UNITED EUROPEAN GASTROENTEROLOGY

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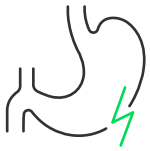
Position Paper: Digestive Cancer Screening Across Europe

Digestive Cancers Across Europe: The Facts

Europe accounts for a quarter of all cancer cases worldwide, with rates set to increase by more than 24% by 2035.[1] Digestive cancers are the leading cause of cancer-related mortality in Europe, with over 350,000 deaths each year from gastric, colorectal, liver and pancreatic cancer.[2]

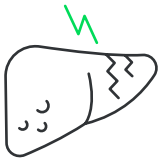
This position paper presents the available evidence and main issues that need to be addressed to ensure the successful implementation of screening for these four types of cancer. It aims to provide recommendations to aid informed decision-making on reducing the burden of digestive cancers across Europe.[3]

The number of deaths due to **gastric cancer** is expected to rise over the next 20 years[4], but estimates suggest up to 40% of these deaths are preventable[5]



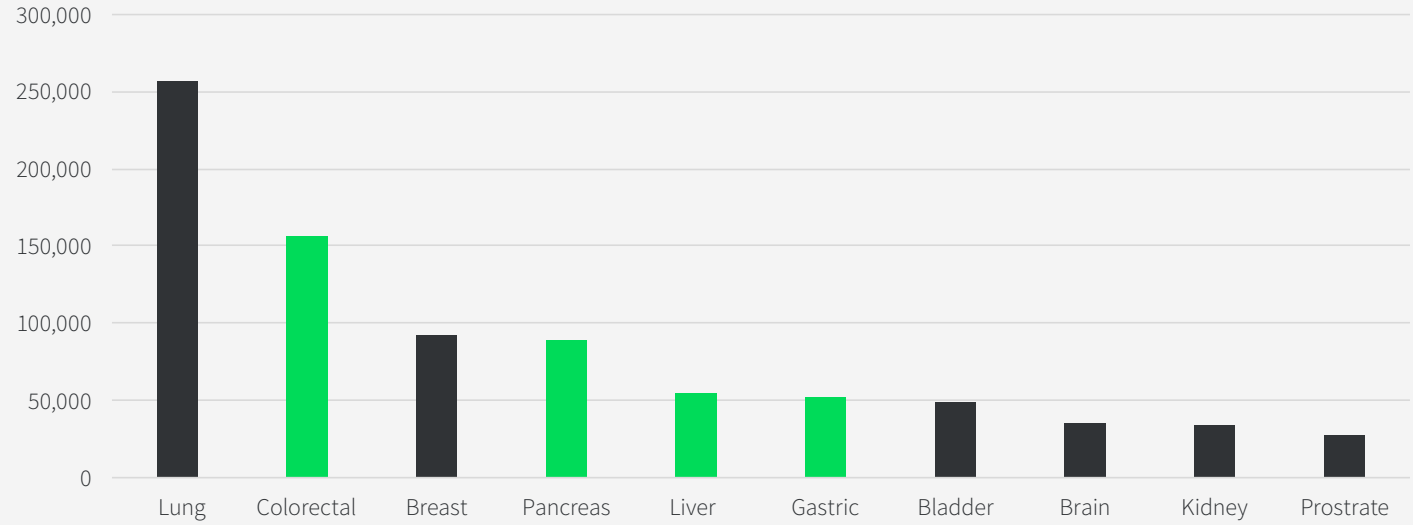
In Europe, **colorectal cancer** is the second most common type of cancer in women and the third most common type in men, with more than 150,000 deaths every year[6]

Liver cancer is the third most frequent cause of cancer-related mortality globally, with 78,000 deaths per year in Europe[7]



The 5-year overall survival rate for **pancreatic cancer** is below 10%[8] and, at the time of diagnosis, tumours are incurable in more than 80% of patients

Estimated numbers of deaths from cancer in EU-27 for 2020 (both sexes)[2]



This position paper is based on UEG's response to the EU Consultation on Cancer Screening (February, 2022)

Digestive Cancer Screening Across Europe: Challenges and Opportunities

Gastric cancer

Approximately 90% of all cases of gastric cancer are related to *Helicobacter pylori (H. pylori)* infection.[4] Based on recent research, a 40% reduction in mortality is achieved by eradicating *H. pylori* among healthy individuals.[4]

The 2020 Taipei global consensus concluded that there is sufficient evidence to support the testing of all high-risk individuals for *H. pylori* infection and subsequent treatment, and that mass screening and eradication of *H. pylori* should be considered in populations at high risk for gastric cancer.[9] This has been reinforced in European guidelines.[10]

Colorectal cancer (CRC)

Population screening for CRC enables early detection of the disease, which significantly improves chances of survival. In addition, organised screening programmes provide many benefits, including equality of access and information, quality assurance, and reminders to members of the public to participate in and increase screening uptake.[11]

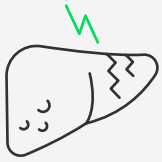
However, the variety of screening tests, their related costs and the burden they impose on participants make overall assessment difficult in Europe. Other challenges include the suboptimal uptake of screening and a lack of effective information on the benefits of CRC screening for eligible target groups.[12,13]

There is an opportunity to use individual risk-based assessments to highlight those at the highest risk for developing CRC and who should, therefore, be targeted by screening. Risk calculators should utilise environmental, hereditary, genetic and lifestyle factors for this.[14,15]

The recent concept of learning screening programmes also provides an opportunity to further improve the benefits and reduce the burden of CRC screening programmes across Europe,[15] which has been undertaken in countries such as Poland, Finland, Norway and the Netherlands.

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.[16,17] 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 liver cancer screening.



Liver cancer develops in people with chronic liver disease, often in those who are at an advanced stage of disease with liver cirrhosis.[19] Chronic liver disease is almost universally caused by viral hepatitis, non-alcoholic fatty liver disease or harmful alcohol consumption, and patients with one or more of these risk factors are at high risk and should be considered for liver cancer screening.[20]

Pancreatic cancer

The high mortality rate associated with pancreatic cancer is mainly attributable to its insidious onset and the lack of optimal tools for early detection, as well as its aggressive tumour biology and poor responsiveness to treatment.[8]

Despite the growing disease burden, screening the general population for pancreatic cancer is not currently feasible. However, screening those at high risk should be targeted. At present, evidence for precise definitions of high-risk populations is poor, and there are questions as to which screening tools are the most appropriate to employ. Several population groups have been identified as high risk and, therefore, as those who may benefit from surveillance. This includes individuals with a family history of the disease, patients with preneoplastic pancreatic cystic lesions, patients with recent-onset diabetes and patients with chronic pancreatitis.

In contrast to other types of cancer, most cases of pancreatic cancer arise from very small precursor lesions, which current imaging technologies are unable to detect. Therefore, biomarkers predictive for the presence of premalignant lesions or invasive malignancies at an early stage are important in screening high-risk populations, ideally obtained through non-invasive procedures.

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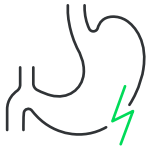
UEG Recommendations and Calls to Policymakers

Gastric cancer

- Population-based screening for *H. pylori* in countries with a high incidence of gastric cancer (Eastern European countries, Portugal, Slovenia) and in individuals in all other countries who are considered at a high risk for gastric cancer
- A well-designed *H. pylori* screening and treatment implementation strategy on a regional and/or national basis, with thorough monitoring and outcome data collection
- Research into non-invasive markers to help identify individuals at increased risk and who may benefit from systematic screening
- The possibility and modalities of gastric cancer screening combined with CRC screening should be considered

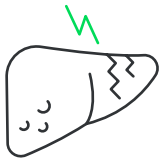


Colorectal cancer

- Expanding organised, population-based CRC screening programmes across Europe, with modern quality assurance and equal access to screening information
- Embedded research to quantify the benefits and harms between different CRC screening tests and applications
- Risk-based screening algorithms based on age, sex, genetic risk and lifestyle factors should be encouraged to enable personalised CRC screening in the future

Liver cancer

- Implementation of targeted liver cancer screening in high-risk populations
- Enhanced liver cirrhosis screening to help aid early detection of liver cancer
- Inclusion of patients with chronic liver disease in high-risk groups for liver cancer screening



Pancreatic cancer

- Establishment of pan-European networks that utilise large-scale trials and state-of-the-art methodologies to help establish high-risk populations and first-degree relatives
- Identification of screening marker panels for each high-risk population, with sufficient accuracy and cost-effectiveness to detect microscopic precancerous lesions
- Development of novel or refined imaging methods to detect precancerous lesions and invasive tumours at a very early stage in high-risk populations

Contributing Member Societies

Endorsers

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