

EDITOR'S PAGE



The ESC 2022 Cardio-Oncology Guidelines and the Road Ahead in Cardio-Oncology



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Cardio-oncology has grown tremendously over the last decade, from a limited focus in cardiology to an expansive, independent subspecialty. Since the publication of the American College of Cardiology (ACC) survey results in 2015 that highlighted limited awareness of cardio-oncology, lack of infrastructure and barriers to program development, and lack of national or international guidelines,¹ there has been an enthusiastic response by the cardiology and oncology communities to collaboratively address and resolve these gaps.

Aligning with the growth of cardio-oncology, consensus documents to guide clinical practice have evolved. Early efforts were appropriately narrowly focused in scope and attempted to tackle immediate and rapid implementation of cardiology prevention, risk stratification, and treatment strategies for cancer patients. For example, one important document was the use of multimodality cardiac imaging² that was well-aligned with rapid cardio-oncology program development at many centers to guide best practices from inception. Since then, our understanding of and sophistication within the discipline has transformed due to increasing dedicated research on the cardiovascular side effects specific to the different classes of cancer treatment.³ Attention has transitioned from treating downstream cardiotoxicity to the entire temporal spectrum of cardio-oncology care with a particular emphasis on prevention and identifying individual patient risk, in the hopes of abrogating the need to treat these complications and prevent the development of cardiovascular risk factors and disease. To encapsulate much of this knowledge and highlight where the field is headed, the landmark European Society of Cardiology (ESC) 2022 guidelines⁴ were recently released to provide expansive

guidance on the cardiovascular care of the oncology patient before, during, and after cancer treatment.

Major considerations when evaluating and applying any guideline to clinical practice include: 1) the rigor of the scientific process and the validity of the recommendations in being able to promote effective therapy while discouraging ineffective interventions; 2) clarity of the recommendations in translating the strongest scientific evidence into clinical practice; 3) flexibility of the application of the guidelines to diverse health care systems; 4) feasibility of implementation and clinical applicability to reduce practice variation; 5) evaluation of the patient-centric nature of the guidelines to avoid unnecessary burden on patients and caregivers for additional testing; and 6) cost-effectiveness and sustainability from both an individual and societal perspective.

The ESC 2022 guidelines were developed with a rigorous scientific process with a multidisciplinary approach. The members of the task force were selected by the ESC with particular attention to content expertise, diversity, and inclusion, and with respect to sex and country of origin. Diagnostic and therapeutic procedures were assessed for risk/benefit ratio, and the level of evidence and strength of recommendation were ascertained for each management recommendation, requiring at least a 75% vote.

One striking finding when reviewing the ESC 2022 guidelines is that although the cardio-oncology field has grown significantly, there remain many knowledge gaps, as underscored by the high proportion of the low Level of Evidence C for many recommendations within the document. This is a call for our field to generate rigorous, high-quality scientific evidence to fill these gaps. We must further generate, curate, and promulgate actionable science to advance our

understanding of best practices for optimizing cardiovascular care in this vulnerable population, across the world.⁵

Herein, region-specific perspectives from various international experts on the implications, potential impact, and anticipated clinical implementation of the ESC 2022 guidelines are included as a mini-focus issue in *JACC: CardioOncology*. It is our sincere hope

that these are useful to our international community in further contextualizing the guidelines.

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