Cardiac computed tomography core syllabus of the European Association of Cardiovascular Imaging (EACVI)

Koen Nieman1*, Stephan Achenbach2, Francesca Pugliese3, Bernard Cosyns4, Patrizio Lancellotti5,6, and Anastasia Kitsiou7

1Departments of Cardiology and Radiology, Erasmus MC, Rotterdam, The Netherlands; 2Department of Medicine, University of Erlangen, Erlangen, Germany; 3Centre for Advanced Cardiovascular Imaging, NIHR Cardiovascular Biomedical Research Unit at Barts, Barts and The London School of Medicine & Barts Health NHS Trust, London, UK; 4CHU and ICM Laboratory, Universitair Ziekenhuis van Brussel, CHIREC, Brussels, Belgium; 5Department of Cardiology, GIGA Cardiovascular Sciences, Heart Valve Clinic, University of Liège Hospital, University Hospital Sart Tilman, Liège, Belgium; 6GVM Care and Research, Italy; and 7Department of Cardiology, Sismanoglio Hospital, Athens, Greece

Received 7 November 2014; accepted after revision 10 November 2014; online publish-ahead-of-print 13 February 2015

The European Association of Cardiovascular Imaging (EACVI) Core Syllabus for Cardiac Computed Tomography (CT) is now available online. The syllabus lists key elements of knowledge in Cardiac CT. It represents a framework for the development of training curricula and provides expected knowledge-based learning outcomes to the Cardiac CT trainees.

Keywords
Computed tomography • Syllabus • Education • Training • Teaching

Introduction
Over the past decade computed tomography (CT) has become an established imaging modality in cardiovascular medicine. Although non-invasive imaging of the coronary arteries is the most frequently used application, an expanding variety of clinical situations where cardiac CT can provide relevant information for the management of cardiovascular disease has progressively emerged, which includes pre-procedural imaging (i.e. in percutaneous valve implantation), identification of atrial thrombi, congenital heart disease, aortic disease, and the characterization of myocardial injury. Understanding the technical background of Cardiac CT is essential to maximize image quality, correctly interpret images, but also avoid unnecessary harm. The syllabus includes appropriate use in different situations, mirroring current clinical practice guidelines. The Cardiac CT Core Syllabus of the EACVI is now available online.1 The Cardiac CT Core Syllabus has been developed by representatives of the EACVI Section on Nuclear Cardiology and Cardiac CT and has been structured in line and scope with the EACVI Echocardiography and Cardiac Magnetic Resonance Imaging (CMR) Core Syllabi.2,3

Scope of the Cardiac CT Core curriculum
The purpose of the Cardiac CT Core Syllabus, in conjunction with the other imaging Core Syllabi, is to encourage homogeneous cardiovascular imaging education. It provides a core knowledge summary for cardiology trainees, cardiologists, and professionals with an interest in Cardiac CT. The syllabus can serve as a guide for developing educational material and educational course content. Trainees may use the Cardiac CT Core Syllabus to guide their preparation for knowledge-based assessments. Harmonized imaging education and assessment facilitate the delivery of standardized high-quality cardiac imaging, which in turn leads to improved diagnostic and therapeutic management of cardiovascular disease across Europe. The EACVI has the ambition to develop a certification of competence procedure for Cardiac CT, in line with existing certification for echocardiography and cardiovascular magnetic resonance imaging (CMR). As part of the certification procedure, the Cardiac CT Core Syllabus will form the foundation on which knowledge about Cardiac CT will be examined.

Use of the core syllabus within the EACVI activities
The role of the EACVI is to provide guidance, to facilitate harmonization of cardiac imaging practice standards, to define knowledge requirements, and to promote education. The EACVI provides high-quality educational opportunities through congresses, teaching courses, journals, websites, books, recommendations and position papers, slide-sets, and other tangible educational materials. The
EACVI Cardiac CT 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. The EACVI values the contribution of National Societies and Working Groups in educational activities. The new EACVI Cardiac CT 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 ESC Education Committee in awarding CME credits to educational activities organized throughout Europe.

Perspectives

The syllabus will become the reference outline for all teaching materials and courses in Cardiac CT throughout Europe. It will represent the foundation of the new European electronic education platform (ESCel). The EACVI will continue to update the syllabus, ensuring advances in the field of Cardiac CT are incorporated. The Cardiac CT Core Syllabus is aligned with the Echocardiography and CMR Core Syllabi of the EACVI. The aim is for the Cardiac CT Core Syllabus to form the foundation for a European Cardiac CT Certification Examination.

References