necessary in making clinical decisions. The Management of Developmental Dysplasia of the Hip in Infants up to Six Months of Age: Intended for Use by General Pediatricians and Referring Physicians AUC clinical patient scenarios were derived from indications typical of patients presenting with developmental dysplasia of the hip in clinical practice. The 24 patient scenarios and four treatments were developed by the Writing Panel, a group of clinicians who are specialists in this AUC topic. Next, a separate multidisciplinary, Voting Panel (made up of specialists and nonspecialists) rated the appropriateness of treatment of each patient scenario using a 9-point scale to designate a treatment as Appropriate (median rating, 7 to 9), May be Appropriate (median rating, 4 to 6), or Rarely Appropriate (median rating, 1 to 3).

Samora J, Quinn RH, Murray J, Pezold R, Hall Q. Journal of the American Academy of Orthopaedics Surgeons. 2018. Doi: 10.5435/JAAOS-D-18-00512 is available at https://journals.lww.com/jaaos/Abstract/publishahead/Management_of_Developmental_Dysplasia_of_the_Hip.99538.aspx. © 2019 by American Academy of Orthopaedic Surgeons. Reproduced with permission from the American Academy of Orthopaedic Surgeons through Copyright Clearance Center, Inc.

Management of Developmental Dysplasia of the Hip in Infants up to Six Months of Age: Intended for Use by Orthopaedic Specialists

Julie Samora¹, Robert H. Quinn,^{1,2} Jayson Murray¹, Ryan Pezold¹, & Quinn Hall¹

¹American Academy of Orthopaedic Surgeons, Rosemont, IL, USA

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Abstract

The American Academy of Orthopaedic Surgeons has developed the Appropriate Use Criteria (AUC) for the Management of Developmental Dysplasia of the Hip in Infants up to Six Months of Age: Intended for Use by Orthopaedic Specialists. Evidence-based information, in conjunction with the clinical expertise of physicians, was used to develop the criteria to improve patient care and obtain best outcomes while considering the subtleties and distinctions necessary in making clinical decisions. The Management of Developmental Dysplasia of the Hip in Infants up to Six Months of Age: Intended for Use by Orthopaedic Specialists AUC clinical patient scenarios were derived from indications typical of patients presenting with developmental dysplasia of the hip in clinical practice. The 432 patient scenarios and three treatments were developed by the Writing Panel, a group of clinicians who are specialists in this AUC topic. Next, a separate multidisciplinary, Voting Panel (made up of specialists and nonspecialists) rated the appropriateness of treatment of each patient scenario using a 9-point scale to designate a treatment as Appropriate (median rating, 7 to 9), May be Appropriate (median rating, 4 to 6), or Rarely Appropriate (median rating, 1 to 3).

Samora J, Quinn RH, Murray J, Pezold R, Hall Q. Journal of the American Academy of Orthopaedic Surgeons. 2018. Doi: 10.5435/JAAOS-D-18-00522 is available at https://journals.lww.com/jaaos/Abstract/publishahead/Management_of_Developmental_Dysplasia_of_the_Hip.99539.aspx. © 2019 by American Academy of Orthopaedic Surgeons. Reproduced with permission from American Academy of Orthopaedic Surgeons through Copyright Clearance Center, Inc.

Standards for external fixation application: national survey under the auspices of the German Trauma Society

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¹Department of Trauma, University Hospital Zurich, Zurich, Switzerland

²Department of Orthopaedic Surgery, St. Augustinus Hospital Lendersdorf, Dueren, Germany

³Department of Orthopaedic Surgery, University of Texas Health Science Center at San Antonio, San Antonio, TX, USA

Abstract

Introduction: External fixation is widely accepted as a provisional or sometimes definitive treatment for long-bone fractures. Indications include but are not limited to damage control surgery in poly-traumatized patients as well as provisional bridging to definite treatment with soft tissue at risk. As little is known about surgeon's habits in applying this treatment strategy, we performed a national survey.

Methods: We utilized the member database of the German Trauma Society (DGU). The questionnaire encompassed 15 questions that addresses topics including participants' position, experience, workplace, and questions regarding specifics of external fixation application in different anatomical regions. Furthermore, we compared differences between trauma centre levels and surgeon-related factors.

Results: The participants predominantly worked in level 1 trauma centres (42.7%) and were employed as attendings (54.7%). There was widespread consensus for planning and intra-operative radiographical control of external fixation. Surgeons appointed at a level I trauma centre preferred significantly more often supra-acetabular pin placement in external fixation of the pelvis rather than the utilization of iliac pins (75.8%, $p=0.0001$). Moreover, they were more likely to favor a mini-open approach to insert humeral pins (42.4%, $p=0.003$). Overall, blunt dissection and mini-open approaches seemed equally popular (38.2 and 34.1%). Department chairmen indicated more often than their colleagues to follow written pin-care protocols for minimization of infection (16.7%, $p=0.003$).

Conclusion: Despite the fact that external fixation usage is widespread and well established among trauma surgeons in Germany, there are substantial differences in the method of application.

Tiziani S, Dienstknecht T, Osterhoff G, Hand TL, Teuben M, Werner CML. International Orthopaedics (SICOT). 2018. Doi: <https://doi.org/10.1007/s00264-018-4127-0> is available at <https://link.springer.com/article/10.1007%2Fs00264-018-4127-0>. © SICOT aisbl 2018. Reproduced with permission from SICOT through Copyright Clearance Center, Inc.

A New Safe and Effective Treatment for Chronic Refractory Tendinopathy

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Abstract

Chronic refractory tendinopathy accounts for over 30 million office visit per year (2013). In spite of the considerable burden of disease this condition represents, there remains no consensus regarding treatment, or even what constitutes the chronic refractory state. Recent studies have clarified the definition of a chronic refractory process. More importantly an innovative new technology appears to offer potential solution at all anatomic sites of involvement for the majority of patients. In the last 6 years, the use of an ultrasonic device directed to the pathologic tissue under ultrasound image guidance has proven extremely safe and effective in over 70,000 treatments. As clinical studies emerge documented experience suggests this treatment is performed with the difficulty and safety of a cortisone injection but with the same benefit of surgery without the cost or morbidity.

Morrey BF. Orthopedics and Rheumatology. 2018, 11(5). Doi: <http://dx.doi.org/10.19080/OROAJ.2018.11.555825> is available at <https://juniperpublishers.com/oroaj/pdf/OROAJ.MS.ID.555825.pdf>. © All rights are reserved by Bernard F. Morrey. This work is licensed under a Creative Commons Attribution International License CC 4.0 (<https://creativecommons.org/licenses/by/4.0/>).

Quality of Internet-based Decision Aids for Shoulder Arthritis: What are Patients Reading?

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³University of California Los Angeles, Los Angeles, CA, USA

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Abstract

Background: The objective of this study was to assess the source, quality, accuracy, and completeness of Internet-based information for shoulder arthritis.

Methods: A web search was performed using three common Internet search engines and the top 50 sites from each search were analyzed. Information sources were categorized into academic, commercial, non-profit, and physician sites. Information quality was measured using the Health On the Net (HON) Foundation principles, content accuracy by counting factual errors and completeness using a custom template.

Results: After removal of duplicates and sites that did not provide an overview of shoulder arthritis, 49 websites remained for analysis. The majority of sites were from commercial (n = 16, 33%) and physician (n = 16, 33%) sources. An additional 12 sites (24%) were from an academic institution and five sites (10%) were from a non-profit organization. Commercial sites had the highest number of errors, with a five-fold likelihood of containing an error compared to an academic site. Non-profit sites had the highest HON scores, with an average of 9.6 points on a 16-point scale. The completeness score was highest for academic sites, with an average score of 19.2 ± 6.7 (maximum score of 49 points); other information sources had lower scores (commercial, 15.2 ± 2.9 ; non-profit, 18.7 ± 6.8 ; physician, 16.6 ± 6.3).

Conclusions: Patient information on the Internet regarding shoulder arthritis is of mixed accuracy, quality, and completeness. Surgeons should actively direct patients to higher-quality Internet sources.

Somerson JS, Bois AJ, Jeng J, Bohsali KI, Hinchey JW, Wirth MA. BMC Musculoskeletal Disorders. 2018, 19(1): 112. Doi: <https://doi.org/10.1186/s12891-018-2018-6> is available at <https://bmcmusculoskeletdisord.biomedcentral.com/articles/10.1186/s12891-018-2018-6>. © The Authors. 2018. This work is licensed under a Creative Commons Attribution International License CC-BY 3.0 (<https://creativecommons.org/licenses/by/4.0/>).

ALUMNI

ALAMO ORTHOPAEDIC SOCIETY



Animesh Agarwal, MD, FAOA

The Alamo Orthopaedic Society was established in 1972 by Dr. Charles Rockwood, Jr. as the official alumni association for the Department of Orthopaedics at UTHSCSA. The establishment of Orthopaedics at UTHSCSA pre-dated the actual opening of the school by two years when Dr. Rockwood was recruited to establish an orthopaedic program in 1966. The alumni association held its 2018 biennial meeting at the La Cantera resort on April 26th-29th, 2018. It was a terrific event and over 40 alumni returned for the meeting. Elections were held and it was my honor to be elected to both the President and Secretary/Treasurer offices. Our next meeting will be in the Spring of 2020 and we hope that many of the alumni will be able to join us. The association continues to hold annual receptions at the AAOS, and this year is no exception. The 2019 AAOS reception was held at Chandelier at the Cosmopolitan Hotel in Las Vegas with a terrific turnout. The society remains strong with over 120 active members, but this is only a fraction of the over 300 alumni that have graduated from this program. I urge many of you that may have let your membership expire to renew and re-engage with the society and the department. Anna Conti continues to serve as the administrator for the society. Please contact me, agarwal@uthscsa.edu, or Anna, Conti@uthscsa.edu, for more information.



Top Right: Alumni members enjoying the Alamo reception at Arnaud's during the 2018 AAOS annual meeting. (L to R: Don Jones['78], Fred Corley['78], Howard Miller['79], Will Smith['79], Joe Willy Clark['91])

Middle: Our 2018 graduating residents on Bourbon street at the Alamo reception at Arnaud's during the 2018 AAOS annual meeting. (L to R: Katie Bartush, Greg Gomez, Gina Lesko, Christopher Larkins, Brett Hall, Christina Brady)

Bottom Right: Members from the Class of 2001 enjoying the outdoor reception at the 2018 biennial meeting at the La Cantera resort in San Antonio. (L to R: Joe Iero, Jeff Schlimmer, Gary Go, Lance Farnworth, Keith Lawson)

ORTHOPAEDIC SURGERY ALUMNI BY CLASS

As of September 15, 2018

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
James M. Steel
Joe W. Tippet
Richard P. Wilson

Class of 1973

Edward D. Campbell, Jr.
Ralph D. Cash
Warren W. Kendall
John T. Phillips
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, III
Ray M. Fitzgerald
John A. Richards

Class of 1977

C. Robert Boone
Phillip R. Craven
Donald R. Davis
Jerold N. Friesen
Raymond S. Gruby
James E. Keever

Class of 1978

William M. Allen, Jr.
Kenneth P. Butters
Fred G. Corley, Jr.
Donald C. Jones
Randy J. Pollet
Archie K. 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 (Jack) M. Thomas, Jr.

Class of 1981

Thomas O. Clanton
Gary H. Jackson
Allen S. Kent
Robert B. Kimmel
Michael 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

Class of 1983

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 Gina R. Lesko

ALUMNI: WHERE ARE THEY NOW?



Daniel K. Guy, M.D.

I count myself among the fortunate few who received their professional training in San Antonio. We residents enjoyed hard work and great camaraderie. Simply put, our mentors were superb and challenged us to live up to their high standards. Led by Dr. Charles Rockwood, we had great

teachers and role models and each left a unique and positive mark on our education.

At Alumni events, along with Dr. Rockwood, I look forward to seeing those who helped train me: David Green, Kaye Wilkins, Fred Corley, Jesse DeLee, Al Sanders, and Larry Trick. Sadly, we all miss the company of Tom O'Brien, John Hinchey, Phil Deffer and Roy Davis, but are better for things we learned from them. Alamo alumni events always offer the chance to retell stories from residency and staff experiences; some based on fact, others more likely myth, some achieving legendary status, and a few better lost to history. I'd do it all again.

I have included Alpha and Omega X-rays that I consider emblematic although just a taste of that time. 1982, The Alpha: humerus X-ray that I picked up as a "mass" as an intern at the RBG General Surgery clinic. 1987, The Omega: C-spine that walked into the VA-B Spine clinic, which offered a serious challenge to Steel's "Rule-of-Thirds".

Next stop was Fellowship in Berne, Switzerland with Rheinhold Ganz, another great teacher and a legend in hip surgery, arguably

the father of hip preservation. During my stay, I also enjoyed working again with Christian Gerber, shoulder fellow in San Antonio during my residency and a junior Orthopaedic staff at the Insepspital while I was a Fellow. In 1987, I became the # 2 of a 2-man practice in LaGrange, Georgia and have been there ever since. My wife Jill and I have enjoyed raising our 2 daughters in a great small town environment. My work has evolved into mostly hip and shoulder, an interesting combination. Our group joined Emory in 2011 and my original partner retired a year ago, so by default I have now become the senior man, a dubious distinction.

Like 1987 classmate, Steve McCollam, I became involved with the Georgia Orthopaedic Society (GOS) and would recommend to all active participation in your State Society. My first meeting was in 1988 and I have made many great friends along the way. My involvement has offered me the chance to serve on the GOS Board, as GOS President, and I have represented Georgia on the AAOS Board of Councilors (BOC). In turn, the BOC provided me with a leadership role and service on the AAOS Board of Directors. Throughout, I found the same camaraderie I enjoyed as a resident and with Alamo Alumni among colleagues in both GOS and the Academy. My advice: get involved and enjoy the reward.

In closing, I want to recognize our 1987 Alumni, my friends: Jon Abbott, Steve McCollam, Jake Patterson, Dan Nelson, and Rex Wilcox. We look forward to our Alamo gatherings and make a group effort to attend. Perhaps my bias is showing, but this makes us exceptional. I hope many of you will consider challenging our top status. Bring your classmates and make our Alumni meetings an even greater success.



1987, the Omega c-spine



1982, the Alpha humerus x-ray

ALUMNI: WHERE ARE THEY NOW?

Ian Weber, M.D.



After graduating from UTHSCA, I started a combined joint and trauma fellowship at Hennepin County Medical Center under the guidance of Dr Richard Kyle and Dr Andrew Schmidt. Six months into my fellowship, I was diagnosed with aplastic anemia. In March 2006, I underwent a Bone Marrow Transplant. This put a little speed bump on my fellowship, however, Dr Kyle allowed me to stay for another six months to get back into the flow of things. At this stage, I still required infusions, once a month, and hence accepted a position in Fargo, ND, where I stayed for 4 years. Next, I elected to pursue a mini fellowship in Complex Joint Revisions and Infection under the guidance of



Dr. Todd Sekundiak at Omaha and Creighton University. This was an incredible experience; we were doing 10 to 20 complex revision or infection cases a week. After spending a few years in Nebraska, I decided to move to the mountains in Denver, Colorado, where I have been for almost 4 years.

I did residency from 2000-2005. I can absolutely say that this was one of the greatest times of my life. To this day, I think of that time at least once a day. I had a great group of classmates. I was with Millican, Anderson, Esteban, Boyd and Rose. It was such an operative residency, that second years were nailing tibias. We were on call a lot (in house call), which allowed us to really form some of the tightest bonds of friendship. Having such a trauma heavy residency really trained us well. We learned how

to think on our feet and to look at things from an outside the box perspective. One will never see everything in residency, but the training at UTHSCSA allowed us to think and get out of anything. This training was superb. We had great instructors, and to this day, they are always willing to help if I need their opinion on a case.



Being in a trauma heavy program really fostered my interest in trauma. In addition, during my third year, we started working with Dr. Trick. This made me really learn to love joint replacement. Having a great experience in both areas made me seek out a combined fellowship where I could do both. Both joints and trauma were really hands on. Our professors would allow us to do a case from start to finish. I really appreciated the training in these two areas and I think this fostered my interest in pursuing both arenas.

Staying involved in the program is necessary. I have now been involved with three other residency programs and I can say there is no program like the San Antonio program. I choose to stay involved by returning every 2 years to The Alamo Orthopaedic Society. When attending the AAOS I make sure to visit the San Antonio party each year. Not only do I stay in contact with my resident classmates of 2005 but also stay in contact with a number of residents from years above and below. We stay in touch on group texts, where we present challenging cases and tease one another just like back in residency. If I come across a great medical student rotating through, I make sure to tell them to apply to San Antonio!!



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DEPARTMENT OF ORTHOPAEDICS INTERNATIONAL



Anil K. Dutta, MD

UT Health San Antonio's Department of Orthopaedic Surgery continued its legacy in the arena of international orthopaedics in 2018 with both travel abroad and foreign guests. The 2nd year of formal international electives for the residents has continued to provide

exposure to innovations in leading orthopedic centers as well as the concerns of developing world countries.

Current 5th year resident, Antonio Webb, MD, spent a month in Thailand via receiving a prestigious AO Trauma traveling fellowship. He was able to work in a high volume and challenging academic center in Bangkok learning techniques unique to his Thai mentors. Stephen Ernst, MD, spent a shoulder and elbow elective month in both France and Switzerland. Dr. Ernst and his faculty preceptor Dr. Anil Dutta visited Lyon, France, home of one of the great leaders of French Shoulder surgery, Giles Walch. Dr. Ernst continued on to Balgrist University hospital Zurich, Switzerland and rekindled a longstanding relationship with one of Dr. Rockwood's first fellows at UTHSCSA, Dr. Christian Gerber.

Kaye Wilkins, MD has received the American Academy of Orthopaedic Surgeons Humanitarian Award for his longstanding commitment to international orthopedics, particularly in the developing world. His work remains unabated; this past year he traveled to Haiti with current 3rd Year resident Braden Boyer, MD. Despite repeated unrest in Port-au-Prince, the team was able to maintain UTHSCSA's partnership with HUEH, the largest orthopedic training program in Haiti. Dr. Wilkins also traveled to Honduras for a teaching role at the medical school and to Guatemala as part of POSNA's pediatric orthopaedic outreach. Dr. Wilkins also continues to spearhead UTHSCSA's partnership Muguerza (affiliated with UNLA) in Monterrey, Mexico.

Multiple fulltime and affiliated UTHSCA faculty traveled abroad for invited visits and lectureships. Dr Michael Wirth and Dr. Bernard Morrey are recognized as international leaders in their fields and presented at invited lectures around the globe. Dr. Robert Quinn represented the department at the annual ABJS meeting in Portugal and Dr. Rajiv Rajani presented in Xiamen, China.

UTHSCSA's international orthopedics program strength has always included the hosting and training of foreign residents, fellows, and surgeons in San Antonio. This year's current shoulder and elbow fellow, Hagai Klein, MD is from Tel Aviv, Israel. He has brought the expertise of his training to our program while concurrently adding to his education in shoulder and elbow. The Orthopaedic Trauma Division continued to be a host site for international visiting AO fellows.

Dr. Thomas Zgonis and Dr. Crystal Ramunajan once again placed UTHSCSA's podiatry division at the forefront of complex management of diabetic foot and ankle disease with outreach visits and the 14th Annual International External Fixation Symposium. This year's IEFS meeting was the first time the Indian Diabetic Foot Association held its meeting abroad and in concert with the UTHSCSA IEFS. Visitors from Asia, the Middle East, Europe, and South America were present as the meeting continues to be one of the premiere diabetic foot and ankle meetings in the world.

MISSION TRIP TO HAITI

Braden J. Boyer, MD

Dr. Kaye Wilkins has developed a unique relationship over the years with the Haitians, particularly in the city of Port Au Prince, that has created abundant opportunities for service and education. He has made it a life priority to regularly visit and offer his expertise to the local Haitian physicians in efforts to provide sustained relief to a highly impoverished and grief-stricken people from natural disasters and poor leadership. In



April 2018, I was afforded the great opportunity to accompany him and assist in this endeavor.

It was clear before arriving that our main goal would be to simply educate and guide rather than do things for them or practice our own clinical and surgical skills. This trip was for them and not for me. Only later I learned that I too gained much from my experience with these people.



Our time there was divided between two local residencies. These programs were in two different parts of town working out of two different hospitals. However, their circumstances and challenges were similar: delayed care with chronic injuries, inadequate supplies, lack of sanitation, undertrained health care workers, and overcrowded hospitals. At each program we spent a day in clinic providing diagnostic principles and a day in the operating room guiding through specific surgeries while beginning each day with an education session via PowerPoint, case presentations, and questions.

The observed list of items throughout the week that are substandard, insufficient, and that need improvement is long. Although these will generate ideas for future planning and projects, I am grateful for my one-on-one time with the Haitians asking questions about their perspective on these circumstances. I learned much about their culture and the importance of making what is provided work, striving to thrive despite conditions, thinking outside the box, focusing more on patient and family situations, developing a strong conservative management base, and staying happy and positive. I recognize the luxuries and progress we are blessed with here in the US, but I am grateful for the subtle teaching and broadened perspective obtained from the Haitians in Port Au Prince.

Overall, this trip to Haiti was an invaluable educational experience. I thank our department and Dr. Kaye Wilkins for providing this opportunity and making it possible to attend. Our

international experiences undoubtedly will mold us into better people and physicians as we continue to recognize medicine as a global issue. I look forward to keeping in close contact with the friends made in Haiti for future collaborations and additionally to other international experiences that may come.

HEALING THE CHILDREN – PEDIATRIC MISSION TRIP TO NEIVA, COLOMBIA

Brock T. Kitchen, DO

In June of 2018, I had the opportunity to participate in the historic 25th Anniversary of the Healing the Children Mission trip to Neiva, Colombia. Each year several teams of doctors, nurses and other medical personnel travel to Neiva Colombia to provide surgical treatment to children with various congenital medical conditions. Teams include specialties such as pediatric orthopedics surgery, ENT, plastic surgery, urology, and other. It was my privilege to work closely with the pediatric orthopaedic team which consisted of surgeons from Boston Children's Orthopaedic group including Drs. Brian Snyder and Collin May who both specialize in hip and lower limb deformities. Dr. Mathilde Hupin a pediatric orthopaedic surgeon who specialized in upper extremity deformity and Dr. Sergio Nossa a local Colombian pediatric orthopaedic surgeon were also part of our team. This group has developed strong relationships with the Colombian medical community over the last several years and it is because of this strong relationship we are able to be provide advanced surgical care to so many children. During our time in Neiva, we screened nearly 800 children with



complex orthopaedic conditions and performed approx. 50 life changing surgeries on children who would otherwise not have access to this type of orthopaedic care.

Personally, this mission trip solidified my resolve to pursue a career in pediatric orthopaedics surgery. I hope to continue to consistently participate in mission trips to underserved regions of the world throughout my career. I am grateful for the wonderful learning opportunity this was for me not only as a training surgeon, but also in life.



Santy) and Jean Mermoz Hospital (Private Hospital Jean Mermoz). Dr. Walch, one of the top contributors to the field of shoulder surgery, and Dr. Neyton, an excellent clinician and surgeon himself, provided great teaching and technical points about shoulder surgery, some of which I plan to incorporate into my own practice in the future. There, I saw what is often a year's worth of open Latarjet procedures for a typical American shoulder and elbow fellowship over the course of two weeks along with other complex shoulder arthroscopy and arthroplasty cases.



Dr. Stephen Ernst with Dr. Gilles Walch.



Drs. Stephen Ernst and Lionel Neyton.

ELECTIVE ROTATION IN LYON, FRANCE AND ZURICH, SWITZERLAND

Stephen Ernst, MD

I pursued an international elective in shoulder and elbow surgery in Lyon, France and Zurich, Switzerland during the fall of 2018. Drs. Michael Wirth and Anil Dutta were able to facilitate an amazing experience over the course of a month with several of Europe's top surgeons. Dr. Dutta accompanied me during my time in Lyon and further augmented my understanding of the French shoulder philosophy over dinners of bouchon cuisine and glasses of red wine. It was a once in a lifetime trip and I appreciate the support of our department (and my very understanding fiancé) for allowing me to take a month to pursue this opportunity.

After a quick stop in Munich, Germany to celebrate Oktoberfest, I spent two weeks in Lyon observing Drs. Gilles Walch and Lionel Neyton at the Santy Orthopaedic Center (Centre Orthopédique

After two weeks in Lyon, I traveled to Zurich to spend the rest of the month with Drs. Christian Gerber and Karl Wieser at Balgrist University Hospital (Universitätsklinik Balgrist). Dr. Gerber, an icon in shoulder and elbow surgery, along with Dr.



Dr. Stephen Ernst with Dr. Christian Gerber.

Wieser, his protege and the new head of the Shoulder and Elbow team at Balgrist, were fantastic hosts. Their hospital is a dedicated musculoskeletal facility and it was a privilege to see how this model provides some of the best Orthopaedic care in the world. I had the opportunity to see a wide

range of cases including open and arthroscopic management of shoulder instability, reverse shoulder arthroplasty for fracture, elbow arthroplasty and open tendon transfers.

It was fascinating to see the differences in pathology,

management and health care systems among the USA, France, and Switzerland, all while spending time with some of the best minds in my planned subspecialty. I am lucky to have established a connection with these individuals in addition to meeting other traveling shoulder and elbow fellows from around the world. I cannot thank our department as well as to those in Lyon and Zurich enough for making this trip possible.

THAILAND FELLOWSHIP

Antonio J. Webb, MD

In March 2018, I was fortunate to spend a month in Thailand at the busiest level 1 trauma center in Bangkok, Bhumibol Adulyadej Hospital, under the direction of Dr. Rahat Jarayabhand. This was all possible through a fellowship granted by the AO Trauma Foundation.

During this month, I was able to assist in roughly 30 cases, which included high energy trauma cases, pediatric scoliosis deformity cases, hand surgery, and joint arthroplasty cases. This allowed me the opportunity to review surgical indications, understand the management of complex trauma cases, and learn the methodologies and thought processes common to the Thai surgeons.



and spoke in English during the times I was present for lecture and conference.

In all, my time in Thailand was a rewarding and educational one that I will cherish for the rest of my orthopedic career.

2018 SAUDI ARABIA CULTURAL EXCHANGE REVIEW COURSE

Marc M. DeHart, MD

After numerous residents from several Saudi Arabian orthopaedic programs attended the annual Miller Review Course (MRC) in Denver, they felt the course really helped them pass their boards. A few of the residents got together and discussed, “Why can’t we bring the Miller Review Course here? Dr. Olayan, Chair of the Prince Sultan Military Medical City (PSMMC) hospital’s Orthopaedic Department, supported his residents with this educational program as an expansion of their primary mission – to manage the substantial flow of wounded warriors.

Saudi docs have medical training conducted exclusively in English. After combining undergraduate and medical school into a 7 year program, an application is made to the Saudi Commission of Health Specialties for their specialty “match”. The naming of trainees matches the British system and students have one year as “Interns” before they become “Registrars” until the end of their 5 years of residency training. Just like our residents, they face written and oral board certification tests. But when they pass, they get the title of “Specialist”. After gaining experience with their specialty certificate for at least 3 years, they become “Consultants”. The material covered by the Saudi orthopaedic exam lists many of the major English orthopaedic texts as well as the AAOS OKU product line. Registrars take the OITE annually and feel that many of their Saudi Board questions are similar versions to those multiple-choice questions. The course was held in Riyadh - the capital and the most populated city of



The hospital is equipped with nearly 700 beds and an Orthopedic Residency program that consists of 6 residents per year with roughly 25 fellowship trained Orthopedic Staff in areas of Hand Surgery, Pediatrics, Sports Medicine, Foot & Ankle, Spine, Trauma, and Microvascular Surgery. Together, the staff and residents perform over 2500 surgical cases per year with more than half of them being trauma cases. Similar to our program here at UTHSCSA, residents spend several hours per week receiving lectures taught by staff, pre-operative and post-operative conferences lead by chief residents, and a monthly Morbidity and Mortality conference. Fortunately, for me, the majority of staff and several residents spoke very good English



Marc DeHart, MD and Emad Bahmead, MD embracing the local cuisine and ready to dig into the slow cooked spit-roasted lamb.

Saudi Arabia. It is in the central region of Najd, the historic home town region of the family of Al Saud, for whom the country is named. The harsh arid environment where desalinated water is piped in from the coast serves as proof that a resilient people with adequate resources can always make a home.

The culture was intriguing. Upon entry into almost every formal setting, a small cup of Arabic Coffee was poured from a characteristic pot and accompanied by several kinds of dates. Even the non-coffee drinkers found the lightly-roasted spiced golden Arabic version enticing. Dressing in thobes (the more formal white robes) and head scarf (keffiyeh ~ head dress) held in place by a black ring of cord (agal), was the usual rule for men. The most common clothing for women was the abaya - a body covering garment for women that almost always includes covering the head/hair and often includes covering part or the whole face. The registrars explained that how people dressed and how much face was covered is usually a personal or family preference reflecting how conservative one was. They also noted that in their own homes, they were often more casual. Throughout our stay, we saw the male doctors in various other forms of dress, including scrubs, military uniforms, and western business suits, depending on the setting.

The course began on Wednesday for about 200 attendees with the usual Miller Review Course routine of 8 – 10 hours of lectures per day for five long days. Faculty covered all the subspecialties

as well as basic science, statistics and anatomy. An unexpected but dignified ceremony honored the sponsors and leadership and included a video that celebrated both the hospital's excellent work and the Miller Courses presence in Saudi Arabia. Cultural events included Dr. Olayan, with many of his faculty and the registrars, sharing a traditional spit-roasted lamb banquet in a traditional setting after a visit to view the original home of the Saudi royal family in Diriyah. Sword dancing to chanting and drum beating was a special treat. Between and after lectures, our hosts provided tours to the National Museum of Riyadh and the old fort Al-Masmak Historical Museum, which provided a great overview of Saudi history and culture. Superb faculty dinners with expansive sunset views of the city were hosted at premium restaurants atop beautiful sky scrapers known as Kingdom Centre and the Globe restaurant in the Star Dome of the Al Faisaliyah Centre.

Saudi Arabia is a traditional, conservative monarchy run by King Salman bin Abdulaziz Al Saud and his 33-year-old son, Crown Prince Mohammed bin Salman Al Saud. The country tries to balance the pull between a highly educated liberal youth and a strict conservative older population. The national religion is Islam, and the sovereign leaders have a dedicated responsibility to maintain and support an annual pilgrimage to their most holy city of Makkah (Mecca) called "the Hajj". The logistics of transportation, security and public health issues for moving the millions of people through one geographic area must be daunting, but the Saudis are proud of how well things are managed. A growing team of clerics, who manage the religious and legal affairs, help a growing number of royalty to foster a safe and prosperous country. We learned about Saudi's "Vision 2030" and National Transformation Plan initiatives to make reforms to social and economic policy. Goals include reducing the country's dependence on oil revenue, revising the state subsidies to balance the kingdom's budget, encouraging private sector growth and the employment of young Saudis, and modernizing gender rights issues. Of course, the most talked about change in policy we heard about during our visit was the lifting of the ban on women drivers. There were pink electronic billboards all over Riyadh celebrating the event.

Dr. DeHart was invited as an envoy of the Miller course to present several short talks in the city of Abbha in the southern region of Aseer for their annual medical meeting. A group of orthopaedic registrars in the coastal city of Jeddah also requested a meeting to discuss various aspects of fellowship possibilities in the US. For entertainment, the Jeddah Orthopaedic program sponsored a visit to an "escape room". Young quick minds solved most of the puzzles very quickly and we "escaped" in time to enjoy a traditional dinner while watching the World Cup and partaking of the shisha. The registrars asked many questions about eligibility requirements for fellowship training in the US

and had many questions about the training process in the US. On the last night of the trip, Mohammed Felembaum, MD, the Chief Registrar who was tasked as our main escort, shared an early evening walk with his lovely family in the narrow streets of Al-Balad - the old city of Jeddah. Narrow streets wind through century old buildings decorated with characteristic mashrabiya window boxes and connect with the local market that serves both locals and tourists alike. Just as we were leaving for the airport, a mu'addhin sang a melodic call to prayer from one of the local mosques. We drove by the ancient gates to Madinah (Medina) and Makkah (Mecca). Reminding us that the Arabian Peninsula is the birthplace of Islam and holds a history much older than the young country of Saudi Arabia.

It was motivating to see that there was little difference between the registrars across Saudi Arabia and our residents back home. Our patient populations struggle with the same problems of diabetes and obesity while our departments try to balance the

trauma and elective surgical demands of the population with growing concerns about the costs of all we can do. The Saudi registrars, in all regions visited, were interested in what training might be like in the West. Many hope to travel and to qualify to study in England, Canada and the US as these fellowships increase their marketability upon returning home to Saudi.

An overwhelming characteristic of the Arabian culture was the exceedingly generous treatment received from our hosts. Every meal had vast spreads of various foods from local, national and international regions. Without question, we enjoyed the very best lamb dishes faculty had ever tasted. Their generosity was not only with extravagant dining and daily courtesy, but also with their personal time and energy. For nearly every waking moment we were accompanied by a host – usually a registrar or a team of registrars, specialists and consultants who helped teach us about their culture, history, food, politics, and even religious beliefs. It was an amazing cultural journey and helped to negate



Faculty of 2018 MRC Riyadh:

Mark D. Miller, MD. S. Ward Casscells Professor of Orthopaedics, University of Virginia; MRC Director
 James Browne, MD. Associate Professor and Chief Adult Reconstruction, University of Virginia
 Marc DeHart, MD. Associate Professor and Chief Adult Reconstruction, UTHSC San Antonio
 Stephen Haddad, MD. Chief of Foot and Ankle Division, Chicago, Past President, Foot & Ankle Society
 MaCallus Hogan, MD. Associate Professor and Chief of Foot & Ankle, University of Pittsburgh
 Theodore W Parsons III, Professor and Chairman, Breech Family Endowed Chair of Bone

and Joint Medicine, Department of Orthopaedic Surgery, Henry Ford Health System, Detroit, Michigan
 Sanjeev Kakar, MD. Division of Hand Surgery, Mayo Clinic
 Thomas Schaller, MD. Chief of Orthopaedic Trauma and Residency Director, Greenville SC
 Matthew Schmitz, MD Associate Professor Uniformed Services University of the Health Sciences, Chief of Orthopaedic Pediatrics, San Antonio Military Medical Center
 Francis Shen, MD. Warren Stamp Professor and Chief of Spine Surgery, University of Virginia
 Steven Thompson, MD. Associate Professor, University of Maine

many stereotypes familiar in western media. It's hard not to miss the coffee, dates, food, the scent of burning bakhoor and oud (agarwood).

VISIT TO CHINA

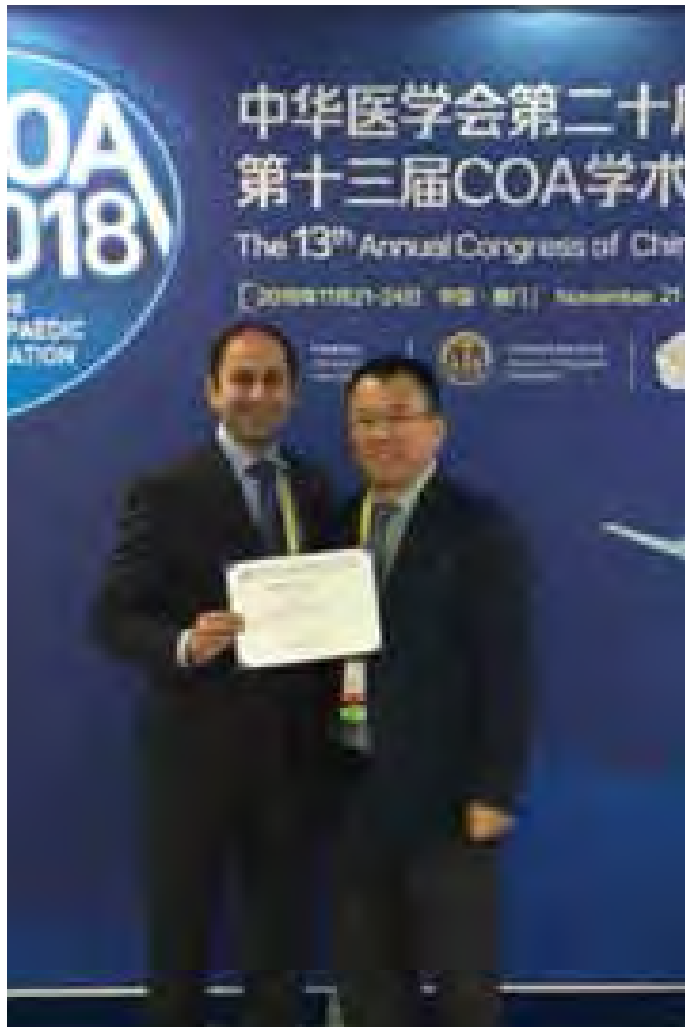
Rajiv R. Rajani, MD

Dr. Rajani was privileged to attend the Chinese Orthopaedic Association Annual Meeting in Xiamen, China in November 2018. Dr. Niu from Beijing invited Dr. Rajani for the meeting so that he could provide his expertise on "Reconstruction Options after Bone Tumor Resection for Pediatric Sarcoma Patients". This was a wonderful opportunity for Dr. Rajani to learn from our musculoskeletal colleagues across Asia so that he can improve the care of sarcoma patients back in South Texas.

VISITING FELLOWS



Visiting international fellows, Dr. Denis Fukumothi (L) from Campinas, Sao Paolo, Brazil and Dr. Baki Avşar Uzun (R) from Istanbul, Turkey with Dr. Boris A. Zelle (C).



FORMER VISITING FELLOWS FROM SAO PAULO, BRAZIL WITH THEIR YOUNG FAMILIES



Dr. Guilherme Boni, former UT visiting fellow, with his wife Thais and daughter Eduarda "Duda".



Dr. Thomas Gaia, former UT visiting fellow, with his wife Sarah and daughter Maria.

VISITING PROFESSORS

The Department of Orthopaedics is honored and delighted to host several distinguished faculty over the past year. The faculty and residents truly appreciate the insightful discussions with these renowned orthopaedic surgeons representing various subspecialties. The department hosted **Dr. Freddie Fu**, who serves as Professor and Chair of Orthopaedic Surgery at University of Pittsburgh Schools of the Health Sciences in Pittsburgh, PA to deliver the Deffer lecture on April 23, 2018. Dr. Fu's talk was titled, "Innovation in Sports Medicine: Is the Latest Always the Greatest". The Flawn lecture was delivered by **Dr. Laura C. Blakemore**, who serves as Chief and Clinical Professor of Pediatric Orthopaedics within the Department of Orthopaedics and Rehabilitation at University of Florida College of Medicine in Gainesville Florida, on October 22, 2018. Dr. Blakemore's talk was titled, "Update on Evaluation

and Treatment for Idiopathic Scoliosis". The department was also excited to host **Dr. David Ring**, Associate Dean for Comprehensive Care, Department of Surgery and Perioperative Care at UT Austin Dell Medical School from Austin, TX. **Dr. Kevin Bozic**, Chair and Professor of Department of Surgery and Perioperative Care at UT Austin Dell Medical School also delivered a lecture to our faculty and residents. On February 19, 2019, **Dr. Roy Sanders**, Chairman of Orthopaedic Surgery Department at University of Florida, delivered a lecture titled "Observations in Innovations". The department is also grateful to have hosted **Dr. Vinod Panchbhavi**, Professor of Orthopaedic Surgery and Chief of Foot and Ankle Surgery, UTMB Health at Galveston, TX for a talk and interactive session with the residents on December 10, 2018.



Dr. Laurel Blakemore receiving the commemorative plaque from Dr. Robert Quinn.



Dr. Laurel Blakemore with Dr. Sekinat McCormick; Dr. Blakemore delivered the Flawn lecture on October 22, 2018.



Dr. Roy Sanders



Dr. Roy Sanders presenting a lecture to the faculty and residents of the Department of Orthopaedics.



Dr. Freddie Fu was invited to give the Philip A. Deffer, Sr. MD lecture on April 23, 2018. (L-R): Dr. Boris A. Zelle, Dr. Robert Quinn, Dr. Freddie Fu, and Dr. Rajiv Rajani.



Dr. Freddie Fu receiving the commemorative plaque from Dr. Robert Quinn.



Faculty and residents of the Department of Orthopaedics with Dr. Robert Medoff during his visit to San Antonio from Hawaii.



Dr. Medoff in discussions with Dr. Dutta.



Dr. David Ring presenting a lecture to the faculty and residents of the Department of Orthopaedics.



Dr. Kevin Bozic presenting a lecture to the faculty and residents of the Department of Orthopaedics.



Dr. Panchbhavi in case discussions with the residents.



DEPARTMENT SOCIAL



Department of Orthopaedics organized a team building exercise: Residents and faculty at a paintball competition on March 18, 2018.

ADDITIONS TO THE ORTHOPAEDIC FAMILY



Dr. Hanna Mendez with her husband, Rafael, and son, Luca.



Dr. Galen Mills with his wife, Kelsey, and son, Oliver.



Dr. Chance Moore with his wife, Alexa, and children, Cameron and Landon.

ANNUAL HOLIDAY PARTY 2018

William H. Edwards, MD

A loud, “Oh, ho, ho” preceded Santa Claus, carrying a bag of gifts, as he entered the banquet room Sunday evening on December 16, at the Barn Door restaurant. The UTHSA Orthopaedic Department’s Annual Holiday Party was well underway when he made his entrance. Hiding under the Santa Claus costume, behind a massive white beard and under long white hair topped by a red cap, was Dr. Marc DeHart. Providing entertainment once again, he circled the room, spreading holiday cheer and dispensing gifts, before he worked his way to the podium for the presentation of the evening’s “special gifts”.

First up was the “Brass Balls” gift presented to Dr. Frank Buttacavoli for his courage in consistently doing the hardest and most complicated total joint cases. In his most humble and quiet demeanor, he graciously accepted, thanking all who had helped him. (see photo)

Last came Dr. Bob Quinn’s gift of a brand new “Hand Recovery Kit” almost bringing the house down with laughter and many a “Whoa boy, easy!”, “Stay in your lane, bro.” or “Plowing a little too close to the cotton!” (see photo) At this point, Dr. Buttacavoli could have easily given his gift back to Dr. DeHart for his courage and sense of humor.

Following much applause, Santa waved, then made a hasty retreat allowing more serious awards to be given. First was Donna Wilhelms, who was voted by the residents as “The MARC Employee We Most Liked Working With”. She was followed

by Dr. Andrew Lee who was voted by the MARC staff as “The Resident We Most Liked Working With.” Both recipients received \$50 gift cards.

Their gifts were followed by raffle drawings. In all, \$500 was given away as gift cards to members of the staff in administration, the TDI, Physical Therapy and the MARC. These funds, along with the beer and wine, were provided by donations from the faculty. This was a small acknowledgment for the difficult and excellent work all staff members do to keep the Orthopaedic Department functioning and cohesive. From the faculty members, we give them all our thanks and respect.

The evening’s entrées covered all palates: steak, chicken, fish and vegetarian. A cornucopia of delicious desserts was provided by many of the attending guests whom we thank for adding the final touches to the party.

We were graced with the attendance of Dr. Kaye Wilkins and his wife Sydney (see photo). He retired earlier in 2018, but has continued his history of academic excellence by still teaching abroad and giving resident lectures.

A special thanks goes out to Frances Ramirez and Imelda Campos for their work on our end and to Trish and all her staff at the Barn Door. Again, so many came together from so many areas to truly make the party a wonderful Holiday experience. We look forward to seeing everyone next year Saturday, December 14, 2019.



Top Left: Santa presenting Dr. Buttacavoli the “Brass Balls Award” for taking on the hardest cases. **Bottom Left:** Dr. Trey Green’s other side, the dark one. **Top Right:** Santa gives Dr. Quinn this year’s special award, “The Hand Recovery Kit”. **Bottom Right:** Dr. John “Trey” Green (Sports Medicine) and his wife, Catherine.



Top Left: Dr. Doug "Flap Man" Cromack. If you are serving food and wine, he'll always show up, even in Antarctica.

Middle: Dr. Fred Corley, the Department's original Santa Claus watching to see who is naughty or nice and always giving out "pearls".

Bottom Left: Dr. Andrew Lee (PGY V), the recipient of "The Resident We Most Liked Working With" from the MARC employees.

Top Right: Dr. Christopher Chaput and his wife, Laura.

Bottom Right: Donna Wilhelms accepting her gift card for the resident's vote for "The MARC Employee We Most Liked Working With."



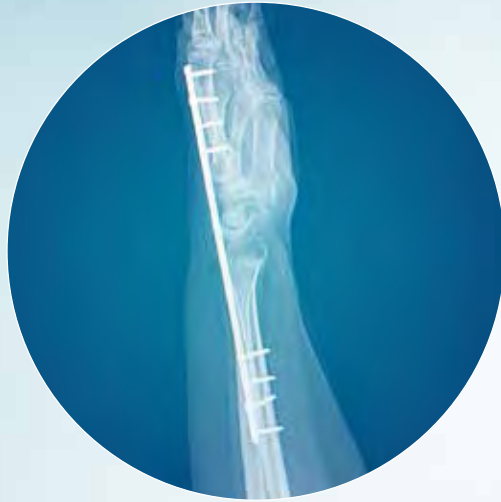
Top Left: Dr. Kenneth Mensch (PGY IV) and his wife Vicky, holding their daughter, Brooklyn Lydia.

Top Right: The A Team, left to right: Renee Aguilar, Beatriz Aguilar, Michael Palladino, DPM, Claudia Perales, Melissa Byers

Bottom Left: Dr. Wilkins and his wife, Sydney.

Bottom Right: Imelda Campos, Administrative Assistant-Sr., to half the important world and under the radar.

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