

The perspective and role of the medical oncologist in cancer prevention: A position paper by the European Society for Medical Oncology

introduction: cancer—a preventable disease

One out of every three European citizen risks having cancer at some point in their lifetime. Globally, ~10 million cancer patients are diagnosed annually.

With an estimated 3.2 million new cases each year, cancer remains an evident public health challenge in Europe.

Big advances have been achieved over the last couple of decades in the treatment of various cancer types, especially thanks to a steady increase in the knowledge of the biology of the disease and concomitant improvements in treatment strategy.

However, this is not enough.

Cancer is a complex health problem that requires a multidisciplinary approach. This approach is far reaching and ranges from health promotion to prevention and screening, diagnosis, treatment, rehabilitation and palliative care.

To a large extent cancer can be prevented.

The paradigm shift in the approach to cancer management is increasing from cancer treatment to cancer prevention; prevention being defined as the reduction of cancer mortality via a reduction in the incidence of cancer achieved by lifestyle or dietary modifications, identifying the individuals with genetic predispositions and screening them, and by chemoprevention.

It is estimated that 40% of cancers can be prevented by modifying several risks factors.

Much of the promise for cancer prevention comes from observational epidemiologic studies that show associations between modifiable lifestyle factors or environmental exposures and specific cancers.

Over the years a lot of evidence has been accumulated for the association of certain factors that modulate the development of cancer. The most consistent finding here, over decades of research, is the strong association between tobacco use and cancers of many sites. Additional examples of modifiable cancer risk factors include alcohol consumption (associated with increased risk of oral, esophageal and breast cancers), physical inactivity (associated with increased risk of colon and breast cancers) and obesity (associated with colon, breast and endometrial cancers). Other lifestyle and environmental factors

affecting cancer risk include exposures to ultraviolet radiation as well as certain occupational and chemical exposures.

the role of medical oncologists in cancer prevention

Corresponding to the different phases in the natural history of the disease, three levels of cancer prevention are identified:

Primary prevention—to reduce the incidence of cancer by controlling (avoiding) exposure to risk factors or by increasing an individual’s resistance to these risk factors (by immunization or chemoprevention);

Secondary prevention—to detect cancer at an early stage (by screening) when treatment is more effective, leading to a higher rate of cure and a reduced frequency of the more serious consequences of disease; and

Tertiary prevention—defined as prevention of locoregional relapse and/or metastatic disease after primary treatment by surgery or radiotherapy.

Important molecular advances coupled with others in understanding cancer susceptibility continue to create opportunities for developing novel, multidisciplinary approaches for preventing cancer.

So far, medical oncologists have focused their practice on cancer treatment, managing patients with established malignancies, mainly intervening to slow or reverse cancer. Cancer management has grown to encompass new tools and concepts, as managing lesions at increasingly early stages will help shape the future role of medical oncologists. Medical oncologists have also gained substantial experience in randomized controlled trials designed to reduce the risk of primary and second primary tumors and in treating or preventing premalignant conditions.

Today European Society for Medical Oncology (ESMO) firmly supports prevention and screening as acute issues where medical oncologists can contribute.

ESMO is the leading European nonprofit, professional organization for medical oncology with a focus on uniting oncology specialists, healthcare professionals, caregivers, patients and policy makers in a global alliance committed to eradicating cancer and ensuring equal access to high-quality treatment of all patients. Recognized as a highly qualified professional, scientific and educational society, it has for >30 years continuously expanded its mission, aiming to create a wider community of professionals providing optimal care to all cancer patients. ESMO is represented in every European country and in the major geographical regions of the world.

ESMO is committed to work with determination to reduce the cancer burden in Europe.

editorial

As cancer prevention and screening have matured and deepened their roles in the science and practice of oncology, ESMO has strengthened its commitment to cancer prevention and screening:

- Starting in 2006, ESMO has co-organized, and in 2008, cosponsored the major European meeting on Cancer Prevention (CAP) in St Gallen, Switzerland. Major societies, institutions and international top experts in the field of molecular biology and genetics, epidemiology, clinical cancer prevention, health economics and politics favor these meetings as a unique platform to present and discuss their relevant research findings and to develop more clinically useful cancer prevention strategies for the near future.
- By establishing a Cancer Prevention Working Group in 2007, ESMO encourages its members to expand their clinical focus to cancer prevention, or intervening before malignant transformations can occur and advocates an integral role for cancer prevention in the science and practice of medical oncology. The working group acknowledges that the challenge of reducing the incidence of cancer is complex and that solutions will require a diverse array of interventions, some of which, at present, are not within the scope of medical oncologists. The ESMO Cancer Prevention Working Group is responsible within ESMO for all activities that concern prevention, namely to develop educational courses and design scientific programs to incorporate cancer prevention in the program of ESMO meetings, to formulate position papers and a joint training curriculum with other societies and to implement prevention and screening in the daily practice of oncology.
- In February 2008, ESMO published the 'ESMO Handbook of Cancer Prevention', a state-of-the-art, practical guidance on reducing cancer risk and implementing screening for tumors. The handbook's 22 chapters bring together vital information on preventing a range of cancers, including those that affect the lungs, cervix, breast, prostate and colon. Chapters devoted to tobacco, alcohol, nutrition, workplace risks and hereditary cancer provide recommendations on the best ways to reduce cancer risk. This useful tool has been designed to help individuals, doctors and governments to reduce the global burden of cancer.

Counting on a strong organizational infrastructure which allows to provide authoritative guidance and evidence-based information with 20 Faculty groups, including international experts in the major areas of cancer care, and thanks to a network of National Representatives in every European country as well as ties to key opinion leaders and all European oncology societies, ESMO can have a strong and influential national and European reach.

ESMO's recommendations on cancer prevention

ESMO strongly believes that medical oncologists have the potential to be a large and important group of activists for cancer prevention measures and, with the rising numbers of

new cancer cases each year, they have more incentives than many others to see them.

Medical oncologists should take part in the development of cancer screening programs, providing the scientific insights necessary to guarantee that such programs have a positive impact and that drawbacks are kept to a minimum (false positive, false negative, etc.).

Medical oncologists should contribute to, and participate in, awareness campaigns to inform the population about the importance of screening programs and disseminate information about how to prevent cancer.

Medical oncologists can, during the treatment, inform their patients on the lifestyle and environmental factors having an impact on health and their recovery.

ESMO's mission is also to raise public awareness by providing information and fact sheets and to train health professionals and others involved in cancer screening to

diagnose,
guarantee quality assurance,
interpret the results, collect and analyze data,
test procedures,
communicate and provide psychological support.

In addition, ESMO supports research to design more efficient strategies, new tests and screening evaluation.

ESMO's political call for changes

Article 152 of the European Treaty provides that the community action is to complement national policies, in particular with reference to health issues.

The actual development of cancer prevention and screening programs should be implemented in accordance with national law and responsibilities of member states for the organization and delivery of health services and medical care.

Most European Union (EU) member states, however, must still take the appropriate measures to develop or improve national cancer control plans, prevention and mass screening programs and population-based cancer registries.

This is why ESMO:

'Lobbies national governments' to develop policies for efficient cancer control as well as prevention and screening programs and to encourage them to cooperate in research and exchange of best practices;

Strongly 'encourages the investment of funds' to augment research on effective prevention and screening methods;

Recognizes that 'putting prevention into clinical practice' can also be accelerated by appropriate reimbursement models that support proven prevention interventions. Developing the evidence base and disseminating research results of prevention are unlikely to translate into daily practice if reimbursement patterns do not recognize the value of such interventions;

Calls upon 'European institutions' to put cancer prevention and screening firmly and continuously on the European

political agenda. European institutions can adopt appropriate official positions and platforms to increase the pressure on member states to organize prevention and screening programs. In addition, European institutions can create the necessary conditions to promote information campaigns on cancer screening and prevention to the general public and encourage the exchange of best practices between health professionals.

conclusions

ESMO is convinced that joint efforts by the EU and EU member states to establish effective and efficient cancer

prevention and screening programs will help to reduce the number of new cancer cases. EU Council Presidencies in 2007 and 2008 have adopted this as high priorities in their recommendations and conclusions of their health programs.

Member states need to take the appropriate measures to safeguard the health of EU citizens. It is clear that by failing to make cancer prevention a priority, EU member states are currently missing important opportunities to reduce the burden of cancer among their citizens.

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On behalf of ESMO
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