

New research reveals effects of COVID-19 on breast cancer screening, treatment and care

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During the COVID-19 pandemic, many countries paused their breast cancer screening programmes. A new study, presented at the 12th European Breast Cancer Conference, suggests that the disruption to screening could result in an increase in the proportion of women who die of breast cancer.

However, the study also suggests that this risk can be lowered, for example by making sure all women who would have been screened during the pandemic do not miss out, even if they are now older than the upper age limit for screening.

Two further studies, also presented at the conference, show how the COVID-19 pandemic affected treatment and everyday life for women who were already diagnosed with [breast cancer](#).

The screening study was presented at the virtual conference by Lindy Kregting, a Ph.D. student at Erasmus MC, University Medical Center Rotterdam, The Netherlands. She said: "Screening works by detecting cancers at an early stage when there are the best chances of successful treatment. Cancer screening programmes have never been this severely disrupted before, so we don't know what impact this will have.

"We wanted to investigate what the long-term impact on deaths from breast cancer might be and to look at which strategies would be most effective for re-starting breast screening programmes."

The researchers used an established modelling tool called MISCAN-Breast to simulate four different strategies for re-starting breast screening following six months of disruption:

- a straightforward re-start after the delay where all screening continued in the order it was planned, meaning one in every four women would end up going for screening one less time in her life (delay),
- a delay to screening, except for women due to have their first screening (delay except first screen),
- a delay to screening, but temporarily raising the upper age limit to make sure women don't miss their final screen (delay with age increase),
- and increasing capacity to ensure a full catch-up where all delayed screens were caught up in a six-month period following the disruption (full catch-up).

Their model was based on the Dutch breast cancer screening programme where women are invited for screening every two years between the ages of 50 and 75. Similar screening programmes exist in many other European countries, although the age range and screening intervals vary.

Based on the four scenarios, the model showed how much capacity would be needed—the number of screening tests and follow-up tests—and the effects each strategy would have on rates of breast cancer incidence and deaths.

Researchers found that the first scenario (delay) had the most damaging effect, with an estimated increase of 2.35 deaths from breast cancer for every 100,000 women in the next ten years.

Increasing capacity to achieve a full catch-up was the best-case scenario with an increase of only 0.13 deaths from breast cancer out of every

100,000 women in the next ten years. However, the researchers say that this surge in capacity is probably not feasible for most countries' [health services](#).

The other two scenarios, delay except first screen and delay with age increase, fell between the two with respective increases of 1.98 and 1.85 in breast cancer deaths per 100,000 in the next ten years. Based on these findings, they suggest that a delay to screening with a temporary increase in the upper age limit could be the best option for most screening programmes.

Ms Kregting added: "Our study shows that a six-month delay is likely to lead to a modest but important increase in breast cancer death rates, but different strategies for re-starting screening have different outcomes. The best way to prevent deaths from breast cancer is to catch up with all the screening that was missing during the COVID-19 pandemic. However, we realise that most breast screening programmes will not have the extra staff and equipment needed to do this.

"We found that the next best option, and one that we think is feasible, is re-starting breast screening as normal after the [delay](#) but making sure that no woman misses out on her final invitation to screening, even if by now she is older than the upper age limit."

A second study including 1051 women diagnosed with breast cancer from Utrecht in The Netherlands looked at how the COVID-19 pandemic affected their daily lives. The study found that 48% of women felt lonely during the pandemic.

The research also found that 31% of women were less likely to seek help from their GP, 27% were worried about the effects of the pandemic on their aftercare and 15% were less likely to seek help from their breast cancer physician.

The study was presented by Dr. Claudia Bargon, a clinician and Ph.D. student at University Medical Center Utrecht (UMC Utrecht). She said: "We know that medical services, including those for breast cancer patients, had to be rearranged during the crisis. We also know that [social support](#) can be of vital importance for many women who have been diagnosed with breast cancer and that support can be restricted by social distancing measures.

"Our study shows that women were less likely to seek medical help during the pandemic and that a high proportion of women suffered loneliness during lockdown. This suggests that patients need reassurance that they should seek medical help when they need it and that we need to enable patients to access mental health support, even if this needs to be delivered online rather than face-to-face."

A third study compared a group of 41 women treated for breast cancer in March and April 2020 at the University Hospital of Sassari, Italy, with 42 women treated in March and April of the previous year.

Researchers did not find any difference in how many women had surgery for breast cancer, how long they waited for surgery or whether they had a procedure called sentinel node biopsy, which checks for signs that cancer has begun to spread to the lymph nodes under the arm. However, they did find that women operated on during the peak of the COVID-19 pandemic were less likely to receive immediate breast reconstruction following mastectomy (removal of the breast) or to receive an 'intraoperative regional nerve block', a procedure carried out during surgery to reduce the likelihood of suffering breast pain after surgery.

The work was presented by Dr. Alessandro Fancellu, Associate Professor of Surgery at the University of Sassari. He said: "These two procedures do not have an effect on the risk of breast cancer returning;

however, they do have an effect on women's quality of life following breast cancer surgery. We know that there could be a second peak of COVID-19 and, if that happens, we want maintain the highest possible standards for our patients."

Professor Giuseppe Viale is from the University of Milan and the European Institute of Oncology, Italy, and was not involved with the research. He said: "Around the world, our medical services have had to reorganise to cope with the challenge of COVID-19. It's really important that we understand the impact that this has had on diagnosing, treating and caring for [breast cancer patients](#)."

"These studies bring some reassurance because they suggest that the disruption brought to breast [cancer](#) screening, treatment and care has not been devastating. However, they do show where we can do better—for instance in encouraging [women](#) to seek any medical help or counselling they may need—and how we can get services such as [breast screening](#) back on track."

More information: [1] Abstract no: 24, "Effects of Cancer Screening Restart Strategies after COVID-19 Disruption", Measuring Impact of COVID-19 on Breast Cancer Care, Saturday, 09.00-10.00 hrs CEST, on demand (Ms Kregting's presentation will be at 09.00).

[cm.eortc.org/cmPortal/Searchab ... ctdetails/0000899470](http://cm.eortc.org/cmPortal/Searchab...ctdetails/0000899470)

[2] Abstract no: 26, "The impact of the COVID-19 pandemic on quality of life, physical and psychosocial wellbeing in breast cancer patients - a prospective, multicenter cohort study", Measuring Impact of COVID-19 on Breast Cancer Care, Saturday, 09.00-10.00 hrs CEST, on demand (Dr Bargon's presentation will be at 09.40).

[cm.eortc.org/cmPortal/Searchab ... ctdetails/0000899860](http://cm.eortc.org/cmPortal/Searchab...ctdetails/0000899860)

[3] Abstract no: 25, "The COVID-19 outbreak may be associated to a

reduced level of care for breast cancer. A comparative study with the pre-COVID era in an Italian Breast Unit", Measuring Impact of COVID-19 on Breast Cancer Care, Saturday, 09.00-10.00 hrs CEST, on demand (Dr Fancellu's presentation will be at 09.20).

[cm.eortc.org/cmPortal/Searchab ... ctdetails/0000899930](https://cm.eortc.org/cmPortal/Searchab...ctdetails/0000899930)

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