The Neglected Heavy Burden: Pancreatic & Gastric Cancers

Policy asks

UNITED EUROPEAN GASTROENTEROLOGY ueg

PANCREATIC CANCER EUROPE

DIGESTIVE CANCERS EUROPE

About United European Gastroenterology

The United European Gastroenterology (UEG) is a non-profit organisation combining European societies concerned with digestive health.

UEG improves the prevention and care of digestive diseases in Europe by providing top tier education, supporting research and advancing clinical standards. As Europe's home for multidisciplinary gastroenterology, UEG unites over 50,000 engaged professionals from national and specialist societies, individual digestive health experts and related scientists from all fields.

You can find out more at: www.ueg.eu

About Pancreatic Cancer Europe

Pancreatic Cancer Europe is a European multi-stakeholder platform which aims at bringing together experts from all over Europe, including academics, physicians, politicians, patient groups, journalists and industry, with a common interest and willingness to improve care for patients with pancreatic cancer.

You can find out more at: www.pancreaticcancereurope.eu

About Digestive Cancers Europe

Digestive Cancers Europe (DiCE) is the European umbrella organisation of a large group of national Members representing patients with digestive cancer – colorectal, gastric, liver, oesophageal, pancreatic and rare cancers. Our mission is to contribute to early diagnosis and decreased mortality from digestive cancers and to increase overall survival and quality of life.

You can find out more at: www.digestivecancers.eu

The Neglected Heavy Burden – Why Urgent Action is Needed?

PANCREATIC CANCER

Pancreatic cancer is one of the most lethal tumours, the fourth cause of cancer death in Europe. Despite its important public health impact, effective treatments exist only for early cancers where complete surgical resection is possible. There are not enough high-visibility research efforts to improve care. This alarming situation is emblematic of a larger group of cancer diseases known as neglected cancers.

Pancreatic cancer has the lowest rate of survival amongst all cancers across Europe, killing about 92% of patients within five years of their diagnosis. In 2018 it took the lives of approximately 128.000 Europeans, while another 132.600 were diagnosed.

It ranks second - after colon cancer – in incidence and costs among digestive cancers, with the total costs reaching €7 billion in Europe. When diagnosed, 80% of patients already have tumours that are in a stage when it is too late to be cured. The 5-year survival rate for pancreatic cancer is <8%.

4th

cause of death by cancer in Europe

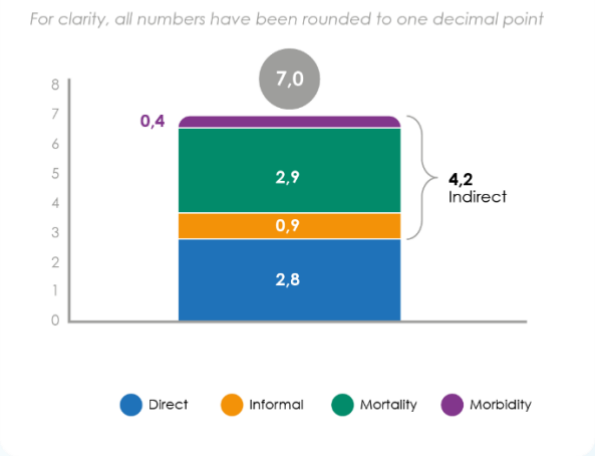
In 2020

140.116

new cases across Europe

All data are from 2020 from the European Cancer Information System (ECIS).

Figure 1: The costs of pancreatic cancer in billion in € Europe (2018 data)



- **Cancer-specific pharmaceutical treatment costs** for pancreatic cancer account **for 6% of all direct costs.**
- In pancreatic cancer, **the sum of indirect costs is higher to that of direct costs**. This shows that non-healthcare costs form a major part of the total costs.
- The 5-year survival rate for pancreatic cancer is 9%, which translates to **high indirect costs due to premature mortality:** mortality-caused indirect costs are **€2,9 billion.**

Beyond epidemiological and economic data, there are several challenges behind the management of Pancreatic cancer:

- Better understanding of the disease is crucial as, currently, the known risk factors do not fully explain the rising incidence and its dramatic projections for the future.
- No routine screening and surveillance exist, although there are populations at higher risk of pancreatic cancer. The development of an accurate screening tool is essential to make screening and surveillance beneficial.
- Early detection is rare; around 80% of pancreatic cancer patients have an advanced stage of the disease at initial diagnosis.
- Pre-neoplastic lesions are difficult to detect and classify in their malignant potential.
- Tumour-related symptoms (obstruction, jaundice, pain) are difficult to manage.
- Surgery is still associated with a high-risk of morbidity or relatively high mortality.
- A considerable fraction of patients with advanced stage of disease across European countries does not receive any chemotherapy.
- All novel treatments that have shown tremendous benefit in other tumours, such as immunotherapy, have so far failed in pancreatic cancer.
- Palliative care is frequently underprovided across Europe.

GASTRIC CANCER

Each year around 136.000 European citizens are diagnosed with gastric cancer, while approximately 97.000 patients die, placing this cancer in sixth place among the most common causes of all cancer-related deaths.

The cost of gastric cancer accounts to €5 billion in Europe. The majority of patients are diagnosed when their tumours have already advanced or metastasised, with a 5-year survival rate of 27%. A low survival rate translates to higher indirect costs due to premature mortality and systemic therapy. Despite the rising human and financial stakes in gastric cancers, best practices fail to be applied, disease management guidelines are not harmonised across Europe, and the management of the disease is still not optimal in many countries and regions.

In 2020

189.031
new cases across Europe

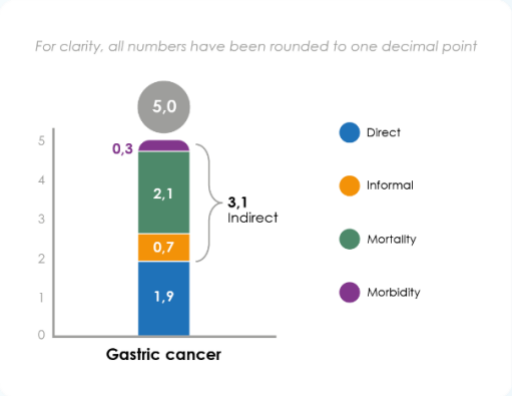
136.038 gastric cancer

142.508
deaths

96.997 gastric cancer

Current policy efforts do not fully address the 360-degree, precise and adequate disease management approach needed for optimal treatment of gastric cancer, one which encompasses every aspect of the patient journey and includes the patient in every part of the decision-making process. Furthermore, research tends to focus on cancer treatments but should also encompass non-invasive screenings of high-risk populations and novel biomarker surveillance of precancerous lesions.

Figure 1: The costs of pancreatic cancer in billion in € Europe (2018 data)



- **Cancer-specific pharmaceutical treatment costs** amount to **10% of all direct costs** for gastric cancer.
- For gastric cancer, **the sum of all indirect costs is higher to that of direct costs.** This shows that non-healthcare costs form a major part of the total costs.
- The 5-year survival rate for gastric cancer is 27%. This translates to **high indirect costs due to premature mortality compared to those observed in colon and rectal cancer, which presents a higher survival rate.**

Lifting the Neglected Heavy Burden: Policy Solutions

Raise awareness of 'red flags' to drive earlier diagnosis.
For pancreatic and gastric cancers, timely intervention by primary care professionals (PCPs) or a family doctor is critical. Training to empower and inform PCPs about risk factors and symptoms of pancreatic and gastric cancer, and the importance of timely referral to experts, to improve the progression of patients from referral through to diagnosis and treatment. Early detection can be lifesaving.

Educating citizens about the most common risk factors and early symptoms of pancreatic and gastric cancer will ensure that they are addressed quickly.

Screen high-risk populations and accelerate referral times.
Screening programs for high-risk population groups (carriers of specific genomic mutations, patients with chronic pancreatitis and precancerous lesions for pancreatic cancer and patients with H. pylori infections for gastric cancer) should be implemented as standard for those persons at risk to achieve diagnosis earlier, curable stages.

Promote the use of harmonised guidelines that define risk groups, the optimal referral, surveillance of patients with precancerous lesions, early diagnosis processes, and follow-up specific to pancreatic or gastric cancer, adhering to European best practices.

Ensure that patients are systematically referred to **high-volume expert centres.** Expert centres specialised in digestive cancers provide expertise and a multidisciplinary approach, allowing for timely and accurate diagnosis and intervention, including adequate biomarker testing, expert surgery, and holistic care. The high-volume expert centres should closely collaborate with local health centres to ensure the best treatment options for all patients. Each country should identify expert centres based on their proven expertise.

Create and expand existing **population-based cancer registries,** at both national and EU levels, as a key policy tool to evaluate the effectiveness and impact of pancreatic and gastric cancer prevention and intervention strategies. Cancer Registries can improve cancer surveillance to better plan and evaluate cancer prevention and control interventions.

Foster **European collaboration in the area of treatment and care.** Patients should have access to care in other European countries, making use of the cross-border healthcare directive. The European Reference Networks model should be extended (from current rare diseases) to diseases such as cancer, where European collaboration has a clear added value.

Create an environment for national patient organisations to flourish; through collaboration in shaping new healthcare policies that ensure optimal quality of life for patients and by investing in and supporting patient organisations to develop innovative education campaign models that empower the population to be in control of their own health.

Increase levels of research and funding for neglected digestive cancers such as pancreatic and gastric cancers. Invest in further research which could allow non-invasive population-based screening for pancreatic and gastric cancers and molecularly informed surveillance of pre-cancerous lesions and conditions for pancreatic and gastric cancer.

The Knowledge You Can't Neglect: Symptoms and Risk Factors

ABOUT PANCREATIC CANCER

Pancreatic cancer is a cancer that forms in the pancreas.

The pancreas is an essential organ in the body, located below the stomach, which is important for digesting food and managing use of sugar for energy after digestion.

There are several types of pancreatic cancer, including pancreatic cancer ductal adenocarcinoma (PDAC), pancreatic neuroendocrine tumours (pNETs) and pancreatic neuroendocrine carcinomas (pNECs).

The vast majority (around 93%) of pancreatic cancers arise from the exocrine parts of the pancreas (which aid digestion). Within this category, most tumours are 'adenocarcinomas', which means a cancer which originated in glandular cells. This form of cancer is often known as pancreatic cancer ductal adenocarcinoma (PDAC).

WHAT CAUSES PANCREATIC CANCER?

Factors that may increase the risk of pancreatic cancer include:

Smoking. Smoking increases risk of all types of cancer. About 25% of pancreatic cancers are thought to be caused by cigarette smoking.

Obesity. Obese people (body mass index [BMI] of 30 or more) are about 20% more likely to develop pancreatic cancer.

Type-2 diabetes mellitus. Long-term type 2 diabetes mellitus is associated with a 1.5- to 2.0-fold increase in the risk of pancreatic cancer.

Chronic pancreatitis. It is the inflammation of the pancreas. It is typically a painful pancreatic disease, which significantly increases the risk of pancreatic cancer.

Heavy alcohol consumption. Around 7 out of 10 cases of chronic pancreatitis are due to long term heavy drinking.

Family history of cancer, particularly pancreatic cancer. About 5-10% of pancreatic cancer patients have other close relatives who have also developed pancreatic cancer. Individuals with a family history of pancreatic cancer are more likely to have an inherited mutation in a gene that increases their risk of developing pancreatic cancer.

Blood type other than type O. Studies have shown that the risk of pancreatic cancer is lowest among individuals with blood type O.

WHAT ARE THE SIGNS AND SYMPTOMS OF PANCREATIC CANCER?

One of the biggest challenges with diagnosing pancreatic cancer at an early stage is that signs and symptoms of pancreatic cancer often don't occur until the disease is advanced and when symptoms do appear, they may be easily confused with those of other illnesses.

It is therefore vital that the general public and general practitioners (who act as a gateway to diagnosis and care) are aware of the common symptoms.

The key warning signs of pancreatic cancer are:

- Unexplained weight loss
- Feeling bloated or full
- Depression
- Deep vein thrombosis
- Abdominal pain and/ or back pain
- Jaundice
- Bowel habits change
- Sudden onset diabetes

- Indigestion/heartburn/nausea and vomiting
- Unexplained acute pancreatitis (inflammation of the pancreas)
- Extreme tiredness/fatigue
- Stools that are large, pale, smelly and float

ABOUT GASTRIC CANCER

Gastric cancer is a cancer of the stomach. When cells in the stomach begin to behave abnormally, they can turn cancerous and grow out of control. This can prevent the stomach from working properly, causing uncomfortable symptoms. Sometimes these symptoms may be overlooked, and the cancer is only diagnosed once it has spread.

Advanced Gastric Cancer

Locally advanced gastric cancer: cancer that has spread to nearby tissues or lymph nodes.

Metastatic gastric cancer: cancer that has spread (metastasized) to at least one other organ, or distant parts of the body.

A diagnosis of advanced gastric cancer means that the cancer that originated in the stomach has spread to other locations in the body. Advanced gastric cancer most often spreads to the lungs, liver, lymph nodes, peritoneum (tissue that covers the organs in abdomen) and bones.

WHAT CAUSES GASTRIC CANCER?

Patients should be aware of inherited risks so they can make changes to reduce their risk. It is well established that healthy lifestyle habits and early diagnosis can reduce the occurrence of gastric cancer.

Factors that may increase the risk of gastric cancer include

Gender: Men are around twice as likely to get gastric cancer than women.

Age: There is a sharp increase in stomach cancer rates in people over 50. Most people diagnosed with stomach cancer are between their late 60s and 80s.

Infection with Helicobacter pylori (H. pylori): Infection with pylori bacteria seems to be a major cause of gastric cancer. Approximately half of the world's population is infected with H. pylori, and it has been estimated that approximately 3% of H. pylori-infected patients develop gastric cancer.

Gastroesophageal reflux disease (GERD): People with GERD (otherwise known as acid reflux) have a slightly higher risk of getting gastric cancer.

Smoking: Those who smoke have around double the risk of gastric cancer compared with those who don't.

Being obese: Overweight and obesity are associated with a slightly increased risk of gastric cancer.

Diet: There is an increased risk of gastric cancer for those with diets high in salted meat and smoked foods.

Genetics: family inherited diseases are known to increase the risk of gastric cancer. These include Tylosis A and Plummer Vinson syndrome, hereditary diffuse gastric cancer (caused by CDH1 genetic mutation), Lynch syndrome, hereditary breast and ovarian cancer (HBOC), and familial adenomatous polyposis (FAP).

WHAT ARE THE SIGNS AND SYMPTOMS OF GASTRIC CANCER?

As with most digestive cancers, diagnosing gastric cancer at an early stage is challenging because the signs and symptoms are often brushed aside as general indigestion or misdiagnosed with other illnesses. Far too often, this disease is diagnosed at an advanced stage.

Many of the symptoms of Gastric Cancer can be vague and are often overlooked.

The key warning signs of gastric cancer are:

- Dyspepsia, a condition which includes various types of digestive problems
- Indigestion or heartburn
- Pain or discomfort in the abdomen
- Nausea and vomiting, particularly vomiting up solid food shortly after eating
- Vomiting with or without blood or having blood in the stool
- Loss of appetite
- Weakness and fatigue
- Bloating of the stomach after meals

COMMON RISK FACTORS FOR GASTRIC AND PANCREATIC CANCER:

Smoking

Alcohol consumption

Obesity

Family history of cancer

References:

Burra, P, Bretthauer, M, Buti Ferret, M, Dugic, A, Fracasso, P, Leja, M, *et al* (2022). *UEG Digestive cancer screening across Europe*. United European Gastroenterol J. 2022; 10(4): 435– 7. https://doi.org/10.1002/ueg2.12230

Michl, P, Löhr, M, Neoptolemos, JP, Capurso, G, Rebours, V, Malats, N, *et al.* (2021) UEG position paper on pancreatic cancer. Bringing pancreatic cancer to the 21st century: prevent, detect, and treat the disease earlier and better. United European Gastroenterol J. 2021; 9(7): 860– 871. https://doi.org/10.1002/ueg2.12123

European Cancer Information System (2022); from https://ecis.jrc.ec.europa.eu accessed on 09/11/2022

Digestive Cancers Europe (2022) Pancreatic Cancer White Paper: *The Time to Act Is Now*

Swedish Institute for Health Economics (2020) The cost of cancers of the digestive system in Europe Report

Minicozzi, Pamela *et al* (2018). *Analysis of incidence, mortality and survival for pancreatic and biliary tract cancers across Europe, with assessment of the influence of revised European age standardisation on estimates*. Cancer epidemiology 55 (2018): 52-60.