

Training in Cardiology: The new era

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Cardiologist

- Definition of Cardiologist
 - Generic definition
 - Physician dealing with patient who suffers from CVD diseases
 - Prevention
 - Diagnosis
 - Treatment
 - Practical Problems
 - Cardiologists can not be a “supra” specialist in a every single aspect of Cardiology
 - Need for sub-specialization in different aspects of CVD

Cardiology vs subspecialization in Cardiology

- The term “General Cardiology” has been substituted by the term of “Cardiology”
- To what extent a Cardiologist should be trained during the 6th years of the training in the specialty?
 - Training in Theoretical aspects
 - Training in Practical Procedures

Training in Cardiology

The new ESC core curriculum (draft text)

- 1. The Cardiologist in the Clinical Context
- 2. Multimodality Imaging
- 3. Coronary and Peripheral artery disease
- 4. Valvular heart disease
- 5. Rhythm disorders
- 6. Heart failure
- 7. Acute Cardiac Care
- 8. Prevention, rehabilitation & sports cardiology
- 9. Miscellaneous
 - Including 'Congenital heart disease and pregnancy' not large enough to have a whole dedicated chapter)

What does the New ESC core curriculum say

- Multimodality imaging part of the training of the General Cardiologist
- Peripheral artery disease very high in the agenda of the training

What does any ESC core curriculum does not say

- A list of chapters can be similar in all levels of training
 - Medical students
 - Trainees in Cardiology
 - Subspeciality training
- The question is

TO WHAT DETAIL THIS KNOWLEDGE SHOULD BE

New ESC core curriculum

Procedures Level of Competence

- 1 ECG Level III
- 2 AMBULATORY ECG Level III
- 3 EXERCISE ECG TESTING Level III
- 4 CARDIOPULMONARY EXERCISE TESTING Level III
- 5 AMBULATORY BP Monitoring Level III
- 6 TRANSTHORACIC ECHOCARDIOGRAPHY (replaces ECHO DOPPLER STUDIES) Level III
- 7 VASCULAR ULTRASOUND Level I
- 8 TRANSOESOPHAGEAL ECHOCARDIOGRAPHY Level II
- 9 STRESS ECHOCARDIOGRAPHY Level I
- 10 CARDIAC CT Level II
- 11 CARDIAC MRI Level I
- 12 NUCLEAR IMAGING /NMR Level I Multimodalities imaging
- 13 RIGHT HEART CATHETERISATION Level II
- 14 ENDOMYOCARDIAL BIOPSY Level I
- 15 CORONARY & LV ANGIOGRAPHY Level II
- 16 PERCUTANEOUS INTERVENTIONS Level I
- 17 STRUCTURAL INTERVENTIONS: TAVI/MITRACLIP/PFO CLOSURE etc Level I
- 18 CARDIAC SURGERY Level I
- 19 PACEMAKER PROGRAMMING Level II
- 20 ICD/CRT PROGRAMMING Level I
- 21 TEMPORARY PACEMAKER IMPLANTATION Level III
- 22 PERMANENT PACEMAKER IMPLANTATION Level II
- 23 ICD IMPLANTATION Level I
- 24 CRT IMPLANTATION Level I
- 25 ELECTROPHYSIOLOGICAL STUDIES (replaces ATRIAL FLUTTER/ATRIAL FIBRILATION) Level I
- 26 ELECTROPHYSIOLOGICAL INTERVENTIONS Level I
- 27 ELECTRICAL CARDIOVERSION(Addition NB & MW) Level III
- 28 PERICARDIOCENTESIS Level II

What does the new ESC core curriculum say

- A Cardiologist after the 6 years of training is hardly capable of doing any procedures independently
- There are no numbers for any procedures
- There is no time especially allocated for any part of the training

What a Cardiologist will be able to do safely and possibly covered to do legally

- General Cardiac Consultation
- Exercise ECG
- Simple Echo studies
- CVD prevention?
- Treating Hypertension?
- Know whom and when to refer for further diagnosis and treatment

How a Cardiologist should be trained

- A trainee is a trainee
- Time of the everyday clinical practice should be devoted for the training
- Training should be understood that does not always helps in the every day clinical practice

Trainee

- How does a trainee learn
 - Personal studying
 - Organized training sessions
 - Everyday clinical practice and discussions
 - Practical procedures under supervision and gradual take over of responsibilities

Trainee

- How does a trainee prove that he has learnt
 - Theoretical Knowledge
 - Reading and formative examination
 - Practical Skills
 - Logbook (all practical skills)
 - DOPS (possibly not necessary according to the new ESC core curriculum)

SUMMATIVE EXAMINATIONS: MCQs (theoretical knowledge based upon practical scenarios)

Training Center

- One vs many Clinical Departments
- Many departments: need for rotation
- Criteria for recognition of a Department as a Training Department:
 - Chief of training
 - Trainers
 - Variety of clinical practice
 - Organized program

REVALIDATION EVERY CERTAIN NUMBER OF YEARS

Revalidation of Training Centers

Questionnaires filled by trainees anonymously

- Local visits by members of Central Committee

MANY PEOPLE and A LOT OF WORK

Trainers

- Chief of trainers
- Person responsible for clinical training
 - In charge of the log books
- Person responsible for theoretical training
- Regular appraisal meeting with the trainees

MANY PEOPLE and A LOT OF WORK

After specialization: Need for further training

- Subspecialization (εξειδίκευση) vs
- Retraining (μετεκπαίδευση)
- vs Both
- vs either

Topics in which a Cardiologist needs further training

- Interventional procedures (diagnostic and therapeutic: structural, coronary and peripheral)
- Implantation of devices (PPM, ICD etc)
- Electrophysiology
- Imaging (Echo, CT, MRI)
- Heart failure (advanced)
- Pediatric Cardiology and GUCH
- Acute Cardiac Care and Intensive Cardiac Care
- Diabetes and ? Prevention of CVD / Hypertension
- Cardiology and Sports
- Rehabilitation

Further training in each one of these topics

- How much of training is needed in each one of these topics
- Structural training programs vs CME
- How we should deal with the already practicing cardiologist

Already practicing Cardiologist

- To be awarded the subspeciality based upon practicing experience
 - Some proof is needed

Trainees in Cardiology

- Structured Programs from 1 to 2 years (according the amount of knowledge and manual procedures of use of new technologies needed)
 - Cardiac Intervention
 - Electrophysiology and Device Implantation
 - Heart failure (advanced)
 - Pediatric Cardiology and GUCH
 - Acute Cardiac Care and Intensive Cardiac Care
 - Diabetes
 - Accreditation through CME
 - Cardiology and Sports
 - Rehabilitation
- A Cardiologist should be regarded as a Specialist by default in
Prevention and
Hypertension

What if a practicing Cardiologist wants to get a new subspecialty in the future

- We need special training programs based upon both
 - structured training and
 - CME

according to the needs of each one physician

Will these changes lead to professional rights and restrictions in the practice of the previously so called General Cardiologist?

- Almost inevitable
- This is going to happen by
 - Either Patients preference, legal consequences and reimbursement
 - Or all the above