



**BeHRA**

Belgian Heart Rhythm Association

previously BWGCPE

[www.BeHRA.be](http://www.BeHRA.be)

**President:**

Dr. Yves Vandekerckhove

**Vice President:**

Dr. Ivan Blankoff

**Secretaries:**

Dr. Rik Willems

Dr. Jean-Benoît Le Polain de Waroux

**Treasurer:**

Dr. Johan Vijgen

May 5th 2016

**Rapport activités BeHRA 2015**

**1. Peer review pacemaker, défibrillateurs internes et enregistreurs implantables <sup>(1)</sup> <sup>(2)</sup> <sup>(3)</sup> <sup>(4)</sup>**

Collecte des données **pacemakers, ICD via Qermid**

Encodage dans la database

Analyse <sup>(5)</sup>

Présentation durant le congrès BeHRA

Distribution aux centres

Indications des **défibrillateurs** : Analyse économique

Développement, en collaboration avec l'INAMI pour encodage on line des défibrillateurs cardiaques

Modifications successives de la convention défibrillateurs internes : modification des conditions de reconnaissance et définition de nouvelles indications fonction de nouvelles données de la littérature

Modifications des critères à encoder.

Collecte des données **enregistreurs implantables**

Développement, en collaboration avec l'INAMI pour encodage on line des enregistreurs implantables

Encodage dans la database

Synthèse des résultats <sup>(6)</sup>

Présentation durant le congrès BeHRA

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(1) *Peer review in Arrhythmology The BeHRA databases*

(2) *Rapport Final Moniteur Cardiaque Implantable sept 2013 (ppt)*

(3) *Arrhythmia Management Devices: Managing With Pacemakers and Implantable Cardioverter Defibrillators*  
Circulation. 2013;128:1576-1585. doi:10.1161/CIRCULATIONAHA.113.001555

(4) *2013 ESC Guidelines on cardiac pacing and cardiac resynchronization therapy. The Task Force on cardiac pacing and resynchronization therapy of the ESC. Developed in collaboration with the European Heart Rhythm Association (EHRA)*  
European Heart Journal (2013) 34, 2281–2329 doi:10.1093/eurheartj/ehf150

(5) *Pacemaker replacements in Belgium: Anno 2002*

Blankoff, I.; Ector, H.; Goethals, M.; Mairesse, G.; Nelemans, H.; Verbeet, T.; Vijgen, J.  
Europace : European pacing, arrhythmias and cardiac electrophysiology ; journal of the working groups on cardiac pacing, arrhythmias, and cardiac cellular electrophysiology of the European Society of Cardiology, 2013, Vol.7(1), pp.196-b [Peer Reviewed Journal]

(6) *The European cardiac resynchronization therapy survey: patient selection and implantation practice vary according to centre volume*

Alings, M.; Andresen, D.; Auricchio, A.; Ben Gal, T.; Bogale, N.; Brant, J.; Brugada, J.; Butter, C.; Cleland, John GF.; Delgado, J.; Derumeaux, G.; Dickstein, Kenneth.; Fruhwald, F.; Faerstrand, Svein.; Gadler, F.; Gasparini, Maurizio.; Gitt, Anselm.; Glikson, Michael.; Goethals, M.; Gonska, B.; Gras, D.; Jordaens, L.; Jung, W.; Keane, D.; Kindermann, Michael.; Komajda, Michel.; Kuck, Karl-Heinz.; Larsen, Alf Inge.; Linde, Cecilia.; Maass, Alexander.; McDonald, Ken.; Metra, Marco.; Mont, Lluis.; Morgan, John.; Osswald, Stefan.; Persson, Hans.; Priori, Silvia.; Rocca, Hans Peter Brunner-La.; Senges, Jochen.; Squire, Ian.; Stellbrink, Christoph.; Strohmmer, Bernhard.; Trochu, Jean Noel.; Vijgen, J.; van Veldhuisen, Dirk J.  
Europace : European pacing, arrhythmias and cardiac electrophysiology ; journal of the working groups on cardiac pacing, arrhythmias, and cardiac cellular electrophysiology of the European Society of Cardiology, 2013, Vol.13(10), pp.1445-1444 [Peer Reviewed Journal]

## 2. Electrophysiologie interventionelle

Poursuite de la collecte et de l'analyse des données ablation<sup>(7)</sup> <sup>(8)</sup> <sup>(9)</sup> <sup>(10)</sup> <sup>(11)</sup> <sup>(12)</sup> <sup>(13)</sup> <sup>(14)</sup>. Contact avec les centres : téléphonique, email, courrier

Mise à disposition du logiciel d'encodage pour les nouveaux centres ou ceux qui ont perdu l'application, contacts téléphonique pour l'installation du logiciel

Délivrance aux centres d'un follow-up individuel 2/an avec évolution des indices de qualité individuels

Nouvelle database on line, mise au point, tests, actualisation des listes et menus déroulants

Poursuite de la nouvelle base de données électronique pour encodage par internet

Contact avec les centres, mise à disposition des accès

Mise à jour permanente de la liste des centres participants sur le site internet du BeHRA - BWGCPE  
<http://behra.be>

## 3. Participation aux réunions de travail pour **Harmonisation Européenne** (Dr Vijgen) de **guidelines** sur pacemakers, défibrillateurs et conduite automobile <sup>(15)</sup>

### 4. Divers:

4.1. Mise à jour permanente du **site internet [http://: behra.be](http://behra.be)** c.à.d. création formulaire encodage abstracts online pour le congrès annuel, recueil électronique des abstracts, publication des annonces du congrès annuel, publication et mise à jour de la liste des membres

4.2. **Congrès annuel** octobre 2015 : 9<sup>th</sup> Belgian Heart Rhythm meeting : "Arrhythmias for every cardiologist" <sup>(16)</sup> <sup>(17)</sup>: Daily management of cardiac arrhythmia's related issues<sup>(18)</sup> <sup>(19)</sup> <sup>(20)</sup> <sup>(21)</sup>

#### **(7) The AF ablation pilot study: a European Survey on Methodology and results of catheter ablation for AF conducted by the EHRA Pilot Study**

Arbelo, Elena ; Brugada, Josep ; Hindricks, Gerhard ; Maggioni, Aldo P ; Tavazzi, Luigi ; Vardas, Panos ; Laroche, Cécile ; Anselme, Frédéric ; Inama, Giuseppe ; Jais, Pierre ; Kalarus, Zbigniew ; Kautzner, Josef ; Lewalter, Thorsten ; Mairesse, Georges H ; Perez-Villacastin, Julian ; Riahi, Sam ; Taborsky, Milos ; Theodorakis, George ; Trines, Serge A  
European heart journal, 7 June 2014, Vol.35(22), pp.1466-78

#### **(8) Prioritized outcomes to evaluate the effectiveness of atrial fibrillation disease management: A systemic review and Delphi study**

Berti, Dana ; Van Vlasselaer, Xavier ; Moons, Phillip ; Heibuchel, Hein  
International journal of cardiology, 1 January 2016, Vol.202, pp. 500-3

#### **(9) The right recommendations for the wrong reasons?**

Duytschaever, Matthias ; Mairesse, Georges ; Verbeet, Thierry ; Knecht, Sebastien  
Europace, 2013, Vol. 15(5), pp.615-617 [Peer Reviewed Journal]

#### **(10) Regional differences in presentation and treatment of patients with atrial fibrillation in Europe: a report from the EURObservational Research Programme Atrial Fibrillation (EORP-AF) Pilot General Registry**

Gregory Y.H. Lip, Cé cile Laroche, Giuseppe Boriani, Gheorghe-Andrei Dan, Massimo Santini, Zbigniew Kalarus, Lars Hvilsted Rasmussen, Ma' rio Martins Oliveira, Georges Mairesse, Harry J.G.M. Crijns, Emmanouil Simantirakis, Dan Atar, Aldo P. Maggioni, and Luigi Tavazzi  
Europace (2015) 17, 194-206

#### **(11) The atrial fibrillation ablation pilot study: a European Survey on Methodology and results of catheter ablation for atrial fibrillation conducted by the European Heart Rhythm Association.**

Arbelo E, Brugada J, Hindricks G, Maggioni AP, Tavazzi L, Vardas P, Laroche C, Anselme F, Inama G, Jais P, Kalarus Z, Kautzner J, Lewalter T, Mairesse GH, Perez-Villacastin J, Riahi S, Taborsky M, Theodorakis G, Trines SA; Atrial Fibrillation Ablation Pilot Study Investigators  
Eur Heart J. 2014 Jun 7;35(22):1466-78 (

#### **(12) Uninterrupted rivaroxaban vs. uninterrupted vitamin K antagonists for catheter ablation in non-valvular atrial fibrillation.**

Cappato, Riccardo ; Marchlinski, Francis E ; Hohnloser, Stefan H ; Naccarelli, Gerald V ; Xiang, Jim ; Wilber, David J ; Ma, Chang-Sheng ; Hess, Susanne ; Wells, Darryl S ; Juang, George ; Vijgen, Johan ; Hügl, Burkhard J ; Balasubramaniam, Richard ; De Chillou, Christian ; Davies, D Wyn ; Fields, L Eugene ; Natale, Andrea AVENTURE-AF Investigators  
Eur Heart J. 2015 Jul Vol.36(28), pp. 1805-11 Peer Reviewed Journal

#### **(13) Observaties omtrent 10 jaar AF ablatie**

Yves De Greef, Dirk Stockman, B. Schwagten  
<http://www.zna.be/nl-BE/ZorgVerstrekkers/Presentaties-evenementen/-/media/Files/huisartsensymposium/28maart2015/Observaties-omtrent-AF-ablatie-Yves-De-Greef.ashx>

#### **(14) Superior efficacy of pulmonary vein isolation with online contact force measurement persists after the learning period: a prospective case control study**

Michael Wolf , Johan B. Saenen, , Wim Bories, , Hielko P. Miljoen, , Sara Nullens, ,Christiaan J. Vrints, , Andrea Sarkozy  
J Interv Card Electrophysiol. 2015 Sep;43(3):287-96

#### **(15) Driving and arrhythmia: a review of scientific basis for international guidelines**

Banning, Amerjeet S ; Ng, G. Andr&#x00e9; ; European Heart Journal, 2013, Vol. 34(3), pp.236-244 [Peer Reviewed Journal]

#### **(16) Abstract: Belgian Society of Cardiology, Belgian Heart Rhythm Association (8th Belgian Heart Meeting: 'Arrhythmias for Every Cardiologist**

I. Blankoff, MD; M. Goethals, MD, PhD; GH. Mariese, MD ActaCardiologica 2015; 70 (5): 609-624

#### **(17) Updated European Heart Rhythm Association Practical Guide on the use of non-vitamin K antagonist anticoagulants in patients with non-valvular atrial fibrillation**

Heibuchel, Hein ; Verhamme, Peter ; Alings, Marco ; Antz, Matthias ; Diener, Hans-Christoph ; Hacke, Werner ; Oldgren, Jonas ; Sinnaeve, Peter ; Camm, A John ; Kirchhof, Paulus  
Europace: 2015-10, Volume: 17, Issue: 10, Pages: 1467-507

#### **(18) Prevalence and antithrombotic management of atrial fibrillation in hospitalised patients.(Report)**

Berti, Dana ; Moons, Eline ; Moons, Phillip ; Heibuchel, Hein  
Heart, June 1, 2015, Vol.101(11), p.884(10)

#### **(19) A roadmap to improve the quality of AF management: proceedings from the fifth AF Network/European Heart Rhythm Association consensus conference**

Kirchhof, Paulus ; Breithardt, Günter ; Bax, Jeroen ; Benninger, Gerlinde ; Blomstrom-Lundqvist, Carina ; Boriani, Giuseppe ; Brandes, Axel ; Brown, Helen ; Brueckmann, Martina ; Calkins, Hugh ; Calvert, Melanie ; Christoffels, Vincent ; Crijns, Harry ; Dobrev, Dobromir ; Ellinor, Patrick ; Fabritz, Larissa ; Fetsch, Thomas ; Freedman, S Ben ; Gerth, Andrea ; Goette, Andreas ; Gvasch, Eduard ; Hack, Guido ; Haegeli, Laurent ; Hatem, Stephane ; Haeusler, Karl Georg ; Heibüchel, Hein ; Heinrich-Nols, Jutta ; Hidden-Lucet, Francoise ; Hindricks, Gerd ; Juul-Möller, Steen ; Käåb, Stefan ; Kappenberger, Lukas ; Kespohl, Stefanie ; Kotecha, Dipak ; Lane, Deirdre A ; Leute, Angelika ; Lewalter, Thorsten ; Meyer, Ralf ; Mont, Lluís ; Münzel, Felix ; Nabauer,

(<sup>22</sup>) (<sup>23</sup>) (<sup>24</sup>) (<sup>25</sup>): and will include joint BeHRA-EHRA sessions, live case sessions, ECG courses for young cardiologists, teaching sessions for cardiovascular nurses and roundtables with experts offering you the opportunity to discuss practical day-to-day questions  
 Special focus: Invasive Management of VT/VF (in co-organization with EHRA)

### Session 3: Management strategies

- Everything starts with an ICD (Prof. C. Leclercq (France), Chairs: Dr. G. Mairesse, Dr. K. Van Beeumen)
- Everything could start with an ablation (Prof. Gerhard Hindrickx (Germany), Chairs: Dr. J. Vijgen, Dr. A. de Meester)

### Session 4: State of the Art and new technologies Quality Management in Cardiology

(Chairs: Dr. J. Vijgen, Dr. A. De Meester)

- In VT ablation (Dr. Y. Van Belle)
- In VF Ablation (Dr. S. Knecht)

### Session 5: ICD's to prevent sudden cardiac death (Chairs: Prof. J.-B. Le Polain de Waroux, Dr. L. Timmers)

- Patients and device selection: from international guidelines to Belgian indications (Dr. I Blankoff)
- Subcutaneous ICS for specific patients or indications? (Prof. R. Knops (NL))
- Optimal ICD programming to save lives and avoid complications (Pr. H. Burri (CH))

### Session 6: What's new in pacemakers (Chairs: Prof. R. Willems, Dr. P. Evrard)

- ESC guidelines in cardiac pacing (Prof. C. Linde (SE))
- Quality indicators and feedback on Belgian practice (Prof. R. Tavernier)

### Session 7: Quality and technology (Chairs : Dr. M. Goethals, Prof. C. Hanet)

- Financing the future of medical technology and innovation (Mr. B. Van Damme, Ministerie gezondheidszorg)
- Quality indicator in rhythmology (Dr. Y. Vandekerckhove)

### Session 8: Round tables with experts:

- All you always wanted to know about ventricular arrhythmias management (Prof. H. Burri (CH), Moderator Dr. De Greef)
- All you always wanted to know about atrial fibrillation management (<sup>26</sup>) (<sup>27</sup>) (<sup>28</sup>) (Prof. H. Heidbuchel, Moderator: Dr. G. Mairesse)

Michael ; Nielsen, Jens C ; Oeff, Michael ; Oldgren, Jonas ; Oto, Ali ; Piccini, Jonathan P ; Pilmeyer, Art ; Potpara, Tatjana ; Ravens, Ursula ; Reinecke, Holger ; Rostock, Thomas ; Rustige, Joerg ; Savellieva, Irene ; Schnabel, Renate ; Schotten, Ulrich ; Schwichtenberg, Lars ; Sinner, Moritz F ; Steinbeck, Gerhard ; Stoll, Monika ; Tavazzi, Luigi ; Themistoclakis, Sakis ; Tse, Hung Fat ; Van Gelder, Isabelle C ; Vardas, Panagiotis E ; Varpula, Timo ; Vincent, Alphon ; Werring, David ; Willems, Stephan ; Ziegler, André ; Lip, Gregory Y H ; Camm, A John  
 Europace : European pacing, arrhythmias, and cardiac electrophysiology : journal of the working groups on cardiac pacing, arrhythmias, and cardiac cellular electrophysiology of the European Society of Cardiology, January 2016, Vol.18(1), pp.37-50

(20) Preference for oral anticoagulation therapy for patients with atrial fibrillation in Europe in different clinical situations: results of the European Heart Rhythm Association Survey

Torben Bjerregaard Larsen<sup>1\*</sup>, Tatjana Potpara<sup>2</sup>, Nikolaos Dargēs<sup>3</sup>, Alessandro Proclemer<sup>4</sup>, Elena Sciarrafia<sup>5</sup>, and Carina Blomström-Lundqvist<sup>5</sup>, Scientific Initiative Committee, European Heart Rhythm Association  
 Europace (2015) 17, 819–824

(21) Non-vitamin K antagonist oral anticoagulants (NOAC): considerations on once- vs. twice-daily regimens and their potential impact on medication adherence

Heidbuchel, Hein ; Vrijens, Bernard  
 EP Europace, 2015, Vol. 17(8), pp.1317-1318

(22) Prevalence of AF in a large-scale screening population: results from the Belgian Heart Rhythm Week

G. Mairesse  
[https://uhdSPACE.uhasselt.be/dSPACE/bitstream/1942/16090/1/abstract\\_europrevent\\_20140001.pdf](https://uhdSPACE.uhasselt.be/dSPACE/bitstream/1942/16090/1/abstract_europrevent_20140001.pdf)

(23) Ryanodine receptor cluster fragmentation and redistribution in persistent atrial fibrillation enhance calcium release

Macquaide, Niall ; Tuan, Hoang-Trong Minh ; Hotta, Jun-Ichi ; Sempels, Wouter ; Lenaerts, Ilse ; Holemans, Patricia ; Hofkens, Johan ; Jafri, M. Saleet ; Willems, Rik ; Sipido, Karin  
 Cardiovascular Research: 2015-12, Volume: 108, Issue: 3, Pages: 387-398

(24) Atrial fibrillation is associated with the fibrotic remodelling of adipose tissue in the subepicardium of human and sheep atria

Haemers, Peter ; Hamdi, Hadhami ; Guedj, Kevin ; Suffee, Nadine ; Farahmand, Patrick ; Popovic, Natasa ; Claus, Piet ; LePrince, Pascal ; Nicoletti, Antonino ; Jalife, Jose ; Wolke, Carmen ; Lendeckel, Uwe ; Jais, Pierre ; Willems, Rik ; Hatem, Stéphane N  
 European Heart Journal: 2015-11, Volume: Ahead of print, Chapter: ehv625, Article: ehv625

(25) Structural and Functional Alteration of RyR Clusters After Remodeling in Persistent Atrial Fibrillation

Macquaide, Niall ; Tuan, Hoang-Trong M ; Hotta, Jun-Ichi ; Sempels, Wouter ; Lenaerts, Ilse ; Holemans, Patricia ; Hofkens, Johan ; Jafri, Saleet ; Willems, Rik ; Sipido, Karin R  
 BIOPHYSICAL JOURNAL: 2014, Volume: 106, Issue: 2, Pages: 431A-431A

(26) Should catheter atrial fibrillation ablation be considered as a 'high bleeding risk' intervention? Reply

Heidbuchel, Hein ; Verhamme, Peter ; Alings, Marco ; Antz, Matthias ; Hacke, Werner ; Oldgren, Jonas ; Sinnaeve, Peter ; Camm, A. John ; Kirchhof, Paulus  
 EP Europace 2015-12, Volume: 108, Issue: 3, Pages: 387-398

(27) Increased cellular inflammation and chemotactic activity of epicardial adipose tissue in atrial fibrillation

Haemers, Peter ; Heggmont, Ward ; Holemans, Pascale ; Hatem, S ; Willems, Rik  
 European Heart Journal: 2015, Volume: 36, Pages: 1074-1074

(28) Edoxaban vs. warfarin in patients with atrial fibrillation on amiodarone: a subgroup analysis of the ENGAGE AF-TIMI 48 trial

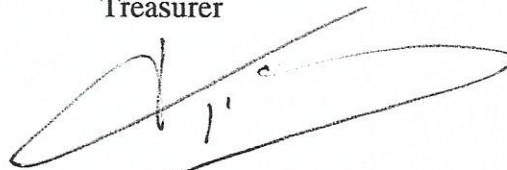
J. Steffel, R.P. Giugliano, E. Braunwald, S.A. Murphy, D. Atar, H. Heidbuchel, A.J. Camm, E.M. Antman, and C.T. Ruff  
 European Heart Journal (2015) 36, 2239–2245

- 4.3. Participation registration Européenne des pacemakers et défibrillateurs bi ventriculaire
- 4.4. (EHRA – EAHF) Organisation et analyse<sup>(28)</sup> des enregistrements de «La Semaine du Rythme Cardiaques 2015»: une campagne de sensibilisation annuelle à la fibrillation auriculaire. Durant cette semaine, les adultes peuvent bénéficier de tests de dépistage gratuits en se rendant dans l'un des très nombreux centres hospitaliers participant à l'action en Belgique
- 4.5. Participation EuroEco (European Health Economic Trial on Home Monitoring in ICD Patients): a provider perspective in five European countries on costs and net financial impact of follow-up with or without remote monitoring <sup>(29)</sup>

Dr. Y. Vandekerckhove  
Président



Dr. Johan Vijgen  
Treasurer



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(29) *Analysis of the 5 Years of Monitoring during the Heart Rhythm Week*

(Draft is written for the EHJ and will soon be finalized for publication)

(30) *EuroEco (European Health Economic Trial on Home Monitoring in ICD Patients): a provider perspective in five European countries on costs and net financial impact of follow-up with or without remote monitoring*

Hein Heidbuchel, Gerd Hindricks, Paul Broadhurst, Lieselot Van Erven, Ignacio Fernandez-Lozano, Maximo Rivero-Ayerza, Klaus Malinowski, Andrea Marek, Rafael F. Romero Garrido, Steffen Löscher, Ian Beeton, Enrique Garcia, Stephen Cross, Johan Vijgen, Ulla-Majja Koivisto, Rafael Peinado, Antje Smala, and Lieven Annemans  
European Heart Journal doi:10.1093/eurheartj/ehu339