Rev Port Cardiol. 2016;35(7-8):413–414

Revista Portuguesa de
Cardiologia
Portuguese Journal of Cardiology
www.revportcardiol.org

EDITORIAL COMMENT

Portuguese National Registry on Cardiac Electrophysiology, 2013 and 2014: An analysis☆

O Registo Nacional de Eletrofisiologia Cardíaca (2013/2014): uma análise

João de Sousa

Serviço de Cardiologia, Centro Hospitalar de Lisboa Norte, Hospital de Santa Maria, Lisboa, Portugal

Available online 15 July 2016

Data for 2013 and 2014 from the Portuguese National Registry on Cardiac Electrophysiology are published in this issue of the *Journal*,[1] broken down into electrophysiological studies, ablations and cardioverter-defibrillator implantations performed in Portuguese centers. The authors, as well as the successive governing boards of the Portuguese Association for Arrhythmology, Pacing and Electrophysiology (APAPE) and the Portuguese Institute of Cardiac Rhythm (IPRC), are to be congratulated on their perseverance and dedication in maintaining the registry continuously for 14 years. The data not only reflect the situation in Portugal in terms of the type and volume of activity and geographical distribution of electrophysiology centers, but also enable assessment of the training capability of the country, for both fellowships in cardiology and training in the subspecialty of cardiac electrophysiology. At the same time, data for Portugal from the registry can be included and compared with the figures for other countries published annually by the European Heart Rhythm Association (EHRA) of the European Society of Cardiology (ESC). Finally, the registry helps to predict and plan for the country's needs in the area of interventional arrhythmology, and should serve as the basis for certain organizational decisions, particularly those related to the national cardiology referral network.

Analysis of the 2014 data shows a rise in the number of electrophysiology centers to 25 (an increase of eight compared to the previous year), of which 11 were private and 14 public. A total of 2325 ablation procedures were performed, continuing the growth seen in previous years. Nevertheless, there was marked asymmetry in centers' volume of activity, since although the mean number of ablations per center was 93, the median was 33, with only seven performing more than 100 procedures and nine performing less than 10. Ablation of atrial fibrillation (AF) accounted for a significant proportion of interventions (around 30% in 2014), although 80% of such procedures were performed in only four centers, one of which was private. Cardioverter-defibrillator implantations were performed in 30 centers in 2014, four more than in the previous year, although the new centers implanted less than 10 units each. There were a total of 1256 first implantations (of which 38.6% were cardiac resynchronization devices), an increase of 15% compared to 2013. As with AF ablations, only four centers implanted more than 100 units in 2014 and nine performed less than 10 implantations.

The considerable variation seen in the volume of procedures means that postgraduate training and specialized interventions such as catheter ablation and device implantation are available in only a quarter of cardiac electrophysiology centers in Portugal. Current regulations for cardiology fellowships in Portugal[2] recommend participation in 50 electrophysiology studies, 50 permanent pacemaker implantations and 20 cardioverter-defibrillator or resynchronization

DOI of original article:
http://dx.doi.org/10.1016/j.repce.2016.01.017

☆ Please cite this article as: de Sousa J. O Registo Nacional de Eletrofisiologia Cardíaca (2013/2014): uma análise. Rev Port Cardiol. 2016;35:413–414.

E-mail address: j.sousa@netcabo.pt

device implantations during the four-month training in electrophysiology and pacing. According to the regulations for the subspecialty of cardiac electrophysiology,[3] which are outdated and in need of revision, trainees should achieve autonomy during the two-year training period by performing at least 300 diagnostic studies and 150 ablations. Thus, postgraduate training in interventional arrhythmology is limited to centers with a significant volume of activity, namely three in Lisbon (Hospital de Santa Cruz, Hospital de Santa Maria and Hospital de Santa Marta), one in Coimbra (Hospitais da Universidade, although with a limited volume of electrophysiology procedures) and one in Porto (Hospital de Gaia).

Based on figures published by the EHRA,[4] developments in cardiac electrophysiology in Portugal have been very positive, approaching target rates in interventional electrophysiology and cardioverter-defibrillator implantations. However, while we are in the vanguard in terms of pacemaker implantation, we lag behind in interventional electrophysiology, including AF ablation, as well as in cardioverter-defibrillator and cardiac resynchronization therapy device implantation. Although the annual rate of first cardioverter-defibrillator implantations in Portugal in 2014 was 120 units per million population, above the European mean of 99, Portugal is in the third quartile (74-166 units per million population) among European countries, along with Spain. With regard to total ablations and AF ablations, the registry shows rates of 232 and 69 per million population, respectively, which again places Portugal in the third quartile in European terms (total ablations 179-321 per million population, and AF ablations 48-108 per million population), along with Spain and the UK. While improvement in the number of electrophysiological interventions is still desirable, rates in Portugal are in fact now similar to more developed countries.

The registry identifies the centers with the greatest volume of activity in cardiac electrophysiology and which thus form part of the national cardiology referral network[5,6]: Hospital de Gaia, Hospitais da Universidade de Coimbra, Hospital de Santa Cruz, Hospital de Santa Maria and Hospital de Santa Marta. Public investment in cardiac electrophysiology should therefore be concentrated in these five centers so as to provide the best conditions for development and specialist training.

I would like to make one last comment on the type and quality of the registry. Maintaining the registry is obviously important, but it would be extremely useful, including from a clinical standpoint, if more detailed information were included in the annual reports, particularly success rates and the incidence and type of complications associated with these interventions. This type of information, even while protecting the identity of particular centers, would be useful for both the medical and scientific community and the patients themselves.

In conclusion, maintaining up-to-date and reliable registries like the National Registry on Cardiac Electrophysiology gives an overall picture of the situation in Portugal, which helps in planning an efficient treatment network and in providing a high standard of postgraduate training, with the aim of achieving excellence in patient care.

Conflicts of interest

The author has no conflicts of interest to declare.

References

1. Cavaco D, Morgado F, Bonhorst D. Registo Nacional de Eletrofisiologia Cardíaca (2013/2014). Rev Port Cardiol. 2016;35: 407–12.
2. Programa de formação do internato médico da área profissional de especialização de cardiologia. Portaria n° 46/2011 de 26 de Janeiro. Diário da república, 1ª série – n° 18, 26 de Janeiro de 2011.
3. Regulamento da Sub-Especialidade de Eletrofisiologia Cardíaca. Available at: www.ordemdosmedicos.pt [accessed 05.06.16].
4. Raatikainen MJP, Armar DO, Zeppenfeld K, et al. Current trends in the use of cardiac implantable electronic devices and interventional electrophysiological procedures in the European Society of Cardiology member countries: 2015 report from the European Heart Rhythm Association. Europace. 2015;17: iv1–72.
5. Rede de Referenciação de Cardiologia. Proposta de Atualização. Programa Nacional para as Doenças Cerebro-Cardiovasculares. Available at: www.dgs.pt [accessed 05.06.16].
6. Portaria n° 147/2016 de 19 de Maio no Diário da República, 1ª série – n° 97, 19 Maio de 2016. p. 1616–9.