

UW Medicine

UW SCHOOL  
OF MEDICINE

# PREVENTION OF SUDDEN CARDIAC DEATH IN ATHLETES:

*Sports Cardiology for the Team Physician and  
Consulting Cardiologist*



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 United States 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

<b>MD/DO/PhD</b>	\$325.00
<b>All Other Disciplines</b>	\$275.00
<b>Resident/Fellow*</b>	\$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](http://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 CME participants to join them at a youth heart screening event on Wednesday, November 1, 2017, at Ballard High School (8:00 a.m.-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](mailto:sue@nickoftimefoundation.org).

## ONLINE PRESENTATIONS AND MATERIALS

Instruction materials will be available online at [uwcme.org](http://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 course attendees. Badges provided at registration are required for entrance into all functions and will be strictly enforced.

## DIETARY REQUESTS

UW CME considers diverse nutritional preferences and restrictions when planning our complimentary menu. However, those individuals who might find that our menu is not aligned to their specific nutritional needs are welcome to bring their own food items. 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](mailto: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](mailto: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](mailto: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 accommodations 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](http://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  
*Assistant 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

**Euan Ashley, MBCChB, DPhil, FRCP**  
*Associate Professor*  
Cardiovascular Medicine, Genetics, &  
Biomedical Data Science  
Stanford University

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

**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, and Cardiovascular  
Imaging

**Sanjay Sharma, MD, FRCP (U.K.), FESC**  
*Professor of Cardiology & Lead*  
Inherited Cardiomyopathies and  
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 and Pacing Services

VISIT THE COURSE WEBSITE FOR SPECIFIC DETAILS AND REGISTRATION  
**Register Online: [uwcmec.org](http://uwcmec.org)**

UW School of Medicine | Continuing Medical Education

Email: [cme@uw.edu](mailto:cme@uw.edu) | Phone: 206.543.1050

# CONFERENCE SCHEDULE

## THURSDAY, NOVEMBER 2, 2017

### 7:15 Registration and Continental Breakfast

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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 Physiologic ECG Variants in the Pediatric Athlete: Heart Rate, Rhythm, and Juvenile T-Wave Pattern | *Jack Salerno, MD*

10:35 Question and Answer Session | *Faculty*

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### 10:50 Break

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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  
Cardiomyopathy | *Jordan Prutkin, MD*

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

12:30 Question and Answer Session | *Faculty*

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### 12:45 Lunch (included)

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

2:00 Wolff-Parkinson-White: Recognition and Diagnostic Evaluation | *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*

# CONFERENCE SCHEDULE

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

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### 3:15 Break

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  
*Euan Ashley, MBChB, DPhil, FRCP*

5:00 Case Presentation: Return to Play with Hypertrophic Cardiomyopathy?  
*Jonathan Drezner, MD*

5:10 Panel Discussion | Faculty

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5:30 **Closing Remarks and Adjourn** | *Jonathan Drezner, MD*

## FRIDAY, NOVEMBER 3, 2017

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### 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 ICD's in Athletes: Indications, Options, and Return to Play Considerations  
*Jordan Prutkin, MD*

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\***

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### 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

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12:05 **Closing Remarks and Adjourn** | *Jonathan Drezner, MD*



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.



# Prevention of Sudden Cardiac Death in Athletes

## 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 \_\_\_\_\_

Check (payable to University of Washington) for \$ \_\_\_\_\_

Credit Card charge \$ \_\_\_\_\_

Visa    MC    Discover    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](http://uwcme.org)