Getting breast and cervical cancer screening programmes back on track with artificial intelligence (AI) and digitisation

COVID-19 has had a huge impact on the breast and cervical cancer care continuum across Europe. Preventative HPV vaccination programs and diagnostic cancer screening programmes have been paused or reduced. The fear of COVID-19 has deterred people with potential symptoms from coming forward and hence diagnosis and treatment has been delayed.

We now urgently need to close this gap and strengthen cancer programmes for the future. Leveraging digitalisation and AI technologies can be a catalyst for change, helping to reduce the screening backlog and optimise patient care.

COVID-19 saw millions of missed breast and cervical cancer screening appointments across Europe

600,000
Cervical screening appointments cancelled in UK in April and May 2020[1]

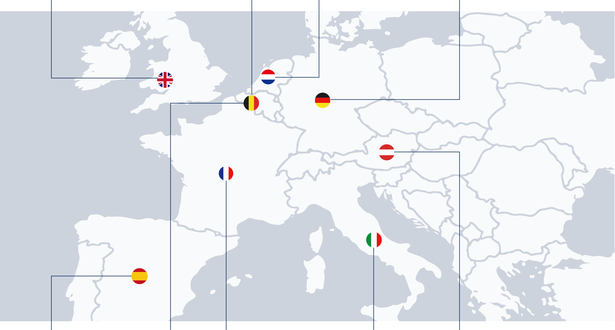
986,000
Breast screening appointments missed in UK[1]

5,000
Estimated undiagnosed cancers in Belgium[2]

48%
Reduction in breast screening appointments in Belgium from April 2019 - April 2020[1]

Marked decrease in breast cancer diagnosis between March and August 2020 in the Netherlands[3]

32%
Reduction in gynaecological cancer diagnoses in April 2020 vs previous year in Germany[4]



1 in 5
Cancer patients in Spain undiagnosed due to pandemic[5]

20%
Reduction in breast cancer diagnoses between March - September 2020.[6†]

50%
Reduction in breast cancer diagnoses between March - May 2020 in France[7*]

540,000
Fewer cervical screening appointments in Italy in the first eight months of 2020[7]

610,803
Breast screening appointments missed in Italy[8‡]

49%
Decrease in gynaecological cancer diagnosis in April and May 2020 in Austria[10]

Missed breast and cervical screening appointments + Any reluctance to seek medical help = Increased potential for undiagnosed cancers

There are
thousands
of undiagnosed cancers estimated across Europe

1/4
Nearly a quarter of women surveyed in UK, Spain and Germany would not attend a breast cancer screening appointment in the next few months[9]

AI and digitisation could be vital tools to help get breast and cervical cancer detection back on track

Workflow prioritisation

13%
AI can reduce the time required to read breast screens by 13%[12]

If AI was adopted alongside a radiologist, only one reader would be needed rather than two, freeing up the radiologist resource to deploy for other cancer diagnostic tasks

By using AI-led digital cytology in cervical screening, accuracy can be improved and the time required to read a slide reduced

Risk stratification to ensure the women most at risk are seen first

AI analysis of prior scans could be used to identify women with higher risk factors like dense breasts and bring them to the front of the queue

Tomosynthesis, or 3D Mammography™, reduces recalls of patients by up to 40%, cutting unnecessary appointments[13,14]

AI and digitisation have the potential to improve the detection of cervical and breast cancer, impacting thousands of women across Europe and saving more lives

* Decrease in breast cancer diagnosis observed between March - May 2020 in France

† Compared to the same period in 2019, the number of breast cancer diagnoses in Belgium declined by 20% in the screening age group (50-69 years) during March 1 to September 18, 2020

‡ Decrease in breast cancer screening observed between January - September 2020 compared to January -September 2019 in Italy

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