## AIM CANCER SCREENING RECOMMENDATIONS

### General considerations
- Base any decision concerning screening programmes on ground scientific evidence.
- Understand screening as a pathway.
- Implement shared decision-making (SDM), an ethical necessity and key in ensuring higher participation rates to screening programmes, and work towards the publication of European Guidelines for SDM in cancer screening.
- Tackle inequalities in access to screening.

### Cancer-specific Recommendations

#### Cervical Cancer
- We encourage Member States to prioritise HPV screening for women and vaccination for both boys and girls below 15 years old.
- Pap smear screening for HPV should start no sooner than 20 and no later than 30.

#### Colorectal Cancer
- Use “faecal immunochemical testing (FIT) as preferred triage test to refer to colonoscopy”.
- “The EU must support the standardisation of FIT by developing reference materials on measurement procedures and standardisation protocols for the further implementation of generalised cut offs”.
- We encourage Member States and the European Commission to investigate and develop the necessary tools to improve participation rates, especially amongst vulnerable groups.

#### Breast Cancer
- We recommend mammography screening for breast cancer in women aged 50 to 69 in accordance with European guidelines on quality assurance in mammography.
- We do not recommend starting screening from the age of 45.
- We recommend the informed choice of women and the encouragement of studies to improve the screening scheme and target the women most at risk.

#### Lung Cancer
- We do not recommend to “extend screening programmes to lung cancer using low-dosed computer tomography for current and ex-smokers”.
- We believe that evidence-based guidelines to manage the benefits and harms of lung cancer screening should be developed before deciding on a potential roll-out.
Prostate Cancer

✓ We do not recommend to “extend screening programmes to PSA-based prostate cancer screening and MRI scanning as a follow-up test”.
✓ We disagree that “screening via low threshold prostate-specific antigen (PSA) test reduces the mortality”.

Skin Cancer

✓ We encourage the European Commission and Member States to work towards the future extension of screening programmes to skin cancer.
✓ We call on both Member States and the European Commission to invest in the development of innovative tools for skin cancer screening and to involve patients as well as payers in their creation.

Other Cancers

✓ There is no scientific ground for recommending neither population-based endoscopic screening for oesophageal cancer, nor ultrasound and CA125 screening for ovarian cancer.
✓ We do not encourage population-based screening for gastric cancer and highlight the importance of primary prevention.
✓ We recommend discouraging or even prohibiting thyroid screening or whole-body scans for the detection of cancer.

Implementation of the screening recommendations

Improving participation rates

✓ We recommend the application of proportionate universalism in order to ensure access to screening for all.
✓ We encourage the European Commission and Member States to carry out the necessary research to improve the understanding of individual and social barriers in access to screening and enable the development of strategies to overcome those.
✓ The involvement of healthcare payers is key in achieving a more efficient communication and higher participation rates.

Updating tools and methods

✓ We recommend to further develop and implement risk-stratified screening to improve the harm-benefit ratio of screening programmes, maximising their efficiency and specificity.
✓ We agree with the EC Scientific Advisors’ call for ‘living guidelines’, which will enable a direct update of the recommendations once robust evidence on tests, treatments, biomarkers or risk stratification processes is available.

Ensuring quality

✓ We agree on the need to develop a common screening platform at EU level and the better coordination of national comprehensive cancer centres.
✓ If a network of cancer registries already exists, there is a need to develop a network of institutions which gather data specifically on screening.
✓ Furthermore, data should also be gathered on identification, invitation, and information strategies.
Cancer screening is a priority for AIM members. As not-for-profit healthcare payers not only are they committed to the improvement of public health, but also to the sustainability of healthcare systems, and, as such, to the efficient use of its resources.

AIM members play a key role in the reimbursement of screening as well as in communicating and ensuring a proper targeting of patients. Their involvement in the discussions on screening programmes is therefore essential.

Given the importance of the issue, AIM has decided to establish a Task Force of Experts to issue a series of science-based recommendations for the update of the Council Recommendations on Cancer Screening.

Our recommendations are listed below. They refer to the latest evidence and reports available on the topic, the report by the Group of Chief Scientific Advisors to the European Commission (below referred to as ‘EC Scientific Advisors’)\(^1\) and WHO’s *Short Guide to Cancer Screening*\(^2\) amongst others.

**General considerations**

*Science first and foremost*

Any decision concerning screening programmes should be based on ground scientific evidence. Once science is solid and the benefits of a certain screening programme has been clearly demonstrated via randomized controlled trials (RCT), the balance between expected benefits and harms should be evaluated, and cost-effectiveness considered, while taking into account both the financial and human resources available.

Only by taking each of these factors into consideration can the sustainability and effectiveness of programmes be ensured.

*Screening as a pathway*

We agree with WHO\(^3\) that screening should be understood as a pathway rather than a “one-shot” test. Indeed, when considering the improvement of existing programmes or the extension to other types of cancers, it is key to consider all steps of that pathway and ensure that they can all be provided: “the identification of eligible people, the invitation and provision of targeted information, testing, the referral of positives and reporting of negatives, diagnosis, intervention, treatment, follow-up and reporting of outcomes”.

*Shared decision-making*

Shared decision-making (SDM) is key in ensuring higher participation rates to screening programmes. It is also an ethical necessity and should be implemented throughout the screening pathway, especially when evidence cannot tilt the balance in favour of a specific test or treatment. SDM has the potential of bringing healthcare professionals’ practices closer to ethical principles.

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\(^1\) *Scientific Opinion n°12: Cancer Screening in the European Union. Scientific Advice Mechanism (SAM); March 2022.*

\(^2\) *A short guide to cancer screening. Increase effectiveness, maximize benefits and minimize harm. Copenhagen: WHO Regional Office for Europe; 2022.*

\(^3\) *Idem*
If a scientific definition of SDM exists, it is hard to assess. In addition, and as stressed by the EC Scientific Advisors, the implementation of SDM is varied and there is a lack of evaluation of its results in terms of patient outcomes. We thus encourage the European Commission and Member States to work towards the publication of European Guidelines for SDM in cancer screening. Those guidelines should also include aspects such as incentives for both patients and healthcare professionals\(^4\), education for those professionals, methods for evaluation, etc.

Another key aspect which influences both participation rates and shared decision-making (and its outcomes) is literacy. Varying levels of health literacy have a significant impact on access to screening. Improving those levels, especially amongst vulnerable groups, should therefore constitute a priority as it would contribute to tackling health inequities (see also next paragraph).

**Tackling inequities in access to screening**

Another key aspect to consider concerns vulnerable groups, who often have limited access to screening programmes. As highlighted by the OECD, education and socioeconomic status have a significant impact on screening programme participation. Participation rates also differ significantly between Member States, indicating that there is space for improvement, and emphasizing the added value of EU-wide exchanges.

We urge the European Commission and Member States to build on lessons learned from other communication difficulties, such as vaccine hesitancy, and to develop communication methods and tools that allow for better targeting of vulnerable groups. To that end, we encourage authorities to work hand in hand with other key stakeholders such as doctors, payers and NGOs. Social media and influencers can have a key role to play when it comes to achieving high participation and vaccination (e.g. HPV) rates amongst some groups. Yet, so far, they have had a rather negative impact on public health communication (e.g. antivaxxers during the pandemic, marketing of alcohol and unhealthy food via influencers, etc.) The potential of those media for public health messaging needs to be further exploited.

**Cancer-specific recommendations**

**Cervical cancer**

We encourage Member States to prioritise HPV screening for women and vaccination for both boys and girls below 15 years old. As recommended in the 2003 recommendations, we believe that pap smear screening for HPV should start no sooner than 20 and no later than 30.

Regarding the age limit, a modification of the bottom age-limit for cervical cancer screening could be envisaged in the future, if vaccination against HPV is generalised.

\(^4\) Patient using SDM tools have a better understanding of treatment and less likely to receive unnecessary treatment. Yet, tools are seldom used in clinical practice. Incentives are needed for both individuals and organisations to use those tools.
**Colorectal cancer**

We agree with the scientific advisors to the European Commission when they recommend to use “faecal immunochemical testing (FIT) as preferred triage test to refer to colonoscopy” and state that “the EU must support the standardisation of FIT by developing reference materials on measurement procedures and standardisation protocols for the further implementation of generalised cut offs”.

We highlight that a major problem with colorectal cancer screening is the low participation rates in certain countries, especially in Southern Europe. We therefore encourage Member States and the European Commission to investigate and develop the necessary tools to improve participation rates, especially amongst vulnerable groups (specific information programmes, empowerment programmes, etc.).

**Breast cancer**

We recommend mammography screening for breast cancer in women aged 50 to 69 in accordance with European guidelines on quality assurance in mammography, as stated in the current recommendations.

We do not recommend starting screening from the age of 45 – as put forward by the EC Scientific Advisors- as there is currently no sufficient evidence on the harm/benefit ratio of doing so. Another question is whether or not to extend screening over 70, given gains in life expectancy. We encourage Member States and the European Commission to carry out the needed research in order to establish the added value of extending both the upper and lower age limits.

Following the many studies that call into question the effectiveness of breast cancer screening (according to the current scheme) because of the number of false positives responsible for overdiagnosis and therefore excess treatments, we recommend on the one hand the informed choice of women and on the other hand the encouragement of studies to improve the screening scheme and target the women most at risk.

**Lung cancer**

At the moment, science is not solid enough to support the EC scientific advisors’ recommendation to “extend screening programmes to lung cancer using low-dosed compute tomography for current and ex-smokers”. While we recognise that evidence is promising⁵, we encourage to continue to carry out experimental trials. In addition, national health systems are not ready for the extension and implementation is difficult. We believe that those aspects are key to consider before proposing an extension of screening to lung cancer. Questions on how to reach target groups (given the behaviour-related nature of the recommendation), on which healthcare professionals to involve for a proper implementation (pharmacists, general practitioners…) etc. need to be reflected upon.

Furthermore, computed tomography requires resources, both financial and in terms of skilled professionals. Yet, which Member State has the resources to implement lung cancer screening? We

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⁵ There is growing evidence showing that the use of low dose computed tomography for lung cancer leads to a decrease in mortality. The theoretic efficiency of the procedure has been established via randomised controlled trials. (see also SAPEA report)
recall that screening is a pathway and that the feasibility of each and every step of it should be taken into account.

The EC Scientific Advisors rightly mention that “benefits and harms can be managed by adhering to evidence-based guidelines”. We believe that those guidelines should be discussed before deciding on a potential roll-out.

**Prostate cancer**

We are deeply concerned about the recommendations of the EC Scientific Advisors. Indeed, there is currently no scientific evidence to support the recommendation to extend screening programmes to PSA-based prostate cancer screening and MRI scanning as a follow-up test. PSA is not a robust parameter for prostate cancer. In addition, prostate cancer is not a common cause of mortality. We recall to the European Commission that recommendations should be based on sound science and not on commercial interests.

We disagree that “screening via low threshold prostate-specific antigen (PSA) test reduces the mortality” as no RCT has ever tested PSA or MRI on prostate cancer mortality. We call for RCT to be carried out and their results to be taken into account in the decision on whether or not to extend “mass screening programmes” to prostate cancer.

**Skin cancer**

We encourage the European Commission and Member States to work towards the future extension of screening programmes to skin cancer.

Skin cancer can be screened and constitutes a growing problem, especially in older populations. However, it requires a lot of resources as screening is performed by specialists (dermatologists). Skin cancer screening can therefore benefit greatly from technological progress. The development of telemedicine and innovative tools can indeed help extend skin cancer screening to a wider population. We call on both Member States and the European Commission to invest in the development of those innovative tools and to involve patients as well as payers in their creation.

**Other cancers**

We agree with the EC scientific advisors that there is no scientific ground for recommending neither population-based endoscopic screening for oesophageal cancer, nor ultrasound and CA125 screening for ovarian cancer.

Regarding gastric cancer, we highlight the importance of primary prevention, given that that type of cancer is very dependent on personal risk. We do not encourage population-based screening for gastric cancer. We recommend Member States to develop robust primary prevention campaigns so as to minimize risks related to lifestyle habits.

As put forward by WHO, we recommend discouraging or even prohibiting thyroid screening or whole-body scans for the detection of cancer.
Implementation of the screening recommendations

Improving participation rates

We recommend the application of proportionate universalism\(^6\) in order to ensure access to screening for all. Putting the needs of individuals at the centre is essential in guaranteeing the availability and the proper implementation of screening programmes.

It is also key to make it as convenient as possible for people to participate, which starts by properly informing citizens but also ensuring a proper geographical distribution of screening centres. The development of less invasive tests could contribute to improve participation rates. In addition, a proper integration between screening programmes and healthcare services is essential.

We encourage the European Commission and Member States to carry out the necessary research to improve the understanding of individual and social barriers in access to screening and enable the development of strategies to overcome those.

When it comes to communication, it should be kept in mind that screening is not a one-off medical act. Information and awareness campaigns should thus be continuous and target both populations and doctors so as to increase trust and motivation to screen/get screened. To better reach their target, information material should ideally be co-created with the audience. Messaging should be clear, short and easily understandable. It should include information both on risks and benefits to ensure trust in the source (see also earlier paragraph on tackling inequities).

Finally, the involvement of healthcare payers (mutuelles, Krankenkassen, zorgverzekeraars, etc.) is key in achieving a more efficient communication and higher participation rates. Healthcare payers are trusted interlocutors and play a key role in both adapting information to target audiences and reaching most vulnerable or at-risk groups. As such, their involvement in screening programmes is essential. We call on both the European Commission and Member States to take that important actor into account and involve them in the implementation of screening programmes.

Updating tools and methods

We highlight the importance of adapting strategies to the risk level of people (adapt tests and frequency of screening). In that sense and as put forward by the EC Scientific Advisors, we recommend to further develop and implement risk-stratified screening to improve the harm-benefit ratio of screening programmes, maximising their efficiency and specificity. To that end, risk prediction tools need to be standardised and generalised.

With technologies evolving fast, it is also essential to ensure that guidelines can be rapidly updated according to the latest science. We agree with the EC Scientific Advisors’ call for ‘living guidelines’, which will enable a direct update of the recommendations once robust evidence on tests, treatments, biomarkers or risk stratification processes is available.

The use of liquid biopsy blood tests or of AI in screening look promising for the years to come. Yet, those developments are only at their infancy. Further validation of those innovations is necessary before integrating them in mass cancer screening programmes. In addition, their feasibility as part of the screening pathway should be ensured, which notably requires overcoming significant obstacles

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\(^6\) "Proportionate universalism is the resourcing and delivering of universal services at a scale and intensity proportionate to the degree of need. Services are therefore universally available, not only for the most disadvantaged, and are able to respond to the level of presenting need." (see: Michael Marmot “Fair Society, Healthy Lives: The Marmot Review”, 2010)
such as the lack of healthcare professionals with the skills required to carry out the tests and interpret the results.

**Ensuring quality**

We agree with the recommendations of the EC Scientific Advisors, which encourage the development of a **common screening platform** at EU level and the better coordination of national comprehensive cancer centres. Standards for measurement, technologies, image quality, data formats, transfer and information channels should be developed, just as training programmes for staff operating on equipment. The harmonisation of protocols and quality assurance between countries should be supported.7

Ensuring quality also requires comparable **data**. If a network of cancer registries already exists, there is a need to develop a network of institutions which gather data specifically on screening. Both networks could then be connected as a second step so as to collate the data and truly understand the efficiency of screening programmes, improve them, and keep recommendations updated.

Furthermore, data should also be gathered on **identification, invitation, and information strategies**. Indeed, research is needed on all the different steps of the screening pathway, from identification to reporting of results. In addition, we encourage the exchange of best practices on how to better target populations, including vulnerable and specific risk groups, on how to determine groups to be screened, on how to use the registers to ensure data is properly collected and is up-to-date, on how to invite people efficiently, on how to refer positive results and report negative ones, and on how to ensure the coordination of all steps in the pathway.

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7 **Scientific Opinion n°12: Cancer Screening in the European Union. Scientific Advice Mechanism (SAM); March 2022**, p.25