

# Update of the Echocardiography Core Syllabus of the European Association of Cardiovascular Imaging (EACVI)

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The update of the Echocardiography Core Syllabus of European Association of Cardiovascular Imaging (EACVI) is now available online. The Echocardiography Core Syllabus enumerates the elements of knowledge to be taught, represents a framework for the development of local training curricula and provides expected learning outcomes to the echocardiography learner.

## Keywords

echocardiography • contrast • 3D • transoesophageal • stress test • doppler

## Introduction

A comprehensive echocardiography examination requires more than simply image acquisition for subsequent evaluation; it requires continuous integration of images seen with knowledge of anatomy and pathophysiology, continuous pattern recognition of diagnostic findings and continuous consequent appropriate application of echocardiography modes and equipment controls knowledge. Therefore, a descriptive Echocardiography Core Syllabus is essential; it has to represent a comprehensive guide for all teaching and training programmes in echocardiography stating the expected learning outcomes. The updated Echocardiography Core Syllabus of the European Association of Cardiovascular Imaging (EACVI) is now available online.<sup>1</sup> It describes the fundamental knowledgebase required for accurate and comprehensive practice of echocardiography and provides a framework for echocardiography education and training. The EACVI Education Committee has developed this new syllabus, by updating and restructuring the European Association of Echocardiography (EAE) Core Syllabus to mirror developments in echocardiography and current available guidelines and recommendations. The Syllabus is the fruit of many months of hard work and close collaboration with all the EACVI board members.

## Why restructure the Echocardiography Core Syllabus?

Echocardiography is an always evolving imaging modality, through technological advances and their avid immediate implementation in clinical practice by its enthusiastic large international community. The EACVI echocardiography community plays an important role in this evolution, and in the timely development of guidelines and recommendations to ensure correct the use of technological advances in the appropriate clinical scenario. Since the publication of the EAE Core Syllabus, a series of guidelines and recommendations have been issued or endorsed by the EAE and they have been used to inform the new EACVI Core Syllabus. These guidelines and recommendations helped update the knowledgebase requirements in three-dimensional echocardiography, in the quantitative evaluation of cardiac mechanics, assessment of the right heart, assessment of valve stenosis, valve regurgitation and prosthetic valves, echocardiography in endocarditis, in pulmonary hypertension, in acute pulmonary emboli and in aortic disease, the diagnosis of cardiac sources of emboli, echocardiography to guide intervention, transoesophageal echocardiography and perioperative transoesophageal echocardiography. The documents referred to are listed at the end of the Core Syllabus.<sup>2–30</sup> Restructuring of the Core Syllabus has become

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necessary, in order to accommodate new techniques and applications and to differentiate in between current practice and the history of echocardiography.

## Scopes of the Core Syllabus

The purpose of the syllabus is to encourage homogeneous cardiovascular imaging education in Europe, providing a core knowledge summary for cardiology trainees, cardiac sonographers, and cardiologists, to inform both initial learning and continuous education. Homogeneous and harmonized imaging education facilitates the standardization of cardiovascular diagnosis and management across Europe. The syllabus is designed to serve as a platform for structured approach to certification<sup>31–34</sup> and to the development of educational materials.

## Use of the Core Syllabus within the EACVI activities

The role of the EACVI is typically to provide guidance, to set the premises for cardiac imaging practice standards unification in Europe, to define knowledge requirements and to promote education. The EACVI is a world leader in education, providing high-quality educational opportunities through congresses, teaching courses, journals, website, books, recommendations and position papers, slide-sets, and other tangible educational materials. The EACVI Echocardiography Core Syllabus will be used to standardize the content of these educational opportunities and of the educational activities organized by the EACVI in collaboration with National Societies and National Working Groups in Echocardiography. The EACVI values the contribution of National Societies and Working Groups in educational activities. The new EACVI Echocardiography Core Syllabus will be used to update the ESC Core Syllabus and Core Curriculum in clinical cardiology. Furthermore, the document will represent the foundation of collaboration between the EACVI Education Committee, the EACVI Board and the European Society of Cardiology (ESC) Education Committee in awarding adequate Continuous Medical Education (CME) credits to educational activities run throughout Europe.

## Perspectives

The syllabus will become the reference outline for all teaching materials and courses in echocardiography throughout Europe. It will represent the foundation of the new European electronic education platform (ESCel). The syllabus will represent the foundation of teamwork, being at the base of communication in between colleagues, in between cardiologists and sonographers, in between specialists and trainees, in between imaging modalities, in between specialties and, finally, at the base of communication with patients. The EACVI will aim to ensure that the Syllabus will be kept constantly updated and dynamic, sensitive to advances in the field of echocardiography. Core Syllabi of the other cardiac imaging modalities will be released in the near future in collaboration with the respective Working Groups representatives aiming to create a complete Cardiovascular Imaging Core Syllabus.

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Link to the core syllabus here