EAPC Course on "Diagnostics in Sports Cardiology"
06th – 08th May, 2024, Munich, Germany

Venue:
Technical University of Munich, University Hospital, Department of Preventive Sports Medicine and Sports Cardiology, Georg-Brauchle-Ring 56, D-80992 Munich, Germany

Scientific head:
Martin Halle, MD, Preventive Sports Medicine and Sports Cardiology, University Hospital "rechts der Isar" of Technical University of Munich, Munich, Germany

Isabel Fegers-Wustrow, MD, Preventive Sports Medicine and Sports Cardiology, University Hospital "rechts der Isar" of Technical University of Munich, Munich, Germany

Organisation:
Day 1:

- Isabel Fegers-Wustrow, MD, Preventive Sports Medicine and Sports Cardiology, University Hospital "rechts der Isar" of Technical University of Munich, Munich, Germany
- Fritz Wimbauer, MD, MBA, Salzburger Landeskliniken, Salzburg, Austria

Day 2:

- Stephan Müller, PhD, Preventive Sports Medicine and Sports Cardiology, University Hospital "rechts der Isar" of Technical University of Munich, Munich, Germany
- Flavio D'Ascenzi, MD, University of Siena, Italy

Day 3:

- Martin Halle, MD, Preventive Sports Medicine and Sports Cardiology, University Hospital "rechts der Isar" of Technical University of Munich, Munich, Germany
- Mario Weichenberger, PhD, Preventive Sports Medicine and Sports Cardiology, University Hospital "rechts der Isar" of Technical University of Munich, Munich, Germany

Sports Cardiology is an emerging field within cardiology. ESC Guidelines have outlined the scope and clinical statements on diagnostics, therapy and exercise recommendations have been published. However, the practical aspects in addition to the scientific and clinical background are often lacking in those becoming interested in preventive and sports cardiology.
The three days seminar will give practical recommendations on the basis of general cardiology for those starting as well as those already practicing within the field. The course will give an in-depth overview on the specific aspects of echocardiology and exercise testing in sports cardiology. In practical sessions patients will be on site and diagnostics will be assessed in athletes, leisure time sportsmen with and without cardiovascular disease.
The days can be booked as a total or each day separately. Low numbers of attendees of 15-20 will assure a hands-on teaching atmosphere. A certificate will be handed out after completion of each course.






EAPC
European Association
of Preventive Cardiology

I. Echocardiography in Sports Cardiology - May 6th, 2024

Learning Objectives:

- Understanding the echocardiographic assessment of cardiac changes in athletes
- Getting to know special diagnostics in sports cardiology (stress echocardiography, strain analysis, tissue Doppler) and relevant sports cardiology issues
- Learning how to differentiate between an athlete's heart and cardiomyopathies

Target Group:

- Medical doctors interested in sports cardiology with moderate to advanced echocardiography skills

Organisation:

- Isabel Fegers-Wustrow, MD (Preventive Sports Medicine and Sports Cardiology, Munich, Germany)
- Fritz Wimbauer, MD (Salzburger Landeskliniken, Salzburg, Austria)

Time	Duration	Topic	Speaker
09:00 - 09:15	15 min	Welcome and introduction	I. Fegers-Wustrow, MD, F. Wimbauer, MD, MBA
Theoretical Part			
09:15 – 09:45	30 min	**Basics of Echocardiography in Athletes** Indication, Cardiovascular Adaptation, Parameters	I. Fegers-Wustrow, MD
09:45 – 09:50	5 min	Discussion	
09:50 – 10:20	30 min	**Echocardiographic special diagnostics in sports cardiology part 1** Strain analysis, tissue Doppler, 3D echocardiography	M. Schindler, MD, Baden, CH
10:20 - 10:30	10 min	Discussion	
10:30 - 10:45	**15 min**	**Break**	
10:45 - 11:25	40 min	**Special Questions part 1** -Coronary Anomalies -Valvular heart disease (bicuspid/ MV-Prolapse)	F. Wimbauer, MD, MBA
11:25 - 11:40	15 min	Discussion	
11:40 - 11:50	**10 min**	**Break**	
11:50 - 12:40	50 min	**Special Questions part 2** Athlete's heart vs. cardiomyopathies	J. Scharhag, MD Vienna, AU
12:40 - 12:55	15 min	Discussion	
12:55 - 13:25	30 min	**Echocardiographic special diagnostics in sports cardiology part 2** Stressechocardiography	F. D'Ascenzi, MD, Siena, IT
13:25 - 13:35	10 min	Discussion	
13:35 - 14:15	**40 min**	**Lunch**	
Practical Part (Training at Patients)			
14:15 – 16:30	135 min	**Practical Echocardiography (à 45 min)** - Case 1: Athlete's heart - Case 2: HCM - Case 3: ACM/A(R)VC	I. Fegers-Wustrow, MD, F. Wimbauer, MD, M. Schindler, MD
16:30 - 16:45	15 min	Farewell	

II. Basics of Cardiopulmonary Exercise Testing (CPET) - May 7th, 2024

Learning Objectives:

- Understanding the basics of exercise physiology and the physiology behind CPET
- Learning how to conduct and interpret cardiopulmonary exercise testing

Target Group:

- CPET beginners (no to low experience; medical doctors or scientists)

Organisation:

- Stephan Müller, PhD (Preventive Sports Medicine and Sports Cardiology, Munich, Germany)
- Flavio D'Ascenzi, MD (University of Siena, Italy)

Time	Duration	Topic	Speaker
09:00 - 09:10	10 min	Welcome and introduction	S. Müller, PhD, F. D'Ascenzi, MD, Siena, IT
Theoretical Part			
09:10 - 09:25	15 min	CPET Equipment (Set-Up and Calibration)	M. Weichenberger, PhD
09:25 - 09:30	5 min	Discussion	
09:30 - 10:30	60 min	Basic Exercise Physiology – CPET made easy	S. Müller, PhD
10:30 - 10:45	15 min	Discussion	
10:45 - 11:05	**20 min**	**Break**	
11:05 - 11:30	25 min	Understanding pathological changes in the 9-panel plot – Part I	M. Guazzi, MD, Milan, IT
11:30 - 11:40	10 min	Discussion	
11:40 - 12:05	25 min	Understanding pathological changes in the 9-panel plot – Part II	J. Meyer, MD, Munich, GER (tbc)
12:05 - 12:15	10 min	Discussion	
12:15 - 12:40	25 min	Understanding pathological changes in the 9-panel plot – Part III	D. Dumitrescu, MD, Bad Oeynhausen, GER
12:40 - 12:50	10 min	Discussion	
12:50 - 13:50	**60 min**	**Lunch**	
13:50 - 14:10	20 min	Plausibility and measurement errors, Case examples	S. Müller, PhD
14:10 - 14:15	5 min	Discussion	
14.15 - 14:35	20 min	CPET protocols, criteria for maximal exhaustion, termination criteria	I. Fegers-Wustrow, MD
14:35 - 14:40	5 min	Discussion	
14:40 - 15:00	20 min	Exercise Prescription based on CPET	F. D'Ascenzi, MD
15:00 - 15:10	10 min	Discussion	
15:10 - 15:30	**20 min**	**Break**	
Practical Part			
15:30 - 17:00	90 min	Practical demonstration	all

III. Basics Lactate Testing - May 8th, 2024

Learning objectives:

- to know the aims and content of lactate performance diagnostics and to be able to evaluate results using reference values
- to understand the physiological mechanism of aerobic and anaerobic metabolism
- to know different lactate threshold concepts and to understand differences
- to perform lactate performance diagnostics in practice

Target Group:

- Lactate beginners (no to low experience; medical doctors or scientists)

Organisation:

- Martin Halle, MD (Preventive Sports Medicine and Sports Cardiology, Munich, Germany)
- Mario Weichenberger, PhD (Preventive Sports Medicine and Sports Cardiology, Munich, Germany)

Time	Duration	Topic	Speaker
09:00 - 09:10	10 min	Welcome and introduction	M. Halle, MD, M. Weichenberger, PhD
Theoretical Part			
09:10 - 09:35	25 min	Methods and basics of endurance performance diagnostics, advantages of lactate performance diagnostics, fields of application	M. Halle, MD, M. Weichenberger, PhD
09:35 - 09:45	10 min	Discussion	
09:45 - 10:35	50 min	Energy metabolism and exercise, theoretical basics of lactate metabolism and lactate threshold concepts	K. Röcker, MD, Furtwangen, GER (tbc), M. Weichenberger, PhD
10:35 - 10:45	10 min	Discussion	
10:45 - 11:05	**20 min**	**Break**	
11:05 - 11:35	30 min	Basics and practical implementation of lactate sampling, equipment: ergometers, lactate measurement devices, lactate analysis software	M. Weichenberger, PhD, F. Möckel, MD, Regensburg, GER
11:35 - 11:45	10 min	Discussion	
Practical Part			
11:45 - 13:15	90 min	Lactate diagnostics (in groups)	J. Steinacker, MD, Ulm, GER (tbc), M. Weichenberger, PhD, F. Möckel, MD, K. Röcker, MD, M. Halle, MD
13:15 - 14:15	**60 min**	**Lunch**	
Theoretical Part			
14:15 - 16:15	120 min	Evaluation and interpretation of lactate performance curves, Training recommendations, Planning of endurance-training and training control based on lactate	M. Halle, MD, J. Steinacker, MD (tbc)
16:15 - 16:45	30 min	Discussion	
16:45 - 17:00	15 min	Conclusion and Farewell	all

Panelists:

Day 1:

- Isabel Fegers-Wustrow, MD, Preventive Sports Medicine and Sports Cardiology, University Hospital "rechts der Isar" of Technical University of Munich, Munich, Germany
- Fritz Wimbauer, MD, MBA, Salzburger Landeskliniken, Salzburg, Austria
- Michael Schindler, MD, Kardiologie, Sportkardiologie UND Sportmedizin, Baden, Switzerland
- Jürgen Scharhag, MD, Institut für Sport- und Bewegungswissenschaft, Vienna, Austria
- Flavio D'Ascenzi, MD, Department of Medical Biotechnology, Siena, Italy

Day 2:

- Stephan Müller, PhD, Preventive Sports Medicine and Sports Cardiology, University Hospital "rechts der Isar" of Technical University of Munich, Munich, Germany
- Flavio D'Ascenzi, MD, Department of Medical Biotechnology, Siena, Italy
- Mario Weichenberger, PhD, Preventive Sports Medicine and Sports Cardiology, University Hospital "rechts der Isar" of Technical University of Munich, Munich, Germany
- Marco Guazzi, MD, Department of Health Sciences, University of Milan, Milan, Italy
- Joachim Meyer, MD, Pneumology and internal intensive care & respiratory medicine, Munich Clinic, Munich, Germany (tbc)
- Daniel Dumitrescu, MD, General and interventional cardiology/angiology, Bad Oeynhausen, Germany

Day 3:

- Martin Halle, MD, Preventive Sports Medicine and Sports Cardiology, University Hospital "rechts der Isar" of Technical University of Munich, Munich, Germany
- Mario Weichenberger, PhD, Preventive Sports Medicine and Sports Cardiology, University Hospital "rechts der Isar" of Technical University of Munich, Munich, Germany
- Kai Röcker, MD, Institute for Applied Health Promotion and Exercise Medicine, Furtwangen, Germany (tbc)
- Frank Möckel, MD, Sports Medicine, Regensburg, Germany
- Jürgen Steinacker, MD, Sports and rehabilitation medicine, Ulm, Germany (tbc)

The Course will be sponsored by the following companies:

€2000 / 6m² exhibition on 06-08.05.2024 plus logo on website and program booklet

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