2017 OTA ANNUAL MEETING

THURSDAY, OCTOBER 12

GENERAL SESSION

1:00pm - 1:20pm

WELCOME AND DONOR AWARDS

Michael D. McKee, MD Program Committee Chair

Kelly A. Lefaivre, MD, Peter J. O'Brien, MD and Pierre Guy, MD $\,$

Local Hosts

1:20pm - 2:50pm

SYMPOSIUM I: Hot Off the Press - How Evidenced Based Medicine Has Changed Fracture Treatment in 2017

Moderator: Niloofar Dehghan, MD

Objectives:

- Discuss and highlight recently presented clinical trials in orthopaedic trauma.
- Explain evidenced based recommendations for the treatment of common fractures.
- Explain how to help change practice based on historic trends, to updated treatment strategies based on evidenced based medicine.

Description

The aim of this symposium is to highlight practice changing clinical trials conducted in the recent years, and provide clear evidenced based recommendations for the treatment of common fractures.

Presentations:

Open Fractures: Which Type of Fluid and Pressure is Best?

Ross K. Leighton, MD

Distal Clavicle Fractures: Should We Fix Them?

Jeremy Alan Hall, MD

AC Joint Injuries: When to Fix and When to Treat With a Sling?

Michael D. McKee, MD

Treatment of the Ulnar Nerve after Distal Humerus Fractures: Transpose or Leave in Situ?

Emil H. Schemitsch, MD

Non-operative Treatment of Olecranon Fractures In Elderly: It is Possible!

Andrew D. Duckworth, MD, PhD

Hip Fracture ORIF: Cannulated Screws or DHS?

Michael Blankstein, MD

Don't Be Afraid to Allow Early Weight Bearing After Ankle and Tibia Fracture Fixation!

Niloofar Dehghan, MD

Syndesmotic Ankle Injuries: When Do You Remove the Screws? Should We Use Tightrope Instead?

David W. Sanders, MD

Questions

2:50pm – 3:20pm	Refreshment Break Exhibit hall opens at 2:30
3:20pm – 4:29pm Moderators:	PAPER SESSION I: PROGRAM HIGHLIGHTS Michael D. McKee, MD Michael J. Gardner, MD
3:20pm — 3:26pm	Paper I Improved Reduction of the Tibio-Fibular Syndesmosis with Tightrope compared to Screw Fixation: Results of a Randomized Controlled Study (COTS) Canadian Orthopaedic Trauma Society; David W. Sanders, MD; Prism Schneider, MD, PhD; Christina Tieszer, BSc, MSc; Abdel-Rahman Lawendy, MD; Michel Taylor, MD
3:26pm — 3:32pm	Paper 2 Fixation of Distal Tibia Fractures (UK FixDT): A Randomised Controlled Trial of "Locking" Plate Fixation Versus Intramedullary Nail Fixation in the Treatment of Adult Patients with a Displaced Fracture of the Distal Tibia Matthew Costa, PhD
3:32pm – 3:38pm	Paper 3 UK Wound management of Open Lower Limb Fractures (UK WOLLF) – A Randomised Controll Trial of Standard Wound Management versus Negative Pressure Would Therapy in the Treatment of Adult Patients with an Open Wound Fracture of the Lower Limb Matthew Costa, PhD
3:38pm – 3:43pm	Discussion
3:43pm — 3:49pm	Paper 4 Operative vs. Non-operative Treatment of Acute Displaced Distal Clavicle Fractures: A Multicentre Randomized Controlled Trial (COTS) Canadian Orthopaedic Trauma Society; Jeremy Hall, MD; Niloofar Dehghan, MD; Emil H. Schemitsch, MD; Aaron Nauth, MD; Robert Korley, MDCM; Robert McCormack, MD; Pierre Guy, MD; Steven Papp, MD; Michael D. McKee, MD

3:49pm – 3:55pm	Paper 5	4:12pm – 4:18pm	Paper 8
	Does Motion at 8 Weeks Predict		Costs and Complications of Single
	Nonunion in Nonoperateively		Stage Fixation Versus Two-Stage
	Managed Humeral Shaft Fractures:		Treatment of Select Bicondylar
	A Prospective Multicenter Evaluation		Tibial Plateau Fractures
	Paul Tornetta, III, MD;		Walter Virkus, MD; Jesse Caballero, BS;
	Lisa K. Cannada, MD; Robert Hymes, MD;		Laurence Kempton, MD; Matthew
	Clifford B. Jones, MD; Brian Mullis, MD;		Cavallero, MD, Rich Rosales, BS;
	Eben Carroll, MD; Raymond Wright, MD;		Todd O. McKinley, MD; Greg Gaski, MD
	Andrew Marcantonio, DO; David C.		
	Teague, MD; Robert Ostrum, MD;	4:18pm – 4:24pm	Paper 9
	Michael Tucker, MD; Dirk Kiner, MD;		Locking Plate Fixation of Bicondylar
	Lauren Germany; Michael Del Core, MD;		Tibial Plateau Fractures Raises
	Sarah Dawson; Heidi Israel, PhD		Treatment Costs without
	Sarah Dawson, Heidi israel, Hilb		Clinical Benefit
3:55pm – 4:01pm	Paper 6		Matthew Cavallero, MD; Rich Rosales, BS;
3.33pm = 1.01pm	Multicenter Retrospectice Analysis		Jesse Caballero, BS; Walter Virkus, MD;
	of Humeral Shaft Fractures:		Laurence Kempton, MD;
	Are Sarmiento's Results		Todd O. McKinley, MD; Greg Gaski, MD
	Widely Reproducible?	4.2.4 4.20	Discussion
	Rafael Serrano, MD; Hassan Mir, MD;	4:24pm – 4:29pm	Discussion
	H. Claude Sagi, MD; Daniel Horwitz, MD;	4:30pm – 5:10pm	SESSION OF GENERAL INTEREST:
	John Tidwell, MD; John Ketz, MD; Brian	4.30pm = 3.10pm	"Building a Strong Public
	Kistler, MD; Jonathan Quade, MD;		Health Care: The Dangers
	Michael Beebe, MD; Anjan Shah, MD		of Monopoly and Bureaucracy"
	Michael Beebe, MD, Anjan Shan, MD		Brian Day, MD
4:01pm – 4:07pm	Paper 7		511411 54/,1115
1.01piii — 1.07piii	The FaB (Fractures and	5:10pm - 6:10pm	OTA BUSINESS MEETING
	Bisphosphonates) Trial: A	·	(Members Only)
	Multi-Centre Double-Blind,		` ''
	Randomised Controlled Trial On	5:10pm – 6:10pm	PRE-RECEPTION WITH
	The Effect Of Alendronic Acid On		EXHIBITORS
	Healing And Clinical Outcomes		(All Meeting Attendees Invited)
	Of Wrist Fractures		
	Andrew Duckworth, MD PhD;	6:10pm – 8:10pm	WELCOME RECEPTION
	Christopher Tuck, BSc; Aryelly		
	Rodriguez, MSc; Gordon Murray, PhD;		
	Stuart Ralston, MD		
4:07pm – 4:12pm	Discussion		



FRIDAY, OCTOBER 13, 2017

GENERAL SESSION

7:45am – 9:29am	PAPER SESSION II: FOOT AND ANKLE
Moderator:	Brett D. Crist, MD
7:45am — 7:51am	Paper 10 Single Screw Fixation Compared With Double Screw Fixation For Treatment Of Medial Malleolar Fractures: A Prospective Randomized Trial Richard Buckley, MD FRCPC; Ernest Beng Kee Kwek, MD; Paul Duffy, MD; Robert Korley, MDCM; Emilia Moller, MD; Andrew Buckley; Prism Schneider, MD, PhD
7:51am — 7:57am	Paper I I Weight-Bearing Or Non-Weight- Bearing After Surgical Treatment of Ankle Fractures, The WOW! Study: A Multicenter Randomized Controlled Trial Diederik Smeeing, MD; Roderick Houwert; Jan Briet; Koen Lansink, MD, PhD; Loek Leenen, MD, PhD; Peer Van der Zwaal; Stephan Van Zuthpen; Bas Twigt; Jochem Hoogendoorn; Egbert Verleisdonk; Michiel Segers; Falco Hietbrink
7:57am — 8:03am	Paper 12 The AIM Trial Extended Follow-up: Three-year Outcomes from an Equivalence Randomized Clinical Trial Comparing Close Contact Casting with Internal Fixation Surgery for Unstable Malleolar Fractures in Patients Over 60 Years Keith Willett, MBBS; David Keene, PhD; Robert Handley, MB BS; Tim Chesser, MBBS; lan Pallister, MD; Dipesh Mistry, PhD; Susan Wagland, PhD; Scott Parsons, Ranjit Lall; Sallie Lamb, PhD
8:03am – 8:08am	Discussion
8:08am – 8:14am	Paper 13 An Immediate Weight-bearing Protocol for the Determination of Ankle Stability In Patients with Isolated Distal Fibular Fractures Eric Bonness, MD; Justin Siebler, MD;

Lori Reed, MD; Matthew Mormino, MD

CONCURRENT SESSION

6:30am -7:30am

COMPLEX BICONDYLARTIBIAL PLATEAU FRACTURES

Moderator: John Scolaro, MD Faculty: Timothy Achor, MD David Barei, MD Samir Mehta, MD Gilbert Ortega, MD J. Tracy Watson, MD

Objectives:

- · Anticipate and identify common fracture characteristics
- · Develop a strategy for surgical reduction and fixation
- · Recognize common pitfalls of management

Bicondylar tibial plateau fractures are complex injuries. Join our panel of experts to discuss the various surgical techniques that can be utilized to reduce and fix these difficult fractures.

6:30am -7:30am

REGISTRIES: WHAT CAN WE LEARN FROM THEM?

Moderator: Pierre Guy, MD Faculty: Matthew Costa, FRCS, PhD Brad Petrisor, MD Cecilia Rogmark, MD Boris Sobolev, MD

Objectives:

- · Review the definition of a Registry
- · Contrast the results of Registries vs RCTs in guiding clinical practice
- · Integrate results of Registry data into clinical, economic, and administrative decision making

Registries are becoming an increasingly important part of the reported Orthopedic Trauma research landscape. This session will serve as a primer for Registries and will contrast them with RCTs.

6:30am -7:30am **EXPEDITED HIP FRACTURE MANAGEMENT**

Moderator: Kyle Judd, MD, MS Faculty: Damien Billow, MD John T. Gorczyca, MD Catherine Humphrey, MD A. Alex Jahangir, MD Daniel Mendelson, MD Gillian Soles, MD

Objectives:

- Appropriate patient selection for expedited hip fracture care and principles of pre operative evaluation
- Effect of expedited hip fracture care on patient outcome
- Financial impact of expedited hip fracture care

A discussion of expedited hip fracture management and its impact on geriatric fracture care, including: financial implications for health care system, appropriate patient selection and how to operationalize an expedited hip fracture program.

8:00AM-9:00AM SKILLS LABS

DISTAL FEMUR PLATING Lab Leader: Gerard P. Slobogean, MD

Lab Description

Fractures of the distal femur can be challenging. This lab will examine the indications for nailing versus plating, and focus on techniques for obtaining an accurate reduction. Newer plate/screw technologies that may minimize deformity and enhance the healing of these difficult injuries will be demonstrated.

Learning Objectives

- 1. Describe the indications for plating versus intramedullary nailing for fractures of the distal femur.
- 2. Identify techniques to establish optimal fracture reduction in a minimally invasive approach.
- 3. Illustrate how newer plate/screw fixation methods may improve the biology of distal femoral fracture healing.

SIGN FRACTURE CARE INTERNATIONAL Lab Leader: Lewis G. Zirkle Jr., MD

Lab Description

The SIGN Fracture Care International (SIGN) IM Nail interlocking screw system is designed for use in developing countries and for surgeons everywhere who should like to avoid radiation from use of C-arm. The distal interlocking screws can be placed consistently and quickly using a mechanical technique which has been used in 177,000 fractures of long bones. The goal of SIGN nail sawbones skills labs is to learn SIGN technique for stabilization of tibia and femur fractures. Table instructors will include surgeons who are OTA-SIGN scholars.

Learning Objectives

- 1. Identify the difference in performing IM nail interlocking screw fixation without power or C-arm.
- 2. Evaluate the use of mechanical methods to ream in place distal interlocking screws using SIGN technique.
- 3. Discuss the different long bones that can be treated with the same nail and instrument set.

PILON FRACTURE PLATING Lab Leader: John Scolaro, MD

Lab Description

Pilon fractures are difficult to treat definitively. The unique bone topography often makes implant application challenging. In this lab, participants will review common fracture fragments and appropriate stabilization techniques

Learning Objectives

- 1. Recognize the typical fracture fragments associated with pilon fractures
- 2. Understand general potential reduction strategies for pilon fractures
- 3. Review currently available periarticular plating options available and the nuances associated with their application

1:15PM-2:15PM SKILLS LABS

DISTAL HUMERUS PLATING Lab Leader: Lisa K. Cannada, MD

Lab Description

In this lab, participants will review the relevant bony and soft tissue anatomy with respect to treating distal humerus fractures, and will cover common plating applications and pitfalls.

Learning Objectives

- I. Understand the various common fracture patterns regarding distal humerus fractures.
- 2. Familiarize with the biomechanical data regarding plate type and position
- 3. Understand common plating applications with periarticular contoured plates

ANKLE SPANNING EXTERNAL FIXATION Lab Leader: Julius A. Bishop, MD

Lab Description

In this lab, participants will discuss indications and techniques for delta-frame ankle-spanning external fixator application

Learning Objectives

- 1. Understand the indications for ankle spanning external fixation
- 2. Recognize the pertinent soft tissue anatomy when placing pins
- 3. Understand mechanical factors to maximize strength of external fixator

IM NAILING OF PROXIMAL **TIBIAL FRACTURES**

Lab Leader: Paul Tornetta III, MD

Lab Description

Proximal tibia fractures represent a challenge for the orthopaedist. This hands on lab will focus on topics such as indications, surgical approach (including supra-patellar), start point, reduction maneuvers, blocking screws and nail choice to enhance the ability to obtain and maintain a satisfactory reduction.

Learning Objectives

- 1. Identify the indications for the use of intramedullary nailing for a proximal tibial fracture
- 2. Describe the surgical approach options for proximal tibial intramedullary nailing.
- 3. Practice the technical aspects of reduction and nail insertion to minimize the potential for deformity.

8:14am - 8:20pm

Rate of Syndesmotic Instability Following Anatomic Posterior Malleolar Fracture Open **Reduction and Internal Fixation** Matthew Miller, MD; Clay Spitler, MD; Matt Graves, MD; William Replogle, PhD; Josie Hydrick, BS; LaRita Jones, PhD;

Patrick Bergin, MD

8:20am - 8:26am

Paper 15

Posterior Malleolar Fracture Morphology Determines Outcome in Rotational Type Ankle Fractures: A Prospective Clinical Trial Robin Blom, PhD Candidate;

Diederik Meijer, MD; Robert-Jan De Muinck Keizer MD, PhD; Inger Sierevelt, MSc; Tim Schepers, MD, PhD; Sjoerd Stufkens, MD, PhD; Gino Kerkhoffs, MD, PhD; J.C. Goslings, MD, PhD; Job Doornberg, MD, PhD

8:26am - 8:31am

Discussion

8:31am - 8:37am

Paper 16

The Major Extremity Trauma Research Consortium- Multi-site Evaluation of a Custom Energy-Storing Carbon Fiber Orthosis for **Lower Limb Trauma Patients with Residual Disability** Benjamin Potter, MD; Kevin Kuhn, MD;

John Fergason, Joseph Hsu, MD; Wade Gordon, MD; Johnny Owens, Jessica Rivera, MD; Robert Sheu, MD; Daniel Stinner, MD; Jason Wilken, PhD: Michael Bosse, MD: Jennifer DeSanto, RN MPH; Daniel Scharfstein, PhD; Yanjie Huang, MS; Ellen MacKenzie, PhD

8:37am - 8:43am

Paper 17

Limb Salvage and Amputation Outcomes Following Severe Distal Tibia and Hindfoot Injuries: A Multi-center **Prospective Evaluation** Michael Bosse, MD; Lisa Reider, PhD; Joshua Gary, MD; Wade Gordon, MD; Daniel Scharfstein, PhD; Saam Morshed, MD PhD; Eben Carroll, MD; Reza Firoozabadi, MD; Jason Luly, MS; Clifford Jones, MD; Ellen MacKenzie, PhD; METRC OUTLET Study Team

CONCURRENT SESSION

6:30am -7:30am

MANAGING COMPLICATIONS IN FRACTURE **SURGERY: A TRAUMA SURGEON'S GUIDE!**

Moderator: Emil H. Schemitsch, MD Faculty: Nilooofar Dehghan, MD Michael D. McKee, MD Theodore Manson, MD Aaron Nauth, MD Benjamin Potter, MD

Objectives:

- · When and how to restore function when complications occur after fracture surgery fails
- Evaluate the evidence around management of common complications of fracture surgery
- · How to manage acute infection, nonunion, malunion, broken hardware, heterotopic ossification and arthritis after fracture fixation

A primary goal of the symposium will be to achieve consensus opinions on many current issues and controversies regarding the treatment of complications following fracture management.

6:30am - 7:30am

PELVIS AND ACETABULUM FRACTURES

Moderator: Paul Tornetta, III, MD Faculty: Reza Firoozabadi, MD David C. Templeman, MD Joshua Layne Gary, MD Cory A. Collinge, MD

Objectives:

Summarize initial management, identify operative treatment options, and outline expected outcomes of pelvic and acetabular fractures.

Description:

Cases presented highlight the initial management, operative treatment options, and expected outcomes of pelvic and acetabular fractures. Expert panel will provide personal insight and varying options for these injuries.

8:00am -9:30am

MANAGEMENT OF SCAPULAR FRACTURE

Moderator: William T. Obremskey, MD

Faculty: Clifford B. Jones, MD Paul Tornetta III, MD Peter Cole, MD

Objectives:

- Understand associated injuries with scapular fractures
- · Comprehend and occasions for operative and nonoperative management
- · Review technique for fixation of fractures and malunion of the scapula

We will discuss associated injuries and initial evaluation for associated injuries. Indications for operative and nonoperative treatment as well as techniques for fixation and results of malunion will be discussed.

8:43am - 8:49am **Calcaneal Avulsion Fractures in 34 Consecutive Patients Treated** Over 16 Years at a Level One Trauma Center: An Injury Pattern Fraught with Soft-tissue and **Bony Complications** Phillip Mitchell, MD; David O'Neill, BA; Cory Collinge, MD 8:49am - 8:54am Discussion 8:54am - 9:00am Paper 19 Syndesmotic Disruption in Tibial Plafond Fractures: What Are The Risk Factors For Missing the Diagnosis? Justin Haller, MD; Michael Githens, MD; David Rothberg, MD; Thomas Higgins, MD; David Barei, MD; Sean Nork, MD 9:00am - 9:06am **Computerized Adaptive Testing** for Patient Reporting Outcomes in Ankle Fracture Surgery Elizabeth Gausden, MD; Benedict Nwachukwu, MD; Ashley Levack, MD; Danielle Sin, MS; David Wellman, MD; Dean Lorich, MD 9:06am - 9:12am Paper 21 **Measuring Outcomes Over Time** in Tibial Plafond Fractures: A Comparison of Generic, Musculoskeletal Specific and Foot and Ankle Specific Outcome Measures. Aresh Sepehri, MD; Kelly Lefaivre, MD; Peter O'Brien, MD; Henry Broekhuyse, MD; Abdullah Mamun; Pierre Guy, MD 9:12am - 9:18am Paper 22 **Prophylaxis of Venous** Thromboembolism in Patients With a Nonsurgical Fracture of the Lower Extremity Immobilized in a Below-Knee Plaster Cast; A **Randomized Controlled Trial** Marlieke Bruntink, MD; Yannick Groutars; Roelf Breederveld, MD, PhD; Wim Tuinebreijer; Robert Jan Derksen MD, PhD 9:18am - 9:24am Paper 23 **Determinants of Functional Outcomes following Ankle Fracture** Megan Audet, BA; Chang-Yeon Kim, MD; Heather Vallier, MD 9:24am - 9:29am Discussion

CONCURRENT SESSION

8:00am -9:30am

AN OUTCOMES BASED APPROACH TO **DISTAL RADIUS FRACTURE MANAGEMENT**

Moderator: Raymond Pensy, MD Faculty: Asif Ilyas, MD; lesse lupiter, MD David Ring, MD

Objectives:

- · Review rationale for operative criteria
- · Review best RCTs in the treatment of distal radius fractures
- · Managing complications of operative and non-operatively treated distal radius fractures

The distal radius fracture is among the most common and best studied fractures, with a growing number of RCT's available to better guide treatment.

8:00am -9:30am

MENTAL HEALTH IN ORTHOPAEDIC TRAUMA-PATIENTS AND PROVIDERS

Moderator: Anna N. Miller, MD Faculty: Joseph Hsu, MD Hassan Mir, MD Jeffrey M. Smith, MD Heather Vallier, MD

Objectives:

- · Understand mental health aspects that can affect patient care in orthopaedic trauma
- · Understand mental health aspects that can affect providers and physician burnout in orthopaedic trauma
- · Understand mental health aspects that can affect residents in orthopaedic trauma

Mental health has a strong influence on patient care at all levels of orthopaedic trauma. This symposium explores mental health research from caring for traumatized patients to avoiding physician burnout.

8:00am -9:30am

PERIPROSTHETIC FEMUR FRACTURES

Moderator: John T. Gorczyca, MD Faculty: Catherine Humphrey, MD Matthew Jimenez, MD Kyle Judd, MD

Objectives:

- To understand the basic principles of periprosthetic femur fracture treatment
- To understand when the basic principles won't work
- · To learn innovative techniques for addressing complex periproshetic fractures

A variety of simple and complex periprosthetic femur fractures will be presented and discussed to review basic principles and to learn when to use alternative techniques.

Refreshment Break

9:30am - 10:00am

10:00am - 11:30am

SYMPOSIUM II: Changing the System: Can We Improve Trauma Care? Experience From the Guest Nation

Moderator: Tim Chesser, MBBS

Objectives:

- To describe the benefits of an integrated major trauma network.
- · To explain how audit has been used to change standards and improve care in a nation for hip fractures and open fractures.
- · To outline how a national truama research network has been established and report on early results.

To describe the reorganisation of trauma care in the UK and the impact on patient outcome. Exploring the similarities and differences between health care systems of UK and North America.

Presentations:

Introduction

John F. Keating, MD

Comparisons and Differences of Health Care Systems and Trauma Care Between UK and North America Keith Willett, MBBS

Can We Improve The Outcome of Major Trauma Patients With a Trauma Network?

Christopher G. Moran, MD

Hip Fractures - Does Standardisation and Audit Make a Difference?

Tim Chesser, MBBS

Open Fractures - Centralisation of Care, What We Have Learnt

Michael Kelly, MBBS

Establishing a Multicentre Trauma Research Network -**Early Results**

Matthew L. Costa, PhD

Questions

11:30am - 12:00pm **JOHN BORDER, MD MEMORIAL LECTURER** "OBSERVATIONS IN **INNOVATION**" Roy Sanders, MD

12:10am - 1:10pm **LUNCH**

New Member Luncheon Women in Orthopaedic Trauma Luncheon

12:25pm - 1:10pm **LUNCHTIME GUIDED**

POSTER AND VIDEO TOURS

Foot/Ankle

Guide: Paul Tornetta III, MD

Knee/Tibia

Guide: Stephen A. Kottmeier, MD

Video Guide:TBD

CONCURRENT SESSION

8:00am -9:30am

MULTI-CENTER TRIALS IN ORTHOPAEDIC TRAUMA: LESSONS LEARNED

Moderator: Gregory J. Della Rocca, MD, PhD, FACS

Faculty: Mohit Bhandari, MD

Richard E. Buckley, MD, FRCPC

Robert V. O'Toole, MD Paul Tornetta III, MD

Emil H. Schemitsch, MD

Objectives:

- · Explain how to contemplate organization of multi-center trials for orthopaedic trauma
- · Summarize how, as a new investigator or an investigator at a non-research institution, one can participate or lead a multi-center trial in orthopaedic trauma
- Describe the pitfalls the pitfalls encountered during the organization of multi-center trials in orthopaedic trauma

Multi-center clinical trials in orthopaedic trauma are needed for adequately powered results that can change practice. This symposium will discuss logistics and potential pitfalls of organizing such trials.

8:00am -9:30am **DISTAL HUMERUS FRACTURES: TIPS AND TRICKS**

Moderator: Utku Kandemir, MD

Faculty: Milan Sen, MD

Michael J. Gardner, MD Michael D. McKee, MD

Objectives:

- · Understand pros and cons of different surgical approaches
- · Summarize tips of reduction and fixation techniques
- · Describe postoperative rehabilitation

Knowledge of surgical approaches, reduction and fixation techniques, and postoperative management is critical in order to achieve best outcome in distal humerus fractures.

1:15pm -2:45pm THE COMING BUNDLE

Moderator: Kenneth A. Egol, MD Faculty: Joseph Bosco, MD, Roy Davidovitch, MD A. Alex Jahangir, MD Sanjit Konda, MD

Objectives:

- · Understand the era of value based medicine and the current state of "bundle payments"
- · Understand the impact of the "bundle payment" system on the trauma community particularly hip and femur fracture patients
- Summarize strategies to help prepare for continued changes in reimbursement for hip and femur fracture Medicare patients

This session will discuss the coming era of VBM and outline strategies for orthopaedic trauma surgeons to prepare for the coming changes in reimbursement for hip and femur fractures.

PAPER SESSION III: PELVIS AND ACETABULUM David W. Sanders, MD David J. Stephen, MD
Paper 24 Assessing Quality of Reduction after Acetabular Fracture Surgery: Importance of Gap versus Step Displacement Diederik Verbeek, MD; Jelle van der List, MD; Camden Tissue, MD; David Helfet, MD
Paper 25 Acetabular Fractures with a Posterior Dislocation: A 20 year Prospective Cohort Study John Keating, MD; Issaq Ahmed, MD
Paper 26 The Longitudinal Short, Medium, and Long Term Functional Recovery after Unstable Pelvic Ring Injuries Michael Neufeld, MD; Kelly Lefaivre, MD; Peter O'Brien, MD; Pierre Guy, MD; Abdullah Mamun; Henry Broekhuyse, MD
Discussion
Paper 27 Preperitoneal Pelvic Packing for Acute Hemorrhage Control is Not Associated With an Increased Risk of Infection After Anterior Pelvic Ring Fixation Philip Stahel, MD; Clay Cothren Burlew, MD; Corey Henderson, MS; Fredric Pieracci, MD; Ernest Moore, MD
Paper 28 Contrast Blush on CT is a Poor Predictor of Active Bleeding on Pelvic Angiography Andrew Do, BS; Benjamin Childs, BS; Sarah Gael, MD; Heather Vallier, MD
Paper 29 Does Reduction Technique for Pelvic and Acetabular Injuries Affect Trauma-Induced Coagulopathy? A Prospective, Cohort Study Zackary Byrd, MD; Elizabeth Davis, MD; Prism Schneider, MD PhD; Anabel Acuna, BS; April Vanderslice; Bryan Cotton, MD MPh; Milton Routt, MD; Joshua Gary, MD

CONCURRENT SESSION

1:15pm -2:45pm **COMPARTMENT SYNDROME: WHAT YOU NEED** TO KNOW TO STAY OUT OF TROUBLE.

Moderator: Cyril Mauffrey, MD, FACS, FRCS

Faculty: David J. Hak, MD Mark Hake, MD Alan Johnstone, MD Andrew Schmidt, MD

Objectives:

- · To understand the pathophysiology of compartment syndrome
- · To review and discuss diagnostic modalities and their accuracies and pitfalls
- To discuss best practices and treatment strategies

The decision to take a patient to the OR is an inexact science. We focus on established research and experience of the speakers to review the topic and current practices.

1:15pm -2:45pm

CONTROVERSIES IN PATIENT SAFETY AND ETHICS

Moderator: Douglas W. Lundy, MD Faculty: Michael T. Archdeacon, MD; John Campbell, MD Samir Mehta, MD Douglas Roger, MD, JD Jeffrey M. Smith, MD Wade R. Smith, MD Philip Stahel, MD; Todd Swenning, MD

Nirmal Tejwani, MD

Objectives:

- · Better understand the concepts and controversies concerning patient safety and advocacy.
- · Better understand the legal ramifications of power of attorney, end of life issues and consent.
- · Develop a better understanding of alternative views on the specific topics of concurrent room surgery, resident work hour restrictions, and conflict of interest disclosure as they pertain to your practice.

Regulatory and administrative hurdles raise challenges for surgeons in terms of patient safety and advocacy. This symposium takes an in depth look at the controversial topics related to patient safety.

1:15pm -2:45pm

HOW TO USE RING FIXATORS (TSF AND ILIZAROV) FOR TIBIA FRACTURES

Moderator: Theodore Manson, MD Faculty: Joseph Hsu, MD Stephen Quinnan, MD

J. Tracy Watson, MD

Objectives:

- · Learn the basics of ring fixator application
- · Summarize how to treat tibial plateau and pilon fractures using a ring fixator
- · Describe how to use ring fixators to treat tibial bone loss

This course will allow the trauma surgeon to incorporate Ring Fixators (TSF and Ilizarov) into their practice for the treatment of tibial plateau, pilon and shaft fractures with bone loss.

1:56pm – 2:01pm	Discussion
2:01pm – 2:07pm	Paper 30 Percutaneous Transiliac-Transsacral Fixation of Sacral Insufficiency Fractures Improves Ambulation and Rate of Disposition to Home Joseph Walker, MD; Sean Mitchell, MD; Sean Karr, MD; Jason Lowe; Clifford Jones
2:07pm – 2:13pm	Paper 3 I Fixation Strategy using Sequential Intraoperative Examination Under Anesthesia for Unstable LC Pelvic Ring Injuries Reliably Predicts Union with Minimal Displacement Frank Avilucea, MD; Michael Archdeacon, MD; Cory Collinge, MD; Marcus Sciadini, MD; H. Claude Sagi; MD; Hassan Mir, MD
2:13pm – 2:19pm	Paper 32 Unstable Pelvic Ring Fixation: How Soon Can Patients Safely Bear Weight? Lucas Marchand; Zachary Working MD; Ajinkya Rane, MD; Abby Howenstein, MD; lain Elliott, MD; Justin Haller, MD; David Rothberg, MD; Thomas Higgins, MD
2:19pm – 2:24pm	Discussion
2:19pm – 2:24pm 2:24pm – 3:16pm	PAPER SESSION IV:
2:24pm – 3:16pm	PAPER SESSION IV: UPPER EXTREMITY Gregory J. Della Rocca, MD, PhD, FACS

CONCURRENT SESSION

1:15pm -2:45pm **COMPLEX ELBOW FRACTURE DISLOCATIONS**

Moderator: William T. Obremskey, MD Faculty: Lisa K. Cannada, MD Chad Corrigan, MD

Niloofar Dehghan, MD Michael D. McKee, MD Emil H. Schemitsch, MD

Objectives:

- · Recognize EBM principles of distal humerus facture fixation
- · Define how to improve fixation of proximal radius and
- Recognize and manage complex elbow dislocations

We will review complex elbow dislocations of the distal humerus, proximal radius and ulna as well as dislocations.

1:15pm -3:10pm PEARLS AND PITFALLS IN ORIF OF PROXIMAL **HUMERUS FRACTURES**

Moderator: Utku Kandemir, MD Faculty: Michael J. Gardner, MD John T. Gorczyca, MD Michael D. McKee, MD Milan Sen, MD

Objectives:

- Illustrate of nonoperative vs operative treatment
- · Review and pitfalls in simple and complex fracture patterns
- · Review management and dealing with complications

While ORIF is the most common type of treatment when surgery is indicated in proximal humerus fractures, it is prone to complications associated with the surgical technique.

A case-based panel discussion will be held specifically addressing the indication of nonoperative and operative treatment, pearls and pitfalls of ORIF of simple and complex fracture patterns, intraoperative problems, and postoperative management.

2:36pm - 2:42pm

Paper 35

Radial Nerve Injury and Recovery After Humeral Nonunion Surgery Paul Tornetta, III, MD; Justin Koh, MD; Clifford B. Jones, MD; Joseph Walker, MD; Andrew Sems, MD; Sharul Saxena; Henry Boateng, MD; Kathleen Ringenbach, PhD; Clay Spitler, MD; Hassan Mir, MD; Shaan Patel; Reza Firoozabadi, MD; Kate Bellevue, MD; Daniel Horwitz, MD; Lisa K. Cannada, MD; Michael Bosse, MD; J. Stewart Buck, MD; Jerald Westberg, BA; Andrew Schmidt, MD; Laurence Kempton, MD; Andrew Marcantonio, DO; Peter Krause, MD; Matthew Delarosa, MD; Tayseer Shamaa, MD; Brian Mullis, PhD; Andrew Gudeman; Ross K. Leighton, MD Amro Alhoukail, MD;

Discussion

Saam Morshed, MD PhD;

Christina Tieszer, BSc, MSc

2:47pm - 2:53pm

2:42pm - 2:47pm

Paper 36

Minimally Displaced, Isolated **Radial Head Fractures Do Not** Require Formal Physical Therapy: Results of a Prospective **Randomized Trial**

Abigail Cortez, BA; David W. Sanders, MD;

Jack Haglin, BS; Ariana Lott, BA; Rebekah Belayneh, MD; David Kugelman, BS; Abdullah Qatu, BS; Sanjit Konda, MD; Kenneth Egol, MD

2:53pm - 2:59pm

Paper 37

The Influence of Shortening on Clinical Outcome in Healed, Displaced, Midshaft Clavicle Fractures **After Nonoperative Treatment** Ewan Goudie, MD; Nicholas Clement, MBBS; Iain Murray, PhD; C. M. Robinson, FRCS

CONCURRENT SESSION

3:45pm -5:15pm

WHAT TO DO WITH THE FRONT: ANTERIOR PELVIC RING MANAGEMENT

Moderator: John Scolaro, MD Faculty: Jonathan Eastman, MD Reza Firoozabadi, MD Geoffrey Marecek, MD Milton Routt, MD Rahul Vaidya, MD Raymond Wright, MD

Objectives:

- · Demonstrate how to determine anterior pelvic ring instability
- · Define options and rationale for stabilization modalities of the anterior pelvic ring
- · Summarize options and rationale for modality of stabilization
- · Demonstrate techniques utilized for anterior pelvic ring fixation

The management of pelvic ring instability continues to elicit discussion and debate. Learn how to diagnose and stabilize the anterior pelvic ring from our experienced panel.

3:45pm -5:15pm

THE BLASTED DISTAL FEMUR FRACTURE: **HOW TO IMPROVE OUTCOMES**

Moderator: Lisa K. Cannada, MD Faculty: Cory Collinge, MD Robert Hymes, MD Kyle Jeray, MD Thomas Jones, MD Erik Kubiak, MD

Objectives:

- · Identify complications which can occur after Distal Femur Intraaarticular Fractures
- Discuss techniques of fixation of severe distal femur fractures
- · Summarize how to control the stiffness of the fixation construct

High energy distal femur fractures can present with severe comminution and bone loss. This symposia will discuss traditional and novel fixation techniques for this difficult fracture to minimize complications.

2:59pm – 3:05pm	Paper 38 Proximal Humeral Fracture Fixation Using the PH Cage – A Retrospective Study of 125 Patients to a minimum of 6 months Post Treatment Eric Fulkerson, MD; Paul Paterson, MD
3:05pm — 3:11pm	Paper 39 Reliability, Validity, Responsiveness, and Minimal Important Change of the Disablities of the Arm, Shoulder and Hand and Constant-Murley Scores in Patients with a Humeral Shaft Fracture Kiran Mahabier, MD; Dennis Den Hartog, MD PhD; Nina Theyskens; Michael Verhofstad, MD PhD; Esther Lieshout, MSc; On behalf of HUMMER Investigators
3:11pm – 3:16pm	Discussion
3:16pm – 3:46pm	Refreshment Break Exhibit hall open 3:00pm-6:15pm
3:46pm – 5:30pm Moderator:	PAPER SESSION V: WRIST, HAND, TIBIA AND PEDIATRIC David J. Hak, MD
3:46pm – 3:52pm	Paper 40 Volar Internal Plate Fixation versus Plaster in Displaced Extra- Articular Distal Radius Fractures: a Randomized Controlled Trial Marjolein Mulders, MD; Monique Walenkamp, MD, PhD; J. Carel Goslings, MD, PhD; Niels Schep, MD, PhD
3:46pm – 3:52pm 3:52pm – 3:58pm	Volar Internal Plate Fixation versus Plaster in Displaced Extra- Articular Distal Radius Fractures: a Randomized Controlled Trial Marjolein Mulders, MD; Monique Walenkamp, MD, PhD; J. Carel Goslings, MD, PhD;

CONCURRENT SESSION

3:45pm -5:15pm

DEVELOPING AND MAINTAINING A SUCCESSFUL CLINICAL RESEARCH PROGRAM

Moderator: Heather Vallier, MD Faculty: Mary Breslin, BA Julie Agel, ATC

William T. Obremskey, MD

Objectives:

- Develop personnel, infrastructure, and other resources to establish a clinical research program.
- Describe roles, responsibilities, and important attributes of a productive research coordinator.
- Identify opportunities for research collaboration, and demonstrate strategies for participation and funding.

This symposium is designed for practitioners, research personnel, and physicians in training who aspire to develop a successful clinical research program. Key elements and resources will be described.

3:45pm –5:15pm ORTHOPAEDIC TRAUMA CODING

Moderator: Paul T. Appleton, MD Faculty: J. Scott Broderick, MD William R. Creevy, MD Brett D. Crist, MD M. Bradford Henley, MD

Objectives:

- Identify ICD10 updates
- Summarize CPT changes (closed fracture codes)
- Explain RVUs update committee(RUC)-valuation process
- Describe how CPT codes are created.

The seminar will be divided into several sections related to orthopaedic coding in trauma, including case presentations.



4:04pm - 4:10pm

Effectiveness of Postoperative Analgesic Immobilization in Patients with Distal Radius Fracture Treated with Volar Locking Plating: a Prospective, Randomized Clinical Trial

Fernando Andrade-Silva, MD PhD; Joao Rocha, MD; Adriana Carvalho, BSc; Kodi Kojima; Jorge Silva, MD PhD

4:10pm - 4:15pm

Paper 44

A Prospective Randomized **Controlled Trial Comparing Open** Reduction and Internal Fixation, Non-Spanning External Fixation, and Closed Reduction With **Percutaneous Fixation for Dorsally Displaced Distal Radius Fractures** Stephane Bergeron, MD MPH; Rudolf Reindl, MD; Edward Harvey, MD MsC; Hans Kreder, MD; Elham Rahme, PhD; Gregory Berry, MD; Canadian Orthopaedic Trauma Society

4:16pm - 4:21pm

Discussion

4:21pm - 4:27pm

Paper 45

Role of the Fibula in Predicting **Tibial Nonunions after Intramedullary Nailing** Robert Wojahn, MD;

Amanda Spraggs-Hughes; Michael J. Gardner, MD; William M. Ricci, MD; Christopher McAndrew, MD, MS

4:27pm - 4:33pm

Paper 46

Incidence of Rotational Malalignment After Intramedullary Nailing of **Tibial Fractures: Efficacy of Routine Post-Operative Computed Tomography** Job Doornberg, MD PhD; Ruurd Jaarsma, MD PhD; Nils Jan Bleeker, MSc

4:33pm - 4:39pm

Paper 47

Suprapatellar versus Infrapatellar Approach to IMN of Tibia Fractures: An Objective Measure of

Knee Cartilage Derek Donegan, MD;

Kevin D'Aquilla, BS; Thomas Rose; Annamarie Horan, PhD; Patrick Hesketh, BS; Ravinder Reddy, PhD; Samir Mehta

4:39pm - 4:44pm

Discussion

CONCURRENT SESSION

3:45pm -5:15pm

THE SMOOTH HIP FRACTURE ADMISSION -**TOP 15 IN BEST EVIDENCE TO AVOID COMPLICATIONS**

Moderator: Pierre Guy, MD Faculty: Stephen Kates, MD Eric Meinberg, MD Daniel Mendelson, MD

Objectives:

At the end of this session participants will be able to:

- · Explain the true medical reasons to delay a case
- · Discuss what implant should be used
- · Summarize the best models of care
- Describe Ortho-geriatrics co-management?

This case-supported session will proactively address pre and postop medical and surgical issues surrounding a hip fracture admission, promoting best practices and efficient models of care.



4:44pm - 4:50pm

Paper 48 Is Continuous Near Infrared Spectroscopy a Reliable Method to Monitor Development of Acute Compartment Syndrome in Patients with Lower Leg Injuries? Andrew Schmidt, MD; Michael Bosse, MD; Robert V. O'Toole, MD; Raymond Wright, MD; Vadim Zipunnikov, PhD; Junrui Di, PhD Candidate; Katherine Frey, MPH; Ellen MacKenzie, PhD; The Major Extremity Trauma Research Consortium

4:50pm - 4:56pm Paper 49

> **Does Early Administration of Antibiotics After Open Tibia Fractures Really Decrease**

Infection Rates? Steven Shannon, MD;

Daniel Mascarenhas, BS; Manjari Joshi, MD;

Daniel Connelly, BA/BS; Robert V. O'Toole, MD

4:56pm - 5:01pm Discussion

5:01pm - 5:07pm Paper 50

Best Trauma Paper at the 2017 POSNA Annual Meeting What is an "Acceptable Reduction" for Supracondylar Humerus Fractures in Children?

Unni Narayanan FRCSC; William Wood MD; Tony Tan; James Turner; Anshika Gangwar MD, Martin Gargan, MD



5:07pm - 5:13pm

Paper 51

Single versus Both Bone Fixation: A Retrospective Review of 10 **Years of Pediatric Forearm Fractures** Ashley Miller, MD; Tyler Keller;

Kevin Little, MD

GENERAL SESSION

5:13pm - 5:19pm

The Utility of Intra-Operative Arthrogram in the Management of Pediatric Lateral Condyle Fractures of the Humerus John Vorhies, MD; Shawn Funk, MD; Marilyn Elliott, BS; Anthony Riccio, MD;

Brandon Ramo, MD

5:19pm - 5:25pm Paper 53

> Is Less More? Assessing the Value of Early Clinical and Radiographic

Follow-Up for Operative

Supracondylar Humerus Fractures Rachel Thompson, MD; Elizabeth Hubbard, MD; Marilyn Elliott, BS; Anthony Riccio, MD; Daniel Sucato, MD, MS

5:25pm - 5:30pm Discussion

SPEED MENTORING 4:30pm - 6:00pm

> Lisa K. Cannada, MD Michael T. Archdeacon, MD

This session is geared towards young practitioners, residents and fellows that would benefit from the knowledge of OTA faculty that have been practicing for a number of years.

• 15 minute Panel to discuss work-life balance

• Followed by the 6 round table discussion topics:

I. Contract Negotiations

2. Building a Clinical Practice

3. Research

4. Organization / Time

5. How to Allocate your Time-Clinical

6. Being a Boss

Registration for this event is free.

5:30pm - 6:30pm **MILITARY RECEPTION**

5:35pm - 6:20pm **SUDS N' SCIENCE GUIDED POSTER AND**

VIDEO TOURS

Upper Extremity

Guide: Michael D. McKee, MD

General Interest

Guide: Michael J. Gardner, MD

Video Tour Guide: TBD

SATURDAY, OCTOBER 14, 2017

GENERAL SESSION

7:30am - 9:00am

SYMPOSIUM III: Managing Infection in Orthopaedic Trauma: Reaching Consensus and the Role of **Emerging Technologies**

Moderators: Robert V. O'Toole, MD Emil H. Schemitsch MD

Objective:

- · Generate consensus around standard definitions of the infected fracture
- · Develop agreement regarding best evidence for management of infected fractures
- · Assess best evidence for the use of adjuncts to eradicate infection after fracture fixation

A primary goal of the symposium will be to achieve consensus opinions on many current issues and controversies regarding the treatment of infected fractures. There are a host of technologies on the horizon or nearing clinical application that show great promise for the future of diagnosing and treating orthopaedic trauma infections.

Presentations:

Introduction

Emil H. Schemitsch, MD

The Infected Fracture: Can We Agree on **Standard Definitions?**

Cyril Mauffrey, MD, FACS, FRCS

Diagnosing Infection in Orthopaedic Trauma: We Have a Problem!

Robert V. O'Toole, MD

Infection Diagnosis, Treatment, and Prevention **Technologies on the Horizon**

Mark E. Shirtliff, PhD

Hardware Considerations: When and How to Remove or Revise the Fixation!

Paul Tornetta III, MD

Acute and Chronic Infection: Is There a Gold Standard for Management of the Wound and Bone Defect?

Peter V. Giannoudis, MD, FACS, FRCS

Question, Answer and Case Discussion

CONCURRENT SESSION

6:30am -7:30am

MANAGEMENT OF DISTAL TIBIA FRACTURES: PEARLS AND PITFALLS

Moderator: Derek Donegan, MD Faculty: Frank Liporace, MD Stephen Quinnan, MD John Scolaro, MD Heather Vallier, MD

Objectives:

- · Recognize common challenges of distal tibia fractures
- · Learn to evaluate and select the most appropriate fixation strategy
- Acquire surgical pearls for successful reduction and fixation

Join our panel of experts as they address the current controversies regarding fixation of distal tibia fractures. Learn the surgical techniques used to maximize successful management of these injuries.

6:30am -7:30am

STAY OUT OF TROUBLES IN OPERATIVE **PEDIATRIC FRACTURES**

Moderator: Stephen Heinrich, MD Faculty: Amir Abdelgawad, MD Ahmed Thabet Hagag, MD Enes Kanlic, MD

Objectives:

- Summarize how to stay out of troubles in pediatric elbow fractures
- Describe tips and tricks in management pediatric femur fractures
- Compare operative vs nonoperative treatment for pediatric forearm fractures

Description

Our goal is to discuss the indications for operative treatment of pediatric fractures. We will present tips and pitfalls in operative management of pediatric fractures including elbow, femur and forearm.

6:30am -7:30am

CHALLENGES IN INTERTROCHANTERIC HIP FRACTURES

Moderator: Theodore Manson, MD Faculty: Eben Carroll, MD

Cyril Mauffrey, MD, FACS, FRCS

Objectives:

- · Describe the latest controversies in implant selection for intertrochanteric hip fracture management
- Summarize techniques for improving the reduction of intertrochanteric and pertrochanteric fractures.
- · Recommend salvage techniques should initial fracture fixation fail

This course will address implant selection and reduction techniques for both routine and challenging intertrochanteric and pertrochanteric fractures. In addition, salvage options should fracture fixation fail will be addressed.

9:00am – 10:38am Moderator:	PAPER SESSION IV: POLYTRAUMA AND POST TRAUMATIC RECONSTRUCTION Michael D. McKee, MD
9:00am – 9:06am	Paper 54 Incidence of Complications and Mortality in Polytrauma Patients Managed Either with ETC or DCO: Lessons Learned Siddharth Shah, MBBS; Michael McArdle, Peter V. Giannoudis, MD, FACS, FRCS
9:06am – 9:12am	Paper 55 Extremity Trauma Results in Severe Coagulopathy and Impaired Fibrinolysis Based on Serial Rapid Thrombelastography Prism Schneider, MD PhD; loannis Liras; Ellie Rahbar, PhD; Mark Prasarn, MD; Joshua Gary, MD; Bryan Cotton, MD, MPh
9:12am – 9:18am	Paper 56 The Early Immunologic Response in Multiply Injured Patients with Orthopaedic Injuries is Associated with Organ Dysfunction Greg Gaski, MD; Cameron Metzger, BS; Robert Wessel, MD; Jeremy Adler, BS; Tyler McCarroll, BS; Andrew Cutshall, BS; Yoram Vodovotz, PhD; Timothy Billiar, MD; Todd O. McKinley, MD
9:18am – 9:23am	Discussion
9:23am – 9:29am	Paper 57 Significant Reduction of Pulmonary Embolism in Orthopaedic Trauma Patients Adam Starr, MD; Zachary Shirley, MD; Michael Cripps, MD; Patrick Sutphin, MD PhD; Gene Hu, BS; Drew Sanders, MD; Brigham Au, MD; Ashoke Sathy, MD; Aaron Gebrelul, MD; Alexander Eastman, MD
9:29am – 9:35am	Paper 58 Limitations in Upper Extremity Weight-bearing Increase Length of Stay in Polytraumatized Patients Ida Leah Gitajn, MD; Nicole Krum, OT; Nathan O'Hara; Gerard P. Slobogean, MD; Robert V. O'Toole, MD; Raymond Pensy, MD

CONCURRENT SESSION

6:30am -7:30am

SOFT TISSUE MANAGEMENT OF THE MANGLED UPPER AND LOWER EXTREMITY

Moderator: Raymond Pensy, MD Faculty: John Ingari, MD Asif Ilyas, MD Daniel A. Osei, MD

Objectives:

- Outline Temporarizing and Definitive Skeletal Fixation
- Understand Methods and Timing for Temporizing and Definitive Vascular Reconstruction
- Outline Techniques for Soft Tissue Coverage and Management

The mangled upper extremity is a daunting surgical challenge. A solid foundation in the methods for acute and definitive fixation, revascularization, and soft tissue coverage are integral to functional recovery.

6:30am -7:30am

PELVIC RING DISRUPTION CASE CONTROVERSIES: DIAGNOSIS AND TREATMENT

Moderator: Jason Nascone, MD Faculty: Pierre Guy, MD Robert V. O'Toole, MD H. Claude Sagi, MD Adam Starr, MD

Objectives:

- Improve understanding of current diagnostic techniques to assess pelvic stability and level of injury
- Increase appreciation of management controversies of pelvic ring disruptions
- Increase understanding of current literature with regards to pelvic ring disruptions

Case-based discussion emphasizing diagnostic and management controversies of pelvic ring disruptions. Experts in management of these injuries will discuss diagnosis and management in an interactive case-based panel discussion.

9:35am - 9:41am

Paper 59

Extra-articular Malunions and Nonunions of the Scapula: A Comparison of Functional Outcome Before and After Reconstruction Joseph Schirmers, MD; Jeff Gilbertson;

Lisa Schroder; Joscelyn Tatro;

Peter Cole, MD

9:41am - 9:46am

Discussion

9:46am - 9:52am

Paper 60

Timing of Definitive Fixation
With Respect to Flap Coverage in

Open Tibia Fractures

Paul Tornetta, III, MD; Casey Kuripla, MD; Justin Koh, MD; Andrew Sems, MD; Tayseer Shamaa; Hassan Mir, MD; Benjamin Streufert; Clay Spitler, MD; Heather Vallier, MD; Debi Sorg; Brian Mullis, MD PhD; Brian McGowan; John Weinlein, MD; Lisa K. Cannada, MD; Jonathan Charlu; Jerald Westberg, BA; Emily Wagstrom; Saam Morshed, MD PhD; Abigail Cortez, BA; Peter Krause, MD; Andrew Marcantonio, DO;

9:52am - 9:58am

Paper 61

Rates of surgical site infection after open fractures: findings of the UK Wound management of Open Lower Limb Fractures (WOLLF) trial.

Gillian Soles, MD; Jason Lipof, MD

James Masters, MB, BS; Julie Bruce, PhD; Nick Parsons; Matthew Costa, PhD

9:58am - 10:04am

Paper 62

Impact of Management on Reoperation Rates in Gustillo-Anderson Grade III Open Fractures

of the Lower Limb

Pieter Vermaak, Luke Parsons;

Fergus Liggins; Miguel Fernandez, MBBS; Joseph Hardwicke, Jayne Ward, MBBS

10:04am - 10:09am

Discussion

10:09am - 10:15am

Paper 63

NURD 2.0: Prediction of Tibial Non–Union at Any Time within

3 Months of Injury Robert V. O'Toole, MD;

Josef Jolissaint, BS; Kevin O'Halloran, MD; Anthony Carlini, MS; Keir Ross, BS; Justin Fowler, MD; Renan Castillo, PhD

CONCURRENT SESSION

9:00am -10:30am

SHOULDER GIRDLE INJURIES: OPTIMIZING DECISION MAKING AND SURGICAL MANAGEMENT IN 2017

Moderator: Emil H. Schemitsch, MD

Faculty: Peter Cole, MD

Niloofar Dehghan, MD Clifford B. Jones, MD Frank Liporace, MD Aaron Nauth, MD

Objectives:

- Conclude which clavicle fractures and shoulder girdle injuries need surgery
- Summarize how to optimize fixation of shoulder girdle injuries when surgery is indicated
- Explain how to to manage complications following shoulder girdle surgery

A primary goal of the symposium will be to achieve consensus opinions on many current issues and controversies regarding the treatment of shoulder girdle injuries.

9:00am -10:30am

FRAGILITY FRACTURES AND BONE HEALTH: CURRENT STATE OF THE ART

Moderator: Michael J. Gardner, MD Faculty: Kenneth A. Egol, MD Kyle J. Jeray, MD Clifford B. Jones, MD Joseph Lane, MD

- Describe the size and scope of fragility fracture epidemic, and the impact of treatment.
- Identify methods for managing current fragility fractures and preventing future fragility fractures.
- Create an appreciation of successful strategies for establishing and running their own fragility fracture services.

This mini–symposium will expose attendees to methods for managing fragility fractures, and will review successful strategies for establishing and running their own fragility fracture services.

10:15am - 10:21am

Paper 64

Delay in Flap Coverage For Type IIIB/C Open Tibia Fractures Increases Complications: A Cohort Study from the Trauma Quality Improvement Program Daniel Pincus, MD; James Byrne, MD; Avery Nathens; Anna Miller, MD;

Philip Wolinsky, MD;

David Wasserstein, MD; Bheeshma Ravi; Steven Borland; Richard Jenkinson, MD

10:21am - 10:27am

Paper 65

Treatment of Bone Defects in Open Tibia Fractures Treated

with an IMN

Raymond Wright, MD; Paul Tornetta, III, MD; Saam Morshed, MD PhD; Robert V. O'Toole, MD; Joseph Hsu, MD; Ellen MacKenzie, PhD; Katherine Frey, MPH; Michael Bosse, MD; Jason Luly, MS

10:27am - 10:33am

Paper 66

Predictors of Complications in Severe Open Fractures

Ida Leah Gitajn; Sheila Sprague, PhD; Brad Petrisor, MD; Kyle Jeray, MD; Nathan O'Hara; Jason Nascone, MD;

Mohit Bhandari, MD; Gerard P. Slobogean, MD

10:33am - 10:38am

Discussion

10:38am - 11:08am

Refreshment Break

11:08am - 12:40pm

PAPER SESSION VII: GENERAL INTEREST

Michael J. Gardner, MD Stephen A. Kottmeier, MD

11:08am - 11:14am

Moderators:

Paper 67

Wound Infections Following Implant Removal Below the Knee: the Effect of Antibiotic Prophylaxis; Results of the WIFI-trial, a Multicenter Randomized Controlled Trial. Siem Dingemans, MD; Manouk Backes, MD; J. Carel Goslings, MD PhD; Tim Schepers, MD, PhD

CONCURRENT SESSION

9:00am -10:30pm

DISPLACED FEMORAL NECK FRACTURES – WHAT IS THE EVIDENCE?

Moderator: John T. Gorczyca, MD Faculty: Catherine Humphrey, MD Robert Dunbar, MD Kyle Judd, MD Gillian Soles, MD David Stephen, MD

Objectives:

- Summarize how to evaluate the femoral neck fracture patient for lifestyle and expectations
- Explain when best to use each of the various treatment options
- Outline some tips and tricks for treating displaced femoral neck fractures

This symposium will critically review the science available regarding displaced femoral neck fractures in patients of all ages and mechanisms.

9:00am -10:30am

ANTERIOR APPROACHES TO THE ACETABULUM: CAN WE ALL JUST GET ALONG?

Moderator: Jason Nascone, MD Faculty: Pierre Guy, MD Keith Mayo, MD Marcus F. Sciadini, MD

Objectives:

- Explain the evolution of the illioinguinal and anterior intrapelvic approaches
- Summarize Ways to Increase Visualization and Access with Both Illioingiunal and Anterior Intrapelvic Approach

Much debate exists regarding optimal approach to anterior acetabular fracture patterns. The evolution of the illioinguinal and anterior intrapelvic approach brings these two exposures much closer together yet differences remain.

10:40am -12:10pm

NEXT LEVEL: 8 PRACTICES FOR SURGEON WELLNESS

Moderator: Jeffrey M. Smith, MD Faculty: James Ficke, MD Wade R. Smith, MD Philip Stahel, MD Todd Swenning, MD

Objectives:

- Summarize the 8 PRACTICEs of Highly Successful Surgeons and understand why knowledge of these are your empowerment to create a sustainable and fulfilling surgical practice.
- Demonstrate specific strategies to deal with common challenges in a surgical practice.
- Discuss interactively the process of goal setting for fairly complex problems, so that attendees will have proactive plans for implementing their performance improvement plan.

This is an advanced format progressing some of the critical skills for creating a highly successful lifestyle—friendly practice.

11:14am - 11:20am

Paper 68

Screening For and Treating Intranasal Staphylococcus

Carriage Correlates with Reduced Surgical Site infections Complicating Operative Fracture Repair

Abigail Cortez, BA; James Burns, MS; Moses Lee, BA; Mariya Samoylova, BS; Eleni Berhaneselase, BA; Pouriya Ghayoumi, MD; Alexander Theologis, MD; Saam Morshed, MD PhD

11:20am - 11:26am

Paper 69

Decreased Time to Antibiotic Prophylaxis for Open Fractures at a Level One Trauma Center Joseph Johnson, MD; Avi Goodman, MD; Adam Haag, MD; Roman Hayda, MD

11:26am - 11:32am

Paper 70

Diagnostic Accuracy of Various Modalities Relative to Open Bone Biopsy for Detection of Long Bone Posttraumatic Osteomyelitis

Vivek Chadayammuri, BS; Herbert Benoit; Jiandong Hao; Juan Quispe; Ji-Wan Kim, MD; Heather Young; Mark Hake, MD; Cyril Mauffrey, MD, FACS, FRCS

11:32am - 11:37am

Discussion

11:37am - 11:43am

Paper 71

Significant Reduction of **Intraoperative Material Costs Through Surgeon Intervention** Laurence Kempton, MD;

Todd O. McKinley, MD; Greg Gaski, MD; Anthony Sorkin, MD; Walter Virkus, MD

11:43am - 11:49am

Paper 72

Operative Treatment Of Tibial Plateau Fractures: Does A **Sub-meniscal Arthrotomy Improve** Long Term Patient Outcome? A Prospective Surgeon Randomized

Clinical Trial

Richard Buckley, MD FRCPC;

Paul Duffy; Robert Korley, MDCM; Emilia Moller, MD; C. Ryan Martin, MD;

Rafael Gallino, MD:

Prism Schneider, MD, PhD

11:49am - 11:54am

Discussion

CONCURRENT SESSION

10:40am -12:10pm

LIMB RECONSTRUCTION AND AMPUTATION IN **CRISIS AND CONFLICT RELATED INJURIES**

Moderator: Daniel Stinner, MD Faculty: Michael Beltran, MD Jowan Penn-Barwell, MBBS Joseph Hsu, MD

Objectives:

- · Describe the orthopaedic surgeon's role in resuscitation and basic principles of the physiology following penetrating trauma.
- · Apply new tips and tricks for soft tissue management to minimize infection following severe extremity trauma.
- Summarize the principles in decision making when pursuing either limb salvage or amputation following crisis or conflict injuries.

High-energy injuries continue to be the primary source of morbidity in survivors of crisis and conflict. We will demonstrate techniques to limit infection and reconstruct bone defects when possible.

10:40am -12:10pm

THE TREATMENT OF PERI-PROSTHETIC FRACTURES IN 2017: CAN WE REACH A CONSENSUS?

Moderator: Emil H. Schemitsch, MD Faculty: George Haidukewych, MD Michael D. McKee, MD Aaron Nauth, MD William M. Ricci, MD Andrew Schmidt, MD

Objectives:

- Describe the advantages and disadvantages of various fixation strategies for peri-prosthetic fractures of the lower extremity.
- Explain the role of revision arthroplasty in managing peri-prosthetic fractures about a THA and TKA.
- Define how to manage peri-prosthetic fractures of the upper extremity.

A primary goal of the symposium will be to achieve consensus opinions on many current issues and controversies regarding the treatment of peri-prosthetic fractures.

10:40am -12:10pm

FEMORAL NECK FRACTURES IN THE YOUNG ADULT: **ARE WE GETTING BETTER?**

Moderator: Cory Collinge, MD Faculty: Hassan Mir, MD

Christopher McAndrew, MD John Scolaro, MD

Objectives:

- Explain the pathoanatomy and mechanics of this injury
- · Describe how to create a treatment plan that may maximize chances for clinical success
- · Discuss complications of this injury and how to deal with them

The mechanics of the vertical neck fracture create treatment problems and unique complications. Solutions are just now evolving that appear to be improving clinical results.

11:54am - 12:00pm

Paper 73

Sleep Disturbance in Orthopaedic

Trauma Patients

Matthew Swann, MD; Miles Batty, BS; Gene Hu, BS; Thomas Mitchell, BS; Hayden Box, MD; Adam Starr, MD

12:00pm - 12:06pm

Paper 74

Inpatient Compliance with Venous Thromboembolism Prophylaxis in Orthopaedic Trauma: A Pragmatic Randomized Controlled Trial of Aspirin vs. Low Molecular Weight Heparin Bryce Haac, MD; Richard Van Besien, BA; Nathan O'Hara; Gerard Slobogean, MD; Deborah Stein, MD MPH;

Robert V. O'Toole, MD: Theodore Manson, MD

12:06pm - 12:12pm

Paper 75

Tranexamic Acid Use in High Energy Pelvic, Acetabular, and

Femoral Fractures

Clay Spitler, MD; Elliot Row, MD;

Warren Gardner, MD;

Michael Hankins; Rachel Swafford, MPH; Peter Nowotarski, MD; Dirk Kiner, MD

12:12pm - 12:17pm

Discussion

12:17pm - 12:23pm

Paper 76

How to Best Measure Changes in Clinical Status over Time: An Anlysis of the Performance of Generic and Musculoskeletal **Specific Functional Outcome** Measures in Single Injury and **Multiple Injury Patients** Graham Sleat, Kelly Lefaivre, MD; Pierre Guy, MD; Henry Broekhuyse, MD; Abdullah Mamun; Peter O'Brien, MD

12:23pm - 12:29pm

Paper 77

Early Effects of the Trauma **Collaborative Care Intervention:** Results from a Prospective **Multicenter Cluster Clinical Trial** Stephen Wegener, PhD; Kristin Archer, P; Michael Bosse, MD; Eben Carroll, MD; Joshua Gary, MD; Clifford Jones, MD; Anna Newcomb, PhD; Andrew Pollak; Debra Sietsema, PhD; Heather Vallier, MD; Renan Castillo, PhD; Susan Collins, MSc; Katherine Frey, MPH; Yanjie Huang, MS; Daniel Scharfstein, PhD; Ellen MacKenzie, PhD; METRC Major Extremity Trauma Research Consortium

CONCURRENT SESSION

1:40pm -3:10pm

COMPLEX KNEE DISLOCATIONS

Moderator: William T. Obremskey, MD

Faculty: John Adams, MD Frank Avilucea, MD William Harvin, MD

Objectives:

- Define emergent treatment and associated injuries
- Review acute, staged, and delayed treatment options for knee dislocation
- · Summarize complications and long-term results of knee dislocations

Participants will understand emergent management as well as options of acute staged and delayed treatment of this complex injury. We will also review complications and expected long-term outcomes.

1:40pm -3:10pm **CONTROVERSIES IN ANKLE FRACTURES**

Moderator: John T. Gorczyca, MD Faculty: John Ketz, MD

Raymond Wright, MD Gillian Soles, MD Kevin Pugh, MD

- To review basic principles of ankle fracture fixation
- To analyze the evidence on emerging controversies in ankle fractures
- To summarize technical tips for difficult ankle problems

This symposium will concentrate on reviewing controversies in ankle fracture surgery and will provide an analysis of the evidence that will guide the surgeon in treating ankle fractures.

1:40pm -3:10pm

THE JOINT IS A MESS, NOW WHAT? **HOW TO RESTORE FUNCTION WHEN INTRA-ARTICULAR FRACTURE SURGERY FAILS**

Moderator: Emil H. Schemitsch, MD Faculty: Michael D. McKee, MD Chad Myeroff, MD Aaron Nauth, MD David W. Sanders, MD

Objectives:

- · When and how to restore function when fracture surgery fails
- · The role of arthroplasty and fusion in managing post-traumatic arthritis
- How to manage failed fracture surgery of the upper extremity and lower extremity

A primary goal of the symposium will be to achieve consensus opinions on many current issues and controversies regarding the treatment of post-traumatic arthritis.

12:29pm – 12:35pm	Paper 78 Predicting Completion of a Follow-up in Long Term Prospective Orthopedic Trauma Research Graham Sleat; Kelly Lefaivre, MD; Pierre Guy, MD; Henry Broekhuyse, MD; Abdullah Mamun; Peter O'Brien, MD
12:35pm – 12:40pm	Discussion
12:40pm – 1:40pm	LUNCH Exhibit hall closes at 1:45pm
12:25pm – 1:10pm	LUNCHTIME GUIDED POSTER AND VIDEO TOURS Hip/Femur Guide: Brett D. Crist, MD
	International Guide: Peter V. Giannoudis, MD, FACS, FRCS
	Video Tour Guide: TBD
I:40pm – 3:59pm Moderators:	PAPER SESSION VIII: HIP, FEMUR AND GERIATRIC Gilbert R. Ortega, MD Gerard P. Slobogean, MD
1:40pm — 1:46pm	Paper 79 A Randomised Controlled Trial Comparing the Thompsons versus the Exeter® Polished Taper Stem and Unitrax® Head in the Treatment of Displaced Intracapsular Fractures of the Hip: The WHITE 3: HEMI Trial Alex Sims; Nick Parsons; Juul Achten; Xavier Griffin; Matthew Costa, PhD; Mike Reed
1:40pm — 1:46pm 1:46pm — 1:52pm	A Randomised Controlled Trial Comparing the Thompsons versus the Exeter® Polished Taper Stem and Unitrax® Head in the Treatment of Displaced Intracapsular Fractures of the Hip: The WHITE 3: HEMI Trial Alex Sims; Nick Parsons; Juul Achten; Xavier Griffin; Matthew Costa, PhD;

GENERAL SESSION

1:58pm – 2:03pm	Discussion
2:03pm — 2:09pm	Paper 82 A Novel Tool to Predict Inpatient Triage and Hospital Quality Measures in the Geriatric Trauma Population at Time of Admission Sanjit Konda, MD; Ariana Lott, BA; Hesham Saleh, BS; Thomas Lyon, MD; Kenneth A. Egol, MD
2:09pm – 2:15pm	Paper 83 Any Femoral Neck Shortening Post Fracture Fixation Negatively Impacts Functional Outcomes Gerard P. Slobogean, MD; Gregory J. Della Rocca, MD, PhD, FACS; Susan Liew; Robert Haverlag; Sheila Sprague, PhD; Nathan O'Hara; Marc Swiontkowski, MD; Mohit Bhandari, MD; FAITH Investigators
2:15pm – 2:21pm	Paper 84 Gait Analysis Following Intertrochanteric Hip Fractures: Does Shortening Result in Gait Impairment? Elizabeth Gausden, MD; Ashley Levack, MD; Lauren Wessel, MD; Gele Moloney, MD; Danielle Sin, MS; Joseph Lane, MD; Dean Lorich, MD
2:21pm – 2:26pm	Discussion
2:26pm – 2:32pm	Paper 85 Hip Fracture Patients on Non-Warfarin Anticoagulants: Is Surgical Delay Warranted? Ariana Lott, BA; Jack Haglin, BS; Rebekah Belayneh; Sanjit Konda, MD; Philipp Leucht, MD; Kenneth A. Egol, MD
2:32pm — 2:38pm	Paper 86 Prognostic Factors for Predicting Revision Surgery after Operative Management of Hip Fractures Sheila Sprague, PhD; Emil H. Schemitsch, MD; Gregory J. Della Rocca, MD, PhD, FACS; Kyle J. Jeray, MD; Susan Liew; Gerard P. Slobogean, MD; Diane Heels—Ansdell, BSc; Marc Swiontkowski, MD; Mohit Bhandari, MD; FAITH Investigators

2:38pm — 2:44pm	Paper 87 Short versus Long InterTAN Fixation for Geriatric Intertrochanteric Hip Fractures: A Prospective, Multi-Centre Head-to-Head Comparison. Michael Sellan, MD; Christina Tieszer, BSc; Diane Bryant; Steven Papp, MD; Abdel-Rahman Lawendy; Timothy Carey, MD; J. Andrew Trenholm; Mark MacLeod; Darius Viskontas; Chad Coles; Wade Gofton; Trevor Stone; Allan Liew; Ross Leighton, MD; David W. Sanders, MD	3:18pm – 3:24pm 3:24pm – 3:30pm	Paper 92 Is Distal Locking Necessary In Long Cephalomedullary Nailing of Intertrochanteric Fractures? Hamid Mostafavi, MD; Arianna Caruso, BS; Margaret Cooke, MD; Andrew Lee, MD MS; Nicholas Teri, BS; Paul Tornetta, III, MD Paper 93 Early Comparative Outcomes of of Continuous Carbon Fiber Reinforced Polymer Plate in Fixation of Distal Femur Fractures Adam Lee, MD; Phillip Mitchell, MD;
2:44pm – 2:49pm	Discussion		Bruce Ziran, MD; A Jahangir, MD
2:49pm – 2:55pm	Paper 88 Fixation Failure and Time to Reoperation After Internal Fixation of Young Femoral Neck Fractures: A Population-Based Study David Stockton, MD; Lyndsay O'Hara, PhD; Nathan O'Hara; Kelly Lefaivre, MD; Peter O'Brien, MD; Gerard P. Slobogean, MD	3:30pm — 3:36pm 3:36pm — 3:42pm	Paper 94 New versus Old. A Prospective, Randomized Controlled Trial Comparing the 95 Degree Angled Blade Plate with the Locking Condylar Plate for Distal Femur Fractures Brendan Patterson, MD MBA;
2:55pm — 3:01pm	Paper 89 Open Reduction is Associated with Greater Propensity–Adjusted Odds of Reoperation at 6 Months and 2 Years after Internal Fixation of Femoral Neck Fractures in Adults 18–65 Years Joseph Patterson, MD; Keisuke Ishii, MD; Paul Tornetta, III, MD; Darin Friess, MD; Clifford Jones, MD; Ross K. Leighton, MD; Ari Levine, MD; Brian Mullis, MD; Raymond Wright, MD; Robert Ostrum, MD; Anas Saleh, MD; Andrew Schmidt, MD; David C. Teague, MD; Antonios Tsismenakis, MD; J. Spence Reid, MD; Theodore Midau III, MD; Saam Morshed, MD, PhD	3:42pm - 3:48pm 3:48pm - 3:54pm	Mary Breslin, BA; Leanne Wadenpfuhl, BA; Heather Vallier, MD Paper 95 A Prospective Randomized Control Trial comparing Immediate Weight Bearing as Tolerated versus Touch Down Weight Bearing in Extraarticular Supracondylar Distal Femur Fractures Daniel Bravin, MD; David Hubbard, MD; Lindsey Bravin, MD; John C. France, MD; Michelle Bramer, MD Paper 96 Radiographic Healing of Far Cortical Locking Constructs in
3:01pm — 3:07pm	Paper 90 Femoral Neck Stress Fractures: Clinical Course and MRI Risk Factors for Progression Clarence Steele, MD; Grant Cochran, MD; Bradley Deafenbaugh, MD; Chris Renninger, MD; Kevin Kuhn, MD		Distal Femur Fractures: A Comparative Study with Standard Locking Plates Yanin Plumarom, MD; Michael Willey, MD; Yubo Gao, PhD; Brandon Wilkinson, MD; J. Lawrence Marsh, MD; Matthew Karam, MD
3:07pm – 3:12pm	Discussion	3:54pm – 3:59pm	Discussion
3:12pm — 3:18pm	Paper 91 Treatment of Femoral Neck Fractures in Patients 45 to 64 Years of Age Joseph Johnson, MD; Justin Kleiner, BS; Avi Goodman, MD; Joseph Gil, MD; Alan Daniels; Roman Hayda, MD	4:00pm	Meeting Adjourns

GENERAL SESSION