Letter from the Chair
Richard Schwend MD FAAP

Spring Greetings! The Section on Orthopaedics (SOOr) was established in 1976 with the vision of our founding members including Bill Schmidt MD, Leibe Diamond MD, Paul Griffin MD, Dennis Lyne MD, Paul Miller MD and Arthur Pappas MD. We are now entering our 38th year as a Section. The mission of SOOr is to improve the care of infants, children and adolescents by providing educational forums for the discussion of problems and treatments related to orthopaedics in children.

The AAP Orthopaedic Section had a great year in 2013. Some of the year’s highlights include:

Education and Research
The American Academy of Pediatrics (AAP) SOOr Academic and Scientific Program was held in Orlando, Florida on Saturday, October 26, and on Sunday, October 27, during the Academy’s National Conference & Exhibit. The Section promotes student, resident, and fellows-in-training research by encouraging them to present their work during the weekend meeting and having their faculty mentor in attendance to participate in the discussion of their work. Norman Otsuka as Section Abstract Chair with Eric Gordon as Section Program Chair ran an excellent meeting. Moderators for the sessions included Brian Smith, Lee Segal, David Feldman, Joshua Abzug, and Ted Ganley – SOOr members as well as Pediatric Orthopaedic Society of North America (POSNA). Jack Flynn gave the annual POSNA presidential address titled “The Changing Face of Pediatric Orthopaedics: Clinical, Socioeconomic and Demographic Forces Rocking our Word.” This was an insightful retrospective and prospective from Jack’s mid-career vantage. A lively, no rules debate between Todd Lawrence and Bill Hennrikus on surgical stabilization for first time shoulder dislocations in adolescent athletes was a first, and a similar format is being designed for future years. Over 50 abstracts were presented during the day-and-a-half long meeting. It was also a record year for submissions with over 100 in consideration!

Bob Cady has generously funded through POSNA the Section’s AAP Young Investigator Awards. In 2013 the awards went to Rachel Borlack (Albert Einstein College of Medicine) for “Adolescent Idiopathic Scoliosis Patients are at Increased Risk for Pulmonary Hypertension;” Ali Ashrof (Mayo) for “Acute Complications of Pediatric and Adolescent Knee Arthroscopy;” Emily Stuart (Phoenix Children’s Hospital) for “Musculoskeletal Medicine: An Assessment of Knowledge of Pediatric Residents and Faculty;” and and Aviva Dworkin (Albert Einstein College of Medicine) for “Critical Events before Spinal Cord Injury in a Porcine Compression

(Continued on Page 3)
Chair’s Letter (Continued from Page 2)

Model.” These papers are automatically accepted as paper posters for the POSNA Annual Meeting in Hollywood, California and the abstracts have been published in the Journal of Pediatric Orthopaedics, March 2014 issue.

The Section established the Distinguished Service Award (DSA) in 1995 to recognize an individual in the field of pediatric orthopaedics who has contributed to the AAP’s mission of excellence in patient care, research and teaching. The Section’s Executive Committee selected Dr. Walter Greene as the esteemed recipient of this honor for 2013. Dr. Greene has been an active POSNA member since 1983 and is best known for his compassionate care of children with disabilities, his understated mentoring of students and residents, and his lifetime work and dedication to improving the lives of those who have been fortunate enough to have worked with him or cared for by him. Dr. Greene, who was accompanied by his wife, Debby, gave the DSA lecture on the history of the Newington Hospital.

Other highlights of the meeting included a combined session of the Surgical Advisory Panel on “Imaging Gently in Radiology.” Members of the Orthopaedic Section and POSNA presented a number of teaching sessions to the general pediatricians including a casting and splinting workshop with Kathryn Keeler; office treatment of common fractures with Bill Hennrikus; evaluating gait disorders with John Anderson and Martin Herman; and approaches to pediatric back pain with Howard Epps and Richard Schwend.

The next SOOr program will take place October 11-12, 2014, in San Diego, California. There will be a large combined session on Friday October 10, called Pediatrics for the 21st Century (Peds21). This is a half-day pre-Conference session – before the 2014 NCE – for pediatricians and pediatric subspecialists on one particular topic. Peds21 is sponsored by the SOOr, the Council on Sports Medicine and Fitness, and the Section on Rheumatology. Larry Wells will be representing SOOr. We anticipate as many as 1,000 attendees and Academy leaders. We hope that you and your pediatrician colleagues are able to join us for 1, 2, 3, Go! Sports in the World of Pediatrics - Playing It Safe and Making It Fun!

After success of the 2012 “Neurotoxicity of Anesthesia in Infants” and the 2013 “Imaging Gently,” the Surgery Advisory Panel (SAP) has decided to make this session an annual part of the NCE. This year the SAP session in San Diego will be on hemangiomas and vascular malformations. Future topics may include: Health Care Inequities in Children (for the 2014 NCE in Washington DC), chest wall deformities, bleeding disorders, perioperative management of the medically fragile child, disaster management, surgical issues in spina bifida, obesity, coordinated care of the pediatric trauma patient, surgical site infections, surgery in countries with limited resources.

Ted Ganley is the incoming program chair for the AAP Section on Orthopaedics. If you have ideas for a teaching presentation to pediatricians for this meeting, please contact Dr. Ganley at ganley@email.chop.edu.

AAP Practical Pediatrics Speakers

Speakers 2013: Kit Song, Donna Pacicca, Paul Stricker, Terry McCambridge, Bill Phillips, Matt Bueche, Andrew Gregory

Leadership

The AAP Section on Orthopaedics has an eight-person leadership team. Ellen Raney, who was the previous Program Chair completed her term on the Executive Committee with an outstanding record of elevating the Section Program to its highest level ever. Ted Ganley was elected to Section leadership as of October 2013. He will be bringing much needed expertise in pediatrician and resident education to the Academy.

Richard Schwend: Section Chair; POSNA Board of Directors; Representative to POSNA’s Children’s Orthopaedists in Under-served Regions and the AAP Section on International Child Health; Member of the SOOr International Mentored Scholarship Committee, AAP Practical Pediatrics Committee, and the AAP Committee on Membership.

William Hennrikus: Immediate Past Section Chair; Member of the Academy’s NCE Planning Group planning (replacing John Sarwark); Immediate Past Chair of the AAP Practical Pediatrics Planning Group; AAP Grand Rounds Representative; AAP Disaster Preparedness Advisory Council Representative; Representative on the Scoliosis Research Society (SRS)/POSNA Device Task Force.

Norman Otsuka: Incoming Section Chair; Academy Liaison to the US Bone and Joint Initiative Board of Directors; Section Abstract Chair; SOOr Advocacy Leader (working with the DC Office); Treasurer and Fundraising Committee Member.

Ted Ganley: Liaison to the Section on Medical Students, Residents, and Fellowship trainees; Liaison to the Council on Sports Medicine & Fitness; Incoming Section Program Chair; SOOr Advocacy Representative; International Mentored Scholarship Committee Member.

Eric Gordon: AAP Program Chair, Fundraising Committee Member, International Mentored Scholarship Committee Member.

Brian Smith: Section Historian; SOOr Membership Chair; Liaison to SRS BraIST Task Force.

Brian Shaw: Publications and Policy Development Chair; Policy and Publications Chair; Assists with Pediatrics in Review; International Mentored Scholarship Committee Member.

Lawrence Wells: Peds 21 Representative; Policy and Publications Assistant Chair

Nicolette Alexander, MPP: Manager, Division of Hospital & Surgical Services, oversees issues related to the hospitalization of children, pediatric hospitalists, orthopaedics/bone health, and transport medicine on behalf of the Academy.

Other Active Members:

Peter Pizzutillo: Editorial Board Member of Pediatrics in Review

Paul Esposito: former USBJI AAP Liaison

Ellen Raney: former Executive Committee Member, develops curriculum for primary care.
Chair’s Letter (Continued from Page 3)

Yi-Meng Yen (Beng): Oversees new “train the trainers” program, assists with SOMSRFT activities related to the Section.

Dave Spiegel: International Mentored Scholarship Committee member, PediaLink program Developer

Bob Cady: Young Investigator Awards

Brian Snyder: Assists with advocacy efforts

Josh Abzug: Handbook of Musculoskeletal Medicine, assists with the development of “train the trainer” concept.

Marty Herman: Member of the Section Nominating Committee

Josh Abzug: Member of the Section Nominating Committee

Executive Committee Election:
The following were elected to the Executive Committee:
Norman Otzuka: to replace Richard Schwend as Section Chair
Brian Shaw: to serve another membership term
Joshua Hyman: to replace Eric Gordon as member

New Programs
AAP International Scholarship. Thanks to a generous grant from K2M company, the AAP Section on Orthopaedics has developed a scholarship program for pediatric orthopaedic fellows and orthopaedic residents to join a pediatric orthopaedic surgeon to work in an underserved country. These are typically 1-2 week trips. Up to $1,500 per person is available for travel and housing expenses. The deadline for the application is November 1, 2014 for travel in 2015. A selection committee with Richard Schwend (nonvoting member), Brian Shaw, Ted Ganley, Eric Gordon, Dave Spiegel, Linda Arnold (from the Section on International Child Health), and a member of Section on Medical Students, Residents, and Trainee Fellows review the applications. Materials can be found on the SOOR web site at http://www.aap.org/sections/ortho. This program won the Innovation Award at the recent AAP Annual Leadership Forum in March 2014.

Publications and Policy Development, AAP Publications Review. Brian Shaw has taken on the task of reviewing all AAP publications that may affect the Section on Orthoepedics and pediatric orthopaedics in general. He has developed a list of Section members who have agreed to volunteer to review these publications, ranging from AAP book chapters to clinical practice guidelines. When SOOR is asked to review a manuscript, Brian may request that a Section member oversee the review. There is typically a one-month period to respond. During the October 2014 NCE meeting there is a plan to acknowledge all reviewers.

Workforce Survey. Jeffrey Sawyer, Chair of the POSNA Practice Management Committee, has worked with Rick Schwend and AAP staff to develop the AAP workforce survey. AAP and POSNA staff have worked hard to condense the instrument into a smaller package that meets the needs of both organizations. AAP staff is completing final questionnaire and plans to share the results with POSNA. AAP is slated to do the analysis. When the survey arrives in your inbox, we strongly encourage you to take the time to complete this survey.

Publications


AAP Grand Rounds 2013-2014 editorials/reviews by William Henrikus:
• Treatment of stable paediatric forearm fractures using a cast that may be removed at home. Hamilton TW et al. J Bone Joint Journal 2013; 95B:1714-1720.

In progress
A clinical report on clubfoot is being drafted by Bob Cady and Theresa Hennessey.

Josh Abzug is working on a clinical report documenting the state of musculoskeletal education to our pediatric residents and young pediatric physicians. This effort may start as a resolution to the Annual Leadership Forum with a proposal to survey AAP members, following the award winning survey done by Emily Stuart and Lee Segal, “Musculoskeletal Medicine: An Assessment of Knowledge of Pediatric Residents and Faculty.” Handbook of Pediatric Musculoskeletal Care. Josh Abzug is working on a proposal to produce a handbook on pediatric musculoskeletal care. The format would be simple one- to two-page paragraphs, case based, with illustrations and imbedded video. The first handbook would be targeted to the US audience and the second version to the international community.

DDH statement. Brian Shaw and Lee Segal have drafted a clinical report on developmental dysplasia of the hip (DDH) screening and referral. The document is on hold pending the publication of American Academy of Orthopaedic Surgeons Clinical Practice Guideline on DDH.

Membership
Membership in the Section is open to all POSNA members and we encourage ALL graduating pediatric orthopaedic fellows to apply. Please contact the Membership Chair, Brian Smith, with questions (brian.g.smith@yale.edu).

The AAP orthopaedic website has been updated. Please view at http://www.aap.org/sections/ortho.

Thank you all for being active participants and engaged in the mission of the AAP Section on Orthopaedics. We look forward to seeing you in San Diego in October!!

Richard M. Schwend MD, FAAP
Congratulations to the Three Winners of the Young Investigators in Training Awards  
(formerly Resident Research Awards)

Three outstanding papers were selected as this year's Young Investigators in Training award winners at the 2013 NCE Section on Orthopaedics program in Orlando, FL.

Generous educational support from the Pediatric Orthopaedic Society of North America (POSNA) allows monetary awards of $1,000 for the winner in each of three categories. The three award winning papers will be accepted for presentation at the next POSNA annual meeting.

Congratulations to the recipients!

BASIC SCIENCE Winning Paper:
Adolescent Idiopathic Scoliosis Patients Are At Increased Risk for Pulmonary Hypertension  
Rachel Borlack, BS, Michael P. DiLorenzo, MD, Vishal Sarwahi, MD, Dan Wang, T. D. Amaral, Aviva G. Dworkin, BS and Sarika Kalantre, MD

CLINICAL SCIENCE Winning Paper:  
Acute Complications of Pediatric and Adolescent Knee Arthroscopy  
Ali Ashraf, MD, Christy Christophersen, Lindsay Hunter, Diane Dahm, MD and Amy L. McIntosh, MD

HEALTHCARE SYSTEM ISSUES Winning Paper:  
Musculoskeletal Medicine: An Assessment of Knowledge of Pediatric Residents and Faculty  
Emily Stuart, MD, Kristina Wilson, MD, M. Wade Shrader, MD and Lee S. Segal

SPECIAL RECOGNITION—First Place in Animal Model Research  
Critical Events Before Spinal Cord Injury in a Porcine Compression Model  
Aviva G Dworkin, BS, Vishal Sarwahi, MD, Etan P. Sugarman, MD, Abhijit Pawar, MD, Alan Legatt, MD PhD, Marina Moguilevitch, MD and Terry Amaral, MD

The competition is open to all levels of training including fellows, residents and students. To be eligible for the award, one of the attending level authors listed on the paper at the time of submission must be present at the time of the presentation. A panel of judges rates study design, originality, significance and mastery of flow.

(See complete abstracts beginning on page 10.)

If you’d like to be more involved in or volunteer for Section on Orthopaedics, or donate to the International Scholarship Program, contact Nicole Alexander at 847-434-4799 or nalexander@aap.org.

Congratulations to the two 2014 $1,500 scholarship winners:

Michael Lilyquist MD & Nadine Williams MD!

If you’d like to be more involved in or volunteer for Section on Orthopaedics, or donate to the International Scholarship Program, contact Nicole Alexander at 847-434-4799 or nalexander@aap.org.

AAP Section on Orthopaedics  
INTERNATIONAL OUTREACH Mentored Scholarship Program

The AAP Section on Orthopaedics (SOOr) will offer awards of up to $1,500 to orthopaedic residents and pediatric orthopaedic fellows who are interested in providing musculoskeletal care to children in resource poor regions of the world (number awarded per cycle will be at the discretion of the review committee). The scholarship program will facilitate mentored experiences for young surgeons in training so that early in their career they have a unique, quality training experience abroad under the direction and supervision of a senior pediatric orthopaedic surgeon.

The goal of the Section’s Global Outreach Mentored Scholarship Program is to meld the principles and lessons learned during the experience abroad into future professional practice and to understand the value of both providing care to those in need and mentoring future leaders.

Background
• The application period opens on July 1 and closes on November 1. The deadline for all materials is November 1 for trips to be made during the following calendar year. Applications submitted after the deadline will not be considered.
• Applicant must be enrolled in an ACGME orthopaedic residency or in a pediatric orthopaedic fellowship at time of application cycle deadline.
• Applicant must identify a physician mentor who is a pediatric orthopaedic surgeon that agrees to travel with, mentor, and supervise the scholar during the trip. All clinical and surgical care must be provided under the direct supervision of that mentor.
• Awards must be between 1 and 4 weeks in duration.
• It is encouraged that you review the US Department of State Travel Warning web site at http://travel.state.gov/travel/cis_pa_tw/tw_1764.html before committing to a country/region of the world for the scholarship program.
• Selected scholar is required to submit a completed trip report within 30 days of return in order to receive reimbursement.
• Scholar is reimbursed for expenses up to $1,500 after the trip report has been submitted and approved. Receipts must accompany all expenses listed within the scholar’s reimbursement request. SOOr does not handle any travel arrangements or oversee any logistics related to the trip.
• For your information, trip reports may form the basis of news article in AAP News or in an upcoming SOOr newsletter.
• Scholar may not request outside or institutional funding for expenses covered under the scholarship program.

Supported by K2M
Walter Greene, MD is a pediatric orthopaedic surgeon whose academic appointments included the University of North Carolina and the University of Missouri. His responsibilities in the hemophilia and myelomeningocele clinics have stimulated many queries and research opportunities. However, he is probably best known for his compassionate care of children with disabilities, his understated mentoring of students and residents, and his lifetime work and dedication to improving the lives of those who have been fortunate enough to have worked with him or cared for by him. The Section on Orthopaedics is honored to give the Section’s most important award to such a worthy individual.

SOOr established the Distinguished Service Award in 1995 to recognize an individual in the field of pediatric orthopaedics who has contributed to the AAP’s mission of excellence in patient care, research, and teaching. The SOOr Executive Committee has selected Dr. Greene as the esteemed recipient of the 2013 Distinguished Service Award being presented at the AAP National Conference & Exhibition in Orlando as part of the Section Program.

NOTE from the Executive Committee ... Walter Greene, MD is a well-respected pediatric orthopaedic surgeon with a distinguished career as a leader, educator, clinician, and researcher. He has been an active member of the AAP as well as the American Academy of Orthopaedic Surgeons, American Academy for Cerebral Palsy & Developmental Medicine, Pediatric Orthopaedic Society of North America, Council of Academic Societies, American Medical Association, Nathan W. Womack Surgical Society, National Hemophilia Foundation, and World Federation of Hemophilia. The Section is proud to nominate such a worthy individual to receive the 2013 AAP Section on Orthopaedics Distinguished Service Award.

Summary of Dr Walter B Greene’s PowerPoint Presentation
October 26, 2013, in Orlando, FL

The Home for the Incurables

- Homage to Pediatric Orthopaedic Fellowships and Their Institutions
- Homage to the Early Establishment of Children’s Orthopaedic Homes / Hospitals
- But, most of all, homage to non-medical people who had compassion for the “Incurables” and their support by enlightened physicians that ultimately led to orthopaedic surgeons specializing in pediatric orthopaedic surgery and further advancement of our care of children

From July, 1977 until July, 1978 I was a fellow in pediatric orthopaedic surgery at Newington Children’s Hospital – suburb of Hartford, CT. It was a great year! – except for the snow which almost broke the record for total accumulation ~ 82 inches

I owe much to my mentors that year: Dr Burr Curtis, Dr. James Cary, Dr. James Drennan, Dr. Jim Gage, and Dr. Thomas Renshaw.

With surgical locker room and lunch room conversations, I heard a bit more about the “previous movers and shakers” that advanced the care of children with chronic pediatric orthopaedic conditions. Newington paralleled, but epitomized my experience at a similar, but less advanced “state of care” experience during my residency rotation at North Carolina Orthopaedic Hospital – a similar, but less advanced pediatric orthopaedic institution.

But, my focus in 1997-78 was learning as much as I could and “being on the cutting edge of pediatric orthopaedics.”

In the subsequent years, Newington had to change from a “stand alone” hospital to a comprehensive children’s hospital. This necessitated a move to Hartford and a subsequent loss of identity. This was both “good and bad” - but it had to be!

In my subsequent years @ UNC, UMo, etc I have developed a better appreciation of those who came before us. As I studied “The Home for the Incurables” and its subsequent development, I have gained a better understanding of the contributions of both non-physician individuals as well as...
PRE-CONFERENCE SYMPOSIUM

Friday, October 10, 2014

11:30 AM  Networking, Luncheon, Poster Session (Clinical cases and research abstracts)
12:35 PM  AAP President Remarks/Presentation
12:45 PM  Welcome/ Introduction
1:00 PM  Are we doing kids a favor?: The Pre-Participation Physical Evaluation Debate
         David Bernhardt, MD, FAAP
1:40 PM  Sports Medicine Scenarios: What would you do?
         Andrew Gregory, MD, FACSM, FAAP; Larry Wells, MD, FAAP
2:20 PM  “Can I play?”: The Dilemmas of Sports Participation in those with Chronic Disease
         Claire Leblanc, MD, FAAP
3:00 PM  Break and Q/A
3:20 PM  Keynote Presentation: The Advocacy of Youth Sports Concussion Bills: The Personal Experience of
         Zackery Lystedt and Family
         Stanley Herring, MD; Zackery Lystedt; Victor and Mercedes Lystedt
4:20 PM  The Ethics of Kids and Sports: Where does our allegiance lie?
         Paul Stricker, MD, FAAP
5:00 PM  Questions and Wrap Up

Presentation Summary (Continued from Page 6)

several outstanding physicians who both advanced and enhanced care of chronic pediatric orthopaedic conditions not only in Connecticut but in multiple locations across the USA.

Because there are multiple inspirational individuals that have advanced the musculoskeletal care of children, my hope, as you review presentation about Newington, is that you will garner more information about the development of children’s orthopaedic institutions in your area.

Lastly, let’s gather later this year in San Diego for the 2014 AAP Orthopaedic Section meeting where previously David Sutherland, MD, a most gracious and forward thinking pediatric orthopaedic surgeon, advanced our understanding of Pediatric orthopaedic gait evaluation and gait abnormalities, and where many subsequent pediatric orthopaedic surgeons and fellows have advanced our education and knowledge of pediatric orthopaedic surgery.

Walter B. Greene, MD
A Wonderful Opportunity to Present Research!

The Call for Abstracts for the 2014 Section on Orthopaedics Scientific Program is now OPEN!

We encourage residents, fellows, and medical students to submit abstracts!

Section on Orthopaedics Scientific Program
October 11-12, 2014
Dr Norman Otsuka, Abstract Chairperson

There are three $1,000 prizes available for the best abstracts presented by young investigators. The Young Investigators Awards, jointly sponsored with the Pediatric Orthopaedic Society on North America (POSNA), are highlighted at the POSNA Annual Meeting in poster format and also published in the Journal of Pediatric Orthopaedics. For additional information, visit the Section web site at www.aap.org/sections/ortho.

The abstract submission deadline is April 11, 2014. Access for completing submissions will be available until Sunday, April 13, 2014 to allow time for completion of international submissions.

Submit online at https://aap.confex.com/aap/2014/cfp.cgi.

Submission is absolutely free, and you don't need to be a member of the Section in order to participate (although, of course, the leadership does strongly encourage membership). Last year the Section received over 100 abstracts for consideration! Be there for the next record breaker in San Diego!!

Please note: An attending or faculty level co-author must be in attendance during presentation and discussion of any abstract by a resident, medical student, or fellow in order for the paper to be considered eligible for one of the Young Investigator Awards. No exceptions!

Visit our Section on Orthopaedics Website at http://www2.aap.org/sections/ortho/default.cfm
**2014 Section on Orthopaedics H-Program**

Saturday, October 11 - Sunday, October 12, 2014
San Diego, California

**Session Description/Objectives**

This is the annual academic educational activity of the AAP Section on Orthopaedics. All attendees of the NCE are invited to attend. The program's objective is to provide education in musculoskeletal medicine for section members and pediatricians. The scientific session has 4 minute presentations and 3 minute discussions of peer-reviewed abstracts of topics that involve the pediatric musculoskeletal system. Students, residents and fellows are especially encouraged to present the results of their scientific projects with awards earned for best presentations if the faculty is present for the presentation. Any AAP member may submit a paper for consideration. The Saturday afternoon session, “Hip Impingement in Practice,” will update practitioners on current concepts and techniques to diagnose and treat hip impingement in children and adolescents. The Sunday morning 10 top sports papers will provide an update on recent important sports-related literature.

**Faculty**
- Richard M. Schwend, MD, FAAP
- John C. Clohisy, MD
- Theodore J. Ganley, MD FAAP
- Norman Y. Otsuka, MD, FAAP
- Michael B. Millis, MD, FAAP
- L. Schoenecker, MD FAAP
- Alison Brooks, MD
- Gregory Mencio, MD FAAP
- J. Eric Gordon, MD FAAP

**On-Site Program**

**Saturday, October 11, 2014**

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<tr>
<th>Time</th>
<th>Activity</th>
<th>Speaker(s)</th>
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<tr>
<td>7:00—7:25am</td>
<td>Business Meeting</td>
<td>Richard M. Schwend, MD FAAP</td>
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<tr>
<td>7:25—7:30am</td>
<td>Welcome</td>
<td>Ellen M. Raney, MD FAAP</td>
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<td>7:30—9:15am</td>
<td>Scientific Session I (15 papers)</td>
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<td>9:15—9:30am</td>
<td>Break</td>
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<td>9:30—11:00am</td>
<td>Scientific Session II (13 papers)</td>
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<td>11:00am—12:00pm</td>
<td>Distinguished Service Award</td>
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<td>12:00—1:00pm</td>
<td>Luncheon</td>
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<td>1:00—2:00pm</td>
<td>Guest Speaker – POSNA Presidential Address</td>
<td>Gregory A. Mencio, President of POSNA</td>
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<tr>
<td>2:00—5:30pm</td>
<td>Special Session – Hip Impingement in Practice I (Moderator - Richard M. Schwend)</td>
<td>Richard M. Schwend, MD FAAP</td>
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<tr>
<td>2:00—3:00pm</td>
<td>Perry L. Schoenecker – Diagnosing Hip Impingement</td>
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<td>3:00—4:00pm</td>
<td>Michael B. Millis – Hip Impingement in SCFE</td>
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<td>4:00—4:15pm</td>
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**Sunday, October 12, 2014**

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<td>7:30—9:30am</td>
<td>Scientific Session IV-V (13 papers)</td>
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<td>9:45—11:15am</td>
<td>Scientific Session V (13 papers)</td>
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<td>11:16—11:55am</td>
<td>Top 10 Sports Papers</td>
<td>Alison Brooks, MD FAAP, J. Todd Lawrence, MD FAAP</td>
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<td>11:56am—12:00pm</td>
<td>Research Awards</td>
<td>Ellen M. Raney, MD FAAP</td>
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Adolescent Idiopathic Scoliosis Patients Are At Increased Risk for Pulmonary Hypertension

Rachel Borlack, BS1, Michael P. DiLorenzo, MD2, Vishal Sarwahi, MD3, Dan Wang4, T. D. Amaral5, Aviva G. Dworkin, BS3 and Sarika Kalantre, MD5, (1)Albert Einstein College of Medicine Yeshiva University, Bronx, NY, (2)Children's Hospital at Montefiore, Bronx, NY, (3)Orthopaedic Surgery, Montefiore Medical Center and the Albert Einstein College of Medicine, Bronx, NY, (4)Epidemiology, Albert Einstein College of Medicine, Bronx, NY, (5)Division of Cardiology Children's Hospital at Montefiore, Bronx, NY

Purpose ... The incidence of structural cardiac disease and pulmonary hypertension in Adolescent Idiopathic Scoliosis (AIS) patients has been infrequently studied. Pulmonary Hypertension has a high mortality. Objective of this study is to determine the incidence of structural cardiac anomalies and pulmonary hypertension in AIS patients and its relationship with curve severity.

Methods ... A retrospective chart review of all patients with AIS having spinal fusion surgery at our institution from September 2009 to 2012 and between the ages of 11 and 21 years was carried out. Data collection included: Cobb angle, echocardiographic presence of structural heart disease, aortic root dimensions, Tricuspid regurgitant jet velocity (TRV), and patient demographics. Right ventricular systolic pressure (RVSP) was estimated using the Bernoulli's equation (4*(TRV)^2) plus the right atrial pressure. The RVSP was used as a surrogate marker for pulmonary hypertension. RVSP >/= 25mm of Hg was used to indicate pulmonary hypertension. All echocardiograms were read by board certified Pediatric Cardiologists. 2D echocardiograms of a control group of 50 age matched healthy adolescents of similar demographics were compared to the AIS patients. Spearman correlation test was used to determine correlation between the cobb angle and RVSP. Logistic Regression was carried out for finding of TRV between the two groups.

Results ... 160 patients had spinal fusion surgery in the study period. Of those, 120 had AIS and 107 had screening echocardiograms. 72 (67%) were female, with an average age of 14.8 ± 2.2 years, and average BMI of 22.4 ± 5 kg/m2. The average Cobb angle was 50.9±12.3 degrees. Two (1.7%) patients had ASD and 2 patients (1.7%) had VSD. Left sided abnormalities included, mitral valve prolapse in 3 (2.8%), trivial regurgitation in 60 (56%), and mild regurgitation in 4 (3.7%) patients. On the right side there was a higher incidence of mild tricuspid regurgitation (N=24 vs 1 in the control group, p<0.001) and higher average estimated RVSP (21.5±5.5 mmHg plus RAP) (p=0.04) suggestive of pulmonary hypertension. There was no evidence of aortic root dilation or aortic valve abnormalities. Spearman correlation coefficient between cobb angle and RVSP was 0.32 in AIS patients (p=0.04). This shows that there was a significant correlation between increasing cobb angle and worsening RVSP. Logistic Regression also showed that AIS patients have an odds ratio of 3.29 for elevated TRV (p value= 0.007), which is an indirect measure of pulmonary hypertension.

Conclusion ... This is the first study to show that worsening degree of scoliosis leads to worsening pulmonary hypertension.
Young Investigators in Training Award Winners

and death in 1 patient (0.09%). 2 patients were readmitted to the hospital (1 DIC, 1 a-fib and syncope). There were no DVT’s, PE’s, vascular injuries or CRPS.

Minor complications included: intra-articular instrument breakage in 1(0.09%) patient, sensory nerve paresthesias in 5 patients (0.49%), failed regional anesthetic in 10 (0.99%) patients, 15 (1.49%) patients with postoperative pain pump that required early discontinuation, 18 (1.79%) patients with superficial wound infection/irritation, 59 (5.88%) patients with persistent effusion/hemarthrosis requiring arthrocentesis, 1 (0.09%) patient with arthrofibrosis without manipulation, and 17(1.69%) patients had minor medical problems that required intervention (asthma exacerbation, urinary retention).

Conclusion … Major complications following knee arthroscopy in children and adolescents are low 2.1%. Minor complications are more common (12.2%) but did not alter the post-operative course or recovery. DVT, PE, and CRPS did not occur in this patient cohort.

Young Investigator in Training Award in Healthcare System Issues

Emily Stuart, MD, presenter, received $1,000 and a certificate.

Musculoskeletal Medicine: An Assessment of Knowledge of Pediatric Residents and Faculty

Emily Stuart, MD, Kristina Wilson, MD, M. Wade Shradar, MD & Lee S. Segal, MD, Phoenix Children’s Hospital, Phoenix, AZ

Purpose … There is a growing body of literature that has demonstrated the inadequacy of musculoskeletal (MSK) education during medical school, and conversely the high proportion of patients seen in practice who present with MSK related problems. The goal of this study was to evaluate the adequacy of MSK training and education in a pediatric residency training program located at a metropolitan Children’s Hospital.

Methods … A twenty item musculoskeletal-based survey was developed based on questions from Freedman et al. (JBJS, 1998) and common pediatric musculoskeletal topics. After IRB approval, the survey was sent anonymously to 93 pediatric residents and 180 faculty (pediatric hospitalists, outpatient pediatricians, and subspecialists) at a large children’s hospital. The level of post-graduate training and prior exposure to clinical rotations in orthopaedics were assessed. The number of correct responses was evaluated and compared for each level of residency training and for faculty. In addition, respondents were asked to rate their confidence in the examination, diagnosis, or treatment of MSK complaints between residents and faculty (p<0.01).

Results … The mean reading 3 minutes before motor signals loss was - 24.4% from the baseline for 9 pigs. When the pressure of the balloon was on average (avg) less than 7 psi the blood flow was close to baseline, but on avg. as it reached over 7 and until 11 psi this was considered a gray zone where ischemia was seen. In terms of time, 3 min before the loss of motor signals is considered a critical. Lastly, the critical volume of less than 0.75cc was on avg. a safe zone, and greater than 0.75cc to 1.5 cc was detrimental. This was equal to 50% or greater compromise of the spinal canal volume.

Conclusion … The critical events before spinal cord injury appeared to be: 50% canal compromise, 7-11 psi pressure gradient, and 24.4% decrease/ increase in blood flow. In addition, the critical time appears to be 3minutes before the loss of motor signals. This data will prove useful in strategizing interventions for spinal cord injury prevention.
1) **Cost-Effectiveness Analysis of Primary Arthroscopic Stabilization Versus Nonoperative Treatment for First-Time Anterior Glenohumeral Dislocations**
- **Background:** First-time traumatic anterior shoulder dislocations have a high risk of recurrent dislocation with conservative management.
  - Every dislocation increases the risk of long term arthritic damage and may decrease the success of surgical intervention.
  - Arthroscopic stabilization can restore the anatomy, has a low recurrence rate and greatly enhances quality of life.
- **Goal:** To determine if the improved clinical outcome with early surgical intervention is offset by the cost of treatment to determine the most cost effective treatment?
- **Methods:** Modeled the clinical scenario of a primary anterior glenohumeral shoulder dislocation with a Markov model and performed a cost-benefit decision analysis.
  - Probabilities: Systematic review of published literature
  - Costs: Estimated from Medicare data based on real patient costs
  - Utility: Systematic review of published literature
- **Results:** Early surgery was less expensive and provided better overall outcomes for 15 y/o males and females and 25 y/o males.
  - Early surgery was more expensive but provided better clinical outcomes for 25 y/o females and 35 y/o males and females. In these cases early surgery was still the preferred treatment because the additional expense was below the willingness to pay threshold of $25,000 per quality adjusted life year.
- **Implications:** The results from this study suggest that early surgical stabilization for young patients is the most cost effective treatment, being both less expensive and providing better clinical outcomes in the long run.

2) **Do Oblique Views Ass Value in the Diagnosis of Spondylolysis in Adolescents?**
- **Background:** Spondylolysis (a stress fracture in the pars interarticularis) is the most common radiographically identifiable cause of low back pain in adolescents and is present in ~4-8% of the general public.
  - Radiographic evaluation with AP, lateral and oblique images has been standard practice.
  - Lumbar spine radiographs expose pelvic bone marrow and intrapelvic (Continued on Page 13)
TOP 5 PEDIATRIC SPORTS ORTHOPAEDICS ARTICLES OF 2013 (Continued from Page 12)

- Implications: Overall non-/delayed union rate for displaced midshaft clavicle fractures in 10-18 y/o patients is ~3.4%.
- Shortening of the fracture has a small but measurable negative effect on clinical outcomes.

3) Long-term Patient-reported Outcome After Fractures of the Clavicle in Patients Aged 10 to 18 Years


- Background: Treatment of adolescent clavicle fractures remains controversial
  - Adult literature has suggested that the rate of non-union is higher than once thought and that many patients are dissatisfied with non-operative treatment.
  - Adolescents with clavicle fractures should have the same surgical complications but not the same risk of non-union or mal-union.
- Goal: To evaluate the long-term radiographic and patient reported outcomes in adolescent clavicle fractures
- Methods: Retrospective review of clavicle fracture patients 10-18 y/o with assessment of DASH and Oxford Shoulder scores
- Results: One non-union and one delayed union identified (Overall non-/delayed union rate 1.2%)
  - Of the 58 displaced fractures treated non-operatively these two non-/delayed unions represent 3.4% incidence.
  - Patient based scores were available on 71% and showed decreased Oxford scores, and decreased cosmetic and overall satisfaction with shortening of the fracture fragments.
- Implications: Overall non-/delayed union rate for displaced midshaft clavicle fractures in 10-18 y/o patients is ~3.4%.

TOP 5 PEDIATRIC SPORTS MEDICINE ARTICLES OF 2013 (Continued from Page 12)

- Conducted between August and December 2011 on 468 (82% participation rate) participants aged 8-12 years old from 4 non-scholastic youth tackle football leagues composed of 18 teams.
- Total of 11 338 AEs (8415 practice/2923 game)
- 20 diagnosed concussions involving 20 different participants
- 2 concussions in practice and 18 in games
- The findings suggest that reducing contact exposures in youth football will likely have little effect on reducing concussion risk, as few concussions actually occur in practice

3) The Disabled Throwing Shoulder: Spectrum of Pathology- 10-Year Update


- “The Disabled Throwing Shoulder: Spectrum of Pathology”
  - 3 landmark articles published in Arthroscopy, 2003
  - The editors of Arthroscopy and the authors of the original series believed an update would provide an organized overview of current knowledge that could update the thought process regarding the DTS, provide better assessment and treatment guidelines, and guide further research
  - Chronic SLAP lesions in throwers may allow for increases in external rotation required for throwing. Articular-side partial-thickness rotator cuff tears may represent failure of the tissue in external rotation, again allowing for the extremes of external rotation required for high-level throwing. It is conceivable that in some throwers, the anatomic repair of these structures will lead to an inability to achieve the extremes of external rotation required to throw at high velocity and may end their careers.
  - Surgery should be considered only after extensive and appropriate rehabilitation has failed.
  - The surgical approach should be minimalistic, with the concepts to repair as needed but not to achieve normal anatomic repair of the rotator cuff.
  - Surgery should be considered as a last resort to attempt to salvage a thrower’s career, and throwers must be cognizant of the poor return-to-play rates.

4) Knowledge and Compliance With Pitch Counts Recommendations: A Survey of Youth Baseball Coaches


- Pain and injuries suffered by youth pitchers are ongoing concerns that have been addressed through the institution of rules and recommendations regarding pitch counts and rest periods
- The aim of study was to see if coaches of youth baseball pitchers in study region were aware of the recommended guidelines and if they followed them.
- The most significant finding of our study is that in spite

(Continued on Page 14)
4) Predictors of Recurrent Instability After Acute Patellofemoral Dislocation in Pediatric and Adolescent Patients

Lewallen LW, McIntosh AL, Dahn DL. AJSM; 41(3) pp 575-81.

- Background: Non-operative treatment is successful in most cases of acute, traumatic first-time patellofemoral dislocation patients.
  - There is little data to help predict which patients will go on to dislocate again or require surgical intervention.
- Goal: To describe the factors present in pediatric and adolescent first-time acute dislocators that may help predict recurrent instability
- Methods: Retrospective review of patient factors and anatomical characteristics evident on plain radiographs taken at the time of the initial injury and their usefulness in predicting recurrent dislocation episodes.
- Results: Any degree of trochlear dysplasia was associated with a statistically significant increased risk of recurrent dislocation (hazard ratio 2.57). Skeletal immaturity and sports related mechanism of action approached statistical significance.
  - With trochlear dysplasia and skeletal immaturity, the 5-year risk for redislocation was over 70% compared with a patient with no dysplasia and skeletally mature where the risk was about 25%.
- Implications: In a skeletally immature patient with trochlear dysplasia, the high risk of subsequent instability may sway the decision towards early surgical treatment of the instability, especially if surgery is already indicated for another pathology (i.e. a large osteochondral fragment).

5) Prevalence and Incidence of New Meniscus and Cartilage Injuries After a Nonoperative Treatment Algorithm for ACL Tears in Skeletally Immature Children: A Prospective MRI Study


- Background: Rates of ACL tears in skeletally immature patients appear to be rising yet the treatment of these injuries remains controversial.
  - Retrospective studies have noted that time to reconstruction following an ACL tear is associated with increased knee damage yet none of the prior studies has been able to document the true incidence of secondary injuries with a delay in treatment.
- Purpose: To prospectively evaluate the incidence of NEW injuries to menisci and cartilage with a non-operative protocol in skeletally immature patients with an ACL tear
- Methods: 40 consecutive ACL tear patients 12 y/o or younger at time of injury.
  - Diagnosis was confirmed with a diagnostic MRI at the time of injury and then in about 2 year intervals with two subsequent high field strength 3-T MRIs.
  - Surgery was performed only for recurrent knee instability or symptomatic meniscal lesions, otherwise patients were treated with tailored rehabilitation and given a custom brace.
  - Results: About 20% of the children sustained a meniscus tear from the time of injury to final follow-up, but less than 4% of patients had a new tear noted from between ~2 and ~4 years into treatment.
- Implications: Almost 90% of the ACL-deficient children were able to participate in pivoting sports or physical education classes.
  - Only about 30% of the children underwent ACL reconstruction during the study period.
  - About 20% of the children sustained a meniscus tear from the time of injury to follow-up, but less than 4% of patients had a new tear noted from between ~2 and ~4 years into treatment.
- Results: Almost 90% of the ACL-deficient children were able to participate in pivoting sports or physical education classes.
  - Only about 30% of the children underwent ACL reconstruction during the study period.
  - About 20% of the children sustained a meniscus tear from the time of injury to follow-up, but less than 4% of patients had a new tear noted from between ~2 and ~4 years into treatment.
- Implications: Almost half of skeletally immature patients with an ACL tear treated non-operatively could be defined as “copers,” being able to resume activities without inducing gross intra-articular damage discernable on MRI.
  - With non-operative treatment about 30% of patients will have a secondary meniscus tear. It is still unclear if these could be avoided if early surgery was performed.
### COUNCIL ON SPORTS MEDICINE & FITNESS H PROGRAM

**Saturday, October 11, 2014 ~ San Diego, California**

**Moderator:** Rebecca A. Demorest, MD, FAAP

#### Roundtable Discussion on “The X’s and O’s of Youth Contact Sports”

<table>
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<th>Time</th>
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| 8:8:50am     | Sports Concussion Debate: Yea or Nay for Baseline Neuropsychological Testing?  
Mark Halstead, MD, FAAP and Kevin Walter, MD, FAAP |
| 8:50-9:40am  | To Hit or not to Hit, That is the question!  
Greg Landry, MD, FAAP and Claire Leblanc, MD, FAAP |
| 9:40-10:10am | NATA Exchange Lecture: Bubble Wrap Me, Doc!: Is Protective Sports Equipment All It’s Cracked Up To Be?  
Jon Almquist, ATC |
| 10:10-10:40am| The Psychology of Doctoring a Rough and Tough Team  
Paul Stricker, MD, FAAP |
| 10:40-11:00am| Roundtable Discussion (All Faculty) |
| 11-11:15am   | Break |

#### Take a Look … Policy Statements & Clinical Reports

**Referral to Pediatric Surgical Specialists**

- New! Surgical Advisory Panel
- Pediatrics; originally published online January 27, 2014
- DOI: 10.1542/peds.2013-3820
- [http://pediatrics.aappublications.org/content/133/2/350](http://pediatrics.aappublications.org/content/133/2/350)

**Evaluating Children With Fractures for Child Physical Abuse**

- Emalee G. Flaherty MD, Jeannette M. Perez-Rossello MD, Michael A. Levine MD, William L. Hennrikus MD, and the American Academy of Pediatrics Committee on Child Abuse and Neglect, Section on Radiology, Section on Endocrinology, Section on Orthopaedics, the Society for Pediatric Radiology
- Pediatrics Vol. 133 No. 2 February 1, 2014
- [http://pediatrics.aappublications.org/content/133/2/e477](http://pediatrics.aappublications.org/content/133/2/e477)

**And watch for this Clinical Report in May 2014 …**

**Guidance for the Clinician in Rendering Pediatric Care: Anterior Cruciate Ligament Injuries: Diagnosis, Treatment, and Prevention**

- Cynthia R. LaBella, MD, FAAP, William Hennrikus, MD, FAAP, Timothy Hewett, PhD, and the Council on Sports Medicine and Fitness and Section on Orthopaedics

This Pediatric Musculoskeletal Medicine course represents a unique collaboration of pediatric orthopaedics, pediatric rheumatology, and pediatric sports medicine. Specialists and general practitioners, as well as their patients will benefit greatly from this collaboration because this is the first time that these different viewpoints have been presented together in one unified educational course.
CONGRATULATIONS!!!

Congratulations to the newly-elected Chair, re-elected Member, and newly-elected Member of the SECTION ON ORTHOPAEDICS Executive Committee!

Norman Otsuka, MD, FAAP – Incoming Chair
Brian Shaw, MD, FAAP – Renewed Member
Joshua E Hyman, MD, FAAP – Incoming Member