

UW Medicine

UW SCHOOL
OF MEDICINE

PREVENTION OF SUDDEN CARDIAC DEATH IN ATHLETES



Thursday–Friday
November 2–3, 2017

Sheraton Seattle Hotel | 1400 Sixth Avenue | Seattle, WA

Sponsored by UW School of Medicine
Department of Family Medicine
UW Medicine Center for Sports Cardiology
Office of Continuing Medical Education

WHO SHOULD ATTEND

Sports medicine physicians, cardiologists, NCAA and professional team physicians, team cardiology consultants, members of the American Medical Society for Sports Medicine, and physician leaders from heart screening foundations around the world would benefit from attending.

COURSE DESCRIPTION

Sudden cardiac death (SCD) is the leading cause of death in competitive athletes during sports and exercise. The goal of cardiovascular screening is to identify underlying cardiac disorders predisposing a patient to SCD to allow risk reduction through individualized and disease-specific medical management. Electrocardiogram (ECG) screening increases the detection of cardiac disorders at risk for SCD, but requires a physician infrastructure trained in athlete-specific ECG interpretation standards, as well as skilled cardiology resources to conduct proper secondary testing of ECG abnormalities. This conference features world experts in sports cardiology to review physiologic versus pathologic ECG findings in athletes, the evaluation of ECG abnormalities, and disease-specific management in athletes diagnosed with a pathologic cardiac disorder. Conference workshops will examine and apply consensus recommendations from the 2017 *International Criteria for ECG Interpretation in Athletes*. This conference addresses critical knowledge gaps to improve the cardiovascular care provided to competitive athletes.

ACCREDITATION

Accreditation with Commendation

The University of Washington School of Medicine is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

Credit Designation

The University of Washington School of Medicine designates this live activity for a maximum of 12.0 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.



COURSE OBJECTIVES

Upon completion of this activity, attendees should be able to:

- Apply the latest *International Criteria for ECG Interpretation in Athletes* into daily practice.
- Distinguish normal variant ECG findings from ECG abnormalities requiring more investigation.
- Outline the secondary evaluation of specific ECG abnormalities.
- Describe the diagnostic criteria and management considerations for cardiac disorders predisposing to SCD such as cardiomyopathies, ion channelopathies, and ventricular pre-excitation.

FEES AND REGISTRATION

MD/DO/PhD	\$325.00
All Other Disciplines	\$275.00
Resident/Fellow*	\$125.00
<small>*Resident/Fellow rate applies to MD/DO only and requires written confirmation of current resident/fellow status</small>	

The course fee includes catering, electronic instruction materials and transcript of AMA PRA Category 1 Credits™. To enroll, please complete the enclosed registration form and include payment or register online at uwcmce.org. Allow up to 15 working days to receive your email confirmation of enrollment. If you have not received confirmation prior to your departure for the course, please contact the CME office at 206.543.1050. Continuing Medical Education will not be responsible for expenses incurred by an individual who is not confirmed if space is not available at the course.



PRE-CONFERENCE HEART SCREEN

The **Nick of Time Foundation** invites participants to join them at a youth heart screening event on Wednesday, November 1, 2017, at Ballard High School from 8:00 a.m. to 4:00 p.m. This is a great opportunity to learn and apply modern standards of ECG interpretation in the screening of high school students and student-athletes. Space is limited - please contact the **Nick of Time Foundation** to RSVP - sue@nickoftimefoundation.org.

ONLINE ACCESS

Instruction materials will be available online at uwcme.org (for conference registrants only). Materials will be available starting on **October 26, 2017**, for registrants to print and/or download. A booklet with the conference agenda and pages for note-taking will be provided at the conference. No printed presentation materials will be available.

ATTENDANCE POLICY

Course activities are exclusively reserved for registered attendees. Badges provided at registration are required for entrance into all functions and will be strictly enforced. In consideration of other participants and speakers, please do not bring infants/children into conference sessions.

DIETARY REQUESTS

UW CME considers diverse nutritional preferences and restrictions when planning our complimentary menu. If you have dietary restrictions (i.e. vegan, gluten-free, etc.), please notify us by **October 26, 2017** by sending an email to cme@uw.edu.

CANCELLATION POLICY

The Office of Continuing Medical Education must receive written notification of your cancellation by **October 19, 2017**. A \$75.00 processing fee will be deducted from refund requests received by this date. No refunds will be issued following **October 19, 2017**. The Office of Continuing Medical Education reserves the right to cancel this course twenty (20) days prior to the course date when a minimum enrollment is not met or for other reasons that prevent the University from holding the course. Each registrant will be notified by telephone followed by written notification and a full refund. The University of Washington is not responsible for any other costs incurred such as non-refundable airline tickets or hotel penalties. Contact the CME Office with questions: call 206.543.1050, fax 206.221.4525 or email cme@uw.edu.

SPECIAL SERVICES

Please inform the CME Office ten days in advance of the conference if you will need to utilize lactation services.

Continuing Medical Education at the University of Washington is a self-sustaining unit and does not depend on or receive public monies in support of its educational efforts. Fees for this course are estimated to cover the costs of conducting this course. These costs include salaries, registration and credit, handouts, record keeping, faculty planning and evaluation and may include food, beverages, taxes and gratuities to vendors. The University of Washington reaffirms its policy of equal opportunity regardless of race, color, creed, religion, national origin, sex, sexual orientation, age, marital status, disability, or status as a disabled veteran or Vietnam era veteran in accordance with University policy and applicable federal and state statutes and regulations. The University of Washington is committed to providing access and reasonable accommodation in its services, programs, activities, education and employment for individuals with disabilities. To request disability accommodation, contact the CME office at 206.543.1050 or the Disability Services Office at least ten days in advance.

Disability Services Office:

206.543.6450/Voice • 206.543.6452/TTY • 206.685.7264/Fax • e-mail: dso@uw.edu

HOTEL ACCOMMODATIONS

UW CME has contracted for a special rate at the conference hotel. You must mention "UW Sports Cardiology" to receive this rate. After October 11, 2017, this rate and accommodation may not be available. The University of Washington accepts no further responsibility for lodging.

Sheraton Seattle Hotel | 1400 Sixth Avenue | Seattle, WA

For reservations, call 1.888.627.7056 or 206.621.9000

starting at
\$269.00
per night
(taxes excluded)

RESERVE ROOMS ONLINE:

Visit the course listing at uwcme.org for a direct link.

COURSE FACULTY

COURSE CHAIR

Jonathan Drezner, MD
Director
UW Medicine Center for Sports Cardiology
Professor
Department of Family Medicine
Sports Medicine Section

PLANNING COMMITTEE

Kimberly Harmon, MD
Section Head
Department of Family Medicine
Sports Medicine Section
Professor
Departments of Family Medicine,
Orthopedics & Sports Medicine

David Owens, MD
Director
Hypertrophic Cardiomyopathy Clinic
Associate Professor
Department of Medicine,
Division of Cardiology

Jordan Prutkin, MD, MHS
Associate Professor
Department of Medicine, Division of
Cardiology/Electrophysiology

GUEST FACULTY

Michael Ackerman, MD, PhD
Professor
Departments of Medicine,
Pharmacology, and Pediatrics
Mayo Clinic

Irfan Asif, MD
Associate Professor
Department of Family Medicine
University of South Carolina, Greenville
School of Medicine

Aaron Baggish, MD
Director
Cardiovascular Performance Program
Division of Cardiology
Massachusetts General Hospital

Michael Emery, MD
Medical Director
The Center for Cardiovascular Care in
Athletics
Indiana University Health

Joseph Marek, MD
Clinical Cardiologist
Advocate Medical Group
Medical Director
Young Hearts for Life

Matthew Martinez, MD
Associate Chief of Cardiology
Lehigh Valley Health Network
Medical Director
Sports Cardiology and Hypertrophic
Cardiomyopathy Program, & Cardiovascular
Imaging

Sanjay Sharma, MD, FRCP (U.K), FESC
Professor of Cardiology & Lead
Inherited Cardiomyopathies &
Sports Cardiology Unit
St. George's, University of London

UNIVERSITY OF WASHINGTON FACULTY

Henry Pelto, MD
Assistant Professor
Department of Family Medicine
Sports Medicine Section

Jack Salerno, MD
Professor
Department of Pediatrics
Associate Chief
Division of Cardiology
Director
Electrophysiology & Pacing Services

VISIT THE COURSE WEBSITE FOR SPECIFIC DETAILS AND REGISTRATION
Register Online: uwcmec.org

UW School of Medicine | Continuing Medical Education

Email: cme@uw.edu | Phone: 206.543.1050

CONFERENCE SCHEDULE

THURSDAY, NOVEMBER 2, 2017

7:15 **Registration and Continental Breakfast**

8:00 Welcome | *Jonathan Drezner, MD*

8:05 **Keynote** | Cardiac Adaptation to Exercise and the Physiologic Limits of the 'Athlete's Heart' | *Sanjay Sharma, MD*

8:25 Etiology of Sudden Cardiac Death in Competitive Athletes: Update and Remaining Questions | *Aaron Baggish, MD*

8:45 Incidence of Sudden Cardiac Death in Athletes: Understanding Differential Risk
Kimberly Harmon, MD

9:00 The Evolution of Contemporary ECG Interpretation Standards | *Jonathan Drezner, MD*

9:15 Question and Answer Session | *Faculty*

9:30 Screening for Pathologic Cardiac Disorders: The Performance of History, Physical Exam, and ECG | *Kimberly Harmon, MD*

9:45 International Criteria for ECG Interpretation in Athletes: Overview of Normal ECG Findings | *Jonathan Drezner, MD*

10:05 Voltage Criteria for LVH and RVH: Physiologic Findings in Athletes | *Joseph Marek, MD*

10:15 Repolarization Variants in Black Athletes: What We Know and Don't Know
Sanjay Sharma, MD, FRCP (U.K.), FESC

10:25 Pediatric Electrocardiography | *Jack Salerno, MD*

10:35 Question and Answer Session | *Faculty*

10:50 **Break**

11:10 International Criteria for ECG Interpretation in Athletes: Overview of Abnormal ECG Findings | *Jonathan Drezner, MD*

11:30 Pathologic T-Wave Inversion and ST Segment Depression | *Aaron Baggish, MD*

11:45 Diagnostic Evaluation of ECG Abnormalities Suggestive of Hypertrophic Cardiomyopathy
David Owens, MD

12:00 Diagnostic Evaluation of ECG Abnormalities Suggestive of Arrhythmogenic Right Ventricular Cardiomyopathy | *Jordan Prutkin, MD, MHS*

12:15 Pathologic Q Waves: New Definition, Implications, and Secondary Testing
David Owens, MD

12:30 Question and Answer Session | *Faculty*

12:45 **Lunch (provided)**

1:45 Measuring the QTc: Pearls and Pitfalls | *Michael Ackerman, MD, PhD*

2:00 Wolff-Parkinson-White: What Is The Risk? | *Jack Salerno, MD*

2:15 Diagnostic Evaluation of a Patient with a Prolonged QTc | *Michael Ackerman, MD, PhD*

2:30 Premature Ventricular Contractions: When to be Concerned and Which Tests to Evaluate?
Michael Emery, MD

2:45 Isolated Axis Deviation, Atrial Enlargement, or Right Bundle Branch Block: Normal or Abnormal? | *Sanjay Sharma, MD, FRCP (U.K.), FESC*

3:00 Question and Answer Session | *Faculty*

3:15 **Break**

CONFERENCE SCHEDULE

THURSDAY, NOVEMBER 2, 2017 (...CONTINUED)

- 3:30 Breakout Session #1 | Faculty (PLEASE CHOOSE ONE)
a) Basic ECG Interpretation
b) Advanced ECG Interpretation
Sponsored by AMSSM*
- 4:30 LV Non-Compaction: Disease or Normal Variant? | *Matthew Martinez, MD*
- 4:45 Genetic Testing for Cardiomyopathy: Clinical Applications in Sports Cardiology
David Owens, MD
- 5:00 Case Presentation: Return to Play with Hypertrophic Cardiomyopathy?
Jonathan Drezner, MD
- 5:10 Panel Discussion | Faculty
- 5:30 Closing Remarks and Adjourn

FRIDAY, NOVEMBER 3, 2017

- 7:00 Sign-In and Continental Breakfast
- 7:40 Welcome | *Jonathan Drezner, MD*
- 7:45 **Keynote** | Athletes with a Genetic Channelopathy: Who Says I Can't Play Anyway?
Michael Ackerman, MD
- 8:05 ICDs in Athletes: Indications, Options, and Return to Play Considerations
Jordan Prutkin, MD, MHS
- 8:25 The Expanding Role of Cardiac MRI in Sports Cardiology | *Matthew Martinez, MD*
- 8:40 False-Positives and True-Positives: Psychological Implications in Athletes | *Irfan Asif, MD*
- 8:55 Question and Answer Session | Faculty
- 9:10 Breakout Session #2 | Faculty (PLEASE CHOOSE ONE)
a) Advanced ECG Interpretation
b) Challenging Cases in Sports Cardiology
Sponsored by AMSSM*
- 10:10 Break
- 10:30 **Keynote** | Is Too Much Endurance Exercise Bad for your Heart? | *Aaron Baggish, MD*
- 10:50 Atrial Fibrillation in Athletes | *Jordan Prutkin, MD*
- 11:05 Cardiovascular Risk Assessment in the Middle-Aged Athlete: Defining an Evidence-Based Approach | *Michael Emery, MD*
- 11:20 Question and Answer Session | Faculty
- 11:35 Case Presentation: Return to Play After SCA? | *Kimberly Harmon, MD*
- 11:45 Panel Discussion | Faculty
- 12:05 Closing Remarks and Adjourn



Leading Sports Medicine into the Future

*ECG interpretation breakout sessions and select lectures are sponsored by educational grants from the American Medical Society for Sports Medicine (AMSSM) and the AMSSM Foundation



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November 2-3, 2017

MJ1813

COURSE FEES	
MD/DO/PhD	\$325.00
All Other Disciplines	\$275.00
Resident/Fellow*	\$125.00

*Resident/Fellow rate applies to MD/DO only and requires written confirmation of current resident/fellow status

REGISTRATION

First	MI	Last
Professional Title	<input type="checkbox"/> M.D. <input type="checkbox"/> DO <input type="checkbox"/> PhD <input type="checkbox"/> RN <input type="checkbox"/> ARNP <input type="checkbox"/> PA <input type="checkbox"/> Other:	
Street		
City	State	Zip
Phone () -	Email	

PAYMENT

**Residency Program, if applicable*

<input type="checkbox"/> Check (payable to University of Washington) for \$

<input type="checkbox"/> Credit Card charge \$	<input type="checkbox"/> Visa	<input type="checkbox"/> MC	<input type="checkbox"/> Discover	<input type="checkbox"/> AMEX
Card #	Exp Date			
CCV #	Signature			

<input type="checkbox"/> UW Budget	Budget Name	Budget #
Box #	Proj	Opt
		Task

BREAKOUT SESSIONS	
(one per session, see course schedule)	
Breakout #1 (Thursday)	<input type="checkbox"/> a <input type="checkbox"/> b
Breakout #2 (Friday)	<input type="checkbox"/> a <input type="checkbox"/> b

RETURN COMPLETED REGISTRATIONS

BY MAIL:
 UW CME
 Box 359558
 Seattle, WA 98195-9558

BY FAX:
 206.221.4525

BY PHONE:
 206.543.1050

Register online at uwcme.org



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REGISTER ONLINE

uwcme.org