

ESC News

The ESC Council on Valvular Heart Disease today and the vision for tomorrow

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The European Society of Cardiology's (ESC) Council on Valvular Heart Disease (VHD) was first established in 2019 with the goal to coordinate actions within the European Society of Cardiology and ensure a multidisciplinary approach to the versatile and extremely rapidly growing field of VHD. VHD represents one of the three most frequent cardiovascular diseases¹ and concerns a broad spectrum of patients reaching from young adults suffering from rheumatic heart disease (RHD), patients with heart failure and secondary valve disease, and older individuals with degenerative lesions. The VHD council is intended to develop as a key organization within the ESC to improve the diagnosis, management, and prognosis of patients with VHD and support the creation of clinical care tracks that ensure timely access to diagnostics and treatment options.

During the last 20 years, the knowledge and management of VHD has been revolutionized in particular through the emergence of minimally-invasive and transcatheter treatment options. A paradigm shift that has been reflected in the successive ESC/EACTS guidelines.² This concerns, in the first place, the treatment of aortic stenosis using transcatheter aortic valve implantation (TAVI), and subsequently all other valves as new transcatheter solutions become available. These major advances have resulted in growing interest in understanding the pathophysiology and mechanisms behind VHD to better select patients for treatment.³ Simultaneous progresses of multimodality imaging have further fostered procedural success and improved outcome for patients affected by VHD.

The composition of the Board of the ESC Council on VHD shall reflect this multi-disciplinary approach (*Figure 1*), through inclusion of representatives of associations and working groups of the ESC with strong interest in this field. Central stakeholders and partner associations include the European Association of

Percutaneous Cardiovascular Interventions (EAPCI), the European Association of Cardiovascular Imaging (EACVI), the Heart Failure Association (HFA) of the ESC, the European Heart Rhythm Association (EHRA), the European Association of Preventive Cardiology (EAPC), the ESC Working Group on Cardiovascular Surgery, the Council for Clinical Practice, the Council on Basic Cardiovascular Science, and the European Association for Cardio-Thoracic Surgery (EACTS). Today, the Council's mission is to create and establish the standards of professional excellence in the management of patients at risk and with VHD. Translational scientists, physiologists, general practitioners, clinical cardiologists and cardiologists with specific expertise in imaging, heart failure, catheter interventions, electrophysiology, cardiac surgeons and allied professionals with interest in VHD are more than welcome to join this endeavour that already counts close to 1000 members. The Council will contribute to the main congresses and meetings of the ESC family and partner societies, as well as to the newly launched *European Heart Journal—Valvular and Structural Heart Disease*.

Our vision for the future includes the following main objectives: (i) To prevent VHD and support its detection in underrepresented or underserved populations, in particular those affected by RHD; (ii) To offer advice, including advocacy, to the public, as well as national and international health organizations; (iii) To bring together members of the National Cardiac Societies with strong interest in the field of VHD; (iv) To promote high quality and up-to-date education in the domain of VHD; (v) To provide a platform for multicentric research initiatives.

Recent literature shows promising results of machine and deep learning to assist diagnostics, predict risk and progression of valvulopathies and optimize procedural strategies.^{4,5} Further

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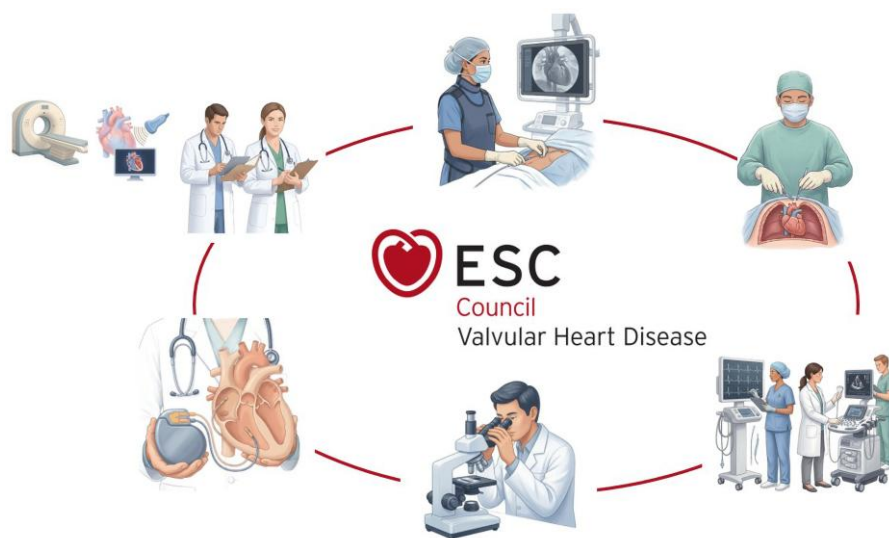


Figure 1 The multidisciplinary vision of VHD Council

developments may also impact our way to train physicians using simulators to improve the understanding of VHD and optimize its treatment.⁶ Like any other innovations, the use of artificial intelligence will need to undergo prospective validation under strictly regulated conditions. Reproducibility and the selection of appropriate target patient population represent crucial aspects of this journey, and VHD will undoubtedly remain central to it. Indeed, thanks to strong multidisciplinary foundations it appears best positioned to coordinate initiatives within and outside the ESC and ensure an inclusive and holistic approach to VHD.

Declarations

Disclosure of Interest

Nothing to declare.

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