

FWATA Virtual Annual Meeting & Clinical Symposium 2021

Education Program

BOC Approved Evidence Based Practice Presentations

Barriers and Strategies for Success for Assessing Rectal Temperature in Exertional Heat Stroke Diagnosis

(1 EBP CEU)

William M. Adams, PhD, LAT, ATC - University of North Carolina at Greensboro and Korey Stringer Institute

There are barriers that exist for assessing rectal temperature in diagnosing exertional heat stroke. Strategies for obtaining and assessing rectal temperature in individuals suspected of suffering exertional heat stroke is paramount to obtain an accurate diagnosis, as well as ensure appropriate medical care. Specifically, this session will provide a brief overview surrounding the utility of rectal temperature as the criterion standard for the assessment of body temperature in exercising individuals,¹⁻⁴ followed by a discussion of current evidence examining the utilization of rectal temperature in a clinical setting.⁵ This presentation will discuss the barriers associated with the lack of rectal temperature use among athletic trainers and integrate potential implementation strategies.⁶⁻⁷ (*Domains: II,III/Level: Essential*)

Learning Objectives:

- Differentiate appropriate vs. inappropriate methods for internal temperature assessment in individuals suspected of exertional heat stroke.
- Explain the barriers and facilitators for the successful implementation of rectal temperature in patients suspected of exertional heat stroke.
- Describe the current evidence examining the athletic trainers' intentions to use rectal temperature as the diagnostic tool to accurately assess internal body temperature in exercising individuals.

Introduction to Athletic Trainer's Utilization & Clinical Establishment of IV Access & IV Fluid Administration to Improve Patient Care: Special Application - CA, NV, HI Practice Acts (1 EBP CEUs)

Eric J. Fuchs, ATC, AEMT, SMTC – Eastern Kentucky University

Currently, athletic trainers in multiple states can provide, under their state licensure, intravenous (IV) access. The new CAATE 2020 standards will require current AT Educators to learn IV skills and to teach them to AT students. Currently, some CAATE Programs teach IV, phlebotomy, IM, and Sub Cutaneous injection methods while others do not. The fact that some CAATE programs teach these skills and others have not, and the fact that some states allow for IV administration under the AT's scope of practice creates a potential gap in knowledge for athletic trainers regarding utilization and clinical establishment of IV access and fluid administration. Additionally, the 2012 NATA Position Statement: Preventing Sudden Death in Sports, indicates as part of treatment, IV Fluid for both Exertional Hyponatremia and for Exertional Sickling. Athletic trainers may not have these skills and there is a need to acquire them. (*Domains: II,III,IV/Level: Advanced*)

Learning Objectives:

- Identify common medical and traumatic injuries where the establishment of IV Access or IV Fluid administration would improve patient morbidity or mortality rate.
- Identify the required supplies & equipment needed to establish IV access on patients.
- Identify and discuss the impact of state practice acts upon ability for AT's to provide IV access on patients.

The Impact of Microaggression on Patient Care in AT Clinical Practices (1 EBP CEU)

Christopher Litt, M.Ed, ATC

Disparities in health care continue to exist in our communities, permeating into athletic training practice settings^{1,5}. Unknowingly, microaggressions displayed by health care providers contribute to these disparities and diminish the quality of health care experienced by our patients^{4,5}. Microaggressions impact the mental and physiological status of our patients, negatively influencing patient compliance and outcomes of intervention. As point of care providers, it is utmost critical for Athletic Trainers to gain a better understanding of what microaggressions are, how it influences the care we provide to our patients, and more importantly how we eliminate it from our individual environments. *(Domains: I,V/Level: Essential)*

Learning Objectives:

- Discuss what constitutes as a microaggression; types and levels.
- Correlate microaggressions and impact on patient care and patient compliance.
- Assess existence of microaggressions in the clinical setting as well as within the individual.
- Formulate strategies to eliminate microaggressions in the individual and the practice setting.

A Health Care Provider's Response to the Active Shooter: Event Response and Trauma Management once the Shooting Stops (1 EBP CEU)

Edward Strapp, FP-C, TP-C, NRP, LAT, ATC - Flight Paramedic/Rotational Athletic Trainer

This session will explore knowledge gaps in responding to an active shooter event including: During an active assailant event, if there is a plan in place the odds of survival during an active assailant event greatly increased. We must understand that RUN/HIDE/FIGHT is not the best strategy and look at clearer options and a better method for survival; After an active assailant event, understanding the role of and interrelatedness of emergency triage procedures is paramount as well as understanding the critical interventions for bleeding control and airway management. Failure to provide immediate and appropriate care due to a lack of knowledge or emergency equipment may be cause for negligence; Following the active assailant event, the athletic trainers are often times the first medical providers within the facility and athletic trainers must be knowledgeable and skilled in managing these emergent situations until emergency medical services arrive; This session examines the evidence for, application of Avoid/Deny/Defend, and interrelatedness of Triage Protocols and critical interventions: (1) Tourniquets (Commercial and Improvised), (2) Wound Packing, and (3) Hemostatic Agents. *(Domains: I,III,V/Level: Advanced)*

Learning Objectives:

- Explain how a pre-hospital inter-professional healthcare team works collaboratively to improve patient outcomes.
- Discuss emergency action planning principles as they apply to active shooter events.
- Discuss factors leading to the implementation of a Triage Program.
- Discuss factors related to the stopping of massive bleeding.
- Describe and apply effective strategies for recognizing multi system trauma.
- Describe and apply effective management techniques for placing tourniquets, packing wounds, and sealing penetrating chest trauma.
- "Bridge the Gap" between current pre-hospital management recommendations and clinical practice considerations.

The Athletic Trainer's Response to the Opioid Crisis: A Comprehensive 360-Degree Approach (1 EBP CEU)

Edward Strapp, FP-C, TP-C, NRP, LAT, ATC - Flight Paramedic/Rotational Athletic Trainer

This session will explore knowledge gaps responding to the Opioid crisis: While Narcan is an effective means of managing an acute Overdose with respiratory depression, their application by certified athletic trainers has not been common practice in sports medicine due to a variety of educational and implementation concerns; When a critical event occurs, the athletic trainers are often times the first medical providers on the scene and athletic trainers must be knowledgeable and skilled in managing these emergent situations until emergency medical services arrive. However, cognitive knowledge is not the only necessary prerequisite. Understanding the role of and interrelatedness of accurate assessment and rapid response paramount as well as understanding the critical interventions for Narcan administration and airway management. Failure to provide immediate and appropriate care due to a lack of knowledge or emergency equipment may be cause for negligence. The session examines the evidence for, application of, and interrelatedness of Narcan Administration and critical interventions: (1) Positive Pressure Ventilations (BVM), (2) BLS Airway Adjuncts, and (3) Supraglottic Airways. *(Domains: II,III/Level: Advanced)*

Learning Objectives:

- Compare critical interventions from Narcan to airway management in the effective treatments of an acute Opioid Overdose.
- Discuss a variety of critical interventions of Narcan administration and airway management in the treatment of an acute Opioid overdose.
- Identify and evaluate Opioid prevention strategies for pain management and prescription availability programs to limit potential Opioid overdose potential.

Category A Presentations

Integration of Current Evidence on Exertional Heat Stroke into Clinical Practice

William M. Adams, PhD, LAT, ATC – University of North Carolina at Greensboro

Exertional heat stroke (EHS) remains one of the leading causes of sudden death in sport. While evidence supports that the utilization of best practices lends a 100% survival rate, the overall adoption of these practices among athletic trainers remains low. The purpose of this presentation is to discuss the current best practices for the management and care of EHS in athletics settings. This presentation will also identify the gaps in which EHS best practices are not being utilized by discussing common misconceptions of EHS care and barriers to implementing best practices. *(Domain: III/Level: Essential)*

Learning Objectives:

- Apply the knowledge of EHS management and care into your clinical practice.
- Explain the current evidence related to the prevention, recognition, treatment and return to activity following EHS.
- Describe the common misconceptions and barriers to EHS management and care.

Wound Care of Minor Skin Injuries

Leslie Cardoza, MPAP, PA-C, ATC – Newport Urgent Care

Skin injuries in athletics are common and most of the time can be cared for on the sideline. The understanding of wound care for skin injuries is important in the prevention of skin infection and allows for proper healing of the skin. Knowledge of proper skin cleansing and wound prep can assist with determining the type of skin

closure required. Understanding the stages of wound healing help to determine the aftercare of a wound. Decisions made should also be based on the patient's risk of infection, medical history, and location of the skin wound. This lecture will discuss multiple options to allow appropriate decisions required to provide proper wound care of skin injuries. *(Domain: III/Level: Essential)*

Learning objectives:

- Describe the stages of wound healing.
- Identify and discuss evidenced-based wound cleaning methods.
- Discuss skin closure techniques for various wound types.

Balance Training on Unstable Objects: A Review of Scientific Principles and Program Design

Scott W. Cheatham, PT, OCS, PhD, DPT, ATC, CSCS – California State University, Dominguez Hills

Designing a balance program requires a multi-modal approach. Understanding the scientific concepts related to balance control, accurately identifying balance deficits, respecting precautions and contraindications of balance training interventions, and designing a program that meets the patient's specific needs all must be considered to effectively treat balance impairments. This presentation will discuss the science of human balance and evidence-based strategies to train individuals of all levels using a variety of unstable objects and environments. Additional topics that will be presented include quantifying balance confidence, discussing common observable balance deviations, and presentation of musculoskeletal injuries that cause balance issues. This session is for professionals who desire a more in-depth understanding of this balance training. *(Domains: II,IV/Level: Essential)*

Learning Objectives:

- Discuss the three physiological systems for human balance and their interdependence to control static stance and dynamic movement.
- Discuss and implement exercise progressions and regressions using unstable objects and different environments.
- Discuss methods for quantifying balance confidence and stability, observable balance deviations, and musculoskeletal injuries that cause balance issues.

Anti-Doping Policies and Drug Testing Process

Thomas "TK" Koesterer, PhD, ATC – University of the Pacific

The use of performance-enhancing drugs in sports has been emphasized by the BALCO and Lance Armstrong scandals and continues to be a concern at every level of sports. The mission statements of anti-doping agencies talk about doping-free sports and integrity of competition, while athletic trainers are more concerned with optimizing the health of athletes. The more athletic trainers understand about anti-doping policies and procedures, the better they can educate their athletes. This presentation will inform athletic trainers of the major anti-doping agencies, where to gather further information on anti-doping policies, and outline the drug testing collection process. *(Domain: I/Level: Essential)*

Learning Objectives:

- Identify three anti-doping agencies related to sports in the United States.
- Discuss reliable and valid information on anti-doping policies and procedures.
- Explain the drug testing collection process.

Legal Protection for AT Practice Related to Covid-19

Jeff G. Konin, PhD, ATC, PT, FACSM, FNATA – Florida International University; The Rehberg Konin Group
Darryl Conway, MA, AT, ATC – University of Michigan; The Rehberg Konin Group

Athletic trainers have been engaged in all aspects of the Covid-19 pandemic. Shifted roles have ranged from policy development and procedural implementation to testing, contact tracing, vaccinating, and symptomatic management of patients. Similar to any other task assigned to an athletic trainer, this role does not come without risk from a legal perspective. This presentation will provide a comprehensive summary of the Covid-19 related items that should be taken under consideration in an ongoing effort to apply a reasonable risk management strategy. (*Domain: V/Level: Essential*)

Learning Objectives:

- Identify potential areas of exposure to risk associated with policy and procedure development for Covid-19 protocols.
- Establish a plan for risk management to minimize exposure to professional liability.
- Discuss implementation strategies for a risk management plan to minimize exposure to professional liability.

Is there a "Wrong" Time of Day to Train? The Influence of Chronotype in Time-mandated Physical Training

Graham McGinnis, PhD – University of Nevada, Las Vegas
Kara Radzak, PhD, ATC – University of Nevada, Las Vegas

Circadian rhythms effect many physiological and performance-related parameters but vary across population based on a person's "chronotype," ("morning lark" vs "night owl"). Evening chronotypes have higher perceived exertion and stress following morning exercise (out-of-phase with their circadian rhythm) compared to the afternoon (in-phase with their circadian rhythm). Thus, out of phase exercise may impact performance and increase injury risk. This presentation will highlight findings from Reserve Officers' Training Corps cadets undergoing early morning training. We will discuss the role of the circadian system, as well as chronotype and social jetlag (shifting schedules from on- and off-days), in time-mandated training, and the risks associated with training out-of-synch with one's chronotype. (*Domain: I/Level: Essential*)

Learning Objectives:

- Explain the following concepts: circadian system, chronotype, chronotype identification, and social jetlag.
- Identify performance metrics that change when performing exercise out-of-synch with one's chronotype.
- Identify the potential impact of out-of-synch training on injury risk.

Influence of Treatment Approach Following Traumatic Joint Injury and Long-Term Function and Knee Biomechanics

Elizabeth A. Parke, PhD, ATC – California State University, Northridge
Cris Stickley, PhD, ATC, CSCS – University of Hawaii, Manoa
Samantha Andrews, PhD, ATC – Straub Medical Center, Hawaii

As our understanding of the long-term effects of traumatic joint injury changes, approaches to treating these injuries have evolved. Prescriptions for conservative and surgical treatments are giving greater consideration to long-term effects on joint health and knee biomechanics, such as, when deciding between meniscal repair vs meniscectomy. Consequently, the importance of athletic trainers in helping patients prevent and minimize

long-term effects of knee injuries has significantly increased. Additionally, the expanding scope of athletic trainers in treating non-traditional patients necessitates stronger understanding of best practices for minimizing progression of degenerative knee pathology to ensure quality of life across the lifespan.

(Domain: IV/Level: Essential)

Learning Objectives:

- Identify the differing benefits of traditional versus contemporary surgical and conservative treatment approaches following joint injury and the resulting effects on knee biomechanics.
- Describe differences in patient function and biomechanics between those with and without pathologies across the lifespan.
- Describe the effects of joint injury, such as ACL, meniscal and osteoarthritis, on knee health and mechanics across the patient's lifespan.
- Describe the role of the athletic trainer in preventing and treating the progression of degenerative knee pathology following traumatic joint injuries.

Innovations in Prevention & Treatment of Concussion: A Behavioral and Clinical Perspective

Johna K. Register-Mihalik, PhD, LAT, ATC, FACSM – University of North Carolina, Chapel Hill

Innovations in concussion prevention and care are quickly evolving. These evolutions provide Athletic Trainers with new tools and strategies that can improve patient outcomes. There is a current gap in translating such innovations into clinical practice. This presentation will focus on the provision of recent evidence supporting innovative, evidence-based solutions in concussion and prevention and care, with a specific focus on the student-athlete. Such innovations include recent rule changes and game adaptations that may improve concussion presentation and early and active treatment strategies sub-acutely and in subsequent time period following concussion that can improve outcomes and overall recovery. The presentation will also highlight the need for policy and behavioral considerations to translate these new solutions into modern clinical practice.

(Domains: I,III,IV/Level: Essential)

Learning Objectives:

- Evaluate recent evidence concerning concussion prevention and care.
- Describe recent advances in concussion prevention and treatment strategies relevant to their current practice setting.
- Compare and contrast prevention and treatment strategies for concussion as they relate to different age groups and other patient considerations.
- Describe policy and behavioral considerations to improve implementation of recent advances in concussion prevention and care.

I Want my Patients to get Better – Should I be Using Modalities?

Susan F. Saliba, PhD, ATC, PT – University of Virginia

In recent years, therapeutic modalities and other passive treatments have been under scrutiny for a lack of evidence supporting their use. Passive treatments do not involve patient participation, and when the patient is not invested, it is hard to demonstrate sustainable benefit. But, pharmacological agents are passive, surgery is passive (for the patient), and manual therapy and massage are often passive. Those interventions are not as scrutinized as modalities or physical agents. This presentation explores insight into how clinicians can help improve their outcomes using current evidence that support modalities and other therapies including therapeutic exercise. Furthermore, relevant outcome measures will be presented to examine the benefit of

using some treatments that are common, felt to be beneficial, but currently have less support from research to justify their clinical use. (*Domains: IV,V/Level: Essential*)

Learning Objectives:

- Understand effectiveness and efficacy and how that relates to the determination of evidence for passive treatments.
- Describe the terminology and the goal of passive treatments.
- Describe outcomes for physical modalities vs manual therapy or therapeutic exercise.
- Understand how physical agents affects a given impairment, thus distinguishing when a treatment is appropriate vs when it is not.
- Describe and incorporate the various components of the evaluation and rehabilitation process into a systematic strategy for examination based on severity of injury and environment.

The Missing Link: Developing Emotional Intelligence Skills to Improve Patient Care, Leadership, and Job Satisfaction

Kevin J. Silva, EdD, MSAT, ATC – Salem State University

Emotional intelligence (EI) is an individual's ability to recognize, understand, and utilize emotions to navigate, manage, and influence emotional and social situations. EI skills have been shown to improve leadership skills, psychological wellbeing, and job satisfaction, as well as reduce stress and anxiousness among healthcare professionals. Yet, few athletic trainers receive formal instruction on EI theories and skill development. This presentation will review available evidence and original research on EI skills in athletic training. Furthermore, this presentation will also provide participants with actionable steps to improve their own EI within the context of patient care and workplace behaviors. (*Domain: I/Level: Essential*)

Learning Objectives:

- Apply novel emotional intelligence theories to clinical practice, leadership, and overall mental well-being.
- Develop new strategies to improve emotional intelligence skills.
- Apply emotional intelligence skills to solve emotional and social situations related to patient care and workplace conflict.
- Synthesize emotional and social information related to behaviors associated with emotional intelligence.

Comparison of National Environmental Policies Effecting Athletic Events

Katie Walsh Flanagan, EdD, ATC, LAT - East Carolina University

The NATA has environmental position statements in heat illnesses and lightning safety. The NCAA (collegiate) and NFHS (high schools) are not always consistent with the updated evidence of the NATA research papers. Air quality is also addressed, as there is no nationally recognized research in sport safety papers. This presentation compares national environmental safety statements in athletics for heat and lightning in a concise manner. It also addresses air quality related to athletic participation. Attendees will learn updated research and guidelines and be able to put together a best practice policy for their own situation. (*Domains: I,III,V/Level: Essential*)

Learning Objectives:

- Distinguish between NATA, NCAA, and NFSHSA safety polices on environmental factors.

- Discuss effects on athletic participation for environmental conditions related to heat, lightning, and air quality.
- Create a best practice environmental safety plan for your own place of work.

Early Childhood Sports Specialization

Presented by the FWATA Secondary Schools Athletic Trainers Committee

Glenn Barnes DO, CAQSM – University of Nevada, Las Vegas, School of Medicine

Early childhood sport specialization has recently been linked to multiple negative outcomes regarding athlete health while at the same time youth athletes are increasingly specializing at younger ages. This session will evaluate the current evidence for and against sports specialization and provide attendees with the knowledge needed to advise patients and caregivers as to the risks and benefits of early sports specialization.

(Domain: I/Level: Essential)

Learning Objectives:

- Evaluate the current literature and position statements for early childhood sports specialization.
- Discuss the short- and long-term consequences of early childhood sports specialization.
- Apply this knowledge to advising patients and caregivers to the risks and benefits of sports specialization.

Athletic Trainers': Success in the Industrial Setting

Presented by the FWATA Committee on Practice Advancement

Bryan Reich M.Ed. ATC, CEAS – WorkCare

There are many factors that contribute to the success of an AT in the industrial setting. This session will explore how to develop corporate relationships, understand unique regulations governing ATs in the industrial setting, and how to market your worth and an AT in industry. The need for curriculum development related to the industrial setting will also be discussed. *(Domains: I-V/Level: Essential)*

Learning Objectives:

- Evaluate labor and return on investment data to determine AT need in the industrial setting.
- Identify and discuss AT regulations in the industrial setting.
- Identify key ergonomic, safety tools, and curriculum needs for the industrial setting.
- Explain key wellness principles necessary for working with the industrial populations.
- Discuss emergent technologies ATs can utilize to be successful in the industrial setting.

Care Considerations for LGBTQIA+ Patients in Athletic Training

Presented by the FWATA LGBTQIA+ Advisory Committee

Sean Rogers, DAT, ATC (He/Him/His) – California State University, Northridge

The purpose of this presentation is to provide the FWATA membership with information required for the equitable and efficacious treatment of LGBTQIA+ patients. Specifically, this presentation will cover the appropriate use of terminology and pronouns, inclusive documentation techniques, health and healthcare disparities experienced by LGBTQIA+ patients, and the development of inclusive policies and procedures. This presentation will leave athletic trainers with valuable knowledge that can be used to improve patient outcomes when treating LGBTQIA+ patients. *(Domains: I,V/Level: Essential)*

Learning Objectives:

- Define commonly used LGBTQIA+ terms that create cultural awareness in patient care.
- Create an environment of inclusivity, equity, and respect within athletic training for those in the LGBTQ+ community.
- Integrate best practices in providing equitable healthcare to LGBTQIA+ patients, including proper referrals related to this population.
- Contextualize the health and healthcare disparities that impact LGBTQIA+ patients.

You are When You Eat: Timing is Everything

Sponsored by Gatorade

Isaac L. Hicks III RDN CSSD, LDN, CSCS - Director of Performance Nutrition, Indiana University

When it comes to nutrition, it is not only what your athletes eat and drink but when they eat and hydrate is equally as important. This session will not only present the basics of sports nutrition, including timing and quality of food and beverages, it will also provide strategies how ATs can instill solid nutrition habits in their athletes. *(Domain: 1/Level: Essential)*

Learning Objectives:

- Discuss specific timing recommendations for when athletes should eat and drink based on the length and intensity of exercise.
- Discuss at least two physiological reasons timing is important in regard to athlete nutrition and hydration.
- Counsel athletes on at least three basic sports nutrition principles that instill solid nutrition and hydration habits.

TOTAL = 20 CEUs (15 Category A CEUs and 5 EBP CEUs) with FWATA Registration