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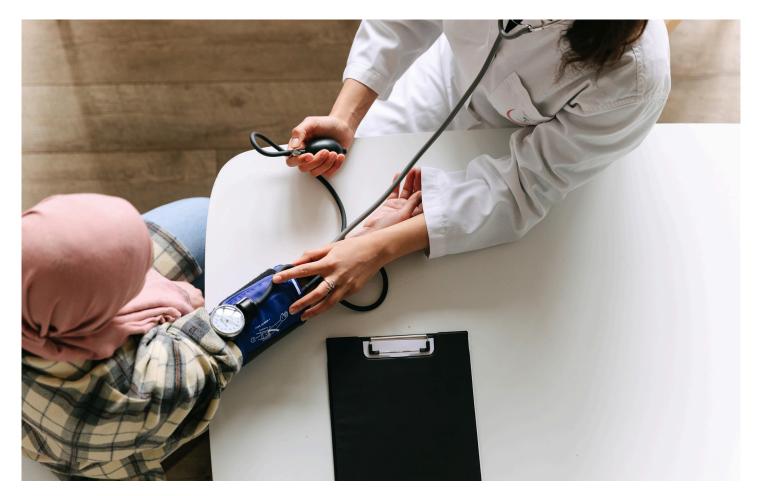
A CALL TO ACTION FOR HEALTHCARE

HEALTH EDITION

DIABETES

LUNG CANCER

PROSTATE CANCER



BLADDER CANCER

BREAST CANCER

GOVERNMENT GAZETTE

PUBLISHED BY THE INTERNATIONAL CENTRE FOR PARLIAMENTARY STUDIES



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DIABETES REPORT

Policy Recommendations



Recommendations for Healthcare for People with Diabetes in the European Context

By Prof. Philippe Lysy, Cliniques Universitaires Saint-Luc Harvard Medical School



Based on the provided document and additional statements, the following recommendations address key priorities to enhance diabetes care:

1. Accessibility and Technological Integration

- Continuous Glucose Monitoring (CGM): Make CGM broadly available to patients across Europe to improve glycemic control and reduce complications.
- Digital Healthcare Clouds: Implement cloud-based systems accessible to healthcare providers to offer care to patients in remote areas, ensuring equity in access.
- AI-Assisted Tools: Develop and integrate AI programs to analyze patient data, personalize treatment strategies, and utilize patient experiences to improve care outcomes.
- Unified Telemedicine Platform: Create a centralized digital platform to assist patients in managing their condition, including medication adherence, glucose monitoring, and teleconsultations.

2. Patient-Centered Care

- Language and Communication: Train healthcare providers to communicate effectively with patients, using language tailored to their comprehension and emotional needs.
- Support Networks: Establish patient networks to foster peer support, share experiences, and provide educational resources, empowering individuals to manage their diabetes.
- Disease Burden Support: Ensure psychological and emotional support is consistently available to all patients, recognizing the chronic burden of diabetes.

3. Standardization and Policy Harmonization

- Harmonized Treatment Protocols: Develop EU-wide protocols for diabetes treatment to reduce disparities in care among member states.
- Early Diagnosis Programs: Strengthen early diagnosis initiatives, especially in high-risk populations, to reduce long-term complications and associated costs.
- Uniform Digital Systems: Collaborate with pharmaceutical companies to ensure consistency in digital healthcare tools and data-sharing capabilities.

Recommendations for Healthcare for People with Diabetes in the European Context

By Prof. Philippe Lysy, Cliniques Universitaires Saint-Luc Harvard Medical School

4. Cost-Effectiveness and Research

- Cost-Effectiveness Analysis: Rigorously evaluate the cost-effectiveness of emerging therapies and technologies before widespread implementation.
- Holistic Research: Encourage research on comorbidities such as obesity and cardiovascular disease, emphasizing holistic care approaches.
- Learning from Other Models: Apply lessons from successful registries in other diseases, such as cancer, to improve diabetes care and outcomes.

5. Prevention of Obesity

- Education to the Population: Launch widespread public health campaigns to educate families about the risks of obesity, the importance of a balanced diet, and active lifestyles.
- Education to Children: Integrate nutritional education and physical activity programs into school curricula to instill healthy habits from a young age.
- Food Industry Accountability: Engage the food industry in offering a diverse range of nutritious and affordable options for children and families. Use incentives or regulatory levers to promote reformulation of products and limit the marketing of unhealthy foods targeted at children.

6. Stakeholder Collaboration

• Foster stronger collaboration among policymakers, healthcare providers, industry stakeholders, and patient organizations to advance a unified EU-wide strategy for diabetes care.

These recommendations align with the goals outlined in the EU Diabetes Roundtable and aim to improve outcomes for people living with diabetes through innovation, equity, prevention, and patient-centered approaches.





Call to action

The time to act for better care is now. Everyone deserves the chance to live a healthy life with diabetes – no matter where they live – which is why Roche is calling on all relevant stakeholders to:

- Convince the EU to spearhead global change and elevate the importance of diabetes and its complications on the EU and global NCD agenda.
- Ensure the EU CVD Plan holistically addresses cardiovascular health by integrating comprehensive diabetes management and secondary prevention strategies, acknowledging the increased risk of cardiovascular disease (CVD) in people with diabetes (PwD).
- Broaden reimbursement for innovative diabetes management solutions and advocate for reimbursement frameworks that recognise value-based healthcare and support cost-effective, digitally enabled diagnostics, treatments and therapies.
- Adopt digitally enabled, integrated and personalised care models in standards of care for diabetes to ensure better patient outcomes and experiences, while enhancing healthcare system sustainability. Use these models as a blueprint for other chronic diseases, extending their benefits across the board.

Statement of unmet need in diabetes care

The prevalence of diabetes has been steadily increasing over the past few decades, now affecting 537 million adults globally – over 5% of the world's population.5 In Europe, nearly 1 in 10 people have diabetes, adding up to around 60 million cases.

Alarmingly, it is estimated that 45% of adults globally (aged 20–79 years) and 36% of adults in Europe remain undiagnosed, highlighting a significant gap in diabetes detection and diagnosis.

These figures become even more concerning when considering the strong connection between diabetes and other chronic conditions, such as cardiovascular disease (CVD), which is the leading cause of morbidity and mortality among PwD. It is estimated that PwD are two to three times more likely to develop CVD than people without diabetes.6

But these are not just numbers – these statistics represent people's lives – and this further underscores just how critical it is that we take immediate, effective and sustainable action in addressing Europe's diabetes epidemic.

The daily burden of living with diabetes

There is no cure for diabetes, so it has to be carefully managed on a daily basis. If PwD are lucky enough to be living somewhere with access to diagnosis and care, they get only a few hours of support from a nurse or doctor throughout the year7 and are otherwise left to handle their diabetes by themselves the rest of the time. It is estimated that a person with type 1 diabetes has to make up to 180 therapy decisions every day.8

There is so much to learn and think about when living with diabetes. Calculating carbohydrates, injecting insulin, monitoring glucose, and incessantly planning for the "what ifs" can be very difficult to translate into a daily routine.

Championing for Holistic Policies, Innovative Solutions and Integrated Treatment Models in European Diabetes Care to Spearhead Change

By Andreas Altemark, Roche Diabetes Care

Evidence has shown, however, that individuals living with chronic illnesses can greatly benefit from a personalised therapy approach that takes their environment, lifestyle, mental health and individual preferences into consideration.

Since patient-centred care is proving essential for achieving the best possible health outcomes, Roche focuses on broadening the understanding of "treatment" to a holistic care approach that covers the entire patient journey: from diagnosis, monitoring, lifestyle adjustments and treatment administration, to treatment adherence and adjustments. Only through integrating all these care components and individualising treatment to an individual's needs can we effectively tackle the daily challenges of diabetes.

Technological advances in diabetes management

New digital technologies are quickly evolving diabetes management solutions to become even more accurate and personalised. Adding the power of digital connectivity can even be seen as a triple threat to diabetes: it is consistently showing improved outcomes, empowering people to take charge of their diabetes and relieving some of the burden on individuals and societies.

These advancements also address the growing needs of remote patient therapy, improve access to care for people in rural areas, ensure better communication for more effective consultations, and provide real-time data for immediate and individualised clinical insights.

Roche is committed to improving access to its innovative health solutions across its entire portfolio through:

- 1. Integrated solutions: By leveraging interconnected diabetes management solutions such as digitally enabled care and continuous glucose monitoring, HCPs can make use of data to inform best therapy decisions, simplify their communication with their patients and provide personalised insights that empower PwD to make informed decisions
- 2. Holistic care: Our approach extends treatment to incorporate diagnosis, continuous glucose monitoring, lifestyle adjustments and adherence to treatment plans, ensuring a comprehensive care framework.
- 3. Healthcare system support: We are committed to working closely with communities, healthcare systems and policy stakeholders to establish effective and sustainable therapy management practices.
- By integrating these elements into our holistic care approach, Roche strives to deliver robust and patient-centred solutions that address the complex needs of those living with diabetes. With continued innovation and dedication, we are poised to make significant strides in the global fight against diabetes and other chronic conditions.

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Dr. David Nathanson, Karolinska University Hospital (citated from A Proposed Strategy against Obesity)

How Government Policy Can Counter the Obesogenic Environment by <u>Norman J Temple</u>

There is an intense marketing of foods that are closely associated with an increased risk of obesity, most notably UPFs. These foods are heavily advertised and occupy a large amount of shelf space in almost every food store, big and small. As a result, nearly everyone living in the Western world is constantly exposed to fattening foods. The avoidance of becoming overweight therefore requires much self-control.

An unhealthy diet that is dominated by UPFs is significantly cheaper than a healthy diet. This means that food prices pressure people—especially less affluent people—to eat a diet that will increase their risk of developing obesity.

These challenges are especially relevant to children, most of whom have easy access to UPFs. In addition, smart phones, laptops, and smart TVs are extremely common, acting as strong "push factors" toward a sedentary lifestyle.

Labor-saving devices are ubiquitous. As a result, the requirement for physical activity has been minimized."

Prof. Hanno Pijl, Universiteit Leiden

- 1. Quite radical societal changes are required to prevent type 2 diabetes (and a wide array of other noncommunicable disorders simultaneously!), particularly pertaining to:
 - The food market
 - The way we build our cities and their direct surroundings
 - Our work morale (we ask too much of ourselves and others, and stress is a major determinant of disease)
 - Our bond with nature
- 2. Make room for basic lifestyle education (including cooking) in (primary) schools
- 3. Promote the development and implementation of technology for home monitoring of health parameters and behavioral features of people with diabetes/chronic disease (and those who are at increased risk)
- 4. Promote the development and implementation of AI to integrate behavioral and health parameters to yield a personalized (lifestyle) therapeutic advice.
- 5. Facilitate the formation, professionalisation and implementation of peer-to-peer support groups in European healthcare.
- 6.Do not accentuate (funding of) research in the area of lifestyle interventions, but rather bet on implementation of available knowledge.



Dr. Sylvie Tenoutasse, Hôpital Universitaire de Bruxelles

- Be realistic but ambitious: aim for excellence in care for all, not forgetting the least advantaged (those who do not speak the language of the country or are illiterate, lack literacy skills or are IT/app/smartphone literate).
- Improve the way care is organised and the way hospitals are run, e.g. financial pressure on the number of procedures rather than on quality and patient and family satisfaction: win-win network
- Keeping in mind the human aspect of the patient, the doctor and the teams

DT1

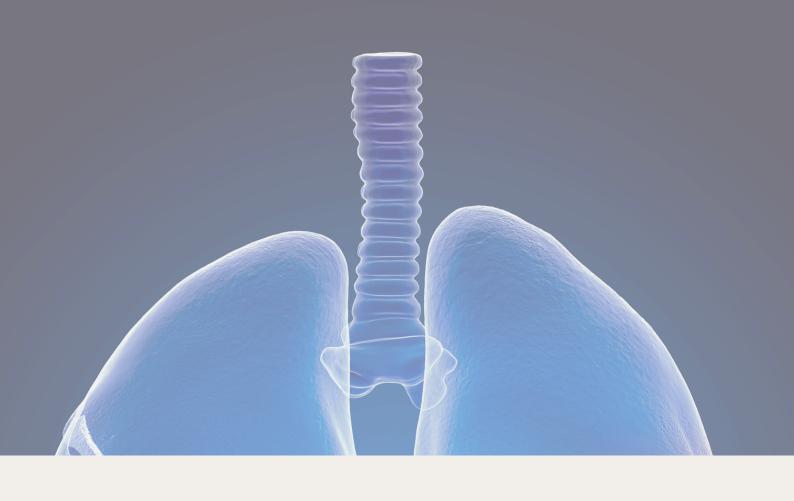
- Promote information campaigns aimed at GPs and the general population to inform them about the signs of type 1 diabetes (prevention of ketoacidosis) as far too many children are still being diagnosed with DKA (up to 40%)
- Think about screening for type 1 diabetes (looking for autoanticopathy in learners or in the general population)

Obesity and DT2

- A more general, societal approach to obesity prevention (reducing screen time by banning social networking sites before the age of 14-16?), encouraging sport at school (1 hour/day), encouraging outdoor activities (making neighbourhoods safe, etc.), create more playgrounds for kids and meeting place for parents/adults
- · Avoid advertising fast food or snacks
- Providing information without inducing stress (for example, disclosing the consequences of obesity without a filter)

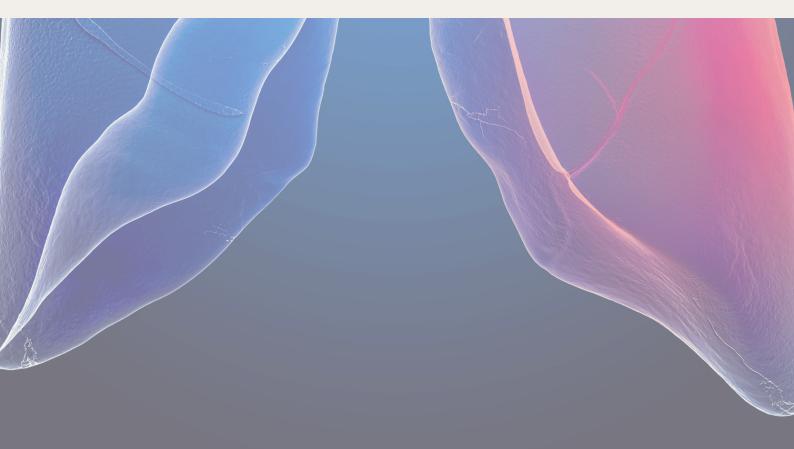
Prof. Jonas Čeponis, Lithuanian Society of Endocrinology

- Control of Obesity and type 2 diabetes is not intrinsic to human nature, thus education through attainable examples is of paramount importance.
- Diabetes costs: It is important to understand that diabetes prevention/ screening/ treatment/ monitoring costs lead to decreased obesity/ metabolic/ cardiovascular management/complication costs and any cost effectiveness evaluation needs take this into account.
- Better EU-wide e-health data quality is required for better targeted care opportunities, more reliable system comparisons, as well as improved real world data analysis.
- More approachable funding of research to aid in career development of researchers.
- The implementation studies are important but results of successful studies should be actively included in implementation strategies within the health ecosystem.



LUNG CANCER REPORT

Policy Recommendations



Developing a better public understanding of lung cancer and debunking associated stigmas

By Dr. Maike Collienne & Prof. Dr. Sonja Loges



DKFZ-Hector Cancer Institute at the University Medical Center Mannheim, Department of Personalized Oncology, University Hospital Mannheim, Medical Faculty Mannheim, University of Heidelberg, Mannheim; Division of Personalized Medical Oncology (A420), German Cancer Research Center (DKFZ), German Center for Lung Research (DZL), Heidelberg, Germany

Lung cancer is the fourth common cancer causing the highest cancer-related mortality in Europe (1). The projected prevalence of current tobacco use for both sexes combined varies between 38.6 and 4.2% (age-standardized rate) in Europe, depending on the country. The highest projected prevalence among men is 56.40 % in the republic of Moldova and the lowest 8,0% in Azerbaijan (2). In addition, lung cancer incidence increases in never-smokers. Approximately 10-20% of lung cancers are diagnosed in never-smokers - especially, female never-smokers develop lung cancer. Ancestry and/or geographic factors such as air pollution might have a substantial influence here, as for example a higher proportion of East-Asian women have lung cancer compared to other populations of female neversmokers. These tumours harbour more frequently genetic alterations and are diagnosed at an earlier age than the average age of lung cancer diagnosis (3).

Over the last two decades, treatment of certain types of lung cancer evolved tremendously. Many new drugs entered the field including immunotherapies, antibody-drug conjugates, cellular treatments, next-generation tyrosine kinase inhibitors amongst others. Even in the metastatic setting, overall survival was increased and survivorship programmes are more frequently under development.

From first diagnosis to long-term survival, lung cancer patients may experience cancer-related stigmas. As stigmas may be composed of different levels including intrapersonal, interpersonal and societal factors, it should be carefully assessed which stigma may affect patient's care and treatment:

Influencing elements may be smoking, second-hand smoking, smoking cessation programmes, physicians, health care providers, society, insurance companies, legal regulations, etc. Programmes to debunk stigmas should therefore not only focus on patients, yet involve several pillars to increase patients' adherence to treatment, improve their quality of life, and survival.

Increasing numbers of smoking cessation programmes were established over the years and gained momentum in the general population. However, participation is generally modest (4-6). Educational programmes along the smoking cessation process should include the recognition of potential stigmas (e.g., shame, guilt) (7,8) and their consequences on early cancer detection, treatment, and prognosis targeting participants and their relatives. Combining lung cancer screening programmes with smoking cessation is potentially a significant step forward to reduce lung cancer morbidity and mortality (3).

New emerging products like e-cigarettes that are mostly used by young people are addictive in a similar way as tobacco. However, even if the EU directive (2014/40/EU) sets a maximum nicotine concentration and volume, there is no ban on e-cigarettes in Europe.

Developing a better public understanding of lung cancer and debunking associated stigmas

By Dr. Maike Collienne & Prof. Dr. Sonja Loges

Besides the personal harm for smokers (tobacco/e-cigarettes), second-hand smokers have an increased risk of developing lung cancer (9). Here, interpersonal and societal stigmas may prevent individuals supporting smokers in quitting.

Even if a great proportion of lung cancer patients are smokers who experience stigmas, clinically meaningful lung cancer stigmas were also observed in a significant number of never-smokers reported by Williamson et al. (7). Thus, population-based education to foster health literacy with focus on lung cancer including risk factors, early diagnosis, treatment options, and their outcome should be promoted considering different target populations: e.g., smokers, nonsmokers, lower educational groups, and migrants should be specifically addressed. Here, socioeconomic aspects should be regarded in initiatives, as there is data that patients with low income have less access to assisted smoking cessation (6). Such programmes should comprise accompanied research measuring stigmas and their influence on lung cancer early detection rates, equity, treatment adherence, survival rates, and health-related quality of life.

Moreover, evidence suggests that physicians and their interactions with lung cancer patients might have a substantial effect on stigmas. Even if there is great enthusiasm and excitement replacing frustration and demotivation in lung cancer researchers and health care providers due to recent developments in treatments and survival, lung cancer patients and those with certain risk factors feel stigmas due to clinician nihilism in daily clinical practice(8). Thus, trainings in health care providers to create awareness of stigmas and their consequences should be prioritized.

In conclusion, debunking stigmas should be a multi-level approach targeting different groups: general population, lung cancer patients and their personal network, and health care providers amongst others supported by national programmes and EU initiatives.

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An integrated approach to detecting lung cancer earlier in Europe

By Helena Wilcox and Eleanor Wheeler for Lung Cancer Policy Network



Excerpt: Commitments to improve lung cancer care are gaining pace. However, the optimal implementation of interventions to improve earlier detection – such as screening – has not yet been realised. Immediate and concerted attention at the policy level is needed to help achieve the targets of Europe's Beating Cancer Plan and ultimately improve lung cancer survival and outcomes.

Lung cancer is the fourth most common cancer in Europe,¹ and caused almost one fifth (19.8%) of all deaths from cancer in 2021.² Across the continent, lung cancer incidence and mortality are predicted to rise,³ and inequities in survival and outcomes persist. In Central and Eastern Europe, around 50% of lung cancer cases are diagnosed at a late stage, when survival is poorest;⁴ this is due in part to high smoking rates and air pollution in the region.⁵⁶

Fortunately, policy commitments and interventions have been introduced to support equitable lung cancer care in Europe. In 2022, the EU Council recommendations on cancer screening were revised to include lung cancer – a move welcomed by the Lung Cancer Policy Network and the wider lung cancer community. These recommendations, in addition to commitments in Europe's Beating Cancer Plan, continue to strengthen support for the earlier detection of lung cancer, but these do not yet match the strength of evidence for action on the disease.

Accelerated progress on earlier detection is critical

Approximately 70% of people are diagnosed with lung cancer at stages III and IV.^{10 11} At this late stage, treatment options are limited, expected survival is poor and clinical management becomes more complex.^{12 13}

Not only does this profoundly impact patient experiences, it also contributes to higher healthcare costs; it is estimated that tracheal, bronchus and lung cancers could cost health systems worldwide USD \$3.9 trillion from 2020 to 2050.¹⁴

Targeted screening using low-dose computed tomography (LDCT) is a cost-effective opportunity to detect lung cancer earlier and significantly improve survival rates, long-term prognosis and quality of life. 15 16 Across Europe, nine countries have formally committed to implementing a lung cancer screening programme, or already have one in place. 17 Such progress is driven by a variety of activities, including pilot studies, multi-national projects and global policy action. For example, the Strengthening the screening of Lung Cancer in Europe (SOLACE) project aims to facilitate equitable implementation by exploring the feasibility and effectiveness of programmes.¹⁸ And at the global level, the forthcoming volume of the International Agency for Research on Cancer Handbook for Cancer Prevention will provide a robust framework to advance lung cancer screening implementation.19

An integrated approach to earlier detection will help achieve equitable care

Targeted screening alone – particularly in settings where health budgets and infrastructure are constrained – will not achieve widespread early detection.²⁰ Equitable implementation of preventative measures – including tobacco control, smoking cessation and reducing air pollution²⁰ – is essential, as are a range of measures to detect lung cancer earlier among those not eligible for LDCT screening.²¹

An integrated approach to detecting lung cancer earlier in Europe

By Helena Wilcox and Eleanor Wheeler for Lung Cancer Policy Network

Additionally, lung cancer and chronic respiratory diseases share many risk factors and affect the same populations, so it is critical that the European lung cancer community works to tackle shared challenges.²² A resolution recently adopted by the World Health Organization, Promoting and prioritising an integrated approach to lung health, underscores the importance of identifying gaps in addressing prevention, diagnosis and treatment.²³

To support health system leaders and decision-makers in implementing effective strategies for earlier detection of lung cancer, the Network recommends the following actions:

- Prioritise and promote early detection approaches in lung cancer and lung health strategies.
- Align early detection approaches with broader national policies, such as cancer control plans.
- Perform a robust assessment of health system resources and capacity.
- Involve communities at highest risk of late presentation of lung cancer to understand the barriers affecting their engagement with care.

- Explore the utilisation and integration of technology to improve the effectiveness of detection and diagnostic imaging.
- Invest in research to develop new approaches and improve existing approaches to early detection.
- Conduct regular monitoring and evaluation of early detection and wider lung cancer metrics.

The Network stands as part of the cancer community, and we will continue our key ambitions: to ensure lung cancer becomes a global policy priority, and to eradicate the disease as a cause of death.

The Lung Cancer Policy Network is a global network of multidisciplinary experts from across the lung cancer community, which includes clinicians, researchers, patient organisations and industry partners. The Network is funded by AstraZeneca, Bristol Myers Squibb Foundation, Johnson & Johnson, MSD, Pfizer, Siemens Healthineers, GE HealthCare, Guardant Health, and Intuitive. Secretariat is provided by The Health Policy Partnership, an independent health research and policy consultancy. All Network outputs are non-promotional, evidence based and shaped by the members, who provide their time for free.

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Advancing Lung Cancer Outcomes in Europe: LuCE Policy Priorities for 2025



Introduction

Lung Cancer Europe (LuCE) serves as the European voice for people living with lung cancer and their families, uniting 46 member organisations across 23 countries. We offer a platform for patient advocacy groups and help establish national ones where they don't exist. Our new Policy-Advocacy and External Engagement program, launched in February 2025, addresses the need for stronger, unified cross-border efforts to improve lung cancer care in Europe.

Policy Priorities for 2025

LuCE's core focus for 2025 is to expose and address the persistent inequities across the lung cancer care continuum in Europe. Three key contextual factors that shed light on these inequities are centred on early diagnosis, incidence and mortality, treatment options, as well as innovations through clinical trials.

To illustrate: Europe faces some of the world's worst lung cancer outcomes, with an age-standardised incidence rate (ASR) of 29.4 and mortality rate of 22.6, significantly higher than the world averages (see figure 1 below).

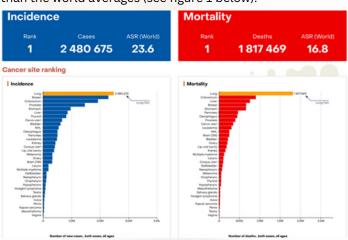


Fig.1 Source: The Global Cancer Observatory 2022

Within the EU-27, rates vary widely, from 33.5 per 100,000 in Sweden to 77 per 100,000 in Hungary, mirrored by uneven access to CT scanners (See fig 2. below). These disparities highlight the urgent need for action.

Causes of death - malignant neoplasms of trachea, bronchus and lung, residents, 202

| | Number of | Share of all deaths | | | Standardised death rates | | | | |
|---------------|--------------|---------------------|-------|---------|---------------------------|-------|---------|----------------------------|----------------------------|
| | deaths | Total | Males | Females | Total | Males | Females | Persons aged < 65 years | Persons aged ≥ 65 years |
| | (number) (%) | | | | (per 100 000 inhabitants) | | | | |
| EU | 226 497 | 4.3 | 5.5 | 3.0 | 47.0 | 69.9 | 29.5 | 14.5 | 181. |
| Belgium | 6 749 | 5.2 | 6.8 | 3.5 | 49.3 | 73.6 | 30.7 | 13.4 | 197 |
| Bulgaria | 3 248 | 2.2 | 3.2 | 1.2 | 42.3 | 72.8 | 19.5 | 20.0 | 134 |
| Czechia | 4 903 | 3.5 | 4.2 | 2.7 | 44.9 | 66.3 | 29.5 | 11.1 | 184 |
| Denmark | 3 427 | 6.0 | 5.9 | 6.1 | 56.5 | 62.1 | 52.3 | 11.7 | 241 |
| Germany | 44 698 | 4.4 | 5.3 | 3.4 | 47.0 | 63.6 | 33.9 | 14.2 | 182 |
| Estonia | 603 | 3.3 | 5.0 | 1.7 | 43.7 | 87.1 | 19.2 | 12.9 | 170. |
| Ireland | 1 908 | 5.5 | 5.6 | 5.4 | 48.8 | 55.5 | 42.7 | 10.6 | 206. |
| Greece | 6 947 | 4.8 | 7.4 | 2.2 | 57.1 | 98.2 | 23.7 | 16.3 | 225. |
| Spain | 22 411 | 5.0 | 7.3 | 2.6 | 45.2 | 75.9 | 20.8 | 14.9 | 170 |
| France | 30 466 | 4.6 | 6.2 | 3.0 | 43.1 | 65.5 | 25.4 | 16.2 | 153 |
| Croatia | 2 817 | 4.5 | 6.1 | 2.9 | 63.1 | 99.7 | 36.5 | 21.7 | 234 |
| Italy | 31 732 | 4.5 | 6.2 | 29 | 43.6 | 66.8 | 25.8 | 10.3 | 181 |
| Cyprus | 324 | 4.5 | 6.4 | 2.3 | 42.4 | 68.2 | 19.7 | 9.4 | 178 |
| Latvia | 931 | 2.7 | 4.3 | 1.4 | 45.8 | 91.7 | 19.1 | 16.0 | 168 |
| Lithuania | 1 088 | 2.3 | 3.7 | 1.0 | 36.7 | 76.8 | 13.2 | 12.3 | 137 |
| Luxembourg | 204 | 4.7 | 6.0 | 3.4 | 40.6 | 60.5 | 26.2 | 7.9 | 175 |
| Hungary | 7 858 | 5.1 | 6.0 | 4.2 | 77.9 | 112.2 | 55.3 | 29.8 | 276 |
| Malta | 202 | 4.9 | 7.0 | 2.6 | 40.0 | 63.6 | 20.6 | 11.0 | 159 |
| Netherlands | 10 112 | 6.0 | 6.5 | 5.4 | 56.2 | 67.7 | 47.9 | 15.2 | 225 |
| Austria | 4 080 | 4.5 | 5.2 | 3.8 | 44.5 | 57.3 | 34.6 | 13.2 | 173 |
| Poland | 20 884 | 4.0 | 4.9 | 3.1 | 56.4 | 86.0 | 36.4 | 17.4 | 217 |
| Portugal | 4 393 | 3.5 | 5.2 | 1.8 | 36.5 | 62.3 | 16.6 | 13.8 | 130 |
| Romania | 8 437 | 2.5 | 3.6 | 1.4 | 43.7 | 75.4 | 19.7 | 19.6 | 143 |
| Slovenia | 1 167 | 5.1 | 6.2 | 3.9 | 51.4 | 72.7 | 35.4 | 14.2 | 204 |
| Slovakia | 2 047 | 2.8 | 3.7 | 1.8 | 41.4 | 70.9 | 22.0 | 11.6 | 164 |
| Finland | 2 346 | 4.1 | 5.1 | 3.0 | 37.0 | 53.5 | 24.6 | 8.2 | 156 |
| Sweden | 3 515 | 3.9 | 3.6 | 4.1 | 32.5 | 33.1 | 32.8 | 5.4 | 144 |
| celand | 127 | 5.5 | 5.5 | 5.6 | 43.7 | 46.0 | 42.7 | 9.6 | 184 |
| Liechtenstein | 11 | 4.2 | 4.4 | 3.9 | 28.5 | 30.5 | 25.0 | 10.7 | 101 |
| Norway | 2 197 | 5.4 | 5.8 | 5.0 | 43.9 | 50.4 | 39.1 | 8.5 | 190 |
| Switzerland | 3 237 | 4.6 | 5.5 | 3.7 | 37.3 | 48.5 | 28.3 | 9.9 | 150 |
| Serbia | 4 621 | 3.4 | 4.4 | 2.3 | 61.0 | 91.7 | 36.9 | 26.3 | 204 |
| Türkiye (') | 22 490 | 4.0 | 6.1 | 1.5 | 47.1 | 86.6 | 14.9 | 15.9 | 176 |
| runaje (/ | 22.474 | | 9.1 | 1.7 | 41.1 | 99.9 | 14.2 | 10.0 | 11-0 |

Fig.2 Source: Eurostat

Access to CT scanners for instances varies tremendously as well:

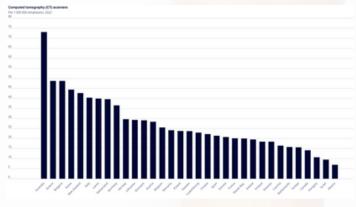


Fig.3 Source: Latest OECD data of CT scanners per million population by country

Advancing Lung Cancer Outcomes in Europe: LuCE Policy Priorities for 2025

By Lung Cancer Europe

The following four topics encompass our points of intervention for EU level policy engagement:

Clinical trials

Our work sheds light on the critical importance of clinical trials for lung cancer, the inclusion of patients early on, barriers to cross-border access to clinical trials within the EU, as well as the need for increasing non-commercially sponsored clinical trials. Several LuCE representatives contribute to the design of clinical trials in renowned EU-funded research consortia, ensuring that the patient perspective is embedded and enhancing research value. An approach we hope will continue to expand over time. This policy pillar also highlights the urgency around the declining number of clinical trials being held in the EU, which also serve as a potential lifeline for many, see our briefing here.

Health Equity

Health equity is a transversal theme that cuts across all our policy interventions. It is a priority for us and a mode of engaging with all other themes mentioned here. Equity in the case of cancer refers to a situation where all individuals affected by cancer have equal opportunity across the cancer care continuum, irrespective of where they reside. Our specific actions here will include a policy brief to be widely circulated to all relevant stakeholders, as well as joint actions with our members, including building capacity around strategically leveraging the European Cancer Inequalities Registry (ECIR).

Screening

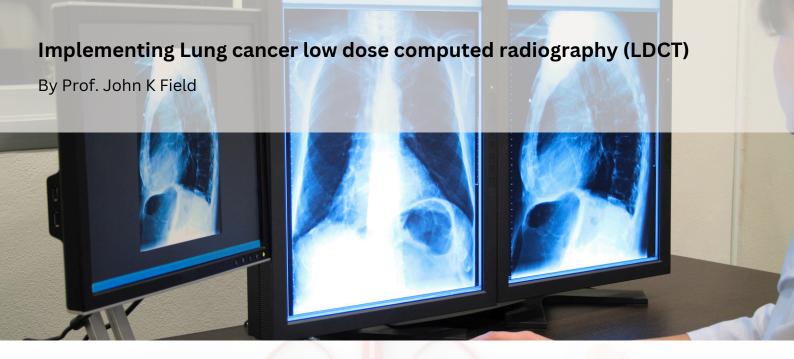
Currently, lung cancer is mostly detected at advanced stages, with limited survival rates. Screening, especially low-dose CT screening, has the potential to significantly decrease lung-cancer-related mortality. And, in low-resource settings, where LDCT may be largely inaccessible, we have also argued that X-rays may still offer value even if less effective than LDCT. LuCE's president, Debra Montague, serves as a patient advocate on the advisory board of the SOLACE programme under the Europe's Beating Cancer Plan (EBCP). This programme makes great strides in advancing the screening agenda in the EU.

Moving forward, the key challenge, we believe, will be to achieve successful, widespread, equitable implementation of screening programmes in all EU countries.

Medicines

Our fourth pillar is centered on access to medicines and innovative treatments. There are significant inequalities in access for people living with cancer in the EU, both across and within countries. On average, it takes about 2.1 years from EMA approval for a new cancer treatment to become available to patients at the national level, with variation from 100 days in Germany to 960 days in Estonia. Increasing shortages and rising costs deep financial burden for people with cancer. As are flagship LuCE report (8th) on financial toxicity also shows.

Beyond our four pillars, we will tackle cross-policy issues like antimicrobial resistance, which affects cancer patients 2-3 times more due to weakened immune systems. Additionally, the economic imperative for coordinated action also cannot be overstated. Lung cancer accounts for 15% of global cancer costs and is projected to total \$3.9 trillion from 2020 to 2050, with Europe bearing twice its proportional share (Source: PubMed) of global lung cancer cases, relative to its population size. As EU health policies evolve, we will partner with allies and relevant stakeholders to advocate against fragmented care. We hope our work will lead to advancing prevention-focused frameworks where lung cancer efforts are patient-centered and grounded in evidence across all member states.



Lung cancer low dose computed radiography (LDCT) has been demonstrated to save lives in two large international trials and meta-analysis (1, 2, 4), the question is why it's taking the individual countries in the EU so long to implement national lung cancer screening programmes?

The European Commission proposed a recommendation in September 2022 for lung cancer screening to be implemented in a "stepwise" approach across all 27 EU member states. Specifically recommending that they should explore the feasibility and effectiveness of screening with the use of LDCT, furthermore, that special attention should be given to the identification of high-risk groups. It's disappointing that the EU Cancer Plan has only set a target for 90% of those who qualify to be offered breast, cervical and colorectal cancer screening in 2025. The question has to be asked again - why was lung cancer not included in the recent 90% target in the EU Cancer Plan? Currently there is an EU call for experts to develop recommendations for lung cancer to undertake a EU systematic review, which could potentially take up to three years.

Even though a number of countries within the EU have started to implement lung cancer screening, and the EU have funded two large lung cancer screening projects 4ITLR [https://4inthelungrun.com/en-gb/] and SOLACE [https://europeanlung.org/solace/], the progress of implementing a successful national lung cancer screening programme in the UK, provides a good benchmark, as to what is feasible.

he UKLS trial utilised the LLP_{v2} risk model to select individuals with a high risk of developing lung cancer(5). The UKLS demonstrated that 85% of the lung cancer patients had early stage (I&II) disease; over 80% were suitable for surgical intervention and also showed that LDCT screening was cost effective (6).

The success of the UKLS Trial provided a springboard for the Liverpool Health Lung project, a service evaluation project, which was followed by the Manchester mobile unit study and three further implementation studies in England, all of these feasibility studies utilised the LLP_{v2} and / or and $PLCO_{m2012}$ risk models.NHS England launched the Targeted Lung Health Check (TLHC) in 2019 (7), utilising both the LLP_{v2} and $PLCO_{m2012}$ risk models to select high risk participants, which has successfully evolved over the last 6 years. The UK National Screening committee (UKNSC) utilised the UKLS trial and international data to determine the cost effectiveness (£1,529 per QALY gained) and recommended 'Targeted lung cancer screening for people aged 55 to 74, identified as being at high risk of lung cancer" (8) and received the Prime Minister's support in 2023. The TLHC was renamed 'The NHS Lung cancer screening programme' in 2025. This programme has already approached over 2.2 Million individuals, identified over 6000 lung cancer (1.3%) and will have covered 100% of the high risk population by 2028/29.

Implementing Lung cancer low dose computed radiography (LDCT)

By Prof. John K Field

The EU is currently undertaking a number initiatives which will contribute to the long term implementation of LDLC screening, especially in their action plan around health inequalities and the planned work on environmental pollution and lung cancer, which is tied in with the planned legislation on reducing air pollution throughout the EU and the 'One Health' strategy (9). Furthermore, there are strong economic arguments to implement such a health strategy. The Europe Beating Cancer Plan (10) also reiterates the need to implement lung cancer screening. However, the final decision has to undertaken by each country within the EU and they need to identify the funding required to take a national LDCT screening programme forward, thus this becomes a political and financial question. The advances in artificial intelligence also has great potential to reduce the radiology workload of lung cancer screening and thus also reduce overall costs of implementation (11).

The decision to implement LDCT lung cancer screening in the EU needs to be made by each country immediately.

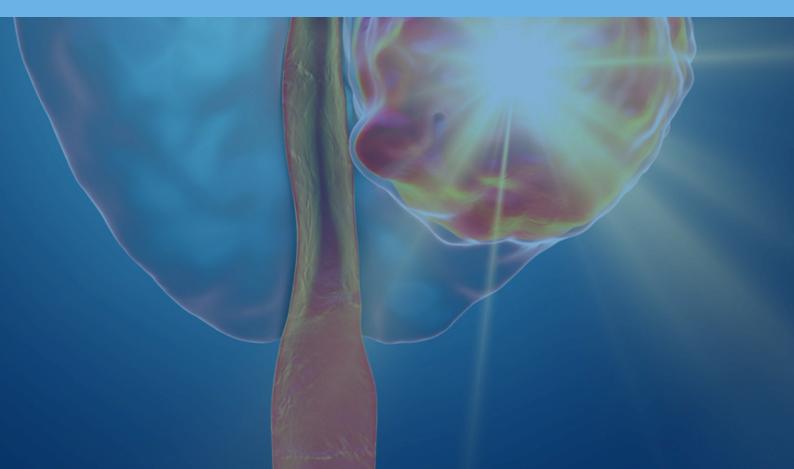
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PROSTATE CANCER REPORT

Policy Recommendations





Prostate cancer is the most frequently diagnosed cancer in men across the European Union, and its rising prevalence poses a significant public health challenge. One in eleven men will be diagnosed with prostate cancer in their lifetime, accounting for 23% of all new cancers in Europe. The prevalence of the disease is growing due to aging populations, with cases and mortality expected to double globally by 2040.

Early diagnosis is crucial, as prostate cancer can often be treated locally when detected at an early stage, resulting in curative outcomes or delaying disease progression. The primary method for early identification is the prostate-specific antigen (PSA) blood test. Without testing, men typically present with late-stage prostate cancer, which is no longer curative and leads to substantially increased healthcare costs and medical resource use.

However, despite its importance, screening programs for prostate cancer have not been widely implemented. There is currently a discordance across member states regarding clinical guidelines, patient access to, and reimbursement for PSA testing, as well as a lack of consensus on the risk factors that can help identify men most at need.

Historically there has been caution around the wide adoption of PSA screening due to concerns of overtreatment. In 2020, Germany's health technology assessors, IQWIG, rejected reimbursement of PSA testing, citing concerns men were at risk to become permanently incontinent or impotent due to overdiagnosis and subsequent overtreatment, and that there was no clear benefit in mortality for men who were screened.

Whilst these concerns may have been valid at the time, treatment for localized prostate cancer has evolved significantly. Less invasive localized therapies, such as focal therapy (e.g., cryotherapy, high-intensity focused ultrasound) and other minimally invasive techniques have been shown to reduce some of the risks associated with traditional treatments like radical prostatectomy and radiation therapy while achieving similar outcomes. These approaches are now recommended in European guidelines.

Emerging data supports the mortality benefits of screening programs for at-risk men. Recent findings from a 20-year follow-up of a randomized screening study have shown that one in six European men who did not attend screening appointments had a 45% increased risk of prostate cancer mortality.

Risk factors for the disease include age, family history, race (particularly among black men), and the presence of germline mutations. However, these factors are not universally recognized across member states, and many men with these risk factors do not seek screening due to a lack of education on the topic.

Patient choice is also an important but often an overlooked factor. Whilst availability of testing does not mandate participation, it provides an opportunity for men concerned about their risk to opt in, valuing their individual preferences.

Access and Reimbursement of PSA Testing Across Member States

By Bayer

Given the evolving treatment landscape, there is a pressing need to revisit screening programs for prostate cancer to ensure that they are optimized across member states. It is vital that patients for whom European clinical guidelines recommend PSA testing have access and that it is reimbursed. When PSA testing is an out-of-pocket expense, it may be less accessible to high-risk populations, which often correlate with lower socioeconomic status.

The cost of a PSA test is relatively low, and early diagnosis and treatment can provide curative outcomes whilst significantly reducing overall healthcare expenditures associated with advanced disease. Whilst a positive PSA test may lead to additional downstream imaging and biopsies, these are incurred to ensure accurate diagnosis and appropriate treatment. It is important to evaluate these costs against scenarios where the disease is identified at a later stage.

Risk-adapted PSA screening may provide a viable solution, ensuring that those at highest need are identified and prioritized for screening. However, these solutions require access and reimbursement along with patient education to ensure that prostate cancer testing does not fall further behind other cancers.



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Recommendations for Prostate Cancer

By Sarah Collen, EAU Policy Officer

By Dr. Andreas Josefsson, Associate Professor, Umeå University







Sarah Collen, EAU Policy Officer (European Association of Urology)

- Continue EU support for ongoing and new PCa screening pilots across the EU. In particular, allow for data collection in the long term to allow for continued learning and comparative analysis.
- Ensure the European Health Data Space is implemented with strong collaboration though the EHDS Stakeholder Forum. Incorporate feedback loops for all stakeholders, including patients, healthcare providers and professionals, health payers, researchers and industry.
- Ensure a regulatory EU landscape that enables better outcomes for prostate cancer patients. This will require a harmonization of EU legislation and regulatory sandboxes for innovations, including AI driven technologies. Development of these technologies with healthcare professionals and patients must be a priority.

Dr. Andreas Josefsson, Associate Professor, Umeå University and affiliated to University of Gothenburg

- Screening or organized prostate cancer testing is a population effort for early detection and is not healthcare, and needs therefore to be structured and managed outside the health care system.
- To enhance the availability of data for initiatives such as
 the Uro-evidence hub, all countries need to begin
 organizing and reimbursing better registries to
 effectively crosslink data from various sources. This
 implies that all countries must have a unique identifier
 for all registered individuals in that country and build
 easily facilitated quality registries with reimbursement
 to fill in forms to make the registries comprehensive and
 complete.
- Responsible use of AI must be an ongoing policy document to ensure that the community can trust we are handling data responsibly. I believe that we need to regulate how AI chatbots are used in the diagnostic work-up to ban any use of avatars resembling humans in communication with the public, in order to avoid trust issues.



Approximately 150,000 new cases of prostate cancer (PCa) are diagnosed in the EU every year, making it the most common cancer in men. The rate of new cases varies between the individual member states. Prostate cancer represents a significant problem for the European healthcare system, particularly due to the high incidence rate and the associated costs for treatment and care. As the umbrella organization of European urologists, the EAU has regularly published continuously updated guidelines on the evidence-based treatment of prostate cancer since 2001 in order to provide medical staff from various disciplines with the best possible support in the treatment of prostate cancer. They are respected worldwide and define the standard of medical diagnosis and treatment for PCa, although it is clear that this standard is made available to affected patients in very different ways in the individual EU member states.

The EU countries have diverse healthcare systems that differ in terms of organization, financing and access to medical services. One example of this is the discussion on programs for the early detection of PCa. The early detection of prostate cancer in the EU differs in terms of screening programs, recommendations and implementation. In Germany, there is no national screening program, while in some other EU countries PSA tests and imaging procedures such as MRI are offered. The list of differences in the availability of useful medical services in the EU goes on and on. All residents of the EU should have unrestricted access to therapy and diagnostics with uniform reimbursement options. From the point of view of those affected, too little is being done by the EU to achieve harmonization of the various healthcare systems to the best standard. This should be tackled as quickly as possible.

Strengthening medical research in the EU

With a population of almost 450 million, the EU offers a great opportunity for high-level medical research. Theoretically, for example, all the prerequisites for the initiation of investigator-initiated (IIT) studies are in place, which could achieve a high level of evidence by networking the member states and including many patients. Targeted administrative and financial support from the EU would be highly desirable here. As a result, the EU would then also become increasingly attractive for third-party funding providers, which are currently still predominantly oriented towards the USA.

Responsible promotion of artificial intelligence (AI) in the EU

Artificial intelligence (AI) has the potential to drive innovation in medicine as well. AI is used in medicine in various areas to improve diagnostics, therapy and research, as well as to increase overall efficiency in healthcare. At present, the possibilities of this technology are still underresearched in the EU, particularly in medicine. Legal uncertainties and unresolved details on data protection are increasingly slowing this down. The EU must act quickly here to prevent European science from slipping down the global rankings. There must be a good compromise for a practicable scientific application while respecting the privacy of our patients.

Patient Involvement - measures seek to enhance patient involvement in the cancer pathway

By François Kremer, Support Group Moderator of prostate cancer, Foundation Cancer



Shared Decision Making

- Effective doctor-patient communication ensures patients understand their diagnosis and adhere to their treatment plan as well as any applicable alternatives
- Patients receive information about screening methods, their diagnosis and the treatments available and referenced in the applicable « National Prostate Cancer Guidelines »
- The referring physician provides comprehensible documentation (publication, leaflet...) to the patient that illustrates available cancer pathways in a clear and understandable manner

f.e.Patientenhilfe DKG (DE)

- « Comment vivre avec son cancer » (France)
 - « Prostata Krebs » (Deutsche Krebshilfe, Germany)
- « Vivre avec un cancer de la prostate »

 (Société Belge d'Urologie / SBU, Belgium)

 Newsletter Prostata Hilfe (Germany)

Patient Handbook

- A written report of the diagnosis, explained to the patient in person, is made available to them for their convenience
- A personal « prostate cancer » notebook to be used at any moment during treatment can help the patient keep track of their cancer journey

Support Group

 An expert-led or -assisted support group gives patients an opportunity to share their personal cancer journey with peers • It is recommended that patients contact this group before taking important decisions, especially before starting their treatment

Screening

 It is recommended that the referring physician refer the future cancer patient to the support group at first diagnosis

Second opinion

- patients are entitled to ask for a second opinion in case of questions or to facilitate decision-making
- the referring physician shall hand over the patient file to the medical body tasked with delivering a second opinion

Case manager

- At any given moment the patient is entitled to consult a competent person of trust, the « case manager »
- the case manager serves as an intermediary between the referring physician and the patient

Rehabilitation

 the patient is entitled to request a rehabilitation period, the duration of which will be prescribed by the referring physician. It will be in line with the applied treatment methods

Patient Involvement - measures seek to enhance patient involvement in the cancer pathway

By François Kremer, Support Group Moderator of prostate cancer, Foundation Cancer

Awareness-raising

- Discussions, fora, meetings with experts and awareness
 raising events will be held regularly, under the supervision of competent expert medical and hospital hodies
- The group will offer its cooperation on request and when required

Questionnaire

 A questionnaire on patient cancer journeys will be developed by the support group and submitted to all (new) members

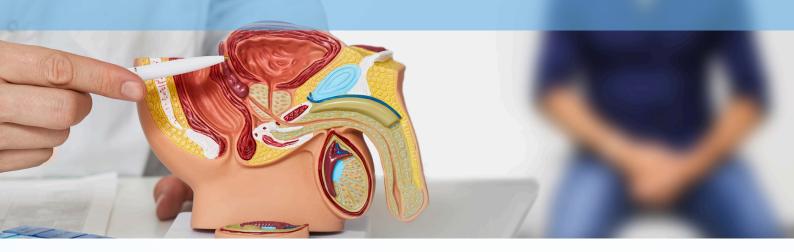
Multidisciplinary Cancer Commission (« COM » - Commission Oncologique Multidisciplinair

 The support group will nominate a patient representative who will attend the deliberations/meetings of the Commission in an observer role



Reducing mortality and improving quality of life in Prostate Cancer

By Dr. Karen Robb, Director, Programme Implementation Cancer, UK & Ireland, Movember



Early diagnosis

Diagnose Prostate Cancer (PC) at an earlier stage by focusing on improving existing cancer screening programs (including increasing uptake), developing and expanding interventions targeted at people most at risk, and increasing diagnostic test access and capacity.

Improving screening programmes and uptake is critical because early stage diagnosis leads to significantly better outcomes. Historically and intentionally excluded communities often experience lower access to, and trust in screening services, resulting in later-stage diagnoses and worse survival rates. Addressing these disparities directly through community driven, culturally responsive strategies is essential.

Expanding targeted interventions for populations most at risk is equally important. Strategies that focus on groups with a higher burden of cancer, such as Black men, can help close gaps in early detection and survival.

Finally, increasing diagnostic access and capacity ensures that individuals are not delayed by backlogs, geographic barriers, or service inequities. Reducing wait times and ensuring equitable diagnostic pathways are critical steps in achieving earlier diagnosis across all communities.

Movember are currently working with University College Dublin, as part of the PRAISE-U initiative. The live pilot evaluates the impact of a targeted Movember campaign in addition to a standard letter of invitation from the National Screening Service.

The campaign was developed using extensive qualitative work with Irish men, using 'COM-B methodology' to support behaviour change. Movember will evaluate if a targeted campaign is effective in increasing engagement and uptake, and we can share the results from this pilot when available.

Supportive Care

Improving early diagnosis cannot stand alone, structured pathways must provide supportive care post diagnosis and beyond, with a focus on;

- Comprehensive, integrated & gender-responsive personalised support after diagnosis and treatment
- Improving emotional, mental health & practical support for patients and partners; and
- Targeted support for specific groups, such as ethnic minority patients.

Comprehensive, integrated support across the cancer journey is critical to ensuring that men are not left to navigate complex physical, emotional, and financial challenges alone. This person-centred approach is based on shared decision-making, and recognising the holistic needs of the man, not just the disease. Improving emotional and practical support is equally important. A PC diagnosis affects families and communities, and addressing mental health, social isolation, financial concerns, and caregiver needs is essential to optimise recovery and long-term wellbeing, especially for those already facing systemic inequities.

Reducing mortality and improving quality of life in Prostate Cancer

By Dr. Karen Robb, Director, Programme Implementation Cancer, UK & Ireland, Movember

Finally, offering targeted support for historically and intentionally excluded communities is necessary to close persistent gaps in survivorship experiences and outcomes. Without tailored approaches, efforts to improve care risk reinforcing the very inequities they aim to address.

Movember has an extensive portfolio of work in personalised cancer care which includes:

- Supporting the implementation of Patient Reported Outcome Measures (PROMS) &
- Supporting the implementation of Clinical Guidelines for Sexual Health in PC.

Movember support the routine implementation of PROMS into care pathways to ensure that consequences of treatment are identified early, monitored carefully and responded to speedily. We also advocate that PROMS data is analysed at system levels and used to drive service improvements across clinical pathways. We are currently funding research teams in London to fully embed PROMS and design new PROMS which are fit for purpose for gender and sexual minority groups. We can share the results of these studies when available.

Sexual dysfunction is the most widely reported consequence of PC treatment, yet we know that the majority of men are not getting the care and support that they need. We hear stories from significant numbers of men (and their partners) who tell us the significant impact sexual dysfunction has on their quality of life and relationships.

One Movember ambassador shared his depression, anger and suicidal thoughts linked to this problem. We know there are significant gaps in services, and that certain groups, e.g. gay men and men who sleep with men, are not represented in the research. Working alongside the International Society of Sexual Medicine, we have produced Clinical Guidelines for Sexual Health in PC.

We are working with partners globally to support implementation. Two main problems exist and need to be solved for:

- Men are not talking about their sexual dysfunction and seeking help
- Professionals are not asking the relevant Qs to open up conversations.

We have now held six global convenings bringing together experts and lived experience. Our Ireland convening on June 12th 2025 highlighted that:

- Men are hard to reach but Movember has a track record of effective engagement strategies
- There are examples of good practice in psychosexual care, but they are disconnected and fragmented
- There is stigma about sex and sexual healthcare making communication about this issue challenging
- Patient education needs to happen out-with the clinical environment through simple accessible information.

Conclusion

To reduce mortality and improve quality of life in PC, EU policies must invest in:

- Widening access to early, risk-based diagnosis
- Providing integrated, gender-responsive, personalised care and support
- Addressing systemic inequalities in care
- Embedding PROMs and supporting sexual health and wellbeing

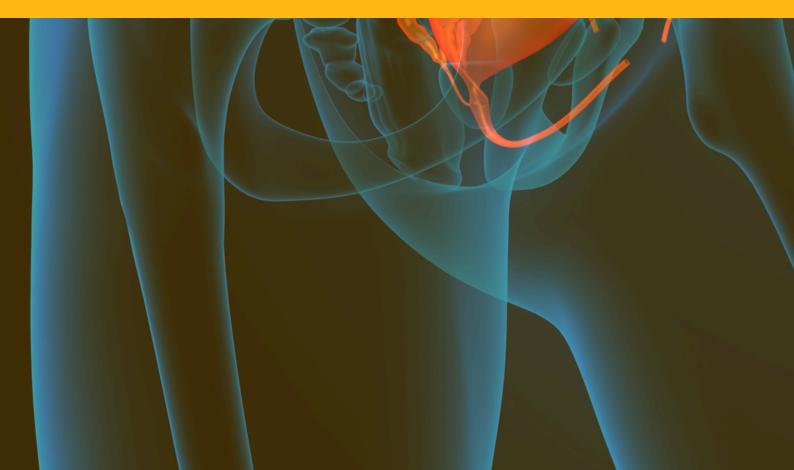
Movember is committed to supporting this work.





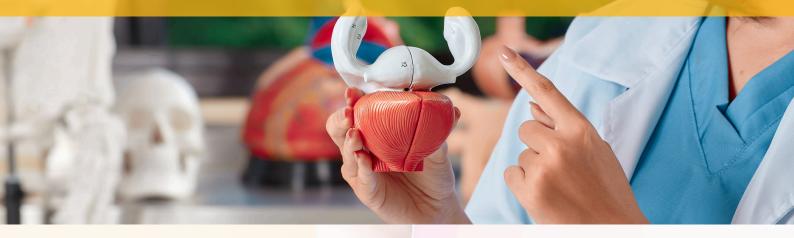
BLADDER CANCER REPORT

Policy Recommendations



Analysing the Current Policy Framework for Bladder Cancer in the EU and Member States

By Dr Lydia Makaroff, President of the World Bladder Cancer Patient Coalition



The World Bladder Cancer Patient Coalition is a global network of 16 bladder cancer patient organisations across 6 continents. We were founded in 2019 because there was no international voice for people with bladder cancer. That is what we are here to change.

Bladder cancer is common and expensive to treat, yet it receives little attention in European cancer policy. Around 120,000 people in the EU are diagnosed with bladder cancer every year. This number is projected to rise to 219,000 by 2030. More than 52,000 die annually. The incidence is rising, and the outcomes are not improving fast enough.

Even though the burden is high, awareness is low. Diagnosis is often delayed. Research funding is limited. Survival rates have barely moved in decades. This is something we can change with the right policies in place.

We need to catch it earlier

Bladder cancer caught early gives people a good chance of survival. More than 80% of people diagnosed early live at least five years. If it is caught late, that drops to 10%.

However, in the WBCPC global patient and carer survey, 64% did not know that blood in the urine was a symptom. Over half had never heard of any signs before their diagnosis.

Women and younger people are more likely to be misdiagnosed. Nearly 70% of women were told they had something else, usually a urinary tract infection. Only 70% of women were diagnosed within three months of seeing a doctor. That compares to 83% of men.

Early detection saves lives. Public campaigns and GP training must include bladder cancer. We also need EU-funded research to assess whether haematuria screening or other targeted approaches could be used for high-risk groups.

Gender affects outcomes

Bladder cancer is more common in men, but women are more likely to die from it. They are also less likely to be informed about the consequences of treatment.

One of the most invasive treatments is bladder removal. In our survey, nearly half of the people who had this surgery said they were not told about the sexual side effects. Men were three times more likely to be given this information than women.

This shows how much room there is for improvement in communication. It also highlights the importance of gendersensitive training and care. Everyone deserves to understand their options and the long-term effects.

Support is patchy and uneven

Bladder cancer affects every part of life. People in our survey said they needed support for mental health, finances, work, relationships, and day-to-day challenges. Nine out of ten people said they needed emotional support. More than half did not get any. Carers, often family members, carry the load with little recognition or help.

Analysing the Current Policy Framework for Bladder Cancer in the EU and Member States

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Money is another major concern. Half of all respondents said they experienced financial strain. That rose to nearly 70% among younger people. People had to cut back their hours, leave jobs, or go into debt.

Bladder cancer should be included in EU-level support programmes for quality of life, mental health, and financial protection. The Cancer Survivor Smart Card is a step in the right direction, but it needs to reflect the reality of this disease.

We are falling behind on research

Bladder cancer receives far less research funding than other common cancers. This has left us with few treatment options and slow progress. Only 16% of our survey respondents were told about clinical trials. Just 8% joined one.

This is a missed opportunity. Research can only move forward if people are allowed to participate.

We support the implementation of the EU HTA Regulation and want to see patient groups included in all health technology assessments. Bladder cancer should also be a research priority through Horizon Europe and EU4Health.

Bladder cancer has one of the highest lifetime costs per patient of any cancer. Investing in better care now will reduce future costs.

What policymakers can do now

Our White Paper lays out five practical steps the EU can take:

- Add bladder cancer to the EU Carcinogens Directive and recognise it as an occupational cancer.
- Fund public awareness efforts that include bladder cancer symptoms, especially blood in the urine.
- Tackle the gender gap in diagnosis and care through better training and guidelines.
- Invest in research and early detection tools, including pilot programmes.

Ensure bladder cancer is included in the European Health Data Space and that patient-reported outcomes are captured.

Final thoughts

Bladder cancer has been left out of too many EU policy frameworks. That must change.

Europe has the tools, the funding, and the ambition. But unless bladder cancer is included in the plan, people will continue to be diagnosed too late, go unsupported, and face avoidable hardship.

We are here as a coalition of patient advocates, ready to work with you. Together, we can build a cancer plan that includes everyone.



Equal access to quality healthcare is a fundamental human right that transcends socioeconomic and geographic boundaries. In the fight against cancer, every individual deserves the best possible care to improve their health, chances of survival and quality of life. Ensuring that advanced diagnostic and treatment technologies are accessible to all is not just a moral imperative but a practical necessity that impacts the live of countless patients.

Bladder cancer background

Bladder cancer is a global health issue, with approximately 614.000 new cases and 220.000 deaths annually. The incidence is higher in developed countries, particularly in Europe accounting for the fifth most common cancer, due to aging populations and factors like smoking and occupational exposures. Furthermore, Bladder cancer is among the costliest cancers to treat.

Bladder cancer which has not invaded the muscle (e.g. non-muscle invasive bladder cancer (NMIBC)) tends to recur frequently or even progress depending on the aggressiveness of the cancer. As a result, patients often undergo lifelong interventional diagnostic procedures by cystoscopy and repeated treatments by transurethral resection of the bladder tumors (TURBT) usually followed by a series of intravesical treatments which impose a significant burden on both, patients and the healthcare systems.⁴

Bladder cancer is characterized by a variable prognosis⁵ which has not improved in decades. The early identification of patients with bladder cancer and the accuracy of the diagnosis are crucial for patient management and outcome.

Consequently, there is an ongoing shift towards more precise diagnosis and personalized treatment.

Precision medicine requires precision diagnostics

Despite the evolving field of biomarkers, artificial intelligence and other technologies to diagnose, predict treatment response and prognosis in bladder cancer, actual diagnosis still requires visualizing malignant lesions in the bladder by cystoscopy which are subsequently removed during TURBT.⁹ This procedure combines diagnosis and treatment in one procedure.

White-light cystoscopy, which has been universally used to visualize tumors during TURBT and surveillance cystoscopy, misses malignant lesions. In fact, recurrences and progression affect nearly half of the diagnosed non-muscle invasive population, in part due to misdiagnosis, delay of diagnosis and incomplete resection of tumors. The important role of quality surgery in NMIBC is widely recognized and an improvement of TURBT might have a larger impact on the outcome than any adjuvant therapy might have. 12

There are several factors contributing to the quality of TURBT. Amongst them, enhanced cystoscopy has been developed to improve the visualization of tumors during the surgical procedure as well as during the follow-up, reducing the number of missed malignant lesions and enabling a more complete resection.

To remove a tumor, you need to see it.

What is needed to get it right?

Making sure technology is broadly available, accessible and reimbursed.

Bladder cancer patients deserve equal access to care

By Photocure

Enhanced cystoscopy with blue light is recommended by national and the European guidelines, particularly for Carcinoma in Situ (CIS), a flat and difficult-to-find lesion which belongs to the most aggressive non-muscle invasive bladder tumor types. However, despite its welldocumented diagnostic advantages and safety profile over 850 000 blue light cystoscopies have been conducted around the world to date - this procedure is not reimbursed in many European countries. This results in disparities in the care of patients with bladder cancer, delaying accurate initial diagnoses and management decisions, potentially affecting patient outcomes significantly.

In the eyes of the bladder cancer patient

Optimizing early diagnosis with enhanced cystoscopy is safe and improves risk stratification, patient management and the ability to make informed decisions. 17-19 Improved diagnosis and management subsequently leads to reduced risk for recurrence and progression, hereby also reducing the burden of repeated invasive procedures for the often elderly patients. However, access to technologies for enhanced cystoscopy is limited, leading to unequal care based on hospital equipment availability reimbursement.

Key take aways

 Equal access to advanced technologies to identify tumors in the bladder reduces burden on patients and healthcare systems. Patients deserve the best diagnostics and treatments, like enhanced cystoscopy, regardless of their location or socio-economic status. With earlier and more accurate diagnoses, patients experience better outcomes and fewer recurrences, leading to less frequent follow-up procedures and improved health-related quality of life.²³ However, enhanced cystoscopy is not or only partially reimbursed in many European countries. Healthcare systems benefit from lower long-term costs associated with repeated treatments and advanced-stage disease management. Investing in equitable access to advanced diagnostic tools ensures efficient use of resources, better patient management, and healthier populations.

- Bladder cancer is one of the costliest cancers to treat. Bladder cancer tends to recur frequently which requires life-long interventional diagnostics by cystoscopies and repeated surgical removal of tumors. In part, this is due to misdiagnosis, delay of diagnosis and/or incomplete resection.
- Precision medicine requires a precise diagnosis first. Considering the pharmaceutical advancements, particularly in immune and gene therapy, treatment cost is expected to rise in the future. These new treatments require a precise diagnosis to better predict treatment response and ensuring the right treatment for the individual patient. Therapeutic monitoring is also essential for precision medicine. More advanced and accurate diagnostics are required to meet the high demands in patient selection and therapeutic monitoring where enhanced cystoscopy plays a pivotal role.

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The social and political opportunities regarding the improvement of the outcome of bladder cancer patients

By Prof. Fred Witjes, Radboud University



I. Raising awareness for bladder cancer

Raising awareness is an important opportunity to improve the outcome (survival, life expectancy, quality of life) of patients with bladder cancer. Awareness will improve knowledge of risk factors for (specific types of) malignancy, potentially preventing exposure to them. Furthermore, it will help people to recognise cancer symptoms to facilitate early diagnosis. Early diagnosis in bladder cancer is crucial to improve its outcome. Delay of diagnosis has been proven to have major implications for the overall outcome of each patient.

Potential approaches to enhance awareness about bladder cancer include:

• European awareness campaigns

European awareness campaigns have been proven effective in several diseases including cancers.

Prominent advocates raising awareness in public

Another factor that raises awareness is when celebrities discuss their cancer or from family members/related persons in public social media, television or other formats. This has been the case for amongst others lung-, breast-and prostate cancer. For prostate cancer, for example, the appearance of general Norman Schwartzkopf, the American commanding officer during the Gulf war, in time magazine ("the battle against prostate cancer" [Time magazine April 1, 1996]) has raised massive attention for prostate cancer in the US in 1996, when for example prostate cancer screening was still debated. His statement was: "For me, it was like war," and "First thing you do is learn about the enemy." And that last statement is exactly the essence of awareness.

II. Reducing economic burden through Prevention: Bladder cancer is the most expensive cancer type per patient

Bladder cancer is the most prevalent cancer type and the most expensive cancer type per patient [Leal et al, European Urology 2016]. Surprisingly, despite the economic impact of bladder cancer, awareness is limited or even absent. There are no campaigns including bladder cancer, little or no celebrities share their diagnosis of bladder cancer in public, and research funding is surprisingly low [Boormans and Zwarthoff, Bladder Cancer 2016]. Therefore, bladder cancer is often referred to as "the forgotten cancer".

Prevention of bladder cancer could profit from knowledge about risk factors. The most important risk factor is smoking and vaping besides environmental and occupational factors. Especially vaping, but also tabacco smoking, is unfortunately increasing significantly in the younger population.

Misleading Vaping Campaigns Creating a False Sense of Security Regarding Its Harmlessness in a highly vulnerable young population

Vaping, originally launched as the "healthy" alternative of smoking, also has been shown to cause bladder cancer [Bjurlin et al. Eur Urol Oncol, 2021]. Many young individuals are promoting vaping on their social media platforms, particularly TikTok, where influential young figures portray vaping as "cool" and harmless. TikTok is used predominantly by Generation Z, with more than 150 million user in Europe and belongs to the fastes-growing apps globally.

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However, this vulnerable young target group of TikTok requires particular protection from harm.

III. Women unseen: Diagnosis of bladder cancer is delayed in women leading to worse outcome

A second unmet need is the recognition of hematuria (blood in the urine) as the most important presenting symptom in individuals with bladder cancer. Certainly in women, this is an alarm symptom that is frequently misinterpreted as a bladder infection or associated to menstruation.

General practitioners' unawareness of key bladder cancer symptoms delays early diagnosis

This is also caused by the fact that general practitioners often do not consider bladder cancer as a cause of hematuria in women in first consultations. Months of delay in the correct diagnosis due to antibiotic treatment to cure the suspected bladder infection is more rule than exception, and consequently the prognosis in women is worse as compared to men [Richters et al, World J Urol 2022]. In conclusion, awareness will help prevention of bladder cancer, with emphasis on the young generation, and early diagnosis and access to primary and secondary care to improve prognosis, especially in women.

IV Screening of bladder cancer

Considering early diagnosis, screening of populations at high risk for bladder cancer is a low-hanging fruit. One potential target population could be workers with occupational exposure to chemicals that cause bladder cancer, such as in industrial plants which process paint, dye, metal, and petroleum products. Another potential target population obviously is heavy and long term smokers.

Screening for bladder cancer actually is rather simple. It initially involves urine testing for red blood cells with a dipstick which takes seconds.

If red blood cells are present without an obvious reason such as a symptomatic bladder infection, the next step is microscopy of the urine for malignant cells ("cytology") or detection of tumor-cells with currently available urinary markers, that have a negative predictive values (a negative test means no tumor) of close to 100% [Laukhtina et al, European Urology 2021]. If one of those tests is positive, an inspection of the bladder is mandatory with a cystoscopy to rule in or out a bladder tumor. The optimal cystoscopy scenario is an "enhanced" cystoscopy, where with the help of new techniques, such as blue light [Maisch et al, BJUI 2022], the chance of detecting a bladder tumor is highest

A potential drawback of screening heavy smokers is that this could be considered ethically debatable. Why reward people that smoke, in spite of all the efforts that are made to emphasize that it is bad for one's health, with an early access to medical care. This, however, is up to politicians to decide.

Conclusion

In conclusion, starting a campaign to raise awareness around bladder cancer to improve early diagnosis, access to care and in the end outcome of patients with bladder cancer, should be on the political and societal agenda, especially in women. Additionally, preventing the exposure to smoking including vaping and tobacco by targeted campaigns for young generation about the (bladder) cancer risks of smoking and vaping should be considered. Furthermore, the responsibility of social media content and its devastating impact by misleading campaigns of individuals and groups should be of political concern and responsibility.





GE HealthCare's Vision for Transforming Breast Cancer Care Through Innovation and Equity

By Alexandra Schulz and Mathias Goyen, GE HealthCare



At GE HealthCare, we are committed to advancing the future of breast cancer care by delivering a comprehensive, patient-centric, and technologically advanced approach across the entire care continuum. As breast cancer is now with 29.4% the most diagnosed cancer for women in the EU, the need for effective, equitable, and scalable solutions has never been more urgent¹.

A Multimodal, AI-Driven Vision for Breast Care

Our strategy is built on a complementary multimodality approach, leveraging artificial intelligence and advanced imaging technologies to improve early detection, diagnostic accuracy, treatment precision, and long-term monitoring. We believe that technology can and should empower clinicians, reduce disparities, and make life-saving care accessible to every woman, no matter where she lives.

Today, breast imaging faces critical challenges including radiologist shortages, high false-positive rates, and underutilization of screening programs¹. Approximately 90% of mammograms are normal², yet they consume significant clinical resources. Through strategic collaborations and AI innovation, GE HealthCare is focused on optimizing radiologist workflows so they can focus their time on the cases that matter most, improving detection and reduce time to diagnosis.

Enhancing Detection and Diagnosis

Our solutions emphasize early detection, particularly in underserved and high-risk populations. From mammography to ultrasound (automated, handheld and traditional) and MRI, we offer a broad portfolio of imaging technologies that can help detect cancers early and accurately.

Senographe Pristina™ platform redefines mammography experience with a design centered on patient comfort, enhanced by innovative tools like Pristina Dueta[™] – the industry's first patient-assisted compression device that helps to make the exam more comfortable3. The latest Pristina Via™ adds automation and workflow efficiencies for technologists, offering fast cycle times and seamless integration with vendor-neutral image comparison; it also maintains the industry's lowest radiation dose in DBT for all breast thicknesses among major systems on the market.4

Contrast-enhanced mammography (CEM) through SenoBrightTM HD improves lesion visibility in diagnosing dense tissue, 5,6,7 providing clear, fast results reducing inconclusive exams and minimizing patient anxiety. The Serena BrightTM solution takes this a step further by enabling contrast-guided biopsy on the same equipment, reducing the need for separate procedures and environments.

For women with dense breasts, who make up more than 40% of Caucasian women8 and 70% of Asian women9, we offer Invenia™ ABUS (Automated Breast Ultrasound), the first FDA-approved supplemental ultrasound screening technology designed specifically for dense breast. For these patients, the addition of ABUS screening when used with mammography has demonstrated an incremental cancer detection rate of 4.2 per 1,000 women, while also achieving lower recall rates compared to other supplemental screening methods10. These recent findings also highlight that ABUS's patient-friendly design has led to the highest level of patient acceptance10 among imaging technologies.

GE HealthCare's Vision for Transforming Breast Cancer Care Through Innovation and Equity

By Alexandra Schulz and Mathias Goyen, GE HealthCare

The latest new product introductions with the Invenia ABUS Premium include AI tools that boost scan speed, scanning accuracy, reading confidence, and patient comfort.

Supporting Precision Interventions and Treatment Planning

Once diagnosis is made, GE HealthCare supports clinicians with technologies that assist in staging, planning, and performing precise interventions. Our advanced imaging portfolio, including CT and molecular imaging, provides clinicians with vital insights into tumour biology and treatment response, enabling truly personalized care.

Al plays a crucial role here. For example, our Al-guided biopsy solutions enhance lesion localization and reduce the need for repeat procedures. In clinical research, GE HealthCare is collaborating with Emory University with the goal to use deep learning to predict recurrence in aggressive subtypes like triple-negative breast cancer with the goal of developing tools to inform treatment decisions and long-term monitoring strategies.

Addressing Access and Equity

We are committed to closing the care gap. Too often, access to early detection is limited by geography or socioeconomic barriers. GE HealthCare's mobile breast screening units with mammography and automated breast ultrasound bring advanced imaging to communities that might otherwise go without directly addressing health equity and improving population-level outcomes.

Additionally, SmartMammo™, developed in collaboration with DeepHealth, integrates AI into diagnostic workflows to support fast, more accurate interpretation of mammograms11. This tool enables seamless access to multimodal imaging across locations, enhancing collaboration, and making workflows efficient and scalable.

Collaborating for Impact

GE HealthCare believes in the power of partnerships to drive meaningful progress. From NIH-funded research on breast cancer recurrence to our collaboration with DeepHealth and RadNet to commercialize AI-powered SmartTechnology™ solutions, we are aligning with

academic, clinical, and industry partners to bring innovations to life and into clinical practice.

Our clinical and research partnerships are designed not only to advance the science but also to ensure our technologies reflect real-world needs and deliver practical value both for patients and providers.

Innovating with Purpose

Every step of our innovation journey is guided by one principle: to deliver care without compromise. Whether it's personalized screening for early cancer detection, reducing the number of unnecessary biopsies, helping radiologists prioritize suspicious cases, enhancing the comfort of a mammogram, or enabling real-time access to critical diagnostic insights, we are building technologies that are as human-centered as they are cutting-edge.

The Road Ahead

Breast cancer outcomes are improving but there is still work to do. Across EU member states, breast cancer incidence and mortality rates vary significantly, highlighting critical disparities in care¹. We believe these inequities are unacceptable, and GE HealthCare is committed to closing this gap with a bold, inclusive, and technologically advanced strategy.

Our mission is to create a world where healthcare has no limits and breast care is no exception. By delivering intelligent, connected, and compassionate solutions, GE HealthCare is helping to shape a future where every woman, everywhere, receives the breast care she needs, when she needs it most.

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Launch of the European Quality Assurance Scheme for Breast Cancer Services

By Aliki Stathopoulou, Shawn Baldacchino, Annett Janusch-Roi



"The European Quality Assurance Scheme for Breast Cancer Services is published and is available for implementation, defining a standard of breast cancer care across Europe and promoting common monitoring. The current priority is to disseminate the scheme for implementation, thereby improving equity of access to quality breast cancer screening and care."



Introduction

The European Quality Assurance Scheme for Breast Cancer Services (the 'scheme') was developed under the European Commission Initiative on Breast Cancer (ECIBC), following the European Council Recommendation on cancer screening, reinforced in 2022[i] to improve cancer screening across Member States. Officially launched in February 2025, the scheme is intended as a voluntary certification tool to support healthcare services in delivering high-quality, evidence-based breast cancer care across Europe.

By offering a common framework, the scheme seeks to reduce inequalities, while ensuring continuity of care, thus contributing to overall improvement in screening, diagnosis, treatment, and supportive care services.

Main components

The scheme includes 64 requirements that cover the entire breast cancer care pathway—from screening through to supportive care. These requirements are presented in a manual divided into two parts:

- Part I includes the certification process, outlining the necessary steps for healthcare services to obtain certification.
- Part II details the quality requirements for assessment, including indicators and criteria that services are expected to meet.

Certification is voluntary and conducted by independent, accredited bodies that assess whether services meet the European standards.

Key features

The scheme was developed by a multidisciplinary group of experts in breast cancer representing different subject areas, such as breast cancer epidemiology, diagnostic radiology, pathology, breast surgery, oncology and patient representation. One of its core principles is ensuring continuity of care, recognising that coordinated transitions between screening, diagnosis, and treatment are essential in achieving timely and effective care.

To accommodate diverse healthcare settings, the scheme follows a modular and stepwise approach. Services may begin with a limited scope and progressively expand their implementation over a five-year period, enabling services to gradually build capacity.

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To support implementation, the scheme includes practical tools, such as a self-assessment instrument, to help services evaluate their current level of readiness.

Development and validation

The development of the scheme followed a defined methodology[i] and has been tested in real settings by 20 entities, including breast cancer services, certification and national accreditation bodies (NABs) from 9 EU countries, together with the collaboration of the European cooperation for Accreditation (EA). Testing feedback helped refine the content and structure of the scheme, ensuring its relevance and applicability in different healthcare contexts.

In November 2024, the scheme was endorsed by EA for the mandatory application of the scheme by NABs for the accreditation of certification bodies intending to certify breast cancer services under the scheme. The first official version was published on February 4, 2025, and is now accessible to interested services and available for implementation.

What the scheme offers

The scheme serves as a structured framework to support continuous improvement in breast cancer care. It assists services in aligning with evidence-based guidelines, monitoring performance, and identifying areas for improvement. The inclusion of evaluation mechanisms enables services to assess progress and promotes accountability.

Communication and dissemination

Current efforts shall focus on promoting awareness and uptake of the scheme, particularly in regions where screening coverage remains low or where care quality requires strengthening. Efforts shall include supporting healthcare providers in understanding and adopting the scheme, as well informing national authorities to allow for potential integration of the scheme into existing healthcare strategies.

All scheme-related materials—including the manual, self-assessment tool, and background guidelines—are publicly available through the European Commission's online platform[ii]. In addition, dedicated communication channels have been established to provide further guidance and respond to inquiries.

Conclusion

The European Quality Assurance Scheme for Breast Cancer Services is a key development in the effort to improve and harmonise breast cancer care standards across the EU. By providing a structured, evidence-based approach, the scheme supports healthcare services in delivering consistent, high-quality care, while also enabling ongoing improvement.

The focus moving forward is on broad dissemination and sustained engagement, with the overarching objective of ensuring that all women across Europe have equitable access to timely care that is coordinated and aligned with the highest standards.

Access and contact

- The European Quality Assurance scheme for Breast Cancer Services: https://cancer-screening-andcare.jrc.ec.europa.eu/en/ecibc/breast-quality-assurancescheme
- For general inquiries: JRC-CANCER-POLICY-SUPPORT@ec.europa.eu
- For expressions of interest in the scheme: JRC-CANCER-CARE-QA-SCHEMES@ec.europa.eu

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Personalised Breast Cancer Care: Supporting Quality of Life

By Prof Claire Foster, PhD, CPsychol, CentRIC, University of Southampton, UK



The wide-ranging impact of breast cancer and its treatment is well documented¹. The effects can begin before diagnosis, continue through treatment, and persist for years afterwards. They influence not only physical health but also emotional, social, and practical aspects of life, affecting patients and families. While some impacts may be positive, many can significantly reduce quality of life.

Personalised care is a vital component of breast cancer care, as it ensures support is tailored to a person's needs, preferences, and circumstances. This approach involves assessing physical, emotional, social, and practical needs and developing care plans in partnership with patients². These plans may address side effects, mental health, financial or work-related concerns, family responsibilities, and support for healthy lifestyle changes and other areas of need. Some needs can be met by the breast care team, others through supported self-management, family and community support, or referrals to specialist services.

Personalised care has been shown to:

- Improve treatment adherence
- Reduce unnecessary hospital visits
- Enhance patient confidence and self-management
- Improve quality of life and satisfaction with care

Challenges in Delivering Personalised Care

Although assessments of patient needs at diagnosis, during treatment, and after treatment are recommended, they are not always based on high-quality, supportive conversations. Assessments may identify needs but not whether patients feel equipped to manage them.

Additionally, healthcare professionals may lack confidence or training to address certain patient-identified concerns.

Research demonstrates that individuals with poor mental health, low self-efficacy, limited social support, or comorbidities often experience worse quality of life outcomes during and after treatment³. Findings from the UK HORIZONS cohort, including breast cancer patients, reinforce the importance of these factors and reveal a particularly heavy mental health burden among younger women with breast cancer ⁴.

Improving Services Through Personalised Care

Cancer services that prioritise personalised care demonstrate the value of supportive conversations and cocreated care plans. Training for healthcare professionals is essential to enable these conversations and ensure care plans are meaningful and actionable. Evidence shows that services can be reconfigured to better meet patient needs in the community, especially for underserved groups, leading to reduced unmet needs and improved quality of life⁵. Strengthening links between primary and secondary care is also crucial for optimising patient experience and outcomes.

Digital Tools to Support Personalised Care

Evidence-based digital resources have been developed with patients and healthcare professionals to support women with breast cancer. For example, genetic testing to assess cancer risk is increasingly common, but clinicians often lack time to guide patients through complex decisions.

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Breast Cancer Choices (breastchoices.org.uk) is a web-based decision aid developed with patients and health professionals. It is theory- and evidence-based, endorsed by the UK Cancer Genetics Group, and designed to complement clinical conversations. It improves patient confidence, reduces decisional regret, and is well accepted by healthcare providers. Another example is CanEMPOWER (can-empower.org.uk) a web-based resource supporting self-management of psychological and emotional wellbeing. Despite their proven benefits, such tools often fail to reach the patients who need them most.

Policy Recommendations:

- 1. Comprehensive Needs Assessments at diagnosis, throughout treatment, and after treatment to evaluate mental health, confidence in managing cancer-related issues, and the impact of comorbid conditions.
- 2.Tailored Care and Support Plans developed with patients including self-management support, community resources, and referrals to specialist services. Psychological support should be stratified according to need and available from diagnosis through survivorship.
- 3. Promote Evidence-based Digital Tools that support selfmanagement and decision-making and help mitigate the physical and psychological impacts of cancer and its treatment.

Aligning with EU Priorities

The importance of personalised care aligns with the policy priorities set out for the EU by <u>Transforming Breast Cancer</u>, emphasising equal access to high-quality care, improving quality of life and emotional wellbeing and reducing inequalities⁶. The <u>European Quality Assurance Scheme for Breast Cancer Services</u> sets out standards for screening, diagnosis, treatment, and follow-up aiming to reduce inequalities in care and ensure continuity and quality across Europe⁷. Additionally, <u>Europe's Beating Cancer Plan</u> supports the integration of digital tools and personalised approaches to improve outcomes and reduce disparities⁸.

Research and Implementation Recommendations:

- To maximise the benefits of personalised care, research is needed to determine how best to integrate evidence-based interventions into breast cancer care.
- Interventions should be developed and implemented in partnership with patients, healthcare professionals, and third-sector organisations.
- Traditional randomised controlled trials may not be the most efficient approach. We need to consider alternative, agile research designs that allow real-time evaluation and implementation.

Conclusion

Personalised care is essential. Given the significant life impacts of breast cancer and its treatment, it is critical to identify unmet needs and assess how confident patients and survivors feel in managing them. Tailored care and support, including digital resources, improves quality of life, enhances satisfaction with care, reduces unnecessary interventions, and supports long-term health and wellbeing.

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Recommendations for breast cancer in Europe

By Juan Ventura, Cancer Patients Europe



- It is absolutely necessary to reduce inequalities in the EU improving the access to Breast Cancer screening, early diagnosis and novel therapies. The EU should allocate funds to sponsor the adoption of breast cancer prevention and treatment in those countries where breast cancer patients are still far behind those who live in the EU top countries. A minimum threshold in diagnosis and treatment options accessible for breast cancer patients should be set up in the whole EU.
- The implementation of the novel advanced diagnostic and therapeutic options needs harmonization of clinical protocols and proper educational updates for clinical personnel across the EU.
- Enforce support to breast cancer survivors (mental, nutritional, physical) at EU level to improve their quality of life.



Organized screening, advanced diagnostics, certified quality pathways, and improved research

By Dr Maja Molska, University of Zielona Góra, Department of Surgery and Oncology, Poland



Introduction As a participant in the EU Breast Cancer Roundtable convened in Brussels, Belgium, in June 2025, I had the privilege of engaging with leading oncologists, public health professionals, industry leaders, and academic researchers. The meeting was rich in constructive dialogue, focusing on strategies to close gaps in breast cancer care, particularly around prevention, diagnostics, treatment, and research. This report distills recommendations based on those discussions, supported by the latest evidence in scientific literature.

1. Prevention: Targeted Primary & Secondary Measures

1.1 Strengthen primary prevention via policy and lifestyle interventions

Consistent with Europe's Beating Cancer Plan, policymakers should reinforce public health campaigns that address modifiable risk factors—tobacco and alcohol use, poor diet, and physical inactivity—all known contributors to breast cancer development. Cross-sectoral initiatives and community engagement can raise awareness and promote healthy behaviors, particularly in underserved populations.

1.2 Expand risk-based screening for younger women

Recent data indicate that approximately 20% of women aged 30–39 are at elevated breast cancer risk. Offering comprehensive risk assessments—including genetic testing and personalized screening—is feasible and impactful. Following these encouraging early results, EU countries should pilot similar programs to identify high-risk younger women and implement tailored screening schedules.

2. Diagnostics: Boosting Early Detection Systems

2.1 Adopt organized, quality-assured screening programs

The ECIBC strongly recommends organized mammography programs over opportunistic screening due to superior population reach, quality control, and cost-effectiveness. Member states should implement the European quality assurance scheme across screening units, diagnostic centers, and treatment clinics to ensure continuity and equity of care.

2.2 Reduce disparities in screening uptake

Despite national efforts, mammography uptake in eligible women hovers around 66% in Europe, with Eastern European countries reporting rates as low as 10%. To achieve the EU target of offering screening to 90% of qualified individuals by 2025, national plans must prioritize outreach, targeted communication, and logistics, especially in rural or low-socioeconomic regions.

2.3 Deploy Al-augmented diagnostics and imaging datasets

Advancements in artificial intelligence—such as handheld ultrasound systems and MRI analysis—open new avenues for efficient, accurate detection. The multi-center European breast MRI dataset supports AI tool development, while systematic reviews emphasize the need for rigorous validation before clinical rollout. Collaboration across industry, clinics, and academia is essential to fast-track safe AI integration.

Organized screening, advanced diagnostics, certified quality pathways, and improved research

By Dr Maja Molska, University of Zielona Góra, Department of Surgery and Oncology, Polanc

3. Treatment & Care: Elevating Quality and Equity

3.1 Standardize certification of breast care services

Implementation of a Europe-wide certification scheme—endorsed by the European cooperation for Accreditation—can guarantee high standards for breast cancer. Voluntary adoption of modular and self-assessment tools will encourage compliance and elevate care quality uniformly across all European regions.

3.2 Expand multidisciplinary care pathways

Quality care depends on seamless collaboration among surgeons, oncologists, radiologists, geneticists, psychologists, and patient advocates. Our June Roundtable emphasized inclusion of multidisciplinary teams within every certified breast unit, supported by survivorship programs and integrated data systems.

4. Research & Innovation: Catalyzing Future Breakthroughs

4.1 Prioritize AI validation studies and digital infrastructure

To responsibly leverage AI for diagnostics, Europe needs multi-center trials, transparent data sharing frameworks, and standard imaging protocols.

4.2 Develop dynamic registries and surveillance tools

National cancer registries and screening data remain instrumental for policy-making and monitoring inequities. EMR across borders, harmonized with the European Cancer Inequalities Registry, will enable real-time surveillance of outcomes, uptake rates, and service quality.

4.3 Embed health economics and overdiagnosis research

In rolling out new screening technologies, such as Ab-MRI or AI, cost-effectiveness and harm-benefit balance cannot be ignored. Studies must evaluate financial sustainability, patient acceptability, and quality-adjusted life years to guide rational EU health investments.

Conclusion

Our Brussels Roundtable reaffirmed that Europe is at a crucial juncture. With organized screening, advanced diagnostics, certified quality pathways, and improved research—including Al—it can significantly reduce breast cancer morbidity and mortality, enhance treatment standards, and improve patients' quality of life while bridging disparities across member states. As we approach the EU 2025 screening target, a coordinated effort from healthcare professionals, industry, academia, and policymakers will be essential.



A Call to Act: Advancing Breast Cancer Screening Across Europe



Breast cancer is the most common cancer among women in Europe and the leading cause of cancer-related death in women. In 2022, an estimated 374,800 women were diagnosed with breast cancer and 95,800 died from it in Europe[1]— yet many of these deaths could be prevented if detected and treated earlier. Early diagnosis is the most powerful tool to improve survival, reduce the need for aggressive treatment, and lower long-term healthcare costs.

Despite decades of progress in breast cancer screening, diagnosis and treatment, many women across the EU do not benefit from these advancements. The reasons are often systemic: unequal access to screening, lack of tailored approaches for women at higher risk – such as those with dense breast tissue – or lack of awareness. The fact that not all EU countries have established an organized population-based screening program further contributes to inconsistent outcomes across the EU.

It is time to close these gaps. The EU can lead in transforming breast cancer care by investing in smarter, more equitable, and more effective early detection.

Why early diagnosis matters

Breast cancer detected at an early stage (Stage I or II) has a 5-year survival rate of over 95%. If diagnosed at a later stage (Stage III or IV), survival drops dramatically. At the same time, early-stage treatment is less complex, less expensive, and less burdensome for women and health systems alike.

The high costs associated with breast cancer, currently among the most expensive cancers in Europe[2] can be significantly reduced through better early detection

strategies. But this is only possible if screening programs are accessible, modernized, and tailored to individual risk

Not all screening is equal

Standard breast cancer screening uses a technique called 2D mammography, which creates a flat image of the breast. For many women, this works well. But for others – especially those with dense breast tissue – this method can miss cancers or lead to false alarms.

Dense breast tissue is a normal condition affecting up to 50% of women. It makes tumors harder to see on traditional mammograms and at the same time increases a woman's risk of developing breast cancer. Women with dense breasts are more likely to have their cancers missed until later stages.[1]

Newer technologies like Digital Breast Tomosynthesis (DBT), also known as 3D mammography, Ultrasound, and Abbreviated Breast MRI (AB-MRI) or alternatively Contrast-Enhanced Mammography (CEM), offer much better accuracy for these women. These tools can detect more cancer at earlier stages—leading to more efficient care.[2]



A Call to Act: Advancing Breast Cancer Screening Across Europe

By Kellar Jana

Smarter screening, better care

Research from large EU studies shows that:

- 3D mammography (DBT) finds significantly more cancers than standard mammography and can reduce false positives. Even more so when using wide-angle tomosynthesis, which has been proven to detect 43% more invasive cancers and significantly reduce interval cancers than regular 2D mammograms.[1]
- Contrast-Enhanced-Mammography (CEM) also detects more invasive cancers in women with dense breasts than MRI and should be used as replacement in the case of contraindications.[2]
- Abbreviated Breast MRI (AB-MRI) detects even small tumors that other tests can miss, especially in women with dense breasts – at a fraction of the time of regular breast MRIs, thereby also increasing comfort and compliance.
- Artificial intelligence (AI) tools offer a promising way to enhance breast cancer screening across the EU. Alsupported screening improves early detection of clinically significant breast cancers and reduces radiologist workload without increasing false positives.
 [3]

Together, these advances enable a shift toward more personalized, more effective screening –targeted to a woman's individual risk and breast density. But adoption across Europe remains uneven. Too many women are still screened with outdated technology. Too few are informed about their breast density or their individual risk. Across the EU, participation in organized breast cancer screening stands at only 54%, with country-level uptake ranging from under 30% to above 80%.[4]

An EU-wide opportunity

The evidence is clear, and the necessary technologies are available. What is now needed is strong political will to translate this potential into tangible improvements in breast cancer care across Europe. The EU has a strong foundation, but Member States require support in funding, infrastructure, and harmonized guidelines.

Our call to action:

We urge EU policymakers to:

- Mandate standardized breast density reporting and inform women of their individual risk.
- Encourage adoption of risk-based, personalized screening models—especially for women with higher-than-average risk and those with dense breast tissue.
- Ensure equal access to high-quality early detection regardless of geography or socioeconomic background.
- Promote research and real-world data collection to continue improving effectiveness and equity.
- Support investment in modern screening technologies (such as 3D mammography, abbreviated MRI, and CEM) across all Member States.

With smart investment and EU leadership, breast cancer can become a largely preventable disease. Women across Europe deserve the same opportunity: to detect cancer early, to access modern care, and to survive.

Now is the time to act.

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Boosting Screening Engagement: Equitable Access Across the EU

By Mirela Boman



Boosting Screening Engagement: Equitable Access Across the FU

- Binding Directive: Adopt an EU-wide legal mandate (Art. 168 TFEU) guaranteeing organized breast screening for all eligible women (45–74) with enforceable rights.
- Data Transparency: Require Member States to publish disaggregated screening data (region, socio-economic status, ethnicity) for disparity monitoring and EUSOMAaligned benchmarking.
- Culturally Competent Outreach: Deploy trained mediators and local partners to deliver multilingual, culturally adapted communication addressing mistrust and misinformation.
- Digital & Al Tools: Use Al for risk-based invitations and automated reminders, plus user-friendly online booking to lower access barriers.
- Free & Guaranteed Screening: Ensure screening is free by law; link EU4Health funding to improvements in underserved groups.
- Independent Oversight: Mandate regular independent audits with patient and anti-corruption body involvement to secure transparency and trust.

Advancements in Diagnostic Techniques: Liquid Biopsies, Al, and Integrated Care

- Liquid Biopsies: Minimally invasive tests (e.g., ctDNA)
 enable early recurrence detection and treatment
 monitoring. EU should fund validation trials and
 mandate reimbursement to ensure equitable access.
- Artificial Intelligence: Al improves diagnostic accuracy and workflow. Regulatory frameworks aligned with the Al Act must enforce transparency, bias audits, and clinical accountability.

- Multidisciplinary Teams (MDT): Legal mandates for MDT integration of molecular and AI data into treatment decisions ensure coordinated, high-quality care.
- Digital QoL Tools: Survivorship care should use GDPRcompliant digital platforms for symptom tracking and psychosocial support.
- Equity & Access: EU and Member States must build capacity in underserved areas, monitor technology access, and link EU4Health funding to equity metrics to prevent disparities.

Navigating Survivorship: Ensuring Quality of Life Post-Treatment

- Legal Recognition & Care Plans: Establish survivorship as a legal right; provide personalised Survivorship Care Plans (SCP) covering medical follow-up, psychosocial support, and reintegration.
- Comprehensive Support: Multidisciplinary care to manage chronic side effects, mental health, and social reintegration including workplace protections.
- Data & Accountability: Mandate national registries tracking outcomes and quality of life; integrate survivorship metrics into EUSOMA indicators and link to EU4Health funding.
- Equity & Inclusion: Tailor programs to diverse populations with culturally competent, accessible care.
- Digital Tools: Deploy GDPR-compliant interoperable platforms for remote monitoring, self-management, and virtual support.
- Funding & Oversight: Tie EU/national funding to survivorship implementation; enforce independent audits for transparency and gap closure.

Boosting Screening Engagement: Equitable Access Across the EU

By Mirela Boman

Advancing Breast Cancer Treatment: Genomics, Immunotherapy, and Precision Medicine

- Genomic Profiling: Mandate comprehensive genomic testing in EU guidelines with reimbursement to ensure equitable access and personalized therapy.
- Immunotherapy Access: Fund clinical trials and harmonize regulations for timely use of immunotherapies in select breast cancer subtypes.
- Precision Medicine Infrastructure: Integrate multidisciplinary molecular tumour boards and diagnostics into national cancer plans for informed treatment decisions.
- Equity and Legal Guarantees: Ensure equitable access to advanced therapies through legal mandates, public funding, and transparent pricing.
- Data and Evidence Sharing: Establish EU-wide interoperable registries to collect real-world outcomes, guiding policy and treatment optimization.

The Evolving Landscape of Immunotherapy

Immunotherapy is transforming breast cancer care, especially for aggressive types like triple-negative. The EU must:

- Fast-track approvals and harmonize reimbursement for timely access.
- Mandate biomarker testing (e.g., PD-L1) to guide treatment.
- Fund training for healthcare teams on immunotherapy and side-effect management.
- Establish registries for real-world data and safety monitoring.
- Ensure equitable access across all regions through legal guarantees and EU4Health support.

HR-positive HER2-negative Breast Cancer: Key Strategies

- Personalized Adjuvant Therapy: Use genomic testing to avoid overtreatment.
- Endocrine + Targeted Therapy: Prioritize CDK4/6 inhibitors with endocrine therapy across stages.
- Guided Sequencing: Standardize treatment sequencing to improve outcomes.
- Multidisciplinary Planning: Mandate MDTs for tailored, evidence-based care.

- Survivorship Link: Integrate follow-up care for long-term effects and quality of life.
- Equity: Ensure access to testing and therapies EU-wide via public funding.

Innovations in Radiation Therapy for Early Breast Cancer:

- Hypofractionation Adoption: Promote shorter, equally effective radiation schedules to improve patient convenience and reduce costs.
- Partial Breast Irradiation: Support targeted radiation techniques to minimize side effects and preserve healthy tissue.
- Advanced Technologies: Invest in proton therapy and MRI-guided radiation to enhance precision and reduce toxicity.
- Access Equity: Ensure equal availability of innovative radiation treatments across all EU regions via funding and legal frameworks.
- Training & Guidelines: Update EUSOMA guidelines and provide clinician training on new radiation protocols.
- Data & Monitoring: Integrate radiation outcomes into national registries for quality assurance and research.

EU-Wide Strategy Recommendations

- European Commission: Propose binding directives (Art. 168 TFEU) guaranteeing universal, equitable access to screening and treatment as enforceable legal rights.
- 2. **Member States**: Align national laws with EU mandates; provide free services, publish disaggregated data, and support outreach to underserved groups.
- 3. **EU4Health & Funders**: Link funding to measurable progress in coverage, innovation adoption (e.g. Al, DBT), and survivorship care.
- 4. **EUSOMA & Clinical Societies**: Update standards, mandate MDTs, and embed accountability for incorporating new diagnostics and therapies.
- 5. Data & Oversight Bodies: Enforce transparent outcome reporting and independent audits with civil society oversight.
- 6. **Digital & AI Regulators**: Create clear rules for AI use—bias audits, validation, and GDPR compliance required.
- Patient & Civil Society: Shape policy, ensure accountability, and lead inclusive education and outreach efforts.

We Need to Shift from "Treatment in Case" to "Treatment When Needed"

By Olaf Johan Hartman





Many breast cancer patients receive adjuvant therapies such as chemotherapy and anti-estrogen treatment. While these therapies improve population-level survival rates, most individual patients do not experience a personal survival benefit. This applies to nearly all adjuvant treatments. Tools like Predict Breast (https://breast.predict.cam) can estimate individual benefit.

Without adjuvant treatment, survival rates would fall to unacceptable levels. However, these therapies come at a significant cost to quality of life. Most women receiving chemotherapy never return to full-time work, and endocrine therapy—though less toxic—can still substantially affect quality of life, especially in younger women.

The challenge is clear: we must move from treating everyone to treating those who truly benefit. The future lies in a more targeted approach—offering therapy only when there is clear evidence of disease activity. This would reduce unnecessary harm, improve well-being, and lower both healthcare costs and the carbon footprint.

Improving Adjuvant Treatment Selection: Personalized Monitoring

A key priority in breast cancer care is improving how we select patients for adjuvant therapy. One promising avenue is comprehensive molecular profiling of the primary tumor, combined with liquid biopsy techniques such as circulating tumor DNA (ctDNA) or RNA (ctRNA) analysis.

Technologies like Signatera can detect tumor-specific RNA in blood months before metastases become visible on imaging. This enables early identification of recurrence and

opens the door for on-demand treatment. In the future, selected patients could receive chemotherapy or endocrine therapy only when tumor-specific RNA levels rise—avoiding unnecessary treatment for those with no signs of active disease.

This approach could significantly reduce overtreatment, limit side effects, and improve quality of life by initiating therapy only when molecular evidence of disease is present.

Currently, there are no validated tools for routine monitoring of treatment success. Standard follow-up—annual mammograms and clinical exams for 5–10 years—detects only local relapse or new tumors, offering no insight into systemic recurrence until it becomes symptomatic. This lack of real-time monitoring places a psychological burden on patients and gives clinicians little actionable data.

Investing in research and infrastructure to implement molecular monitoring tools could revolutionize follow-up care, replacing the one-size-fits-all model with a truly personalized, evidence-based approach.

De-escalation of Surgery: Evidence-Based Progress

When William Halsted introduced radical mastectomy—removing the breast, underlying pectoral muscle, and all axillary lymph nodes—it was a milestone in breast cancer treatment. At the time, this aggressive approach gave the best long time survival results, as adjuvant therapies were not yet available.

We Need to Shift from "Treatment in Case" to "Treatment When Needed"

By Olaf Johan Hartman

Nearly a century later, Bernard Fisher fundamentally changed our understanding by demonstrating that breast cancer is a systemic disease at diagnosis—not purely local. His follow-up of patients who had undergone radical surgery revealed that many developed distant metastases years later. This challenged the belief that more extensive surgery leads to better outcomes.

Yet, the notion that complete surgical removal is essential still lingers. However, extensive surgery does not eliminate the risk of relapse driven by micrometastatic disease.

Large meta-analyses involving over 100,000 patients show that breast-conserving surgery provides superior survival compared to removal of the whole breast—an overall survival benefit of approximately 30%. This has been consistently demonstrated for over a decade.

Likewise, recent studies on de-escalation of axillary surgery—including omitting sentinel lymph node biopsy or axillary dissection in selected patients—show equal survival benefit and significant improvements in quality of life.

Optimizing surgery by reducing the extent of intervention is now a key research focus. De-escalation maintains oncological safety while minimizing complications, improving function, and reducing the long-term physical and emotional burden on patients.

When Should Mammography Screening Stop? A Turning Point in Modern Breast Cancer Care

A critical turning point in breast cancer screening is reached when the harms of screening begin to outweigh its benefits. With advances in treatment and survival, the additional value of early detection via mammography decreases—especially in populations with already high survival rates.

In Norway, the five-year relative survival across all breast cancer stages is now 93%, with 42% even for metastatic disease (2019–2023). As outcomes improve, the survival gain from screening diminishes.

Moreover, screening is not risk-free. Radiation exposure from mammography may increase cancer risk in genetically susceptible individuals (e.g., those with TP53 mutations). In rare cases, women may develop radiation-induced angiosarcoma following treatment for precancerous disease.

In Switzerland, data show that screening 1,000 women every two years for 10 years prevents one breast cancer death. To achieve this, about 5,000 mammograms are needed, and 24 women will be diagnosed and treated—most of whom would not have died from the disease. This raises significant concerns about overdiagnosis and overtreatment.

Importantly, these estimates are based on historical treatment data. With today's advanced therapies, the net benefit of screening is likely lower, and in some cases, may even become negative, causing more harm than good.

Given these developments, it is time to reassess: When should screening stop? In which subgroups is it still effective? Are we allocating resources ethically and effectively?

Continuous evaluation of national screening programs is essential to ensure they remain evidence-based, cost-effective, and aligned with the evolving reality of breast cancer care.





1. It is clear from the EU Breast Cancer meeting (24 June 2025) that implementation of standard of care for breast cancer treatments as set out in the published recommendations, is patchy and inequalities exist within the EU, particularly in middle income countries and countries converging to become high income countries within the EU. There are now two examples of clinical research which provides randomised evidence for using 'less breast cancer treatment':

- The first example is the adjuvant use of single agent trastuzumab in women with HER2 positive early breast cancer which is at low risk of recurrence (predominantly the group without involvement of axillary lymph nodes). A recent meta-analysis showed that 6 months trastuzumab with chemotherapy +/- adjuvant endocrine treatment (if tumour is ER positive), is non-inferior to the standard 12 months, and is now an option for treatment (Earl H, 2025). Use of 6 months trastuzumab in the randomised Persephone trial (NIHR HTA, UK, Earl H, 2019) of 4,088 patients resulted in a cost saving of £20m, which would be a cost saving of £40m if all patients were treated with 6 months.
- The second example is the use of first-line oral treatment in women with metastatic ER positive, HER2 negative breast cancer. The SONIA Trial from the Nederlands (Sonke G, 2024), demonstrated that using nonsteroidal aromatase inhibitor first line ahead of a combination of a CDK 4/6 inhibitor with fulvestrant on progression, provides equivalent outcomes in terms of progression-free survival after both lines of treatment and overall survival, when compared with the reverse sequence (nonsteroidal aromatase inhibitor with a CDK 4/6 inhibitor given first). The total saving on CDK 4/6 inhibitor drug costs in the Nederlands, was €17.7 m to treat 1050 patients in the trial. Adoption of non-steroidal aromatase inhibitor first line therapy for all suitable patients would result in a cost saving of €35m for every 1000 patients treated.

These optimisation schedules, proven to have similar outcomes for patients in randomised controlled trials would significantly reduce national spending in countries not at present implementing these treatments equitably



Smarter, Fairer, Evidence-Based Care for All

By Prof. Helena Earl, University of Cambridge

- 2. The value of population screening for breast cancer has been demonstrated. In all EU countries that have invested in effective breast cancer screening programmes, there have been significant gains in terms of recommended multidisciplinary working and measured outcomes for women with breast cancer. In HICs within the EU the focus is now on the introduction of artificial intelligence (AI) in screening to improve cost effectiveness and accuracy. To speed up the equal adoption of breast cancer screening in all EU countries we recommend a partnership between the 'EU breast cancer community' and imaging technology providers (Siemens and GE were represented at the recent meeting), to go straight to introducing AI technology into these EU countries rather than going through the steps of 2 radiology reader reviews which are standard practice at present in HICs in Europe. We were told that AI-systems in screening have already been introduced in some centres in the US. In other areas of healthcare this has been termed 'leap frog technology', in which the earlier technology (not yet introduced) is simply by-passed to go straight to the introduction of the latest, cost-effective technology.
- 3. For the future, the group recommends the introduction of liquid biopsies which have the potential to transform the adjuvant treatment of ER positive, HER2 negative luminal breast cancer. When sensitive and specific blood tests are available with personalised readouts tracking specific tumour genomic changes in ctDNA, patients who are free of minimal residual disease, could avoid adjuvant systemic therapy after local treatments. Caution was expressed about introducing this optimisation pathway in women with breast cancer at high risk of recurrence for example triple negative and HER2 positive breast cancer subtypes.

Reference:

- Earl H et al. Reduced duration adjuvant trastuzumab in the treatment of patients with HER2-positive breast cancer: a metaanalysis of randomised controlled non-inferiority trials including IPD data. BMJ Oncol. 2025 Jun 20;4(1):e000810. doi: 10.1136/bmjonc-2025-000810.
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- Gabe S Sonke et al, Early versus deferred use of CDK4/6 inhibitors in advanced breast cancer (2024) Nature, Volume 636, pages 474–480



Breast Cancer Screening

To meet the challenge of implementing highly comprehensive breast cancer screening programs - in particular in those countries of the EU that run none or only limited programs - it is recommended to i) concisely summarize the well documented data demonstrating long-term cost effectiveness as basis for discussions with political stakeholders, and ii) support patient advocate groups to generate elevated pressure on the responsible political protagonists.

Breast cancer screening programs need to be further optimized to meet the challenge of tumor detection in heterogeneously and/or extremely dense breasts of women with high breast cancer risk or in the respective subgroup of patients emerging from standard age-related screens. A number of recently published studies underline the potential of respective tailored screening approaches exploiting combinations of standard protocols with advanced three-dimensional imaging techniques.

Liquid Biopsies

While the detection of molecular markers for breast cancer in liquid biopsies is still far from being already a practical alternative to image-based early detection approaches, there are promising technical developments, including the measurement of DNA methylation patterns in circulating tumor DNA (ctDNA) of the blood, that should be fully explored for their potential to support early tumor detection approaches.

Moreover, it has been broadly documented that liquid biopsies exhibit a high potential in monitoring therapy success through the vanishing of tumor markers over time. In particular, personalized gene panels allowing the tracing of patient-specific mutations in ctDNA are shown to be ideal tools for the ultrasensitive tracking of residual disease post-treatment.

Most of all, analysis of gene mutations in ctDNA offers options to real-time treatment switching. It has been demonstrated that early detection of resistance-associated mutations (like alterations in the genes ESR1 or HER2) via ctDNA significantly prolongs tumor control when therapy is switched promptly. It still remains a demanding challenge to routinely detect newly emerging tumor subclones in a tumor-agnostic situation, where the relevant biomarkers of a given recurrent tumor are not yet known. For the professional surveillance of local and distant tumor recurrence, it will be of utmost importance to validate and optimize the current approaches to meet this challenge. To this aim, projects need to be supported that develop and apply comprehensive gene panels, DNA methylation assays, more sensitive whole exome / whole genome sequencing techniques or combinations thereof, and that will yield in robust protocols for tumor agnostic searches in routine clinical settings.

It seems quite realistic that liquid biopsy analyses will replace many invasive biopsies in the next years.

Shaping the Future of Breast Cancer Care

By Prof. Lichter Peter

Genome-guided Precision Therapy

In recent years, multiple therapeutic avenues have been developed on the basis of genome information and many of these have already been established in routine settings through "Clinical Practice Guidelines". Current encouraging trials address novel SERDs and endocrine agents as well as inhibitors of the PI3K-, AKT- and mTOR-pathways. As it can be clearly anticipated that this successful strategy will further generate beneficial treatments, breast cancer precision oncology trials relying on the identification of OMICs based biomarker need not only to be continued: In order to accelerate the translation into clinical practice, these studies should be performed on broader international scales. In this context, it will be important to explore - in addition to the currently applied analysis of the genome, methylome, transcriptome and proteome - further molecular levels such as the metabolome, lipidome etc..

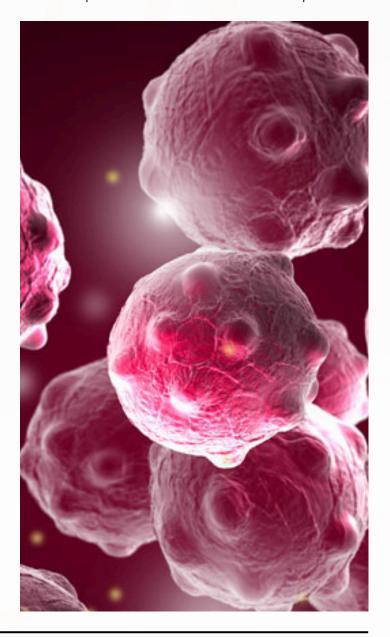
The Landscape of Immunotherapy

While it still needs to be shown, whether antibody-drug-conjugates (ADCs) stimulate immune responses, it seems clear that they actually enable "targeted chemotherapies". The recent success of treating breast cancer patients with various ADCs generated considerable enthusiasm. However, emphasis on developing and applying ADCs as therapeutic agents needs to be supported by strongly interactive collaborations between clinical scientists and the pharmaceutical industry addressing the interplay of clinical parameters and qualitative as well as quantitative biomarker information.

While there are tumor subtype specific differences, breast cancer generally exhibits an immunologically "cold" tumor microenvironment. This is considered as explanation for the generally less effective treatment by immune checkpoint inhibitors or CAR-T-cells when compared to other tumor entities. Therefore, intensive efforts are under way to turn tumors more "immune-responsive" by manipulating the microenvironment including combinations of immune therapies with other modalities. Success of these activities, which are often still on the level of basic research, is a

prerequisite to a broader application of such immunotherapies in breast cancer patients.

Recently, therapeutic vaccination by peptide-based, cell-based or vector-based vaccines have been supplemented by the development of mRNA-based vaccines shown to induce cellular and humoral immune response. Applications in breast cancer utilize mRNA coding for tumor antigens such as HER2, MUC1 or mammaglobin-A or for individualized neoantigenes derived from tumor genome data. In the latter case, rapid adaption to personalized patient profiles provides major advantages. The community is eagerly awaiting the results from currently active clinical trials of respective mono- or combinatorial therapies.



Europa Donna Luxembourg: Acting Together Against Breast Cancer

By Marieae Fischbach, President, Europa Donna Luxembourg



Europa Donna Luxembourg, a non-profit organization recognized as being of public utility since 2010, has been committed for over 20 years to the fight against breast cancer through prevention, support, and citizen mobilization. Breast cancer is the most common cancer among women, and each year in Luxembourg, over 550 women, but also some men — face this challenge. In response, the association develops a comprehensive, humane, and supportive approach.

Prevent, Inform, Raise Awareness

Europa Donna Luxembourg focuses on two main pillars of prevention:

- Primary prevention: promoting a healthy lifestyle (nutrition, physical activity, risk reduction, etc.).
- Secondary Prevention: Promoting Early Detection of Breast Cancer

Efforts focus on encouraging women aged 45 to 74 to participate in the national breast cancer screening programme through regular mammography and self-examination. These initiatives aim to break taboos, raise awareness, and foster a culture of early detection through targeted information campaigns.

The association operates throughout the country, including in companies, high schools, markets, and institutions, with workshops, conferences, and awareness campaigns.

Supporting People Affected by Breast Cancer

Europa Donna Luxembourg places support at the heart of its mission. From the moment of diagnosis through the post-treatment period, the association offers:

- listening and guidance consultations,
- support groups led by a psychotherapist,
- "Cafés Donna," moments of sharing and introduction to various activities,
- individual supportive care (mind-body therapies, physiotherapy, body care...) cofinanced
- to ensure equitable access,
- family assistance for parents of young children.

This support is based on a network of qualified professionals (physiotherapists, hair clinics, orthopedic centers, etc.) and follows a caring approach that respects each person's individual pace.

Europa Donna Luxembourg: Acting Together Against Breast Cancer

By Marieae Fischbach, President, Europa Donna Luxembourg

An Organization Anchored in National Health Policies

Europa Donna Luxembourg works closely with national decision-making bodies, including:

- the National Cancer Institute (INC), Instigut national du cancer -
- the National Cancer Plan (PNC), Cancer Plan National 2020-2024 (prolongé jusqu'en 2026) Portail Santé Luxembourg
- the Ministry of Health, Ministère de la Santé et de la Sécurité sociale Le gouvernement luxembourgeois
- as well as foundations, hospitals, schools, and partner associations (Cancer Foundation, Think Pink, Oncology Sports Group, etc.).

It contributes to building a coherent and complementary healthcare offer in the country while promoting the values of solidarity, inclusion, and humanity.

Mobilizing: Race Against Breast Cancer (Broschtkriibslaf), a Symbol of Unity

Every year, Europa Donna Luxembourg organizes the "Broschtkriibslaf", a solidarity walk/run. This event brings together patients, relatives, healthcare professionals, public officials, business companies, and citizens. The earnings go directly toward supporting initiatives and raising awareness.

A Future-Oriented Perspective

Europa Donna Luxembourg also carries out international projects, such as collecting breast prostheses, wigs, and caps for women with cancer in low-resource countries. The association is committed to promoting more humane, integrative, and participative medicine, where everyone plays an active role in their own health.

Europa Donna Luxembourg works to ensure that every person, at every stage of life, is informed, supported, and accompanied with compassion in facing breast cancer in the Grand Duchy of Luxembourg.



GOVERNMENT GAZETTE

PUBLISHED BY THE INTERNATIONAL CENTRE FOR PARLIAMENTARY STUDIES



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