

WE
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**What education do our stakeholders
provide themselves and expect from
EHRA?**

Allied Professionals

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Allied professional

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- **Heterogeneous group**
 - Nurses
 - Nurse practitioners
 - Physician assistants
 - Cardiac physiologists
 - EP/lab technicians
 - Technologists
 - Engineers
 - IEAP (Field clinical specialists / sales representatives)

Allied professional

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- **Discrepancy in basic knowledge**
- **AP's with clinical background, i.e. nurse, nurse practitioner**
 - “Lack of knowledge” on “technology”
- **AP's with technical background, i.e. technologist**
 - “Lack of knowledge” on clinical conditions
- **Goal: Bridge the gap**
- **Focus: Patient's underlying pathophysiology**

EHRA exam – Cardiac pacing and devices

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- **Core questions**

- Anatomy
 - Examination
 - Physiology
 - Arrhythmias
 - Disease - Syndromes
 - Diagnostic procedures
 - EP / Ablation
 - Devices
 - Pharmacology
 - Prof legal and other
- 3 – 5%
 - 1 – 2%
 - 3 – 5%
 - 8 – 10%
 - 8 – 10%
 - 3 – 5%
 - 8 – 10%
 - 8 – 10%
 - 4 – 6%
 - 2 – 3%

EHRA exam – Cardiac pacing and devices

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- **Device questions**

- Pacemaker biophysics/physiology
 - Device indications & modes
 - Pacemaker FU & troubleshooting
 - Cardiac resynchronization
 - ICDs
 - ECG
- 8 – 10%
 - 8 – 10%
 - 12 – 15%
 - 8 – 10%
 - 8 – 10%
 - 4 – 6%

DB exam – Cardiac pacing and devices

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- **Core questions**

- | | | |
|-----------------------------|------|--------|
| • Anatomy (4) | • 8 | • 2,75 |
| • Examination (1) | • 2 | • 2,5 |
| • Physiology (4) | • 10 | • 2,2 |
| • Arrhythmias (10) | • 20 | • 2,9 |
| • Disease – Syndromes (10) | • 21 | • 2,62 |
| • Diagnostic procedures (4) | • 7 | • 2,71 |
| • EP / Ablation (10) | • 20 | • 3,05 |
| • Devices (10) | • 21 | • 2,52 |
| • Pharmacology (5) | • 11 | • 3 |
| • Prof legal and other (2) | • 4 | • 3 |

DB exam – Cardiac pacing and devices

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- **Device questions**

- | | | |
|--|------|--------|
| • Pacemaker biophysics/physiology (10) | • 23 | • 2,43 |
| • Device indications & modes (10) | • 20 | • 2,8 |
| • Pacemaker FU & troubleshooting (15) | • 31 | • 2,77 |
| • Cardiac resynchronization (10) | • 16 | • 2,88 |
| • ICDs (10) | • 26 | • 2,54 |
| • ECG (5) | • 11 | • 2,55 |

DB exam – Cardiac pacing and devices

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- **Core questions**

- Anatomy (4)
- Examination (1)
- Physiology (4)
- Arrhythmias (10)
- Disease – Syndromes (10)
- Diagnostic procedures (4)
- EP / Ablation (10)
- Devices (10)
- Pharmacology (5)
- Prof legal and other (2)

- **Device questions**

- Pacemaker biophysics/physiology (10)
- Device indications & modes (10)
- Pacemaker FU & troubleshooting (15)
- Cardiac resynchronization (10)
- ICDs (10)
- ECG (5)

Education

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- **"Our aim is to provide high quality education in cardiac rhythm disorders in ESC member and affiliated countries through structured educational activities."**
- **Electrophysiology education follows 2 tracks:**
 - A device track
 - An invasive electrophysiology track
- **Theoretical and interactive EHRA courses**

Education

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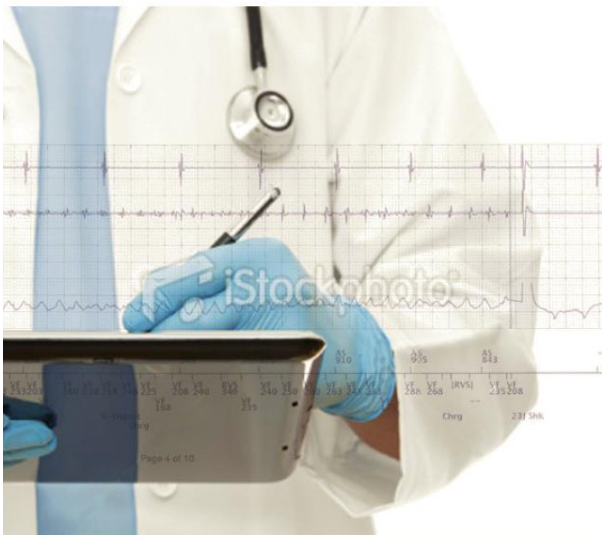
- **EHRA will provide EHRA courses**
- **EHRA will endorse and affiliate educational activities**
- **Affiliation, small groups highly interactive and/or simulator-based settings**
- **Endorsement, external scientific congresses that meet high scientific and educational quality**

Education EHRA Exam preparatory course

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Vorbereidingscursussen voor het EHRA-examen 2011 - 2012



Programma Vorbereidingscursussen - Jaarbeurs Utrecht

14 december 2011

Basisprincipes Electrofysiologie	<i>Dr. P.H.F.M. van Dessel (AMC)</i>
Geavanceerde pacing algoritmen	<i>Rob de Melker (Boston Scientific)</i>

11 januari 2012

Detectie en ritmediscriminatie door de ICD	<i>Dr. D.A.M.J. Theuns (Erasmus Medisch Centrum)</i>
Röntgendiagnostiek	<i>Dr. M. Meine (UMC Utrecht)</i>

15 februari 2012

Adjuvante therapie bij ritmestoornissen in combinatie met devices	<i>Dr. L.R.C. Dekker (Catharina Ziekenhuis)</i>
ECG analysis	<i>Dr. L.M. van Gelder (Catharina Ziekenhuis)</i>

14 maart 2012

Trouble shooting	<i>Dr. G.P. Kimman (Medisch Centrum Alkmaar)</i>
Indicaties voor pacing, CRT en ICD's	<i>Dr. T. Simmers (Amphia Ziekenhuis)</i>

11 april 2012

Diagnostische functies in devices	<i>Dr. A. Maass (UMC Groningen)</i>
Pacing bij hartfalen, programmering en consequenties	<i>Dr. W. de Voogt (Lucas Andreas Ziekenhuis)</i>

Deze lezingen duren elk 80 minuten, aanvangstijd steeds 19:00 en 20:40 uur.

Programma Examentraining

24-25 mei 2012 (locatie zal t.z.t. bekend worden gemaakt)

Biventriculaire ECG's en veneuze anatomie	<i>Henk van Gastel (Boston Scientific)</i>
Brady Traces	<i>Ed van der Veen (Boston Scientific)</i>
Korte samenvatting Basis Principes EP	<i>Dr. P.H.F.M. van Dessel (AMC)</i>
EGM interpretatie	<i>Dr. D.A.M.J. Theuns (Erasmus Medisch Centrum)</i>
Casustiek	<i>Dr. M. Meine (UMC Utrecht)</i>
Examentraining	<i>Dr. D.A.M.J. Theuns (Erasmus Medisch Centrum)</i>

Education

- **Policy, AP's -> Europace, CardioStim**
- **Lack of good courses with the pathophysiology central**
- **Industry, education, budget, where does the money go**
- **Good AP's (EHRA / IBHRE certified) -> industry**