



**ABSTRACTS PRESENTED AT THE
64th ANNUAL PIEDMONT ORTHOPEDIC SOCIETY MEETING**

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The Sanctuary, Kiawah Island, South Carolina

PHYSICIAN ADVOCACY, Richard Bruch, M.D., Durham, North Carolina

Physician advocacy is encouraged. Specific techniques discussed include:

1. How to engage a legislator, how to discuss an issue with the legislator or legislative assistant.
2. How to have an effective legislative visit including a follow-up email to nurture a relationship.
3. When to request a legislative visit to your practice or hospital and how to achieve credibility.

LEADING OPERATING ROOM EFFICIENCY, David L. Cannon, MD, MBA,
Germantown, Tennessee

Time is something that can never be replaced or generated. Once it is gone it is gone. Being in an inefficient operating room can destroy your time, and make our calling of helping people through surgery less than pleasurable. As surgeons, we have the ability to influence and lead so that the operating rooms in which we work are more efficient. Much of that leadership comes from our attitudes and actions within the operating room and some comes from our participation in activities that improve the processes in the surgical suite.

The largest influence on how efficient things are in the operating room is our actions and attitude. Having worked in several different healthcare delivery environments - university, military, HMO, system employed, and private practice - I have seen these traits evident in the most efficient surgeons. They can collectively be labeled the *Be Attitudes*.

Be Punctual: being on time for the start of the case, correctly estimating the amount of time for cases, correctly posting the amount of cases for a given amount of available OR time.

Be Present: being available in pre-op, the OR, and post-op signals that you are part

of the team and that your time is no more valuable than others. Being helpful with the processes of through-put does the same.

Be Predictable: doing things the same way, same equipment and supplies, for a given procedure. Having a script for multistep procedures improves flow even if there are personnel changes.

Be Progressive: start with the simple procedures and work toward complex, doing the same type together, doing the same side together.

Be Polite: greeting everyone using their name and being gracious to everyone, thanking all for their assistance in caring for the patients, is very powerful.

Influencing the systems in which we work to be more efficient requires our participation in multiple discussions and meetings. Be at the table to avoid being on the menu. Surgical suites that work more efficiently have similar components that I have observed and have attempted to implement where I operate.

Standards Used: people *agree* with being held to a standard but *comply* with rules, policies, and protocols.

Stable Personnel: familiarity builds cohesion which improves efficiency.

Same Timeline: having the same time goal is ideal; shift work often ends up being spelled without the “f”.

Support Suggestions: ideas for improvements can come from anyone; management has no monopoly on ideas.

Some Incentives: everyone gets a bonus, monetary or PTO, for productivity; there is less waste overall with supplies and time.

Taking the time and making the effort to lead toward efficiency will reward you with a priceless commodity, more free time.

TELEMEDICINE AND ORTHOPAEDICS, James E. Gilbert, M.D., Metro Orthopaedics and Sports Therapy, Silver Spring, Maryland

Telemedicine is not a new concept but mobile apps that can be used on all smart phones are changing the nature of healthcare delivery. As the system moves to new payment models based on merit and value, telemedicine offers the opportunity to use technology to enhance quality and reduce cost. New mobile apps can integrate with current EMR systems through APIs, thus allowing the upfront collection of data for healthcare analytics that can be used to determine outcomes and best practices. With the development of telemedicine, access to care can be improved and the escalating cost of providing care can be reduced. The future utilization of modifiable mobile apps for telemedicine is expected to continue to rise as healthcare providers adapt them to their specific needs. Legislation requiring payment for mobile consults by insurance companies and barriers to practicing across state lines are improving. Ultimately,

technologies like mobile telemedicine apps may be the only answer to restructure a failing healthcare system.

SURGERY IN BHUTAN, Michael G. Hayes, M.D., Sportsmed, Adelaide, South Australia

Bhutan is a tiny country in the Himalayan Mountains surrounded by China, Tibet and India. It is a strongly Buddhist country with a population of approximately 800,000 people.

Until some years ago, the country was a kingdom but more recently, guided by the monarchy, there is now a parliament managing day-to-day activities but the Royal Family remains greatly respected.

The economy relies on hydroelectricity but also produces a wide range of fruits and vegetables as the population is mainly vegetarian. "Happiness" of the population is also monitored.

The capital of Bhutan is Thimphu. The main airport is located at Paro, approximately one hour from the capital and the airport can only be approached when weather conditions allow a visual landing.

Transport is difficult because of the mountainous geography and the combination of treacherous roads, poor visibility and distances result in serious motor vehicle accidents. The use of Yak butter candles for worship, in predominantly wooden homes, leads to problems of managing severe burns with restricted access to medical help.

Over the past five years, teams including Plastic and Orthopaedic Surgeons combined with Hand and Physiotherapists have provided extensive surgical care with intensive therapy backup in a clinical area supported by both material and financial help.

Surgical management of congenital abnormalities, burn contractures, fractures etc with an emphasis on post management, such as splintage and wound care, provides most of our endeavors. The teams have more recently been supported by Interplast giving both expertise and financial support. The medical, physiotherapy and general population are both appreciative and supportive of the Australian endeavors.

SUPERIOR CAPSULAR RECONSTRUCTION, Tally E. Lassiter, Jr., M.D., Bassett Healthcare, Oneonta, New York

Superior capsular reconstruction is a new arthroscopic technique used to repair previously irreparable rotator cuff tears. The technique was developed by Dr. Mihata in Japan, beginning in about 2007. At that time the reverse shoulder arthroplasty was not available in Japan. He placed a fascia lata graft anchored to the glenoid and then attached to the greater tuberosity of the humeral head to replace to superior capsule of the shoulder. The effect of the superior capsular reconstruction is to prevent humeral

head elevation, and thus allow the surrounding muscles of the shoulder to permit nearly pain-free overhead shoulder elevation. This procedure is very useful in patients in their 50s and 60s and less than the ideal ages for reverse shoulder arthroplasty and has shown excellent early outcomes. The author has performed over 20 of these procedures with early excellent results.

TRIQUETROHAMATE IMPACTION SYNDROME- AN UNRECOGNIZED CAUSE OF ULNAR-SIDED WRIST PAIN; ITS PRESENTATION FURTHER DEFINED,

Lourie, G.M., Booth, C., Nathan, R., The Hand and Upper Extremity Center of Georgia, Atlanta, Georgia

Purpose To further define the clinical condition triquetrohamate impaction syndrome (THIS), an entity underreported and missed often. Its presentation, physical findings, and treatment is presented.

Methods Between 2009-2014, 18 patients were diagnosed with triquetrohamate impaction syndrome. The age, sex, hand involved, activity responsible for symptoms, and defining characteristics were recorded. The physical findings, along with ancillary studies all studied. Delay, along with other misdiagnoses were assessed. Treatment, either conservative or surgical is presented. Follow-up outcomes are presented.

Results There were 15 male and 3 females, average age 42 yrs. Two handed sports such as golf and baseball accounted for over 60 % of the cases and involved the lead nondominant hand, pain predominantly at impact. Delay in diagnosis averaged >7 months, with TFCC and ECU accounting for over 50% of misdiagnoses. Physical findings of note included pain over the triquetrohamate joint, worse with passive dorsoflexion and ulnar deviation. Radiographic findings are described. Instillation of lidocaine with the wrist in radial deviation under fluoroscopic imaging with relief of pain helped to confirm the diagnosis. Conservative treatment was successful in 9/18 patients (50%), whereas in the remaining, surgical intervention allowed approximately 80% return to full activities without limitation.

Conclusion Triquetrohamate impaction (THIS) remains an underreported and often unrecognized cause of ulnar sided wrist pain. In this report, the largest series to date, its presentation and defining characteristics are further elucidated.

THE UPDATE ON THE HEALTH CARE REFORM/OBAMA CARE OF FEBRUARY 2010,

R.S. Mathews, MD., First Team Institute, LLC, Millersville, Pennsylvania
Obama Care passed congress with a 60% plus vote (over of the last 100 years, 60% congressional votes take place about every 11.2 years and have the effect of a constitutional amendment.)

Indeed funding will require a new act.

The Supreme Court ruled in May 2012 that the affordable care act is the law of the land but it may face court challenges and now we face funding issues.

The “Lame-duck session of Congress” put a band aid on the fiscal cliff issues.

AARP Bulletin of December 2012 says we should scrap the income tax as the tax code is too complex and the income tax is obsolete with respect to funding Obama Care. Bruce Bartlett the author of the “Benefit and the Burden: Tax Reform – Why We Need It and What It Will Take”, in paperback January 2013, says the current tax system taxes less than 50% of the people and taxes few corporations and cannot possibly support Obama Care. Indeed he concludes that the two tax bases that are best suited to the current economic environment are consumption (VAT taxes) and real property tax. If we have a Vat tax, we need to ditch the income tax. Conservatives say they would consider it, but only after the 16th Amendment is repealed.

In Germany the consumption tax or value added tax (VAT):

1. The standard value added tax in Germany is 19%.
2. There is reduced rate of 7% that relates mainly to food and agriculture products.
3. Value added tax is imposed on assets and services in Germany as well as on imports into Germany.
4. Overseas exports are exempt from value added tax.
5. Value added tax reports must be submitted monthly or quarterly, depending on the annual turnover.
6. There are special provisions for small businesses.

See Website: www.worldwide-tax.com/germany/ger_other.asp

Furthermore, the Vat tax in most countries assumes that the government will provide the pension profit plan and provide the health care plan. (Since 1973 our health care and pension profit sharing plans by business corporations have gone from 88% of all business corporations to roughly 10%.)

CALF SLEEVE: A CHALLENGE TEST FOR EXERTIONAL COMPARTMENT

SYNDROME (ECS), Angus M. McBryde, Jr., M.D., University of South Alabama, Mobile, Alabama

Exertional Compartment Syndrome (ECS) is important and is always included in the differential diagnoses of leg pain. ECS can be confusing and difficult even with dynamic compartment pressure testing. ECS can be diagnosed followed by a controlled challenge, provocation, or “preloading” with a calf sleeve. 18 of 43 limbs were used to develop a protocol for time-pressure relationships within the anterior compartment. 25 additional limbs underwent pre-compression and calf sleeve post-compression measurements. Wearing the calf sleeve had a clinically meaningful effect with a pressure difference average of 20 mmHg (range 4 to 49 mmHg) with patient compliance; the now verified calf sleeve provocation test provides a noninvasive, simple, cheap, quick, and easily understood protocol with simple implementation and

consistent interpretation of results. Compartment pressure testing may then be unnecessary for diagnosis.

THE DEMOGRAPHICS AND CLINICAL PARAMETERS OF A TERTIARY ORTHOPAEDIC FOOT AND ANKLE SURGERY PRACTICE

Peter H. White, M.D.; Robert E. Holmes, M.D.; William R. Barfield, PhD.; Briggs M. Ahearn, BS; Philip T. Kirn, BS; Ryan K. Preston, BS; William K. McKibbin, M.D., Medical University of South Carolina, Charleston, South Carolina

Introduction: Orthopaedic foot and ankle (OFA) surgeons practice in a challenging climate. Patients frequently have significant comorbidities, which may correlate with a high risk of surgical complications. OFA surgeons frequently see patients with multiple prior interventions. There is no literature that describes the complexity of a tertiary OFA practice in terms of patient demographics, referral patterns, history of treatment, or clinical presentation characteristics. Here we aim to define these clinical parameters, which carry potential implications for assessment of quality measures and health care system reimbursement.

Methods: We performed a retrospective chart review of consecutive new patients presenting to a tertiary OFA surgery clinic between 10/1/2010 and 09/30/2011. The cohort was limited to outpatients between the ages of 10 to 99, excluding prisoners. Data points included: demographics, chief complaint and duration, screening for diabetes, hypothyroidism, and psychiatric diagnoses, as well as narcotic/non-narcotic pain medication(s), and smoking. The “depth” of opinion was categorized and previous treatments related to the chief complaint were recorded.

Results: We identified 433 patients who traveled an average of 47.5 miles to clinic, with average symptom duration of 52.3 months; Caucasians had a longer duration of their CC compared to African-Americans (53.5 vs. 40.2, $p < 0.001$). There were twice as many females than males ($p = 0.03$). The average age was 51.4 and BMI was 29.0: 64.1% of all obese patients were female. African-Americans had a significantly higher BMI (32.7) than Caucasians (28.3, $p < 0.001$). Although not statistically significant, our obesity prevalence was 39.5% vs. 30.6% of the general population for our state (SC). 11.5% of patients were diabetics (35% higher than the general population), and 32.1% were associated with a psychiatric diagnosis. Females were 4X as likely to report/take medication for a psychiatric diagnosis. The prevalence of hypothyroidism was twice the general population at 9.5% vs. 4.6%. 8.5% were smokers, roughly half that of the general population (8.5% vs. 18.6%, $p = 0.04$). There were an average of 1.48 opinions prior to presentation; 82.7% had received prior evaluation/treatment, and 24.5% had prior surgery. For patients with prior surgery, 13.2% were referred by the same orthopaedic (non-OFA) surgeon, compared with 0.9% by the same OFA surgeon and 0% by the same podiatrist.

Conclusions: In this one-year cohort, patients had prior evaluation and treatment on average by 1.48 previous providers, with an average chief complaint duration of greater than 4 years. Almost 25% had undergone prior surgery. Our patients had a higher prevalence of diabetes, obesity, and hypothyroidism compared to the general population. African-Americans had higher BMIs than Caucasians. Females were 4x as likely to have a psychiatric diagnosis; 2/3 of obese patients were female ($p < 0.001$, $p < 0.001$). Orthopaedic (non-OFA) surgeons most frequently referred patients who had undergone prior surgery; surgeons of any category were relatively unlikely to refer such

patients. This study illustrates that OFA surgeons in a tertiary practice often treat chronic problems in patients with significant comorbidities, and may frequently serve as a “last resort” for patients who have seen multiple providers or undergone prior surgery.

TYPE 3 SUPRACONDYLAR HUMERUS FRACTURES: THE IMPORTANCE OF INTERNAL ROTATION STRESS XRAYS IN IMPROVING RADIOGRAPHIC

OUTCOMES, Gregory A. Mencia, M.D., Vanderbilt, Nashville, Tennessee

INTRODUCTION: The purpose of this study was to determine if routine use of an intraoperative internal rotation stress test (IRST) reduces the incidence of loss of reduction following percutaneous pin fixation of type 3 supracondylar humerus fractures.

METHODS: An intraoperative protocol for type 3 supracondylar humerus fractures was adopted at our institution, consisting of fracture reduction, placement of two laterally based divergent pins, and then an internal rotation stress test (IRST). If rotational instability was observed, then additional fixation was utilized to achieve rotational stability, either a medial pin or a 3rd lateral pin. Medial pins were placed via a small open approach. Fractures treated with the prospective IRST protocol were compared with a retrospective cohort prior to adoption of the protocol (no-IRST). Bauman’s angle, the humerocapitellar angle, and the rotation index were measured on final intraoperative fluoroscopic images and compared with healed radiographs at final follow up. Complications were recorded.

RESULTS: There were 78 fractures in the retrospective cohort (no-IRST) and 49 in the prospective cohort (IRST). Rotational loss of reduction (>10 degrees) was less common in the IRST cohort (1/49 vs. 13/78, $p=0.009$). Major loss of reduction (>10 degrees change in Bauman’s angle) was only noted in the no-IRST cohort (3/78 vs. 0/49, $p=0.28$), although the difference was not statistically significant. There were no significant differences in humerocapitellar angle or minor changes in Bauman’s angle (5-10 degrees) between the cohorts. Loss of proximal pin fixation with need for re-operation also occurred in the no-IRST cohort (3/78) but not in the IRST cohort (0/49, $p=0.28$). There were two superficial infections in the no-IRST group, and no postoperative nerve injuries in either cohort.

CONCLUSION: Intraoperative internal rotation stress testing (IRST) after placement of two lateral pins assists with the decision for additional fixation to achieve rotational stability (medial pin or 3rd lateral pin). In the prospective cohort, routine use of the IRST significantly reduced the incidence of rotational malunion. Although not statistically significant, there were three fractures with major postoperative changes in Baumann’s angle and three fractures with loss of fixation in the retrospective cohort (no-IRST), and none in the prospective cohort (IRST).

TROUBLE AHEAD: SOCCER AND CONCUSSIONS, Raymond Rocco Monto, MD, Nantucket, Massachusetts

Soccer is the world's most popular sport with over 265 million players. New data indicates that female soccer players are more at risk for concussion than their male counterparts and that head to head contact is the most common mechanism of injury. New competitive guidelines recommend baseline and post-injury standardized cognitive testing for all players to measure the extent of damage after head injury. Concussive trauma appears to have lingering effects on the brain for up to one year. Repetitive heading may lead to cumulative cognitive decline but no firm link to chronic traumatic encephalopathy has been proven.

DOUBLE BUNDLE POSTERIOR CRUCIATE LIGAMENT RECONSTRUCTION: A BIOMECHANICAL ANALYSIS OF SIMULATED EARLY MOTION AND PARTIAL AND FULL WEIGHTBEARING ON COMMON RECONSTRUCTION GRAFTS, Mook, W.R., Civitarese, D., Turnbull, T., Kennedy, N., O'Brien, L., LaPrade, R.F., OrthoVirginia, Reston, Virginia

Purpose: The purpose of this study was to determine the biomechanical effects of simulated immediate motion and weightbearing during rehabilitation on different double-bundle posterior cruciate ligament reconstruction (DB-PCLR) graft options.

Methods: Nine each of commercially prepared (allograft) Achilles tendon allografts, fresh frozen (autograft) bone-patellar tendon-bone grafts, and fresh frozen quadriceps tendon grafts were paired with commercially prepared anterior tibialis allografts, fresh frozen semitendinosus grafts, and fresh frozen semitendinosus grafts, respectively. Graft pairs were loaded to simulate early range-of-motion on a stationary bicycle, partial weightbearing (30%), and full weightbearing.

Results: Acquired laxity (displacement, mm) between graft pairs was not significantly different during simulated early range-of-motion. However, during simulated partial weightbearing, the median acquired laxity of the patellar tendon/semitendinosus pair (1.06 mm) was significantly less than that of the quadriceps tendon/semitendinosus (1.5 mm, $P = 0.006$) and Achilles/anterior tibialis (1.44 mm, $P = 0.003$) graft pairs. During simulated full weightbearing, significantly less acquired laxity was observed for the patellar tendon/semitendinosus graft pair (2.38 mm) compared to the Achilles/anterior tibialis pair (4.85 mm, $P = 0.044$), but a significant difference was not observed compared to the QT/semitendinosus graft pair (3.91 mm, $P = 0.169$). There were no significant differences in the ultimate loads between any of the graft pairs.

Conclusions: Simulated early range-of-motion and early partial weight bearing did not result in clinically significant acquired graft laxity in common graft options utilized for DB-PCLR. However, simulated full weight bearing did result in clinically significant acquired graft laxity.

AN EVALUATION OF THE CLINICAL AND ANATOMIC PREDICTORS OF OUTCOMES FOLLOWING THE LATARJET PROCEDURE FOR THE TREATMENT OF ANTERIOR GLENOHUMERAL INSTABILITY WITH COMBINED GLENOID AND HUMERAL BONE DEFECTS , Mook, W.R., Petri, M., Greenspoon, J.A., Horan, M.,

Millett, P.J., OrthoVirginia, Reston, Virginia

Background: The Latarjet procedure for the treatment of recurrent anterior shoulder instability is highly successful, but reasons for failure are often unclear. Measurements of the “glenoid track” have not previously been evaluated as potential predictors of postoperative stability.

Hypothesis: There are clinical and anatomic characteristics, including the “glenoid track,” that are predictive of outcomes following the Latarjet procedure.

Study Design: Retrospective cohort study; Level of evidence, 3.

Methods: Patients who underwent Latarjet procedures for anterior shoulder instability with glenoid bone loss prior to October of 2012 were assessed for eligibility. Patient reported subjective data that was prospectively collected and retrospectively reviewed included demographic information, patient satisfaction, pain measured on a visual analog scale (VAS), questions regarding instability, SANE score, ASES score, DASH score, and SF-12 physical component scores (PCS). Anatomic measurements were made of the coracoid size (surface area and width), conjoined and subscapularis tendon widths, estimated glenoid defect surface area, Hill-Sach’s Interval (HSI), and projected postoperative glenoid track engagement. Failures were defined as the necessity for revision stabilization or continued instability (dislocation or subjective subluxation) at a minimum of 2 years postoperatively.

Results: 38 shoulders in 38 patients (33 men, 5 women) with a mean age of 26 years (range 16-43) were included at a mean follow-up of 3.2 years (range 2- 7.9). 25/38 had undergone prior stabilization surgery and 6 had workman’s compensation claims. All subjective outcome scores significantly improved ($p<.05$) with a high median satisfaction score of 9/10. Patients with moderate or higher preoperative pain (VAS ≥ 3) scores had a negative correlation with postoperative SF-12 physical component scores ($\rho=0.474$, $p=0.022$). Four of the 6 patients with workman’s compensation claims failed ($p=.016$). 50.0% (4/8) of failures demonstrated outside-&-engaged (Out-E) glenoid tracks (Off track lesions) versus 14.8% (4/27) of those without recurrent instability ($p=0.06$). The width of patients’ coracoid processes inversely correlated with postoperative stability ($p=0.014$).

Conclusion: Although stability and patient satisfaction are high following the Latarjet procedure, subjective complaints of subluxation may be more common than previously estimated. Workman’s compensation claims were associated with continued instability and patients with higher preoperative pain levels demonstrated lower SF-12 PCS scores postoperatively. The concept of the “glenoid track” is likely predictive of stability following the Latarjet procedure and may be helpful in surgical decision-making regarding the treatment of Hill-Sach’s lesions at risk for persistent engagement.

HIGHLIGHTS OF SPINE CARE THE PAST 50 YEARS, Richard J. Nasca M.D.,
Wilmington, North Carolina

During the 50 and 30 year anniversary meetings of SRS and NASS we looked back on

several historical milestones of spine care. In the 1960's, Harrington instrumentation was coupled with the Hibbs-Moe fusion. This began the modern treatment for paralytic & idiopathic scoliosis. Anterior approaches to the cervical (Smith –Robinson and others), thoracic (Hodgson) and lumbar spine (Goldner, McCollum, Urbaniak and others) were introduced in the 1960's. Roy Camille, Louis & Magerl used pedicle screws for fractures in Europe in the 1970s. Pedicle screws were not FDA approved until 1999. In the late 1990's there was a cage rage with the development of the BAK, Ray and Harms cages. Lateral interbody fusion with PEEK cages & pedicle fixation for lumbar scoliosis and lateral listhesis followed in the new millennium. The Heinig egg shell osteotomy, pedicle subtraction osteotomy and vertebral body resection provided significant correction for flat back deformity. Cervical and Lumbar disc replacements were introduced in the last 15 to 20 years. Treatment of early onset scoliosis, adult scoliosis and spinal cord injuries provide challenges for the future. Non operative treatment of disc disease and motion preservation versus fusion are also areas that require further investigation.

BRIDGING PORCINE DERMAL MATRIX XENOGRAFTS: A VIABLE ALTERNATIVE TO TODAY'S TREATMENT OF MASSIVE CUFF TEARS, Neumann, J.A., Zgonis, M.H., Reay, K.D., Mayer, S.W., Boggess, B.R., Toth, A.P., Duke University Medical Center, Durham, North Carolina

Despite recent advances in surgical techniques and technology for rotator cuff repairs, management of massive rotator cuff tears in shoulders without glenohumeral arthritis remains problematic for surgeons for several reasons. In this study, sixty patients were prospectively observed for a mean of 50.3 months following repair of massive rotator cuff tears using porcine acellular dermal matrix xenograft as an interposition graft. This study shows that patients who underwent repair of massive rotator cuff tears using interposition porcine graft subjectively have good function and have significant improvement in pain, range of motion, and manual muscle strength. Post-operative ultrasound demonstrated that the repair was completely intact in 91.8% of patients, a vast improvement compared with results previously reported for primary repairs of massive rotator cuff tears. This study shows that interposition tissue grafts hold promise in the near future in treatment of massive rotator cuff tears.

TRENDS IN UPPER EXTREMITY FRACTURES AND MANAGEMENT: INSIGHTS FROM TWO CONTRASTING INSURANCE DATABASES, Zhang, H., Faust, K., Ruch, D.S., Duke University Medical Center, Durham, North Carolina

The incidence and treatment of upper extremity fractures, from clavicle to scaphoid, were investigated in Medicare (2005-2012) and Humana (2007-2014) insurance

databases using Pearldiver software. Specific demographic and treatment trends were found in both the general population and the contrasting insured populations. For example, annual distal radius fracture incidence significantly decreased in both cohorts. Open-reduction/internal fixation of these fractures, however, were not only higher overall in Humana patients than in Medicare but also increasing significantly year-to-year. Therefore, national insurance databases offer valuable insight on fracture and treatment trends, with additional information on unique insured populations, technology development, and surgeon/patient preferences.

HOW/WHEN TO DO A SPINE SURGERY REFERRAL - AN ACADEMIC APPROACH,

David C. Urquia, M.D., Augusta Orthopaedics, Augusta, Maine

Presented a review of the recent literature on preoperative risk factors and their relationship to treatment outcomes. Our current referral screening guidelines summarized. Patients were accepted on the basis of diagnosis and required diagnostic studies, and excluded on the basis of certain medical and psychological co-morbidities, including excessive BMI and substance abuse issues. In general, new appointments with the surgeon were not offered to patients when it was determined based on screening that no new treatment options existed, surgical or non-surgical. Guidelines for direct referral to spine P.A. or Physiatry also defined.

REPORT OF THE PIEDMONT SOCIETY SCIENTIFIC COMMITTEE: “STERIODS IN MUSCULOSKELETAL MEDICINE — FACT OR FICTION,

David C. Urquia, M.D., Augusta Orthopaedics, Augusta, Maine

Recent Level I and Level II articles presented that failed to show benefit of oral steroids for acute lumbar radiculopathy, nor any benefit of ESI for lumbar spinal stenosis patients. Clinical data on catabolic steroid use was presented based on a national on-line survey of Piedmont Society members. The author recommended against the routine use of oral steroids for adult spinal conditions, and recommend that parenteral or injectable steroid therapies be much more limited than currently exists nationally.

UNPLANNED RESECTION OF SOFT TISSUE SARCOMAS: CONSEQUENCES AND HOW TO AVOID IT, Julia D. Visgauss, M.D., Duke University Medical Center, Durham, North Carolina

Soft Tissue Sarcomas (STS) are a heterogeneous group of malignant neoplasms, mainly affecting adults >age 55. The following characteristics should raise the suspicion of sarcoma: >5cm, deep to fascia, heterogeneous on MRI. However not all STSs have these characteristics, and up to 50% of patients diagnosed with STS may have inadequate or inappropriate initial treatment. Risks for unplanned excision include young age, prior trauma, upper extremity, knee, or superficial location, superficial location. Re-excision is required and associated with increased morbidity. Positive

margins not only increase risk of local recurrence, but are also associated with decreased disease free and overall survival. If sarcoma is suspected, it should be sent to an oncologic surgeon for biopsy, but all biopsies performed should follow oncologic principles.