

● **Train the Trainers Workshop**
part of the
Be Guidelines Smart Toolkit

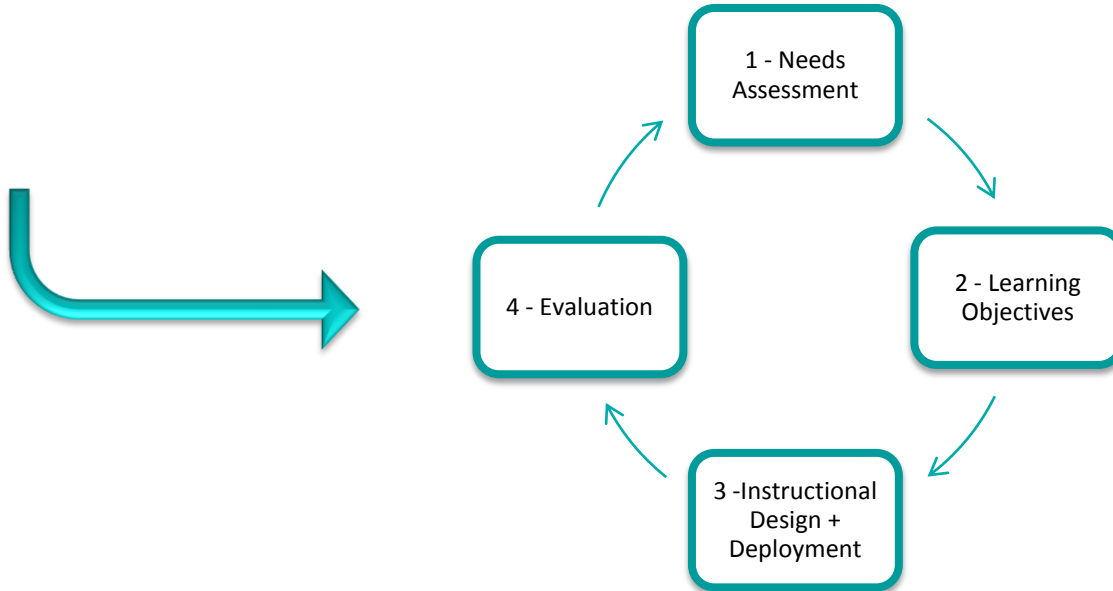
**EORP Registries and their
link with ESC Guidelines**

● **Bernard Lung, Paris, France**



Education as a process

‘Impactful Education’ is a process

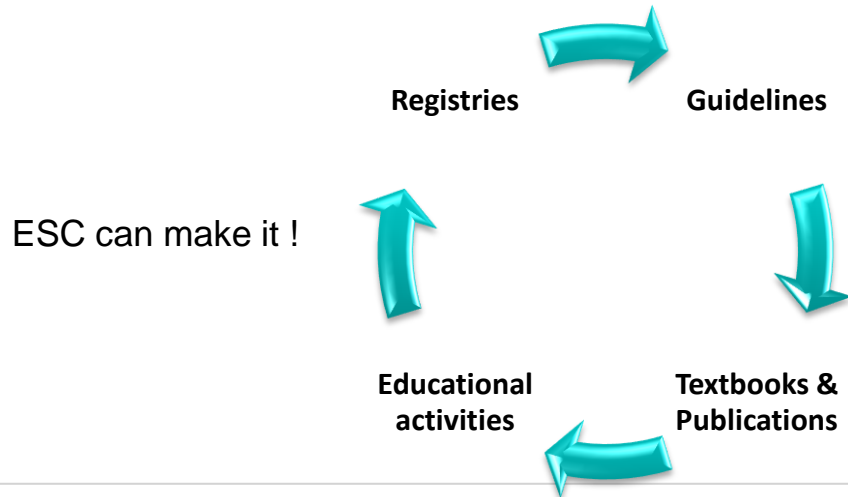


Background

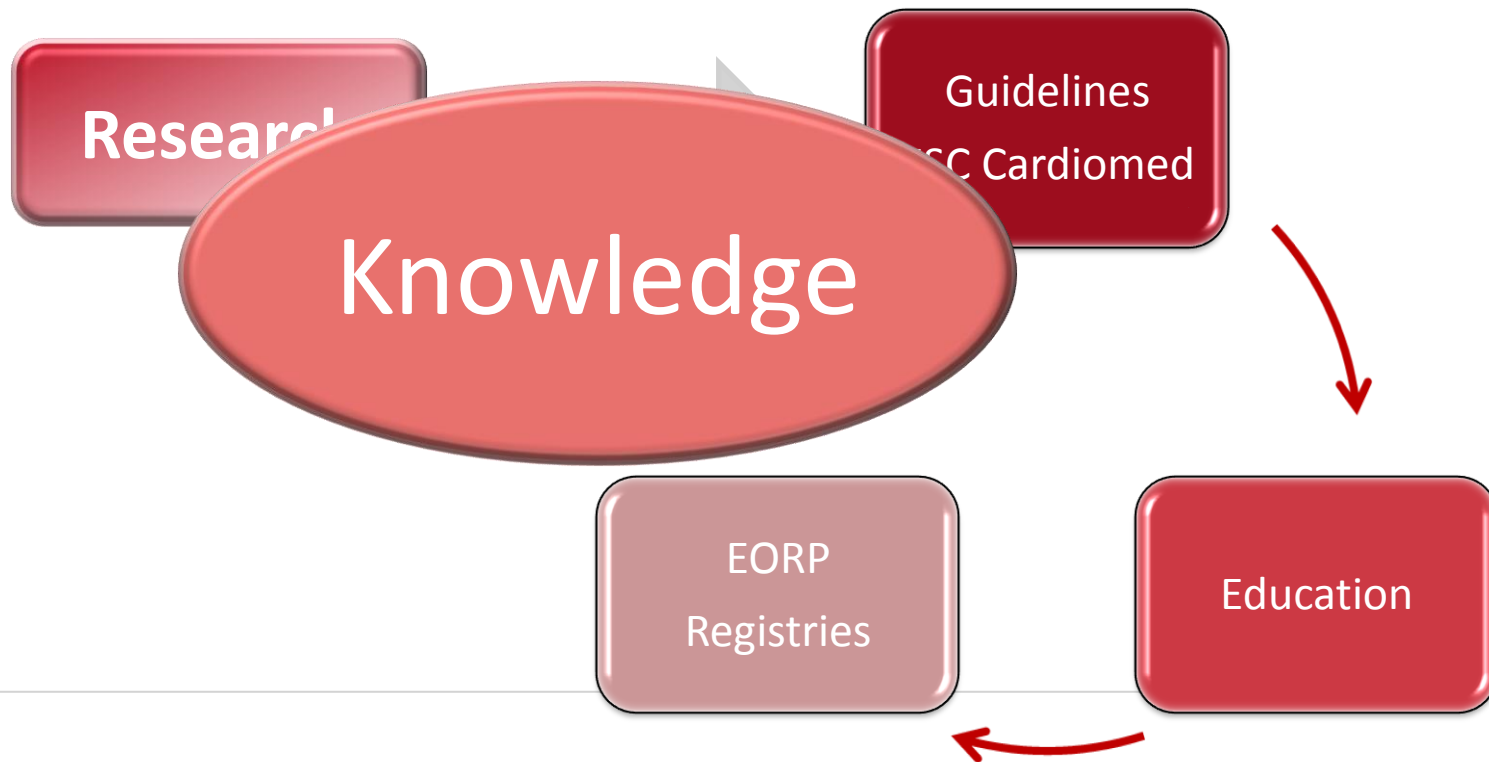
2000-2002

Professor Maarten Simoons, ESC President 2000-2002, created the ESC Scientific Affairs.

His vision is depicted as follows by the M. Simoons 'wheel of wisdom'



The Virtuous Circle



The New Guidelines

- Include :
 - Gaps in evidence
 - Key points which will be the basis :
 - 1) for building the learning objectives of education products
 - 2) for the elaboration of the registries
- Shorter text
- Focus on recommendations for clinical practice
- Background and rationale are developed in the corresponding chapter of the ESC Textbook (Cardiomed)

ESC Cardiomed

- New edition :
 - Available online for selected chapters
 - Print version by ESC Congress 2018
- Consistent with the Guidelines : written by the same group of experts :
Alignment of authors done for most chapters related to the Guidelines
- **New Guidelines readers will have free access to the relevant chapter:**
Done for the VHD pilot
- **New process explained before the beginning of the Guidelines TF work:**
 - **2018** Syncope; Pregnancy
 - **2019** Pulmonary Embolism ; Stable Coronary Artery Disease ; Diabetes

High visibility direct link: GLs to Textbook chapter

2017 ESC/EACTS Guidelines for the management of valvular heart disease

The Task Force for the Management of Valvular Heart Disease of the European Society of Cardiology (ESC) and the European Association for Cardio-Thoracic Surgery (EACTS)

Authors/Task Force Members: Helmut Baumgartner* (ESC Chairperson) (Germany), Volkmar Falk*¹ (EACTS Chairperson) (Germany), Jeroen J. Bax (The Netherlands), Michele De Bonis*¹ (Italy), Christian Hamm (Germany), Per Johan Holm (Sweden), Bernard Jung (France), Patrizio Lancellotti (Belgium), Emmanuel Lansac¹ (France), Daniel Rodriguez Muñoz (Spain), Raphael Rosenhek (Austria), Johan Sjögren¹ (Sweden), Pilar Tornos Mas (Spain), Alec Vahanian (France), Thomas Walther¹ (Germany), Olaf Wendler¹ (UK), Stephan Windecker (Switzerland), Jose Luis Zamorano (Spain)

Document Reviewers: Marco Roffi (CPG Review Coordinator) (Switzerland), Octavio Alfieri¹ (EACTS Review Coordinator) (Italy), Stefan Agewall (Norway), Anders Ahlsson¹ (Sweden), Emanuele Barbato (Italy), Héctor Bueno (Spain), Jean-Philippe Collet (France), Ioan Mircea Coman (Romania), Martin Czerny (Germany), Victoria Delgado (The Netherlands), Donna Fitzsimons (UK), Thierry Folliguet¹ (France), Oliver Gaemperli (Switzerland), Gilbert Habib (France), Wolfgang Harringer¹ (Germany), Michael Haude

* Corresponding authors: Helmut Baumgartner, Division of Adult Congenital and Valvular Heart Disease, Department of Cardiovascular Medicine, University Hospital Münster, Albert-Schweiber Campus 1, Building A1, 48149 Münster, Germany. Tel: +49 251 834 6110; Fax: +49 251 834 6109; E-mail: helmut.baumgartner@ukmuenster.de; Volkmar Falk, Department of Cardiothoracic and Vascular Surgery, German Heart Center, Augustenburger Platz 1, D-13353 Berlin, Germany and Department of Cardiovascular Surgery, Charité Berlin, Charitéplatz 1, D-10117 Berlin, Germany. Tel: +49 30 4939 2000; Fax: +49 30 4939 1200; E-mail: falk@ethz.ch

ESC Committee for Practice Guidelines (CPG) and National Cardiac Societies document reviewers listed in the Appendix.

* Representing the European Association for Cardio-Thoracic Surgery (EACTS).

ESC entities having participated in the development of this document

Associations: Acute Cardiovascular Care Association (ACCA), European Association of Cardiovascular Imaging (EACVI), European Association of Percutaneous Cardiovascular Interventions (EAPCI), Heart Failure Association (HFA)

Working Groups: Cardiovascular Pharmacotherapy, Cardiovascular Surgery, Growth-up Congenital Heart Disease, Valvular Heart Disease

The content of these European Society of Cardiology (ESC) Guidelines has been published for personal and educational use only. No commercial use is authorized. No part of the ESC Guidelines may be translated or reproduced in any form without written permission from the ESC. Permission can be obtained upon submission of a written request to Oxford University Press, the publisher of the European Heart Journal and the party authorized to grant such permissions on behalf of the ESC (Journal.permissions@oxfordjournals.org).

Disclaimer: The ESC Guidelines represent the views of the ESC and were produced after careful consideration of the scientific and medical knowledge and the evidence available at the time of their publication. The ESC is not responsible in the event of any contradiction, discrepancy and/or ambiguity between the ESC Guidelines and any other official recommendations or guidelines issued by the relevant public health authorities. It particularly relates to good use of medicines or therapeutic strategies. Health professionals are encouraged to take the ESC Guidelines fully into account when exercising their clinical judgment, as well as in the determination and the implementation of preventive, diagnostic or therapeutic medical strategies; however, the ESC Guidelines do not override, in any way whatsoever, the individual responsibility of health professionals to make appropriate and accurate decisions in consideration of each patient's health condition and in consultation with that patient and, where appropriate and/or necessary, the patient's caregiver. Nor do the ESC Guidelines exempt health professionals from taking full and careful consideration of the relevant official updated recommendations or guidelines issued by the competent public health authorities in order to manage each patient's case in light of the scientifically accepted data pursuant to their respective ethical and professional obligations. It is also the health professional's responsibility to verify the applicable rules and regulations relating to drugs and medical devices at the time of prescription.

The article has been co-published with permission in the European Heart Journal [10.1093/eurheartj/ehx391] on behalf of the European Society of Cardiology and European Journal of Cardio-Thoracic Surgery [10.1093/eurheartj/ehx391] on behalf of the European Association for Cardio-Thoracic Surgery. All rights reserved in respect of European Heart Journal © European Society of Cardiology 2017. The articles are identical except for minor stylistic and spelling differences in keeping with each journal's style. Either citation can be used when citing this article.

For permissions, please email journal.permissions@oup.com.

(Germany), Gerhard Hindricks (Germany), Hugo A. Katus (Germany), Juhani Knuuti (Finland), Philippe Kolh (Belgium), Christophe Leclercq (France), Theresa A. McDonagh (UK), Massimo Francesco Piepoli (Italy), Luc A. Pierard (Belgium), Piotr Ponikvarski (Poland), Giuseppe M. C. Rosano (UK/Italy), Frank Ruzickza (Switzerland), Evgeny Shlyakhto (Russian Federation), Iain A. Simpson (UK), Miguel Sousa-Uva¹ (Portugal), Janina Stepinska (Poland), Giuseppe Tarantini (Italy), Didier Tchetché (France), Victor Aboyan (CPG Supervisor) (France)

The disclosure forms of all experts involved in the development of these guidelines are available on the ESC website <http://www.escardio.org/guidelines>.

For the Web Addenda which include background information and detailed discussion of the data that have provided the basis for the recommendations see <https://academic.oup.com/eurheartj/article-lookup/doi/10.1093/eurheartj/ehx391#supplementary-data>.

Access evidence base

Keywords

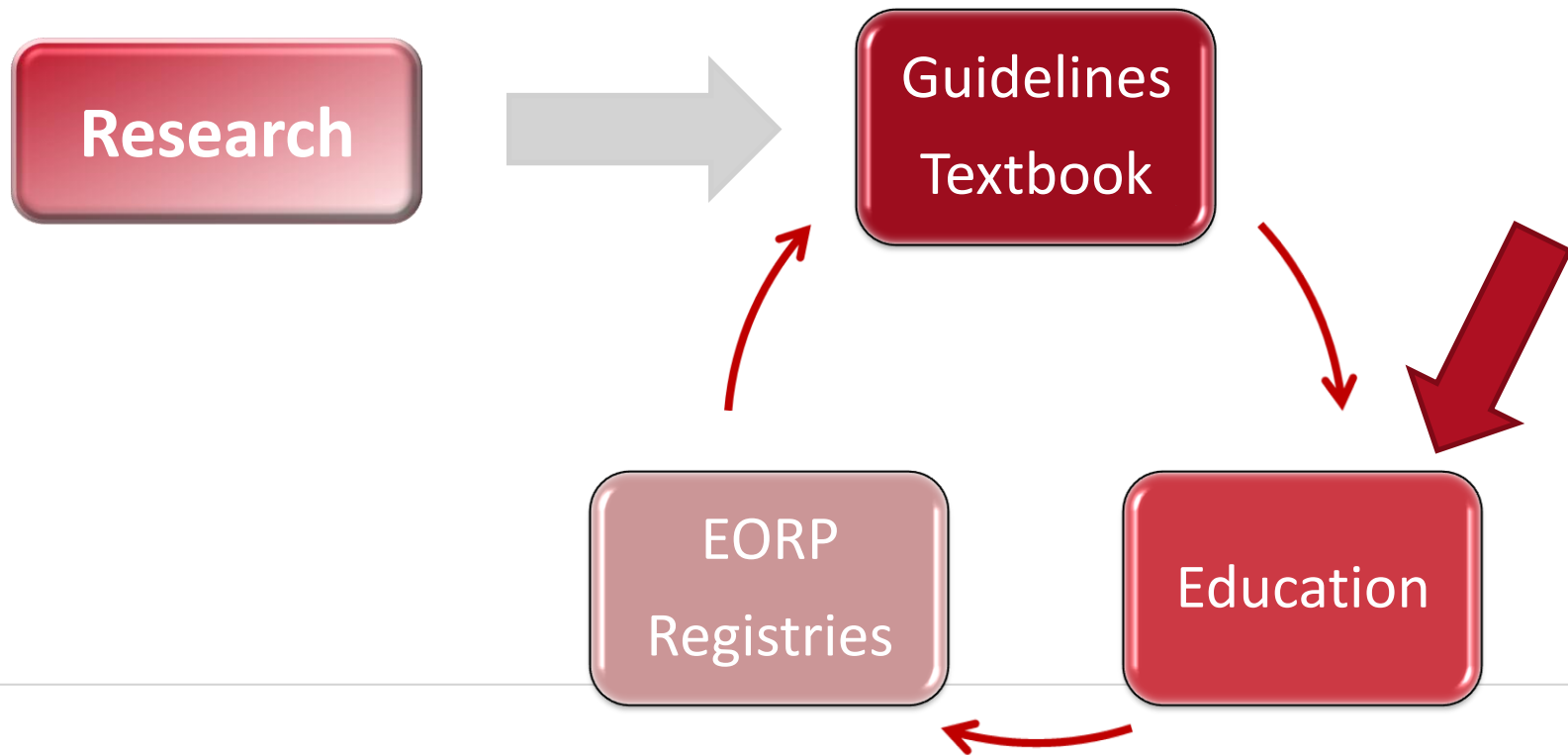
Guidelines • Valve disease • Valve surgery • Percutaneous valve intervention • Aortic regurgitation • Aortic stenosis • Mitral regurgitation • Mitral stenosis • Tricuspid regurgitation • Tricuspid stenosis • Prosthetic heart valves

Table of Contents

Abbreviations and acronyms	2741	4.3 Medical therapy	2751
1. Preamble	2741	4.4 Serial testing	2751
2. Introduction	2743	4.5 Special patient populations	2751
2.1 Why do we need new guidelines on valvular heart disease?	2743	5. Aortic stenosis	2751
2.2 Content of these guidelines	2743	5.1 Evaluation	2751
2.3 New format of the guidelines	2743	5.1.1 Echocardiography	2751
2.4 How to use these guidelines	2743	5.1.2 Additional diagnostic aspects, including assessment of prognostic parameters	2753
3. General comments	2743	5.1.3 Diagnostic workup before transcatheter aortic valve implantation	2741
3.1 Patient evaluation	2743	5.2 Indications for intervention	2754
3.1.1 Echocardiography	2744	5.2.1 Indicators for intervention in symptomatic aortic stenosis	2756
3.1.2 Other non-invasive investigations	2744	5.2.2 Choice of intervention mode in symptomatic aortic stenosis	2756
3.1.2.1 Stress testing	2744	5.2.3 Asymptomatic aortic stenosis	2756
3.1.2.2 Cardiac magnetic resonance	2745	5.3 Medical therapy	2757
3.1.2.3 Computed tomography	2745	5.4 Serial testing	2757
3.1.2.4 Grayscale ultrasonography	2745	5.5 Special patient populations	2758
3.1.2.5 Biomarkers	2745	6. Mitral regurgitation	2758
3.1.3 Invasive investigations	2745	6.1 Primary mitral regurgitation	2758
3.1.3.1 Coronary angiography	2745	6.1.1 Evaluation	2758
3.1.3.2 Cardiac catheterization	2746	6.1.2 Indications for intervention	2760
3.1.4 Assessment of comorbidity	2746	6.1.3 Medical therapy	2761
3.2 Risk stratification	2746	6.1.4 Serial testing	2761
3.3 Special considerations in elderly patients	2746	6.2 Secondary mitral regurgitation	2761
3.4 Endocarditis prophylaxis	2746	6.2.1 Evaluation	2761
3.5 Prophylaxis for rheumatic fever	2746	6.2.2 Indications for intervention	2761
3.6 Concept of the Heart Team and heart valve centres	2746	6.2.3 Medical therapy	2762
3.7 Management of associated conditions	2747	7. Mitral stenosis	2762
3.7.1 Coronary artery disease	2747	7.1 Evaluation	2762
3.7.2 Atrial fibrillation	2747	7.2 Indications for intervention	2764
4. Aortic regurgitation	2748	7.3 Medical therapy	2764
4.1 Evaluation	2748	7.4 Serial testing	2765
4.1.1 Echocardiography	2748	7.5 Special patient populations	2766
4.1.2 Computed tomography and cardiac magnetic resonance	2749	8. Tricuspid regurgitation	2766
4.2 Indications for intervention	2749	8.1 Evaluation	2766

Link to
VHD textbook
chapter PDF

The Virtuous Circle



ESC Education

A wealth of educational activities:

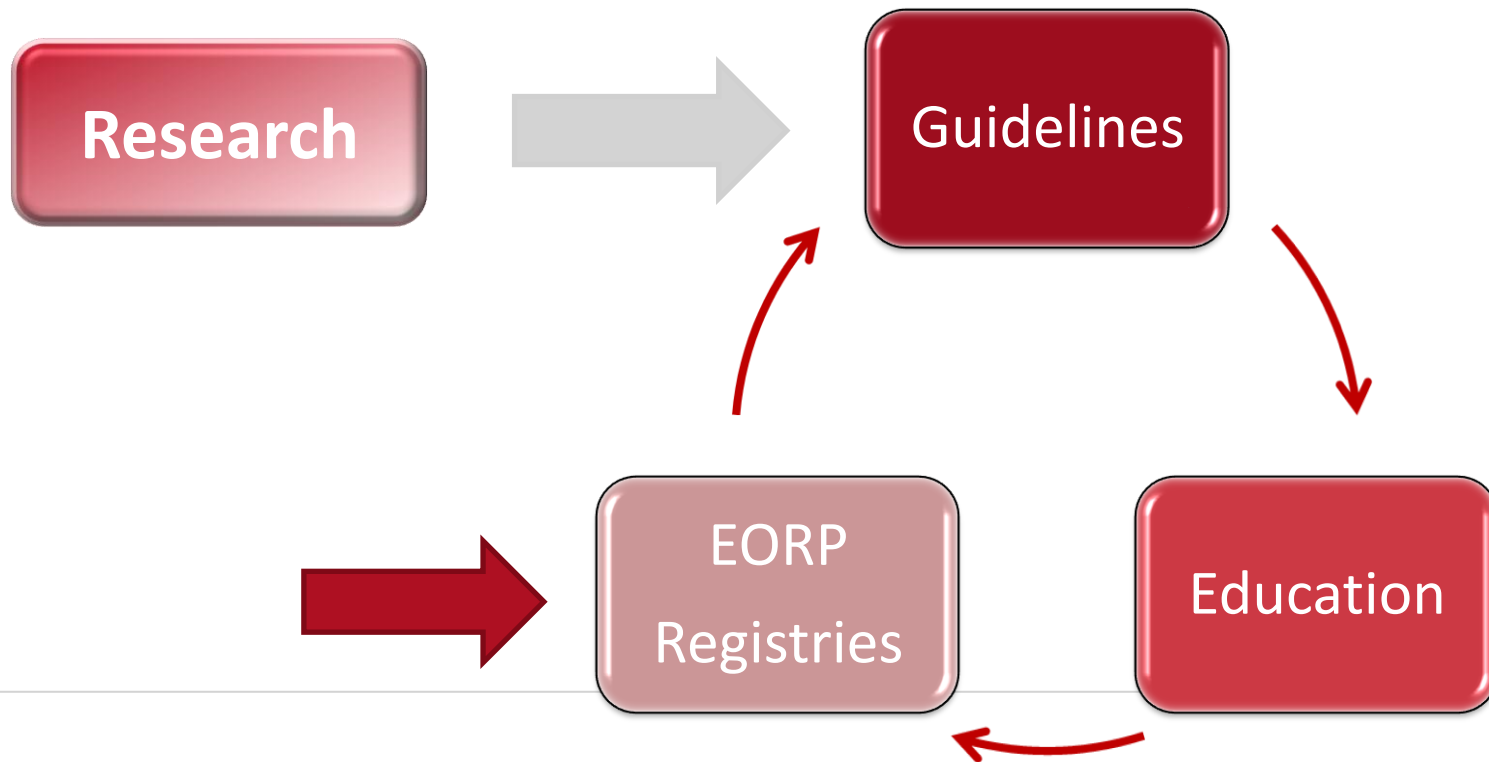
Dissemination of ESC Clinical Practice Guidelines to improve cardiovascular outcomes

- Guidelines into Practice tracks
- Clinical case gallery
- Clinical webinars
- European exam. Clinical Cardiology
- General Cardiology programme V2 in ESCeL

The Education material will be produced in close collaboration with the CPG and will take into account :

- **Priority of implementing the Key points from the Guidelines**
- Need for filling the gaps in knowledge
- Common MCQ's Platform (Guidelines, Textbook, Education)
- Mobile Apps about the new Guidelines (AF Pilot : "Catch me ")

The Virtuous Circle



The New Objectives of the EURObservational Registry Programme

To evaluate the use of **ESC guidelines** in Europe
and provide information to implement an
educational programme to fill in the gaps

Plans for New Registries

Move from continuous to snapshot registries

- 3-4 months data collection
- Limited follow-up (max. 1 year)

Registries ~2 years after the release of Guidelines, in order to:

- Evaluate the quality of the implementation of the Guidelines: the key points to be checked in priority will be those defined by Guidelines/Education
- Provide outcome measurements

Then:

- Inform the next Guidelines TF
- Identify the gaps in knowledge ie. the need for future educational material

EORP Objectives

- To be representative of Europe
- To understand and evaluate current medical practices in different cardiology sub-specialties
- To be initiated/conducted with the active participation of ESC Constituent Bodies
 - ❑ ESC sub-specialty associations
 - ❑ National Cardiac Societies
- To be managed centrally at the European Heart House (France)
- To cooperate with, but independently from Industry

Representativeness

- **Representativeness of Europe**
 - Invite 56 ESC members
 - Check balance between European regions
- **Representativeness between countries**
 - To avoid major discrepancies between country size and the number of centres / patients
- **Representativeness within countries**
 - Geographical distribution
 - Inclusion of different healthcare structures
 - University/tertiary centres and smaller referral hospitals
 - Public / private (when available)

➤ **EORP determines the number of centres / clusters per country**

Optimization of data collection and analysis

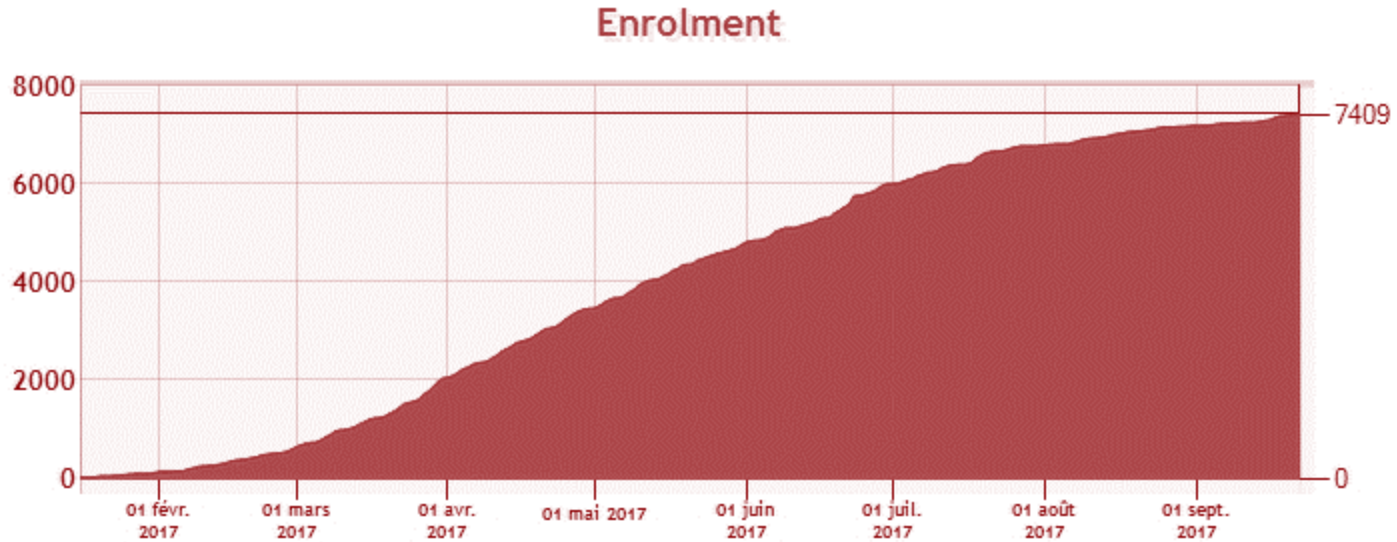
- CRF is elaborated by the Executive Committee
- Should focus on the objective of assessing practices and guidelines application.
Define variables matching guidelines criteria
- Avoid too long/complex CRF
- Optimize the resources of e-CRF (optimize data collection time and data quality)
- Standardization of statistical analysis plan
(descriptive variables and methodology to assess the concordance between practice and guidelines)

« The Pilot »

Valvular Heart Disease VHD II Snapshot Registry

Valvular Heart Disease (VHD II) Survey

Enrolment curve



New Snapshot Registries and Planning

- 2018 - Valve Durability (EAPCI): Transcatheter Aortic Valve Implantation (TAVI)
- **2018 - AF III: Atrial Fibrillation Phase III**
- **2018 - Non STEMI : Acute Coronary Syndrome**
- **2018 - HF III: Heart Failure Phase III**
- 2018 - EURECA (EACVI) : European Registry of Cardiac Imaging
- 2018 - S.C.A.D. (ACCA): Spontaneous Coronary Artery Dissection
- **2019 - STEMI : Acute Coronary Syndrome**
- **2020 - PAD : Peripheral Arterial Disease**

Quality Improvement programme

Needs assessments → outcome measurement

Pilot with ‘Stroke prevention and management in Afib’ (submitted to EUROPACE)
‘Awareness in Mitral Regurgitation’ (Accepted in Eur Heart J)

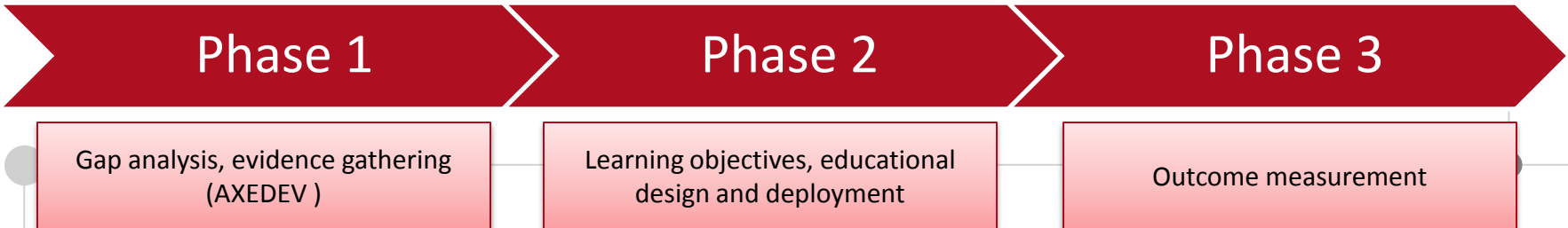
1. Evidence-based educational programme based on needs assessment and gap analysis

- ESC Clinical Practice Guidelines → *what should be*
- Registries and behavioural needs assessments → what actually is happening in practice

2. Educational design & deployment

- Gaps identified → learning objectives and educational design

3. Outcome measurement involving registries

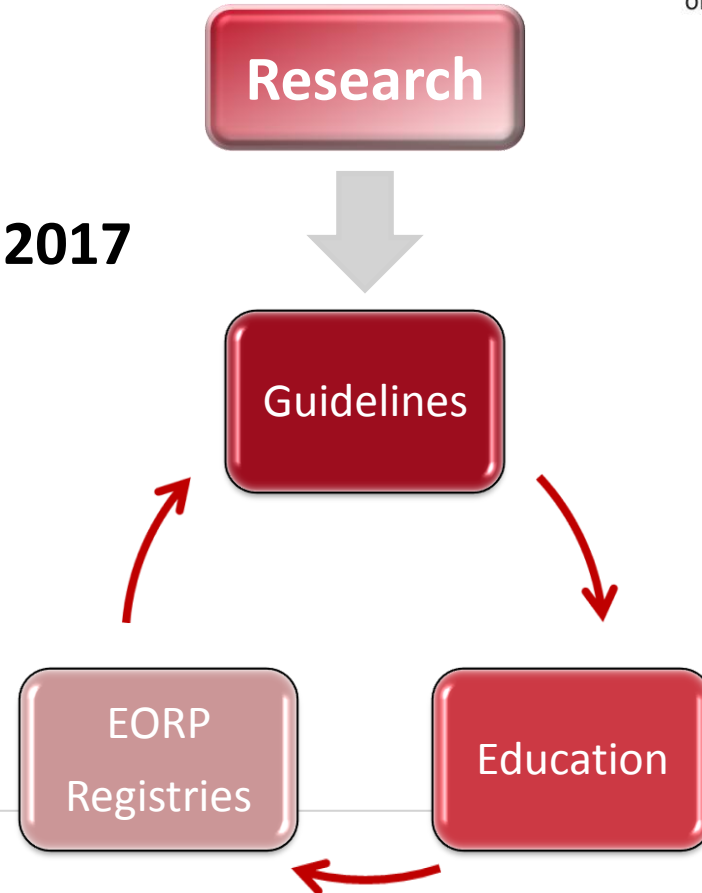


The ESC Virtuous circle on VHD: a Pilot !

New VHD Guidelines in August 2017

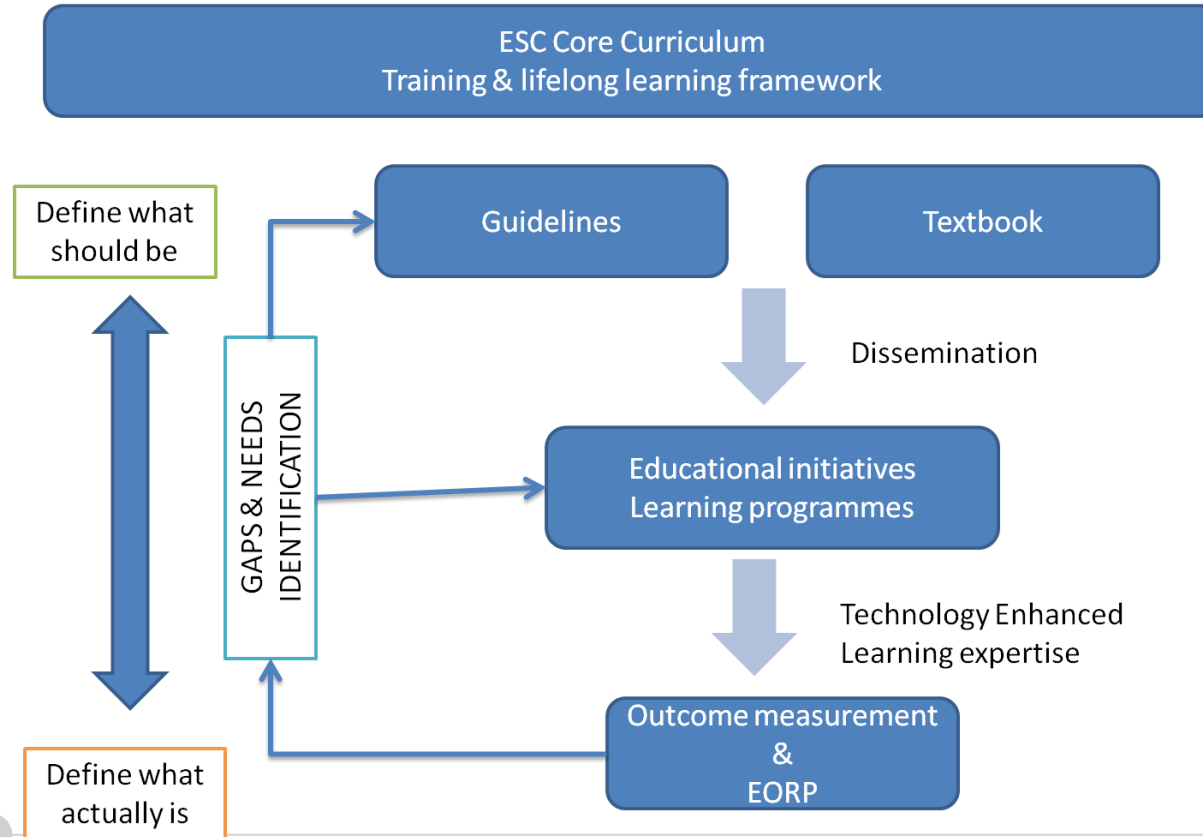
Behavioural studies
Awareness on MR
(In Press EHJ)

VHD II completed
August 2017



- **Improve the links with guidelines, education, registries, in order to optimize the sessions organized by these entities during the congress**
- **Enrich sessions at ESC Congresses to make them more impactful**
 - Introduce pre/post testing
 - Guidelines-based interactive sessions with self-assessment
- **Think about new formats of sessions such as sessions with guidelines/EORP/Atlas for a specific NS**

Integrated approach & Synergies



+ Congress

Governing Body/Think Tank

Guidelines Education Congress EORP Publications (GECEP)

ESC Committee for Practice Guidelines Chairperson / HOD:

S. Windecker / V. Dean

ESC Education Committee Chairperson / HOD:

P. Kirchhof / C. Carrera

Congress Programme Committee Chairperson / HOD:

S. Achenbach / C. Gouillard

EORP Oversight Committee Chairperson / HOD:

A. Vahanian / H. Druais

Publications Committee Chairperson / HOD:

T. Luescher / M. Alexander

Permanent Guests:

ESC President:

J. Bax

ESC President Elect:

B. Casadei

ESC CEO:

I. Bardinet

ESC COO:

M. Morrissey

ESC Scientific Affairs Director:

S. Martin

Secretary: N. Cameron

Conclusion

- Integrate scientific, clinical and medical education initiatives

- Ensure **Collaboration with ESC constituent bodies: Sub-speciality associations, WG, councils and ESC country members will be key** e-based, needs

- We have **« Together we achieve more »** education concept » !