

# Comprehensive cancer center - structure and functioning

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# ***Comprehensive cancer center - structure and function***

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## WHY CCC is a needed entity?

- Need for quality in oncology
- Definition and frameworks of quality
- Standardization of care
- Assurance of evidence-based practice
- Sustainability - Certification, re-certification, audit and quality control
- Evidence of the benefit of external audits (i.e. certification or accreditation) for improved performance and outcomes in many fields, including medicine in general and oncology in particular.



## **CHALLENGES IN CANCER CARE IN EUROPE**

- Cancer care in Europe and joint efforts for improvement are not new
- Important achievements with the Europe Against Cancer program (1985 – 2003)
- *European Partnership for Action Against Cancer (EPAAC)* was launched in 2009, after the European Commission published its Communication on Action Against Cancer: European Partnership
- Launch of the Europe's Beating Cancer Plan preparations in 2020 / 2021



## **CHALLENGES IN CANCER CARE IN EUROPE**

- Continued rise in incidence and mortality from cancer in the majority of European countries (EE vs WE)
- Increasing inequalities in cancer – incidence, mortality, survival, implementation of guidelines and comprehensive cancer care infrastructures (EE vs WE)
- Particular challenges of:
  1. Lack of adoption and implementation of National Cancer Control Programs / plans
  2. (In)sufficient resources for comprehensive cancer care
  3. Quality assurance and control across the entire cancer management process
  4. Sustainability of national initiatives

Courtesy: Assoc. Prof. Tit Albreht, MD, PhD

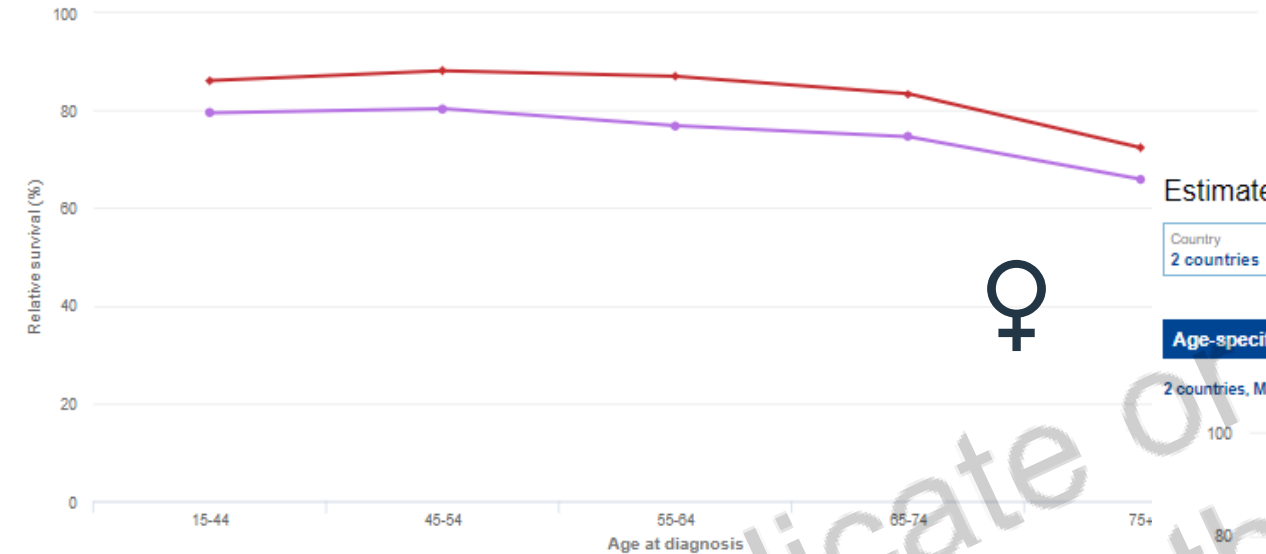
Estimates of survival, by country and cancer site

Share this view

Country: 2 countries | Sex: Female | Cancer: Breast | Age: 15+ | Year: 2000-2007 | Indicator: Survival

Age-specific 5-year relative survival

2 countries, Female, Breast, 15+ years, 2000-2007



Country	Sex	Cancer Site
Eastern Europe	Female	Breast
European average	Female	Breast



ECIS - European Cancer Information System

Significant differences in survival (10-20%) between EE and WE

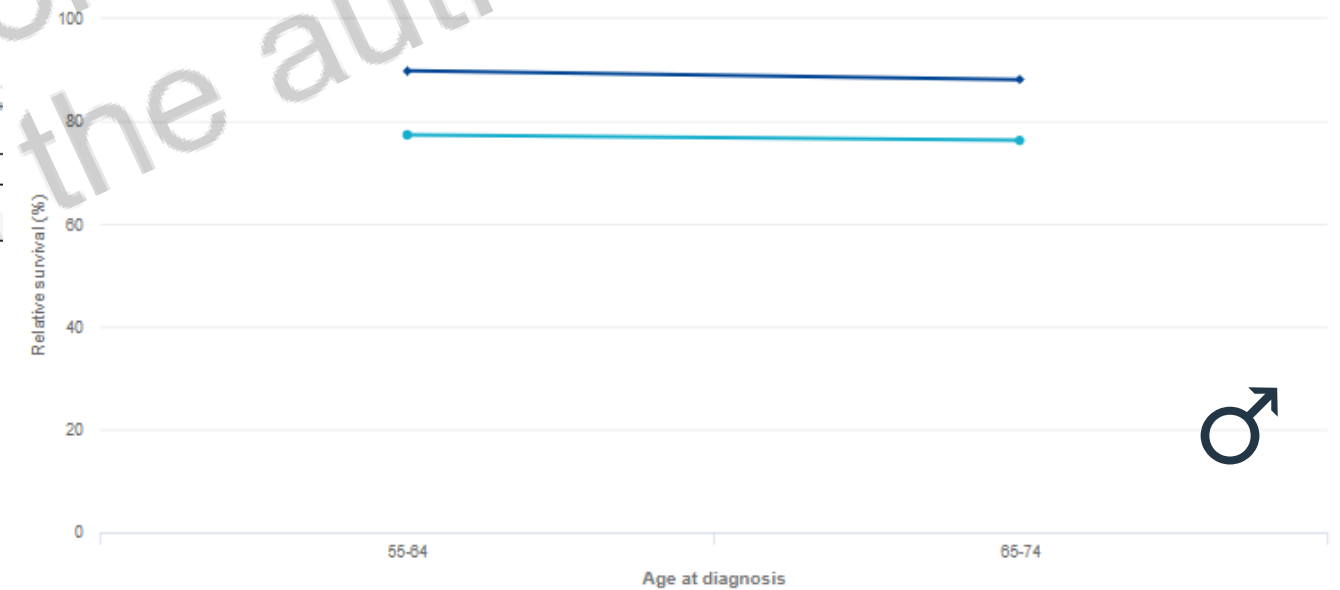
Estimates of survival, by country and cancer site

Share this view

Country: 2 countries | Sex: Male | Cancer: Prostate | Age: 15+ | Year: 2000-2007 | Indicator: Survival

Age-specific 5-year relative survival

2 countries, Male, Prostate, 15+ years, 2000-2007



Country	Sex	Cancer Site
Eastern Europe	Male	Prostate
European average	Male	Prostate



Important differences in Europe in incidence, mortality, survival and care need to be addressed by a multitude of approaches, measures

- Development of Comprehensive Cancer Centers (CCC)
- Development and implementation of national quality standards, guidelines and patient pathways, in concordance with international guidelines
- Ensuring strict accreditation and quality control: organisational quality assessment: voluntary vs compulsory, collegial (driven by professionals) vs regulatory (driven by governments).
- ECCO, ESMO, ESTRO, National Accreditation Program for Breast Centres (NAPBC), OEIC, different cancer societies, NICE, National Clinical Audit Programme (UK), European commission initiatives (e.g. Breast cancer)

## Comprehensive cancer center

- comprehensiveness in the **integration of research and clinical care**;
- comprehensiveness in relation to the **whole patient journey**;
- comprehensiveness in the capacity of a cancer centre/institute to **treat almost all cancers**
- **disseminate learning** and expertise across cancer types
- A high level of **infrastructure, expertise and innovation in cancer research**, especially in translational and clinical research, but also in many cases including basic science
- Either **strong University and Research Institute links**, or a University partnership
- Extensive international **networking**

	Criteria OECC Cancer Centre	Criteria OECC Comprehensive Cancer Centre
<b>General Criteria</b>		
Presence of surgical oncology, radiotherapy and medical oncology; research and education	Qualitative/quantitative assessment through accreditation	Qualitative/quantitative assessment through accreditation
Annual budget for cancer care (1.1.5)*	> 25 million Euro	> 50 million Euro
Annual budget for cancer research (1.1.5)*		> 8 million Euro
Number of cancer care inpatient beds plus the number of beds/chairs in the ambulatory day unit (2.2.1)	> 100	> 150
Number of FTE physicians dedicated to cancer (2.3.1)	> 30	> 50
Number of patients newly treated in the cancer centre/institute in the index year (2.1.1.2)	> 1500	> 2500

Source: <https://www.oeci.eu/>



## Essential features of the CCC

- An identifiable **organisational entity** with a clear governance and budget
- A highly innovative character and **multidisciplinary approach** using the potential of basic, translational and clinical research and clinical facilities and activities
- A direct provision of an **extensive scope of cancer care** tailored to the individual patient's needs and directed towards improving the quality of care
- Broad activities in the area of **prevention, education, and external dissemination of knowledge** and innovation. A CCC should have:
  - A high level of infrastructure, expertise and innovation in the field of cancer research, including translational and clinical research
  - An extensive network including all aspects of cancer treatment and research
  - Full integration between hospital care and cancer research, linked to one or more universities.

Source: <https://www.oeci.eu/>



## Process of construction and function of a CCC

- **Standards:** describe the demands a quality system has to meet and to be arranged. Usually **developed** and regularly **updated** by experts in cancer care and validated through pilot projects. They are based on **existing** quality standards
- **Accreditation programs:** based upon the standards for high qualitative cancer care.
- **Certification example:** International Society for Quality in Health Care External Evaluation Association (IEEA) - a separate legal entity, established by the International Society for Quality in Health Care in 2018 to deliver external evaluation services. The IEEA provides third-party external evaluation services to health and social care external evaluation organizations and standards developing bodies around the globe.
- Specialist societies: **EUSOMA**

Sources: <https://www.oeci.eu/>  
<https://www.eusoma.org/>



## CCC – key processes to be present

- Quality frameworks
- Definition and requirements
- MDT
- Critical mass/volume requirements/mdt working
- Accreditation/certification, audit and quality
- Education and training
- Clinical research and registries



## Comprehensive cancer center - definition

- The place where cancer is diagnosed and treated. It has to provide all the services necessary, from genetics and prevention, through the treatment of the primary tumour, to care of advanced disease, supportive and palliative care, survivorship and psychosocial support.
- An identifiable organisational entity with a clear governance
- A direct provision of an extensive range of high quality cancer diagnostics and care tailored to the individual patient's needs
- A culture of learning and improving the professional and organisational quality of care



## Governance of the CCC

- **Identifiable entity** – CCC has an identifiable governing entity (board of directors/executive committee) with accountability for:
  - strategic plan for cancer care
  - plan for research
  - quality and safety
  - budget
- **Quality management** – quality and risk management is a member of the board of directors or senior management team of the CCC
- A periodical **planning and control cycle** concerning oncology policy and strategy
  - an annual or multi-year plan
- **Financial sustainability** - a multi-annual budget for its activities



## CCC – key features (2)

- **Cooperation with universities** - for training, postgraduate and research activities
- Cooperation with **external parties** – implemented agreements or regulations, setting out the goals for cooperation, the division of responsibilities and tasks or provision of services needed that are not directly provided by the cancer centre/institute (e.g. hospices, rehabilitation services or specialist radiology)
- **Quality analysis and improvement, risk and safety management** with SOP; quality reporting - publishes summary reports or grades from inspections and accreditations.
- Standard process for the **introduction of new practices**
- **Maximum waiting times** (b/n referral and 1<sup>st</sup> visit, 1<sup>st</sup> visit and definitive diagnosis, b/n definitive diagnosis and 1<sup>st</sup> treatment) – identified and with continuous monitoring
- Cancer data and complications **registration**



## CCC – key features (3)

- Involvement, education of patients and structuring of patients pathways; electronic patient records
- MDT meetings, reviews and implementation of guidelines
- Cancer risk reducing strategies
- Survivorship care, palliative and end-of-life care, psycho-oncology, rehabilitation and social counselling



## CCC requirements – Breast cancer example

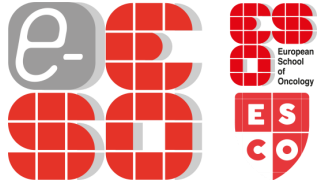
- Critical mass of patients - at least 150 newly diagnosed cases of EBC or at least 50 cases of MBC
- Screening, development of patient pathways and protocols
- MDT meeting (MDM) - min 95% of all EBC + ABC/MBC and at least 50% of MBC
- Breast centre coordinator
- Communication of diagnosis, treatment plan and waiting times – max 4-6 weeks
- Patient information
- Advocacy group/patient volunteer group
- Quality control – data manager, database to collect data on all cancer patients, yearly monitoring on key performance indices, survival, waiting times, etc.
- Education
- Research – min 5% of patients in clinical trials each year

Biganzoli L, Cardoso F, et al. The requirements of a specialist breast centre. *The breast* 2020;86:65-84



To improve and provide comprehensive  
cancer care  
(in Europe) – it is voluntary!

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