

# European Arrhythmology - Towards common education and training standards

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**EHRA Education Committee**



# EHRA Education Committee

## Members

1. Giuseppe Boriani, Italy
2. Sabine Ernst, Germany
3. Robert Hatala, Bratislava Slovak Republic
4. Hein Heidbuchel, Belgium
5. Jean-Yves Le Heuzey, France
6. Janet Mc Comb, UK
7. Antonio Zaza, Italy
8. Carina Blomström Lundqvist, SE

# Education Committee activities

**Goal: improve patient care by providing education within the field of “Rhythmology” including both clinical and basic science**

■ **Target:**

- **scientists and physicians**
- **General public**

■ **Level:**

- **Subspecialty in EP /Pacing,ICD,CRT.**
- **Continuous Medical Education.**

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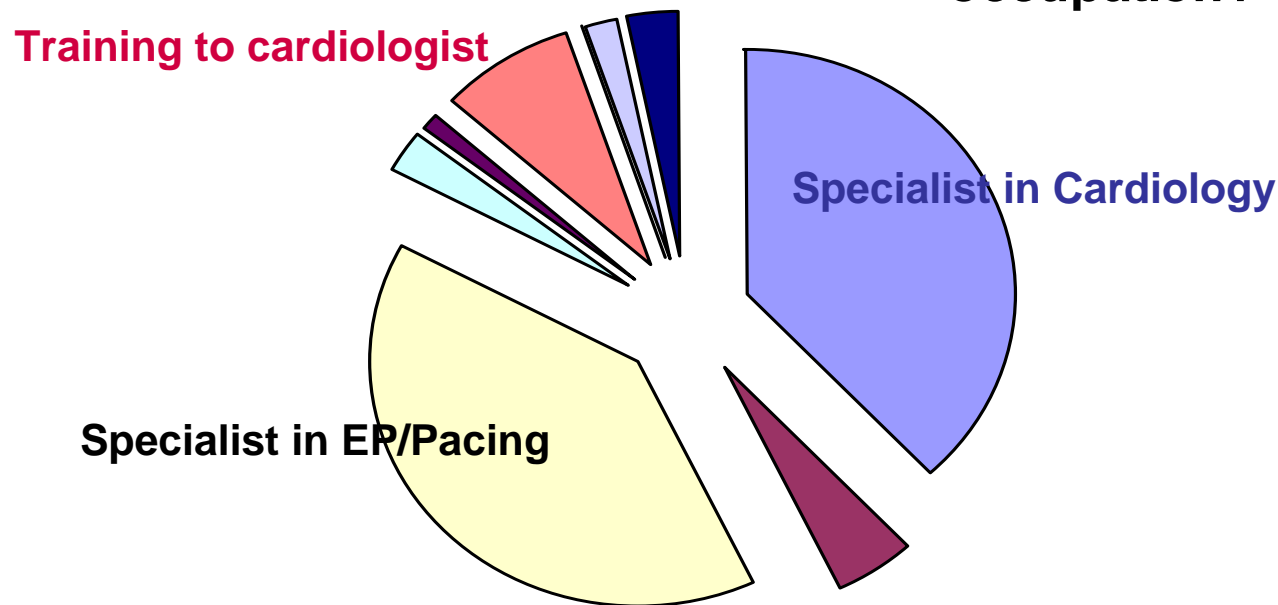
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**Carina Blomström Lundqvist, Chair**



# Questionnaire on EHRA Educational activities

■ > 500 responders

What is your primary professional occupation?



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# Questionnaire

6. Which level of education is most important to you? Please order: (1 = more important - 4 = less important)

	1	2	3	4
Basic educational training primarily aimed for doctors without a speciality in cardiology (i.e. aimed for internal medicine doctors, general practitioners etc.)	11% (48)	20% (88)	26% (115)	42% (183)
Continued Medical Education (CME) programmes for cardiologists	35% (150)	33% (144)	22% (94)	11% (46)
Advanced Education for achieving a subspecialty in electrophysiology – accreditation examination	38% (166)	25% (109)	19% (82)	18% (77)
General public education in arrhythmias, devices and interventions	16% (70)	21% (93)	33% (143)	29% (128)

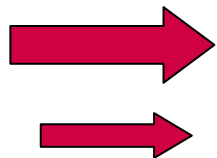


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# Questionnaire

7. In what field (s) do you believe that educational material could be useful?  
Rank the six topic areas below: (1 = more important - 6 = less important)

	1	2	3	4	5	6	Response Average
Basic electrophysiology	36% (155)	12% (53)	9% (37)	12% (50)	18% (80)	14% (59)	3.06
Catheter ablation	20% (88)	<b>23%</b> <b>(101)</b>	18% (77)	15% (65)	18% (77)	6% (26)	3.05
Bradycardia pacing	13% (56)	19% (81)	20% (87)	<b>23%</b> <b>(101)</b>	18% (76)	8% (33)	3.37
CRT	13% (55)	22% (94)	<b>25%</b> <b>(109)</b>	21% (93)	15% (63)	5% (20)	3.17
ICD	9% (38)	20% (85)	23% (99)	<b>24%</b> <b>(104)</b>	20% (85)	5% (23)	3.42
Medico-economics	10% (42)	5% (20)	6% (25)	5% (21)	12% (53)	<b>63%</b> <b>(273)</b>	4.94



# Questionnaire

**9. Which educational tools do you find important? Rank the six topic below: (1 = more important - 7 = less important) - Continued Medical Education (CME) programmes**

	1	2	3	4	5	6	7
Courses/seminars at arrhythmia congresses across Europe	<b>35%</b> (129)	23% (84)	11% (40)	9% (33)	10% (36)	10% (37)	3% (11)
Educational material available on websites	<b>19%</b> (70)	<b>27%</b> (100)	21% (79)	12% (46)	11% (39)	6% (21)	4% (15)
Self assessment tests based on case reports/interactive courses on internet (e-based learning tools)	9% (35)	18% (65)	<b>25%</b> (92)	23% (86)	13% (49)	8% (31)	3% (12)
Printed material in the form of folders, booklets or pocket guidelines	4% (16)	10% (37)	21% (76)	<b>30%</b> (111)	22% (83)	11% (41)	2% (6)
Training via scholarships/fellowships at other hospitals (2-6 months)	<b>20%</b> (74)	12% (45)	12% (45)	12% (46)	<b>22%</b> (80)	17% (63)	5% (17)
Web reference library with links to publications and value ranking	4% (15)	9% (35)	10% (36)	12% (44)	21% (76)	<b>42%</b> (154)	3% (10)
Other	8% (31)	1% (4)	1% (2)	1% (4)	2% (7)	6% (23)	<b>81%</b> (299)



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# Questionnaire

**10. Which educational tools do you find important? Rank the six topic areas below: (1 = more important - 7 = less important) - Advanced Education to achieve a subspecialty in electrophysiology – accreditation examination**

	1	2	3	4	5	6	7	Re An
Courses/seminars at arrhythmia congresses across Europe	25% (92)	36% (135)	11% (41)	7% (26)	8% (31)	8% (31)	4% (14)	
Education material available on websites	10% (36)	22% (83)	27% (99)	20% (75)	12% (43)	7% (25)	2% (9)	
Self assessment tests based on case reports/interactive courses on internet (e-based learning tools)	6% (22)	14% (51)	28% (105)	26% (96)	15% (55)	9% (34)	2% (7)	
Printed material in the form of folders, booklets or pocket guidelines	3% (10)	8% (28)	16% (61)	28% (104)	25% (93)	19% (69)	1% (5)	
Training via scholarships/fellowships at other hospitals (2-6 months)	46% (169)	8% (31)	8% (31)	6% (24)	17% (63)	9% (35)	5% (17)	
Web reference library with links to publications and value ranking	2% (9)	10% (37)	8% (30)	11% (39)	22% (83)	44% (161)	3% (11)	
Other	9% (32)	1% (5)	1% (3)	2% (6)	1% (2)	4% (15)	83% (307)	



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# Questionnaire

12. Where would you prefer educational courses/seminars to be arranged?  
Rank in order. (1 = more important - 5 = less important)

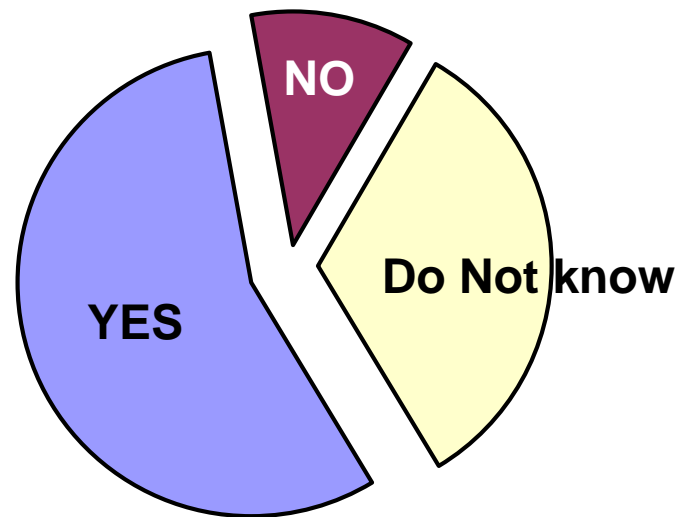
	1	2	3	4	5	6	Response Average
→ At ESC headquarters in Nice - France	<b>21%</b> (72)	17% (59)	17% (61)	13% (47)	13% (45)	19% (65)	3.37
→ During the Europace congress (before, during or after the congress)	<b>22%</b> (76)	<b>29%</b> (102)	17% (60)	13% (45)	12% (41)	7% (25)	2.85
During the ESC Annual congress (before, during or after the congress)	16% (56)	20% (69)	<b>23%</b> (81)	21% (75)	14% (48)	6% (20)	3.14
During other European meetings	3% (11)	7% (24)	20% (71)	<b>30%</b> (105)	25% (86)	15% (52)	4.11
→ Via video conferencing, so that I can participate locally or no matter where I am and save travelling time and costs	<b>20%</b> (71)	13% (44)	10% (35)	13% (47)	20% (69)	<b>24%</b> (83)	3.71
In another university city in Europe if easily accessible	<b>18%</b> (63)	15% (51)	12% (41)	9% (30)	17% (60)	<b>30%</b> (104)	3.82
<b>Total Respondents</b>							<b>345</b>

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# Questionnaire

Would you like to contribute with Educational material to EHRA?



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# Conclusions

- **Education in basic science and clinical electrophysiology**
  - **Subspecialty in electrophysiology/Pacing,ICD,CRT.**
  - **Continuous Medical Education.**
- **Courses/Seminars**
- **Fellowships/scholarship programmes**
- **EHRA website - e-based learning**

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# Education Committee activities

## First step: 3 tasks

1. Educational programme for preparing for the accreditation examination
2. Reference library
3. Education material on pharmaco-economics, reimbursement, and cost-effectiveness (ICD, PM, CRT, AF)

[www.escardio.org/EHRA](http://www.escardio.org/EHRA)



Knowledge Centre

Congresses & Meetings

ESC Initiatives

ESC Constituent Bodies

News & Press



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European Heart Rhythm Association (EHRA)

Board

Aims & Activities

Membership

**Educational Area**

■ Accreditation

■ Arrhythmia-related Guidelines and Documents

■ Key Reference Library

■ Educational Slides

■ Review & Preparatory Courses

## ■ Educational Area

PRINT VERSION

The mission of EHRA is "To improve the quality of life of the European population by reducing the impact of cardiac arrhythmias".

To fulfill this mission, EHRA is committed to maintaining a high standard of professional excellence among cardiologists specialised in Pacing and Arrhythmias. This section contains information on all education-related areas, including:

- [Accreditation](#)
- [Arrhythmia-related Guidelines and Documents](#)
- [Key Reference Library](#)
- [Educational Slides](#)
- [Review & Preparatory Courses](#)
- [Links to useful educational sites \(not managed by EHRA\)](#)

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## » Key Reference Library

PRINT VERSION



### Welcome to the European Heart Rhythm Association Key Reference Library

These pages contain a list of key references prepared and regularly updated by the EHRA Education Committee. These articles have been judged as fundamental documents to guide medical practice in the field of cardiac pacing and electrophysiology. The reference list is divided into sub-pages according to different areas. A brief summary and the corresponding PubMed link is provided for each article.

If you are an EHRA member and you would like to propose an article to be added to this key reference library, you may send us your proposal [here](#).

#### Disclaimer

The references were selected for educational purposes only, of scientific merit or value.

#### Title

- Atrial fibrillation: ablation
- Atrial fibrillation: medical therapy, anticoagulation and device therapy
- Genetics of arrhythmias
- Lead extraction
- Pacing for bradycardia
- Pacing for heart failure (CRT)

- Each topic include a short summary/ introduction.
- Available on line with PubMed link to the publication



- European Heart Rhythm Association (EHRA)
- Board
- Aims & Activities
- Membership
- Educational Area
  - Accreditation
  - Arrhythmia-related
  - Guidelines and Documents
  - Key Reference Library
  - Educational Slides**
  - Review & Preparatory Courses
- Accreditation Procedure
- Europace Journal
- Congress & Meetings
- Arrhythmias & Cardiac Pacing Organisations
- Resources

## » Educational Slides

PRINT VERSION

The European Heart Rhythm Association has launched a new service for EHRA members. According to the EHRA mission of providing high-level education in cardiac electrophysiology, the Education and Web Committees have worked together to create a new web-based activity.

These Educational Slides, selected by the EHRA Education Committee, are destined to provide the specialist in Cardiac Pacing and Arrhythmias with research tools in specific areas of interest.

Each slide-set has been edited to ensure quality. Most importantly, each slide has an accompanying comment/explanation written by experts in the field who have kindly accepted to support this initiative. This instrument should represent a valuable source of information and knowledge for all physicians interested in this area of cardiology.

### Hot Topics

#### » Cost Effectiveness of Implantable Cardioverter Defibrillators - the debate continues

**4 July 2006** A summary of a range of studies on the cost effectiveness of the use of ICDs contrasting price to efficiency in dealing with heart failure... [MORE](#)

Presentation Title	Authors	Session	Date
Basic Electrophysiology	J. M. DeBakker, W. G. Stevenson, A. Zaza		14 July 2006
Economics and Cost Effectiveness of Implantable Cardioverter-Defibrillators	G. Boriani		30 June 2006

# Education Committee activities

## Educational Slides - EHRA website

- a) ICD, Pacing, CRT
- b) Basic electrophysiology
- c) EP
- d) Cost effectiveness
- e) .....

<u>Presentation Title</u> 	<u>Authors</u> 	<u>Session</u> 
<a href="#">Basic Electrophysiology</a>	J. M. DeBakker, W. G. Stevenson, A. Zaza	
<a href="#">Economics and Cost Effectiveness of Implantable Cardioverter-Defibrillators</a>	G. Boriani	

- Slides are produced by EHRA Education Committee and edited for the Web site. New content will be added during 2007.

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## » Review & Preparatory Courses

[PRINT VERSION](#)

[Invasive Cardiac Electrophysiology](#)

[Cardiac Pacing and ICDs](#)

### Invasive Cardiac Electrophysiology

The Education Committee of the European Heart Rhythm Association (EHRA), thanks to educational grants, is offering a "Review & Preparatory" programme, aimed for continuous medical education and/or preparation for the next EHRA Accreditation exam in Electrophysiology scheduled in June 2007 during EUROPACE.

#### First Edition

The preparatory programme is designed to help physicians, with clinical and practical experience in invasive electrophysiology and catheter ablation, to prepare for the exam by providing them with the best quality textbooks, classes, tips and support focusing on essential topics.

The education team composed of the EHRA Education Committee members as well as scientific experts will lead presentations, discussions and case study reviews

#### Upcoming Educational Course

- **1-3 February 2007 -European Heart House, Sophia Antipolis, (FR)**  
Course Directors: Janet McComb, MD and Sabine Ernst, MD  
Keynote lecturer: Hein J.J. Wellens, MD

These 2,5-day programmes offer the participant the opportunity to:  
- Review their knowledge on basic and advanced electrophysiology from cellular conduction properties to advanced 3D mapping and ablation technology

# Review and preparatory Courses - Accreditation examination

- **2,5 day Review and preparatory Course in Pacing, ICD and CRT**
  - June 16-18, 2006 – EHH, Sophia-Antipolis, FR
  - June 19-21, 2006 – Arnhem, NL
  - **February 22-24, 2007 –Tolochenaz, Switzerland**
  - **Course directors: R Hatala, G Boriani**
- **2,5 day Review and preparatory Course in EP**
  - **February 1-3, 2007 - EHH, Sophia-Antipolis, FR**
  - **Course directors: S Ernst, J McComb.**
- **Free of charge (excluding travel costs)**
  - Registration fee and accommodation costs free.

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# EHRA Review and preparatory programme for the Accreditation exam

- Pacing, ICD, CRT, Invasive electrophysiology
- Pre-reading material delivered before course
  - CD/DVD with essential topics and case study reviews,
  - Test exam - familiarise with EHRA accreditation exam format
- 2.5-day course
  - Lectures and interactive discussions
  - Binders: syllabus, reading list, references, copy of lectures
  - Textbook



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## EUROPEAN HEART RHYTHM ASSOCIATION

A Registered Branch of the ESC

**EHRA Review & Preparatory Course in Invasive Cardiac Electrophysiology**  
**February 1-3, 2007**  
**European Society of Cardiology, Sophia Antipolis, France**

### REGISTRATION FORM

One form per active participant - Please fill in the registration form carefully and submit it by fax to: **+33 (0)4 92 94 76 08** or Email to: **[sjaniszewski@escardio.org](mailto:sjaniszewski@escardio.org)**

Title (Prof/Dr/Mr/Mrs/Other)	Family Name	First Name
Hosp./Institute	Department	Position
Street	PO Box	Postal Code
City	State/County	Country
Phone	Fax	E Mail

**All air travel and ground transportation costs will be borne by the participant.**



# Future plans

- **Educational book on tachy ECG/IECG.**
  - tied into case-based-learning and binder “booklet” project for prep courses.
- **Capture Scientific sessions from Europace to EHRA educational area**
- **Training programme PM/ICD/CRT implantation**
  - Structured training → theoretical → simulators → in vivo implant. at experienced centres.
- **Expand Preparatory courses twice annually**

# Future plans cont.

- Mini-symposium – collaboration with national societies (AF, SCD...)
- “e-based learning”
  - a) Interactive internet based learning for implementation of guidelines published within heart rhythm subjects
  - b) Case-based learning

# EHRA Cased Based Learning

- Create online learning / teaching platform for cardiologists to exchange case presentations and supporting resources
- Provide content to cover all sections of the EHRA Syllabus
  - EHRA network of opinion leaders
  - Accredited physicians
- Measuring success: site usage (users, visits, downloads, cases uploaded, time on cases)

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# Case Based Learning Features

## Overview

### User sign in

- Through EHRA educational area

### Contents page

- Cases listed by: topic, publication date, institution

### Authoring tool

- Authors upload cases themselves
- Reviewing system

### Search facility

### Loose CME

- Timer for measuring time spent on educational activity

## Case Presentation

### Learning objectives

### Case Presentation

- Patient history
- Clinical notes
- Lab results (images, video clips)

### Q&As structure throughout

- Evidence presented, MCQs asked
- Suggested answers given
- Links throughout text to:
  - Guidelines, abstracts, resource gallery

### Conclusion

### Reference section



http://www.escardio.org - Evaluation and Management of Acute Heart Failure: Question 1 - Microsoft Internet Explorer

**EUROPEAN SOCIETY OF CARDIOLOGY** Case Based Learning

Logged in as Mr William Wykes

Current Case : Evaluation and Management of Acute Heart Failure

TIME ON CASE 01 mn 02 s

References list Patient Information Clinical Notes Laboratory Results

Author information Introduction Learning objectives Question Question Question Conclusion

Resource details : Echo Video

Type : Video Size : 4 Mbytes

Related topics :
 

- Non-invasive imaging: Echocardiography, MR/CT, Nuclear

Description : Echo Video

View full size Download

Close window

Done Internet

Echo Video

Submit answer

Done Internet

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# Towards common education and training standards

## Actions

### Involve National Societies & WGs

- **Information & promotion of educational activities**
  - Encourage fellows and co-workers
  - Endorse the educational courses and training activities
    - Website
    - Newsletters
- **Collaborations**
  - CME and subspecialty
  - Educational tools
  - Standards for training

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# EHRA Needs You

- Promote the Educational programme
- Suggest new ideas !

Contact us at: [EHRA@escardio.org](mailto:EHRA@escardio.org)

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# The European Heart Rhythm Association (EHRA)



## JOIN US IN OUR MISSION

“To improve the quality of life of the European population by reducing the impact of cardiac arrhythmias”

**[www.escardio.org/EHRA](http://www.escardio.org/EHRA)**

■ Educational Area

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