UNITED EUROPEAN GASTROENTEROLOGY

# Digestive cancer screening across Europe

## Digestive cancers across Europe: The facts

In 2022, Europe recorded approximately 2.7 million new cancer cases, with age-standardised incidence rates ranging from around 422 to 728 per 100,000 across Member States.[1] Digestive cancers, including colorectal, gastric, liver and pancreatic cancer, account for a substantial share of this burden and are among the leading causes of cancer-related mortality in Europe.[2]

The 5th edition of the European Code Against Cancer (ECAC5) underscores the importance of embedding primary prevention and organised, quality-assured screening within national cancer control plans.[3] This position paper consolidates the evidence and defines the policy and implementation priorities required to strengthen screening across Europe.

### Gastric cancer

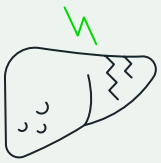
Gastric cancer caused an estimated 51,800 deaths in the EU27 in 2022, with approximately 74,600 new cases diagnosed that year.[2]

### Colorectal cancer

Colorectal cancer is the second most common cancer and the second cause of cancer death in the EU27, with over 341,000 new cases and over 156,000 deaths in 2020.[4]

### Liver cancer

In 2020, primary liver cancer caused approximately 78,000 deaths in Europe and ranked as the third leading cause of cancer death globally.[5]

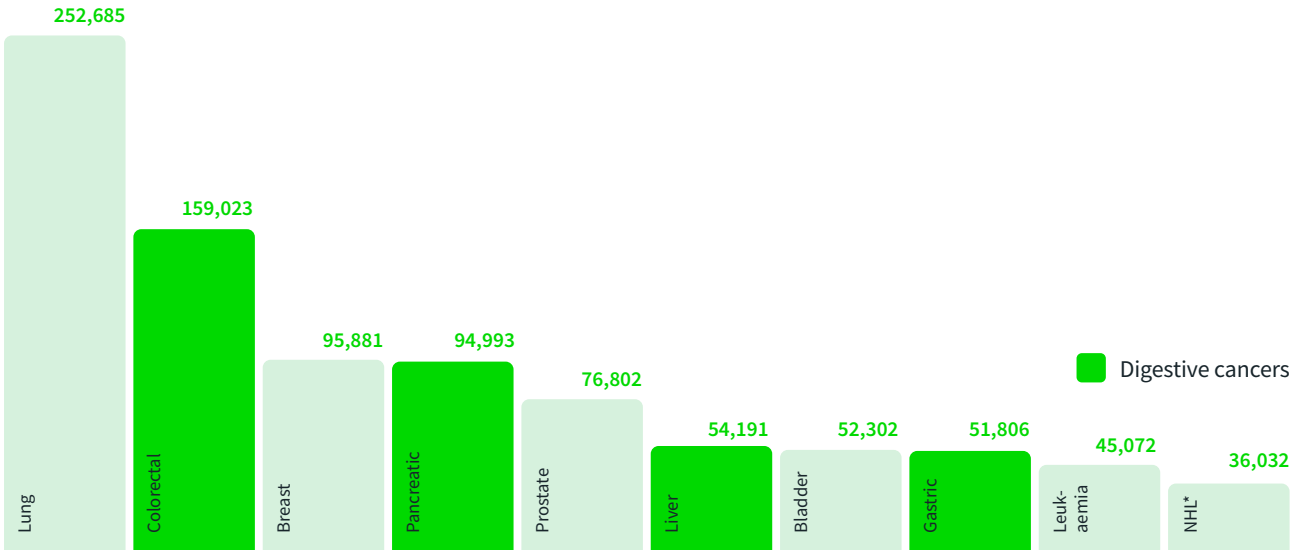


### Pancreatic cancer

In 2022, pancreatic cancer accounted for 7.4% of cancer deaths in the EU and ranked among the four deadliest cancers in both men and women.[1]

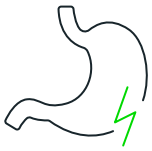
In 2022, the EU recorded approximately 2.7 million new cancer cases, with breast, colorectal, cervical, prostate, lung, and gastric cancers accounting for 54.2% of all new cancer cases and 50.2% of cancer deaths.[1]

### Confirmed deaths from cancer in EU-27 for 2022 (both sexes)[3]



# Digestive cancer screening across Europe: Challenges and opportunities

## Gastric cancer



Most gastric cancers are attributable to Helicobacter pylori infection, with meta-analyses showing that eradication in asymptomatic infected individuals is associated with reductions in gastric cancer incidence and mortality.[6] Recent guidance from the International Agency for Research on Cancer (IARC) Working Group supports H. pylori screen-and-treat strategies as an effective, population-level approach to gastric cancer prevention.[7,8] The 2020 Taipei global consensus similarly supports targeted testing and treatment strategies and recommends considering population-based screen-and-treat approaches where appropriate. European guidelines further recognise H. pylori eradication as a key component of gastric cancer prevention, although population-level screening strategies remain under investigation.[9]

The TOGAS (Towards Gastric Cancer Screening Implementation in Europe) initiative is evaluating the feasibility of gastric cancer screening in Europe through three pilots: H. pylori screen-and-treat in young adults, combined upper and lower gastrointestinal assessment within colonoscopy pathways, and pepsinogen-based risk stratification to assess long-term safety. These studies will provide implementation and cost-effectiveness data to guide future screening strategies.[7]

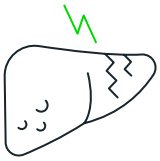
## Colorectal cancer (CRC)

Population screening for CRC enables earlier detection and improves survival. Across the EU, organised screening programmes are widely implemented for average-risk populations, typically using faecal immunochemical testing (FIT/iFOBT), with pathways to colonoscopy for positive results. These programmes aim to ensure equitable access, quality assurance, and active invitation strategies to increase uptake.[10] At the EU level, the European Commission, through initiatives such as Europe's Beating Cancer Plan and the European Commission Initiative on Colorectal Cancer (ECICC), plays a central role in supporting the implementation, standardisation, and quality assurance of CRC screening across Member States.[10]

Recent European trials have strengthened the evidence base for CRC screening.[11] The NordICC trial demonstrated that invitation to colonoscopy reduces CRC incidence and mortality,[12] while the 2025 COLONPREV trial demonstrated that faecal immunochemical testing was non-inferior to colonoscopy in reducing CRC mortality, supporting use of either strategy depending on system capacity and participation.[13]

Variation in screening modalities, costs, and participant burden complicates optimisation across Europe, and uptake remains suboptimal.[11,14] Risk-stratified approaches, including tools such as QCancer, offer opportunities to improve efficiency and equity by integrating environmental, hereditary, genetic and lifestyle factors into primary care risk assessment.[15] Learning screening programmes further enable continuous refinement of screening pathways and have already been implemented in several European countries.[16]

## Liver cancer



Detecting liver cancer at an early stage can significantly reduce the risk of mortality, but more than 60% of patients in Europe are diagnosed at an intermediate or advanced stage.[17] In Japan, however, more than 60% of patients are diagnosed at an early stage, with 5-year survival improving from 5.1% in 1978–1982 to 42.7% in 2003–2005.[18] These improvements are attributed to the establishment of screening.

Liver cancer develops in people with chronic liver disease, with a growing contribution from metabolic risk factors alongside viral hepatitis and alcohol-related liver disease.[19] Chronic liver disease is predominantly caused by viral hepatitis, metabolic dysfunction-associated steatotic liver disease (MASLD, formerly referred to as NAFLD) or harmful alcohol consumption.20 People with these risk factors should be identified and entered into liver disease risk-stratification pathways to detect advanced fibrosis and cirrhosis. Patients with cirrhosis are those for whom liver cancer surveillance is recommended in current clinical guidelines, while evidence remains insufficient to support routine surveillance in those with advanced fibrosis without cirrhosis.[20,21]

## Pancreatic cancer

Pancreatic cancer has a high mortality rate due to its insidious onset, aggressive biology, and limited responsiveness to treatment, and is projected to become one of the leading causes of cancer-related death in Europe within the next decade.[1,2]

Despite the rising burden of pancreatic cancer, population-wide screening is neither feasible nor recommended given its low incidence and the limited performance of current diagnostic tools. Surveillance should instead focus on clearly defined high-risk groups.

Individuals with pathogenic germline mutations or a strong family history represent the most consistently recognised groups eligible for structured, long-term surveillance, as reflected in international consensus statements (e.g. CAPS, AGA, NCCN).[22] Surveillance is also supported in hereditary pancreatitis associated with PRSS1 mutations.

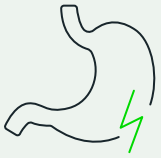
Since surveillance eligibility is largely mutation-driven, equitable access to genetic counselling and referral to specialised centres of excellence and registries is essential to ensure quality-assured care and robust data generation. Concurrently, the development of sensitive, non-invasive biomarkers capable of detecting early or premalignant lesions is critical to improving surveillance outcomes.

Patients with mucinous pancreatic cysts (IPMN, MCN), often detected incidentally, represent another group at increased risk of pancreatic cancer. Current surveillance recommendations rely mainly on imaging features and selected clinical parameters (worrisome and high-risk criteria), which have been refined and summarised in several guidelines in recent years.[20] However, these factors remain insufficient to accurately predict individual malignant transformation risk, underscoring the need for improved risk stratification integrating molecular, clinical and imaging data. Evidence supporting screening in other non-inherited risk groups remains inconsistent.[23]

# UEG recommendations and calls to policymakers

Screening strategies should be embedded within comprehensive national cancer control plans and aligned with the ECAC5, ensuring equitable access, appropriate health literacy, and systematic quality assurance across Member States. Sustained awareness strategies should support participation and informed decision-making, and be accessible, culturally adapted, and responsive to patient needs.

## Gastric cancer

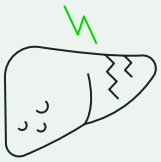


- Implement targeted population-based H. pylori screening in high-incidence countries (Eastern European countries, Portugal, Slovenia) and high-risk individuals
- Establish coordinated regional or national screening and eradication programmes with robust monitoring and outcome evaluation
- Support research on non-invasive risk markers to refine risk stratification and optimise screening eligibility
- Explore integration of gastric cancer screening with existing CRC screening programmes

## Colorectal cancer

- Expand and implement organised, population-based CRC screening programmes across Europe, with modern quality assurance and equal access to screening information
- Embed research to quantify the benefits and harms between different CRC screening tests and applications
- Develop risk-based screening algorithms based on age, sex, genetic risk and lifestyle factors that enable personalised CRC screening in the future[15]

## Liver cancer



- Implement targeted liver cancer screening in high-risk populations
- Enhance liver cirrhosis screening to aid early detection

## Pancreatic cancer

- Establish pan-European networks and centres of excellence with mandatory registry participation to harmonise surveillance, strengthen real-world data collection and refine risk stratification across high-risk populations[20]
- Ensure equitable access to genetic counselling and germline testing in line with CAPS, AGA, and NCCN guidance, supported by standardised referral pathways into pancreatic surveillance programmes[20]
- Develop sensitive, specific and cost-effective screening tools for high-risk populations, including tailored biomarker panels, advanced imaging modalities and AI-supported analysis to detect high-grade precursor lesions at an early stage[20]

# Contributing Member Societies

# Endorsers

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