

Back-to-back discovery, co-precision, and prevention

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Together, our two societies, the European Society of Cardiology (ESC) and the European Society of Medical Oncology (ESMO), have clocked up more than a century advancing their respective fields. Although ESMO is half the age of the ESC, it draws a similar international following at its annual Congress. Both annual meetings attracting >30 000 experts spanning almost 150 countries apiece.

With a clear emphasis on multidisciplinary research and subspecialty partnering, we share other parallels, including the development of clinical practice guidelines and far-reaching advocacy programmes. Just as oncology and cardiology converge, our mission statements both prioritize the advancement of science, prevention, diagnosis, and management of disease and uphold the delivery of optimal treatment and care for patients everywhere.

Our respective annual meetings took place last September on consecutive weeks. This proximity illustrates our shared commitment to strengthening the emerging field of cardio-oncology, within the broader context of precision medicine. Fittingly, one breaking study showcased during the ESC's congress, which was published in *The Lancet*,¹ reminds us just how much more work needs to be done both for cardiovascular disease (CVD) and cancer in light of the daunting statistics that we currently face.

Concerning CVD, the decline in premature cardiovascular death, we have witnessed in high-income countries over the past 50 years is now either levelling off or reversing; more people die each year from CVD, partly from the increase in population size and prevalence of CVD risk factors, including aging, obesity,



and hypertension. Cancer continues to rank as the second most common cause of death globally, accounting for 26% of all deaths in 2017.

The GLOBOCAN 2018 database² reports that the cancer burden rose to 18.1 million new cases and 9.6 million cancer deaths in 2018. As for CVD, new diagnoses are forecast to rise over the next decade. These data translate into unthinkable high stakes for national and regional healthcare systems, with the terrible impact of both likely to hit low- and middle-income countries even harder.

We must collectively act to alleviate co-occurring disease by dismantling the double-edged sword. Although research coupled with new technologies have spurred the development of potent, targeted, and precise cancer treatments leading to higher survival rates, we are also seeing increased morbidity and mortality resulting from treatment side effects, with CVD as one of the most frequent. These complications can lead to premature morbidity and death among cancer survivors and threaten to abolish the headway we have made.

Co-prioritizing cardio-oncology

The complex issue of CVD in cancer patients following radiation and anticancer medicines requires the creation and strengthening of multidisciplinary teams involving specialists in cardiology, oncology,

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and other related fields. This is happening in some cases but not as it should in many others.

Consequently, both ESC and ESMO are committed to collaborating to serve more effectively the emerging field of cardio-oncology. For example, ESC has published a consensus paper in the *European Heart Journal*,³ developed under the auspices of ESC's Committee for Practice Guidelines in collaboration with ESMO. An ESC Council on Cardio-Oncology was also established in 2018. The report sets out CVD complications of anticancer therapy into nine main categories and discusses each in terms of pathophysiology and clinical presentation, diagnostic, and therapeutic management.

Crucially, our two organizations must work together to lead educational programmes that will help to more precisely guide clinical decision-making and establish best practices to treat and ultimately prevent cardiac complications in these patients. Robust predictive science and increased surveillance must also be prioritized to identify those patients who might be at high risk and better tailor alternative treatments accordingly.

Policy points and global prevention

Occupying the top mortality ratings globally, CVD and cancer naturally share common risk factors that can and will strengthen common and more effective prevention strategies *en force*. We have the collective responsibility to work harder at reaching the World Health Assembly's target of a 25% relative reduction in mortality from non-communicable diseases by 2025, with nationally tailored control programmes aimed at reducing incidence and mortality of these killer diseases at the very core.

With cancer and CVD at the top of the international agenda, the importance of public engagement and education, advocacy, and the buy-in from national health ministries, through their expert task forces and committees, is paramount. Particularly pressing is the need to implement more effective strategies in low- and middle-income countries (LMICs).

According to the World Health Organization, an estimated three quarters of the world's deaths from CVD occur in LMICs, where integrated primary health care programmes for the early detection and treatment of people at high risk are often and quite literally thin

on the ground. Similarly, patients suffering from CVD and other non-communicable diseases including cancer in these regions have less access to effective health care.

A recent study⁴ highlights both the challenges and opportunities in cancer control in LMICs while drawing on the equally worrisome statistics that must be tackled head-on if we are to avoid even more catastrophic outcomes. The clock is ticking.

In addition to these considerations, disease often goes undetected until later stages, which means that many individuals die younger. To tackle these disturbing trends, the World Health Organization recommends a two-pronged strategy combining population-wide and individual intervention. This same double-punch approach surely applies to cancer prevention as well. Cardiologists and medical oncologists 'on the ground' locally will have a pivotal role in the successful implementation of both as well as shaping sustainable health care systems and practices.

Both our societies recognize that our patients are at the core of everything we do. We shall strive to more effectively treat and prevent the two highest ranking diseases that are crippling health care systems and society globally. The time to act against co-occurring CVD and cancer is now.

As such, the recently launched open-access *JACC: CardioOncology* not only shines essential light on this rapidly emerging field but will also serve as a timely educational platform through which to foster and further strengthen collaboration between cardiologists and oncologists towards advancing research and improving the treatment and care for our patients.

Conflict of interest: none declared.

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