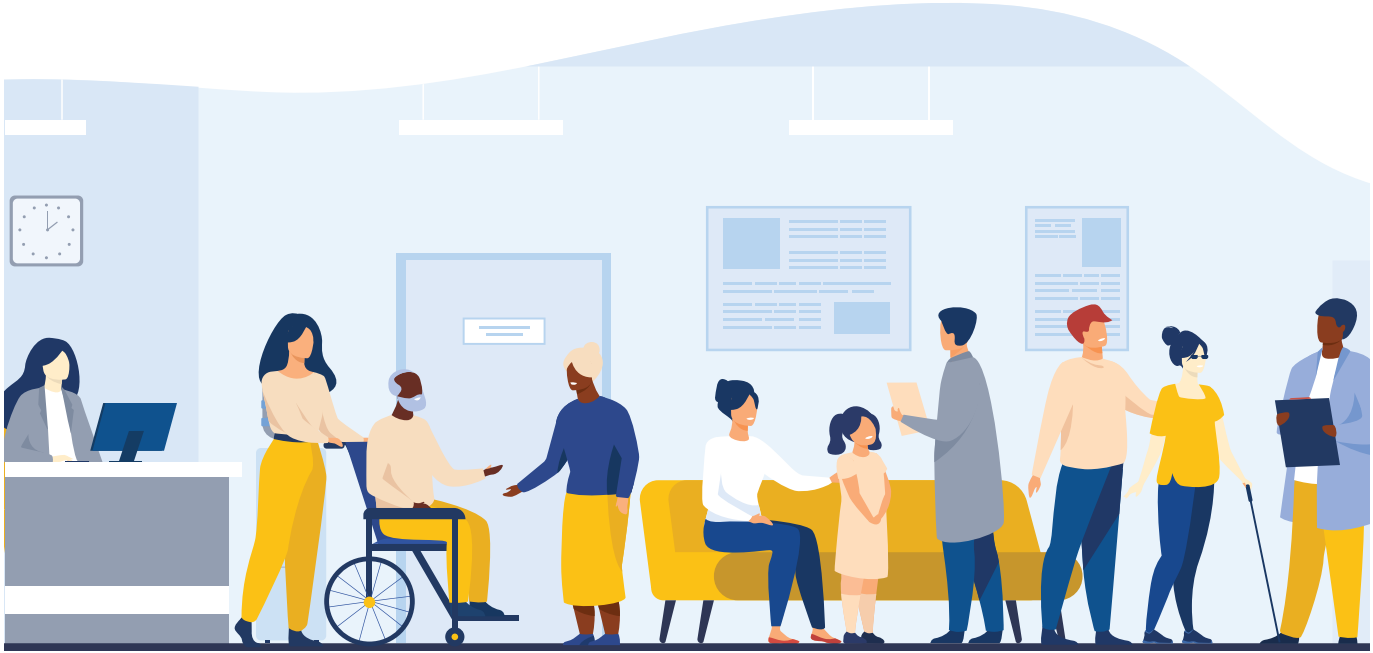
Cancer-related Complications and Comorbidities: impact on treatment, treatment efficacy, survivorship and quality of life

European Cancer Patient Coalition

Cancer-related complications and comorbidities add a highly significant burden on patients across Europe and are in many cases fatal.[1,2,3]



What are Comorbidities?

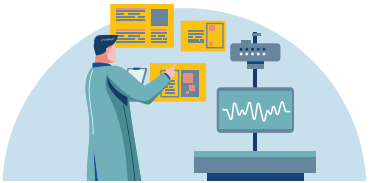
Comorbidity means **more than one illness or disease** occurring in one person **at the same time**.

Comorbidities are **negatively associated with multiple QoL indicators**. [7]

Both **cancer and its treatments may impact comorbidity outcomes**. [6]

Most cancer patients, even up to almost 90%, **report at least one comorbid condition**.[4,5,6]

Patients with comorbidities are at **increased risk of complications**. [7]



Patients with comorbidities are **less likely to receive anti-cancer treatment** with curative intent.[8]

What are complications?

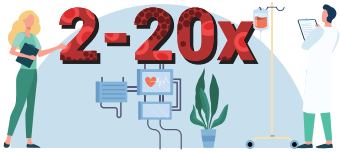
Oncologic complications can **occur because of treatments**.

Cancer patients are at risk of severe complications due to the **underlying malignancy or its treatment**.

Patients dealing with complications have **higher mortality rates**.[8]

Cancer-Associated Thrombosis (CAT)/ Venous Thromboembolism (VTE) and Cancer

CAT is one of the **leading causes of death** in cancer patients. [9,10]



Patients with cancer are estimated to have a **2 to 20-fold higher risk of developing VTE**. [13]

The diagnosis of CAT can negatively impact cancer patients' treatment, leading to **delays in cancer treatment** and further afflicting their health. [11,12]

VTE adds an **extra financial burden to the healthcare system**, which can be avoided through low-cost interventions such as **screening**. [14,15]

Up to 78% of cancer patients who experience VTE do so as outpatients, hence hospitalised cancer patients should be assessed and considered for thromboprophylaxis.[16]

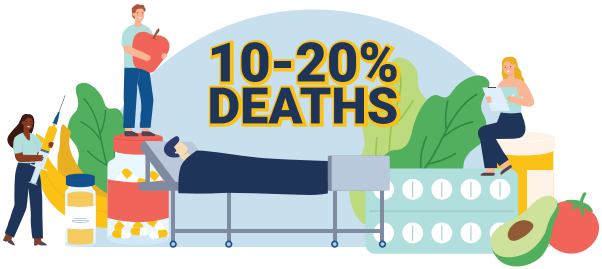
Cardiovascular complications and Cancer

Cardiotoxicity produced by cancer therapies is still a major limitation that can significantly **affect the clinical benefits and cancer patients' survival and quality of life**. [17,18,19]

The **increased burden of cancer treatment-related cardiotoxicity** is also becoming increasingly prevalent. [20,21]

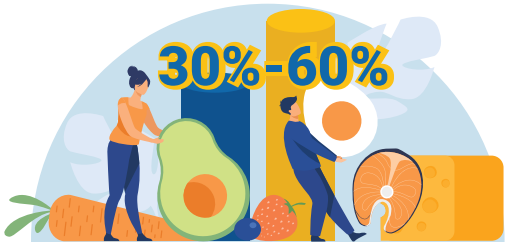
Effective cancer treatment must entail **cardiotoxicity management** and **cardiovascular monitoring** to ensure **high quality of life for cancer patients**. [22]

Nutritional support and Cancer



It is estimated that the **deaths of 10-20% of patients with cancer can be attributed to malnutrition**. [23]

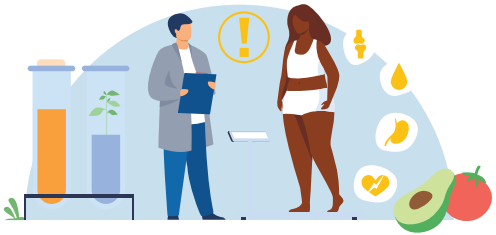
Many patients who need adequate and timely nutritional support **do not receive it**. [24,25]



Only **30%-60%** of patients with cancer who were at risk of malnutrition **received nutritional support**. [23]

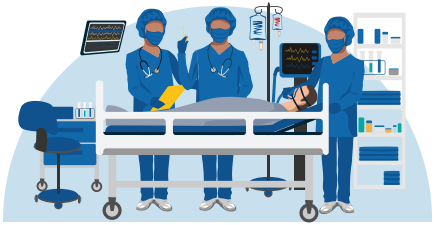
Oncologists and patients are often **unaware of cancer-related malnutrition and its impact**. [24,25]

Obesity and Cancer

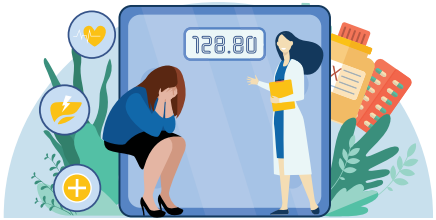


People living with obesity have an **increased risk of developing several types of cancer**. [26]

Large number of obese cancer patients receive **limited dosages of chemotherapy**. [28]



Surgery, surgical recovery, and outcomes are more challenging and can worsen the condition of obese cancer patients. [27]



Obese cancer patients after treatment are often experiencing **reduced quality of life, including functional impairment, psychosocial distress, limitations in social functioning, and emotional problems**. [29]

Mental health and Cancer

Depression is a comorbid disabling syndrome that **affects approximately 15% to 25% of cancer patients**. [30]

Due to physical changes such as amputations, hair loss, etc., or the concurrent symptoms such as fatigue, pain, nausea, etc. [31]

Cancer diagnosis and treatment have an **impact on patient's psychological health**.

Anxiety, and depression might result in **decreased adherence to treatment, poorer cancer survival, increased suicide risk, and additional health expenditures**. [32]

Neuro(psycho)logical complications and Cancer

Around **15-20%** of cancer patients have **neurological complications during their illness**. [33]

Cognitive impairment in cancer patients is frequently observed both **during treatment and survivorship**. [34,35,36,37]

Pain and Cancer

Pain is the most common **symptom of cancer** at diagnosis and **rises in prevalence throughout and beyond cancer treatment**. [38]

Pain can severely **impact patient's physical and psychological health**, functional status, and quality of life. [43,44]

Between 33% and 40% of **cancer survivors suffer from chronic pain**. [39,40,41,42]

Experienced pain has a **negative impact on patients' daily activity**, mobility, functioning, sleep quality, entertainment, social interaction, and professional life. [45,46]

Ageing and Cancer

Treating cancer in older patients at risk of complications **remains challenging**, mostly due to limited available resources. [47,48,49]

Decision-making for older patients with cancer **is a key challenge** influenced by many factors.

It is crucial that for older cancer patients **to consider characteristics including functional status, comorbidities, polypharmacy, functional status, mobility, nutritional status, mental health, cognitive status, social support, and quality of life,** in the context of their preferences. [50]

Ageing and Cancer

Although the majority of cancer incidence and mortality occurs in patients ≥ 65 years old, this age group is still underrepresented in randomised clinical trials (RCTs) that constitute the evidence base informing standard anticancer treatment decisions. [51,52,53]

This leads to a **remaining discrepancy between those fitting the criteria** to be selected for a study **and the real-world patients.** [54,55]

In most cases, **the recommended drug dosages are different for older cancer patients**, and some of them may experience treatment-related complications. [56]

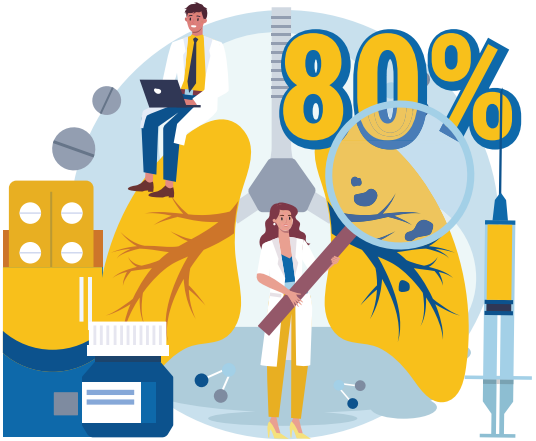
Infectious diseases and Cancer

Infectious agents are major contributors to cancer incidence worldwide and are estimated to be responsible for up to 25 -50% of all cancer cases in the world. [57]

HBV and HCV **are responsible for up to 76% of liver cancer cases** worldwide. [58]

Unlike other forms of cancer, carcinomas caused by viral infections are **largely preventable through vaccination or treatments.** [59]

Tobacco and Cancer



Tobacco accounts for at least **30% of all cancer deaths** and **80% of lung cancer deaths**.

Smoking **heightens the risk of more than 10 types of cancers**, and also worsens cancer outcomes and lowers survival rates.

Alcohol and Cancer

One bottle of wine per week is associated with an **increased absolute lifetime cancer risk** for non-smokers of **1.0% (men)** and **1.4% (women)**.

The harms that result from chronic daily drinking are: the spectrum of **alcohol dependency**, **hypertension**, **cancer of the gastrointestinal tract, breast, pancreas and liver**, preventable nutritional **dementia** of Wernicke/Korsakoff Syndrome, and **teratogenicity to the foetus**.

A collaboration of the Cancer-related Complications and Comorbidities Initiative Members:

European Cancer Patient Coalition (ECPC) - (Chair)

European Association for the Study of Obesity (EASO)

European Association of Urology (EAU)

European Brain Council (EBC)

Eurocarers

European Cancer Organisation

European Federation of Neurological Associations (EFNA)

European Federation of Nurses Associations (EFN)

European Geriatric Medicine Society (EuGMS)

European Pain Federation (EFIC)

European Society of Cardiology (ESC)

European Specialist Nurses Organisation (ESNO)

European Thrombosis and Haemostasis Alliance (ETHA)

International Society of Geriatric Oncology (SIOG)

International Society on Thrombosis and Hemostasis (ISTH)

KU Leuven – Leuven Cancer Institute (LKI)

The European Federation of the Associations of Dietitians (EFAD)

The European Nutrition for Health Alliance (ENHA)

The European Society for Clinical Nutrition and Metabolism

The European Society of Surgical Oncology (ESSO)

Obesity Policy Engagement Network (OPEN-EU)

Thrombosis Ireland

Thrombosis UK

International Psycho-Oncology Society

Associations collaborating on hepatitis to immunize and eliminate viruses in Europe

European Association for the Study of the Liver

European Hematology Association

European Society of Oncology Pharmacy

European Network for Smoking and Tobacco Prevention

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Ipsen – Innovation for patient care

AbbVie

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Astellas

Pfizer

Daiichi-Sankyo

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