

EAPCI registries: a first step towards systematic monitoring of European interventional cardiology practice

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At the 3rd EAPCI Summit (Nice, March 2015), entitled “Mapping the interventional cardiology in Europe”, delegates representing 29 European National Interventional Cardiac Societies participated¹. The summit was dedicated to reactivating a systematic and regular survey on interventional cardiology practice in the countries of the European Society of Cardiology (ESC). This survey is in fact critically important to: a) monitor the heterogeneity in practices among the participating countries; b) disclose obstacles to guideline implementation; and c) record dynamics of harmonisation in interventional cardiology practices. At the conclusion, the delegates reached a consensus that the regular monitoring of interventional cardiology practice represents a priority and one of the missions of the EAPCI. The retrospective collection of some key data concerning interventional cardiology over the past five years was one of the important action points in the conclusions of the Summit. Consequently, all the ESC countries and affiliates were invited to participate in the retrospective EAPCI registry in the weeks after the Summit. We are proud to announce in this issue of EuroIntervention the retrospective EAPCI registries of the 16 countries that agreed to participate (**Table 1**). The countries monitored provide a good geographical representation of the different European regions as well as in terms of demographics (ranging from countries of two to 80 million inhabitants).

The authors of the related manuscripts should be commended for the terrific work in retrospectively collecting data spanning from 2010 until 2015²⁻¹⁷, especially considering that only a few participating countries had well-structured patient-level data collection at the time of the survey. The registries presented are based on aggregated survey data from 15 ESC member countries and one affiliated ESC country. The national contact person of each participating

country was requested to complete a self-administered questionnaire providing some general information on matters of demographics and organisation, and data on percutaneous coronary procedures and structural heart interventions. It was beyond the scope of this call for data collection to perform external audits or quality control of the reported metrics, let alone comparative analysis among the countries. We believed in fact that monitoring trends rather than absolute values would be equally effective in providing

Table 1. Participating countries (n=16).

	Population in 2015 (×1,000)*
Belgium	11,299
Denmark	5,669
Egypt	86,814
France	64,395
Israel	8,463
Italy	59,797
Kazakhstan	17,557
Macedonia	2,071
Poland	38,611
Portugal	10,349
Serbia	7,095
Spain	46,449
Sweden	9,382
Switzerland	8,327
Turkey	78,741
United Kingdom	64,715

*Source Wikipedia or Worldometers.

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an overview of European interventional cardiology practice from 2010 to 2015. These trends are reported in this issue separately for coronary and structural heart interventions^{18,19}. We leave it up to the reader to dive deeply into the details of each and every country. We are confident that this retrospective snapshot will serve as a foundation for a prospective, regular and systematic data collection.

Conflict of interest statement

The authors have no conflicts of interest to declare.

References

1. Barbato E, Dudek D, Haude M, Esposito G, Mauri J, Petronio S, Stabile E, Meier P, Weidinger F, Kala P, Trillo R, Witkowski A, Cummins P, Baumbach A, Windecker S. Mapping interventional cardiology in Europe: proceedings of the 3rd Summit of the European Association of Percutaneous Cardiovascular Interventions. *EuroIntervention*. 2015;11:27-8.
2. Desmet W, Aminian A, Kefer J, Dens J, Bosmans J, Claeys M, Dubois C, Gach O, Janssens L, Schroeder E, Vermeersch P, Carlier M, Benit E, Hanet C; on behalf of the Belgian Working Group of Interventional Cardiology (BWGIC). Belgium: coronary and structural heart interventions from 2010 to 2015. *EuroIntervention*. 2017;13:Z14-Z16.
3. Özcan C, Jørgensen TH, Nielsen-Kudsk JE, Ravkilde J, Nissen H, Pedersen SA, Havndrup O, Lassen JF; on behalf of the Danish Working Group on Interventional Cardiology. Denmark: coronary and structural heart interventions from 2010 to 2015. *EuroIntervention*. 2017;13:Z17-Z20.
4. Magdy A, Shawky A, Mohanad A, Shaheen S; on behalf of the Egyptian Society of Cardiology. Egypt: coronary and structural heart interventions from 2010 to 2015. *EuroIntervention*. 2017;13:Z21-Z24.
5. Motreff P, Lattuca B, Benamer H, Guerin P, Commeau P, Cayla G, Dupouy P, Monsegu J, Derimay F, Blanchard D, Puymirat E, Auffret V, Le Breton H, Koning R; on behalf of the Coronary Atheroma and Interventional Cardiology Group of the French Society of Cardiology (Groupe Athérome coronaire et Cardiologie Interventionnelle, GACI). France: coronary and structural heart interventions from 2010 to 2015. *EuroIntervention*. 2017;13:Z25-Z31.
6. Finkelstein A, Minha S, Kornowski R, Danenberg H, Banai S, Lotan H, Segev A, Barbash IM. Israel: coronary and structural heart interventions from 2010 to 2015. *EuroIntervention*. 2017;13:Z32-Z36.
7. Berti S, Varbella F, Marchese A, Pastormerlo LE, Musumeci G. Italy: coronary and structural heart interventions from 2010 to 2015. *EuroIntervention*. 2017;13:Z37-Z41.
8. Sakhov OS, Kuzhukeyev ME, Kodasbayev AT, Egemberdiev TZ, Berkinbayev SF, Zholdin BK, Alimbaev SA, Zhangelova SB, Rakhimov RA, Makhanov DI, Sabitov YT, Teleuov DA, Baisebenov RK, Kuzhukeyev AM; on behalf of the Kazakhstan Society of Interventional Cardiologists. Kazakhstan: coronary and structural heart interventions from 2010 to 2015. *EuroIntervention*. 2017;13:Z42-Z46.
9. Kedev S, Zafirovska B, Kalpak O, Antov S, Kostov J, Spiroski I, Pejkov H, Boshev M, Vasillev I, Jovkovski A, Taravari H, Petkoska D, Kitanski D; on behalf of the Macedonian Working Group on Interventional Cardiology. Macedonia: coronary and structural heart interventions from 2010 to 2015. *EuroIntervention*. 2017;13:Z47-Z50.
10. Legutko J, Siudak Z, Parma R, Ochała A, Dudek D; on behalf of the Board of Association of Cardiovascular Interventions, Polish Cardiac Society. Poland: coronary and structural heart interventions from 2010 to 2015. *EuroIntervention*. 2017;13:Z51-Z54.
11. Campante Teles R, Pires-Morais G, Canas da Silva P, Cruz Ferreira R, de Sousa Almeida M, Seixo F, Costa M, Gama Ribeiro V, Marques J, Carlos Silva J, Pereira H, Farto e Abreu P, Carvalho H, Infante de Oliveira E; on behalf of the Registo Nacional de Cardiologia de Intervenção (RNCI) investigators. Portugal: coronary and structural heart interventions from 2010 to 2015. *EuroIntervention*. 2017;13:Z55-Z58.
12. Stojkovic S, Milasinovic D, Bozinovic N, Davidovic A, Debeljacki D, Djenic N, Hinic S, Jagic N, Micic O, Mitov V, Neskovic AN, Nikolic M, Sagic D, Stankovic G; on behalf of the Working Group on Catheterisation and Percutaneous Coronary Intervention of Serbia. Serbia: coronary and structural heart interventions from 2010 to 2015. *EuroIntervention*. 2017;13:Z59-Z63.
13. García del Blanco B, Jiménez Quevedo P, Diaz JF, Hernández F, Ramón Rumoroso J, Sabaté M, de la Torre Hernandez JM, Serrador A, Pérez de Prado A, Goicolea J, Trillo R, Pan M; on behalf of The Spanish Society of Cardiology Working Group on Cardiac Catheterization and Interventional Cardiology. Spain: coronary and structural heart interventions from 2010 to 2015. *EuroIntervention*. 2017;13:Z64-Z69.
14. Witt N, Rück A, James SK, Koul S, Lagerqvist B; on behalf of the Swedish Working Group on PCI and Valve Interventions. Sweden: coronary and structural heart interventions from 2010 to 2015. *EuroIntervention*. 2017;13:Z70-Z74.
15. Rigamonti F, Fahrni G, Maeder M, Cook S, Weilenmann D, Wenaweser P, Röthlisberger C, Corti R, Rickli H, Kaiser C, Roffi M; on behalf of the Working Group for Interventional Cardiology of the Swiss Society of Cardiology. Switzerland: coronary and structural heart interventions from 2010 to 2015. *EuroIntervention*. 2017;13:Z75-Z79.
16. Dogu Kilic I, Karacop E, Akdemir R, Goktekin O. Turkey: coronary and structural heart interventions from 2010 to 2015. *EuroIntervention*. 2017;13:Z80-Z82.
17. Ludman PF, de Belder MA, Redwood S, Banning A; on behalf of the British Cardiovascular Intervention Society (BCIS). United Kingdom: coronary and structural heart interventions from 2010 to 2015. *EuroIntervention*. 2017;13:Z83-Z88.
18. Barbato E, Dudek D, Baumbach A, Windecker S, Haude M. Current trends in coronary interventions: an overview from the EAPCI registries. *EuroIntervention*. 2017;13:Z8-Z10.
19. Dudek D, Barbato E, Baumbach A, Windecker S, Haude M. Current trends in structural heart interventions: an overview of the EAPCI registries. *EuroIntervention*. 2017;13:Z11-Z13.